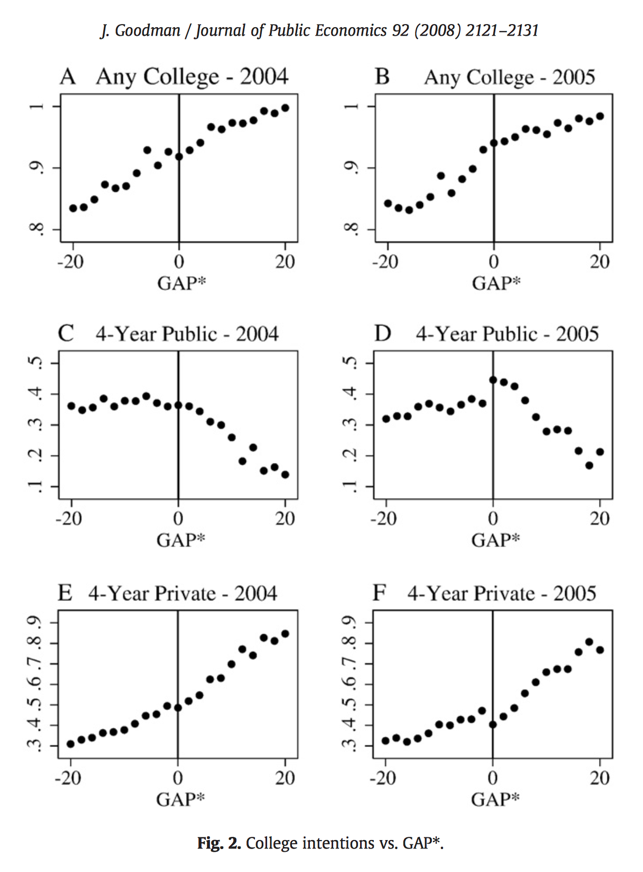
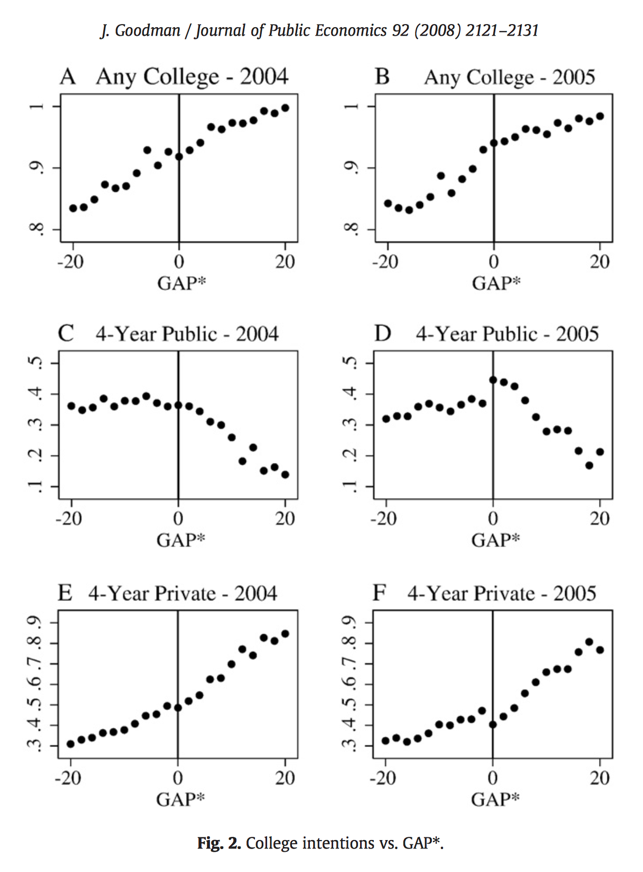
**GROUP \_\_\_\_**

**REGRESSION DISCONTINUITY WORKSHEET**



The Adams Scholarship was launched in Massachusetts in 2005. It gave small awards to students who exceeded a particular (district-specific) test score if they attended a public 4-year college in Massachusetts.

In these pictures, GAP represents the number points above (+) or below (-) the required score. The y-axis is the enrollment rate for students that have a particular GAP.

1. What explains the upward trend in the upper left figure?
2. Why would regressing 2005 enrollment on a dummy for receipt of the scholarship in 2005 give you a poor estimate of the program’s effect?
3. What’s true about A, C, and E but isn’t true for D and F?
4. Based on figures B, D, and F, what are the effects of the program?
5. Write down a regression model that allows a linear effect of GAP and a potential discontinuous jump at the eligibility threshold (GAP=0). Which coefficient represents the effect of the program?

1. Note that the underlying effect of GAP on college attendance, especially at public colleges, may be nonlinear. Write down a regression model that allows for a quadratic effect of GAP and a potential discontinuous jump at the eligibility threshold (GAP=0). Which coefficient represents the effect of the program?
2. Write down a regression model that allows for a linear effect of GAP, a potential discontinuous jump at the eligibility threshold (GAP=0), **and** allows the slope to be different on each side of the threshold. Which coefficient represents the effect of the program?