Every day we’re faced with temptations. Do you reach for a second slice of cake or do you refrain? Whether you ultimately succumb to temptation is influenced at least partly by how much self-control you have.

Economic literature on self-control typically describes the situation this way: While there is an ideal action that people would prefer to take — a decision arrived at after taking into full account the long-term consequences of the intended action — there is often something that tempts them to deviate from this ideal. Those with a lack of self-control give in to the temptation and deviate from their ideal more often, and this can lead to suboptimal economic outcomes.

In theory, self-control problems could hinder accumulation of wealth. People who can’t resist the urge to consume will not put aside money in savings. But there is limited empirical support for this seemingly intuitive notion.

In a recent paper, economists John Ameriks, Andrew Caplin, and John Leahy team with psychologist Tom Tyler to measure the effects of self-control problems. They assume that people are fully aware of their level of self-control and how it affects their decisions.

In their experiment, they offered 10 restaurant gift certificates with an unlimited budget, each of which could be used once, over the course of two years. Then they asked the participants the following questions:

a) From your current perspective, how many of the 10 certificates would you ideally like to use in year 1 as opposed to year 2?

b) Some people might be tempted to depart from their ideal. Which of the following best describes you: strongly/somewhat tempted to use more in year 1 as opposed to year 2, or not tempted at all?

c) If you were to give in to your temptation, how many certificates do you think you would use in year 1 as opposed to year 2?

d) Based on your most accurate forecast of how you think you would actually behave, how many of the nights would you end up using in year 1 as opposed to year 2?

The measure of self-control used in the study represents the difference between each participant’s stated ideal and their expected consumption levels, i.e., their response to (d) minus their response to (a). So, for instance, a positive number indicates that the respondent will tend to consume more (“overconsume”) than their stated ideal preference.

A score of zero indicated no self-control problems. Out of the 1,520 respondents, two out of every three had no self-control problem according to the measures set forth by the authors of the study.

Yet the researchers also found a significant group of people whose problem was not overconsumption — only around 10 percent suffered from that problem. About 27 percent of the respondents stated they were likely to consume less than their stated ideal amount. The authors take this to mean “that there is a significant group who appear to have problems of underconsumption, at least for consumption activities that also involve time.”

To see if this bears itself out in the actual real-world decisions of the participants, the authors compared the results of the survey to each participant’s wealth profile. (The sample of survey participants was far from representative. A third of the participants had Ph.D. degrees. The median level of personal debt was zero and net worth was $500,000.) What they found was a statistically significant and strong relationship between the self-assessed measure of self-control and wealth. Those who expected to overconsume in the survey had accumulated on average 20 percent less wealth in the real world than those with no self-control problems. Those who expected to underconsume accumulated 25 percent more.

Among the more striking findings was that older respondents tended to have more self-control. “This finding is certainly consistent with the common view that temptation falls with age, and has important connections with actual consumption behavior over the life cycle.”

Critics of the study might suggest that the best test of the authors’ theory is how the recipients of the gift certificates actually use them, not whether they say they are likely to use them. Or they might question whether people are able to accurately gauge how much self-control they really have. There’s also the possibility that people respond to different incentives when they are presented with an unearned gift versus when they earn a paycheck. Yet, based on this study at least, there is some interesting evidence that whether someone expects they’ll reach for that proverbial second slice of chocolate cake could have some real implications in their economic decisions.

Nashat Moin is an assistant economist at the Federal Reserve Bank of Richmond.