

MOTIVATING HEALTH SAVINGS ACCOUNT FUNDING

by

ANNE CATHERINE SPENCER DUKE

(Under the Direction of Brenda J. Cude)

ABSTRACT

A health savings account (HSA) may be opened and used by enrollees in statutorily-defined high-deductible health insurance plans. Even though personal HSA contributions are likely to reduce an enrollee's federal tax burden and provide funds to pay medical coverage deductibles, the average level of HSA contributions has been remarkably low. The purpose of the current study was to identify factors that might motivate high-deductible plan enrollees to increase their personal HSA contributions. Several factors were examined: (a) an employer offering a cash reward when an enrollee increases his or her HSA balance, (b) an employer offering a matching contribution, (c) exposing enrollees to education, via digital media, about the benefits of making HSA contributions, and (d) exposing enrollees to an Enhanced Active Choice to participate that highlights the losses incumbent in the non-preferred alternative. To test the hypotheses, a scenario-based experiment using an online survey was conducted. The Qualtrics Corporation of Provo, UT collected the data. The results confirmed previous findings that (a) increasing consumer education about all aspects of health insurance is likely to lead to better decision making, (b) a good visual that can be seen and heard is persuasive in health communications, and (c) family, friends, and peers are very

influential in financial decisions. The current study has implications for employers as well as policy makers. The results suggest that employers should use low-cost methods to improve employee understanding about the benefits of making personal HSA contributions and that policy makers should support both consumer education programs and general education programs for health insurance consumers.

INDEX WORDS: Health savings accounts, HSA, Employee benefits, Health insurance, Consumer-directed health insurance, High-deductible health insurance, Health care spending, Savings, Tontine, Matching, Enhanced Active Choice, Consumer education, Tax planning, Behavioral economics, Loss aversion, Prospect Theory

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B.B.A., The University of Georgia, 1982

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A Dissertation Submitted to the Graduate Faculty of The University of Georgia in Partial
Fulfillment of the Requirements for the Degree

DOCTOR OF PHILOSOPHY

ATHENS, GEORGIA

2012

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May 2012

DEDICATION

I dedicate this dissertation to all U.S. consumers who are faced with exceedingly complex financial decisions and need guidance.

ACKNOWLEDGEMENTS

I give special thanks to my major professor, Brenda J. Cude, for her extremely high level of support during the entire dissertation/doctoral process. Of particular value were her up-to-date knowledge of contemporary and past literature in our field of study, her creative research ideas, her ability to guide but not control, and her patience, persistence, and extreme dedication to the research process. I also thank committee members Teresa Mauldin and Lance Palmer for their constant support, expert feedback, and encouragement.

I would not have completed this study and degree without the support of the University System of Georgia and more specifically, my employer, Gainesville State College. The University System of Georgia paid every dollar of my tuition, and the contributions of Gainesville State College are truly immeasurable. This support came in the form of unbelievable technological resources, knowledgeable, helpful, available, and encouraging colleagues, and the freedom to be absent from campus during normal work hours to attend UGA classes. My plan is to continue to return my best effort, in all matters, to the University System of Georgia, Gainesville State College, and most importantly, the students I have the honor to advise and instruct.

Other individuals I would like to thank include Dr. Kim Love-Myers with the UGA Statistical Consulting Center, Dr. Spencer Tinkham for guidance in experimental design, John Williams for his constantly available technology and media support, Dr. Matthew Horton for guidance in editing, and Angela Megaw for library support.

I could not have completed this process without the continual support of many friends and both my extended and immediate family members. I am deeply grateful for the wise human capital investments/choices of my parents, grandparents, great-grandparents, etc. These people, who constantly motivate me, taught me that “we are not of those who shrink back and are destroyed—but of those who press forward and are saved.”

Most importantly, I would like to thank my son and husband. Their love and support are invaluable to me. They have provided the magical balance of both wanting me to stop working and “come home” and not allowing me to quit. My husband was particularly helpful; whenever I considered quitting, he would say, “quitting is not an option – you’ve never quit anything in your life – keep going!”

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CHAPTER 1

INTRODUCTION

A health savings account (HSA) is an investment/savings account that consumers can use to accumulate funds to pay for future medical expenses. HSAs were created by the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (Klug & Chianese, 2010). Individuals can contribute tax-deferred funds into an HSA if enrolled in a statutorily-defined high-deductible health plan and not also enrolled in a more traditional lower-deductible plan. For the duration of this study, a high-deductible health insurance plan with an attached HSA will be labeled “HD/HSA.”

HD/HSA plans are one type of consumer-directed health insurance. Consumer-directed health insurance (sometimes called “consumer-driven,” “consumer-focused,” or “account-based”) refers to health insurance plans that transfer some of the first-dollar spent medical cost to the insured. The reason for the term “account-based” is that these plans come with a feature that allows funds for future medical expenses to be set aside in an account. Health reimbursement accounts (HRA) are a second type of account that can be attached to a high-deductible health plan. HRAs are significantly different from HSAs in that the former belongs to the employer rather than the employee, cannot be transferred if the employee changes employers, and does not permit employees to make personal contributions. Although HRAs and HSAs are different, many organizations and researchers who collect national information about these plans do not differentiate between them. In the current study, when data or literature specifically applies to HSA

plans, the term “HD/HSA” will be used. On the other hand, if the data or literature pertains to all types of consumer-directed/high-deductible health insurance plans, the term “consumer-directed health plan” (CDHP) will be used.

Description of HD/HSA Plans

According to the statutory requirements for 2011 and 2012, HD/HSA plans must have at least a \$1,200 or \$2,400 deductible for single or family coverage, respectively (Internal Revenue Service, 2011b, 2011c). In 2010, the average annual deductible for HD/HSA plans was \$2,096 for single coverage and \$4,006 for family coverage (Kaiser Family Foundation, Health Research and Educational Trust, & National Opinion Research Center, 2010). Annual contributions to an HSA, for 2011, were limited to \$3,050 and \$6,150 for single and family coverage, respectively, and participants over the age of 55 could make annual catch-up contributions of \$1,000 (Internal Revenue Service, 2011c). For 2012, the contribution limits were increased to \$3,100 and \$6,250 for single and family coverage, respectively (Internal Revenue Service, 2011b).

Individuals can withdraw funds from an HSA, tax free, to pay for qualified medical expenses. Statutes defining qualified medical expenses change from time to time. For example, in 2010, individuals could purchase over-the-counter pain relievers with HSA funds, but in 2011, over-the-counter products, other than insulin, no longer qualified (Internal Revenue Service, 2011c). Table 1 describes the features of 2011 HD/HSA plans.

Goal of HD/HSA Plans

HD/HSA plans were primarily created as a means of reducing medical spending. The idea behind these plans is that insured individuals will reduce spending for

unnecessary medical services because they share the cost of those services. The insured will have, in other words, more “skin in the game” (Dixon, Greene, & Hibbard, 2008). Likewise, moral hazard exists when an insured person is less careful about incurring medical costs because of reliance on health insurance; HD/HSA plans can reduce this moral hazard (Robinson & Ginsburg, 2009). If moral hazard is reduced by HD/HSA plans, consumers should be more likely to expend effort to promote their own future health. Empowering consumers in the area of health care is a second goal of HD/HSA plans (Thompson & Cutler, 2010). Consumers might be empowered by a greater knowledge of the cost of health care and a greater incentive to maintain personal health (Thompson & Cutler, 2010).

Popularity and Growth of HD/HSA Plans and CDHPs

HD/HSA plans are growing in popularity. According to the annual census by America’s Health Insurance Plans (AHIP), 11.4 million Americans were enrolled in a HD/HSA plan in January 2011, a 14% increase over the 10 million reported in 2010 and a 43% increase over the 8 million reported in 2009 (AHIP Center for Policy and Research, 2011). According to the Kaiser Family Foundation Employer Health Benefit Surveys, CDHPs with a savings option covered 13% of workers in 2010, up from 4% in 2006 (Kaiser Family Foundation, Health Research and Educational Trust, & National Opinion Research Center, 2006, 2010). In addition, a growing number of employers, such as General Electric and American Express, are offering only high-deductible health insurance plans to their employees (Belz, 2011).

Recent health insurance reform could increase or decrease the popularity of HD/HSA plans. Tanner (2011) anticipated that the Patient Protection and Affordable

Care Act would seriously impede the growth of CDHPs. In contrast, Claxton et al. (2010) suggested that the new legislation would be unlikely to change the market for employer-provided coverage in the near future. McDevitt and Savan (2011) argued that the Act might encourage the growth of CDHPs, but others have said that it could cause either an increase or a decrease in CDHPs (Munn, 2010). Pudlowski (2011) concluded that the costs to employers, beginning in 2014, of meeting the employer mandate feature of the new legislation could be so severe that employers might choose to pay penalties rather than provide health insurance of any kind. Sperling and Shapira (2011) suggested that the high cost of U.S. health care and changes in the health insurance market might cause a “sea of change” in the direction of consumer-directed health insurance (p. 43). They said that this change would be similar to the move away from the defined benefit retirement plans to the currently more popular defined contribution plans.

Benefits of Making Personal HSA Contributions

Low premium cost. Some consumers might choose to be covered by an HD/HSA health insurance plan simply because of the lower monthly premium. The HSA feature might make the high-deductible health plan a viable option. For example, in 2010, the average worker premium contribution for single coverage in an HD/HSA plan was 30% lower than the premium for single coverage in preferred provider organization (PPO) plans. HD/HSA plans cost workers with single coverage \$632 annually on average, in comparison to \$905 for PPO plans (Kaiser Family Foundation et al., 2010). A single parent with an inadequate salary might feel constrained to choose the health insurance plan with the lowest monthly premium in order to use the difference for food or housing. Given this scenario, what might happen when a member of the single-parent family

becomes ill? The ill family member might not be able to receive medical treatment if funds are insufficient to cover the deductible. If this family has made contributions to an HSA over time, these funds can be withdrawn to pay for the needed medical care. Another AHIP study conducted during the summer of 2008 found that 3% of HSA account holders lived in lower-income neighborhoods that had median incomes of less than \$25,000 (1999 dollars) and that 46% lived in lower-middle-income neighborhoods that had median incomes of between \$25,000 and \$50,000 (1999 dollars) (America's Health Insurance Plans Center for Policy and Research, 2009). These lower-income families covered by HD/HSA plans critically need HSA contributions if they incur medical expenses.

Tax savings. An affluent family might not feel that they are constrained to choose between paying for health insurance or food; however, this family might choose to participate in an HD/HSA plan in order to save, tax free, for future medical expenses such as orthodontic work, Lasik surgery, and emergencies. If HSA funds are never used for medical purposes, they ultimately can be used as taxable retirement funds. Therefore, affluent families covered by an HD/HSA plan also benefit greatly by making significant HSA contributions. Payroll taxes are reduced for any consumer making HSA contributions because HSA contributions are not subject to payroll taxes.

Financial planning. Some consumers desire and have the foresight to plan ahead for life events. HSAs are particularly beneficial for this type of consumer. Consumers enrolled in more traditional health insurance plans, such as PPOs, also are allowed to set aside funds to pay for medical expenses using a flexible savings account (FSA). However, FSAs are inferior to HSAs in several ways. First, FSA funds must be used by

year end, or they are forfeited; HSA funds carry over from year to year. In addition, beginning in 2013, an individual (with single or family insurance coverage) may only contribute \$2,500 annually to an FSA (Kaiser Family Foundation, 2011). This amount is substantially below the contribution limits for HSAs. Another noteworthy difference is that HSA funds, which are only taxed when used for non-medical spending, can be saved for several years for an expected and expensive medical event. In the future, when the medical event occurs, the saved funds can be used free of federal taxation. Therefore, as a consumer's federal income tax bracket increases, the benefit of paying for medical expenses with HSA dollars also increases. Some might argue that all non-reimbursed medical expenses are tax deductible. However, these expenses are only deductible if they exceed 7.5% of adjusted gross income, and, according to current law, this threshold will change to 10% beginning January 1, 2013 (Kaiser Family Foundation, 2011). HSA contributions that have never been used for medical purposes may be withdrawn, without penalty, as taxable income beginning at the age of 65.

Thus, all consumers covered by an HD/HSA health plan should make adequate contributions to their HSA accounts. Otherwise, they might not have funds at their immediate disposal to pay for health care, or they might be forced to pay for medical expenses with dollars that have already been taxed. Consumers also might make HSA contributions to set aside money to pay for potential major medical expenses down the road or eventually to draw as retirement income. HSA funding is critically important for those individuals covered by a HD/HSA plan. Table 2 summarizes the benefits of making personal HSA contributions.

Current HSA Funding Levels

HSA contributions may be made by the account holder, his or her employer, or both. However, contributions are not required by statute. In fact, many consumers who are eligible to open an HSA never do so. Fronstin and EBRI (2011b) reported that as of 2010, 6.3 million HSA-eligible adults, representing 4.5% of the private health insurance market, had not opened an HSA account. According to Fronstin and EBRI (2010), individuals reported they had not opened an HSA for a number of reasons:

One-third reported that they did not have the money to fund the account.

Thirty-one percent reported that they did not see the need for the account.

Nineteen percent reported that the tax benefits were not attractive enough.

Fourteen percent reported that it was too much trouble to open and/or

manage the account. Thirteen percent reported that their employer would

not have contributed to the account. Nine percent reported that it was

either too complicated or they did not understand the option. (p. 24)

Of the 1.2 million HSA accounts opened before December 31, 2009, the AHIP Center for Policy and Research (2010) found that approximately 14% had a zero balance and 54% had a balance of less than \$1,000. In addition, they found that deposits tended to be higher for participants with higher incomes (AHIP Center for Policy and Research, 2009). Fronstin and EBRI (2011b) also reported that, for 2010, 15% of HSA account holders with single coverage and 12% with family coverage made no HSA contributions whatsoever.

Goal of Current Research Project

Because HSA funding is critically important for the welfare of plan participants and because current funding levels are low, the goal of the current study was to discover how an HD/HSA plan might be designed to motivate plan participants to make HSA contributions.

According to classical economic theory, participants should fund their HSAs if doing so is beneficial to them. Classical theory assumes that consumers always act rationally. However, recent literature has begun to shed light on consumers' inability to overcome natural weaknesses. Behavioral economic concepts explain what truly motivates consumer decision making, and recent academic literature suggests that an understanding of behavioral economic concepts can be used to draw consumers toward sound decisions. Sunstein and Thaler (2003) coined the term "libertarian-paternalism" to describe this process. They suggested that the freedom of choice demanded by libertarians and the concern for human welfare demanded by paternalists can be achieved at the same time. Consumers often are given choices. Libertarian-paternalism requires that the consumer be allowed freedom of choice but that the choice options help motivate the consumer to make a beneficial choice (Sunstein & Thaler, 2003). Chapter 2 will examine in more detail current literature in the field of behavioral economics and how its principles informed the current study's hypotheses related to HSA funding.

Employers and insurance companies must design HD/HSA insurance plans. They also must create resources that the insured can use to choose a level of HSA funding that is both feasible and beneficial. The goal of the current study was to determine how HSA plans might be designed and framed in order to motivate plan participants to increase

HSA funding. Chapter 2 will review current literature about HD/HSA health insurance plans and the theoretical framework for this study. Once the hypotheses are stated, Chapter 3 will discuss the research method, and Chapter 4 will report results. In addition to discussion and implications, Chapter 5 will address a variety of interesting questions that are not covered by this study but could be addressed by future research, such as how and why consumers use HSA funds. In addition, the current study did not attempt to determine whether the movement toward consumer-directed health care is in the best interest of the consumer. The average consumer might very well receive greater welfare from traditional health insurance plans that provide for his or her health care with a lower deductible.

Table 1

Description of 2011 HD/HSA Plans

1. The health insurance plan must have a deductible of at least \$1,200 and \$2,400 for single and family coverage, respectively.
2. The health insurance plan must have a maximum limit on the sum of out-of-pocket and annual deductible of \$5,950 and \$11,900 for single and family coverage, respectively.
3. Participants must not also be covered by other health insurance plans with a lower deductible.
4. HSA contributions are excluded from gross income.
5. HSA funds can be rolled over from year-to-year and do not have to be used in any given year.
6. Investment growth inside of an HSA is not taxed.
7. An HSA is portable when participants change employers. The account belongs to the participant.
8. The maximum annual HSA contribution is \$3,050 and \$6,150 for single and family coverage, respectively.
9. HSA funds can be withdrawn, tax free, to pay for qualified medical expenses.
10. HSA funds withdrawn (prior to age 65) to pay for non-qualified expenses are subject to income tax and a 20% penalty.
11. HSA funds may be withdrawn penalty free for any reason after the participant reaches the age of 65. Non-qualified withdrawals are subject to income tax.

Note. Adapted from *Health Savings Accounts and Other Tax-Favored Health Plans* (Publication 969), (Internal Revenue Service, 2011c)

Table 2

Benefits of Making Personal HSA Contributions

Personal HSA contributions increase the likelihood that:

- Funds will be available, for a covered consumer, to pay the deductible and receive medical care.
 - All of a covered consumer's current medical expenses will be paid with funds that have never been taxed.
 - Funds will be available for a covered consumer to pay for future medical expenses with dollars that have never been taxed, leading to superior financial planning.
 - HSA funds that are never used to provide for medical expenses will be available to pay for the expenses of retirement.
-

CHAPTER 2

LITERATURE REVIEW

The goal of the current study was to discover factors that motivate health savings account (HSA) holders to make personal HSA contributions. Current academic literature was reviewed to find potential motivating factors. Literature about HSA funding motivation was very limited and only revealed the demographic characteristics of account holders. Other interesting studies have examined issues related to the use and goals of consumer-directed health insurance plans (CDHP) and high-deductible/health savings account (HD/HSA) plans. Extensive literature has been written about funding other types of savings accounts, such as 401(k) plans. Many of these studies address motivations for 401(k) funding that are relevant to HSA funding. Literature about economic theory suggested additional factors that shed light on HSA funding incentives. At the end of this review, hypotheses regarding various factors that might motivate personal HSA contributions are proposed.

Demographic Characteristics of Account Holders

Although HD/HSA plans are only one type of CDHP, information about the demographic characteristics of all CDHP enrollees is noteworthy and informs an understanding of the type of person who has a HD/HSA plan and chooses to make personal HSA contributions. Fronstin and EBRI (2011a) examined data from the 2005-2007 EBRI/Commonwealth Fund Consumerism in Health Care Survey and the 2008-2010 EBRI/MGA Consumer Engagement in Health Care Survey and found statistically

significant differences between enrollees in CDHPs and more traditional, low-deductible plans. They found that the consumer-directed population was less likely to be young, had higher income and education levels, consistently reported better health status, and exhibited better health behavior (Fronstin & EBRI, 2011a). Galbraith et al. (2011) reported that approximately one-half of CDHP enrollees have a chronic condition and that one-third of families enrolled in these plans have a child with a chronic condition. All age groups are covered by HD/HSA plans. According to the AHIP Center for Policy and Research (2011), 26% of individuals covered by HD/HSA plans are between the ages of 0 and 19, and 53% are between the ages of 30 and 60. The four states with the highest percentage of privately-insured individuals covered by an HD/HSA plan were Minnesota (14.9%), Vermont (11.4%), Colorado (11.3%), and Montana (10.8), and the four states with the lowest percentage covered were New Mexico (2.6%), Mississippi (2.4%), West Virginia (2.1%), and Hawaii (0.2%) (AHIP Center for Policy and Research, 2011).

As would be expected, higher income levels are correlated with higher HSA contributions (AHIP Center for Policy and Research, 2009; Fronstin & EBRI, 2011b). Also, Fronstin and EBRI (2011b) found that persons with health conditions are slightly more likely to make HSA contributions than those who do not have health conditions. The current study might or might not support these findings.

This review of the demographic characteristics of HSA account holders informs an understanding of the type of person who selects an HD/HSA plan. Currently, HD/HSA plans cover a broad spectrum of the population. The variety of individuals covered by HD/HSA plans might increase as more employers begin offering HD/HSA plans as the only health insurance option (Belz, 2011).

Literature Concerning HD/HSA Plans and CDHPs

As discussed in Chapter 1, consumer-directed health insurance was primarily created as a means of reducing medical spending and more deeply engaging consumers in the pursuit of health. Many studies about CDHPs have examined interesting questions such as whether such plans reduce medical spending as intended and/or cause account holders to reduce, forgo, or delay needed medical care in order to avoid paying deductibles. Of particular interest is the effect on vulnerable populations such as the poor and chronically ill and the effect on the choice to use preventive services. Also noteworthy is whether CDHPs do, in fact, cause consumers to be more concerned about healthy behaviors and to seek health care alternatives.

Effect of HD/HSA plans on medical spending. HD/HSA insurance plans are meant to motivate the insured to reduce unnecessary health care spending. Lo Sasso, Shah, and Frogner (2010) examined health plan administrative data from a national insurer and found lower health care spending among those enrolled specifically in an HD/HSA plan compared to those enrolled in a traditional plan. Charlton, Levy, High, Schneider, and Brooks (2011) also examined claims data from a large Midwestern transport employer's health plan that had recently replaced its traditional low-deductible insurance coverage with an HD/HSA plan. They found, after the change to this HD/HSA plan, "lower total expenditures, fewer and less costly office visits, fewer emergency department visits, and less costly prescription refills" (p. 80). These two studies, which specifically focused on HD/HSA plans, found evidence that HD/HSA plans do lead to a reduction in medical spending.

Effect of CDHPs on medical spending. Haviland, Sood, McDevitt, and Marquis (2011) examined health care claims from 59 large employers and found significant reductions in overall spending associated with consumer-directed health insurance. This finding contradicts a study by Feldman, Parente, and Christianson (2007); they examined spending associated with a consumer-directed plan for a large employer over a three-year period and found that the plan did not reduce spending when compared to traditional plans. Barry, Cullen, Galusha, Slade, and Busch (2008) found that because a consumer-directed plan with an HRA was more often selected by healthier enrollees, it did not lead to a reduction in overall employer spending. Thus, collectively, previous research about CDHPs provides no clear indication that consumer-directed health insurance achieves the goal of reduced health care spending. One reason might be that the health status of enrollees does not change when the type of insurance coverage changes. This inconsistent pattern was confirmed by Waters, Chang, Cecil, Kasteridis, and Mirvis (2011), who examined non-employer-specific claims data from Blue Cross Blue Shield of Tennessee and found reduced emergency room use, increased use of prescription medications, and no overall change in outpatient expenditures associated with CDHPs.

Effect of HD/HSA plans and other CDHPs on utilization of health services.

Certain risks are inherent in the CDHP design. Researchers have suggested that the insured sometimes reduce, forgo, or delay seeking necessary medical care, causing a reduction in life quality (Hoffman, Tolbert, Kaiser Commission on Medicaid and the Uninsured, & Henry J. Kaiser Family Foundation, 2006). The Rand Health Insurance Experiment provided evidence that increased cost sharing leads to decreased utilization of health care services (Newhouse, 2004). Dixon et al. (2008) found a greater delay in

seeking medical care among individuals covered by a CDHP than those covered by a lower-deductible PPO plan.

Of special interest is the effect of consumer-directed health insurance on the utilization of preventive health care services. Rowe, Brown-Stevenson, Downey, and Newhouse (2008) found no significant decrease in spending for preventive services among those enrolled in a CDHP. However, Buntin, Haviland, McDevitt, and Sood (2011) found that enrollment in CDHPs was associated with moderate reductions in the use of preventive care. When examining claims data in a large firm that switched from offering only traditional insurance to offering only HD/HSA plans, Charlton et al. (2011) found a reduced likelihood of mammograms and papanicolaou tests and a borderline significant reduction in routine physical exams. This finding is surprising because 92% of HD/HSA plans cover preventive care before the deductible is met (Kaiser Family Foundation et al., 2010).

Another concern with CDHPs is that they tend to separate the healthy and the sick into two groups, with the relatively less healthy individuals bearing significantly higher insurance premium costs (Hoffman et al., 2006). This risk segmentation was found in studies that examined claims and benefit information (Barry et al., 2008; Lave, Men, Day, Wang, & Zhang, 2011).

Effect of CDHPs on vulnerable populations. A review of the current literature revealed a particular concern among some researchers about the effect of enrollment in CDHPs on children, individuals with chronic illnesses, and individuals with lower incomes. Understanding the impact of consumer-directed health insurance on these vulnerable groups is critical. Galbraith et al. (2010) found no statistically significant

difference in the probability that recommended well-child visits would be made by families covered by consumer-directed plans. Galbraith et al. (2011) examined the health care-related financial burden for families with chronic medical conditions who were enrolled in traditional and high-deductible plans. They defined financial burden as “experiencing difficulty paying medical or basic bills or having to set up payment plans” (p. 322) and found that 48% of families enrolled in a high-deductible plan reported a financial burden, compared to 21% of families enrolled in a traditional plan (Galbraith et al., 2011). Kullgren et al. (2010) found that lower-income families enrolled in a CDHP were more likely than higher-income families to report delayed or forgone care because of cost burden.

Effect of HD/HSA plans and CDHPs on habits of enrolled consumers.

Another goal of CDHPs is to encourage consumers to become more involved in health care decisions, more aware of costs, and more likely to choose healthy behaviors (Thompson & Cutler, 2010). Some of these behaviors have been reported for those enrolled in consumer-directed health care. Agrawal, Ehrbeck, Packard, and Mango (2005) examined self-reported behaviors for 1,000 consumers whose employers only offered high-deductible health insurance in comparison to approximately 1,500 consumers enrolled in traditional plans. They found that the consumers enrolled in the high-deductible plans were 50% more likely to inquire about health care costs, 33% more likely to identify treatment alternatives independently, and more than 30% more likely to get an annual check-up (Agrawal et al., 2005). This study is especially significant because the consumers enrolled in a high-deductible plan did not “self-select” into the

plan; rather, it was their only option (Agrawal et al., 2005). Aetna (2010) has found that HSA enrollees look up health care information online twice as often as PPO enrollees.

Theoretical Framework

There are surely myriad factors that influence whether a consumer enrolled in an HD/HSA plan actually opens and funds an HSA. Classical and behavioral economic theory informs an understanding of HSA funding motivation.

Classical economic theory and employer matching contributions. Based on classical economic theory, consumers are rational and act in their own best interest. Accordingly, the level of participant HSA funding should increase if employers match the contribution. If an employer matches an employee's HSA contribution, the employee gets a direct measurable benefit from making the contribution. This positive reinforcement should be associated with a higher level of participant HSA funding.

Employer matching is often a feature of 401(k) defined contribution retirement plans. Choi, Laibson, Madrian, and Metrick (2002) examined individual behavior of 401(k) participants at two companies before and after permanent changes in the employer matching structure. In the natural experiment, they found that implementing an employer match can increase 401(k) participation and that increasing the employer contribution rate can increase the employee contribution rate (Choi et al., 2002). Dworak-Fisher (2011) examined data from the National Compensation Survey and also found that an employer match provided a powerful incentive for employee contributions to 401(k) plans.

Classical economic theory and employee education about benefits of HSA funding. According to classical economic theory, HSA participants will fund an HSA if

the anticipated future benefit of contributions is greater than the benefit of using the funds for another purpose. That is, appropriate HSA funding will occur naturally if participants fully understand the benefits of the contributions. Therefore, exposing HSA participants to educational resources about the benefits of making personal HSA contributions is worthwhile. The results of the Benefits and Behavior: Spotlight on Consumer-Driven Health Plans survey sponsored by Guardian Life Insurance Company in late 2008 indicated that 17% of individuals were not able to identify the type of health plan they had (Guardian Life Insurance Company of America, 2009). The survey also found evidence of widespread misunderstanding about HSAs; for example, 55% of respondents were unsure whether withdrawals from an HSA would be tax free if used to pay medical expenses, and 14% thought that contributions to an HSA would be taxed (Guardian Life Insurance Company of America, 2009). Because of the widespread misunderstanding that exists, it is safe to agree with other researchers that increasing consumer education about all aspects of health insurance is likely to reduce confusion and lead to better decision making (Domaszewicz, Havlin, & Connolly, 2010; Klug & Chianese, 2010).

Behavioral economics. In reality, even if individuals had perfect knowledge and understanding of the reasons funding an HSA is needed and essential, HSA funding might not increase. Contemporary behavioral economic theory and the observed behavior of consumers are shedding light on the inability of consumers to act in a perfectly rational manner (Schwarcz, 2010). Two areas of behavioral economic theory suggest relevant ideas about personal employee HSA funding decisions. One area concerns decision framing and libertarian-paternalism. The second is the behavioral economic principle known as loss aversion.

Decision framing and libertarian paternalism. Recent literature has uncovered evidence that consumers are strongly influenced by the way choices are presented or “framed” (Choi, Laibson, Madrian, & Metrick, 2003; Thaler & Benartzi, 2004; Tversky & Kahneman, 1981). Employers engage in a powerful decision when determining how they present options to employees. Schwarcz (2010) found that consumers do not always act rationally when making insurance decisions; accordingly, he suggested that a libertarian-paternalistic approach is often appropriate. Sunstein and Thaler (2003) coined the term “libertarian-paternalism” and suggested that the freedom of choice demanded by libertarians and the concern for human welfare demanded by paternalists can be achieved at the same time. Consumers often are given choices. Libertarian-paternalism requires that the consumer be allowed freedom of choice but that the choice options help motivate the consumer to make a beneficial choice (Sunstein & Thaler, 2003). One goal of the current study was to identify ways to frame choices about HSA funding levels that might increase contributions.

Loss aversion. Loss aversion refers to the preference of consumers to avoid losses more than to experience gains. In other words, the pain of one dollar lost is felt more strongly than the joy of one dollar gained. This principle is derived from Prospect Theory, first posited by Daniel Khaneman and Amos Tversky in 1979 (Mitchell & Utkus, 2003). In Figure 1, the classic graph used to describe Prospect Theory, the stronger pain of a loss is depicted by the steepness of the loss curve in the short term, in contrast to the gain curve. Eckles and Schaffner (2010) and Hardie, Johnson, and Fader (1993) have found evidence of consumers exhibiting a greater concern over losses than gains.

Cash reward. The principles of libertarian-paternalistic decision framing and loss aversion would come into play if HD/HSA plan enrollees were offered a cash reward for increasing their HSA balance. Some employees, especially those who are very young and healthy, might feel “ripped-off” if they make HSA contributions that are not needed to pay for medical expenses. They might regret (feel a loss from) using available resources to fund an HSA rather than using them for a more rewarding activity in the short run. Prospect Theory explains that this feeling of loss can be intense. Schwarcz (2010) has called the pain of this loss a “psychic cost” (p. 571) and suggested that a “tontine” (p. 571), or reward, given in this situation could reduce, eliminate, or neutralize the pain of this loss.

According to Merriam-Webster, a tontine is “a joint financial arrangement whereby the participants usually contribute equally to a prize that is awarded entirely to the participant who survives all the others.” Baker and Siegelman (2010), in applying the idea of tontines to health insurance, proposed “a new form of health insurance targeted at this group—the ‘Young Invincibles’—those who (wrongly) believe that they do not need health insurance because they won’t get sick. Our proposal offers a cash bonus to those who turn out to be right in their belief that they did not really need health insurance” (p. 79).

A cash reward could be part of an HSA plan design. An employer could give a yearly reward to those participants who contribute to their HSA and do not withdraw more than the annual contribution. In this case, the HSA account balance would increase annually. There are several potential benefits of this approach. First, it might encourage HSA contributions, which then would be available if needed. Second, it might encourage

participants not to withdraw their HSA funds, which would then be available for future medical expenses or retirement income. Third, it might reduce moral hazard by further motivating the insured to reduce medical spending.

Enhanced Active Choice. Keller, Harlan, Loewenstein, and Volpp (2011) applied the principles of decision framing and loss aversion to develop the idea of Enhanced Active Choice (EAC). EAC “favors one alternative by highlighting the losses incumbent in the non-preferred alternative” (Keller et al., 2011, p. 376). When enrolling employees in any type of savings plan, such as a 401(k) or an HSA, employers must set a default option. The default option might be framed in such a way that employees must opt in (choose to participate) or opt out (choose not to participate).

Keller’s idea is to allow consumers the choice to opt in but to emphasize the losses of the non-preferred alternative. In her seminal work on EAC (concerning flu shots), she compared the result of asking people to opt in, giving them the Active Choice to participate, and offering an EAC to participate. All three formats were varying ways of asking respondents to choose to participate. First, each respondent was exposed to information about the benefits of getting a flu shot. Then, in the opt-in group, respondents were asked to “Place a check in the box if you will get a flu shot this fall.” In the Active Choice group, respondents were asked to “Place a check in one box: I will get a flu shot this fall or I will not get a flu shot this fall.” In the EAC group, respondents were asked to choose between two alternatives, “I will get a flu shot this fall to reduce my risk of getting the flu and I want to save \$50” or “I will not get a flu shot this fall even if it means I may increase my risk of getting the flu and I don’t want to save \$50.” She found that both the Active Choice and the EAC conditions resulted in a significant increase in

the number of respondents agreeing to obtain a flu shot; furthermore, 75% of respondents agreed when exposed to EAC language compared to 62% with only Active Choice language.

Several studies about 401(k) funding have found a significant improvement in the level of personal contributions when this choice was set as the default option (Madrian & Shea, 2001; Thaler & Benartzi, 2004). When the choice to contribute is set as the default option, employees are forced to make 401(k) contributions unless they opt out. Although this approach might be an advantageous way to frame the funding decision for a 401(k) plan, it does not seem appropriate for HSAs because of the current 20% penalty for withdrawing HSA funds for non-medical purposes and because penalty-free, non-medical withdrawals are not allowed until the insured reaches the age of 65. The current penalty for early withdrawals from a 401(k) plan is 10%, and penalty-free withdrawals are allowed at the age of 59.5.

Employers designing HD/HSA plans must decide whether to have employees opt in or opt out of making personal HSA contributions. However, another option is to have employees choose whether or not to participate while considering the benefits of the desired choice (participation) and the losses of the non-preferred alternative (non-participation). Exposing employees to this EAC language is likely to increase the level of personal HSA funding.

Hypotheses

Based on (a) classical economic theory, (b) the behavioral economics principles of libertarian-paternalism, decision framing, and loss aversion, and (c) a review of the

suggestions and findings of current literature, the current study proposed that the HSA contribution level chosen by participants will increase under the following conditions:

- H₁. An annual cash reward is given to those whose HSA balance increases by at least a prescribed minimum amount during the year.
- H₂. Each participant receives educational instruction about the benefits of HSA funding.
- H₃. The choice to make personal HSA contributions is presented to participants as an Enhanced Active Choice.
- H₄. Employers are willing to match some portion of employee contributions.

As discussed earlier, several important demographic variables influence HSA funding levels. Therefore, the current study also expected to find an influence based upon self-reported income and health status. The expectation was that HSA funding would be positively influenced by higher income and less favorable health conditions.

In order to test the hypotheses, two experiments were developed. Chapter 3 discusses the methodology of the two experiments. Chapter 4 presents the results, and Chapter 5 discusses implications of the findings for both employers and policy makers.

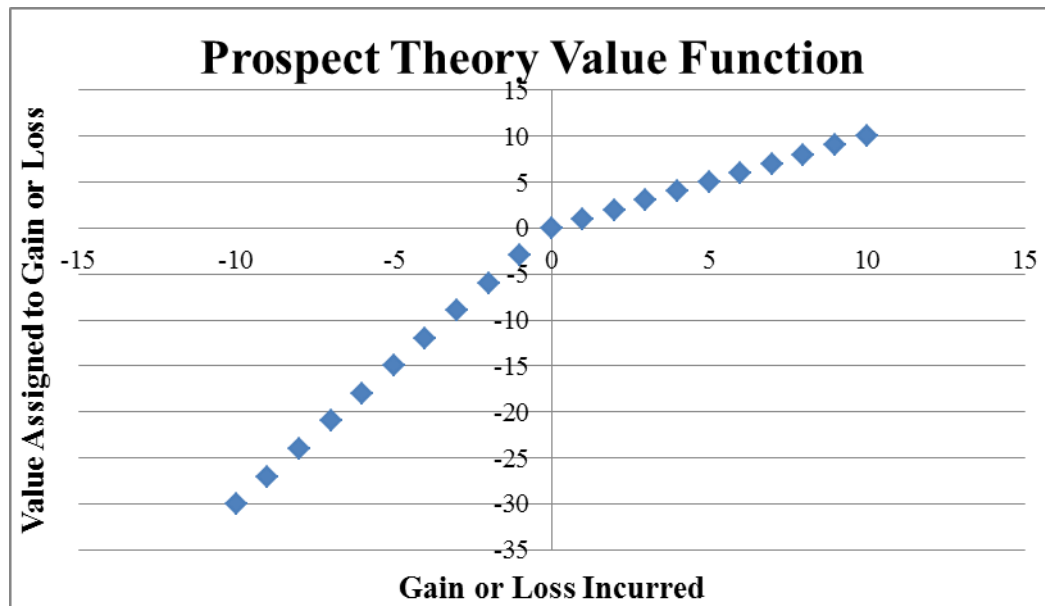


Figure 1. Graph of Prospect Theory Value Function

CHAPTER 3

METHODOLOGY

Great benefits result when a high-deductible health insurance plan participant opens a health savings account (HSA) and makes personal contributions to it. These benefits include saving tax dollars and, most importantly, having funds available to defray the cost of needed health care. As established in Chapters 1 and 2, the actual level of such personal HSA contributions is quite low. Therefore, this study investigated factors that motivate HSA account holders to make personal HSA contributions. Based on previous research and the theoretical framework discussed in the second chapter, four hypotheses were developed. To address the research question, two experimental online surveys (Appendix A) were designed to assess the validity of the hypotheses: the HSA contribution level chosen by plan participants will increase when (H₁) an annual cash reward is given to those whose HSA balance increases by at least a prescribed minimum amount during the year, (H₂) participants receive educational instruction about the importance of HSA funding, (H₃) the choice to make personal HSA contributions is presented to participants as an Enhanced Active Choice, and (H₄) employers are willing to match employee contributions. Chapter 3 discusses how the hypotheses were operationalized and describes the resulting experimental design. The variables used in the analysis and the plan for the five-part data analysis are explained as well.

Operationalization of Hypotheses

The first hypothesis suggests that HSA account holders will increase their personal HSA contributions when offered an annual cash reward to increase their HSA account balance. Therefore, one of the treatments in the experimental design asked respondents to assume that their employer has decided to pay a \$250 annual cash reward to any employee whose HSA balance increases by \$500 during the year.

The second hypothesis suggests that HSA account holders will increase their personal HSA contributions if exposed to additional instruction (educational resources) about the importance of such contributions. There are many ways to deliver instruction to HSA account holders. To date, benefits information has been largely disseminated through physical documentation. But contemporary technology offers many new options. Benefits information could be disseminated via traditional methods and text messaging, Twitter, Facebook, or YouTube. Moses and Hogg (2009) suggested that “a good visual can cut across literacy, numeracy, and language barriers” (p. 23) and that benefits administrators should “supply messages through media they will see, read, and hear” (p. 26). In the two experiments, embedded video delivered additional instruction about the benefits of HSA funding. Respondents viewed three videos about the benefits of making personal HSA contributions. The videos contained the personal thoughts of three actual HSA account holders about the importance of making personal HSA contributions. Each video presented the personal and vivid thoughts of an individual who might have been considered a peer by the viewer. Block and Keller (1997) found that when respondents believed they could follow the recommendations in a message, vivid information was more persuasive than non-vivid information in health communications. Moses and Hogg

(2009) found that, concerning benefits information, “families and friends are key motivators” (p. 25). Beshears, Choi, Laibson, Madrian, and Milkman (2010) found that in some circumstances, peer feedback can help with retirement decisions.

The third hypothesis suggests that account holders will choose a higher level of personal HSA contributions if “nudged” in that direction by an Enhanced Active Choice to participate rather than a traditional opt-in choice. Enhanced Active Choice is a term coined by Keller et al. (2011). The idea is that consumers can be steered toward better decision making by being reminded of the benefits of the desired action while making the decision. Table 3 shows the opt-in and Enhanced Active Choice funding questions used in both experiments.

The experiments also were designed to examine the fourth hypothesis, that an employer matching contribution will motivate an increase in personal HSA contributions. A reasonable matching level had to be determined. Employer matching is common in 401(k) plans, and safe harbor 401(k) plans offer a 100% match up to 3% of compensation and a 50% match for contributions that fall between 3% and 5% of compensation (Internal Revenue Service, 2011a). Because HSAs are designed mainly to provide for needed health care expenses, tying employer contributions to compensation levels did not seem like a reasonable approach; after all, the health care of each employee is equally important. A reasonable solution was found by setting a 25% matching contribution with a maximum employer matching contribution of \$500. This level was used consistently in all experiments. A study of 401(k) plans indicated that a match of 25% increased 401(k) participation by 5% (Engelhardt & Kumar, 2007).

Overview of Approach

Two experiments were designed to collect data about the potential effects that high-deductible/health savings account (HD/HSA) plan design features have on the level of personal HSA contributions. Respondents participated in the experiments by completing an online survey. Each respondent participated in only one experiment. Appendix A contains the actual survey language, and Figures 2 and 3 reveal the flowcharts for each experiment. For both experiments, respondents consisted of English-speaking, U.S. residents who were between the ages of 20 and 60 and were nationally representative in terms of demographic characteristics. Data were analyzed using the statistical software SAS version 9.2.

Data Collection

Respondents were recruited using a Qualtrics Panel at a cost of \$6.00 per response. The Qualtrics Corporation is located in Provo, UT and is a provider of online survey software. At the time of the experiments, Qualtrics had a relationship with a large number of potential respondents. They knew the demographic information about each potential respondent through a double opt-in confirmation of identity. They used two methods to verify identities. First, they used the USPS to verify all postal addresses. Second, they tracked IP addresses to verify country of origin (Clearvoice Research, 2011).

Qualtrics confirmed by email (J. Hill, personal communication, August 11, 2011) that each respondent would only participate in one experiment. They based this assurance on the use of duplicate IP checks, Flash cookies, and the fact that they only sent one

invitation to each email address (Clearvoice Research, 2011). They coded Flash cookies to decrease the likelihood that any one computer would be used for multiple registrations.

Other benefits of using a Qualtrics panel included logic, survey flow, attention checks to make sure respondents were fully participating, and safeguards to keep respondents' personal information private (Qualtrics, 2011).

For this study, Qualtrics recruited respondents through an email invitation offering various incentives. In order to provide a nationally representative sample, increased incentives were offered to respondents who might have been minorities (Clearvoice Research, 2011).

Every effort was made to treat respondents with care and respect. Respondents were welcomed when viewing the online consent form and thanked for their participation. Prior to the recruitment of subjects, a Human Research Application (2012-10195-0) was completed and approved (9/24/11) by the University of Georgia Human Subjects Office and the Institutional Review Board. University guidelines were followed in the development of the experiment consent form.

Description of Instruments

Figures 2 and 3 provide a visual flowchart for the experiments. After giving consent, each respondent was asked whether single or family coverage best fit his or her situation. Then, each respondent viewed basic information about HD/HSA plans that matched his or her initial selection of single or family health insurance coverage. Next, the survey assumptions were presented. After viewing randomly assigned treatments, respondents answered questions designed to measure the dependent and independent variables.

Basic information about HD/HSA plans. At the beginning of each experiment, all respondents selected either single health insurance coverage (i.e., “covers you alone”) or family coverage (i.e., “covers you and other family members, including children and/or spouse”). This selection determined the insurance premiums, deductible levels, and HSA contribution amounts presented in the remainder of the experiment, all of which varied significantly between these two categories. Limiting the information to each respondent’s coverage category was intended to minimize confusion and maximize comprehension.

In each experiment, basic information about 2011 HD/HSA plans was given to the respondents (see Table 4). The current IRS Publication 969 titled “Health Savings Accounts and Other Tax-Favored Health Plans” is 22 pages long (Internal Revenue Service, 2011c). Ideally, all respondents would have already known, or been given an opportunity to read, every detail in this publication. However, including all of this information would have made the experiments both overwhelming and confusing. Instead, summarized, accurate, and relevant information about these plans was given to each respondent gradually across nine sequential web pages. The basic information included the fact that preventive care is often not subject to the deductible, an assumption based on recent research indicating that most HD/HSA plans offer this benefit (America’s Health Insurance Plans Center for Policy and Research, 2007).

The goal of the VIDEO treatment was to examine the impact of additional effort to educate HSA account holders about the benefits of HSA funding; accordingly, more information was provided to each respondent who was randomly assigned to the VIDEO treatment.

Assumptions. For HD/HSA plans, the actual cost of insurance premiums, the amount of the deductible, and the coverage details vary from plan to plan. For the two experiments, assumptions were made about the cost of insurance premiums and the amount of the deductible. The cost of insurance premiums and deductible amounts were based upon 2010 annual averages for covered workers reported by the Kaiser Family Foundation (Kaiser Family Foundation et al., 2010). Table 5 summarizes the assumptions made for the single-coverage and family-coverage experiments. One assumption presented in each experiment was that the respondent was covered exclusively by a HD/HSA plan and not by any other additional plan. This condition was based on IRS regulations that do not allow an employee to make HSA contributions when covered by a second, lower-deductible health insurance plan (Internal Revenue Service, 2011c). Respondents also were told that their current HSA balance was zero, eliminating any potential confusion caused by the assumption of an existing balance.

Treatments. Each respondent was randomly assigned to either the CONTROL group or one of seven treatment groups. An approximately equal number ($N = 30$) of respondents were assigned to each treatment. Respondents in the CONTROL group were not exposed to any additional information.

CASHREWARD. Respondents randomly assigned to the CASHREWARD treatment were asked to make the following additional assumption: “For the purposes of this survey, please assume your employer has decided to pay you a \$250 annual cash reward if your HSA balance increases by \$500 this year. The HSA balance will increase if you deposit more than you withdraw.”

MATCH. Respondents randomly assigned to the MATCH treatment were asked to make the following additional assumption: “For purposes of this survey, please assume your employer has decided to make a 25% match to your HSA contributions. The maximum employer matching contribution is \$500 per year. Here is how matching works: If you put \$100 into your HSA, your employer will contribute \$25. If you put \$1,000 into your HSA, your employer will contribute \$250. If you put \$2,000 into your HSA, your employer will contribute \$500.”

REWARDANDMATCH. Respondents randomly assigned to the REWARDANDMATCH group were asked to make both the CASHREWARD and MATCH assumptions described above.

VIDEO. Respondents randomly assigned to the VIDEO treatment were asked to view three video clips about the benefits of making personal HSA contributions. The clips contained the personal thoughts of three actual HSA account holders of various ages and gender. In the videos, the speakers answered the question “Why do you think it is important to make personal HSA contributions?” Each video presented the personal and vivid thoughts of an individual who might have been considered a peer. The individuals recorded in the videos were not given a prepared script or coached in any manner. Instead, they were encouraged to explain the need for personal HSA contributions as if speaking to a spouse or family member. The video clips, which average 1 minute in length, may be viewed at the following locations:

<https://web.gsc.edu/media/Facstaff/duke/dissertation/video1.flv>

<https://web.gsc.edu/media/Facstaff/duke/dissertation/video2.flv>

<https://web.gsc.edu/media/Facstaff/duke/dissertation/video3.flv>

Extra care was taken to make sure the respondents would be able to see the videos using various operating systems and browsers. The videos were viewable using Internet Explorer 9, Safari, Google Chrome, and Mozilla Firefox. Two questions were added to determine whether respondents actually viewed the videos: “Did you watch and listen to the video?” and “How many video clips did you view?”

VIDEOANDMATCH. Respondents randomly assigned to the VIDEOANDMATCH treatment were asked to view the three video clips and to make the MATCH assumption described above.

OPT-IN. The only unique part of the OPT-IN treatment was that respondents answered an additional question. They were asked either to opt in or opt out of making personal HSA contributions. The wording of the OPT-IN question is shown in Table 3.

EAC. The unique part of the EAC treatment was that respondents answered an additional question. They were asked whether they would make personal HSA contributions, and the question was formatted as an Enhanced Active Choice. In accordance with Enhanced Active Choice, the benefits of the desired response and costs/harms of the undesired response were presented. The wording of the EAC question is presented in Table 3.

The OPT-IN and EAC treatments were very similar. Both asked respondents to choose to participate in making HSA contributions. The difference is that the OPT-IN choice was a simple “yes” or “no” choice whereas in the EAC treatment respondents were exposed to additional language designed to nudge them towards the desired response.

Dependent variables. After treatment exposure, each respondent answered four dependent variable questions.

AMOUNT. Survey respondents selected the theoretical amount they would contribute to their HSA by answering the question “How much of your earnings would you put into your Health Savings Account (HSA) this year?” Ten choices were given. For family-coverage respondents, the choices ranged from \$0 to “More than \$400 per month.” For single-coverage respondents, the ten choices ranged from \$0 to “More than \$200 per month.” Different levels were needed for single and family coverage because the maximum contribution allowed by IRS guidelines was different for each group (Internal Revenue Service, 2011c). Because, for 2011, the IRS allowed HSA account holders with family coverage to contribute a little more than twice as much as those with single coverage (\$6,150 vs. \$3,050), the family-coverage choices were double the amount of the corresponding single-coverage choices. The option to make no contribution was always included because some respondents might not desire or feel financially able to contribute funds. The top end of the choice set was left open ended to prevent confusion caused by a potential matching contribution.

To improve the accuracy of the data analysis, the ten contribution levels were collapsed into five. This step was necessary to achieve the normal distribution required by ANOVA. The resulting dependent variable AMOUNT had five levels (1-5). The level “1” meant the respondent stated a \$0 contribution. For family-coverage respondents, a value of “2” meant the respondent stated a contribution of either \$50 or \$100 per month; “3” meant either \$150 or \$200; “4” meant either \$250 or \$300; and “5” meant either

\$350, \$400, or greater. The single-coverage values were half those of the family-coverage values.

PERCENT. Survey respondents were asked, “What percentage of the deductible would you contribute to your Health Savings Account (HSA) this year?” Six choices were given. The variable PERCENT is interpreted as follows: 1 = 0%, 2 = 25%, 3 = 50%, 4 = 75%, 5 = 100%, 6 = More than 100% of the deductible.

IMPORTANCE. Survey respondents were asked, “How important do you think it is to make contributions to your HSA?” On a 5-point Likert scale, the variable IMPORTANCE is interpreted as follows: 1 = Very Unimportant, 2 = Somewhat Unimportant, 3 = Neutral, 4 = Somewhat Important, 5 = Very Important.

APPROVAL. Respondents were asked, “What is your opinion of employers who offer this type of plan?” On a 5-point Likert scale, the variable APPROVAL is interpreted as follows: 1 = Strongly Disapprove of Employer, 2 = Disapprove of Employer, 3 = Neutral, 4 = Approve of Employer, 5 = Strongly Approve of Employer.

Demographic and health insurance information from respondents. After responding to the dependent variable questions, each respondent answered questions to describe their personal demographic and health insurance characteristics. Demographic information was gathered concerning education, race, employment status, income, gender, health status, marital status, number of children, housing status, age, and state of residence (all respondents were U.S. residents). Health insurance information gathered included whether the respondent was covered by health insurance at the time of the survey, how the coverage was obtained, the type of coverage, the respondent’s opinion about the adequacy of the coverage, and the respondent’s opinion about which group

(individuals, families, employers, or government) has the highest level of responsibility to provide for the health care expenses of individuals.

Personal comments. At the end of the survey, respondents were thanked for their participation and given the opportunity to type additional comments.

Testing

To find needed improvements, before data were collected via a Qualtrics panel, all experimental surveys were tested using two groups. One group consisted of 14 online undergraduate students. The viewpoint of these students was very valuable because several were married and had children. Online students offered online comments about any part of the survey they found confusing or offensive or that did not work properly. Eleven other undergraduate students tested the experiments in a computer lab setting. Constructive and helpful comments resulted in various changes to improve the experimental survey questions.

Data Modification

Two treatment groups (VIDEO and VIDEOANDMATCH) were asked to view three video clips. Questions were included to determine whether the clips were viewed at all and the number of clips viewed. Respondents who indicated they did not see the videos were moved either to the CONTROL (from VIDEO) or MATCH (from VIDEOANDMATCH) treatment group ($N = 2$). Two respondents gave a negative response to “see and hear the video” but also selected the appropriate level of three videos “viewed.” It was assumed that these respondents did not hear the videos. Therefore, they were also moved to CONTROL or MATCH as appropriate ($N = 2$). Those respondents who stated that they only saw one video were also moved ($N = 2$). In

all, a total of six respondents were moved to a different treatment group. Of the six, five had selected single coverage, and one had selected family coverage.

Data Analysis

Variables used in analysis. In Part 3 of the data analysis, the influence of several key independent variables was examined.

HIGHEDU. Survey respondents stated their level of education. Eight choices were given, ranging from “Less than High School” to “Professional Degree (JD, MD).” According to Fronstin and the EBRI (2010), enrollees in HD/HSA plans are more likely to be highly educated than enrollees in traditional plans. In particular, enrollees with at least a college degree are more likely to be enrolled in HD/HSA plans (Fronstin & EBRI, 2010). The dummy variable HIGHEDU was created and given a value of “1” if a respondent reported at least a “4-year College Degree.”

HIGHINC. Survey respondents self-reported “combined annual household income.” Ten choices were given, ranging from “Less than \$30,000” to “\$100,000 or more.” According to the AHIP Center for Policy and Research (2009), enrollees in at least the middle-income level had HSA deposits that were greater than the average for all enrollees. The AHIP cut-off for middle income was \$50,000 a year (2000 dollars). Using the Consumer Price Index, \$50,000 in year 2000 dollars is approximately equivalent to \$64,800 in year 2010 dollars. The dummy variable HIGHINC was created and given a value of “1” if a respondent self-reported a combined annual household income of \$60,000 or more.

HIGHHEALTH. Survey respondents self-reported their own health status and the health status of as many as six other family members. A 5-point Likert scale, ranging

from “Excellent (1)” to “Poor (5),” was used to measure this variable. This approach seemed suitable because it has been used in other important health surveys, such as the Rand 36-Item Short Form Health Survey (RAND Health, 2011) and the Kaiser Permanente 2008 Member Health Survey (Kaiser Permanente, 2008). The scores reported for individual family members were averaged to produce an average family health score. The average family health scores ranged from 1, which indicated all family members were in excellent health, to 5, which indicated that all family members were in poor health. The dummy variable HIGHHEALTH was created and given a value of “1” if the average family health score was equal to “1.” This level was chosen because those with excellent health are likely to have very low annual family medical expenses.

Three respondents did not report the health status for themselves or any other family member. These three respondents were assigned an average family health score of “2,” the average score for all other respondents.

HIGHIND/HIGHGOV. Respondents were asked to rank, from greatest (4) to least (1), the relative responsibility of individuals, families, employers, and the government to “provide for the health care expenses of individuals.” The dummy variable HIGHIND was created and given a value of “1” if the respondent reported that individuals have the highest level of responsibility; otherwise, the value of zero was assigned. This variable is important because those respondents who feel personally responsible for providing for their own health care might contribute a higher amount to their HSA. The dummy variable HIGHGOV was created and given a value of “1” if the respondent reported government as having the highest level of responsibility and zero otherwise.

COVEREDHDHP. Respondents self-reported whether they already had health insurance coverage and the type of coverage. The dummy variable COVEREDHDHP was created and given a value of “1” if the respondent reported coverage by a HDHP and zero otherwise.

SATISFIED. Survey respondents reported their current level of satisfaction with their own personal health insurance coverage. A 3-point scale was used, ranging from “(1) My health insurance is good, and I feel well-protected when it comes to my family’s health care needs” to “(3) My health insurance is inadequate, and I feel very worried about my family’s health care needs not being paid for.” The dummy variable SATISFIED was created and given a value of “1” if a respondent reported the highest level of personal satisfaction.

Five-part data analysis. In the five-part analysis of the resulting data set, single-coverage and family-coverage respondents were examined separately. This separation was necessary because the cost of insurance, deductible levels, and maximum HSA contribution levels were dramatically different for the two groups.

Part 1. In Part 1 of the data analysis, the difference between the mean level of the dependent variables (AMOUNT, PERCENT, IMPORTANCE, and APPROVAL) for each of the seven treatment groups and the CONTROL group was examined. Once the difference between means was found, ANOVA was used to determine whether the difference was statistically significant. The goal of Part 1 was to learn whether any of the treatments was associated with a significant change in AMOUNT, PERCENT, IMPORTANCE, and/or APPROVAL for either single-coverage or family-coverage respondents.

Part 2. In Part 2 of the data analysis, the percentage of EAC respondents who stated that they would make HSA contributions was compared to the percentage of OPT-IN respondents who stated that they would make a contribution. The goal was to learn whether a significantly greater percentage affirmed that they plan to contribute. Chi-square tests were used to assess significance.

Part 3. In Part 3, Two-Way ANOVA was used to determine the effect on the AMOUNT variable of the treatments and the other independent variables. Each independent variable was introduced separately. The independent variables examined were HIGHIND, HIGHGOV, HIGHHEALTH, COVEREDHDHP, SATISFIED, HIGHINC, and HIGHEDU. In the Two-Way ANOVAs, the main effect of the interaction between treatment and independent variable also was examined. If the interaction was found to be insignificant ($p < .05$), the variable was removed from the model. If the interaction was found to be significant, further analysis was conducted in order to test the simple effects.

Part 4. The goal of Part 4 of the analysis was to understand whether any treatment was associated with a higher percentage of respondents selecting a non-zero AMOUNT level. Each of the treatment groups was compared individually to the CONTROL group. Chi-square tests were used to assess significance.

Part 5. In Part 5, only those respondents who selected a non-zero level for the AMOUNT variable were examined. The difference between the mean level of the dependent variable AMOUNT for each of the seven treatment groups and the CONTROL group was examined. Once the difference between means was found, ANOVA was utilized to determine whether the difference was statistically significant. The goal of Part

5 was to learn whether, for those respondents selecting a non-zero AMOUNT level, any of the treatments was associated with a significant change in AMOUNT for either single-coverage or family-coverage respondents.

Summary

Chapter 3 described the method for operationalizing the four hypotheses. The experimental survey utilized was described as well as the five-part data analysis. Chapter 4 presents the results of the analysis. Then, Chapter 5 presents the discussion, conclusions, and significance of the research for stakeholders.

Table 3

Opt-in and Enhanced Active Choice HSA Funding Questions

Opt-in:

Would you make contributions to a Health Savings Account (HSA) this year?

Yes

No

Enhanced Active Choice:

Please select the response below which is most descriptive of what you would do:

I WOULD contribute to my HSA this year so that:

I WOULD accumulate money to pay my health insurance deductible

I WOULD accumulate money to pay for future medical expenses and possibly retirement

Taxes WOULD NOT be withheld on earnings I contribute to the HSA

(option 1)

I WOULD NOT contribute to my HSA this year even if it means:

I WOULD NOT accumulate money to pay my health insurance deductible

I WOULD NOT accumulate money to pay for future medical expenses and possibly retirement

Taxes WOULD be withheld on all of my earnings

(option 2)

Table 4

Basic Information about High-Deductible Health Insurance Plans and Health Savings Accounts Given to Every Respondent (family coverage)

Introduction to health insurance

All health insurance plans help pay for health care services. Sometimes there is a deductible. A deductible is the amount you owe for health care services your health insurance covers before your health insurance begins to pay. For example, if your deductible is \$1,000, your plan won't pay anything until you've met your \$1,000 deductible for covered health care services subject to the deductible. The deductible may not apply to all services.

Preventive care

Preventive care is medical care to prevent disease. Often, health insurance pays for 100% of preventive care. Often, preventive care is not subject to the deductible.

With a high-deductible health insurance plan:

1. The deductible must be at least \$2,400 (for family coverage in 2011).
2. Generally, the insurance company pays for preventive care (annual physicals, mammograms, etc.).
3. Generally, the monthly premium is low.
4. Participants are allowed to contribute to a Health Savings Account.

Let me tell you about Health Savings Accounts (HSA)

1. A Health Savings Account is an account where an account holder can save money to pay for deductibles and other medical expenses.
2. Earnings (wages/salary) an account holder puts into an HSA are not subject to federal income tax.
3. Money an account holder takes out of an HSA to pay for medical expenses is not taxed.
4. Money taken out of an HSA for non-medical expenses (before the age of 65) is subject to income tax and a 20% (2011) penalty.

More facts about Health Savings Accounts (HSA)

1. Money put into an HSA can be invested in stocks, bonds, and other investments (like a retirement account).
2. Returns on investments in an HSA are not taxed when earned.

HSA money does not have to be spent each year.

HSA funds can be saved for future medical expenses or even for retirement. The money belongs to the account holder.

HSA funds are portable.

An HSA moves with an account holder when employment changes.

Table 4 (*Continued*)
*Basic Information about High-Deductible Health Insurance Plans and Health Savings
Accounts Given to Every Respondent (family coverage)*

Three More Facts about Health Savings Accounts (HSA)

1. Penalty-free non-medical withdrawals

Once an account holder reaches the age of 65, he or she can withdraw HSA money for any reason without penalty. These withdrawals will still be subject to income tax.

2. Maximum contribution

For 2011, an eligible person with family coverage can invest up to \$6,150 in an HSA.

3. Eligibility

Only people with a high-deductible health insurance plan can have an HSA.

Note. This table is based upon family coverage.

Table 5
Summary of Assumptions for Single and Family Coverage

	<u>Single Coverage</u>	<u>Family Coverage</u>
Cost of insurance premium	\$50 monthly/\$600 annually	\$300 monthly/\$3,600 annually
Level of deductible	\$3,000	\$4,000
Other insurance policy	You have no other health insurance coverage	You have no other health insurance coverage
Coverage	Covers you only	Covers you and other family members
Current HSA balance	\$0	\$0

Note. The cost of insurance premiums and deductibles are based upon national averages for 2010 (Kaiser Family Foundation, Health Research and Educational Trust, & National Opinion Research Center, 2010). Maximum annual HSA contributions are established by statute.

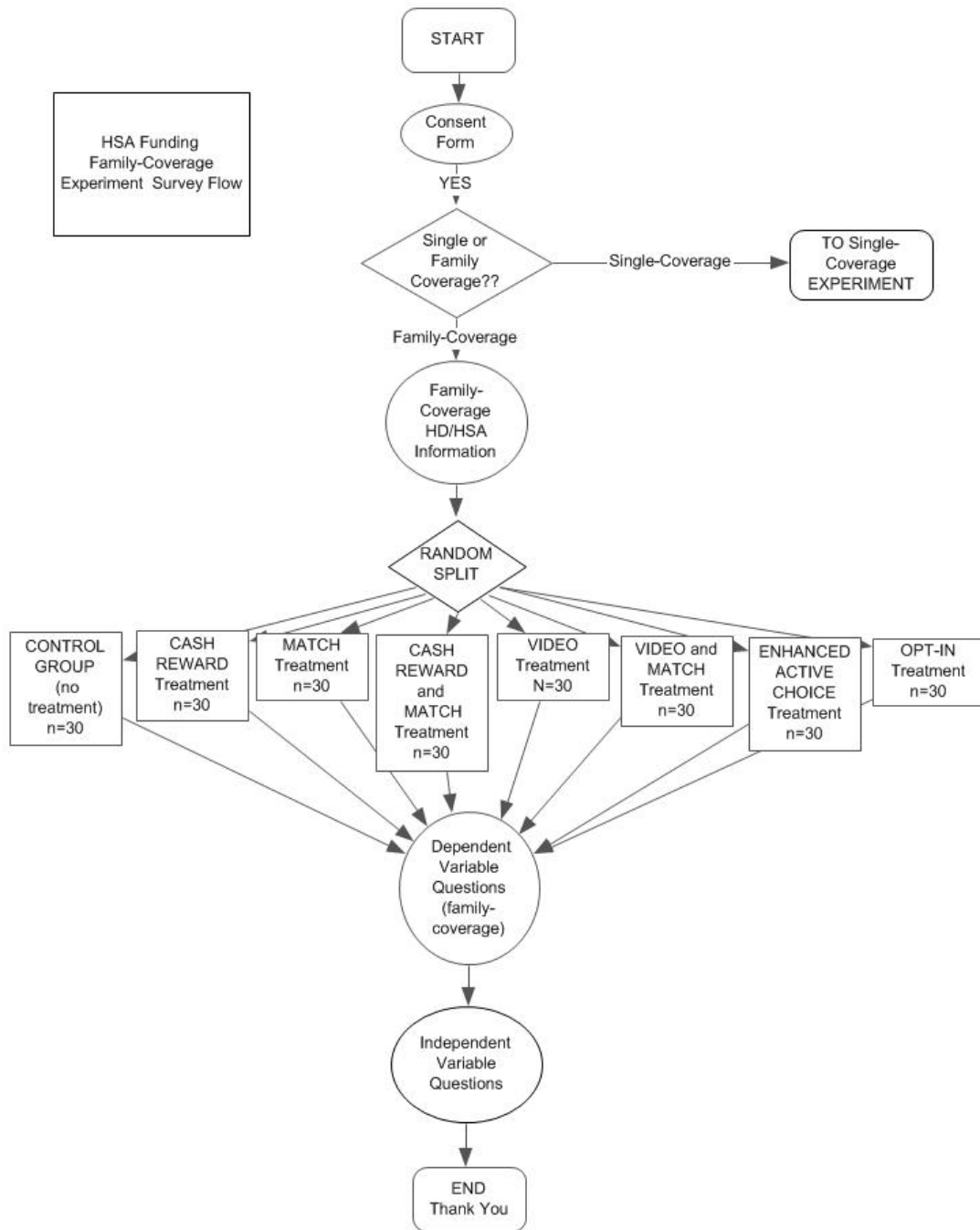


Figure 2. Family-Coverage Experiment Survey Flow

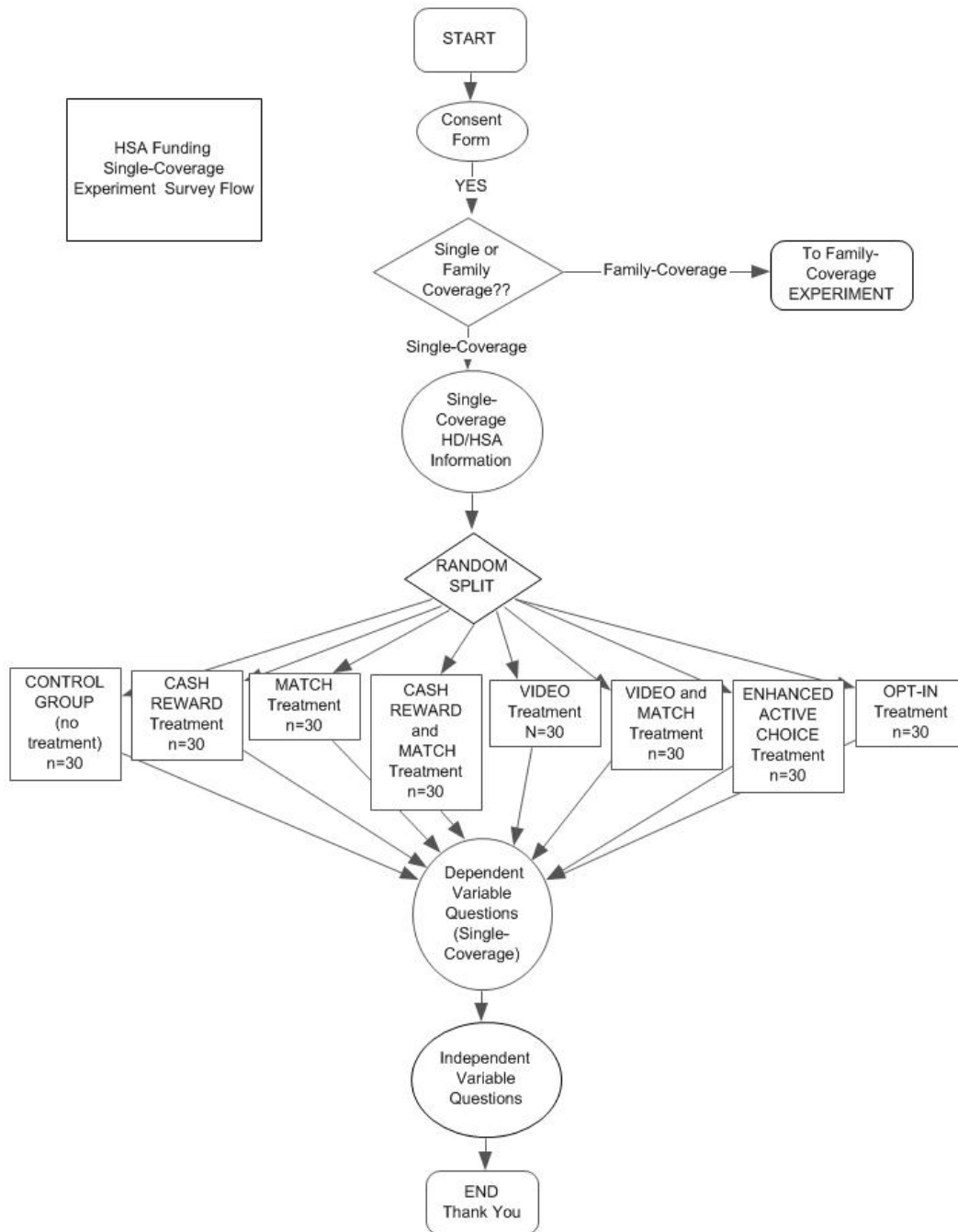


Figure 3. Single-Coverage Experiment Survey Flow

CHAPTER 4

RESULTS

Two experiments, one for single-coverage respondents and one for family-coverage respondents, were conducted in order to verify or discredit the four hypotheses stated at the end of Chapter 2, that is to test whether and to what extent various factors might play a role in motivating individuals who are insured by high-deductible/health savings account (HD/HSA) plans to make personal HSA contributions. Also examined was the effect of the same factors on the other dependent variables. The methodology described in Chapter 3 was used to conduct the experiments and analyze the collected data. The sections below present the results of the five-part data analysis.

Data Collection and Modification

After the experiments were designed and tested, the data were collected by the Qualtrics Corporation of Provo, UT, as described in the methodology chapter. Data collection began on September 28, 2011 and ended on October 5, 2011. The 505 respondents self-selected either family ($N = 253$) or single ($N = 252$) health insurance coverage. After they selected the appropriate type of coverage, the respondents were randomly assigned to either the CONTROL group or one of seven experimental treatment groups. In order to strengthen the validity of the experimental results, an equivalent number of respondents were randomly assigned to each treatment and to the CONTROL group. Table 6 displays the number of respondents for each treatment. Responses were

collected and delivered to the researcher as an Excel spreadsheet. The spreadsheet data were subsequently modified, as explained in the methodology chapter.

Description of Data

Table 7 reveals the demographic characteristics of the single-coverage and family-coverage respondents. Respondents came from all age groups, but respondents were predominantly white and more female than male in both experiments. Although about one-half of the respondents in both experiments were employed full-time, 31% of the family-coverage respondents and 28% of the single-coverage respondents reported their employment status as “other.” These respondents might have been students, retired, or disabled. Another possibility is that these respondents were employed both full and part-time and felt that the “other” category best described their personal work life.

In addition, descriptive information was gathered from the respondents about aspects of their health insurance coverage. This information is presented in Table 8. The vast majority of respondents were covered by a health insurance policy (95.64%). Of those covered, 64.39% were provided coverage through their own employer or the employer of their spouse. Of those covered, 10.97% were covered by a high-deductible health insurance plan (HDHP).

Data Analysis, Part 1

The goal in Part 1 of the data analysis was to examine the effect of each treatment on the dependent variables AMOUNT, PERCENT, IMPORTANCE, and APPROVAL. Single-coverage and family-coverage respondents were examined separately. Each treatment group was examined in comparison to the control group.

As reported in Table 9, the mean value of the AMOUNT variable for the sample was higher for each treatment than the control group with few exceptions. An ANOVA with AMOUNT as the dependent variable and treatment method as the independent variable elicited a significant main effect of the VIDEO treatment for family-coverage respondents ($F(1, 60) = 6.37, p = .0143$) and single-coverage respondents ($F(1, 64) = 4.09, p = .0474$). Family-coverage respondents who viewed the three videos selected a higher AMOUNT level than those in the CONTROL group ($M_{\text{video}} = 3.15, SE = .208$ vs. $M_{\text{control}} = 2.40, SE = .215$). The difference in means was similar for single-coverage respondents ($M_{\text{video}} = 2.86, SE = .209$ vs. $M_{\text{control}} = 2.29, SE = .172$). None of the other ANOVAs were significant for the AMOUNT dependent variable.

For all respondents, the sample mean of the AMOUNT variable was lower for the MATCH treatment than the control group. The result was mixed for the EAC treatment; a higher mean AMOUNT was found for family-coverage respondents, and a lower mean AMOUNT was found for single-coverage respondents. EAC and OPT-IN results will be discussed in more detail in Part 2 of the analysis.

The PERCENT and AMOUNT variables were highly correlated for both family-coverage and single-coverage respondents (all $p < .0001$). The correlation between the AMOUNT and PERCENT variables is logical and indicates that respondents understood that the two variables have similar meanings. However, no clear pattern, or statistical significance, was found between the PERCENT variable and the treatments. This finding might be due to difficulty among the respondents in understanding how a commitment to contribute a certain percentage of the deductible would affect their monthly cash flow.

None of the treatments showed a significant effect on the mean value of the IMPORTANCE variable. The importance that each respondent placed on HSA funding might be attributable to exogenous factors, not the treatments examined.

Most of the treatments were associated with a higher mean level for the APPROVAL variable, but only one treatment produced a mean that was significantly higher. Single-coverage respondents in the VIDEO treatment group stated a significantly higher mean level of APPROVAL of the employer offering the plan ($F(1, 64) = 4.53, p = .0371$).

Data Analysis, Part 2

The goal of Part 2 was to examine whether respondents given an Enhanced Active Choice (EAC) rather than an opt-in (OPT-IN) choice would be more likely to state that they would not only make personal HSA contributions but also contribute higher amounts. Respondents who selected family coverage were examined separately from those who selected single coverage.

Table 10 reports the results, which were mixed. Of the 64 family-coverage respondents given either an EAC ($N = 31$) or OPT-IN choice ($N = 33$), 54 (84%) selected that they would make HSA contributions. Of those given an EAC, 93.5% ($N = 29$) stated that they would contribute. This percentage is higher than the 75.8% ($N = 25$) who selected to contribute when given the OPT-IN choice ($X^2 = 3.83, df = 1, p = .0501$). EAC produced the expected result for family-coverage respondents.

Of the 61 single-coverage respondents given either an EAC ($N = 30$) or an OPT-IN choice ($N = 31$), 47 (77%) selected that they would make HSA contributions. Of those given an EAC, 70% ($N = 21$) said that they would contribute. This percentage was lower

than the 83.87% ($N = 26$) who selected to contribute when given the choice to opt in; however, the difference was not statistically significant ($X^2 = 1.65$, $df = 1$, $p = .1978$). For the single-coverage respondents, the results did not support the hypothesis that EAC would make plan participants more likely to make personal HSA contributions.

However, even though a significantly higher number of family-coverage respondents stated an intention to make HSA contributions, the results indicated no significant effect on the AMOUNT that would be contributed by either single-coverage or family-coverage respondents. As reported in Part 1 of the analysis, when the EAC and OPT-IN groups were compared individually to the CONTROL group, the mean values of the AMOUNT variable were not significantly different (all $p > .15$).

Next, EAC and CONTROL respondents with a non-zero AMOUNT level were compared to see whether the EAC respondents would contribute a different AMOUNT. Table 11 reports the number of respondents for each treatment with a non-zero level for the AMOUNT variable. Once again, the results were not significant for either family ($p = .2900$) or single coverage ($p = .6108$).

Data Analysis, Part 3

The goal of Part 3 of the data analysis was to determine the influence of other independent variables on the amount that respondents stated they would contribute to their HSAs. The additional variables, defined in Chapter 3, were HIGHIND, HIGHGOV, HIGHHEALTH, COVEREDHDHP, SATISFIED, HIGHINC, and HIGHEDU. Two-Way ANOVA models were utilized with two between-subjects factors. Each independent variable was introduced separately, and single-coverage and family-coverage respondents were analyzed separately. The main effect of the independent variable and the treatments

was examined as well as any interaction between the independent variable and the treatments. The interaction was removed from the model when found to be insignificant ($p > .05$). Tables 12 and 13 report the results of the analysis. A significant difference in the AMOUNT variable was not found for HIGHIND, HIGHGOV, and SATISFIED.

For family-coverage respondents, the analysis revealed a significant main effect for COVEREDHDHP ($F(1, 244) = 10.00; p = .0018$). Tukey's HSD test indicated that family-coverage respondents ($N=25$) who self-reported personal health insurance coverage by an HDHP selected a higher AMOUNT level than those not reporting HDHP coverage ($M_{\text{COVEREDHDHP}=1} = 3.27, SE = .230$ vs. $M_{\text{COVEREDHDHP}=0} = 2.50, SE = .075$). The main effect for the treatments was also significant ($p = .0033$). The treatment group difference in contributions was discussed in Part 1 of the analysis. The interaction between COVEREDHDHP and treatment group proved not to be significant and was removed from the model ($F(7, 237) = 1.15; p = .3336$).

For family-coverage respondents, the analysis also revealed a significant main effect for HIGHEDU ($F(1, 244) = 6.08; p = .0144$). Tukey's HSD test indicated that family-coverage respondents ($N=103$) who self-reported a personal education level of at least a bachelor's degree selected a higher AMOUNT level than those reporting a lower education level ($M_{\text{HIGHEDU}=1} = 2.79, SE = .115$ vs. $M_{\text{HIGHEDU}=0} = 2.42, SE = .094$). The main effect for the treatments was also significant ($p = .0022$). The treatment group difference in contributions was discussed in Part 1 of the analysis. The interaction between HIGHEDU and treatment group proved not to be significant and was removed from the model ($F(7, 237) = 1.62; p = .1315$).

For family-coverage respondents, the analysis revealed a significant interaction between HIGHHEALTH and TREATMENT ($F(7, 237) = 2.29, p = .0283$). Subsequent analyses demonstrated that there was a simple effect for HIGHHEALTH in two treatment groups: MATCH and EAC. The HIGHHEALTH group displayed higher AMOUNT scores for the MATCH treatment ($N = 3$), $F(1, 30) = 8.5, p = .0067$ ($M_{\text{HIGHHEALTH}=1} = 3.66, SE = .544$ vs. $M_{\text{HIGHHEALTH}=0} = 2.00, SE = .175$). The HIGHHEALTH group also displayed higher AMOUNT scores for the EAC treatment ($N = 6$), $F(1, 29) = 6.93, p = .0134$ ($M_{\text{HIGHHEALTH}=1} = 3.83, SE = .461$ vs. $M_{\text{HIGHHEALTH}=0} = 2.48, SE = .226$). The interaction between HIGHHEALTH and the other treatments was not significant.

For single-coverage respondents, the analysis revealed a significant main effect for HIGHINC ($F(1, 243) = 15.08; p = .0001$) (see Table 12). Tukey's HSD test indicated that single-coverage respondents ($N=56$) who self-reported a combined family income of \$60,000 or greater selected a higher AMOUNT level than lower-income respondents ($M_{\text{HIGHINC}=1} = 2.93, SE = .143$ vs. $M_{\text{HIGHINC}=0} = 2.30, SE = .076$). The main effect for the treatments was also significant ($p = .0120$). The treatment group difference in contributions was discussed in Part 1 of the analysis. The interaction between HIGHINC and treatment group proved not to be significant and was removed from the model ($F(7, 236) = 1.89; p = .0717$).

For single-coverage respondents, the analysis also revealed a significant main effect for HIGHEDU ($F(1, 243) = 10.54; p = .0013$). Tukey's HSD test indicated that single-coverage respondents ($N = 126$) who self-reported a personal education level of at least a bachelor's degree selected a higher AMOUNT level than those reporting a lower education level ($M_{\text{HIGHEDU}=1} = 2.66, SE = .096$ vs. $M_{\text{HIGHEDU}=0} = 2.21, SE = .097$). The

main effect for the treatment was found not to be significant ($p = .0888$). The interaction between HIGHEDU and the treatment group also proved not to be significant and was removed from the model ($F(7, 236) = .74$; $p = .6352$).

To examine further any statistical relationship between AMOUNT and HIGHIND, HIGHGOV, HIGHFAM (i.e., families have the highest level of responsibility to cover health care expenses of individuals), and HIGHEMP (i.e., employers have the highest level of responsibility), additional Two-Way ANOVA analyses were conducted. In the analyses, respondents were divided into two groups. One group included respondents who reported that either individuals or families have the highest level of responsibility (i.e., within the household). The second group consisted of those respondents who stated that the highest responsibility was held by either employers or the government (i.e., outside of the household). The results were not significant for either family-coverage ($p = .2865$) or single-coverage ($p = .3028$) respondents.

Data Analysis, Part 4

Part 4 of the analysis examined whether there was a treatment difference in the number of respondents selecting a non-zero level for the AMOUNT variable. The goal was to learn whether any of the treatments were associated with a greater number of respondents who selected a non-zero AMOUNT. Table 11 reports the number and percentage of respondents, by treatment, who selected a zero or non-zero level for the AMOUNT variable.

Chi-square tests were used to compare the number of non-zero respondents for each treatment group to the CONTROL group. None of the treatment groups, for either

single-coverage or family-coverage respondents, had a significantly different number of non-zero respondents (all $p > .05$).

Data Analysis, Part 5

Part 5 of the data analysis examined the treatment effect, if any, on the AMOUNT variable for only those respondents who stated a non-zero HSA contribution. Each treatment group was compared individually to the CONTROL group. The only significant relationship was for family-coverage respondents in the VIDEO group. Of those respondents selecting a non-zero HSA contribution, the level for the AMOUNT variable was significantly higher for those in the VIDEO group ($F(1, 55) = 6.47, p = .0138$). Family-coverage respondents who viewed the three videos and stated a non-zero HSA contribution selected a higher AMOUNT level than those in the CONTROL group who also stated a non-zero contribution level ($M_{\text{video}} = 3.30, SE = .201$ vs. $M_{\text{control}} = 2.55, SE = .212$).

Summary of Results

In summary, Part 1 revealed that the level of HSA contribution selected was positively influenced by the VIDEO treatment for both single-coverage and family-coverage respondents. Also, the VIDEO treatment positively influenced the single-coverage respondents' APPROVAL rating for the employer offering the plan. Part 2 did not reveal any statistically significant effect of configuring the HSA funding question as an Enhanced Active Choice. However, the percentage of family-coverage respondents stating that they would contribute was marginally significantly higher ($p = .0501$). Part 3 revealed that the level of HSA funding selected was positively influenced by high levels of education for both single-coverage and family-coverage respondents. For family-

coverage respondents, HSA funding was also higher when respondents self-reported coverage by an HDHP. For single-coverage respondents, HSA funding was also higher when respondents self-reported higher income. Part 4 revealed that the different treatments did not have a significant impact on the number of respondents selecting a non-zero contribution. Part 5 examined only respondents selecting a non-zero HSA contribution amount, revealing that, for family-coverage respondents, the VIDEO treatment was associated with a higher AMOUNT level.

Table 6
Number of Respondents by Treatment

Treatment	Family Coverage	Single Coverage
CONTROL	30	37
CASHREWARD	33	31
MATCH	32	37
REWARDANDMATCH	33	31
VIDEO	32	29
VIDEOANDMATCH	29	26
OPT-IN	33	31
EAC	31	30
Total	253	252

Note. A few respondents were moved from the VIDEO group to the CONTROL group. A few respondents were moved from the VIDEOANDMATCH groups to the MATCH group. This switch was due to a negative response about exposure to the VIDEO treatment. The VIDEO treatment required viewing three video clips. A total of 6 respondents were moved.

Table 7

Demographic Characteristics of Respondent Samples

	Family Coverage (N = 253)		Single Coverage (N = 252)		Total (N = 505)	
	N	Percent	N	Percent	N	Percent
Gender						
Female	179	70.75	151	59.92	330	65.35
Male	74	29.25	101	40.08	175	34.65
Education						
High school or less	44	17.39	52	20.63	96	19.01
Some college	106	41.90	74	29.37	180	35.64
Bachelor's degree	64	25.30	85	33.73	149	29.51
Graduate degree	39	15.41	41	16.27	80	15.84
Income						
\$0-\$40,000	69	27.27	117	46.43	186	36.83
\$40,001 - \$60,000	62	24.51	79	31.35	141	27.92
\$60,001 - \$80,000	57	22.53	28	11.11	85	16.83
\$80,001 - \$100,000	36	14.23	12	4.76	48	9.51
More than \$100,000	29	11.46	16	6.35	45	8.91
Race						
White/Caucasian	187	73.91	174	69.05	361	71.49
African American	30	11.86	34	13.49	64	12.67
Other	36	14.23	44	17.46	80	15.84
Employment status						
Full time	126	49.80	132	52.38	258	51.09
Part time	31	12.25	30	11.90	61	12.08
Self-employed	17	6.72	19	7.54	36	7.13
Other	79	31.23	71	28.18	150	29.70
Age:						
19 - 29	62	24.51	91	36.11	153	30.30
30 - 39	75	29.64	52	20.64	127	25.15
40 - 49	53	20.95	56	22.22	109	21.58
50 and older	63	24.90	53	21.03	116	22.97

Note. All respondents verified being of an age between 19 and 61.

Table 8

Demographic Health Insurance Characteristics of Respondent Samples

	Family Coverage (N=253)		Single Coverage (N=252)		Total (N=505)	
	N	Percent	N	Percent	N	Percent
Covered by Insurance						
Yes	243	96.05	240	95.24	483	95.64
No	10	3.95	10	3.97	20	3.96
Does not know	0	0	2	.79	2	.40
Provider						
Employer	103	42.39	126	52.50	229	47.41
Spouse's employer	80	32.92	2	.83	82	16.98
Parent	19	7.82	9	3.75	28	5.8
Self-purchase	13	5.35	52	21.67	65	13.46
Other	27	11.11	48	20.00	75	15.52
Does not know	1	.41	3	1.25	4	.83
Type						
HDHP	25	10.29	28	11.67	53	10.97
PPO	119	48.97	89	37.08	208	43.06
HMO	56	23.05	68	28.33	124	25.67
POS	10	4.12	11	4.58	21	4.35
Uninsured/Other	15	6.17	28	11.67	43	8.91
Does not know	18	7.41	16	6.67	34	7.04
Rate Insurance:						
Good	146	57.71	138	54.76	284	56.24
Adequate	91	35.97	93	36.90	184	36.43
Inadequate	16	6.32	21	8.33	37	7.33
Highest responsibility for health care expenses						
Individuals	91	35.97	109	43.25	200	39.60
Families	43	17.00	28	11.11	71	14.06
Employers	61	24.11	55	21.83	116	22.97
Government	58	22.92	60	23.81	118	23.37

Note. Respondents who did not have insurance or did not know whether covered were not asked for the provider or type (family N=10, single N=12).

Table 9
Mean and (Standard Error) of AMOUNT by Treatment

	Family-Coverage							
	CONTROL	REWARD	MATCH	REWARD AND MATCH	VIDEO	VIDEO AND MATCH	OPT-IN	EAC
	N=30	N = 33	N = 32	N = 33	N = 32	N = 29	N = 33	N = 31
AMOUNT	2.40	2.60 (.190)	2.15 (.181)	2.96 (.197)	3.15* (.208)	2.41 (.206)	2.18 (.175)	2.74 (.202)
PERCENT	2.83	2.42 (.199)	2.56 (.237)	2.75 (.225)	3.12 (.243)	2.55 (.232)	2.42 (.229)	2.80 (.250)
IMPORTANCE	4.16	4.15 (.271)	4.53 (.268)	4.54 (.264)	4.09 (.265)	4.58 (.275)	4.45 (.282)	3.77 (.274)
APPROVAL	3.20	3.69 (.175)	3.53 (.162)	3.45 (.165)	3.62 (.171)	3.51 (.190)	3.36 (.176)	3.38 (.187)
	Single-Coverage							
	N = 37	N = 31	N = 37	N = 31	N = 29	N = 26	N = 31	N = 30
AMOUNT	2.29	2.35 (.188)	2.21 (.173)	2.77 (.196)	2.86* (.209)	2.46 (.198)	2.61 (.206)	1.96 (.170)
PERCENT	2.75	2.22 (.240)	2.40 (.229)	2.77 (.246)	2.86 (.264)	3.23 (.290)	2.77 (.265)	2.20 (.255)
IMPORTANCE	4.16	4.16 (.292)	4.18 (.264)	4.45 (.271)	3.89 (.298)	4.15 (.297)	4.25 (.299)	3.73 (.311)
APPROVAL	3.29	3.41 (.199)	3.16 (.184)	3.58 (.194)	3.89* (.210)	3.69 (.226)	3.16 (.218)	3.43 (.203)

Note. The p-value is for the t-test of the difference between the mean for each treatment and the mean for the CONTROL group. *p < .05

Table 10

Number and (Percentage) of Yes/No Responses for OPT-IN and EAC

Family Coverage			
	OPT-IN	EAC	Total
No	8 (24.2)	2 (6.5)	10 (15.6)
Yes	25 (75.8)	29 (93.5)	54 (84.4)
TOTAL	33 (100)	31 (100)	64 (100)
Single Coverage			
	OPT-IN	EAC	Total
No	5 (16.1)	9 (30.0)	14 (23.0)
Yes	26 (83.9)	21 (70.0)	47 (77.0)
TOTAL	31 (100)	30 (100)	61 (100)

Table 11

Number (Percentage) of Respondents, by Treatment, with a Zero and Non-zero Level for AMOUNT

Family-Coverage									
	CONTROL	REWARD	MATCH	REWARD AND MATCH	VIDEO	VIDEO AND MATCH	OPT-IN	EAC	Total
Zero	3 (10%)	3 (9.09%)	9 (28.13%)	1 (3.03%)	2 (6.25%)	5 (17.24%)	8 (24.24%)	2 (6.45%)	33 (13.04%)
Non- Zero	27 (90%)	30 (90.91%)	23 (71.88%)	32 (96.97%)	30 (93.75%)	24 (82.76%)	25 (75.76%)	29 (93.55%)	220 (86.96%)
Total	30 (100%)	33 (100%)	32 (100%)	33 (100%)	32 (100%)	29 (100%)	33 (100%)	31 (100%)	253 (100%)
Single-Coverage									
Zero	5 (13.51%)	5 (16.13%)	10 (27.03%)	3 (9.68%)	1 (3.45%)	2 (7.69%)	5 (16.13%)	9 (30%)	40 (15.87%)
Non- Zero	32 (86.49%)	26 (83.87%)	27 (72.97%)	28 (90.32%)	28 (96.55%)	24 (92.31%)	26 (83.87%)	21 (70%)	212 (84.13%)
Total	37 (100%)	31 (100%)	37 (100%)	31 (100%)	29 (100%)	26 (100%)	31 (100%)	30 (100%)	252 (100%)

Table 12

Family Coverage, Part 3: Two-Way ANOVA on AMOUNT

Family Coverage					
Source	df	SS	MS	F	<i>p</i>
HIGHIND	1	2.74	2.74	2.04	.1543
Treatment	7	27.07	3.86	2.88	.0066*
Within groups	244	327.62	1.34		
Total	252	359.58			
HIGHGOV	1	.872	.872	.65	.4223
Treatment	7	28.90	4.12	3.06	.0042*
Within groups	244	329.49	1.35		
Total	252	359.58			
HIGHHEALTH (A)	1	3.60	3.60	2.82	.0944
Treatment (B)	7	20.14	2.87	2.25	.0309*
A x B Interaction	7	20.47	2.92	2.29	.0283*
Within groups	237	302.82	1.27		
Total	252	359.58			
COVEREDHDHP	1	13.00	13.00	10.00	.0018*
Treatment	7	28.68	4.09	3.15	.0033*
Within groups	244	317.35	1.30		
Total	252	359.58			
SATISFIED	1	.447	.447	.33	.5657
Treatment	7	29.38	4.19	3.11	.0037*
Within groups	244	329.91	1.35		
Total	252	359.58			
HIGHINC	1	4.08	4.08	3.06	.0816
Treatment	7	30.15	4.30	3.22	.0028*
Within groups	244	326.27	1.33		
Total	252	359.58			
HIGHEDU	1	8.02	8.02	6.08	.0144*
Treatment	7	30.59	4.37	3.31	.0022*
Within groups	244	322.33	1.32		
Total	252	359.58			

Note. N=253. * $p < .05$

Table 13
Single Coverage, Part 3: Two-Way ANOVA on AMOUNT

Single Coverage					
Source	df	SS	MS	F	<i>p</i>
HIGHIND	1	2.52	2.52	2.12	.1470
Treatment	7	19.24	2.74	2.30	.0274*
Within groups	243	290.21	1.19		
Total	251	311.85			
HIGHGOV	1	1.21	1.21	1.01	.3156
Treatment	7	19.23	2.74	2.29	.0282*
Within groups	243	291.53	1.19		
Total	251	311.85			
HIGHHEALTH	1	.855	.855	.71	.3997
Treatment	7	19.70	2.81	2.34	.0248*
Within groups	243	291.89	1.20		
Total	251	311.85			
COVEREDHDHP	1	1.26	1.26	1.05	.3064
Treatment	7	19.75	2.82	2.35	.0242*
Within groups	243	291.48	1.19		
Total	251	311.85			
SATISFIED	1	.079	.079	.07	.7977
Treatment	7	19.17	2.73	2.27	.0292*
Within groups	243	292.66	1.20		
Total	251	311.85			
HIGHINC	1	17.11	17.11	15.08	.0001*
Treatment	7	20.95	2.99	2.64	.0120*
Within groups	243	275.63	1.13		
Total	251	311.85			
HIGHEDU	1	12.17	12.17	10.54	.0013*
Treatment	7	14.51	2.07	1.80	.0888
Within groups	243	280.57	1.15		
Total	251	311.85			

Note. N=252. * $p < .05$

CHAPTER 5

RESULTS, DISCUSSION, AND IMPLICATIONS

The purpose of this study was to identify factors that might motivate enrollees in high-deductible/health savings account (HD/HSA) plans to make personal HSA contributions. Chapter 1 described the problem and why discovery of motivating factors is important. In Chapter 2, past literature and economic theory were reviewed to discover potential motivating factors. At the end of Chapter 2, four hypotheses were stated. Chapter 3 described the methodology used to conduct the two experiments and analyze the resulting data. Chapter 4 presented the results of the analyses. This chapter describes the findings, draws conclusions, and discusses implications of the study. Suggestions for future research are also discussed.

Summary of the Study

Review of the problem. HD/HSA plans are growing in popularity. As of January 1, 2011, 11.4 million Americans were enrolled in an HD/HSA plan (America's Health Insurance Plans Center for Policy and Research, 2011). Consumers who are enrolled in HD/HSA plans benefit from making personal HSA contributions. The primary benefit of making HSA contributions is that the account holder or a family member can use the funds to pay the high deductible for any needed medical attention. Other benefits of making HSA contributions include having funds available for future medical needs, being able to pay for medical services with money that has never been taxed, and using any accumulated funds for retirement. Due to these substantial benefits, all HD/HSA

enrollees should open an HSA and make personal contributions. However, as of 2010, 6.3 million Americans who were eligible to open an HSA had not done so (Fronstin & EBRI, 2011b), and of the 1.2 million HSAs opened before December 31, 2009, AHIP Center for Policy and Research (2010) found that approximately 14% had a zero balance and that 54% had a balance of less than \$1000.

Contribution of prior research and economic theory. Prior research about personal HSA contributions is very limited. The literature is mostly descriptive about account balances and account holders. Fronstin and EBRI (2010) have described the reasons eligible consumers have given for not opening an HSA. For example, 31% reported that they did not see the need for the account (Fronstin & EBRI, 2010). Educating consumers about the need for HSA funding and offering an employer matching contribution were two potential motivating factors that emerged from a review of studies about 401(k) funding. Literature in the area of behavioral economics suggested that the level of personal HSA contributions might be influenced by the way the choice to contribute is “framed.” In particular, the study by Keller et al. (2011) suggested the potential benefit of using Enhanced Active Choice. The hypothesis about using a cash reward to increase personal HSA contributions emerged from Prospect Theory.

Hypotheses. After a review of the literature as well as economic theory, four hypotheses were developed. This study proposed that the HSA contribution level chosen by plan participants will increase when (a) an employer offers an annual cash reward for HSA balances that increase by at least a prescribed minimum amount during the year (H_1), (b) the participants receive educational instruction about the benefits of HSA funding (H_2), (c) the choice to make personal HSA contributions is presented as an

Enhanced Active Choice (H₃), and (d) employers offer to match some portion of employee contributions (H₄). Also stated at the end of Chapter 2 was the expectation that HSA funding levels would positively correlate with higher income levels and less favorable health conditions.

Experimental design, data collection, and analysis. Two randomized block-design experiments were conducted, one for family-coverage respondents and one for single-coverage respondents. In each experiment, an approximately equal number of respondents were randomly assigned to either the CONTROL group or one of seven treatment groups. The data were collected by the Qualtrics Corporation of Provo, UT. The five-part data analysis was conducted using the statistical software SAS version 9.2.

Results

In Part 1 of the analysis, each treatment group was compared individually to the CONTROL group to determine whether any of the treatments was associated with a significantly different mean level for the dependent variables. Several changes in mean level were found; these differences were directionally interesting, but most of the results were not statistically powerful enough to draw conclusions about the broader U.S. population. The results in Table 9 showed that for the sampled respondents, the CASHREWARD treatment was associated with a higher mean level for the AMOUNT and APPROVAL variables and that the MATCH treatment was associated with a lower mean level for the AMOUNT variable. For the family-coverage sample, the EAC treatment was associated with a higher mean level for the AMOUNT variable. This finding contrasted with the single-coverage respondents, for whom the EAC treatment was associated with a lower mean level for the AMOUNT variable.

In support of H₂, when compared to the CONTROL group, the VIDEO treatment was associated with a statistically significant increase in the mean level of the AMOUNT variable for both single-coverage and family-coverage respondents. The VIDEO treatment also was associated with a higher mean level for the APPROVAL variable for both groups, and the difference was statistically significant for the single-coverage respondents.

In Part 2 of the data analysis, the OPT-IN and EAC treatment groups were compared to learn whether there was a difference in the percentage of respondents who stated that they would make a personal HSA contribution. Family-coverage respondents were associated with a borderline significant increase in the percentage who stated they would make a contribution ($p = .0501$). Single-coverage respondents were less likely to state that they would make a contribution but not to a significant degree.

Part 3 of the data analysis examined the effect of various independent variables on the mean level of the AMOUNT variable. High levels of education (HIGHEDU = 1) were associated with a statistically significant increase in the AMOUNT variable for both single-coverage and family-coverage respondents. For family-coverage respondents, the mean level of the AMOUNT variable was also significantly higher for respondents covered by an HDHP (COVEREDHD = 1) and for those with excellent family health (HIGHHEALTH = 1) when HIGHHEALTH was combined with the MATCH or EAC treatments. A significantly higher mean level for the AMOUNT variable also was found for higher-income single-coverage respondents (HIGHINC=1).

Part 4 compared the number of respondents who selected a non-zero level for the AMOUNT variable for each treatment group and the CONTROL group; no significant

differences emerged. Part 5 examined only those respondents who selected a non-zero level for the AMOUNT variable. The only significant relationship was found among family-coverage respondents in the VIDEO group. Of those respondents who selected a non-zero HSA contribution, the level for the AMOUNT variable was significantly higher for those in the VIDEO group when compared to the CONTROL group.

Discussion

Each individual enrolled in an HD/HSA plan faces myriad conflicting forces when making the decision to defer the current benefit received from take-home pay to gain future benefit by making HSA contributions. Others have written about the complexity of other savings decisions, such as the decision to defer compensation into a retirement account. Although deciding whether to save for retirement is a complex decision, the HSA contribution decision is even more complex. For example, everyone knows for certain that age increases over time and that, eventually, the ability to work diminishes; therefore, assuming survival into old age, retirement funds will be necessary. However, no individual can be certain about the need for future medical care due to illness or injury. Additional factors that demand consideration when making an HSA contribution decision include (a) that medical expenses are tax deductible outside of an HSA (subject to AGI limitations), (b) the larger 20% penalty for withdrawing HSA funds for non-medical purposes, (c) for those with family coverage, the expected medical expenses of the enrollee as well as other family members, (d) potential dramatic changes to the U.S. health care system, (e) the future of Medicare, Medicaid, and Social Security, (f) additional confusion associated with the dual role of HSAs (health insurance and retirement), and (g) fear of additional paperwork when seeking reimbursement.

These factors deepen the complexity of deciding whether to defer compensation for future benefit. The decision to delay short-term gratification is complex due to (a) current needs to pay for food, shelter, clothing, transportation, and information, (b) uncertainty about future events, (c) confusion about tax benefits and tax laws, (d) the natural inclination to follow the status quo, (e) an individual's degree of future orientation, (f) the inability of many to grasp complex financial concepts due to low numeracy, (g) the degree of help for payment of future expenses anticipated from employers, family members, and the government, (h) anticipated life-expectancy, and (i) expectations about the future of U.S. and global economies. Due to these conflicting forces, which are further exacerbated as family size and health uncertainties increase, the decision to put currently usable funds away in an HSA is exceedingly difficult.

In the current study, only the VIDEO treatment was associated with a statistically significant increase in the level of personal HSA contributions (H_2). Although the other treatments were associated with a change in the level of contributions that respondents selected, the results were not different enough to draw a conclusion about the U.S. population. Reasons for the low levels of statistical significance might be ignorance, lack of adequate income, and/or lack of self-control. Throughout the duration of this study and many conversations with a wide variety of individuals, the researcher informally observed a high level of ignorance about health insurance matters. Even some highly educated individuals do not know whether their current health plan qualifies as "high-deductible." Often, consumers think that they have an HSA when they actually have a flexible spending account (FSA). In light of these impressions, the results found in this study could be due to a high level of ignorance among U.S. residents about health

insurance matters. In general, consumers might feel overwhelmed by the complexity of health insurance decisions and, as a result, make poor decisions. Later in this chapter, a qualitative study is suggested to deepen the understanding of the factors currently influencing enrolled consumers concerning HSA contributions.

Another factor that invites consideration is the challenging financial situation many consumers currently face. Many are unemployed or wrestling with the possibility of unemployment. Some consumers might not feel financially able to make HSA contributions. In the current study, at the end of each experiment, respondents were permitted to leave comments. One respondent stated, “I think HSAs are a good thing, and my employer offers one. I don’t contribute to one because I need the cash to live on now.” This point of view might explain why the effect of some of the treatments was not significant.

Another reason for the general hesitancy to make personal HSA contributions might be a lack of self-control. One consumer with whom the researcher conversed stated that her biggest fear is that she will put funds into an HSA and then immediately use the funds for items she would otherwise not have purchased, such as “pretty prescription sunglasses.” To elucidate these sentiments and understand consumer motivation better, further qualitative study is warranted.

CASHREWARD. Each respondent in the CASHREWARD treatment was hypothetically offered a \$250 annual cash reward if their HSA balance increased by \$500 during the year. This treatment was associated with a non-significant increase in both the AMOUNT that respondents stated they would contribute and their APPROVAL rating of the hypothetical employer offering the plan. An increase in the AMOUNT variable was

hypothesized in H_1 , but the results were not statistically significant. The increase might have been statistically significant if the sample size had been larger or the dollar amount of the cash reward had been higher.

That the CASHREWARD treatment did not result in a significant increase in the level of personal HSA contributions is surprising. Consumers struggling to make ends meet would seem likely to embrace more income. However, the survey respondents might have been offended by the idea of the employer offering a reward to those employees who, in effect, do not use their HSA funds to pay for needed health care expenses. In fact, this treatment might be seen as unethical because it rewards individuals who do not seek medical treatment.

MATCH. Each respondent in the MATCH treatment was offered a 25% employer matching contribution with a \$500 maximum annual match. This study proposed that those offered a match would increase their personal HSA contributions (H_4). The exact opposite effect was found. For both single-coverage and family-coverage respondents, the MATCH treatment was associated with a non-significant decrease in the HSA contribution level selected. Once again, a larger sample size, a larger matching percentage, and/or a larger maximum match might have produced more significant results.

Respondents might have viewed the HSA strictly as a fund for health care spending; accordingly, the respondents might have seen the employer match as an opportunity to contribute less of their own income. This logic could explain the decrease in contribution level selected by the respondents in the MATCH treatment group. Interestingly, researchers have found that employees are more hesitant to spend HSA

funds than health reimbursement arrangement (HRA) funds, which are contributed by the employer alone (Aetna, 2010). Lo Sasso, Helmchen, and Kaestner (2010) found that the marginal employer contribution to spending accounts (predominantly HRAs) was entirely spent on outpatient and pharmacy services. If the employer contributes funds and the employee is more comfortable spending funds that come directly from the employer, the employee might feel less need to make personal contributions. The hypothesis in this study was based upon a review of studies about 401(k) funding. Employer matching appears to increase personal 401(k) contributions (Engelhardt & Kumar, 2007). However, an HSA is quite different from a 401(k). A 401(k) is strictly a savings account for future retirement expenses whereas HSA funds might be needed almost immediately for current health care spending. In fact, an HSA might be more accurately named a “health spending account” because it is not strictly a savings account.

EAC. The findings for family-coverage respondents confirm Keller et al.’s (2011) results, which demonstrated that highlighting key advantages and disadvantages in an EAC resulted in higher compliance (concerning flu shots) than an opt-in choice. But similar results were not found for single-coverage respondents. The difference between these two groups of respondents might be due to a difference in an underlying level of financial literacy or specifically health insurance literacy. Single-coverage respondents might not have acquired as much knowledge through experience as family-coverage respondents. Carroll, Choi, Laibson, Madrian, and Metrick (2009) found that financial illiteracy interferes with decision making related to 401(k) savings, and the same might be true concerning HSA funding. Another reason for the difference might be the fact that single-coverage respondents only need to provide for their own health care. Therefore,

they might have greater clarity concerning the expected level of future medical expenses. However, even when a significantly greater number of respondents stated an intention to make HSA contributions, the results indicated no significant effect on the AMOUNT selected by either single-coverage or family-coverage respondents, leaving H_3 unsupported.

The EAC questions were written to highlight the benefits of the desired response (positive HSA contributions) and to point out the costs of the non-desired response (see Table 3). The complexity of HD/HSA plans made selecting the exact wording for the EAC treatment questions difficult. With more accurate or appealing wording, the findings might have been more significant.

VIDEO. The VIDEO treatment was associated with a statistically significant increase in the AMOUNT variable for both single-coverage and family-coverage respondents, supporting H_2 . The mean level for the APPROVAL variable was also higher for both groups. These results confirmed findings from previous research: (a) increasing consumer education about all aspects of health insurance is likely to lead to better decision making (Domaszewicz et al., 2010; Klug & Chianese, 2010), (b) a good visual that can be seen and heard is persuasive in health communications (Block & Keller, 1997; Moses & Hogg, 2009), and (c) family, friends, and peers are very influential in financial decisions (Beshears et al., 2010; Moses & Hogg, 2009).

The exact reasons for these results remain uncertain. For example, whether the significant increase in HSA funding was due to the extra education/information given in the video clips, some type of emotional connection with the speakers, or both is unknown. Perhaps HSA funding is an “experience good,” one whose properties can only

be assessed after the good is used (Nelson, 1970); the “experience” of the “peers” in the three video clips might have been more influential than the extra education/information given.

The findings for the VIDEO treatment also fall in line with classical economic theory, which assumes that consumers make rational choices. One assumption of classical theory is that each consumer has perfect information. However, perfect information about health insurance choices is very difficult to obtain (Walsh, Fitzgerald, Gurley-Calvez, & Pellillo, 2011). Here, respondents made a superior decision when given additional education/information about the benefits of personal HSA contributions.

Another reason for the significance of the VIDEO treatment might be that it reduced the complexity of the HSA funding decision. Both the CASHREWARD and MATCH treatments involved some type of payment from the hypothetical employer. As a result, the decision about whether to fund an HSA became more complex for those two treatments. Interestingly, none of the treatments that were motivated by the libertarian-paternalistic concept of decision framing were found to have a significant effect on personal HSA funding. However, the straightforward attempt to help each respondent better understand the benefits of making HSA contributions did produce a significant increase in the contribution level selected.

Effect of independent variables. Both single-coverage and family-coverage respondents who reported having earned at least a bachelor’s degree were associated with a significantly higher level of HSA funding. Therefore, not only did an attempt to educate consumers via the VIDEO treatment produce significantly improved results, but higher education levels in general were also associated with a significantly higher level of HSA

funding. The results of this study clearly point toward the importance of consumer education. Family-coverage respondents who reported having personal coverage by an HDHP were associated with a significantly higher level of personal HSA contributions. This correlation could be due to higher levels of experiential knowledge. In other words, many of these respondents had personally experienced the need for HSA funds in order to pay the high deductible associated with their health insurance plans.

The expectation that HSA funding levels would be positively influenced by less favorable health conditions was stated at the end of Chapter 2. For the survey respondents, the opposite result was found. The selected mean level of the AMOUNT variable was higher for respondents who reported excellent health for family members. These results do not confirm the findings of Fronstin and EBRI (2011b), who demonstrated that persons with unfavorable health conditions were slightly more likely to make HSA contributions than those who had relatively favorable health conditions. Families who reported excellent health might not have faced a high level of medical spending and, therefore, had adequate cash flow to make personal HSA contributions. However, this difference was only statistically significant for family-coverage respondents in the MATCH and EAC treatments.

Another expectation stated at the end of Chapter 2 was that personal HSA funding levels would be higher as self-reported income levels increased. This expected result was found for single-coverage respondents to a significant degree, replicating the findings of America's Health Insurance Plans (2009), which found that deposits tended to be higher for those with higher incomes. For family-coverage respondents, although not statistically

significant, a high level of combined family income was associated with a higher mean value for the AMOUNT variable.

Implications

The findings of the current study represent an important contribution to the knowledge about factors that motivate consumers to make personal HSA contributions. Due to technological advances and other factors, U.S. consumers seek information that can be trusted. For example, rather than trusting a salesperson in a store to name a fair price, they can use a smart phone to see alternative prices in myriad other stores and online retailers. Consumers are learning to trust the online rating of peers before making a decision, whether that decision is to buy a certain shampoo or to enroll in a course taught by a certain professor. One important implication of the current study is that employer efforts to educate consumers about the benefits of making personal HSA contributions using peer testimonials that can be seen and heard are likely (a) to increase the level of said contributions and (b) to increase the employees' approval of the employer offering the plan. This study, along with future studies designed to clarify HSA funding motivations, could help employers choose to invest in the paternalistic and relatively low-cost option of educating employees about the benefits of making personal HSA contributions. This low-cost option for employers could help achieve the desire stated by one survey respondent: "Let's make health care affordable for everyone."

Invest in education. In this study, the extra effort to educate respondents about the benefits of HSA funding was associated with a significant increase in the hypothetical funding level selected. In addition, among all 505 respondents, those who reported having earned at least a bachelor's degree chose a significantly higher level of HSA

funding. Also, family-coverage respondents with the experiential knowledge of actually being enrolled in a high-deductible health plan chose a higher level of funding. These combined factors suggest that efforts to educate consumers, both specifically about the benefits of HSA funding and in general, are likely to increase the level of funding selected. Therefore, policy makers should continue to stress the importance of both consumer education programs and higher education in general.

Regulatory solution. Most of the treatments in the current study did not have a statistically significant effect on the level of personal HSA contributions that respondents reported they would make. Due to this demonstrated resistance, a regulatory solution might be warranted. Three regulatory solutions include (a) requiring any consumer who enrolls in an HSA-eligible health insurance plan to open an HSA account, (b) mandating periodic employee HSA contributions through payroll deduction until the account balance is at least equivalent to the health plan deductible, and (c) mandating employer contributions unless a safe harbor standard is attained.

A serious concern is the vast number of HSA-eligible consumers who do not open an HSA account (Fronstin & EBRI, 2011b). Obviously, a consumer cannot contribute to an account that does not exist. One solution might be to require employers to open an HSA account automatically for each consumer enrolled in an HD/HSA plan. Internal Revenue Service guidelines require HSA accounts to be established with qualified HSA trustees, which are often banks, insurance companies, and financial services companies (Internal Revenue Service, 2011c).

Once the account is open, employee contributions through payroll deduction could be required. One option is to require contributions through payroll deduction until

the account balance is adequate to cover the deductible. Although this regulatory solution would likely provide greater assurance that consumers enrolled in HD/HSA plans will have the funds to cover health care costs subject to the deductible, it might make HD/HSA plans considerably less attractive to consumers looking for the lowest-cost option.

Another option is to mandate employer HSA contributions unless a safe harbor standard is attained. All employers who offer HD/HSA plans could be required either to meet the safe harbor standard or contribute a minimum amount to the HSA for each enrolled employee. For example, each employer offering an HD/HSA plan might be required to demonstrate that at least 50% of its employees enrolled for at least one year have an HSA balance equal to or greater than half of their deductible. If the safe harbor is not met, an employer contribution to the HSA of each enrolled employee, equal to a pre-specified percentage, such as 25% of the employee's deductible, could be required for the following year.

Limitations

The main weakness of this study is that it gathered data from hypothetical decision making. The respondents might have made different decisions in "real life." However, this weakness is overpowered by the fact that, as required by experimental design, respondents were randomly assigned to treatment groups. Theoretically, the only difference between respondents in each treatment group and the CONTROL group was the treatment itself. This feature of experimental design is what makes the results reliable and why many call an experiment "the gold standard." Other limitations of the study result from the types of respondents sampled, the demographic characteristics of the

sampled respondents, the preconceived ideas about HD/HSA plans held by respondents, and various imperfections in the information given and the variable design.

The nationally representative sample might not have truly represented those U.S. citizens who are enrolled in HD/HSA plans. In fact, the sample might have included respondents who will never actually have the option to make personal HSA contributions. The results might have been skewed in some way by including these respondents. This weakness might have been eliminated if the survey had first asked respondents to choose a type of health insurance. Respondents who did not select an HDHP could have been removed from the sample. However, many employers are beginning to offer only HD/HSA plans to employees (Belz, 2011), thus strengthening the argument for a nationally representative sample. Future research might be warranted to deepen our understanding of the best method for sample selection.

The sampled respondents for both experiments were more often female. Of the family-coverage respondents, 70.75% were female; of the single-coverage respondents, 59.92% were female. The findings might have been different if men and women had been represented equally in the sample. The female perspective might be particularly valuable, however, as women often manage health care decisions for themselves, aging parents, spouses, and children (Ness, 2011).

Another limitation of the sample is that only 64.39% of the respondents who reported coverage by a health insurance plan received the coverage through their own employer or the employer of a spouse. Respondents without employer-provided coverage might have been confused by the MATCH and CASHREWARD treatments, each of which provided some form of payment from a hypothetical employer.

The experiments were designed to teach respondents everything they needed to know about HD/HSA plans. As described in Chapter 3, the Qualtrics Corporation added electronic safeguards to strengthen the likelihood that respondents actually read all of the information presented. In addition, several respondents (N=13), when allowed to make any type of comment (or none), specifically mentioned that the survey gave “good information” or was “very informative” or that they “learned something.” Despite the safeguards in place and the evidence that respondents read the information, the experiments could not guarantee that any incorrect preconceived notions held by respondents about personal HSA contributions were corrected. Therefore, the results might have been influenced by these preconceived notions.

The information given in the surveys and the variables used could have been different. For example, one respondent suggested, “a hypothetical salary should be included for consideration to know how much monthly contribution one would make to the HSA.” Another example is that questions about family health care cost burden might have been more informative than questions about the health status of family members. Also, additional variables could have been utilized to determine the financial and/or health insurance literacy of respondents. Moreover, information given about the relationship between preventive care and the insurance deductible could have been made clearer. To improve clarity, the survey could have given a definition of a household. The survey information and variables could be modified in these ways and others if the experiments are replicated in the future.

Future Research

The current study represents an early empirical exploration of factors that motivate HDHP enrollees to make personal HSA contributions. The study is particularly valuable because, in recent years, an increasing number of employers have begun to limit their employee health benefits to HD/HSA plans (Belz, 2011). Although this study might be criticized for posing a purely hypothetical question, it nonetheless demonstrates the need for consumer researchers to delve more deeply into motivating factors. Future research could include the following: (a) a qualitative study designed to deepen the understanding of why some consumers choose to fund an HSA while others hesitate; (b) a replication of the current study using a larger sample size, higher matching or reward amounts, or some other variation in the experimental conditions; (c) a computational analysis designed to discover which consumers benefit the most from making personal HSA contributions; and (d) an examination of other interesting questions concerning HSAs.

Qualitative study. A qualitative study is needed to gain a deeper understanding of the reasons why, *ceteris paribus*, some eligible consumers choose to set aside funds in an HSA while others do not. Especially important is gaining understanding about why many eligible consumers never open an HSA. A qualitative study might help researchers better understand the effects of the U.S. health care debate, the U.S. unemployment rate, and the complexity of health insurance decisions/paperwork on HSA funding motivation. A qualitative study might help us understand whether consumers see an HSA as an “experience good” and to what extent they are influenced by the experience of peers.

Replication of current study. Because this study is the first of its type, additional studies are needed to verify or challenge the results. Additionally, in future studies, several experimental factors could be adjusted. A larger sample size might increase the statistical significance of the results. Other factors might be altered, including but not limited to the percentage of the employer matching contribution, the maximum match, the dollar amount of the cash reward, and the exact wording of the EAC treatment questions. The VIDEO treatment could be altered to feature the thoughts of actual “real life” peers rather than those who might be thought of as peers. Additionally, the study could be replicated using a more narrowly-defined sample population. For example, future research could focus specifically on either low-income or high-income consumers, those with chronic conditions, those with lower education levels, or only those consumers engaged in traditional employment. Another recommendation is for future research that uses more selective samples including only respondents who might be more likely to benefit from or have reason to select HD/HSAs, such as young healthy adults and single mothers with young children. Having each respondent select both the type of health insurance plan as well as the level of personal HSA contribution might be beneficial. The sample could then be narrowed to those who select coverage by an HDHP.

If the study is replicated, it would be interesting to assess the effect of giving participating respondents personal information about their own past medical spending. Bar-Gill (2007) has suggested that consumers should receive full disclosure of all available information needed for decision making. An individual consumer’s health insurance provider knows exactly the level of prior reported medical expenses incurred by the consumer. If a consumer received “full disclosure” of all personal health care

expenditures, he or she might select a different level of personal HSA contributions. Another option would be to give respondents information about average health care spending by others with similar demographic characteristics such as age and gender.

Computational analysis. If a consumer is in a 0% tax bracket, there is no immediate income tax savings from making HSA contributions. If another consumer needs every penny of earnings to pay for the absolute essentials of food and shelter, making HSA contributions introduces the possibility of a 20% penalty for using HSA funds for non-medical purposes. On the other hand, a more affluent consumer might enjoy great financial tax benefits from making HSA contributions to accumulate funds for expensive elective medical procedures. A computational analysis would deepen our understanding of which consumers benefit the most from making personal HSA contributions. The data collected might be used to create a smart phone application that consumers could use to make personal HSA funding decisions.

Other HSA research. The research currently available related to HSAs is limited. Much of the available research examines HSA accounts in conjunction with HRA accounts, but HSAs are vastly different from HRAs. Future HSA research should focus specifically on the distinctive qualities of HSAs. A longitudinal study might focus on HSA funding and health care spending over several years to examine whether HSA funding was adequate over a period of years. Also, future research might examine how and why HSA funds are utilized. For example, because the use of HSA funds is self-substantiated, determining whether and how often those funds are used for non-medical purposes would be illuminating. One of the largest deterrents to making personal HSA contributions might be the current 20% penalty for withdrawing HSA funds for non-

medical purposes. Further research could measure the potential increase in personal HSA contributions if this penalty were lowered or eliminated.

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APPENDIX A
EXPERIMENTAL SURVEY
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EXPLANTATION

When reviewing Appendix A, please consider:

Paging. In Appendix A, a dark line separates each page viewed by respondents.

Skip Patterns. In Appendix A, if a respondent did not report having personal health insurance coverage, he/she was not asked about the provider or type of coverage. If a respondent reported combined family income of \$100,000 or less, he/she was not asked to describe the level of income greater than \$100,000. In the introduction, if a respondent did not agree to participate, did not report an age between 19 and 61, or did not report being a U.S. resident, he/she was forced to the end of the survey.

INTRODUCTION FOR ALL RESPONDENTS

Funding of Health Savings Accounts

Dear Research Participant,

My name is Anne Duke. I am a graduate student in the Department of Housing and Consumer Economics at the University of Georgia, in Athens, GA, USA. I am working under the supervision of Dr. Brenda J. Cude (Professor). I invite you to participate in this research study entitled "Health Savings Account Funding." The purpose of this study is to gather information about the funding of health savings accounts.

You must be at least 18 years of age and a U.S. resident to participate in this study.

Your participation will involve completing a web-based survey and should take approximately 30 minutes of your time. First, information about features of a health insurance plan will appear on the screen. This information will be followed by several multiple choice questions.

Your involvement in the study is voluntary, and you may choose not to participate or to stop at any time without penalty or loss of benefits to which you are otherwise entitled.

The results of the research study might be published, but your name will not be used. In fact, the published results will be presented in summary form only. Your identity will not be associated with your responses in any published format. At no time will you be asked to report your name or other identifying information.

The findings from this project may provide information about funding of health savings accounts and may add to the scientific knowledge base in this field. You may only complete the survey one time. The risks to you as a participant are minimal. These risks include boredom, fatigue, and loss of time. The survey has deliberately been kept as short as possible to minimize your loss of time.

If you have any questions or comments about this research project, please feel free to call me at 706-207-3744 or send an e-mail to anneduke@uga.edu. You may also contact Brenda J. Cude at 706-542-4857 or bcude@uga.edu. Additional questions or problems regarding your rights as a research participant should be addressed to The Chairperson, University of Georgia Institutional Review Board, 629 Boyd GSRC, Athens, Georgia 30602; telephone (706) 542-3199; email irb@uga.edu.

Thank you for your participation. If desired, please copy and print this statement for your records.

Anne Duke
Graduate Student
Department of Housing and Consumer Economics

University of Georgia
Athens, GA 30602

I have read the above recruitment statement and agree to participate in the study.

- ☐ Yes
- ☐ No

I am a U.S. resident.

- ☐ Yes
- ☐ No

I am between the ages of 19 and 61.

- ☐ Yes
- ☐ No

Which type of health insurance is best for you?

- ☐ Single Coverage (covers you alone)
 - ☐ Family Coverage (covers you and other family members like children and/or spouse)
-

BASIC INFORMATION FOR FAMILY-COVERAGE RESPONDENTS

Survey about Funding of Health Savings Accounts

The goal of this survey is to collect information about high-deductible health insurance plans and Health Savings Accounts (HSA). First, you will be shown some background information. Then, you will respond to some multiple choice questions.

Introduction to health insurance

All health insurance plans help pay for health care services. Sometimes there is a deductible. A deductible is the amount you owe for health care services your health insurance covers before your health insurance begins to pay. For example, if your deductible is \$1,000, your plan won't pay anything until you've met your \$1,000 deductible for covered health care services subject to the deductible. The deductible may not apply to all services.

Preventive Care

Preventive care is medical care to prevent disease or illness. Often, health insurance pays for 100% of preventive care. Often, preventive care is not subject to the deductible.

High-Deductible Health Insurance Plan

With a high-deductible health insurance plan:

1. The deductible must be at least \$2,400 (for family coverage in 2011)
 2. Generally, the insurance company pays for preventive care (annual physicals, mammograms, etc.)
 3. Generally, the monthly premium is low
 4. Participants are allowed to contribute to a Health Savings Account
-

Let me tell you about Health Savings Accounts (HSA)

1. A Health Savings Account is an account where an account holder can save money to pay for deductibles and other medical expenses
 2. Earnings (wages/salary) an account holder puts into an HSA are not subject to federal income tax
 3. Money an account holder takes out of an HSA to pay for medical expenses is not taxed
 4. Money taken out of an HSA for non-medical expenses (before the age of 65) is subject to income tax and a 20% (2011) penalty
-

More facts about Health Savings Accounts (HSA)

1. Money put into an HSA can be invested in stocks, bonds, and other investments (like a retirement account).
 2. Returns on investments in an HSA are not taxed when earned
-

HSA money does not have to be spent each year

HSA funds can be saved for future medical expenses or even for retirement. The money belongs to the account holder.

HSA funds are portable

An HSA moves with an account holder when employment changes.

Three More Facts about Health Savings Accounts (HSA)

Penalty-free non-medical withdrawals

Once an account holder reaches the age of 65, he or she can withdraw HSA money for any reason without penalty. These withdrawals will still be subject to income tax.

Maximum contribution

For 2011, an eligible person with family coverage can invest up to \$6,150 in an HSA.

Eligibility

Only people with a high-deductible health insurance plan can have an HSA.

BASIC INFORMATION FOR SINGLE-COVERAGE RESPONDENTS

Survey about Funding of Health Savings Accounts

The goal of this survey is to collect information about high-deductible health insurance plans and Health Savings Accounts (HSA). First, you will be shown some background information. Then, you will respond to some multiple choice questions.

Introduction to health insurance

All health insurance plans help pay for health care services. Sometimes there is a deductible. A deductible is the amount you owe for health care services your health insurance covers before your health insurance begins to pay. For example, if your deductible is \$1,000, your plan won't pay anything until you've met your \$1,000 deductible for covered health care services subject to the deductible. The deductible may not apply to all services.

Preventive Care

Preventive care is medical care to prevent disease or illness. Often, health insurance pays for 100% of preventive care. Often, preventive care is not subject to the deductible.

High-Deductible Health Insurance Plan

With a high-deductible health insurance plan:

1. The deductible must be at least \$1,200 (for single coverage in 2011)
 2. Generally, the insurance company pays for preventive care (annual physicals, mammograms, etc.)
 3. Generally, the monthly premium is low
 4. Participants are allowed to contribute to a Health Savings Account
-

Let me tell you about Health Savings Accounts (HSA)

1. A Health Savings Account is an account where an account holder can save money to pay for deductibles and other medical expenses
 2. Earnings (wages/salary) an account holder puts into an HSA are not subject to federal income tax
 3. Money an account holder takes out of an HSA to pay for medical expenses is not taxed
 4. Money taken out of an HSA for non-medical expenses (before the age of 65) is subject to income tax and a 20% (2011) penalty
-

More facts about Health Savings Accounts (HSA)

1. Money put into an HSA can be invested in stocks, bonds, and other investments (like a retirement account).
 2. Returns on investments in an HSA are not taxed when earned
-

HSA money does not have to be spent each year

HSA funds can be saved for future medical expenses or even for retirement. The money belongs to the account holder.

HSA funds are portable

An HSA moves with an account holder when employment changes.

Three More Facts about Health Savings Accounts (HSA)

Penalty-free non-medical withdrawals

Once an account holder reaches the age of 65, he or she can withdraw HSA money for any reason without penalty. These withdrawals will still be subject to income tax.

Maximum contribution

For 2011, an eligible person with single coverage can invest up to \$3,050 in an HSA.

Eligibility

Only people with a high-deductible health insurance plan can have an HSA.

FAMILY- COVERAGE TREATMENTS

CONTROL Treatment Family Coverage

Assumptions for this survey:

When answering questions for this survey, please respond with the following assumptions:

You have a high-deductible health insurance plan

The deductible is \$4,000 annually

The insurance premium you must pay is \$300 per month (\$3,600 per year)

You have no other health insurance coverage

The plan covers you and other family members

You can make contributions to your Health Savings Account (HSA).

Your current HSA balance is zero

In summary, please assume:

You have a high-deductible health insurance plan

The deductible is \$4,000 annually

The insurance premium you must pay is \$300 per month (\$3,600 per year)

You have no other health insurance coverage

The plan covers you and other family members

You can make contributions to your Health Savings Account (HSA).

Your current HSA balance is zero.

Assuming each of the above is true, how much of your earnings would you put into your Health Savings Account (HSA) this year?

- ☐ None
 - ☐ \$50 per month (\$600 annually)
 - ☐ \$100 per month (\$1200 annually)
 - ☐ \$150 per month (\$1,800 annually)
 - ☐ \$200 per month (\$2,400 annually)
 - ☐ \$250 per month (\$3,000 annually)
 - ☐ \$300 per month (\$3,600 annually)
 - ☐ \$350 per month (\$4,200 annually)
 - ☐ \$400 per month (\$4,800 annually)
 - ☐ More than \$400 per month
-

In summary, please assume:

You have a high-deductible health insurance plan

The deductible is \$4,000 annually

The insurance premium you must pay is \$300 per month (\$3,600 per year)
You have no other health insurance coverage
The plan covers you and other family members
You can make contributions to your Health Savings Account (HSA).
Your current HSA balance is zero.

Assuming each of the above is true, what percentage of the deductible would you contribute to your Health Savings Account (HSA) this year?

- ☐ 0%
- ☐ 25%
- ☐ 50%
- ☐ 75%
- ☐ 100%
- ☐ More than 100% of the deductible

In summary, please assume:

You have a high-deductible health insurance plan
The deductible is \$4,000 annually
The insurance premium you must pay is \$300 per month (\$3,600 per year)
You have no other health insurance coverage
The plan covers you and other family members
You can make contributions to your Health Savings Account (HSA).
Your current HSA balance is zero.

Assuming each of the above is true, how important do you think it is to make contributions to your HSA?

- ☐ Very Unimportant
- ☐ Somewhat Unimportant
- ☐ Neutral
- ☐ Somewhat Important
- ☐ Very Important

In summary, please assume:

You have a high-deductible health insurance plan
The deductible is \$4,000 annually
The insurance premium you must pay is \$300 per month (\$3,600 per year)
You have no other health insurance coverage
The plan covers you and other family members
You can make contributions to your Health Savings Account (HSA).
Your current HSA balance is zero.

What is your opinion of employers that offer this type of plan?

- ☐ Strongly Disapprove of Employer
 - ☐ Disapprove of Employer
 - ☐ Neutral
 - ☐ Approve of Employer
 - ☐ Strongly Approve of Employer
-

CASHREWARD Treatment Family Coverage

Cash Back

For the purposes of this survey, please assume your employer has decided to pay you a \$250 annual cash reward if your HSA balance increases by \$500 this year. Your HSA balance will increase if you deposit more than you withdraw.

Assumptions for this survey:

When answering questions for this survey, please respond with the following assumptions:

You have a high-deductible health insurance plan

The deductible is \$4,000 annually

The insurance premium you must pay is \$300 per month (\$3,600 per year)

You have no other health insurance coverage

The plan covers you and other family members

You can make contributions to your Health Savings Account (HSA).

Your current HSA balance is zero

If your HSA balance increases by \$500 this year, your employer will pay you a \$250 cash reward. The balance will increase if you deposit more than you withdraw.

In summary, please assume:

You have a high-deductible health insurance plan

The deductible is \$4,000 annually

The insurance premium you must pay is \$300 per month (\$3,600 per year)

You have no other health insurance coverage

The plan covers you and other family members

You can make contributions to your Health Savings Account (HSA).

Your current HSA balance is zero.

If your HSA balance increases by \$500 this year, your employer will pay you a \$250 cash reward. The balance will increase if you deposit more than you withdraw.

Assuming each of the above is true, how much of your earnings would you put into your Health Savings Account (HSA) this year?

- ☐ None
- ☐ \$50 per month (\$600 annually)
- ☐ \$100 per month (\$1200 annually)
- ☐ \$150 per month (\$1,800 annually)
- ☐ \$200 per month (\$2,400 annually)
- ☐ \$250 per month (\$3,000 annually)

- ☐ \$300 per month (\$3,600 annually)
 - ☐ \$350 per month (\$4,200 annually)
 - ☐ \$400 per month (\$4,800 annually)
 - ☐ More than \$400 per month
-

In summary, please assume:

You have a high-deductible health insurance plan

The deductible is \$4,000 annually

The insurance premium you must pay is \$300 per month (\$3,600 per year)

You have no other health insurance coverage

The plan covers you and other family members

You can make contributions to your Health Savings Account (HSA).

Your current HSA balance is zero.

If your HSA balance increases by \$500 this year, your employer will pay you a \$250 cash reward. The balance will increase if you deposit more than you withdraw.

Assuming each of the above is true, what percentage of the deductible would you contribute to your Health Savings Account (HSA) this year?

- ☐ 0%
 - ☐ 25%
 - ☐ 50%
 - ☐ 75%
 - ☐ 100%
 - ☐ More than 100% of the deductible
-

In summary, please assume:

You have a high-deductible health insurance plan

The deductible is \$4,000 annually

The insurance premium you must pay is \$300 per month (\$3,600 per year)

You have no other health insurance coverage

The plan covers you and other family members

You can make contributions to your Health Savings Account (HSA).

Your current HSA balance is zero.

If your HSA balance increases by \$500 this year, your employer will pay you a \$250 cash reward. The balance will increase if you deposit more than you withdraw.

Assuming each of the above is true, how important do you think it is to make contributions to your HSA?

- ☐ Very Unimportant
- ☐ Somewhat Unimportant

- ☐ Neutral
 - ☐ Somewhat Important
 - ☐ Very Important
-

In summary, please assume:

You have a high-deductible health insurance plan

The deductible is \$4,000 annually

The insurance premium you must pay is \$300 per month (\$3,600 per year)

You have no other health insurance coverage

The plan covers you and other family members

You can make contributions to your Health Savings Account (HSA).

Your current HSA balance is zero.

If your HSA balance increases by \$500 this year, your employer will pay you a \$250 cash reward. The balance will increase if you deposit more than you withdraw.

What is your opinion of employers that offer this type of plan?

- ☐ Strongly Disapprove of Employer
 - ☐ Disapprove of Employer
 - ☐ Neutral
 - ☐ Approve of Employer
 - ☐ Strongly Approve of Employer
-

MATCH Treatment Family Coverage

Employer Matching Health Savings Account (HSA) Contribution

For purposes of this survey, please assume your employer has decided to make a 25% match to your HSA contributions. The maximum employer matching contribution is \$500 per year.

Here is how matching works:

If you put \$100 into your HSA, your employer will contribute \$25

If you put \$1,000 into your HSA, your employer will contribute \$250

If you put \$2,000 into your HSA, your employer will contribute \$500

Assumptions for this survey:

When answering questions for this survey, please respond with the following assumptions:

You have a high-deductible health insurance plan

The deductible is \$4,000 annually

The insurance premium you must pay is \$300 per month (\$3,600 per year)

You have no other health insurance coverage

The plan covers you and other family members

You can make contributions to your Health Savings Account (HSA).

Your current HSA balance is zero

If you make HSA contributions, your employer will match 25% of your contributions.

The maximum match is \$500 per year.

In summary, please assume:

You have a high-deductible health insurance plan

The deductible is \$4,000 annually

The insurance premium you must pay is \$300 per month (\$3,600 per year)

You have no other health insurance coverage

The plan covers you and other family members

You can make contributions to your Health Savings Account (HSA).

Your current HSA balance is zero.

If you make HSA contributions, your employer will match 25% of your contributions.

The maximum match is \$500 per year.

Assuming each of the above is true, how much of your earnings would you put into your Health Savings Account (HSA) this year?

- ☐ None
 - ☐ \$50 per month (\$600 annually)
 - ☐ \$100 per month (\$1200 annually)
 - ☐ \$150 per month (\$1,800 annually)
 - ☐ \$200 per month (\$2,400 annually)
 - ☐ \$250 per month (\$3,000 annually)
 - ☐ \$300 per month (\$3,600 annually)
 - ☐ \$350 per month (\$4,200 annually)
 - ☐ \$400 per month (\$4,800 annually)
 - ☐ More than \$400 per month
-

In summary, please assume:

You have a high-deductible health insurance plan

The deductible is \$4,000 annually

The insurance premium you must pay is \$300 per month (\$3,600 per year)

You have no other health insurance coverage

The plan covers you and other family members

You can make contributions to your Health Savings Account (HSA).

Your current HSA balance is zero.

If you make HSA contributions, your employer will match 25% of your contributions.

The maximum match is \$500 per year.

Assuming each of the above is true, what percentage of the deductible would you contribute to your Health Savings Account (HSA) this year?

- ☐ 0%
 - ☐ 25%
 - ☐ 50%
 - ☐ 75%
 - ☐ 100%
 - ☐ More than 100% of the deductible
-

In summary, please assume:

You have a high-deductible health insurance plan

The deductible is \$4,000 annually

The insurance premium you must pay is \$300 per month (\$3,600 per year)

You have no other health insurance coverage

The plan covers you and other family members

You can make contributions to your Health Savings Account (HSA).

Your current HSA balance is zero.

If you make HSA contributions, your employer will match 25% of your contributions.

The maximum match is \$500 per year.

Assuming each of the above is true, how important do you think it is to make contributions to your HSA?

- ☐ Very Unimportant
 - ☐ Somewhat Unimportant
 - ☐ Neutral
 - ☐ Somewhat Important
 - ☐ Very Important
-

In summary, please assume:

You have a high-deductible health insurance plan

The deductible is \$4,000 annually

The insurance premium you must pay is \$300 per month (\$3,600 per year)

You have no other health insurance coverage

The plan covers you and other family members

You can make contributions to your Health Savings Account (HSA).

Your current HSA balance is zero.

If you make HSA contributions, your employer will match 25% of your contributions.

The maximum match is \$500 per year.

What is your opinion of employers that offer this type of plan?

- ☐ Strongly Disapprove of Employer
 - ☐ Disapprove of Employer
 - ☐ Neutral
 - ☐ Approve of Employer
 - ☐ Strongly Approve of Employer
-

REWARDANDMATCH Treatment Family Coverage

Cash Back

For the purposes of this survey, please assume your employer has decided to pay you a \$250 annual cash reward if your HSA balance increases by \$500 this year. Your HSA balance will increase if you deposit more than you withdraw.

Employer Matching Health Savings Account (HSA) Contribution

For purposes of this survey, please assume your employer has decided to make a 25% match to your HSA contributions. The maximum employer matching contribution is \$500 per year.

Here is how matching works:

If you put \$100 into your HSA, your employer will contribute \$25

If you put \$1,000 into your HSA, your employer will contribute \$250

If you put \$2,000 into your HSA, your employer will contribute \$500

Assumptions for this survey:

When answering questions for this survey, please respond with the following assumptions:

You have a high-deductible health insurance plan

The deductible is \$4,000 annually

The insurance premium you must pay is \$300 per month (\$3,600 per year)

You have no other health insurance coverage

The plan covers you and other family members

You can make contributions to your Health Savings Account (HSA).

Your current HSA balance is zero

If your HSA balance increases by \$500 this year, your employer will pay you a \$250 cash reward. The balance will increase if you deposit more than you withdraw.

If you make HSA contributions, your employer will match 25% of your contributions.

The maximum match is \$500 per year.

In summary, please assume:

You have a high-deductible health insurance plan

The deductible is \$4,000 annually

The insurance premium you must pay is \$300 per month (\$3,600 per year)

You have no other health insurance coverage

The plan covers you and other family members

You can make contributions to your Health Savings Account (HSA).

Your current HSA balance is zero.

If your HSA balance increases by \$500 this year, your employer will pay you a \$250 cash reward. The balance will increase if you deposit more than you withdraw.

If you make HSA contributions, your employer will match 25% of your contributions.

The maximum match is \$500 per year.

Assuming each of the above is true, how much of your earnings would you put into your Health Savings Account (HSA) this year?

- ☐ None
 - ☐ \$50 per month (\$600 annually)
 - ☐ \$100 per month (\$1200 annually)
 - ☐ \$150 per month (\$1,800 annually)
 - ☐ \$200 per month (\$2,400 annually)
 - ☐ \$250 per month (\$3,000 annually)
 - ☐ \$300 per month (\$3,600 annually)
 - ☐ \$350 per month (\$4,200 annually)
 - ☐ \$400 per month (\$4,800 annually)
 - ☐ More than \$400 per month
-

In summary, please assume:

You have a high-deductible health insurance plan

The deductible is \$4,000 annually

The insurance premium you must pay is \$300 per month (\$3,600 per year)

You have no other health insurance coverage

The plan covers you and other family members

You can make contributions to your Health Savings Account (HSA).

Your current HSA balance is zero.

If your HSA balance increases by \$500 this year, your employer will pay you a \$250 cash reward. The balance will increase if you deposit more than you withdraw.

If you make HSA contributions, your employer will match 25% of your contributions.

The maximum match is \$500 per year.

Assuming each of the above is true, what percentage of the deductible would you contribute to your Health Savings Account (HSA) this year?

- ☐ 0%
 - ☐ 25%
 - ☐ 50%
 - ☐ 75%
 - ☐ 100%
 - ☐ More than 100% of the deductible
-

In summary, please assume:

You have a high-deductible health insurance plan

The deductible is \$4,000 annually

The insurance premium you must pay is \$300 per month (\$3,600 per year)

You have no other health insurance coverage

The plan covers you and other family members

You can make contributions to your Health Savings Account (HSA).

Your current HSA balance is zero.

If your HSA balance increases by \$500 this year, your employer will pay you a \$250 cash reward. The balance will increase if you deposit more than you withdraw.

If you make HSA contributions, your employer will match 25% of your contributions.

The maximum match is \$500 per year.

Assuming each of the above is true, how important do you think it is to make contributions to your HSA?

- ☐ Very Unimportant
 - ☐ Somewhat Unimportant
 - ☐ Neutral
 - ☐ Somewhat Important
 - ☐ Very Important
-

In summary, please assume:

You have a high-deductible health insurance plan

The deductible is \$4,000 annually

The insurance premium you must pay is \$300 per month (\$3,600 per year)

You have no other health insurance coverage

The plan covers you and other family members

You can make contributions to your Health Savings Account (HSA).

Your current HSA balance is zero.

If your HSA balance increases by \$500 this year, your employer will pay you a \$250 cash reward. The balance will increase if you deposit more than you withdraw.

If you make HSA contributions, your employer will match 25% of your contributions.

The maximum match is \$500 per year.

What is your opinion of employers that offer this type of plan?

- ☐ Strongly Disapprove of Employer
 - ☐ Disapprove of Employer
 - ☐ Neutral
 - ☐ Approve of Employer
 - ☐ Strongly Approve of Employer
-

VIDEO Treatment Family Coverage

Please watch 3 video clips about the benefits of making personal Health Savings Account (HSA) contributions. To watch a clip, click on the arrow.

Video 1: <https://web.gsc.edu/media/Facstaff/duke/dissertation/video1.flv>

Video 2: <https://web.gsc.edu/media/Facstaff/duke/dissertation/video2.flv>

Video 3: <https://web.gsc.edu/media/Facstaff/duke/dissertation/video3.flv>

Assumptions for this survey:

When answering questions for this survey, please respond with the following assumptions:

You have a high-deductible health insurance plan

The deductible is \$4,000 annually

The insurance premium you must pay is \$300 per month (\$3,600 per year)

You have no other health insurance coverage

The plan covers you and other family members

You can make contributions to your Health Savings Account (HSA).

Your current HSA balance is zero

In summary, please assume:

You have a high-deductible health insurance plan

The deductible is \$4,000 annually

The insurance premium you must pay is \$300 per month (\$3,600 per year)

You have no other health insurance coverage

The plan covers you and other family members

You can make contributions to your Health Savings Account (HSA).

Your current HSA balance is zero.

Assuming each of the above is true, how much of your earnings would you put into your Health Savings Account (HSA) this year?

- ☐ None
 - ☐ \$50 per month (\$600 annually)
 - ☐ \$100 per month (\$1200 annually)
 - ☐ \$150 per month (\$1,800 annually)
 - ☐ \$200 per month (\$2,400 annually)
 - ☐ \$250 per month (\$3,000 annually)
 - ☐ \$300 per month (\$3,600 annually)
 - ☐ \$350 per month (\$4,200 annually)
 - ☐ \$400 per month (\$4,800 annually)
 - ☐ More than \$400 per month
-

In summary, please assume:

You have a high-deductible health insurance plan

The deductible is \$4,000 annually

The insurance premium you must pay is \$300 per month (\$3,600 per year)

You have no other health insurance coverage

The plan covers you and other family members

You can make contributions to your Health Savings Account (HSA).

Your current HSA balance is zero.

Assuming each of the above is true, what percentage of the deductible would you contribute to your Health Savings Account (HSA) this year?

- ☐ 0%
 - ☐ 25%
 - ☐ 50%
 - ☐ 75%
 - ☐ 100%
 - ☐ More than 100% of the deductible
-

In summary, please assume:

You have a high-deductible health insurance plan

The deductible is \$4,000 annually

The insurance premium you must pay is \$300 per month (\$3,600 per year)

You have no other health insurance coverage

The plan covers you and other family members

You can make contributions to your Health Savings Account (HSA).

Your current HSA balance is zero.

Assuming each of the above is true, how important do you think it is to make contributions to your HSA?

- ☐ Very Unimportant
 - ☐ Somewhat Unimportant
 - ☐ Neutral
 - ☐ Somewhat Important
 - ☐ Very Important
-

In summary, please assume:

You have a high-deductible health insurance plan

The deductible is \$4,000 annually

The insurance premium you must pay is \$300 per month (\$3,600 per year)

You have no other health insurance coverage

The plan covers you and other family members

You can make contributions to your Health Savings Account (HSA).

Your current HSA balance is zero.

What is your opinion of employers that offer this type of plan?

- ☐ Strongly Disapprove of Employer
 - ☐ Disapprove of Employer
 - ☐ Neutral
 - ☐ Approve of Employer
 - ☐ Strongly Approve of Employer
-

Did you see and hear the video?

- ☐ Yes
- ☐ No

How many video clips did you view?

- ☐ 0
 - ☐ 1
 - ☐ 2
 - ☐ 3
-

VIDEOANDMATCH Treatment Family Coverage

Please watch 3 video clips about the benefits of making personal Health Savings Account (HSA) contributions. To watch a clip, click on the arrow.

Video 1: <https://web.gsc.edu/media/Facstaff/duke/dissertation/video1.flv>

Video 2: <https://web.gsc.edu/media/Facstaff/duke/dissertation/video2.flv>

Video 3: <https://web.gsc.edu/media/Facstaff/duke/dissertation/video3.flv>

Employer Matching Health Savings Account (HSA) Contribution

For purposes of this survey, please assume your employer has decided to make a 25% match to your HSA contributions. The maximum employer matching contribution is \$500 per year.

Here is how matching works:

If you put \$100 into your HSA, your employer will contribute \$25

If you put \$1,000 into your HSA, your employer will contribute \$250

If you put \$2,000 into your HSA, your employer will contribute \$500

Assumptions for this survey:

When answering questions for this survey, please respond with the following assumptions:

You have a high-deductible health insurance plan

The deductible is \$4,000 annually

The insurance premium you must pay is \$300 per month (\$3,600 per year)

You have no other health insurance coverage

The plan covers you and other family members

You can make contributions to your Health Savings Account (HSA).

Your current HSA balance is zero

If you make HSA contributions, your employer will match 25% of your contributions.

The maximum match is \$500 per year.

In summary, please assume:

You have a high-deductible health insurance plan

The deductible is \$4,000 annually

The insurance premium you must pay is \$300 per month (\$3,600 per year)

You have no other health insurance coverage

The plan covers you and other family members

You can make contributions to your Health Savings Account (HSA).

Your current HSA balance is zero.

If you make HSA contributions, your employer will match 25% of your contributions.
The maximum match is \$500 per year.

Assuming each of the above is true, how much of your earnings would you put into your Health Savings Account (HSA) this year?

- ☐ None
- ☐ \$50 per month (\$600 annually)
- ☐ \$100 per month (\$1200 annually)
- ☐ \$150 per month (\$1,800 annually)
- ☐ \$200 per month (\$2,400 annually)
- ☐ \$250 per month (\$3,000 annually)
- ☐ \$300 per month (\$3,600 annually)
- ☐ \$350 per month (\$4,200 annually)
- ☐ \$400 per month (\$4,800 annually)
- ☐ More than \$400 per month

In summary, please assume:

You have a high-deductible health insurance plan

The deductible is \$4,000 annually

The insurance premium you must pay is \$300 per month (\$3,600 per year)

You have no other health insurance coverage

The plan covers you and other family members

You can make contributions to your Health Savings Account (HSA).

Your current HSA balance is zero.

If you make HSA contributions, your employer will match 25% of your contributions.

The maximum match is \$500 per year.

Assuming each of the above is true, what percentage of the deductible would you contribute to your Health Savings Account (HSA) this year?

- ☐ 0%
- ☐ 25%
- ☐ 50%
- ☐ 75%
- ☐ 100%
- ☐ More than 100% of the deductible

In summary, please assume:

You have a high-deductible health insurance plan

The deductible is \$4,000 annually

The insurance premium you must pay is \$300 per month (\$3,600 per year)

You have no other health insurance coverage
The plan covers you and other family members
You can make contributions to your Health Savings Account (HSA).
Your current HSA balance is zero.
If you make HSA contributions, your employer will match 25% of your contributions.
The maximum match is \$500 per year.

Assuming each of the above is true, how important do you think it is to make contributions to your HSA?

- ☐ Very Unimportant
 - ☐ Somewhat Unimportant
 - ☐ Neutral
 - ☐ Somewhat Important
 - ☐ Very Important
-

In summary, please assume:

You have a high-deductible health insurance plan
The deductible is \$4,000 annually
The insurance premium you must pay is \$300 per month (\$3,600 per year)
You have no other health insurance coverage
The plan covers you and other family members
You can make contributions to your Health Savings Account (HSA).
Your current HSA balance is zero.
If you make HSA contributions, your employer will match 25% of your contributions.
The maximum match is \$500 per year.

What is your opinion of employers that offer this type of plan?

- ☐ Strongly Disapprove of Employer
 - ☐ Disapprove of Employer
 - ☐ Neutral
 - ☐ Approve of Employer
 - ☐ Strongly Approve of Employer
-

Did you see and hear the video?

- ☐ Yes
- ☐ No

How many video clips did you view?

- ☐ 0
 - ☐ 1
 - ☐ 2
 - ☐ 3
-

OPT-IN Treatment Family Coverage

Assumptions for this survey:

When answering questions for this survey, please respond with the following assumptions:

You have a high-deductible health insurance plan
The deductible is \$4,000 annually
The insurance premium you must pay is \$300 per month (\$3,600 per year)
You have no other health insurance coverage
The plan covers you and other family members
You can make contributions to your Health Savings Account (HSA).
Your current HSA balance is zero

In summary, please assume:

You have a high-deductible health insurance plan
The deductible is \$4,000 annually
The insurance premium you must pay is \$300 per month (\$3,600 per year)
You have no other health insurance coverage
The plan covers you and other family members
You can make contributions to your Health Savings Account (HSA).
Your current HSA balance is zero.

Assuming each of the above is true, would you make contributions to a Health Savings Account (HSA) this year?

- ☐ Yes
 - ☐ No
-

In summary, please assume:

You have a high-deductible health insurance plan
The deductible is \$4,000 annually
The insurance premium you must pay is \$300 per month (\$3,600 per year)
You have no other health insurance coverage
The plan covers you and other family members
You can make contributions to your Health Savings Account (HSA).
Your current HSA balance is zero.

Assuming each of the above is true, how much of your earnings would you put into your Health Savings Account (HSA) this year?

- ☐ None
 - ☐ \$50 per month (\$600 annually)
 - ☐ \$100 per month (\$1200 annually)
 - ☐ \$150 per month (\$1,800 annually)
 - ☐ \$200 per month (\$2,400 annually)
 - ☐ \$250 per month (\$3,000 annually)
 - ☐ \$300 per month (\$3,600 annually)
 - ☐ \$350 per month (\$4,200 annually)
 - ☐ \$400 per month (\$4,800 annually)
 - ☐ More than \$400 per month
-

In summary, please assume:

You have a high-deductible health insurance plan

The deductible is \$4,000 annually

The insurance premium you must pay is \$300 per month (\$3,600 per year)

You have no other health insurance coverage

The plan covers you and other family members

You can make contributions to your Health Savings Account (HSA).

Your current HSA balance is zero.

Assuming each of the above is true, what percentage of the deductible would you contribute to your Health Savings Account (HSA) this year?

- ☐ 0%
 - ☐ 25%
 - ☐ 50%
 - ☐ 75%
 - ☐ 100%
 - ☐ More than 100% of the deductible
-

In summary, please assume:

You have a high-deductible health insurance plan

The deductible is \$4,000 annually

The insurance premium you must pay is \$300 per month (\$3,600 per year)

You have no other health insurance coverage

The plan covers you and other family members

You can make contributions to your Health Savings Account (HSA).

Your current HSA balance is zero.

Assuming each of the above is true, how important do you think it is to make contributions to your HSA?

- ☐ Very Unimportant
 - ☐ Somewhat Unimportant
 - ☐ Neutral
 - ☐ Somewhat Important
 - ☐ Very Important
-

In summary, please assume:

You have a high-deductible health insurance plan

The deductible is \$4,000 annually

The insurance premium you must pay is \$300 per month (\$3,600 per year)

You have no other health insurance coverage

The plan covers you and other family members

You can make contributions to your Health Savings Account (HSA).

Your current HSA balance is zero.

What is your opinion of employers that offer this type of plan?

- ☐ Strongly Disapprove of Employer
 - ☐ Disapprove of Employer
 - ☐ Neutral
 - ☐ Approve of Employer
 - ☐ Strongly Approve of Employer
-

EAC Treatment Family Coverage

Assumptions for this survey:

When answering questions for this survey, please respond with the following assumptions:

You have a high-deductible health insurance plan
The deductible is \$4,000 annually
The insurance premium you must pay is \$300 per month (\$3,600 per year)
You have no other health insurance coverage
The plan covers you and other family members
You can make contributions to your Health Savings Account (HSA).
Your current HSA balance is zero

In summary, please assume:

You have a high-deductible health insurance plan
The deductible is \$4,000 annually
The insurance premium you must pay is \$300 per month (\$3,600 per year)
You have no other health insurance coverage
The plan covers you and other family members
You can make contributions to your Health Savings Account (HSA).
Your current HSA balance is zero.

Assuming each of the above is true, please select the response below which is most descriptive of what you would do:

Option 1

I WOULD contribute to my HSA this year so that:
I WOULD accumulate money to pay my health insurance deductible
I WOULD accumulate money to pay for future medical expenses and possibly retirement
Taxes WOULD NOT be withheld on earnings I contribute to the HSA

☐ Option 1

Option 2

I WOULD NOT contribute to my HSA this year even if it means:
I WOULD NOT accumulate money to pay my health insurance deductible
I WOULD NOT accumulate money to pay for future medical expenses and possibly retirement
Taxes WOULD be withheld on all of my earnings

☐ Option 2

In summary, please assume:

You have a high-deductible health insurance plan

The deductible is \$4,000 annually

The insurance premium you must pay is \$300 per month (\$3,600 per year)

You have no other health insurance coverage

The plan covers you and other family members

You can make contributions to your Health Savings Account (HSA).

Your current HSA balance is zero.

Assuming each of the above is true, how much of your earnings would you put into your Health Savings Account (HSA) this year?

- ☐ None
 - ☐ \$50 per month (\$600 annually)
 - ☐ \$100 per month (\$1200 annually)
 - ☐ \$150 per month (\$1,800 annually)
 - ☐ \$200 per month (\$2,400 annually)
 - ☐ \$250 per month (\$3,000 annually)
 - ☐ \$300 per month (\$3,600 annually)
 - ☐ \$350 per month (\$4,200 annually)
 - ☐ \$400 per month (\$4,800 annually)
 - ☐ More than \$400 per month
-

In summary, please assume:

You have a high-deductible health insurance plan

The deductible is \$4,000 annually

The insurance premium you must pay is \$300 per month (\$3,600 per year)

You have no other health insurance coverage

The plan covers you and other family members

You can make contributions to your Health Savings Account (HSA).

Your current HSA balance is zero.

Assuming each of the above is true, what percentage of the deductible would you contribute to your Health Savings Account (HSA) this year?

- ☐ 0%
 - ☐ 25%
 - ☐ 50%
 - ☐ 75%
 - ☐ 100%
 - ☐ More than 100% of the deductible
-

In summary, please assume:

You have a high-deductible health insurance plan

The deductible is \$4,000 annually

The insurance premium you must pay is \$300 per month (\$3,600 per year)

You have no other health insurance coverage

The plan covers you and other family members

You can make contributions to your Health Savings Account (HSA).

Your current HSA balance is zero.

Assuming each of the above is true, how important do you think it is to make contributions to your HSA?

- ☐ Very Unimportant
 - ☐ Somewhat Unimportant
 - ☐ Neutral
 - ☐ Somewhat Important
 - ☐ Very Important
-

In summary, please assume:

You have a high-deductible health insurance plan

The deductible is \$4,000 annually

The insurance premium you must pay is \$300 per month (\$3,600 per year)

You have no other health insurance coverage

The plan covers you and other family members

You can make contributions to your Health Savings Account (HSA).

Your current HSA balance is zero.

What is your opinion of employers that offer this type of plan?

- ☐ Strongly Disapprove of Employer
 - ☐ Disapprove of Employer
 - ☐ Neutral
 - ☐ Approve of Employer
 - ☐ Strongly Approve of Employer
-

SINGLE-COVERAGE TREATMENTS

CONTROL Treatment Single Coverage

Assumptions for this survey:

When answering questions for this survey, please respond with the following assumptions:

You have a high-deductible health insurance plan
The deductible is \$3,000 annually
The insurance premium you must pay is \$50 per month (\$600 per year)
You have no other health insurance coverage
The plan covers you and other family members
You can make contributions to your Health Savings Account (HSA).
Your current HSA balance is zero

In summary, please assume:

You have a high-deductible health insurance plan
The deductible is \$3,000 annually
The insurance premium you must pay is \$50 per month (\$600 per year)
You have no other health insurance coverage
The plan covers you and other family members
You can make contributions to your Health Savings Account (HSA).
Your current HSA balance is zero.

Assuming each of the above is true, how much of your earnings would you put into your Health Savings Account (HSA) this year?

- ☐ None
 - ☐ \$25 per month (\$300 annually)
 - ☐ \$50 per month (\$600 annually)
 - ☐ \$75 per month (\$900 annually)
 - ☐ \$100 per month (\$1,200 annually)
 - ☐ \$125 per month (\$1,500 annually)
 - ☐ \$150 per month (\$1,800 annually)
 - ☐ \$175 per month (\$2,100 annually)
 - ☐ \$200 per month (\$2,400 annually)
 - ☐ More than \$200 per month
-

In summary, please assume:

You have a high-deductible health insurance plan
The deductible is \$3,000 annually

The insurance premium you must pay is \$50 per month (\$600 per year)
You have no other health insurance coverage
The plan covers you and other family members
You can make contributions to your Health Savings Account (HSA).
Your current HSA balance is zero.

Assuming each of the above is true, what percentage of the deductible would you contribute to your Health Savings Account (HSA) this year?

- ☐ 0%
 - ☐ 25%
 - ☐ 50%
 - ☐ 75%
 - ☐ 100%
 - ☐ More than 100% of the deductible
-

In summary, please assume:

You have a high-deductible health insurance plan
The deductible is \$3,000 annually
The insurance premium you must pay is \$50 per month (\$600 per year)
You have no other health insurance coverage
The plan covers you and other family members
You can make contributions to your Health Savings Account (HSA).
Your current HSA balance is zero.

Assuming each of the above is true, how important do you think it is to make contributions to your HSA?

- ☐ Very Unimportant
 - ☐ Somewhat Unimportant
 - ☐ Neutral
 - ☐ Somewhat Important
 - ☐ Very Important
-

In summary, please assume:

You have a high-deductible health insurance plan
The deductible is \$3,000 annually
The insurance premium you must pay is \$50 per month (\$600 per year)
You have no other health insurance coverage
The plan covers you and other family members
You can make contributions to your Health Savings Account (HSA).
Your current HSA balance is zero.

What is your opinion of employers that offer this type of plan?

- ☐ Strongly Disapprove of Employer
 - ☐ Disapprove of Employer
 - ☐ Neutral
 - ☐ Approve of Employer
 - ☐ Strongly Approve of Employer
-

CASHREWARD Treatment Single Coverage

Cash Back

For the purposes of this survey, please assume your employer has decided to pay you a \$250 annual cash reward if your HSA balance increases by \$500 this year. Your HSA balance will increase if you deposit more than you withdraw.

Assumptions for this survey:

When answering questions for this survey, please respond with the following assumptions:

You have a high-deductible health insurance plan

The deductible is \$3,000 annually

The insurance premium you must pay is \$50 per month (\$600 per year)

You have no other health insurance coverage

The plan covers you and other family members

You can make contributions to your Health Savings Account (HSA).

Your current HSA balance is zero

If your HSA balance increases by \$500 this year, your employer will pay you a \$250 cash reward. The balance will increase if you deposit more than you withdraw.

In summary, please assume:

You have a high-deductible health insurance plan

The deductible is \$3,000 annually

The insurance premium you must pay is \$50 per month (\$600 per year)

You have no other health insurance coverage

The plan covers you and other family members

You can make contributions to your Health Savings Account (HSA).

Your current HSA balance is zero.

If your HSA balance increases by \$500 this year, your employer will pay you a \$250 cash reward. The balance will increase if you deposit more than you withdraw.

Assuming each of the above is true, how much of your earnings would you put into your Health Savings Account (HSA) this year?

- ☐ None
- ☐ \$25 per month (\$300 annually)
- ☐ \$50 per month (\$600 annually)
- ☐ \$75 per month (\$900 annually)
- ☐ \$100 per month (\$1,200 annually)
- ☐ \$125 per month (\$1,500 annually)

- ☐ \$150 per month (\$1,800 annually)
 - ☐ \$175 per month (\$2,100 annually)
 - ☐ \$200 per month (\$2,400 annually)
 - ☐ More than \$200 per month
-

In summary, please assume:

You have a high-deductible health insurance plan

The deductible is \$3,000 annually

The insurance premium you must pay is \$50 per month (\$600 per year)

You have no other health insurance coverage

The plan covers you and other family members

You can make contributions to your Health Savings Account (HSA).

Your current HSA balance is zero.

If your HSA balance increases by \$500 this year, your employer will pay you a \$250 cash reward. The balance will increase if you deposit more than you withdraw.

Assuming each of the above is true, what percentage of the deductible would you contribute to your Health Savings Account (HSA) this year?

- ☐ 0%
 - ☐ 25%
 - ☐ 50%
 - ☐ 75%
 - ☐ 100%
 - ☐ More than 100% of the deductible
-

In summary, please assume:

You have a high-deductible health insurance plan

The deductible is \$3,000 annually

The insurance premium you must pay is \$50 per month (\$600 per year)

You have no other health insurance coverage

The plan covers you and other family members

You can make contributions to your Health Savings Account (HSA).

Your current HSA balance is zero.

If your HSA balance increases by \$500 this year, your employer will pay you a \$250 cash reward. The balance will increase if you deposit more than you withdraw.

Assuming each of the above is true, how important do you think it is to make contributions to your HSA?

- ☐ Very Unimportant
 - ☐ Somewhat Unimportant
 - ☐ Neutral
 - ☐ Somewhat Important
 - ☐ Very Important
-

In summary, please assume:

You have a high-deductible health insurance plan

The deductible is \$3,000 annually

The insurance premium you must pay is \$50 per month (\$600 per year)

You have no other health insurance coverage

The plan covers you and other family members

You can make contributions to your Health Savings Account (HSA).

Your current HSA balance is zero.

If your HSA balance increases by \$500 this year, your employer will pay you a \$250 cash reward. The balance will increase if you deposit more than you withdraw.

What is your opinion of employers that offer this type of plan?

- ☐ Strongly Disapprove of Employer
 - ☐ Disapprove of Employer
 - ☐ Neutral
 - ☐ Approve of Employer
 - ☐ Strongly Approve of Employer
-

MATCH Treatment Single Coverage

Employer Matching Health Savings Account (HSA) Contribution

For purposes of this survey, please assume your employer has decided to make a 25% match to your HSA contributions. The maximum employer matching contribution is \$500 per year.

Here is how matching works:

If you put \$100 into your HSA, your employer will contribute \$25

If you put \$1,000 into your HSA, your employer will contribute \$250

If you put \$2,000 into your HSA, your employer will contribute \$500

Assumptions for this survey:

When answering questions for this survey, please respond with the following assumptions:

You have a high-deductible health insurance plan

The deductible is \$3,000 annually

The insurance premium you must pay is \$50 per month (\$600 per year)

You have no other health insurance coverage

The plan covers you and other family members

You can make contributions to your Health Savings Account (HSA).

Your current HSA balance is zero

If you make HSA contributions, your employer will match 25% of your contributions.

The maximum match is \$500 per year.

In summary, please assume:

You have a high-deductible health insurance plan

The deductible is \$3,000 annually

The insurance premium you must pay is \$50 per month (\$600 per year)

You have no other health insurance coverage

The plan covers you and other family members

You can make contributions to your Health Savings Account (HSA).

Your current HSA balance is zero.

If you make HSA contributions, your employer will match 25% of your contributions.

The maximum match is \$500 per year.

Assuming each of the above is true, how much of your earnings would you put into your Health Savings Account (HSA) this year?

- ☐ None
 - ☐ \$25 per month (\$300 annually)
 - ☐ \$50 per month (\$600 annually)
 - ☐ \$75 per month (\$900 annually)
 - ☐ \$100 per month (\$1,200 annually)
 - ☐ \$125 per month (\$1,500 annually)
 - ☐ \$150 per month (\$1,800 annually)
 - ☐ \$175 per month (\$2,100 annually)
 - ☐ \$200 per month (\$2,400 annually)
 - ☐ More than \$200 per month
-

In summary, please assume:

You have a high-deductible health insurance plan

The deductible is \$3,000 annually

The insurance premium you must pay is \$50 per month (\$600 per year)

You have no other health insurance coverage

The plan covers you and other family members

You can make contributions to your Health Savings Account (HSA).

Your current HSA balance is zero.

If you make HSA contributions, your employer will match 25% of your contributions.

The maximum match is \$500 per year.

Assuming each of the above is true, what percentage of the deductible would you contribute to your Health Savings Account (HSA) this year?

- ☐ 0%
 - ☐ 25%
 - ☐ 50%
 - ☐ 75%
 - ☐ 100%
 - ☐ More than 100% of the deductible
-

In summary, please assume:

You have a high-deductible health insurance plan

The deductible is \$3,000 annually

The insurance premium you must pay is \$50 per month (\$600 per year)

You have no other health insurance coverage

The plan covers you and other family members

You can make contributions to your Health Savings Account (HSA).

Your current HSA balance is zero.

If you make HSA contributions, your employer will match 25% of your contributions.

The maximum match is \$500 per year.

Assuming each of the above is true, how important do you think it is to make contributions to your HSA?

- ☐ Very Unimportant
 - ☐ Somewhat Unimportant
 - ☐ Neutral
 - ☐ Somewhat Important
 - ☐ Very Important
-

In summary, please assume:

You have a high-deductible health insurance plan

The deductible is \$3,000 annually

The insurance premium you must pay is \$50 per month (\$600 per year)

You have no other health insurance coverage

The plan covers you and other family members

You can make contributions to your Health Savings Account (HSA).

Your current HSA balance is zero.

If you make HSA contributions, your employer will match 25% of your contributions.

The maximum match is \$500 per year.

What is your opinion of employers that offer this type of plan?

- ☐ Strongly Disapprove of Employer
 - ☐ Disapprove of Employer
 - ☐ Neutral
 - ☐ Approve of Employer
 - ☐ Strongly Approve of Employer
-

REWARDANDMATCH Treatment Single Coverage

Cash Back

For the purposes of this survey, please assume your employer has decided to pay you a \$250 annual cash reward if your HSA balance increases by \$500 this year. Your HSA balance will increase if you deposit more than you withdraw.

Employer Matching Health Savings Account (HSA) Contribution

For purposes of this survey, please assume your employer has decided to make a 25% match to your HSA contributions. The maximum employer matching contribution is \$500 per year.

Here is how matching works:

If you put \$100 into your HSA, your employer will contribute \$25

If you put \$1,000 into your HSA, your employer will contribute \$250

If you put \$2,000 into your HSA, your employer will contribute \$500

Assumptions for this survey:

When answering questions for this survey, please respond with the following assumptions:

You have a high-deductible health insurance plan

The deductible is \$3,000 annually

The insurance premium you must pay is \$50 per month (\$600 per year)

You have no other health insurance coverage

The plan covers you and other family members

You can make contributions to your Health Savings Account (HSA).

Your current HSA balance is zero

If your HSA balance increases by \$500 this year, your employer will pay you a \$250 cash reward. The balance will increase if you deposit more than you withdraw.

If you make HSA contributions, your employer will match 25% of your contributions.

The maximum match is \$500 per year.

In summary, please assume:

You have a high-deductible health insurance plan

The deductible is \$3,000 annually

The insurance premium you must pay is \$50 per month (\$600 per year)

You have no other health insurance coverage

The plan covers you and other family members

You can make contributions to your Health Savings Account (HSA).

Your current HSA balance is zero.

If your HSA balance increases by \$500 this year, your employer will pay you a \$250 cash reward. The balance will increase if you deposit more than you withdraw.

If you make HSA contributions, your employer will match 25% of your contributions.

The maximum match is \$500 per year.

Assuming each of the above is true, how much of your earnings would you put into your Health Savings Account (HSA) this year?

- ☐ None
 - ☐ \$25 per month (\$300 annually)
 - ☐ \$50 per month (\$600 annually)
 - ☐ \$75 per month (\$900 annually)
 - ☐ \$100 per month (\$1,200 annually)
 - ☐ \$125 per month (\$1,500 annually)
 - ☐ \$150 per month (\$1,800 annually)
 - ☐ \$175 per month (\$2,100 annually)
 - ☐ \$200 per month (\$2,400 annually)
 - ☐ More than \$200 per month
-

In summary, please assume:

You have a high-deductible health insurance plan

The deductible is \$3,000 annually

The insurance premium you must pay is \$50 per month (\$600 per year)

You have no other health insurance coverage

The plan covers you and other family members

You can make contributions to your Health Savings Account (HSA).

Your current HSA balance is zero.

If your HSA balance increases by \$500 this year, your employer will pay you a \$250 cash reward. The balance will increase if you deposit more than you withdraw.

If you make HSA contributions, your employer will match 25% of your contributions.

The maximum match is \$500 per year.

Assuming each of the above is true, what percentage of the deductible would you contribute to your Health Savings Account (HSA) this year?

- ☐ 0%
 - ☐ 25%
 - ☐ 50%
 - ☐ 75%
 - ☐ 100%
 - ☐ More than 100% of the deductible
-

In summary, please assume:

You have a high-deductible health insurance plan

The deductible is \$3,000 annually

The insurance premium you must pay is \$50 per month (\$600 per year)

You have no other health insurance coverage

The plan covers you and other family members

You can make contributions to your Health Savings Account (HSA).

Your current HSA balance is zero.

If your HSA balance increases by \$500 this year, your employer will pay you a \$250 cash reward. The balance will increase if you deposit more than you withdraw.

If you make HSA contributions, your employer will match 25% of your contributions.

The maximum match is \$500 per year.

Assuming each of the above is true, how important do you think it is to make contributions to your HSA?

- ☐ Very Unimportant
 - ☐ Somewhat Unimportant
 - ☐ Neutral
 - ☐ Somewhat Important
 - ☐ Very Important
-

In summary, please assume:

You have a high-deductible health insurance plan

The deductible is \$3,000 annually

The insurance premium you must pay is \$50 per month (\$600 per year)

You have no other health insurance coverage

The plan covers you and other family members

You can make contributions to your Health Savings Account (HSA).

Your current HSA balance is zero.

If your HSA balance increases by \$500 this year, your employer will pay you a \$250 cash reward. The balance will increase if you deposit more than you withdraw.

If you make HSA contributions, your employer will match 25% of your contributions.

The maximum match is \$500 per year.

What is your opinion of employers that offer this type of plan?

- ☐ Strongly Disapprove of Employer
 - ☐ Disapprove of Employer
 - ☐ Neutral
 - ☐ Approve of Employer
 - ☐ Strongly Approve of Employer
-

VIDEO Treatment Single Coverage

Please watch 3 video clips about the benefits of making personal Health Savings Account (HSA) contributions. To watch a clip, click on the arrow.

Video 1: <https://web.gsc.edu/media/Facstaff/duke/dissertation/video1.flv>

Video 2: <https://web.gsc.edu/media/Facstaff/duke/dissertation/video2.flv>

Video 3: <https://web.gsc.edu/media/Facstaff/duke/dissertation/video3.flv>

Assumptions for this survey:

When answering questions for this survey, please respond with the following assumptions:

You have a high-deductible health insurance plan

The deductible is \$3,000 annually

The insurance premium you must pay is \$50 per month (\$600 per year)

You have no other health insurance coverage

The plan covers you and other family members

You can make contributions to your Health Savings Account (HSA).

Your current HSA balance is zero

In summary, please assume:

You have a high-deductible health insurance plan

The deductible is \$3,000 annually

The insurance premium you must pay is \$50 per month (\$600 per year)

You have no other health insurance coverage

The plan covers you and other family members

You can make contributions to your Health Savings Account (HSA).

Your current HSA balance is zero.

Assuming each of the above is true, how much of your earnings would you put into your Health Savings Account (HSA) this year?

- ☐ None
 - ☐ \$25 per month (\$300 annually)
 - ☐ \$50 per month (\$600 annually)
 - ☐ \$75 per month (\$900 annually)
 - ☐ \$100 per month (\$1,200 annually)
 - ☐ \$125 per month (\$1,500 annually)
 - ☐ \$150 per month (\$1,800 annually)
 - ☐ \$175 per month (\$2,100 annually)
 - ☐ \$200 per month (\$2,400 annually)
 - ☐ More than \$200 per month
-

In summary, please assume:

You have a high-deductible health insurance plan

The deductible is \$3,000 annually

The insurance premium you must pay is \$50 per month (\$600 per year)

You have no other health insurance coverage

The plan covers you and other family members

You can make contributions to your Health Savings Account (HSA).

Your current HSA balance is zero.

Assuming each of the above is true, what percentage of the deductible would you contribute to your Health Savings Account (HSA) this year?

- ☐ 0%
 - ☐ 25%
 - ☐ 50%
 - ☐ 75%
 - ☐ 100%
 - ☐ More than 100% of the deductible
-

In summary, please assume:

You have a high-deductible health insurance plan

The deductible is \$3,000 annually

The insurance premium you must pay is \$50 per month (\$600 per year)

You have no other health insurance coverage

The plan covers you and other family members

You can make contributions to your Health Savings Account (HSA).

Your current HSA balance is zero.

Assuming each of the above is true, how important do you think it is to make contributions to your HSA?

- ☐ Very Unimportant
 - ☐ Somewhat Unimportant
 - ☐ Neutral
 - ☐ Somewhat Important
 - ☐ Very Important
-

In summary, please assume:

You have a high-deductible health insurance plan

The deductible is \$3,000 annually

The insurance premium you must pay is \$50 per month (\$600 per year)

You have no other health insurance coverage

The plan covers you and other family members

You can make contributions to your Health Savings Account (HSA).

Your current HSA balance is zero.

What is your opinion of employers that offer this type of plan?

- ☐ Strongly Disapprove of Employer
 - ☐ Disapprove of Employer
 - ☐ Neutral
 - ☐ Approve of Employer
 - ☐ Strongly Approve of Employer
-

Did you see and hear the video?

- ☐ Yes
- ☐ No

How many video clips did you view?

- ☐ 0
 - ☐ 1
 - ☐ 2
 - ☐ 3
-

VIDEOANDMATCH Treatment Single Coverage

Please watch 3 video clips about the benefits of making personal Health Savings Account (HSA) contributions. To watch a clip, click on the arrow.

Video 1: <https://web.gsc.edu/media/Facstaff/duke/dissertation/video1.flv>

Video 2: <https://web.gsc.edu/media/Facstaff/duke/dissertation/video2.flv>

Video 3: <https://web.gsc.edu/media/Facstaff/duke/dissertation/video3.flv>

Employer Matching Health Savings Account (HSA) Contribution

For purposes of this survey, please assume your employer has decided to make a 25% match to your HSA contributions. The maximum employer matching contribution is \$500 per year.

Here is how matching works:

If you put \$100 into your HSA, your employer will contribute \$25

If you put \$1,000 into your HSA, your employer will contribute \$250

If you put \$2,000 into your HSA, your employer will contribute \$500

Assumptions for this survey:

When answering questions for this survey, please respond with the following assumptions:

You have a high-deductible health insurance plan

The deductible is \$3,000 annually

The insurance premium you must pay is \$50 per month (\$600 per year)

You have no other health insurance coverage

The plan covers you and other family members

You can make contributions to your Health Savings Account (HSA).

Your current HSA balance is zero

If you make HSA contributions, your employer will match 25% of your contributions.

The maximum match is \$500 per year.

In summary, please assume:

You have a high-deductible health insurance plan

The deductible is \$3,000 annually

The insurance premium you must pay is \$50 per month (\$600 per year)

You have no other health insurance coverage

The plan covers you and other family members

You can make contributions to your Health Savings Account (HSA).

Your current HSA balance is zero.

If you make HSA contributions, your employer will match 25% of your contributions.
The maximum match is \$500 per year.

Assuming each of the above is true, how much of your earnings would you put into your Health Savings Account (HSA) this year?

- ☐ None
- ☐ \$25 per month (\$300 annually)
- ☐ \$50 per month (\$600 annually)
- ☐ \$75 per month (\$900 annually)
- ☐ \$100 per month (\$1,200 annually)
- ☐ \$125 per month (\$1,500 annually)
- ☐ \$150 per month (\$1,800 annually)
- ☐ \$175 per month (\$2,100 annually)
- ☐ \$200 per month (\$2,400 annually)
- ☐ More than \$200 per month

In summary, please assume:

You have a high-deductible health insurance plan

The deductible is \$3,000 annually

The insurance premium you must pay is \$50 per month (\$600 per year)

You have no other health insurance coverage

The plan covers you and other family members

You can make contributions to your Health Savings Account (HSA).

Your current HSA balance is zero.

If you make HSA contributions, your employer will match 25% of your contributions.

The maximum match is \$500 per year.

Assuming each of the above is true, what percentage of the deductible would you contribute to your Health Savings Account (HSA) this year?

- ☐ 0%
- ☐ 25%
- ☐ 50%
- ☐ 75%
- ☐ 100%
- ☐ More than 100% of the deductible

In summary, please assume:

You have a high-deductible health insurance plan

The deductible is \$3,000 annually

The insurance premium you must pay is \$50 per month (\$600 per year)

You have no other health insurance coverage

The plan covers you and other family members

You can make contributions to your Health Savings Account (HSA).

Your current HSA balance is zero.

If you make HSA contributions, your employer will match 25% of your contributions.

The maximum match is \$500 per year.

Assuming each of the above is true, how important do you think it is to make contributions to your HSA?

- ☐ Very Unimportant
 - ☐ Somewhat Unimportant
 - ☐ Neutral
 - ☐ Somewhat Important
 - ☐ Very Important
-

In summary, please assume:

You have a high-deductible health insurance plan

The deductible is \$3,000 annually

The insurance premium you must pay is \$50 per month (\$600 per year)

You have no other health insurance coverage

The plan covers you and other family members

You can make contributions to your Health Savings Account (HSA).

Your current HSA balance is zero.

If you make HSA contributions, your employer will match 25% of your contributions.

The maximum match is \$500 per year.

What is your opinion of employers that offer this type of plan?

- ☐ Strongly Disapprove of Employer
 - ☐ Disapprove of Employer
 - ☐ Neutral
 - ☐ Approve of Employer
 - ☐ Strongly Approve of Employer
-

Did you see and hear the video?

- ☐ Yes
- ☐ No

How many video clips did you view?

- ☐ 0
 - ☐ 1
 - ☐ 2
 - ☐ 3
-

OPT-IN Treatment Single Coverage

Assumptions for this survey:

When answering questions for this survey, please respond with the following assumptions:

You have a high-deductible health insurance plan
The deductible is \$3,000 annually
The insurance premium you must pay is \$50 per month (\$600 per year)
You have no other health insurance coverage
The plan covers you and other family members
You can make contributions to your Health Savings Account (HSA).
Your current HSA balance is zero

In summary, please assume:

You have a high-deductible health insurance plan
The deductible is \$3,000 annually
The insurance premium you must pay is \$50 per month (\$600 per year)
You have no other health insurance coverage
The plan covers you and other family members
You can make contributions to your Health Savings Account (HSA).
Your current HSA balance is zero.

Assuming each of the above is true, would you make contributions to a Health Savings Account (HSA) this year?

- ☐ Yes
☐ No
-

In summary, please assume:

You have a high-deductible health insurance plan
The deductible is \$3,000 annually
The insurance premium you must pay is \$50 per month (\$600 per year)
You have no other health insurance coverage
The plan covers you and other family members
You can make contributions to your Health Savings Account (HSA).
Your current HSA balance is zero.

Assuming each of the above is true, how much of your earnings would you put into your Health Savings Account (HSA) this year?

- ☐ None
 - ☐ \$25 per month (\$300 annually)
 - ☐ \$50 per month (\$600 annually)
 - ☐ \$75 per month (\$900 annually)
 - ☐ \$100 per month (\$1,200 annually)
 - ☐ \$125 per month (\$1,500 annually)
 - ☐ \$150 per month (\$1,800 annually)
 - ☐ \$175 per month (\$2,100 annually)
 - ☐ \$200 per month (\$2,400 annually)
 - ☐ More than \$200 per month
-

In summary, please assume:

You have a high-deductible health insurance plan

The deductible is \$3,000 annually

The insurance premium you must pay is \$50 per month (\$600 per year)

You have no other health insurance coverage

The plan covers you and other family members

You can make contributions to your Health Savings Account (HSA).

Your current HSA balance is zero.

Assuming each of the above is true, what percentage of the deductible would you contribute to your Health Savings Account (HSA) this year?

- ☐ 0%
 - ☐ 25%
 - ☐ 50%
 - ☐ 75%
 - ☐ 100%
 - ☐ More than 100% of the deductible
-

In summary, please assume:

You have a high-deductible health insurance plan

The deductible is \$3,000 annually

The insurance premium you must pay is \$50 per month (\$600 per year)

You have no other health insurance coverage

The plan covers you and other family members

You can make contributions to your Health Savings Account (HSA).

Your current HSA balance is zero.

Assuming each of the above is true, how important do you think it is to make contributions to your HSA?

- ☐ Very Unimportant
 - ☐ Somewhat Unimportant
 - ☐ Neutral
 - ☐ Somewhat Important
 - ☐ Very Important
-

In summary, please assume:

You have a high-deductible health insurance plan

The deductible is \$3,000 annually

The insurance premium you must pay is \$50 per month (\$600 per year)

You have no other health insurance coverage

The plan covers you and other family members

You can make contributions to your Health Savings Account (HSA).

Your current HSA balance is zero.

What is your opinion of employers that offer this type of plan?

- ☐ Strongly Disapprove of Employer
 - ☐ Disapprove of Employer
 - ☐ Neutral
 - ☐ Approve of Employer
 - ☐ Strongly Approve of Employer
-

EAC Treatment Single Coverage

Assumptions for this survey:

When answering questions for this survey, please respond with the following assumptions:

You have a high-deductible health insurance plan
The deductible is \$3,000 annually
The insurance premium you must pay is \$50 per month (\$600 per year)
You have no other health insurance coverage
The plan covers you and other family members
You can make contributions to your Health Savings Account (HSA).
Your current HSA balance is zero

In summary, please assume:

You have a high-deductible health insurance plan
The deductible is \$3,000 annually
The insurance premium you must pay is \$50 per month (\$600 per year)
You have no other health insurance coverage
The plan covers you and other family members
You can make contributions to your Health Savings Account (HSA).
Your current HSA balance is zero.

Assuming each of the above is true, please select the response below which is most descriptive of what you would do:

Option 1

I WOULD contribute to my HSA this year so that:
I WOULD accumulate money to pay my health insurance deductible
I WOULD accumulate money to pay for future medical expenses and possibly retirement
Taxes WOULD NOT be withheld on earnings I contribute to the HSA

☐ Option 1

Option 2

I WOULD NOT contribute to my HSA this year even if it means:
I WOULD NOT accumulate money to pay my health insurance deductible
I WOULD NOT accumulate money to pay for future medical expenses and possibly retirement
Taxes WOULD be withheld on all of my earnings

☐ Option 2

In summary, please assume:

You have a high-deductible health insurance plan

The deductible is \$3,000 annually

The insurance premium you must pay is \$50 per month (\$600 per year)

You have no other health insurance coverage

The plan covers you and other family members

You can make contributions to your Health Savings Account (HSA).

Your current HSA balance is zero.

Assuming each of the above is true, how much of your earnings would you put into your Health Savings Account (HSA) this year?

- ☐ None
 - ☐ \$25 per month (\$300 annually)
 - ☐ \$50 per month (\$600 annually)
 - ☐ \$75 per month (\$900 annually)
 - ☐ \$100 per month (\$1,200 annually)
 - ☐ \$125 per month (\$1,500 annually)
 - ☐ \$150 per month (\$1,800 annually)
 - ☐ \$175 per month (\$2,100 annually)
 - ☐ \$200 per month (\$2,400 annually)
 - ☐ More than \$200 per month
-

In summary, please assume:

You have a high-deductible health insurance plan

The deductible is \$3,000 annually

The insurance premium you must pay is \$50 per month (\$600 per year)

You have no other health insurance coverage

The plan covers you and other family members

You can make contributions to your Health Savings Account (HSA).

Your current HSA balance is zero.

Assuming each of the above is true, what percentage of the deductible would you contribute to your Health Savings Account (HSA) this year?

- ☐ 0%
 - ☐ 25%
 - ☐ 50%
 - ☐ 75%
 - ☐ 100%
 - ☐ More than 100% of the deductible
-

In summary, please assume:

You have a high-deductible health insurance plan

The deductible is \$3,000 annually

The insurance premium you must pay is \$50 per month (\$600 per year)

You have no other health insurance coverage

The plan covers you and other family members

You can make contributions to your Health Savings Account (HSA).

Your current HSA balance is zero.

Assuming each of the above is true, how important do you think it is to make contributions to your HSA?

- ☐ Very Unimportant
 - ☐ Somewhat Unimportant
 - ☐ Neutral
 - ☐ Somewhat Important
 - ☐ Very Important
-

In summary, please assume:

You have a high-deductible health insurance plan

The deductible is \$3,000 annually

The insurance premium you must pay is \$50 per month (\$600 per year)

You have no other health insurance coverage

The plan covers you and other family members

You can make contributions to your Health Savings Account (HSA).

Your current HSA balance is zero.

What is your opinion of employers that offer this type of plan?

- ☐ Strongly Disapprove of Employer
- ☐ Disapprove of Employer
- ☐ Neutral
- ☐ Approve of Employer
- ☐ Strongly Approve of Employer

DEMOGRAPHIC QUESTIONS FOR ALL RESPONDENTS

Please tell us a little about yourself.....

What is the highest level of education you have completed?

- ☐ Less than High School
- ☐ High School / GED
- ☐ Some College
- ☐ 2-year College Degree
- ☐ 4-year College Degree
- ☐ Master's Degree
- ☐ Doctoral Degree
- ☐ Professional Degree (JD, MD)

What is your race?

- ☐ White/Caucasian
- ☐ African American
- ☐ Hispanic
- ☐ Asian
- ☐ Native American
- ☐ Pacific Islander
- ☐ Other

Are you currently covered by a health insurance plan?

- ☐ Yes
- ☐ No
- ☐ I do not know

How did you obtain your health insurance coverage?

- ☐ Through my employer
- ☐ Through spouse's employer
- ☐ Through a parent
- ☐ Purchased independently
- ☐ Other
- ☐ I do not know

Which best describes your current health insurance policy?

- ☐ High-Deductible Health Plan (HDHP)
- ☐ Preferred Provider Organization (PPO)

- ☐ Health Maintenance Organization (HMO)
- ☐ Point of Service (POS)
- ☐ Uninsured at this time
- ☐ Other
- ☐ I do not know

Which of the following three statements comes closest to your own view about your current health insurance coverage?

- ☐ My health insurance is good, and I feel well-protected when it comes to my family's health care needs.
- ☐ My health insurance is adequate, but I worry that my family might have health care needs that it won't pay for.
- ☐ My health insurance is inadequate, and I feel very worried about my family's health care needs not being paid for.

Please rate your own health and the health of up to 6 other members of your household.

	Excellent	Very good	Good	Fair	Poor	Not Applicable
Please rate your own personal health	☐	☐	☐	☐	☐	☐
Please rate a 2nd household member	☐	☐	☐	☐	☐	☐
Please rate a 3rd household member	☐	☐	☐	☐	☐	☐
Please rate a 4th household member	☐	☐	☐	☐	☐	☐
Please rate a 5th household member	☐	☐	☐	☐	☐	☐
Please rate a 6th household member	☐	☐	☐	☐	☐	☐

member Please rate a 7th household member	☐	☐	☐	☐	☐	☐
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Which of the following do you think has the greatest responsibility to provide for the health care expenses of individuals? Please rank from highest (1) to lowest (4).

_____ Individuals

_____ Families

_____ Employers

_____ Government

Which of the following best describes your employment status?

- ☐ Working full time paid employment (35 or more hours per week)
- ☐ Working part time paid employment (less than 35 hours per week)
- ☐ Self employed (35 or more hours per week)
- ☐ Self employed (less than 35 hours per week)
- ☐ Not currently in paid employment
- ☐ Other

Are you currently a student?

- ☐ Yes, studying full time
 - ☐ Yes, studying part time
 - ☐ No, I am not a student at this time
-

What is your combined annual household income?

- ☐ Less than \$30,000
- ☐ \$30,000 – \$39,999
- ☐ \$40,000 – \$49,999
- ☐ \$50,000 – \$59,999
- ☐ \$60,000 – \$69,999
- ☐ \$70,000 – \$79,999
- ☐ \$80,000 – \$89,999
- ☐ \$90,000 – \$99,999
- ☐ \$100,000 or more

Since your combined annual household income is more than \$100,000, is it?

- ☐ \$100,000 – \$149,999
- ☐ \$150,000 – \$199,999
- ☐ \$200,000 – \$249,999
- ☐ \$250,000 or more

What is your gender?

- ☐ Male
- ☐ Female

What is your current marital status?

- ☐ Single, never married
- ☐ Married
- ☐ Divorced
- ☐ Widowed

How many dependent children do you currently support?

- ☐ 0
- ☐ 1
- ☐ 2
- ☐ 3
- ☐ 4
- ☐ 5 +

Do you...

- ☐ Own
- ☐ Rent
- ☐ Live with parents
- ☐ Other

How old are you?

- ☐ 20-24
- ☐ 25-29
- ☐ 30-39
- ☐ 40-49
- ☐ 50-59
- ☐ 60 or over

What State Do You Live In?

- ☐ AK
- ☐ AL
- ☐ AR
- ☐ AZ
- ☐ CA
- ☐ CO
- ☐ CT
- ☐ DC
- ☐ DE
- ☐ FL
- ☐ GA
- ☐ HI
- ☐ IA
- ☐ ID
- ☐ IL
- ☐ IN
- ☐ KS
- ☐ KY
- ☐ LA
- ☐ MA
- ☐ MD
- ☐ ME
- ☐ MI
- ☐ MN
- ☐ MO
- ☐ MS
- ☐ MT
- ☐ NC
- ☐ ND
- ☐ NE
- ☐ NH
- ☐ NJ
- ☐ NM
- ☐ NV
- ☐ NY
- ☐ OH
- ☐ OK
- ☐ OR

- ☐ PA
- ☐ RI
- ☐ SC
- ☐ SD
- ☐ TN
- ☐ TX
- ☐ UT
- ☐ VA
- ☐ VT
- ☐ WA
- ☐ WI
- ☐ WV
- ☐ WY

What device did you use to view this survey?

- ☐ Desktop Computer
 - ☐ Laptop or Notebook Computer
 - ☐ Smart Phone
 - ☐ Tablet
 - ☐ Other, Please describe _____
 - ☐ I do not know
-

SALUTATION FOR ALL RESPONDENTS

Thank you for your participation!!! You have completed the survey!!

If you wish to comment on anything about the study, please do so below. Feel free to write anything you wish. All of your comments will be read by Anne Duke.
