

The Role of Exponential-Growth Bias and Present Bias in Retirement Saving Decisions^{*}

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Abstract

We investigate two biases which may cause people to have suboptimal retirement savings: exponential-growth bias (EG bias), the tendency to neglect compounding interest, and present bias (PB), the tendency for people to underweight future consumption in a dynamically inconsistent manner. Using an online representative sample of the US, we elicit individuals' level of EG bias and time-preference parameters as well as numerous other background measures and find the joint distribution of these biases in the population. We find that both biases are prevalent and are negatively correlated with levels of retirement savings. Using a hypothetical saving scenario in the context of an employer-provided retirement savings plan, we find causal evidence that these biases affect retirement savings. First, we find that individuals with greater understanding of EG bias have a significantly greater increase in contributions when they are offered a higher (\$1.00) relative to lower employer match (\$0.50). Second, we find that providing individuals with information on how the employer match would translate into income in retirement (i.e. EG Treatment) results in a significant increase in contributions among individuals with the most EG bias; interestingly, we also find a significant increase among those with the least EG bias, suggesting that response to this type of information likely depends on more than just knowledge of exponential growth. Third, we find that response to financial incentives to complete the paperwork for making contribution changes varied by level of PB bias: individuals who have greater PB bias were more responsive to financial incentives that were available only for a limited amount of time relative to those who are time consistent.