

# The impact of procrastination on estate planning, retirement, and health

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## Abstract

Procrastination is a widespread behavioral phenomenon with significant implications across various aspects of life. While it's commonly associated with delays in work or educational tasks, it can have an important impact on long-term and often less urgent matters, such as estate planning, retirement, and health management. We explore the effects of procrastination on estate planning, retirement, and health outcomes using data from the Health and Retirement Study (HRS), a recent wave of which included for the first time a module specifically designed to measure procrastination at the individual level. We first characterize procrastinators and find they tend to be less educated and more likely to identify as Hispanic. We then show that procrastinators are less likely to create wills or trusts or to plan bequests. Further, we find procrastinators are less satisfied in retirement and perceive themselves to be in worse health. These results underscore the costs of procrastination, and we suggest more attention be paid to interventions aimed at reducing procrastination. Behavioral commitment devices and financial literacy, for example, could potentially mitigate the adverse effects we observe.

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## Background

Much has been said about *present bias*, the tendency for individuals to place more weight on the present while discounting too heavily future periods. Indeed, economists who study time preferences and discount factors have thought of procrastinating behaviors (such as putting off immediate-cost activities or doing immediate-reward activities too soon) as outcomes of naive individuals' present bias. Our study differs from this prior literature by focusing on the behavior of *procrastination*, which—while intricately linked to discounting—is distinct in that it involves time-*inconsistent* preferences. In other words, a time discounter may simply care less about the future—a procrastinator, however, cares about the future but behaves as if the present is more important.

Estate planning and health maintenance are domains where procrastination can have detrimental consequences due to the absence of clear deadlines and the often unpleasant nature of the tasks involved. In our context, organizing finances to create a will, adopting habits that promote health, or quitting smoking are tasks that are easily postponed, sometimes indefinitely. The lack of urgency and perceived difficulty or discomfort associated with these tasks make them prime candidates for procrastination. An understanding of the characteristics of those more likely to procrastinate in these areas can inform interventions and policies aimed at improving estate planning and health, particularly among older adults who are generally less studied in this context.

Our analysis reveals that procrastination is more prevalent among certain groups, specifically those with education below high school. We also find those identifying as Hispanic ethnicity are more likely to be procrastinators. These findings provide an approximate demographic profile of those most at risk of procrastination.

When we examine the estate-planning behaviors of procrastinators, we find a significant correlation between procrastination and a lack of preparedness regarding end-of-life financial arrangements. Procrastinators are less likely to have a will or trust in place, less likely to intend to leave a meaningful bequest to beneficiaries, and more likely to express dissatisfaction with their retirement. These behaviors not only affect the individuals themselves but also have broader implications for their families and communities, which highlights the importance of procrastination in the context of estate planning.

The final part of our analysis extends to health outcomes, which we study for two reasons. First, the prior literature has established some expected correlations: Procrastinators should be in overall worse health due to present bias which may cause these individuals to put off health maintenance activities. Second, the question of how much people can

overcome these self-control problems with age remains somewhat open. The focus on older people in the HRS allows us to measure the extent to which procrastination is correlated with health issues after some self-learning has presumably been possible. We find procrastinators in this age group remain more likely to have worse self-reported health. These findings echo prior research showing that time-inconsistent preferences are linked to poorer health outcomes, compounding the challenges that older adults face as they age.

## Data

We use data from the HRS, a representative, longitudinal panel study conducted by the University of Michigan in partnership with the National Institute on Aging. It consists of observations for approximately 20,000 people in the United States over age 50 who are interviewed every two years. Since 1992, the study has collected data on income, savings, work, assets, and insurance along with psychosocial data for multiple cohorts. In the present study, we use data from the 2020 wave of the HRS, which includes a special module relating to procrastination.

### The Pure Procrastination Scale

In each HRS wave, after the extensive core interview, supplementary experimental modules covering a broad range of topics are administered. Among the modules in the 2020 release are supplements examining respondents' retirement knowledge, depression, time inconsistency, probability numeracy, and procrastination. Our study uses the data collected in the procrastination module—more specifically, respondents' answers to the Pure Procrastination Scale (PPS). The PPS is a sequence of 12 statements for which individuals report their level of agreement (where 1 = “strongly disagree” and 5 = “strongly agree”). The statements appear below.

1. I delay making decisions until it's too late.
2. Even after I make a decision, I delay acting upon it.
3. I waste a lot of time on trivial matters before getting to the final decisions.
4. In preparation for some deadlines, I often waste time by doing other things.
5. Even with jobs that require little else except sitting down and doing them, I find that they seldom get done for days.
6. I often find myself performing tasks that I had intended to do days before.
7. I am continually saying “I'll do it tomorrow.”

8. I generally delay before starting on work I have to do.
9. I find myself running out of time.
10. I don't get things done on time.
11. I am not very good at meeting deadlines.
12. Putting things off until the last minute has cost me money in the past.

Our analysis focuses on the 1,252 respondents asked these questions, and we construct our measures of procrastination from these results.

## Outcomes

In this study, we're interested in the impacts of procrastination on estate planning, retirement, and health, and we focus on several key variables across these domains. Firstly, we examine whether an individual has a will or trust and whether an individual plans to bequest at least \$10K to their spouse or children. These outcomes give us a picture of an individual's level of estate planning (preparations for intrafamily redistribution of assets, a critical component of long-term financial planning).

When assessing the impacts of procrastination on retirement, we focus on retirement satisfaction, which is a unique question posed to those surveyed in the HRS. In addition, we look at financial wealth and how often an individual thinks about retirement.

Lastly, to assess the effects of procrastination on health, we focus on self-reported health status, whether an individual smokes, and an individual's frequency of alcohol use. Self-reported health gives us a picture of an individual's general health management while incidence of tobacco and alcohol use allows us to evaluate how procrastination may affect risky behaviors. We also examine individuals' propensity to have long-term care insurance (LTCI).

## Model

We estimate the causal effect of procrastination on our estate planning, retirement, and health outcomes using multivariate regressions. In our model specifications, our focal variable is our measure of procrastination, which we create from respondents' answers to the PPS. We first take the average over all PPS questions for each individual to arrive at a raw PPS "score." We then create a binary measure by labeling those with a PPS score within the top 50% as procrastinators.

We control for a host of demographic, income, and geographic variables. The demographic variables include gender, age, race, education level, number of children, and marital status; the income variables include Social Security income; and

the region variables include indicator variables for census regions.

In our preliminary characterization of procrastinators, we alter the above regression specification so our outcome of interest is our binary measure of procrastination, and we control for demographics, income, and geography.

## Findings

### Who are the procrastinators we study?

Using our binary measure of procrastination, we begin by empirically characterizing the subset of procrastinators in the surveyed sample. We observe that education and race are significantly associated with procrastination. First, we see that individuals with a high school education are 8.7pp more likely than those educated with at least some college to be procrastinators. However, the effect is much more pronounced—nearly three times as large—when comparing those who achieved less than a high-school education with those who completed some college. We don't find any effects on race, but those reporting their ethnicity as Hispanic are much more likely to be a procrastinator—the estimate suggests a nearly 20% increase in the likelihood of being a procrastinator. Lastly, we look at income, and we find no impact of the amount of Social Security income on the respondent's likelihood of being a procrastinator. Similarly, we find no effect of respondent age.

### Estate planning

An integral component of long-term financial planning is estate planning—preparations for intrafamily redistribution of assets in the form of wills, which outline how assets should be distributed to beneficiaries; trusts, which hold assets with oversight by a third party; and bequests, which are gifts made through a will or trust. In our sample, 45% of the respondents indicated having any will or trust at the time of the survey. This is striking given the benefits of estate planning, which include full discretion over the allocation of personal assets, tax benefits for heirs, avoidance of the probate process, and more.

Why do retirement-age people in the United States not engage in estate planning at higher rates? We posit that procrastination plays a role. Estate planning involves discussions of events that are uncomfortable—namely, death or incapacitation. Thinking about these events may be painful, so individuals may wish to avoid the associated mental and emotional costs. Further, there's no deadline for estate planning or any sort of mandate that individuals have a will or trust. These characteristics of estate planning—the high costs and absence of time constraints—mean it's likely to be put off indefinitely. Our results confirm this hypothesis.

We see that procrastinators are less likely to have a will or trust and less likely to leave bequests of at least \$10K to their beneficiaries.

Specifically, we see that procrastinators are 9.3pp less likely to have either a will or a trust. Additionally, we find procrastinators are over 4pp less likely to bequest at least \$10K to their spouse or children. These results indicate a meaningful impact of procrastination on estate planning. Namely, procrastinators are less prepared in old age for the redistribution of their wealth and less likely to capitalize on planning mechanisms that might benefit their families. To the extent that estate planning is an effective forward-looking action for the management of personal and household finance, our results signal financial mismanagement resulting from procrastinating behavior.

## Retirement

In this section, we examine the impacts of procrastination on retirement planning, broadly, in the form of total wealth, respondents' propensity to think about retirement prior to retiring, and their reported dissatisfaction with retirement. These outcomes can be split into two groups: Total wealth comprises the financial side of retirement planning, while thinking about retirement and retirement dissatisfaction make up the mental side. It's important to study both the financial and mental components of retirement planning because both may be impacted by procrastination for various reasons, and both are included under the broader umbrella of retirement planning. Procrastinators may have less total wealth than their non-procrastinating peers potentially because they delay acting on high-return activities such as job promotions and investment opportunities. Additionally, procrastinating individuals might feel more dissatisfied with their retirement given the previously hypothesized relationships between procrastination and wealth. For example, retired individuals with lower wealth may find themselves less satisfied with their retirement.

We observe no statistically significant effects of procrastination on thinking about retirement. However, we observe that procrastination is associated with less wealth and retirement satisfaction (with our estimates significant at the 10% and 1% levels respectively). While it's unclear what underlying mechanisms lead to this dissatisfaction, the financial and health behaviors we study likely play an important role.

## Health

Last, we examine whether procrastination affects health outcomes. Specifically, we focus on respondents' propensity to have long-term care insurance (LTCI), self-reported health status, and the incidence of both alcohol use and smoking.

Similarly to a will or trust, LTCI is a retirement planning tool that can provide a multitude of benefits. It primarily pays for old-age health care, such as assisted living, in-home care, and nursing home care. We find only 11% of individuals have any LTCI. The product insures against unforeseen health issues that may cause individuals to need special assistance, something they may again find uncomfortable to think about, potentially leading them to procrastinate purchasing this kind of insurance. Whether procrastination is related to LTCI has not been previously studied, and our unique data set allows us to contribute to a burgeoning literature on the implications of behavior for insurance products and markets. With regard to health outcomes, the link between procrastination and risky behavior has been previously researched, with a handful of studies finding that alcohol use is correlated with present-biased preferences. We build on this work by examining the impact of procrastination on self-reported health. The literature finds that procrastinators often delay medical care, so we might expect the procrastinators in our sample to report lower health scores.

We find procrastination is not linked to LTCI purchase. Perhaps it's the case that the decision to not purchase LTCI is rational given certain market characteristics, such as high premiums. Further, frequent entry and exit among insurers may contribute to trepidation around purchasing LTCI in our surveyed sample.

Similarly to what we find about the impact of procrastination on retirement dissatisfaction, we see evidence of a broader impact of procrastination on health. Procrastinators report poorer health than their non-procrastinating peers. This result may be explained by prior literature finding that procrastinators often delay health care appointments. We may expect that putting off medical care has negative consequences for physical health, especially in a population that suffers from chronic conditions at higher rates. This result complements our analysis of estate and retirement planning as it presents procrastination as a contributor to multifaceted outcomes for aging Americans, not only those related to their personal and household finances.

We find procrastinators drink on fewer days per week and show no difference in the number of drinks when drinking. This result is slightly counterintuitive if we think that procrastinators should exhibit more risky behaviors in areas including alcohol consumption, as has been found in prior research. It's important to note, however, that our measures of alcohol use taken from the HRS may be imperfect because they don't allow us to reliably differentiate between "healthy" and "problematic" drinking patterns. Further, our data are self-reported, and to the extent that respondents may under-report their frequency of engaging in risky behaviors such as alcohol use, our estimates may be biased downward.

## Conclusion

This study highlights the impact that procrastination has on estate planning, retirement, and health among older adults. By using data from the HRS, our findings reveal that procrastinators—characterized by being more likely to be educated to less than a high-school level and to identify as Hispanic—are less likely to engage in estate-planning tasks, such as preparing wills or trusts, and are less inclined to leave meaningful bequests. Further, procrastinators are less satisfied in retirement. This procrastination not only affects their financial preparedness and retirement satisfaction but also correlates with poorer health outcomes, including worse self-reported health. These results underscore the importance of procrastination in the financial and health aspects of retirement planning.

Our results suggest that more attention should be paid to the body of work examining interventions to reduce procrastination. For example, Milkman, Minson, and Volpp (2014) show that temptation bundling can help people

face otherwise unpleasant tasks, such as exercising, and Rogers and Milkman (2016) show that reminders can help overcome procrastination. In addition, considerable literature has evaluated the impacts of improved financial literacy and advice, with Ye et al. (2025) showing that more advanced financial literacy predicts greater propensity to plan for retirement, and Pak and Chatterjee (2016) finding that financial advice can play an essential role in dampening cognitive biases in portfolio choice among the aging population. A more creative proposition, recently tested in Robalino et al. (2023), is to foster individuals' empathy for their future selves (and thus lower their discounting of future utility) by presenting them with simulated photos of themselves at older ages. The scope for potential solutions is wide, warranting practical experimentation as we better our understanding of the profiles and decisions of procrastinators.

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