Many economists believed before the financial recession of 2009 that a bubble in the housing market could not exist, despite evidence to the contrary. How could so many professional economists have missed the signs that today seem so apparent? Psychology may have played a role. Often when we believe that a theory is true, we disproportionally attend to and interpret evidence that supports our existing beliefs, rather than evidence that contradicts them. This is known as confirmation bias. Arguably, economists and pundits were attentive to favorable data while paying little relative attention to concerning signals in the economy, and ultimately failed to preempt the crisis.

Confirmation bias is a flaw in our deductive reasoning, the process of making a logical conclusion from a series of arguments, and works in two main ways. First, it selectively favors supporting evidence, making us overconfident in the belief that our hypothesis is true. Second, it makes contradictory information less salient to us, leading us to inadequately consider counter evidence. As a result, our beliefs are more persistent and less malleable--supporting evidence strengthens our beliefs more than detracting evidence weakens them. Confirmation bias also leads to attitude polarization where disagreements become more extreme as we gather information. Confirmation bias is especially applicable to understanding how our two main political parties came to possess such divergent viewpoints in the present day.

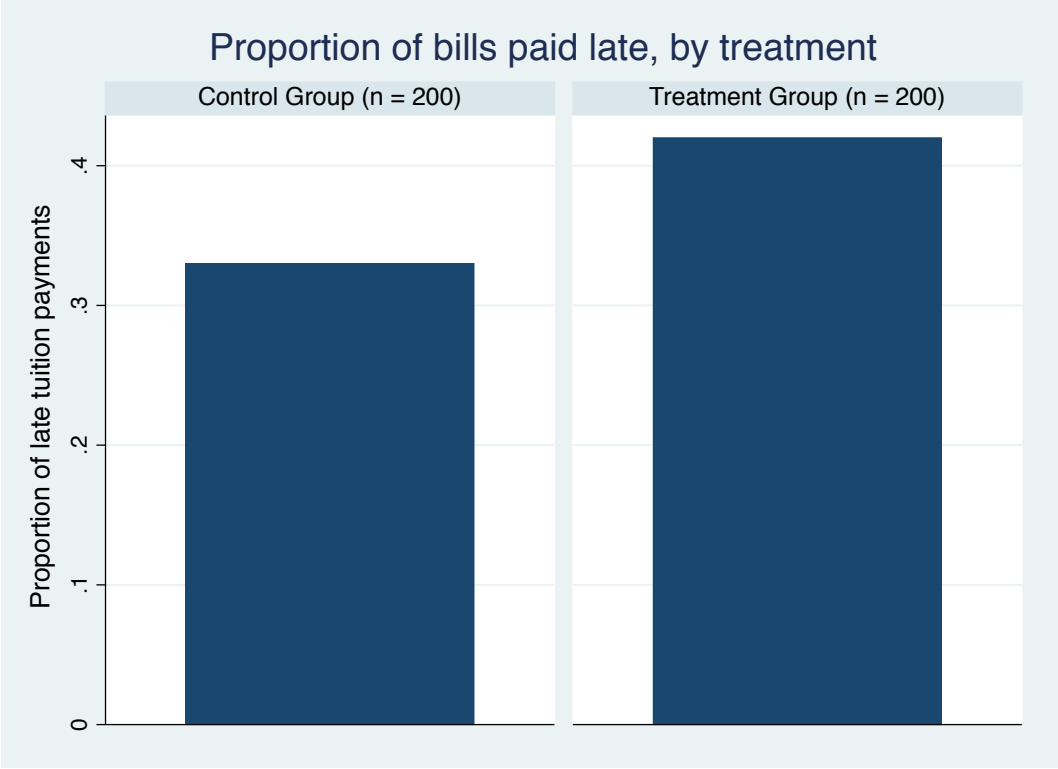
Email to project manager regarding university tuition payment pilot program:

RE: University's new tuition payment program piloting study

Dear Sir/Madam,

We have completed a preliminary analysis of the pilot program to test the university's new tuition payment option, and have four main findings to report:

- The students in the treatment group who were offered the installment payment plan accumulated higher average costs in late fees relative to the control group ($8.85 compared to $7.05) by the end of the observation period.
- A higher proportion of tuition bills in the treatment group were late compared to tuition bills in the control group (42% as opposed to 33%).



- Out of 200 participants who were offered the installment option, only thirty (15%) students opted into the installment plan.

- Among the thirty students who did adopt the installment plan, the average cost in late fees was higher. The installment plan adopters owed $17.76 dollars per student as opposed to $8.75 per student for those who did not opt into the installment plan.

We recommend the following next steps before scaling the program:

I. We suggest modifying the tuition bill in order to increase program take-up. A recent study by Bhargava and Manoli (2015) suggests that complexity of information may lead to lower program awareness and adoption rates. We hypothesize that a greater take-up of the installment option could occur after utilizing findings from Bhargava and Manoli's study. Our suggestions are as follows:

   i. Increase the font size and change the style of the presented information on the bill so that the announcement is more visually noticeable on the page.

   ii. Move the text to a more prominent position on the page, such as above the table of tuition charges and credits.

   iii. Change the language of the announcement so that the description is more precise and highlights the potential benefits of the new pilot program. For example, state that the program is an installment plan which allows students to spread their tuition payment more evenly over the year and has a lower penalty fee for submitting payments late.

II. Based on the university's goal to lower the financial burden for each student, the preliminary data suggests that the installment program may not contribute towards achieving this goal, although more evidence may be needed. A confounding issue may be the 22 students assigned to the control group who enrolled in the treatment

plan, however dropping these spillover students from the analysis actually lowers the average cost of late fees to $5.62 per student in the control group.

Overall, the results suggest:

1. The take up of the installment plan is quite low amongst those students who are offered it. This could be because the plan is inadequately advertised in the bill statement, and that better marketing may lead to more people adopting the plan. As it stands, we would not expect a high take-up of the program if the program were to be scaled.
2. The new program appears to not help alleviate the financial burden of attending college for students, and may in fact increase the average costs in late fees for students. We recommend gathering more evidence before abandoning the program entirely.