

## **\$100 Bills on the Sidewalk: Suboptimal Saving in 401(k) Plans**

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In many employer-sponsored 401(k) plans, the employer will match an employee's contribution to the plan. The matching provisions vary from one plan to another: some employers match 100 percent of the employee's contribution up to some limit; some match less than 100 percent. But the basic mechanics are the same. If the employee contributes, then the employer will contribute too. Despite the obvious advantages of employer matching, many employees still choose not to participate in their 401(k) plan, or choose contribution amounts that leave available employer dollars unused. One explanation is that these employees prefer to have their earnings available to spend, rather than tied up in a 401(k) plan. So there is nothing inherently "suboptimal" about wanting to keep one's money easily accessible.

The decision becomes "suboptimal," however, if the employee could contribute the money, get the employer match, and then withdraw the whole thing without penalty anytime they want to withdraw it. And this is precisely the opportunity that many workers have available when they reach 59½ years old. Many older workers could, in fact, contribute what is necessary to obtain the full employer match, and then withdraw every penny of their own contribution, plus every penny of the employer's contribution, the very next day, without any financial penalty whatsoever. This study focuses on workers in this situation.

The first goal of this study is to document how many workers are giving up this opportunity; and how much money they are losing. The magnitudes turn out to be quite substantial. Consider, for example, a 60-year-old employee earning a biweekly salary of \$2000, whose company would match her 401(k) contributions dollar-for-dollar up to five percent of her salary. Because of her age, she can withdraw money from the plan without penalty at any time. By contributing \$100 every two weeks, her employer also would contribute \$100 every two weeks. If she chooses not to participate, she gives up \$2,600 per year that she is fully entitled to receive from her employer. And that is precisely what a very large number of workers are choosing to do. How many? We find that roughly half of our sample of older employees chooses either no contributions, or a contribution rate below the employer's matching limit. The average annual loss among these employees is about 1.3 percent of their yearly salary. At one firm in the sample, the average annual loss was 2.2 percent of salary.

The fact that so many employees in our sample fail to take full advantage of the employer match is surprising because one might expect this population to be particularly eager to contribute to their 401(k). Since they are at least 59½ years old, the need for retirement savings should be salient to them. Having decades of experience managing their money, they should be more financially savvy than their younger counterparts. And, with an average of 14.3 years of tenure at their respective companies, they have had ample time to familiarize themselves with their 401(k) plans.

To better understand why these employees do not take full advantage of their 401(k) match, we analyze a combined survey/field experiment conducted jointly with Hewitt Associates, the benefits

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administration and consulting firm that supplied our 401(k) data. We find evidence that employees who fail to exploit the employer match are less financially literate than those at or above the match threshold, which may indicate substantial indirect transactions costs (i.e., decision-making costs) associated with 401(k) participation. We also find evidence for procrastination.

In addition to learning more about 401(k) decision-making, the survey experiment was also used as a form of intervention to see how employees might change their behavior in response to the information provided in the survey. In some of the survey groups, we clearly explain the opportunity older workers have to contribute, obtain the employer match, and still withdraw the money anytime – all without penalty. The response to this information was infinitesimal, raising 401(k) contribution rates by just one tenth of one percentage point relative to a control group.

Overall, the study has provided some interesting new information on the limits of information and incentives and interventions to influence voluntary saving behavior. Many financial education interventions are intended to increase savings rates by describing the benefits of saving. Consistent with previous evidence, our survey finds that most employees already believe that they should be saving more than they currently are. However, even though employees think they should save more, our effort to facilitate such savings had virtually no effect. The failure of the survey to induce employees to exploit a significant financial opportunity raises questions about the potential of educational interventions more generally.

The results also illustrate the limitations of monetary incentives alone to increase savings among those who are most difficult to induce to save. Despite offering costly matching programs with strong marginal incentives to contribute, the firms studied here were able to induce only half of their older employees to contribute up to the match threshold. Although matching alone does not appear sufficient to increase savings among those most difficult to induce to save, it may be more effective when combined with other interventions that account for employee passivity.

The full working paper is available on our website, [www.nber.org/programs/ag/rrc/books&papers.html](http://www.nber.org/programs/ag/rrc/books&papers.html) as paper NB04-08B.

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