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Potential Utility of Non-Cognitive Constructs in Graduate Admissions[1] CASEY MILLER, Rochester Inst of Tech — It is becoming clear that the methods employed by many graduate admissions committees need updating. Regarding outcomes, we cannot select students that will actually graduate much better than would a coin toss. Further, the GRE is often misused. For example, the most recent GRE general test data (2006-2007) shows that for US citizens in the physical sciences, a cut-off score of ∼64th percentile (700/155 on old/new test) would eliminate from eligibility: 63% of women vs 42% of men; 76% of all under-represented minorities vs 38% of Asian and 47% of White applicants. Fortunately, Organizational Psychologists have identified and validated several "non-cognitive constructs" for admissions: aspects of personality (conscientiousness); and self-management factors. Some intriguing facts about these parameters: they are measurable with the help of social scientists; they do not show race/ethnicity/gender performance differences; they are orthogonal to cognitive metrics measured by GPA and tests scores. These are proven to enhance both validity and diversity in admissions. My goals for this talk are to overview the non-cognitive constructs with the most potential for being used in physics graduate admissions, and to suggest example admissions protocols.

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