

Examining the Accuracy of Self-Reported High School Grade Point Average

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Purpose of Research

- Researchers often make use of self-reported student information such as high school grades in studies.
 - Self-reported student information can easily be called into question by consumers of research.
- This study offers updated information on the relatedness of self-reported and school-reported HSGPA based on a large, national sample of 40,301 first-year students from 32 postsecondary institutions.
 - Results compared to prior studies
 - Recommendations on the use of self-reported HSGPA will be offered

Prior Research

- These studies are primarily conducted by the College Board and ACT due to availability of data.
- Correlations between self- and school-reported HSGPA have generally ranged from 0.79-0.82; though some studies report higher correlations (Baird, 1976; Freeberg, 1988; Kuncel, Credé, & Thomas, 2005; Maxey & Ormsby, 1971; Sawyer et al., 1988; Schiel & Noble, 1991)
- Correlations are usually higher for White students (versus non-White students), females (versus males), and academically higher-performing students (versus lower-performing) (e.g. Freeberg, 1988; Kuncel et al., 2005).

Current Study

- Sample from the Higher Education Outcomes Database at the College Board

(110 institutions providing first-year college performance data on the entering class of fall 2006)

- 58 of 110 institutions provided HSGPA
 - 32 institutions had school-reported HSGPA and could be included in the study sample (either on 0.00-4.00, 0.00-4.33, or 0-100 scale)
 - 40,301 students from entering class of fall 2006
- Self-reported HSGPA taken from 2005-2006 SAT Questionnaire

HSGPA item from 2005-2006 SAT Questionnaire

HSGPA Self-Report Item on the SAT Questionnaire (2005-2006)

The SAT Questionnaire allows you to provide information about your academic background, activities, and interests to help you in planning for college and to help colleges find out more about you. The Student Search Service also uses this information.

Indicate your cumulative grade point average for all academic subjects in high school.

A+ (97–100)

C+ (77–79)

A (93–96)

C (73–76)

A– (90–92)

C– (70–72)

B+ (87–89)

D+ (67–69)

B (83–86)

D (65–66)

B– (80–82)

E or F (Below 65)

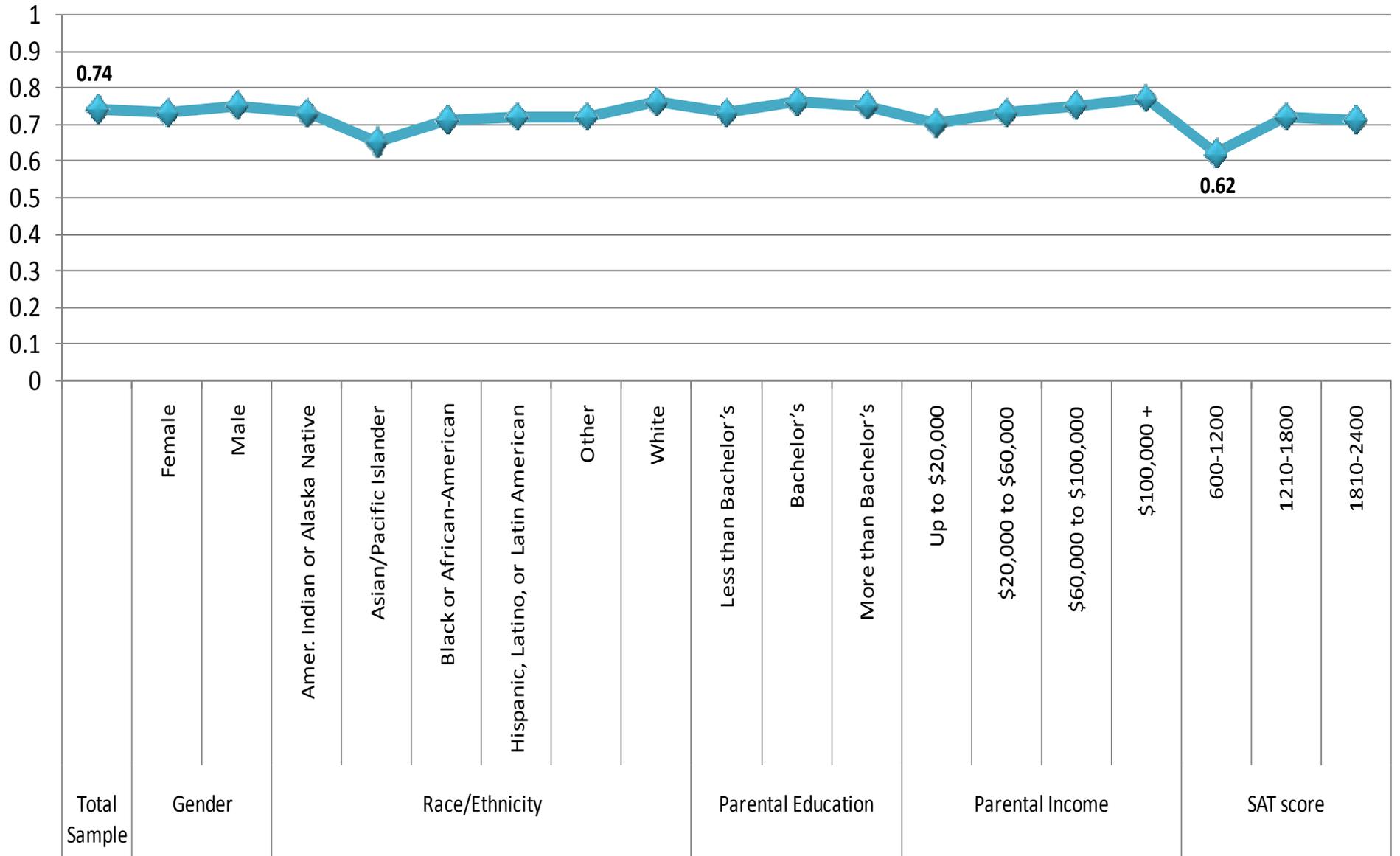
Recoding HSGPAs to Same Scale (0.00-4.00)

School-Reported HSGPA (0.00-100.00; 0.00-4.33)	Matched to 0.00-4.00 Scale	Matched to Letter Grade
93.00-100.00; 3.671-4.330	4.00	A
90.00-92.99; 3.331-3.670	3.67	A-
87.00-89.99; 3.001-3.330	3.33	B+
83.00-86.99; 2.671-3.000	3.00	B
80.00-82.99; 2.331-2.670	2.67	B-
77.00-79.99; 2.001-2.330	2.33	C+
73.00-76.99; 1.671-2.000	2.00	C
70.00-72.99; 1.331-1.670	1.67	C-
67.00-69.99; 1.001-1.330	1.33	D+
65.00-66.99; 1.000	1.00	D
Below 65.00; Below 0.999	0.00	E or F

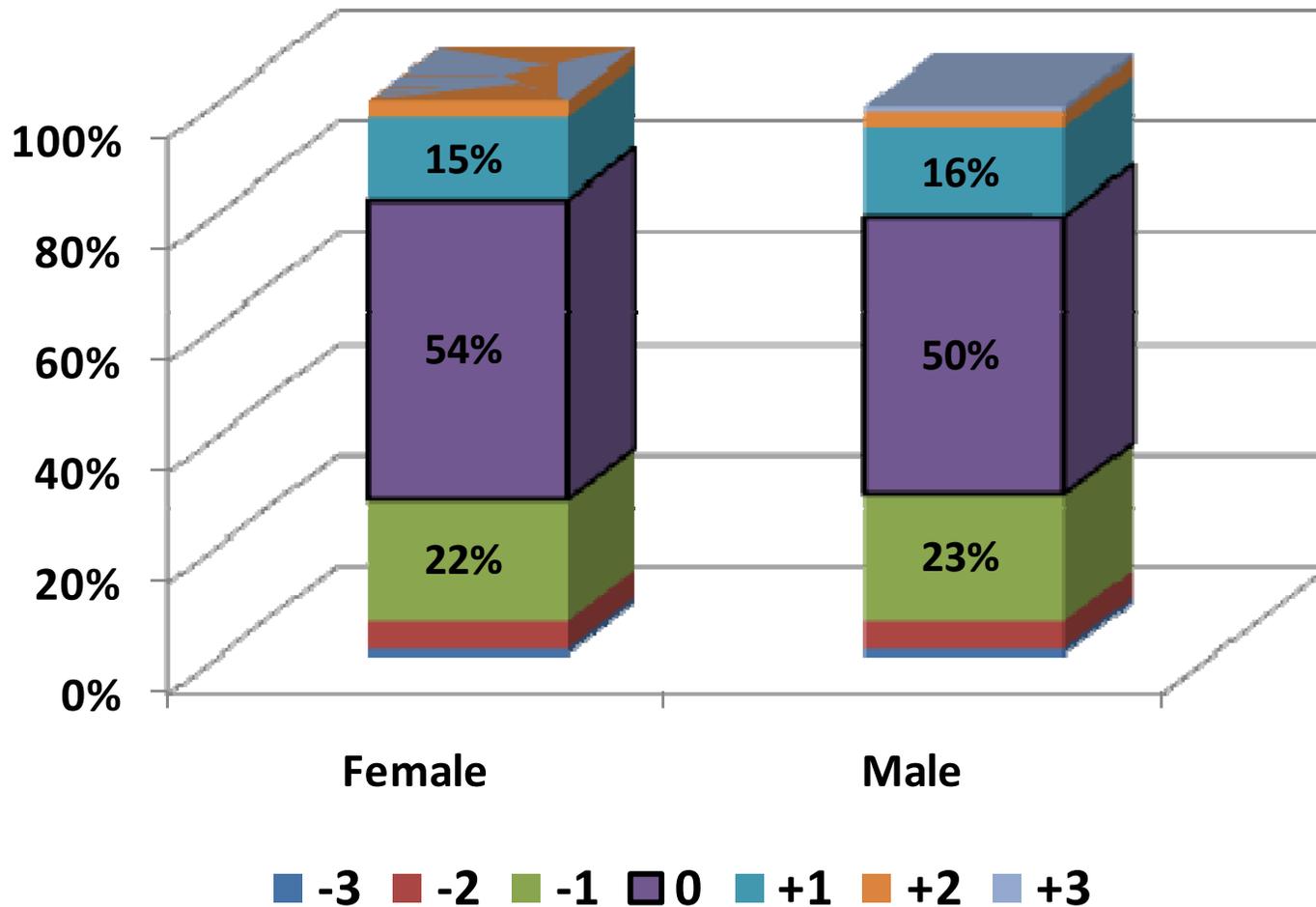
Descriptive Statistics

Academic Measure	<i>M</i>	<i>SD</i>	<i>Min</i>	<i>Max</i>
Self-Reported HSGPA	3.54	0.45	1.00	4.00
School-Reported HSGPA	3.58	0.43	1.33	4.00
Self-Reported minus School-Reported HSGPA	-0.04	0.32	-3.00	2.00
SAT Critical Reading	555	92	200	800
SAT Math	572	93	200	800
SAT Writing	548	91	200	800

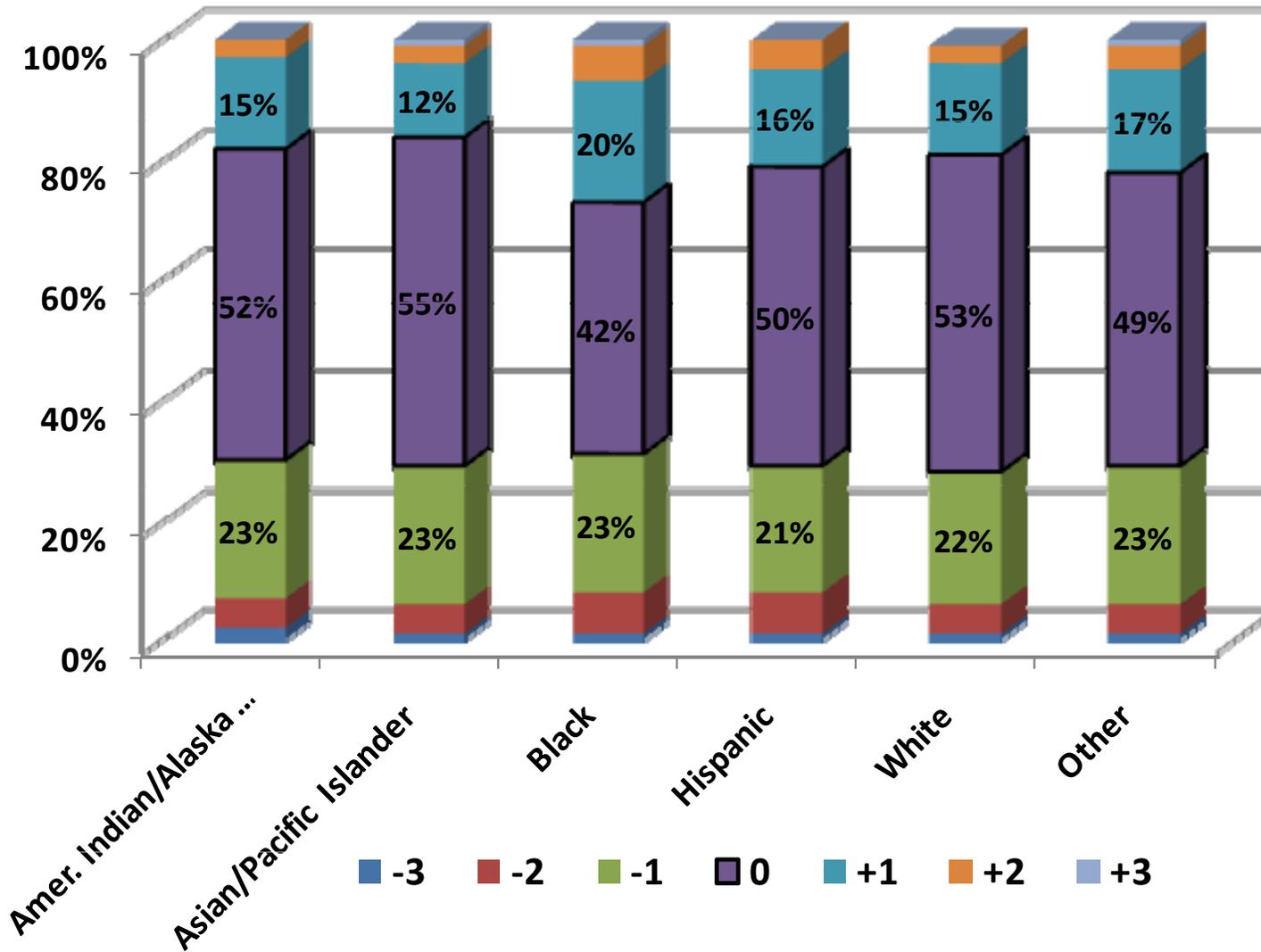
Correlation of Self- and School-Reported HSGPA (across subgroups)



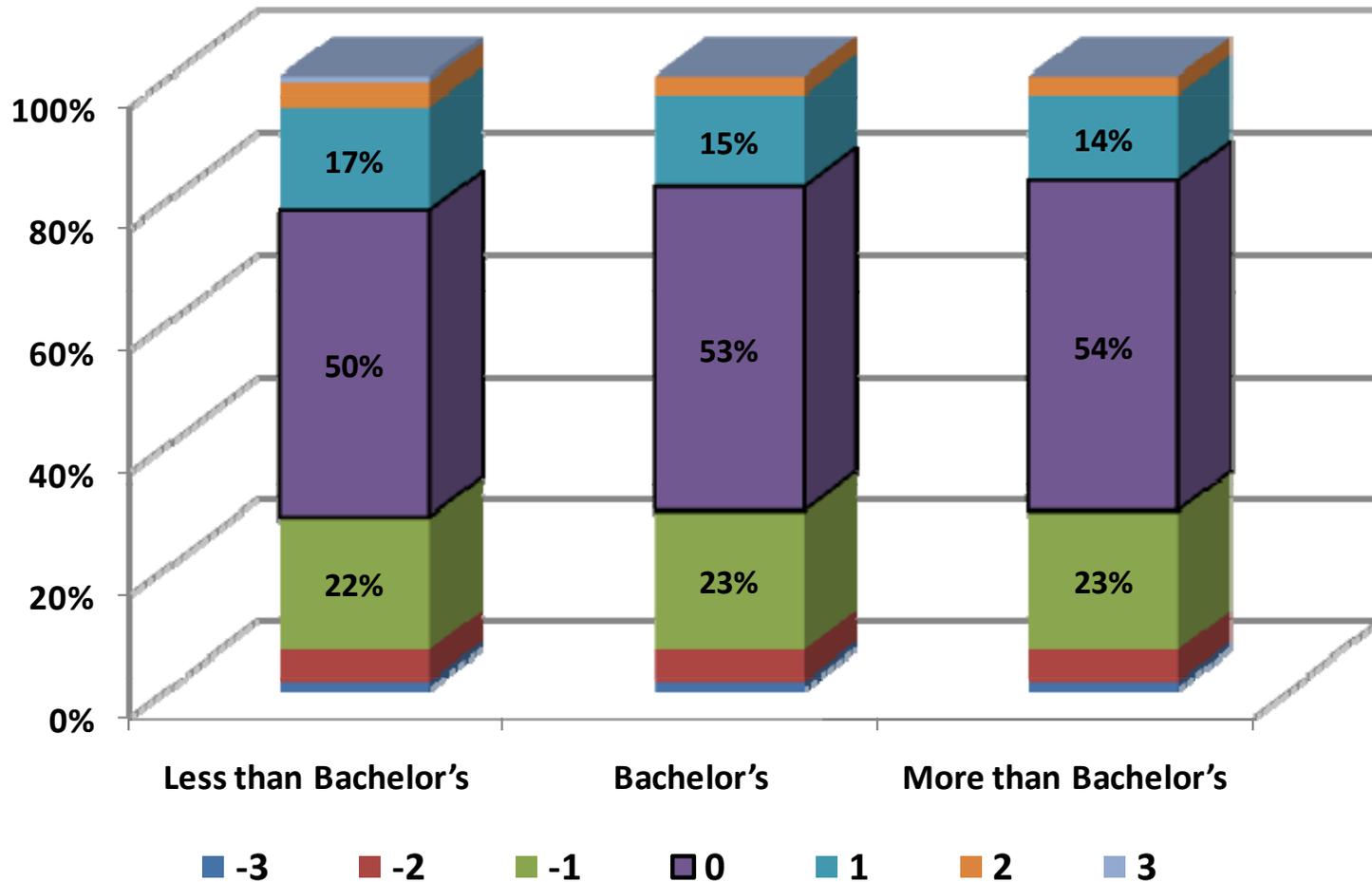
Percentage of Exact HSGPA Match, Under-reporting (-), and Over-reporting (+) of HSGPA in Grade Steps by Gender



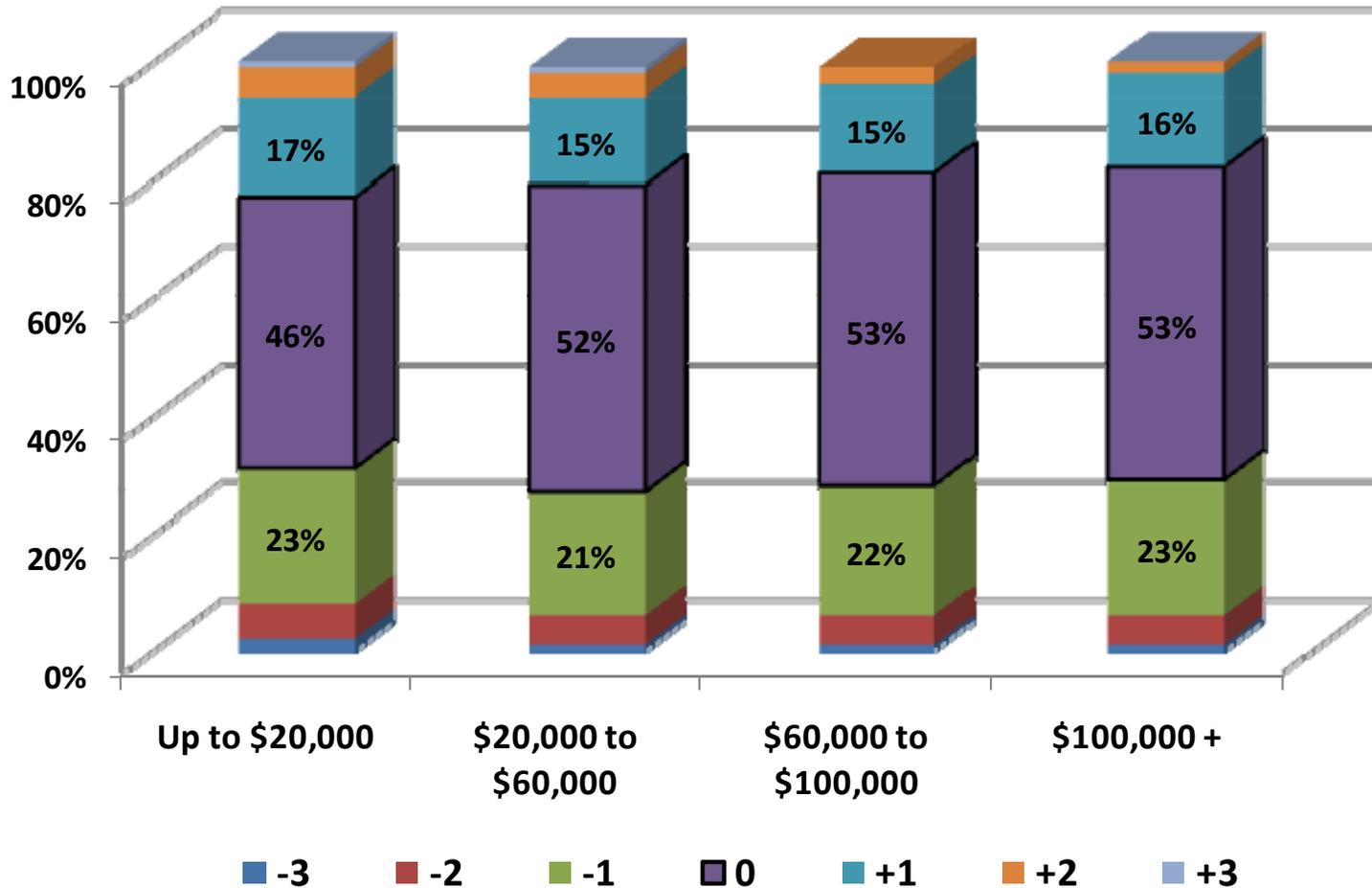
Percentage of Exact HSGPA Match, Under-reporting (-), and Over-reporting (+) of HSGPA in Grade Steps by Race/Ethnicity



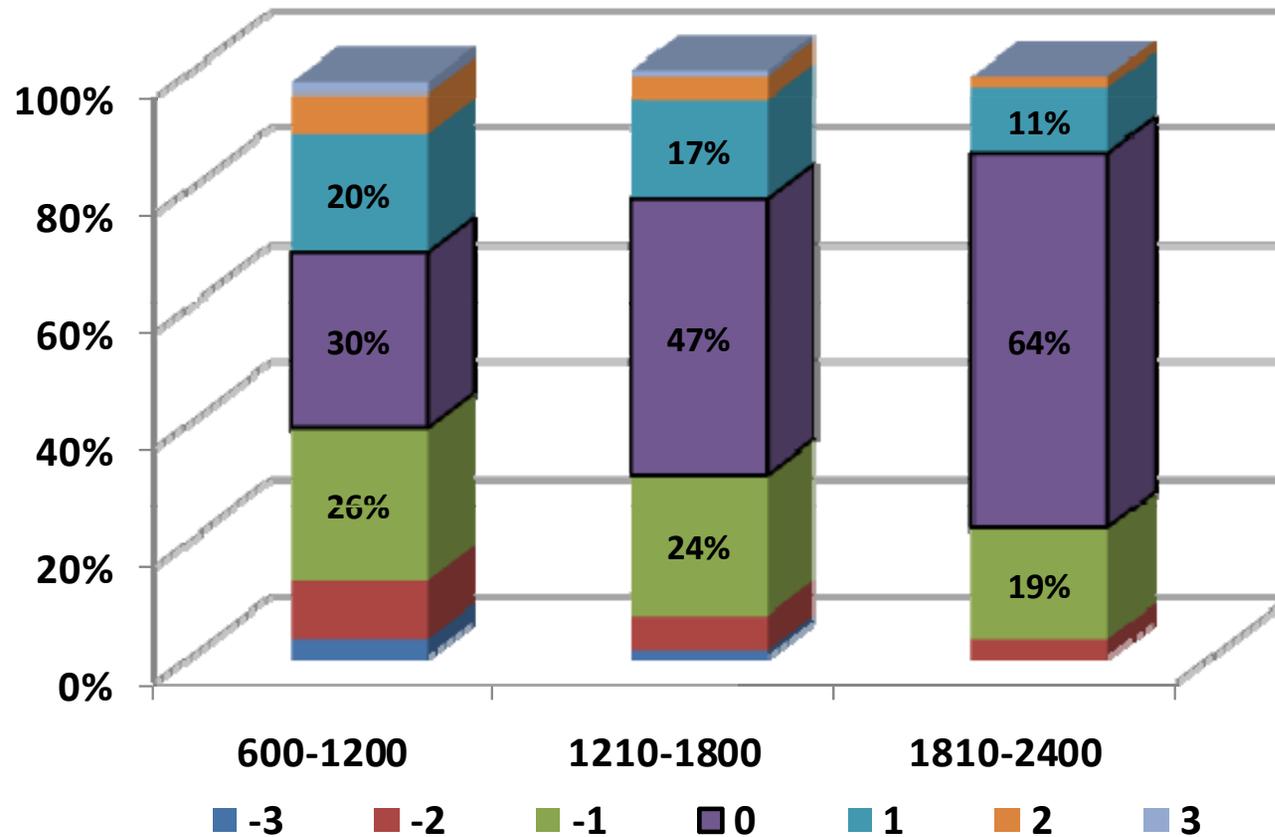
Percentage of Exact HSGPA Match, Under-reporting (-), and Over-reporting (+) of HSGPA in Grade Steps by Parental Education



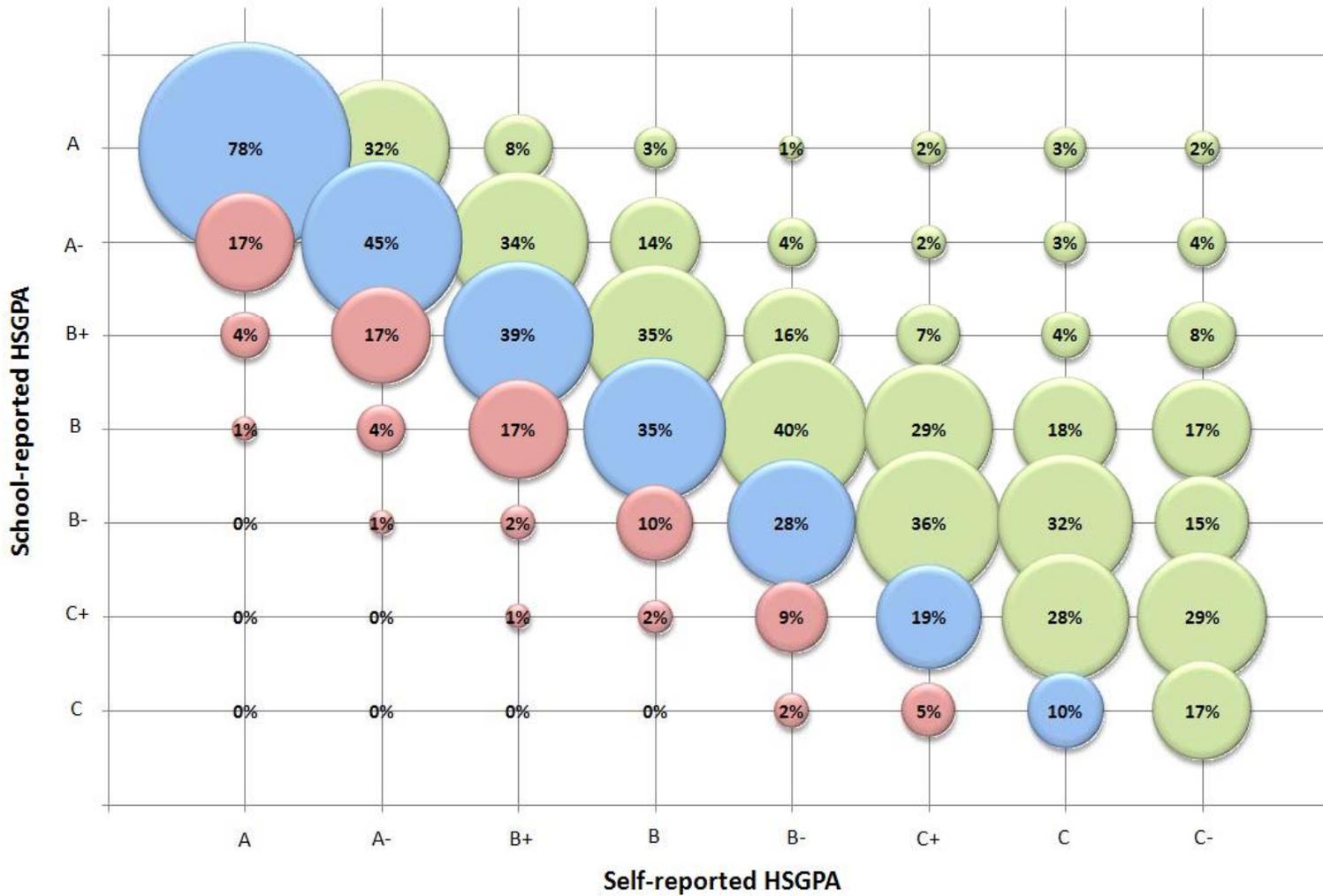
Percentage of Exact HSGPA Match, Under-reporting (-), and Over-reporting (+) of HSGPA in Grade Steps by Parental Income



Percentage of Exact HSGPA Match, Under-reporting (-), and Over-reporting (+) of HSGPA in Grade Steps by SAT Score Band



Accuracy of Self-Reported HSGPA by School-Reported HSGPA



Summary (1 of 2)

- The results of this research indicated that students are essentially accurate in reporting their HSGPA.
 - The uncorrected correlation between self-reported and school-reported HSGPA was 0.74, which is lower than in earlier studies, but still a strong correlation.
 - There was differential validity which was consistent with prior research –related to ability as opposed to subgroup membership.
- When match rate within one full grade level (e.g. a self-reported A considered a match to a school-reported A-), there was 89% agreement, indicating that any discrepancies between the two measures are very small.
 - This is even higher than Freeberg's (1988) more liberal match of 87%.

Summary (2 of 2)

- In contrast to previous studies, this research found that when students' self-reported HSGPAs did not match the school reported information, their indication of HSGPA was more likely to be *lower* than the school-reported HSGPA.
 - Possible explanations:
 - **Grade inflation in U.S. high schools** (Camara, 1998; Camara, Kimmel, Scheuneman, & Sawtell, 2003; Woodruff & Ziomek, 2004; Ziomek & Svec, 1995).
 - **Increase in students enrolled in honors, dual enrollment, and Advanced Placement (AP) courses** (The College Board, 2010).
 - **Methodological influences:** Time lapse in collection of data, sample consisted of college students

Significance of Study

- Based on a recent large national sample, the results from the current study suggest that students are quite accurate in reporting their HSGPA on the SAT Questionnaire.
(supports the use of self-reported HSGPA in research)
- Results also suggest that it is difficult to compare results to prior studies due to differences in U.S. grading practices in high schools.
- This study highlights the daunting task of placing HSGPAs from various high schools on one scale for comparison.
 - When receiving thousands of applications with HSGPAs on a wide variety of scales from students, enrollment officers have the responsibility of scientifically and fairly placing these important and complex admission criteria on the same scale for comparison. Just as this process introduced error into the current study, it likely introduces error into the admission process.

Future Research

- Examine most effective ways to increase the accuracy of students' self-reported HSGPA.
 - Ask for weighted average?
 - Is there any effect of online registration – HSGPA not necessarily updated when student retakes SAT?
- Examine ways to fairly and consistently translate and recalculate HSGPAs at various schools.

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Thank You

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- Please forward any questions, comments, and suggestions to:
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