

# Does the source of a cash flow affect spending versus saving?

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## Abstract

This study examines whether people use different mental accounts for different types of hypothetical revenue windfalls rather than viewing them as fungible in their use consistent with neoclassical economics. This study finds that the income source sometimes influenced the amount spent/saved and a respondent's general default as a spender or saver was highly significant in all regressions. This article adds to the literature by responding to Epley and Gneezy's (2007) call for "a broader sample of participants, varying amounts of payment, and alternative frames" to identify moderators of windfall framing effects with implications for behavioral economic theory and financial planning. © 2017 Academy of Financial Services. All rights reserved.

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## 1. Introduction

A significant volume of research has established that people use mental accounts for budgeting their savings and expenditures. There is ample literature that suggests that income may be segregated into different mental accounts according to its source (e.g., Thaler, 1999). There is very little literature on whether income from a specific mental account flows *directly* to savings, or alternatively whether income from a specific source is comingled with income

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from other sources and then the combined amount is allocated into mental accounts for savings and expenditures.

This study is important because if there is a significant difference in how much windfall income people save based on the source of that income alone, then people may be making savings decisions earlier in the process than many of us assume. That is, if people save more of an inheritance than of a bonus, they are arguably not just saving a fixed percentage of income or saving from excess funds, they may be attaching a kind of purpose to the source itself, in which case the mental accounts used for budgeting expenditures does not originate with the collection of fungible income, but rather sometimes earlier, at the creation of the distinct sources of the income themselves.

By understanding the process of allocating money to savings better, and specifically, the point in the process at which they make that allocation, individuals can better understand why they are (not) meeting their savings goals. As we better understand how people collectively allocate money to savings, societies can better predict the effects of different types of income structures on societal goals, like stimulating an economy during a recession.

If income source causes significant differences, we can further study questions like these: From a macroeconomic standpoint, what effect on amount saved does an ordinary income pay structure have versus a lower ordinary income plus a bonus structure that keeps total compensation equal with the alternative? As the baby boomer generation dies off, what effect will additional inheritances have on spending versus saving? What role might “fun” play in people’s spending patterns? Is greater personal control in earnings a factor in savings choices, such as when one receives an earned tax refund from the withholding that she established versus a bonus, which is also earned but more dependent on employer discretion? However, first, we need to know whether this path is worth exploring further, and to do that, we must explore whether any differences in saving because of the source of the income appear to exist. This is the purpose and importance of the study.

## **2. Literature review**

### *2.1. Overview*

According to mental accounting theory, people create different mental expenditure accounts (e.g., long-term savings), and have different marginal propensities to consume from each account. Numerous studies support mental accounting from a regular income flow or from an irregular, lump-sum windfall (Johnson et al., 2006; O’Curry, 1999; Souleles, 2002). Informally, people periodically reconcile their mental accounts for income and expense (Camerer et al., 1997; Heath & Soll, 1996; Read et al., 1999; Rizzo & Zeckhauser, 2003).

Karlsson et al. (1999) reported that cash spending on a durable good depended on compatible reasons for saving. Generally, math aptitude affects mental budgeting (Abeler & Marklein, 2008; Benjamin, 2006). Cheema and Soman (2006) and Wertenbroch (2003) concluded that mental budgeting is a matter of self-control. Sprenger and Stavins (2010) found that one way of exercising control over spending on revolving credit cards is to substitute debit card use.

Frederick (2005) reported a negative relationship between non-rational behavior and cognitive reflection. Baker and Nofsinger (2002) found that, when inheriting a hypothetical portfolio, people tend to hold the investments that they inherited, rather than spend them or change the risk tolerance of these investments to match their own risk tolerance. Milkman and Beshears (2009) found that consumers who receive \$10 windfalls in the form of grocery coupons spend an additional \$1.59 on groceries that the consumer does not typically buy, perhaps buying something she thought that she otherwise could not afford.

## 2.2. *Source literature*

Some evidence suggests that the source of one's income does affect the use of those funds. Henderson and Peterson (1992) reported that individuals were more likely to spend \$2,000 on a vacation if the source of the funds was a gift rather than a work bonus. Arkes et al. (1994) found that a greater percentage of a small windfalls was spent than that from the same amount of anticipated income, indicating that foreknowledge of income is a factor in saving, consistent with Rucker (1984) and Karlsson et al. (1999). Dobbelsteen and Kooreman (1997) found that individuals were more sensitive to changes in a child's allowance than to other income sources for the child when deciding how much to spend on their child's clothing. Winkelmann et al. (2011) used evidence from German lottery winners to show that spending from different sources of income conferred different marginal utilities. Trump et al. (2015) found that individuals would make riskier choices with a stranger's money than with a friend's money. Similarly, Bradford (2008) found that individuals allocate gifted and inherited assets in support of relational goals. Levav and McGraw (2009) proposed that tracking expenditures from windfalls in mental accounts can be complemented by examining one's "affective tag," which is how one feels about a sum of money. For example, the affective tag one places on the money associated with negative feelings may influence them to consume the windfall either reluctantly or virtuously to cope with those negative feelings. Levav and McGraw further postulated that income is spent in a way that matches that source; money won on a bet may be spent frivolously, but money back from the IRS would be used to pay for something of greater importance or lasting value.

Still, the framing of payments seems to matter: Baker et al. (2007) found that more money was spent from likely recurring income (dividends) than less regular capital gain income. Epley et al. (2006) found that people spent more from an income source labeled "bonus" than they did of a "rebate" of the same amount and timing. Similarly, Shefrin and Thaler (1988) found that more of a lump sum bonus is saved than if the same amount increases regular income, even when the bonus is fully anticipated.

Meekin et al. (2015) found that nearly four in 10 recipients of a tax refund initially save it, with about one in five taxpayers receiving the earned income tax credit for working families. This refund is large for low-income families, and sometimes exceeds the amount of federal income taxes withheld, but families view it as "earned," just as the name of the credit states. Those families anticipate it and intend to save about 17% of it "to get ahead." Where the refund is spent on everyday expenses, it tends to be spent on bills that are past due. Tax refunds saved are frequently used to pay down debt that cannot be paid down through ordinary income. Meekin et al. (2015) further estimated that 21% of the refund is devoted to

expenditures like education, home repairs, purchasing or repairing a car, or buying a durable good like a freezer that will produce savings on expenses over future periods.

### 2.3. *Earning*

Whether income is perceived as earned may affect responses. Boylan (2010) found that compliance with the tax system is influenced by whether taxable income is earned or endowed. Epley and Gneezy (2007) reported that a windfall that positively deviates from the status quo, like a bonus, is more likely spent than a windfall that restores the status quo. Zagorsky (2013), studied consumption of inherited money and found that over 40% of those who inherited less than \$1,000 spent their bequest. Only 18.7% of those receiving \$100,000 or more spent it all. In all, this research indicates that only about one half of inherited money was retained, the remainder was reduced by capital losses or is spent. Agarwal and Qian (2013) studied how consumers responded to an exogenous income shock, and found that consumption rose significantly at the rate of \$0.80 per \$1 received. Spending began with the announcement of the income shock. Low-liquidity consumers and low-credit consumers consumed more.

### 2.4. *Frequency of distribution*

Neoclassical economics assumes that the decision to spend, and how to spend one's income would not depend on the way in which it is received. Yet, the difference in spending patterns from a limited number of monthly payments and a lump-sum tax rebate of the same amount is well documented. Rucker (1984) studied the retroactive payment of a raise approved by a university, reversed by the Federal Pay Board but reinstated by the U.S. Supreme Court. The size of the windfall was found to be the most important factor for deciding how the funds were spent, with smaller checks more likely to be consumed. In addition, the length of time that the recipient had to anticipate the receipt of the funds also influenced the use of the money. The shorter the time before the receipt of the money was anticipated, the more likely that the money was consumed. Karlsson et al. (1999) noted that individuals considered the future consequences of spending in their mental budgeting, which may indicate a contemplation of permanent income.

Shapiro and Slemrod (1995) found that almost half of the respondents surveyed would spend the 1992 decreased tax withholding refunded to them, even though the total yearly tax liability remained unchanged, resulting in a lower end-of year tax refund. However, in 2001, when a tax cut took the form of either a \$300 or \$600 lump-sum rebate, only about one-fourth of those surveyed expected to spend the payment (Shapiro & Slemrod, 2003). Slemrod and Bakija (2004) attributed the change in behavior of taxpayers between the differently distributed rebates to changes in economic conditions. However, applying Thaler's (1999) mental accounting theory, Chambers and Spencer (2008) found that the timing of payments (whether paid as a lump-sum, or spread out in equal monthly installments for a year) mattered. Sahm et al. (2012), confirmed this finding.

### 2.5. *Permanence of distribution*

Neoclassical economics tells us that neither the marginal cost nor the marginal benefit of a purchase is dependent on the source of the income from which it is spent. However, the permanence of payments may be a factor in how much people choose to save. Blinder (1981) posited that a permanent tax decrease would elicit more spending than a temporary tax rebate, which he surmised would be treated as one half from a normal income tax change and the other half from a windfall. Parker (1999) studied tax cuts, finding that a temporary, end-of-year reduction in social security tax for high-income wage earners was spent when received, not averaged evenly over the fiscal year. Friedman's (1957) permanent income hypothesis says that people will spend money consistent with what they believe to be their permanent income level, but stopped short of examining the source of the income or testing the spending on amounts of limited duration.

Studies of unique, one-time payments are rare. However, Bodkin (1959) estimated the marginal propensity to consume to be between 0.72 and 0.97 of a one-time dividend paid in 1950 to World War II veterans by the National Service Life Insurance. The payments averaged \$175, roughly \$1,723.39 in 2015 dollars (Bureau of Labor Statistics, 2016). Similarly, Kreinin (1961) analyzed the spending of a sample of Israeli citizens receiving restitution payments from Germany in 1957 and 1958 and estimated that 35% was spent while 65% of the restitution payment was saved, with 45% saved in liquid assets and 20% in real estate (Kreinen, 1961).

### 2.6. *Materiality of amount*

Chambers et al. (2009) studied responses to small hypothetical tax rebates of the size distributed in 2008, \$300 and \$600, as well as larger amounts, \$1,500 and \$3,000. They found that at some amount over \$600, materiality mattered greatly in how the money would be used. Under the \$600 amount, individuals were likely to spend a rebate if that was the government's intent for distributing it, but at or above \$600, the government's wishes were ignored (Chambers et al., 2009).

Research on large, regular bonuses includes Hsieh (2003) who studied household consumption associated with receipt of the annual Alaska Permanent Fund payment, which was fully anticipated; and no spike in consumption was found. However, consumption by the same households was very responsive to income tax refunds, suggesting that sizable, predictable, and regular payments are built into consumption decisions (Hsieh, 2003). Browning and Collado (2001) studied Spanish panel data to measure the effect of customary bonus payments. Usually workers are paid 1/14<sup>th</sup> of their annual wage per month for the 10 months other than December and June or July, when they received bonuses of 2/14<sup>th</sup> of their salary. Similar to Hsieh, they did not find changes in consumption patterns (Browning & Collado, 2001).

### 2.7. *Demographic factors*

Several demographic factors might affect the savings intent as well. Chen and Volpe (2002) sampled multiple colleges and universities and found that women generally knew less

about personal finance topics but that education and experience can have a significant impact on the financial literacy of both men and women. Spencer and Chambers (2012) studied the lump sum tax rebates of 2008, relative to the 2009 tax rebates distributed in small amounts in take-home pay. Their findings indicated that the small periodic distributions accomplished the stimulus significantly better. Many taxpayers were not aware of receiving the 2009 rebate, and those who did realize it, saved a lower average percentage than with the 2008 rebate. Income, wealth, high-risk tolerance, and savings differed significantly by gender, as did being non-White and having other household members (Fisher et al., 2015). Specifically, income uncertainty was associated with a significantly lower likelihood of saving for men. Fisher's (2010) findings indicated that Black–White differences in savings were explained by the individual determinants of saving—like receiving government assistance, feeling that credit use is bad, being turned down for credit in the past 5 years, or having a shorter saving horizon. Black households also had a lower risk tolerance and were more likely to save for a bequest.

### 3. Hypothesis

This study tests whether people spend a distribution from a hypothetical tax rebate as they would if the distribution came from other windfall sources, such as a bonus from work, a game show winning, an inheritance or a lottery winning. Specifically, the goal was to test whether there is any difference in the savings rate among different sources of income. Regular income was omitted, relying on literature that amounts saved from regular income differed from that saved from windfalls (Arkes et al., 1994; Karlsson et al., 1999; Rucker, 1984).

Some sources of windfall were included, as in earlier literature, among them: inheritance (e.g., Baker & Nofsinger, 2002), bonus (e.g., Henderson & Peterson, 1992; Hsieh, 2003), tax rebate (e.g., Chambers & Spencer, 2008; Hsieh, 2003) and lottery (Winkelmann et al., 2011). These factors are expected to vary in their affective tags (Levav & McGraw, 2009): perceived deservedness (earnings, not endowment), and outcomes that are susceptible to changes in self-control (Cheema & Soman, 2006; Sprenger & Stavins, 2010; Wertenbroch, 2003). For example, an inheritance is likely to have a strong affective tag, is less earned and less susceptible to one's own self-control. A bonus has a more moderate affective tag, is presumably earned, but is only moderately susceptible to one's own self-control versus the employer's control. A tax rebate should have a lesser affective tag, is presumably earned, but less susceptible to one's own self-control than that of the IRS. Lottery winnings have a low affective tag, are unearned and very unsusceptible to one's own self-control. This study introduces a new, exploratory variable, game show winnings, which has a moderate affective tag, is moderately earned and moderately in one's self-control.

Based on earlier literature, a cash inheritance would be expected to stay primarily in the form of cash savings (Baker & Nofsinger, 2002). A bonus would be expected to be saved (Henderson & Peterson, 1992; Hsieh, 2003). A tax rebate was assumed to be split between savings and spending (Chambers & Spencer, 2008; Meekin et al., 2015). Lottery winnings were anticipated to be spent (Winkelmann et al., 2011). Without relying on earlier literature

for game show winnings, those earnings were expected to be spent because, whereas such winnings arguably result from some earnings effort and more self-control than a lottery, those winnings are closer in source to a lottery than to the other sources tested here. Although a lottery winner is in control of the decision to buy another ticket, the decision to be a gameshow contestant does not solely rest with the player. It is unlikely a gameshow winning could be repeated, and that makes it different from a lottery.

How might the recipient consider some of these sources as similar and others as different? Lottery winnings are similar to tax rebates in the United States, in that both lottery systems and tax systems are run by a government or its appointed agency. Both types of payment amounts are largely outside the respondent's control. To what extent the money is "earned" is debatable in both cases, but bonuses and game show winnings—and sometimes inheritances—require some personal skill, knowledge, and effort. Tax rebates sometimes differ from the other four sources of payment because the tax rebate is a refund or return of withholdings the taxpayer has previously paid in. That is, outside of refundable credits tied to specific performance, respondents generally cannot materially profit from a tax rebate because it is a refund of money already paid in, but can profit from a lottery, game show, or bonus. An inheritance is not a profit, per se, but is generally not a return of one's own capital. Inheritances might be property or money that carries with it memories of the decedent, and those emotions (affective tags; Levav & McGraw, 2009) might carry over to how the respondent intends to use the inheritance. Further, some political rhetoric frames taxes as money belonging fundamentally to taxpayers, not the government, whereas lottery winnings come with no similar sense of entitlement. Bonuses are likely to be closely tied to an individual's performance, however. Game show winnings might be as well, if the winner attributes success to having a higher skill level than fellow contestants. That is, difference in amount saved by source is to be expected, but no source is absolute and completely separate in characteristics from the other sources, biasing against finding any differences. With that in mind, the null hypothesis is:

$H_1$ : There will be no difference in savings rates by source of windfall.

In testing this hypothesis, the amount of the income was controlled for, as were the order of presentation, the frequency of payments and the demographic characteristics of the respondents.

#### **4. Methodology**

Sheppard et al.'s (1988) meta-analysis of 86 theory-of-reasoned-action studies found a 0.53 correlation between intention and behavior, indicating that intent is a good predictor of action. For this study, on each survey instrument, two of the five different sources of windfall were presented, resulting in 10 unique pairings. These 10 pairings were tested at four different gain amounts found in Chambers and Spencer (2008). These 40 instruments were then tested with the total amount paid in a lump sum, as well as paid out in 12 monthly installments; but to control for order effect, half showed the monthly installments first and the other showed the lump sum first, resulting in 80 different instruments. Each participant

was given one of these 80 instruments at random and asked how the funds would be used, both if received as a lump-sum and if the same amount were received over 12 equal monthly payments (within-subject design), from two of these five sources: bonus, game show winnings, inheritances, lottery winnings, and tax rebates (between-subjects design). Each instrument hypothesized one of these four different amounts: \$300, \$600, \$1,500, and \$3,000. See appendix for a sample survey instrument.

The instruments asked how much of a lump sum refund would be used for: (1) investing, (2) paying off credit card debt, (3) paying off notes, (4) regular monthly expenses, (5) buying a durable asset, (6) saving for an infrequent expense, and/or (7) used for fun. Hershfield et al. (2015) found that consumers' tendency to place savings and debt into separate mental accounts makes them insensitive to the significant differences between the interest rates on these accounts. The instrument also asked how much of a monthly payment (equal to 1/12 of the lump sum amount) would be used for each of these seven purposes, consistent with Chambers and Spencer (2008). Similarly, the opposite side of each instrument asked these same questions, changing only the source of the payment from one source to another—such as from a tax rebate to a lottery, work bonus, inheritance, or game show payment. Experimental questionnaires were distributed to university students at these universities: Coastal Carolina University, Francis Marion University, Longwood University, Metropolitan State University of Denver, Texas A & M University-Corpus Christi, University of Alabama-Birmingham, and University of Houston-Clear Lake. Students were considered provisionally acceptable respondents per Walters-York and Curatola (1998) and Ashton and Kramer (1980).

All research questions were analyzed with descriptive statistics, converted to percentages, and then then analyzed using four sets of OLS regressions. The choices were (1) investing, (2) paying off credit card debt, (3) paying off notes, and (6) saving for an infrequent expense were coded as savings, and choices (4) regular monthly expenses, (5) buying a durable asset, and (7) used for fun were coded as spending. Two of the sets of regressions, one where the monthly distribution was shown first and the other where the lump sum was shown first, used “longer-term savings” as its dependent variable, which excluded savings from item (6), saving for an infrequent expense. The other two sets of regressions (one where the monthly distribution was shown first) used dependent variables dubbed “total savings” included in item (6). The four dependent variables were each regressed against the source of the windfall income, and demographic variables were included to control for income, gender, age, importance to the budget, business experience level, and education level.

The regression models were of the form:

$$\text{Percent Saved} = F(\text{income, zero income, amount, education, gender, age, importance, seatbelt use, smoker, spend1 (default for spender), experience level, dummy variables for the source of the payment (lottery, tax rebate, inheritance, game show, or bonus), and a dummy for the order of presentation (monthly payment first, or lump sum payment first)}).$$

“Income” is the log of the respondent's income plus one. “Amount” is the hypothetical amount of the distribution, in dollars. As four discrete values were possible for the amount, dummy variables were created for each amount rather than treat this variable as continuous. The Education variable is divided into four categories: high school, associate degree, undergraduate degree, and graduate degree. “Gender” is a categorical male/female variable,

where female was coded as “1.” “Age” is the participant’s age in years. As there may be some non-linearity in the age variable, the square of age, “AgeSq” was added to the model to measure the non-linear contribution to the dependent variable that occurs as the reported age increases. “Importance” was defined to be the payment divided by the income of the survey participant. The “Seatbelt” and “Smoker” dummy variables were included as proxies for respondents’ risk preference; seatbelt wearers and smokers were coded as “1.” For the variable “Spend1” the participants were asked “When you get ‘extra money,’ do you spend it or save it?” The dummy was set to 1 for those that answered “spend.” Business experience was a categorical, self-reported measure coded as “0” for “none,” “1” for responses of “low,” and progressing upward to “5” for “high.” This categorical variable was then transformed to dummy variables for use in the regression as described below. Various formulations of the credit card debt variable were also introduced to observe whether debt in dollars or as some proportion would affect the results; the results were not affected, however.

## 5. Results

The data were gathered in 2013. Of the 1,844 responses, 984 had complete data for regression analysis. A separate analysis using 1,719 of the responses, which were missing some of the control variables but not data for the variables of interest, was also run. These results were substantially the same as the analysis from the more pristine, complete data presented below. Table 1 presents the descriptive statistics for the variables collected. The average income was \$47,628, which compares with an average \$57,706 for 2010 from the IRS Statistics of Income (Internal Revenue Service, 2012). Respondents averaged 5.15 years of work experience and had some college education (that is to be expected as the sample was collected primarily from college students); 54% of the respondents were women. These respondents perceived themselves to have moderate business experience, as indicated by a 2.80 average score out of a possible 5.0.

Further discussion of the following non-significant variable (at  $p = 0.10$ ) is omitted for parsimony, except where noted: Monthly Pmt (order effect), Gender, Smoke, Seatbelt, and all EXPL levels. To test the null hypothesis, does the source of the payment matter, four sets of regressions were run. In the first set, the dependent variable longer term savings (LtSavYr) for the lump sum payment was regressed. The results are presented in Table 2.

The percentage saved, long term, when given a single lump sum was found to be significant and positively related to the log of income ( $p = 0.018$ ) and zero income ( $p = 0.0203$ ). Respondents who reported a zero income saved a greater percentage of the windfall than those that reported earning an income. The parameter estimate indicates that those reporting zero income saved roughly 23% more of the payment than those reporting an income. Though the variable Importance is significant only at the 10% level, the sign of the coefficient was negative, indicating that as the distribution as a percentage of respondent’s income decreased, more was saved as a percentage ( $p = 0.096$ ). In other words, if the payment was significantly larger than the income, savings decreased.

Table 1 Descriptive statistics for sample participants

Variable	N	Mean	25th percentile	Median	75th percentile	Maximum	Standard deviation
Income	1,350	47627.84	6000.00	20000.00	55000.00	300000.00	122264.64
ZeroIncome	1,844	0.1035792	0	0	0	1.0000000	0.3047965
Level300	1,844	0.2559653	0	0	1.0000000	1.0000000	0.4365208
Level600	1,844	0.2478308	0	0	0	1.0000000	0.4318702
Level1500	1,844	0.2180043	0	0	0	1.0000000	0.4130024
Level3000	1,844	0.2781996	0	0	1.0000000	1.0000000	0.4482338
MonthlyPmtmt	1,844	0.4826464	0	0	1.0000000	1.0000000	0.4998343
HSED1	1,791	0.3417085	0	0	1.0000000	1.0000000	0.4744149
ASED2	1,791	0.1072027	0	0	0	1.0000000	0.3094572
BAED3	1,791	0.4684534	0	0	1.0000000	1.0000000	0.4991432
GradED4	1,791	0.0826354	0	0	0	1.0000000	0.2754072
Gender	1,812	0.5413907	0	1.0000000	1.0000000	2.0000000	0.4995280
Age	1,447	23.0352453	20.0000000	21.0000000	24.0000000	80.0000000	6.6002851
AgeSq	1,447	574.1561852	400.0000000	441.0000000	576.0000000	6400.00	468.1131076
Importance	1,350	200.1580834	0.0149999	0.0499983	0.2998501	3000.00	633.8898301
Smoke	1,798	0.1173526	0	0	0	1.0000000	0.3219295
Seatbelt	1,782	0.9595960	1.0000000	1.0000000	1.0000000	1.0000000	0.1969602
Spend1	1,713	0.3607706	0	0	1.0000000	1.0000000	0.4803643
ExpL1	1,794	0.0562988	0	0	0	1.0000000	0.2305620
ExpL2	1,794	0.1984392	0	0	0	1.0000000	0.3989359
ExpL3	1,794	0.4665552	0	0	1.0000000	1.0000000	0.4990193
ExpL4	1,794	0.1755853	0	0	0	1.0000000	0.3805730
ExpL5	1,794	0.0490524	0	0	0	1.0000000	0.2160377
FooterBonus	1,844	0.1827549	0	0	0	1.0000000	0.3865703
FooterLotto	1,844	0.2152928	0	0	0	1.0000000	0.4111368
FooterTax	1,844	0.1881779	0	0	0	1.0000000	0.3909602
FooterInherit	1,844	0.1979393	0	0	0	1.0000000	0.3985542
FooterGamG	1,844	0.2158351	0	0	0	1.0000000	0.4115120
LtSavMo	1,774	0.4127889	0	0.4000000	0.6600000	1.0000000	0.3670234
LtSavYr	1,766	0.4701184	0.2000000	0.5000000	0.6666667	1.0000000	0.3286521
TotaSavMoo	1,774	0.5575938	0.2800000	0.6000000	1.0000000	1.0000000	0.3616980
TotalSavYr	1,766	0.6414166	0.5000000	0.6666667	0.9100000	1.0000000	0.2943912

Where:

Income	Log of the respondent's reported income (plus 1).
ZeroIncome	Dummy variable = 1 for those reporting zero income.
Level(X)	Dummy variables representing the lump sum for the different amounts used in the survey.
Monthly Pmt	Dummy variable equal to one if the survey began with the monthly payment or zero if the lump sum payment was presented first.
HSED1	Dummy variable representing the respondent indicating High School as their highest education level.
ASED2	Dummy variable representing the respondent indicating an Associate Degree as their highest education level.
BAED3	Dummy variable representing the respondent indicating an BA/BS degree as their highest education level.
GradED4	Dummy variable representing the respondent indicating the Graduate level as their highest education level.
Gender	Equal to one for female respondents.
Age	The participant's age in years.
Agesq	The square of the age reported.
Importance	The monthly payment given in the survey divided by the participant's income.
Smoke	Dummy variable equal to one if the response was "yes" to the questions about smoking.
Seatbelt	Dummy variable equal to one if the response was "yes" to the questions about seatbelt use.
Spend1	Dummy set to one for those that answered "spend" to the question, "When you get 'extra money,' do you spend it or save it?"

EXPL	Variable for the answer to the respondent’s evaluation of her business experience. The values range from 0 (none) to 5 (high). These responses were transformed to these dummy variables: ExpL1 group respondents reporting “Low” and “None.” ExpL2 report “Fairly Low,” ExpL3 report “Moderate,” ExpL4 report “Fairly High” and ExpL5 report “High.”
Footer	A dummy variable of interest, representing the source of the payment, where Bonus = bonus, Inherit = inheritance, Lotto = lottery, Game = game show, Tax = tax rebate.
LtSavMo	The percentage of the sum that is saved in when there is a monthly payment for one year.
LtSavYr	The percentage of the sum that is saved in when the payment is a single lump sum.
TotalSavMo	The percentage of the sum that is saved when there are monthly payments for one year.
TotalSavYr	The percentage of the sum that is saved when the payment is a single lump sum.

The level of the payment was also positively related to savings. Those receiving \$600 saved 7.5% more of the payment than those receiving \$300 ( $p = 0.012$ ), whereas those receiving \$3,000 (10 times more), saved about 7.4% more of that payment than those who hypothetically received the \$300 payment ( $p = 0.018$ ). Those receiving the \$1,500 payment saved about 5.7% more of the payment than those receiving the \$300 payment, but that result is only significant at the 10% level ( $p = 0.077$ ).

Respondents were asked to report their “*Highest education level: High School \_\_\_ Associate Degree \_\_\_ Undergraduate \_\_\_ Graduate or above \_\_\_.*” Dummy variables were

Table 2 Longer term savings is the dependent variable, for lump sum payment

Source	Analysis of variance				
	df	Sum of squares	Mean square	F Value	Pr > F
Model	24	9.12929	0.38039	3.52	<.0001
Error	959	103.75996	0.10820		
Corrected total	983	112.88925			
Root MSE		0.32893		$R^2$	0.0809
Dependent mean		0.46931		Adj. $R^2$	0.0579
Coefficient variable		70.08904			

  

Variable	Parameter estimates				
	df	Parameter estimate	Standard error	t Value	Pr >  t
Intercept	1	-0.09641	0.15288	-0.63	0.5284
LnIncome	1	0.02008	0.00846	2.37	0.0177
ZeroIncome	1	0.22799	0.09807	2.32	0.0203
Level600	1	0.07490	0.02971	2.52	0.0119
Level1500	1	0.05671	0.03206	1.77	0.0773
Level3000	1	0.07354	0.03114	2.36	0.0184
ASED2	1	0.07236	0.03711	1.95	0.0515
BAED3	1	0.06408	0.02481	2.58	0.0100
GradED4	1	0.07688	0.04608	1.67	0.0955
Age	1	0.01532	0.00754	2.03	0.0425
AgeSq	1	-0.00018961	0.00010129	-1.87	0.0615
Importance	1	-0.00004912	0.00002956	-1.66	0.0969
Spend1	1	-0.09609	0.02232	-4.30	<.0001

Full model was run, but only (marginally) significant variables are shown for parsimony.

Table 2A

Are lottery, tax, inheritance, or game show sources saved as much as bonus? (omitted variable bonus)

	<i>df</i>	Parameter estimate	Standard error	<i>t</i> Value	Pr >   <i>t</i>
FooterLotto	1	0.02365	0.03455	0.68	0.4939
FooterTax	1	0.06604	0.03450	1.91	0.0559
FooterInherit	1	0.02145	0.03341	0.64	0.5211
FooterGame	1	−0.04372	0.03343	−1.31	0.1912

Table 2B

Are game show, tax, inheritance, or bonus sources saved as much as lottery? (omitted variable lottery)

	<i>df</i>	Parameter estimate	Standard error	<i>t</i> Value	Pr >   <i>t</i>
FooterGame	1	−0.06737	0.03380	−1.99	0.0466
FooterTax	1	0.04240	0.03487	1.22	0.2244
FooterInherit	1	−0.00220	0.03367	−0.07	0.9479
FooterBonus	1	−0.02365	0.03455	−0.68	0.4939

Table 2C

Are lottery, game show, inheritance, or bonus sources saved as much as tax? (omitted variable tax)

	<i>df</i>	Parameter estimate	Standard error	<i>t</i> Value	Pr >   <i>t</i>
FooterLotto	1	−0.04240	0.03487	−1.22	0.2244
FooterGame	1	−0.10977	0.03360	−3.27	0.0011
FooterInherit	1	−0.04460	0.03374	−1.32	0.1866
FooterBonus	1	−0.06604	0.03450	−1.91	0.0559

Table 2D

Are lottery, tax, game show, or bonus sources saved as much as inheritance? (omitted variable inheritance)

	<i>df</i>	Parameter estimate	Standard error	<i>t</i> Value	Pr >   <i>t</i>
FooterLotto	1	0.00220	0.03367	0.07	0.9479
FooterTax	1	0.04460	0.03374	1.32	0.1866
FooterGame	1	−0.06517	0.03253	−2.00	0.0454
FooterBonus	1	−0.02145	0.03341	−0.64	0.5211

created to determine if education level influenced the level of savings. Those that answered “undergraduate” saved 6.4% more than those that reported “high school” ( $p = 0.01$ ). Those that reported “Associate Degree” or “Graduate or above” also saved more, 7.2% and 7.7%, respectively, but those amounts are significant only at the 10% level ( $p = 0.051$  and  $p = 0.096$ , respectively). That is, higher levels of education were associated with higher levels of savings.

Older respondents did save more of the payment. The coefficient for the variable Age was 0.015, indicating that for each year older the respondent was, the savings was higher by 1.5% ( $p = 0.043$ ).

The variable Spend1, indicating whether a respondent’s default behavior pattern was to spend any extra money received, was economically and statistically significant. Those that answered “Spend” saved almost 10% less than those that answered “Save” ( $p < 0.0001$ ).

Table 3 Total savings is the dependent variable—payment is made as a lump sum

Source	Analysis of variance				
	<i>df</i>	Sum of squares	Mean square	<i>F</i> Value	Pr > <i>F</i>
Model	24	7.28237	0.30343	3.43	<.0001
Error	959	84.78328	0.08841		
Corrected total	983	92.06565			
Root MSE		0.29733	$R^2$		0.0791
Dependent mean		0.63737	Adj. $R^2$		0.0561
Coefficient variable		46.65046			
Variable	Parameter estimates				
	<i>df</i>	Parameter estimate	Standard error	<i>t</i> Value	Pr >   <i>t</i>
Intercept	1	0.21583	0.13820	1.56	0.1187
LnIncome	1	0.02259	0.00764	2.96	0.0032
ZeroIncome	1	0.28155	0.08865	3.18	0.0015
ASED2	1	0.07724	0.03355	2.30	0.0215
Age	1	0.01235	0.00682	1.81	0.0704
Importance	1	−0.00005784	0.00002672	−2.16	0.0306
Spend1	1	−0.11056	0.02018	−5.48	<.0001

Full model was run, but only (marginally) significant variables are shown for parsimony.

The results in Table 2A indicated marginally significant, lower savings from Bonus payments than from Tax Rebates. The results in Table 2B indicated that savings from Lottery payments were higher than savings from Game Show payments at the 5% significance level. The results in Table 2C indicated that savings from Tax Rebate payments were higher than savings from Game Show payments at the 1% significance level, and from Bonus payments at the 10% significance level. The results in Table 2D indicated that savings from Inheritance payments were higher than savings from Game Show payments at the 5% significance level.

Table 3 provides the results for the regression when the (TotalSavYr) Total savings from a lump sum payment is used as the dependent variable. This variable is composed of the longer term savings variable plus the amount saved “for infrequent expenses such as vacations, bigger holiday gifts, or something you’ve been wanting;” thus, representing the total amount devoted to savings.

Similar to the results in Table 2, the variables Income, zero income, education at the associate’s degree level, importance to the budget, and Spend1 were all significant at the 5% level. Age was marginally significant, at the 10% level ( $p = 0.070$ ).

The dummy variables from the different amounts of the payments were no longer significant. Unlike for Table 2, the percentage saved in Table 3 is not statistically different for those receiving \$300 than those getting the higher amounts. Those reporting an undergraduate or graduate or higher level of education did not save a statistically significant amount more than those reporting a high school level of education when presented a single lump sum. Respondents’ default behavior, whether they saw themselves as spenders or savers, again was highly significant.

Table 4 Longer term savings is the dependent variable—payment made monthly

Source	Analysis of variance				
	<i>df</i>	Sum of squares	Mean square	<i>F</i> Value	Pr > <i>F</i>
Model	24	9.88387	0.41183	3.06	<.0001
Error	964	129.57707	0.13442		
Corrected total	988	139.46094			
Root MSE		0.36663	$R^2$		0.0709
Dependent mean		0.40857	Adj. $R^2$		0.0477
Coefficient variable		89.73351			
Variable	Parameter estimates				
	<i>df</i>	Parameter estimate	Standard error	<i>t</i> Value	Pr >   <i>t</i>
Intercept	1	0.00882	0.16955	0.05	0.9585
LnIncome	1	0.01995	0.00932	2.14	0.0325
Level600	1	0.09672	0.03315	2.92	0.0036
Level1500	1	0.06139	0.03567	1.72	0.0856
Level3000	1	0.08242	0.03433	2.40	0.0165
Spend1	1	−0.08324	0.02490	−3.34	0.0009
MonthlyPmt	1	0.06055	0.02377	2.55	0.0110

Full model was run, but only (marginally) significant variables are shown for parsimony.

When comparing whether source of income was significant in windfalls distributed monthly for a year, there were no significant differences at the  $p = 0.05$  level. For total savings with a lump sum payment, Game Show winnings were saved less than a Tax Rebate, but only at a marginally significant level of  $p = 0.0632$ . The analysis for Tables 4 and 5 are similar to Tables 2 and 3; however, the hypothetical total amount received was distributed over 12 equal monthly payments instead of as a lump sum. The total of the monthly payments equaled the lump sum payment. For instance, if the lump sum amount was a one-time payment of \$600, the monthly payment was \$50 for one year.

In Table 4, Longer term savings with a monthly payment, the variable for the log of income was still positive and significant at the 5% level. As more income was earned, more of the amount received was saved. However, the dummy variable for those reporting a zero income was no longer significant, and neither was the variable for importance. As the monthly amount was only 1/12 of the amount received in the lump sum question (Table 2), though, this was not surprising because the monthly amount was likely immaterial per Chambers et al. (2009).

Consistent with the findings in Table 2 (longer-term savings from a lump sum payment), more was saved as the payment becomes larger. Those who received a total amount of \$600 (\$50 a month) saved 9.7% more of the payment than those who received \$300 (\$25 a month;  $p = 0.004$ ). Those who received \$3,000 per year (\$250 per month) saved 8.2% more of the payment than those receiving \$300 (\$25 a month;  $p = 0.017$ ). Similar to the results in Table 2, those that received \$1,500 (\$125 a month) saved 6.1% than those receiving \$300 (\$25 a month), but this was significant only at the 10% significance level ( $p = 0.086$ ).

Contrary to the results in Table 2, none of the education variables were significant at even the 10% level. The age variables were also insignificant in Table 4, though they were

Table 5 Total savings is the dependent variable—payment made monthly

Source	Analysis of variance				
	<i>df</i>	Sum of squares	Mean square	<i>F</i> Value	Pr > <i>F</i>
Model	24	15.56019	0.64834	5.24	<.0001
Error	964	119.30184	0.12376		
Corrected total	988	134.86203			
Root MSE		0.35179		<i>R</i> <sup>2</sup>	0.1154
Dependent mean		0.55978		Adj. <i>R</i> <sup>2</sup>	0.0934
Coefficient variance		62.84473			
Variable	Parameter estimates				
	<i>df</i>	Parameter estimate	Standard error	<i>t</i> Value	Pr >   <i>t</i>
Intercept	1	0.00213	0.16269	0.01	0.9895
LnIncome	1	0.02589	0.00894	2.90	0.0039
ZeroIncome	1	0.17478	0.10470	1.67	0.0954
Level600	1	0.10244	0.03181	3.22	0.0013
Level1500	1	0.07867	0.03423	2.30	0.0218
Level3000	1	0.08060	0.03294	2.45	0.0146
Spend1	1	−0.09852	0.02389	−4.12	<.0001
MonthlyPmt	1	0.13449	0.02281	5.90	<.0001

Full model was run, but only (marginally) significant variables are shown for parsimony.

significant in Table 2. Again, the difference between the independent variables in Tables 2 and 4 were that the payment amounts in Table 4 were 1/12<sup>th</sup> the size of the payment amounts in Table 2; the total payment amount was the same, but spread over the 12 months.

The variable representing the respondents' default behavior for spending or saving additional money continues to be highly significant. The results indicate that if a respondent said that she generally spends additional money, she did. When the respondent indicated that she was a spender, on average she saved 8.3% less ( $p < 0.001$ ) than one who indicated that she was a saver.

A new finding is exposed in Tables 4 and 5. The order of presentation now matters. On the survey, half of the forms had the question for lump sum payment first, and the other half had the monthly payment first. When the lump sum values were used (Tables 2 and 3), this variable was insignificant. When the smaller, but recurring, values are used in Tables 4 and 5, those receiving the monthly payment saved (both economically and statistically) more. For longer term savings with monthly payments (Table 4), when the monthly question was provided first, respondents saved 6.1% ( $p = 0.01$ ) more than when the annual question was presented first. In Table 5, representing Total Savings, 13.4% more was saved ( $p < 0.001$ ) when the monthly amount was presented first than when the lump sum amount was presented first.

For the dependent variable longer term savings with monthly payments, the percentage saved from Game Show winnings were significantly lower than those from a Lottery at the  $p = 0.0355$  significance level. The percentage saved from Game Show winnings were significantly lower than from a Tax Rebate at the  $p = 0.0046$  significance level, and Inheritance savings were significantly lower than a Tax Rebate at the  $p = 0.0664$  significance level. The percentage saved from Game Show winnings were lower than that of a Bonus, but

Table 6 Summary of significance of the sources of payment

	$\beta$	Pr >  t
A. Longer-term savings, lump sum		
	At the 1% significance level	
Game show vs. tax rebate	−0.110	0.001
	At the 5% significance level	
Game show vs. lottery	−0.067	0.047
Game show vs. inheritance	−0.065	0.045
	At the 10% significance level	
Bonus vs. tax rebate	−0.066	0.056
B. Total savings, lump sum payment		
	At the 10 % significance level	
Game show vs. tax rebate	−0.056	0.063
C. Longer-term savings, monthly payment		
	At the 1% significance level	
Game show vs. tax rebate	−.1058	.005
	At the 5% significance level	
Game show vs. lottery	−.079	.036
	At the 10% significance level	
Game show vs. bonus	−.068	.065
Inheritance vs. tax rebate	−.069	.066
D. Total savings, monthly payment		
	At the 1% significance level	
Game show vs. lottery	−.096	.008
Game show vs. bonus	−.108	.002
	At the 5% significance level	
Game show vs. tax rebates	−.076	.033
Inheritance vs. bonus	−.077	.033
	At the 10% significance level	
Inheritance vs. Lottery	−.065	.072

only at the  $p = 0.0646$  significance level. The results displayed in Table 5 were similar to those above in many respects. Income was still significant ( $p = 0.004$ ) and positive. The coefficient for those reporting a zero income was positive as in all of the other regressions, but significant only at the 10% level ( $p = 0.095$ ). (It was insignificant in Table 4, but significant at the 5% level in Tables 2 and 3.) As in Table 4 but contrary to Tables 2 and 3, the variable for importance (monthly payment/income) was insignificant at any conventional level.

Compared with the \$300 payment (\$25 per month), as a greater monthly payment was received, a greater percentage of the payment was saved. Those receiving \$600 (\$50 per month) saved 10.2% more of the payments than those who received \$300 (\$25 per month;  $p = 0.001$ ). Those receiving \$1,500 (\$125 a month) saved 7.9% more of the payment than those receiving \$25 a month, while those receiving \$3,000 (\$250 per month) saved 8.1% more of the payment ( $p = 0.015$ ).

The self-reported “spenders” saved 9.9% less than the “savers” ( $p < 0.001$ ). As with Table 4, the order variable was statistically and economically significant. When the questionnaire ordered the monthly payment first and the lump sum second, participants’ total savings increased 13.4% more than those where the lump sum payment questions were asked first ( $p < 0.001$ ).

The significant results from regression output similar to Tables 2A through 2D follow and summarized again in Table 6. For the dependent variable Total Savings with monthly

payments for one year, Game Show winnings were saved at a lower rate than Bonus payments at the  $p = 0.0024$  significance level, and an Inheritance was saved at a lower level than a bonus at the 0.00325 significance level.

The percentage saved from Game Show winnings were lower than savings from Lottery payments at the  $p = 0.0077$  significance level, and Inheritance saving was lower than that from Lottery payments, but only at the  $p = 0.0721$  significance level.

Savings from Game Show winnings were less than savings from a Tax Rebate at the  $p = 0.0329$  significance level.

The percentage saved from a Bonus was higher than Inheritance savings at the  $p = 0.0325$  significance level, and savings from a Lottery winning was higher than that of from an Inheritance, but only at the  $p = 0.0721$  significance level.

The results summarized in Part A of Table 6 shown an economically and statistically significant lower amount was saved from Game Show winnings than were saved from Lottery winnings, Inheritance and Tax Rebates. Less of a Bonus was saved than a Tax Rebate, but this was significant at slightly more than the 5% level. Part B of Table 6 provides weak support ( $p = 0.063$ ) indicating that 5.6% less was saved from Game Show winnings than from Tax Rebates.

Part C of Table 6 shows strong economic and statistically significant results showed that savings from Game Show winnings were less than those from Lottery and Tax Rebates. Weak statistical support indicated that savings from Game Show winnings were lower than that from Bonus payments; and that savings from Inheritances were lower than that from Tax Rebates.

Finally, Part D of Table 6 summarizes the results providing strong economic and statistically significant results showed that savings from Game Show winnings were less than those from Lottery, Bonus or Tax Rebates. In addition, less of Inheritance payments were saved than from Bonus payments. Weak evidence suggested that less of Inheritance payments were saved than from monthly Lottery payments.

The results summarized in Table 6 negate the null hypothesis. For example, in at least one set of regressions, the results indicated that savings from Game Show winnings were significantly lower than from Bonuses, Inheritances, Lottery winnings, or Tax Rebates.

## 6. Discussion

The results show multiple instances where windfalls, whether distributed as a lump sum or spread out in the form of monthly payments for a year affect longer-term savings and total savings, negating the null hypothesis. This is a clear exception to neoclassical economic theory but consistent with mental accounting theory and behavioral economics. For Game Show winnings and Inheritance, a greater percentage was spent than was money from a Bonus, Tax Rebate or Lottery winning. As the amounts used in this study ranged from \$300 to \$3000, these results are consistent with the findings of Zagorsky (2013), who found that over 40% of those who inherited less than \$1,000 spent their entire bequests. Because there are significant differences in how much windfall income people save based on the source of that income alone, the source of a windfall may be a factor in saving, not the amount of the windfall itself. In particular, Game Show winnings, which are arguably associated with “fun”

are much more likely to be spent—a hedonistic pursuit. Further, there were significant findings that Inheritances were treated differently than a Bonus, Tax Rebate, or Lottery winning. This finding seems to support and extend the finding that there is some non-rational, perhaps affective tag associated with some sources of income, as presented by Levav and McGraw (2009).

With a regular income stream, people generally treat money as fungible when it comes in, but then use mental accounting “buckets” to determine where it will go out, combining elements of both neoclassical economic theory and behavioral economics. Neoclassical economic theory and behavioral economics are seen as somewhat competing theories when in fact there may be a place for both. People could decide that money from one source will go to one set of bills, and money from another will go to savings or another set of bills. It appears that they do not. It appears that often, but not always, they mix their revenues together, and then decide how to allocate the mixed pool of money. That is, people tend to be neoclassical, but not rigidly neoclassical when making revenue decisions, and follow behavioral economics when making expenditure decisions. Finding a balance between competing theories materially adds to current literature. That the answer to whether the source matters seems to be “sometimes,” and is itself important and an opportunity for more nuanced study.

## 7. Limitations and further research

More nuanced studies could include: which people are more likely to affectively tag income, what kind of affective tags are assigned, at what point (notice, receipt, sometime in between) are affective tags assigned, are affective tags limited to certain kinds of income, or also expenses, and what factors influence whether a tag is assigned at all? These studies are warranted, but they are extensive and left for further research. The effect of these tags are also left for further study. For example, from a macroeconomic standpoint, what effect on amount saved does an ordinary income pay structure have versus a lower ordinary income plus a bonus structure that keeps total compensation equal with the alternative? As the baby boomer generation dies off, what effect will additional inheritances have on spending versus savings? What role might “fun” play in people’s spending patterns? Is greater personal control in earnings a factor in savings choices, such as when one receives an earned tax rebate from the withholding that they established versus a bonus that is also earned but more dependent on employer discretion?

This study was conducted during a time when the economy was recovering from a shock that was severe enough to disrupt people’s normal spending or savings habits. In more stable economic times, results may differ. The recession of 2007–2008 was the worst since the Great Depression, and researchers found that spending and saving behavior changed dramatically, perhaps permanently (Spencer & Chambers, 2012). Further study over many years is needed to measure the long-term effects. The different sources of the funds yielded some significant differences, raising more questions for further study.

The order difference should also be investigated. When the annual payment was viewed first, spending was higher for the monthly sum. This finding may have the greatest practical implication for those in the financial planning arena. Presenting clients with annual values

(e.g., for retirement income) may entice the client to increase current spending compared with providing estimates for monthly income.

## 8. Conclusion

It is well-documented that people use mental accounts for budgeting their savings and expenditures; and ample literature that suggests that income may be segregated into different mental accounts according to its source (e.g., Thaler, 1999). However, very little has been published on whether income from a specific mental account flows *directly* to saving, or instead whether income from a specific source is comingled with income from other sources and then the combined amount is allocated in to mental accounts for savings and expenditures. The results of this study indicate that sometimes income appears to be affectively tagged and flows directly to savings; other times it appears to be comingled with income from other sources. While this is left for further study, that income that has a highly emotional or affective tag, like inheritances that can be associated with love and grief and game shows that can be associated with fun tend to be tagged nearly instantly, whereas other sources of windfalls associated with less affect tend to be comingled and spent or saved more rationally.

With a better understanding the process of allocating money to savings, and specifically, the point in the process at which individuals make that allocation, they can better understand why they are (not) meeting their savings goals. Agarwal and Qian's (2013) study found that spending began as soon as the individual learned of the windfall, but they did not study all of these types of unexpected income. As we better understand how people collectively allocate money to savings, societies can better predict the effects of different types of income structures on societal goals, like how inheritances are likely to be spent or saved with the passing of the baby boom generation. That is the purpose and importance of this study.

## Appendix: Sample survey instrument

**“What would you do if . . .?” (Fill in the amounts):** By participating in a game show, you won a prize that would result in *you* receiving \$600.00 for 2012.

---

If received, how much of these winnings would you plan to:

1. Invest (in stocks, bonds, savings account, and so forth)?	\$
2. Use to pay off credit card debt?	\$
3. Use to pay off notes (such as mortgage, car note, and so forth)?	\$
4. Use up about evenly every month for expenses? _____/month. × 12 months. =	\$
5. Use to buy a durable asset (such as car, boat, washing machine, furniture)?	\$
6. Use to save for an infrequent expense (such as a vacation, bigger holiday gifts, or something you've been wanting)?	\$
7. Spend right away on something fun?	\$
Amount must total \$600.00→	

---

If instead, by participating in a game show, you won a prize that would result in *you* receiving \$50.00/month for the next 12 months.

---

If received, how much of this monthly increase would you plan to:

---

- |  |    |
|--|----|
| 8. Invest (in stocks, bonds, savings account, and so forth)?   | \$ |
| 9. Use to pay off credit card debt?  | \$ |
| 10. Use to pay off notes (such as mortgage, car note, and so forth)?   | \$ |
| 11. Use up for regular monthly expenses?   | \$ |
| 12. Use to buy a durable asset (such as car, boat, washing machine, furniture)?  | \$ |
| 13. Use to save for an infrequent yearly expense (such as a vacation, bigger holiday gifts, and/or something you've been wanting)? | \$ |
| 14. Spend right away on something fun?   | \$ |
- Amount must total \$50.00→
- 

Please list your: Zip code \_\_\_\_\_ Years of work experience \_\_\_\_\_  
 Highest education level: High school \_\_\_ Associate Degree \_\_\_ Undergraduate \_\_\_ Graduate or above \_\_\_  
 Occupation: \_\_\_\_\_ Gender: Female \_\_\_ Male \_\_\_ Age \_\_\_\_\_  
 Race/ethnicity \_\_\_\_\_ Number of college-level accounting classes completed \_\_\_  
 College major (if applicable) \_\_\_\_\_  
 Industry where you work \_\_\_\_\_  
 Approx. yearly **Household** income (from all wage and salary earners and other sources of income)  
 \$ \_\_\_\_\_  
 Credit Card Debt: \$ \_\_\_\_\_ Other Debt: \$ \_\_\_\_\_  
 Do you smoke? Do you normally wear your seatbelt? Yes \_\_\_ No \_\_\_  
 When you normally get "extra money," do you spend it or save it? Spend \_\_\_ Save \_\_\_  
 I rate my level of business experience as:  
 High \_\_\_ Fairly High \_\_\_ Moderate \_\_\_ Fairly Low \_\_\_ Low \_\_\_ None \_\_\_

---

Complete other side, please.

THANK YOU FOR YOUR PARTICIPATION!!!

**“What would you do if . . .?” (Fill in the amounts):** You got a bonus at work that would result in *you* receiving \$600.00 which for 2012 will automatically be mailed to you as a check from your employer.

---

If enacted, how much of this monthly increase would you plan to:

---

- |   |    |
|---|----|
| 15. Invest (in stocks, bonds, savings account, and so forth)?   | \$ |
| 16. Use to pay off credit card debt?  | \$ |
| 17. Use to pay off notes (such as mortgage, car note, and so forth)?  | \$ |
| 18. Use up about evenly every month for expenses? _____/month. × 12 months. =   | \$ |
| 19. Use to buy a durable asset (such as car, boat, washing machine, furniture)?   | \$ |
| 20. Use to save for an infrequent expense (such as a vacation, bigger holiday gifts, or something you've been wanting)? | \$ |
| 21. Spend right away on something fun?  | \$ |
- Amount must total \$600.00→
- 

Another work bonus would result in *you* receiving \$50.00/month after taxes; that is, your paychecks would go up \$50.00/month.

---

If received, how much of this monthly increase would you plan to:

---

- |  |    |
|--|----|
| 22. Invest (in stocks, bonds, savings account, and so forth)?        | \$ |
| 23. Use to pay off credit card debt?                                 | \$ |
| 24. Use to pay off notes (such as mortgage, car note, and so forth)? | \$ |
-

---

25. Use up for regular monthly expenses?	\$
26. Use to buy a durable asset (such as car, boat, washing machine, furniture)?	\$
27. Use to save for an infrequent yearly expense (such as a vacation, bigger holiday gifts, and/or something you've been wanting)?	\$
28. Spend right away on something fun?	\$

---

Amount must total \$50.00→

---

*Complete other side, please.*

**THANK YOU FOR YOUR PARTICIPATION!!!**

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