# THE 10% FLAT TAX: TITHING AND THE DEFINITION OF INCOME

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*Developing a fair and widely accepted income definition presents one of the greatest challenges to tax reform. To arrive at a definition separate from the federal tax code, we surveyed 1200 Latter-day Saints about their practice of tithing. Tithing is similar to a flat tax with no deductions, where individuals voluntarily contribute 10% of self-defined income to the church. The results of our survey indicate that most respondents operate on a cash realization basis, which excludes savings and does not allow any deductions. Respondents' income concepts generally do not coincide with current tax laws or economists' views of comprehensive income.* (*JEL* H24, Z12)

> We recommend the passage of [the income tax] in the confident belief that ... [it] will meet with as much general satisfaction as any tax law. ... All good citizens, it is therefore believed, will willingly and cheerfully support and sustain this, the fairest and cheapest of all taxes.
>
> —Committee Report on the Act Authorizing the Income Tax, U.S. House of Representatives, October 3, 1913

## I. INTRODUCTION

Much of the discussion on individual income taxation in the United States attacks the exceptions, preferences, loopholes, and complexity of the Internal Revenue Code. Would-be reformers stress the inequities and economic defects that arise due to the current fragmented tax base and argue for a comprehensive tax on income. This approach implies that an income concept exists that is generally agreed on as fair and that can meaningfully be applied to individual taxation. But do ordinary people agree on what constitutes a fair definition of income? And, if so, does the income concept match up with either the current tax code or economists' views of comprehensive income?

How individuals believe income should be defined matters for any major reform of the U.S. tax code. First, the electorate's perceptions of what items belong in the income base may well determine what changes are politically feasible. Second, in interpreting the Sixteenth Amendment, the courts have historically relied on an income definition imputed to ordinary citizens. In the landmark case of *Eisner v Macomber* (1920), the Supreme Court effectively ratified the common man's notion of income for tax purposes. On the theory that the people wrote and adopted the Constitution, Justice Pitney reasoned that "we require only a clear definition of the term 'income,' as used in common speech, in order to determine its meaning in the Amendment." Finally, the importance of the income definition extends beyond political and statutory considerations, because research suggests that the perceived fairness

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**ABBREVIATIONS**

HS: Haig-Simons
IRA: Individual Retirement Account
LDS: Latter-day Saints



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of the tax code also affects the degree of voluntary compliance (e.g., Roth et al. [1989]; Slemrod [1992]; and Tyler [1990]).

Eliciting individuals' beliefs about what belongs in an income base presents many challenges. For example, if directly asked about what is fair for tax purposes, people may respond that no form of income should be taxed or may simply repeat the Internal Revenue Code as they understand it. To arrive at a self-determined income definition free of such biases, we administered a survey to 1200 members of the Church of Jesus Christ of Latter-day Saints (LDS). Church members provide unique insights into income definitions because of their practice of tithing, where individuals voluntarily contribute one-tenth of their income to the church. Because the LDS Church collects tithes centrally and disperses funds locally based only on average attendance at Sunday services, tithes do not represent entrance fees or payment for local public goods. Though the rate of 10% is fixed and not subject to personal interpretation, the definition of which potential income sources to tithe is left to individual conscience. Hence, asking questions about what items respondents think should and should not be included in "tithable income" provides an interesting measure of what people regard as income.

The survey results indicate a fair amount of consensus on what items belong in the tithable income base. Respondents tend to equate income with increases in cash and to underrate in-kind accruals and transfers. Savings are included in the income definition and deductions are not allowed. This definition stands in contrast to economists' views of comprehensive income and current tax laws. Interestingly, the sources and uses of a gain seem to matter, many individuals treat gains and losses asymmetrically, and a nontrivial fraction of respondents double-tithe intertemporal transactions. Throughout our discussion of the survey results, we explore several explanations for why individuals define income as they do. We find differing degrees of evidence for such factors as the federal tax code, framing effects and mental accounting, and financial motivations. As might be expected, we also find that personal characteristics, such as church activity, family income, and other demographic characteristics, significantly influence tithing beliefs.

## II. ECONOMISTS' VIEWS OF TAXABLE INCOME

Passage of the Sixteenth Amendment to the U.S. Constitution in 1913 laid the foundation for the current personal income tax in the United States. The amendment reads: "The Congress shall have power to lay and collect taxes on incomes, from whatever source derived." The language of the amendment does not define income, and subsequent tax laws have never adhered to a consistent income definition. Instead the tax code enumerates which items should be included, excluded, or deducted from the income base. Referring to the amendment, the Internal Revenue Code states that income means "all income from whatever source derived" including "but not limited to" the enumerated items (*United States Internal Revenue Code* [1997], Title 26, Subtitle A, Chapter 1, Subchapter B, Part I, Sec. 61). When questions arise, administrators and the courts determine the limits of the income concept. The numerous additions and changes to the U.S. federal income tax code point to the eclectic notion of taxable income used in practice throughout the last century.

Although the definition of income is not a new topic in economic theory, the concepts of personal income to which most public finance economists now subscribe evolved only in the last 100 years.[1] The now-popular accretion-based concept of income was first envisioned by German thinkers such as Georg Shanz in 1896, and subsequently developed by Robert Haig and Henry Simons in America. Haig (1921, 59) defines income as "the increase or accretion in one's power to satisfy his wants in a given period in

1. Using a personal income concept as a means of assessing tax burdens was first coherently developed in the 1700s (see Musgrave [1985]). Previously, taxation had been a loose conglomeration of direct and indirect taxes with no unifying reference to income. Motivated by a desire for greater simplicity and less arbitrariness in the assessment of taxes, in 1743 Carlo Antonio Broggia argued for proportional taxes on income that is "certain," such as land rent, but wanted to leave free all "uncertain" monies, including profits and the bulk of wages. Quesnay, and the physiocratic school he founded, called for a single tax on land to replace all existing direct taxes in 1760, because he believed land was the only real source of income. Smith (in 1776), and later Ricardo (1911, originally published in 1817), took slightly more encompassing views of income for tax purposes, but both still thought that taxing subsistence wages was impractical, because these taxes would merely be passed on to profits or rents anyway.

so far as that power consists of (a) money itself, or, (b) anything susceptible of valuation in terms of money." Simons (1938) later offered a simple algebraic definition, equating personal income with consumption plus change in net worth. Both Haig and Simons emphasize that income involves the economic power to acquire goods and services, regardless of whether an individual actually exercises that power. The other main income concept favored by many contemporary economists is Irving Fisher's (1937) yield-based approach. He saw income as the value of consumption services or expenditures for present enjoyment. Hence, although Fisher includes imputed income, he departs from Haig and Simons by excluding from income savings, unspent gains, and any other form of "capital."

Other theoretical definitions of taxable income have been proposed, but the Haig-Simons (HS) and Fisher criteria have become the starting point for academic discussions of the U.S. tax system (e.g., Aaron [1969]; Bradford [1986]; Goode [1977]; and Hall and Rabushka [1995]). According to these definitions, some of the important traits of a comprehensive income base are: (1) inclusion of all income, regardless of the source; (2) inclusion of all income, regardless of how it is used; (3) identical treatment of cash and in-kind transfers; (4) identical treatment of realized and unrealized gains and losses; and (5) symmetric treatment of gains and losses. We designed our tithing survey questions to explore whether or not these elements are consistent with individuals' perceptions of income. Throughout the paper, we use the Haig-Simons and Fisher benchmarks and the Internal Revenue Service tax code as comparison tools to examine how ordinary people's perceptions of income differ from those of many tax economists and tax lawyers. Because the HS and Fisher definitions mainly differ in the treatment of savings, we focus on the HS definition except for those questions dealing with savings.

## III. TITHING

Tithing is the practice of paying a tenth of one's income, or a tithe, as an offering to God. It originated anciently, as the Bible reports that Abraham (Gen 14:18–20) and Jacob (Gen 28:20–22) both paid tithes. Tithing was also a part of the law of Moses (see Lev 27:30). Today, tithing is an integral element of the religious practice of the LDS Church, commonly called the Mormon Church (see Doctrine and Covenants 119:4). In the LDS Church, ecclesiastical leaders teach that payment of an honest tenth is necessary to be right with God. Though the rate of 10% is immutable,[2] there are no specific guidelines or rules on what should count as income (see Swainston [1992]). Congregations receive a budget for the operation of local church programs based on the size of the congregation, not on the amount of tithes collected. Hence, tithes do not represent an entrance fee to a local club, nor does the amount of an individual's donation directly benefit his or her local congregation financially. By its nature, tithing represents a voluntary, centralized flat tax, where members decide for themselves what income base definition to use. Thus its practice may offer some clues about what items people think should and should not be regarded as income.

Data from the General Social Survey suggest that LDS members donate generously and view the tithe to be 10% of income. In 1987, 1988, and 1989, the General Social Survey asked individuals about religious contributions, family income, religious preference, and church attendance. Table 1 reports church donations as a percentage of family income, tabulated by church affiliation and how many times a respondent attends church services each month. For all religions, donations correlate positively and strongly with church attendance. LDS members who attend church every week seem to understand that tithing in the LDS Church has been defined as 10% of income; the average amount donated by this group is 9.8% of self-defined family income. Compared to individuals with other religious preferences, LDS members on average attend church more frequently and contribute a significantly larger fraction of income to their church.

## IV. SURVEY DESCRIPTION

To gain insights into income definitions, we conducted a survey which asked members

2. Bruce McConkie, a high-ranking church leader, explains: "Strictly speaking there is no such thing as a part tithing. Tithing is a tenth, and unless a person contributes the tenth, he has only made a contribution to the tithing funds of the Church" (McConkie, 1966, 798–99).

**TABLE 1**
Data from the General Social Survey on the Relationship between Church Donations, Religious Preference, and Church Attendance

| | LDS | Religious Preference | | | |
|---|---|---|---|---|---|
| | | **Protestant**[a] | **Catholic** | **Other** | **None** |
| Number of times respondent attends church each month (%) | | | | | |
| Less than one | 25.3 | 45.8 | 40.6 | 61.1 | 96.4 |
| | (4.9) | (1.0) | (1.7) | (4.0) | (1.1) |
| One, two, three | 19.0 | 27.4 | 24.7 | 20.1 | 2.9 |
| | (4.4) | (0.9) | (1.5) | (3.3) | (1.0) |
| Four or more | 55.7 | 26.8 | 34.7 | 18.8 | 0.7 |
| | (5.6) | (0.9) | (1.6) | (3.2) | (0.5) |
| Percent of total family income the respondent donates to his or her church, by monthly church attendence[b] | | | | | |
| Less than one | 0.9 | 0.6 | 0.3 | 0.4 | 0.1 |
| | (0.7) | (0.1) | (0.0) | (0.1) | (0.0) |
| One, two, or three | 2.8 | 2.2 | 1.1 | 1.4 | 0.5 |
| | (0.8) | (0.1) | (0.1) | (0.3) | (0.1) |
| Four or more | 9.8 | 5.4 | 2.4 | 5.6 | 3.1 |
| | (1.1) | (0.3) | (0.3) | (2.3) | (0.3) |
| Observations | 79 | 2274 | 878 | 149 | 276 |

*Source:* Authors' tabulations from the 1987, 1988, and 1989 General Social Surveys. Individuals who do not report their total family income, church attendance, or religious preference are excluded from the table. Four observations for which church donations exceed total family income are also excluded (three "Protestant" observations, one "None" observation).

*Note:* Standard errors in parentheses.

[a]Excluding LDS.

[b]Total family income is constructed by taking the midpoint of the income interval reported by the individual (20 possible categories). Church donations are recorded to the nearest dollar. The donation question asked of respondents is "About how much do you contribute to your religion every year (not including school tuition)?"

of the LDS Church about their tithing practices. Using computer-assisted telephone interviewing, a professional survey company interviewed 1200 LDS members living in the state of Utah between 7 May and 20 May 1996.[3] While the LDS Church has a worldwide membership totaling over 10 million, we chose this sample because of Utah's high concentration of LDS Church members. Bradley et al. (1992) estimate that approximately 72% of the state population is LDS, while 73% of those randomly telephoned in our survey indicated that they were members of the LDS Church. Individuals were eligible to complete the survey if they indicated that they were members of the LDS Church, the male or female household head, and 18 years of age or older. The response rate to the ten-minute survey was 43% where the response rate is defined as the number of completed interviews divided by the number of eligible potential respondents.[4] Dahl and Ransom (1999) contains details on survey administration and the final sample disposition.

Survey participants were presented with hypothetical situations involving potential income sources and asked how they would treat the items for tithing purposes. To examine how variations in the hypothetical situations affect responses, we administered one version of the tithing questions to half the respondents (ballot A) and a second version to the other half (ballot B). Respondents were also asked demographic, labor market, and church activity questions. Dahl and Ransom (1999) lists some of the demographic and labor market characteristics of the sur-

3. A copy of the survey instrument is available from the authors on request.

4. This response rate is consistent with other telephone interviews on sensitive subjects as discussed in Groves (1989).

vey sample and provides a comparison to data for the entire state of Utah from the 1990 U.S. Census. The characteristics of individuals in our sample are very similar to the census sample, with a few exceptions. The sample for our phone interview is more female and better educated, a pattern sometimes observed in telephone interviews according to Groves (1989). In addition, our sample had a higher marriage rate and larger family sizes relative to the Utah census, a finding that accords with the LDS Church's encouragement of and support for families.

Because of the personal nature of tithing, we determined that if we asked individuals whether they actually contributed tithes to the church and what items they actually tithed, we would have had an unacceptably high refusal rate. Instead, we ask tithing questions about hypothetical scenarios, which has the benefit that we can examine the beliefs of all respondents. For example, the beliefs about the tithing (or tax) treatment of capital gains of individuals who have never invested in the stock market are arguably as important as the beliefs of those who have invested. Due to the confidential nature of tithing, no official estimate of the number of tithe payers is released. Our best estimate of the percentage of tithe payers for members who are actively involved in the church is around two-thirds.[5] Although we cannot identify those respondents in our sample who do not tithe, their answers probably reflect less about their personal beliefs and more about their perceptions of how an active church member should tithe.

Table 2 reports summary statistics on the church activity and tithing advice variables we collected. Almost 80% of respondents attend church services three or more times a month. In addition, 87% of the sample have attended church social activities, half of all males and 13% of females have served full-time missions,[6] and around 70% of males and females currently hold a volunteer calling in the church.[7] As will be seen later, these church activity measures are associated with individuals' answers to the tithing questions. Slightly over half of the respondents discuss what items to tithe with their spouse, and around 40% have sought outside advice about tithing.

**TABLE 2**
Church Activity and Tithing Advice Characteristics of Survey Participants

| | Percent |
|---|---|
| Number of times respondent attends Sacrament Meeting each month | |
| Less than one | 10.8 (0.9) |
| One | 3.8 (0.5) |
| Two | 4.9 (0.6) |
| Three | 12.0 (0.9) |
| Four or more | 66.0 (1.4) |
| Attends church social activities, not including Sunday meetings | 87.1 (1.0) |
| Served full-time mission for the church | |
| Males (respondent or spouse) | 50.6 (1.4) |
| Females (respondent or spouse) | 13.4 (1.0) |
| Currently holds volunteer calling in the church | |
| Males (respondent or spouse) | 69.7 (1.3) |
| Females (respondent or spouse) | 72.7 (1.3) |
| Discusses what items to pay tithing on with spouse | 51.8 (1.4) |
| Sought advice about what items to pay tithing on from | |
| Church leader | 22.9 (1.2) |
| Friend | 5.7 (0.7) |
| Family member (other than spouse) | 16.1 (1.1) |
| Someone else | 2.5 (0.5) |
| Did not seek advice | 62.3 (1.4) |

*Note:* Standard errors in parentheses.

5. We arrived at this estimate after discussions with several bishops.

6. All male LDS Church members are encouraged to serve full-time, unpaid, two-year proselytizing missions for the church when they reach 19 years of age. Female members may serve 18-month missions when they turn 21.

7. The LDS Church operates without a paid clergy or staff; instead, members are "called" to serve in volunteer positions, such as organist, Sunday School teacher, or even bishop.

## V. SURVEY RESULTS

Using our survey on LDS tithing practices, this section explores individuals' perceptions of what items should enter into an income base. The results provide insight not only into the rules and standards ordinary people use when figuring out income but also how the popular definition of income compares to economists' views of comprehensive income. Although it may not be desirable to pattern the federal tax code after the definition of income for tithing purposes, the results are indicative of whether agreement on an income concept is possible and which items might lack consensus. The survey questions have been split into five broad categories, each of which have received a great deal of attention in tax reform debates: gifts and inheritances, housing capital gains, stock investments, miscellaneous deductions, and retirement savings. The survey questions as read to participants appear in Tables 3 through 7, along with the fraction answering "yes," "no," and "not sure." To put the degree of consensus in our survey in perspective, the Gallup Poll defines supermajority consensus as 80% agreement, consensus as two-thirds agreement, and support as a simple majority, for a public opinion referendum on 27 issues by Saad (1996). Throughout the presentation of the results, we discuss several possible explanations for why individuals hold the income beliefs they do.

### *Gifts and Inheritances*

For gifts and inheritances, the HS income constituents of consumption and change in wealth are not self-defining. The giver of a gift might be regarded as enjoying consumption or as transferring consumption to the beneficiary. Regardless of the accounting definition, however, the HS criterion deals with in-kind and cash transfers identically. There seems to be strong resistance to including gifts and inheritances in the federal income tax base, and hence such transfers have always been covered by a separate tax system in the United States. Liberal exclusions have resulted in inheritance and gift taxes playing only a minor role in tax collections, amounting to less than 1% of tax revenues raised by the federal government.

Table 3 reveals that LDS members generally agree that gifts and inheritances count as income to the recipient for tithing purposes. Question 1A asks if a cash gift from a family member should be tithed, with 62% of LDS Church members answering "yes." However, when a comparably valued in-kind gift is

**TABLE 3**
Questions and Responses about Gifts and Inheritances

| Question | | Percent Answering | | | |
|---|---|---|---|---|---|
| | | Yes | No | Not Sure | Obs |
| 1A | Imagine that your parents give you $500 for Christmas. Would you pay tithing on this gift? | 61.9 | 32.7 | 5.3 | 599 |
| 1B | Imagine that your parents give you a sofa worth $500 for Christmas. Would you pay tithing on the value of this gift? | 33.2 | 60.8 | 6.0 | 600 |
| 2A | Your uncle, who was not a member of the church and has therefore never paid tithing, passes away and leaves you $10,000 cash in his will. Would you pay tithing on this inheritance? | 81.1 | 12.5 | 6.4 | 598 |
| 2B | Your uncle, a member of the church who paid tithing all his life, passes away and leaves you $10,000 cash in his will. Would you pay tithing on this inheritance? | 77.5 | 14.5 | 8.0 | 599 |
| 3A | Suppose you inherit the land your family has farmed for generations. You continue farming the land, which has an assessed value of $700,000. Would you pay tithing on the value of the land you inherited? | 41.0 | 40.2 | 18.8 | 597 |
| 3B | Suppose you inherit the land your family has farmed for generations. You sell the land, for which you receive $700,000. Would you pay tithing on this money? | 80.3 | 12.2 | 7.5 | 600 |

**TABLE 4**
Questions and Responses about Housing Capital Gains

| Question | | Percent Answering Yes | No | Not Sure | Obs |
|---|---|---|---|---|---|
| 4A, 4B | Now I want you to imagine that you own a home and are ready to retire. You sell the home and receive $50,000 more for the home than you originally paid for it. Suppose that you use all of the money from the sale of your home to buy a new home. Would you pay tithing on the $50,000 gain you received when you sold your home? | 43.0 | 41.0 | 16.0 | 1198 |
| 5A | Now consider another alternative. Suppose that you put all of the money from the sale of your home in the bank and rent a condominium. Under these circumstances, would you pay tithing on the $50,000 gain you received when you sold your home? | 66.6 | 21.7 | 11.7 | 599 |
| 5B | Suppose that you are looking for an investment, so you buy a second house for $75,000 to rent out. Later you sell this house for $100,000. So you sell the house for $25,000 more than you paid. Would you pay tithing on this gain? | 78.5 | 12.3 | 9.2 | 600 |

**TABLE 5**
Questions and Responses about Stock Investments

| Question | | Percent Answering Yes | No | Not Sure | Obs |
|---|---|---|---|---|---|
| 6A | Imagine that to save for your child's college education, you buy shares of a stock for $1000, and later sell them for $1500. So you sell the stock for $500 more than you paid. Would you pay tithing on this gain? | 75.0 | 18.4 | 6.7 | 599 |
| 7A | Imagine again that you are investing to save for your child's college education. You buy shares of a stock for $1000, and later sell them for $800. So you sell the stock for $200 less than you paid. Would you subtract this loss from your income before paying tithing? | 22.9 | 65.6 | 11.5 | 599 |

| Question | | Percent Answering A | B | C | D | Obs |
|---|---|---|---|---|---|---|
| 6B | Imagine that to save for your child's college education, you buy shares of two different stocks, for $1000 each. Later you sell one stock for $1500 and the other for $800. So you gain $500 on one stock and lose $200 on the other. Which of the following amounts would you pay tithing on?<br>A—The $500 gain<br>B—The $500 gain minus the $200 loss, or in other words, the $300 combined gain<br>C—None of the gain<br>D—Not sure | 23.8 | 50.8 | 8.1 | 17.3 | 596 |
| Combined responses from 6A and 7A | | 47.6 | 18.5 | 17.2 | 16.6[a] | 599 |

[a]Includes individuals who responded "not sure" to either question 6A or 7A.

**TABLE 6**
Questions and Responses about Miscellaneous Deductions

| Question | | Percent Answering Yes | No | Not Sure | Obs |
|---|---|---|---|---|---|
| 8A, 8B | Imagine that you receive a paycheck totaling $1000 before any deductions. If $150 is deducted for federal and state taxes, would you subtract this amount before paying tithing on the paycheck? | 26.5 | 68.7 | 4.8 | 1199 |
| 9A | Imagine that you are injured at your job and are unable to work ever again. You receive a monthly disability check. Would you pay tithing on these benefits? | 78.8 | 13.5 | 7.7 | 599 |
| 9B | Now imagine that you lose your job, and in the six months it takes you to find a new job, you receive unemployment benefits. Would you pay tithing on these benefits? | 71.8 | 16.0 | 12.2 | 599 |
| 10A | Suppose you own your own business and have to pay for health insurance for you and your family. Would you deduct the cost of this policy from the income of your business before paying tithing? | 30.1 | 55.0 | 14.9 | 598 |
| 10B | Suppose you are paying $375 a month to support a missionary from your ward who could not afford to pay for his own mission. Would you deduct this contribution from your income before paying tithing? | 15.0 | 76.2 | 8.8 | 600 |

received, only 33% feel it should be included in the tithing base. This differential treatment of cash versus in-kind gifts does not accord either with current tax law or the HS view, both of which would treat the gifts identically.

The responses to questions 2A and 2B indicate strong agreement that cash inheritances belong in the tithable income base. It is interesting to note that the fraction who would tithe an inheritance from an uncle only decreases slightly if the benefactor has already tithed the money (81.1% versus 77.5%).[8] Questions 3A and 3B, which deal with the inheritance of a family farm, make clear that cash realization affects people's perception of whether or not they have experienced an income gain. When the farm is immediately sold for cash, eight out of ten respondents agree that this inheritance should be tithed, but consensus falls apart when the land continues to be farmed and not sold. These questions on gifts and inheritances indicate that LDS members apparently think about income as the amount of cash available for immediate consumption. Contrary to an HS approach, individuals do not seem to impute potential income when figuring their tithable income base.[9]

8. Any percentage difference between ballot A and ballot B over 5.7% is statistically significant at the 5% level. Because the fractions for each question have a trinomial distribution, the further the percentages are from 50%, the smaller the required percentage difference becomes, so that if both percentages are close to 80% (or 20%), any percentage difference over 4.5% is statistically significant at the 5% level.

9. The following excerpt by David Brinkley of ABC News illustrates that the imputed income concept may not have widespread support (or even be understood) for federal tax purposes either:

> Finally, a few words about federal taxes and what some of the great minds in the U.S. Treasury are thinking about. The Treasury likes to calculate the American people's ability to pay taxes based not on how much money we have, but on how much we might have or could have had. For example, a family that owns a house and lives in it, the Treasury figures that if the family didn't own the house and rented it from somebody else, the rent would be $500 a month. So it would add that amount, $6,000 a year, to the family's so-called imputed income. Imputed income is income you might have had, but don't. . . . If that were the system, consider the possibilities. How about being taxed on Ed McMahon's ten million dollar magazine lottery? You didn't win it, you say? But you could have. The Treasury must have something better to do. If not, there is a good place for Clinton to cut some spending (*This Week with David Brinkley,* Washington, DC: ABC News, February 28, 1993; cited in Graetz [1995, 42–43]).

**TABLE 7**
Questions and Responses about Retirement Savings

| Question | | Percent Answering | | | | Obs |
|---|---|---|---|---|---|---|
| | | | Yes | No | Not Sure | |
| 11A, 11B | Now imagine that to save for your retirement, you set up an IRA. Each month while you are working, $100 is automatically deducted from your paycheck and placed into the account. When you retire, you will receive a monthly retirement check from the account. While you are working, would you pay tithing on the money put into the account each month? | | 64.8 | 28.5 | 6.7 | 1200 |
| | | Percent Answering | | | | |
| Asked if question 11 = "yes" | | A | B | C | D | |
| 12.1A, 12.1B | Now imagine that you are retired and receiving a monthly retirement check from your account. Remember that, while you were working, you paid tithing on the money you put into the account. Which of the following would you now pay tithing on?<br>A—The full amount of your monthly retirement check<br>B—The amount of your monthly retirement check that represents the interest earning on the account<br>C—No part of the monthly retirement check<br>D—Not sure | 29.3 | 51.3 | 6.4 | 13.0 | 778 |
| Asked if question 11 = "no" | | | | | | |
| 12.2A, 12.2B | Now imagine that you are retired and receiving a monthly retirement check from your account. Remember that, while you were working, you did *not* pay tithing on the money you put into the account. Which of the following would you now pay tithing on?<br>(A, B, C, and D defined as in question 12.1) | 63.8 | 11.5 | 11.2 | 13.5 | 340 |

Ability to pay stands out as a possible reason for respondents' focus on cash. People may feel that they do not have the resources to pay tithes out of noncash accretions in their wealth, which may account for why uses and sources seem to matter in personal income definitions. For example, this could explain why respondents agree that the inheritance of a farm sold for cash counts as income, whereas no such consensus exists if the land continues to be farmed (question 3). While the $700,000 farm could presumably be mortgaged to come up with $70,000 for tithing donations, individuals may somehow think it unfair to have to sell an asset or incur a large transaction cost to tithe.

*Housing Capital Gains*

The Internal Revenue Code has many special provisions to deal with home ownership, and these rules have changed over time. At the time the survey was administered, the code taxed capital gains on a house upon realization and allowed a one-time deduction under certain conditions. In addition, the capital gains from the sale of a primary residence were deferred if the individual subsequently purchased a home of equal or greater value.[10] In contrast, an HS approach would

10. The new tax law passed in 1997 allows a homeowner to avoid paying any taxes on capital gains on a house in which he or she has lived for two of the last five years. The limit is doubled to $250,000 in gains ($500,000 for joint filers), and the exemption can be taken advantage of every two years.

allow no such deduction and would tax any real increase in the value of a home each year, independent of when the house was sold. That is, an HS approach would treat the capital gains on a home in the same way it would treat any other asset. Fisher would treat housing capital gains the same as any other investment, not taxing the gains until used for present consumption.[11]

LDS perceptions on how to treat housing capital gains indicate that the source and subsequent use of the gain strongly impact tithing beliefs (see Table 4). Sharp division exists on whether a capital gain on a home that is reinvested into a new home should be tithed (question 4). In contrast, when the hypothetical gain in question 5A is put in the bank with the individual choosing to rent a condominium, two-thirds of the respondents feel the gain should be tithed. When a housing gain results from a secondary house purchased as an investment, strong consensus is reached, with four out of five respondents indicating that they would tithe the gain. These beliefs do not agree with a strict HS view of income, where uses and sources are irrelevant. In contrast to Fisher's view, a large number of individuals view at least some form of housing capital gains as income.

Clearly, how the gain is spent influences beliefs, with money reinvested into a new home not being viewed as income as strongly as money put in the bank. The source of a gain also impacts respondents' views with more individuals counting gains from an investment property as income compared to gains from a primary residence, even though each gain is received in cash. One possible explanation is that respondents' income views for the tithe mirror the federal tax code, which relies on market transactions and distinguishes between different uses and sources. Consistent with the tax laws of the time, LDS Church members are more likely to perceive an increase in income if the house was an investment property versus a primary residence and less likely to perceive an increase in income if the gain was rolled over into the purchase of another home. However, answers to other questions do not appear to be similarly affected by the federal tax code. For example, respondents treat cash and inkind transfers differently, whereas the tax code does not (question 1). Though it is hard to disentangle the effect the tax code has on income beliefs, the survey results make clear that respondent's views differ from the tax code in many respects.

*Stock Investments*

Over the years, one of the most debated and ever-changing aspects of U.S. tax law has been the treatment of capital gains. At the time of the survey, realized gains on stock investments were taxed as ordinary income for most citizens, with losses offsetting gains.[12] The HS approach provides no justification for preferential treatment, and would tax net gains from stock investments the same way it would any other investment. Special treatment for investment gains might be justifiable if gains have already been taxed at the corporate level; however because no "corporate tithing" exists, the HS definition would require investment gains to be tithed. In contrast, Fisher would fully exclude any investment gains until used for current consumption.

Table 5 shows that LDS members are in agreement that investments from the stock market should be tithed, with around three-quarters of respondents answering that such gains belong in the income base (question 6). This finding lines up with the HS view of income, but stands in contrast to the position held by many economists and politicians that such gains should be excluded from the income base. Table 5 also points toward some incongruities about how individuals think about losses. Individuals generally do not treat gains and losses symmetrically, with many respondents choosing to tithe a gain, but not to deduct a loss from income before calculating the tithe.[13] Interestingly,

11. Although not dealt with in our survey, a strict HS approach would also tax the imputed rental value of the home. The Fisher criterion, though it would not tax the capital gain on housing, would also tax the imputed consumption benefit derived from the house.

12. Prior to the Tax Reform Act of 1986, only 40% of capital gains were taxable. Between 1986 and 1997, capital gains were taxed as ordinary income, with the top rate capped at 28%. Beginning in 1997, capital gains were taxed at a lower rate than ordinary income, with the maximum rate set at 20%.

13. This asymmetric treatment of gains and losses shows up regardless of whether the respondent has ever made investments in the stock market, suggesting the answers reflect more than a lack of thought or understanding.

the framing of the question makes a substantial difference to the joint treatment of investment gains and losses (compare questions 6A/7A to 6B). Other phone surveys and public opinion polls have also found that the wording and sequence of questions can make a difference (e.g., Groves [1989]; Newport et al. [1997]).

Research in behavioral economics provides some alternative explanations for why respondents might perceive income as reported in our survey. Kahneman and Tversky (1979) and Tversky and Kahneman (1981) demonstrate that choices can depend significantly on the way a problem or question is framed. They find that people exhibit risk aversion when choices are presented as gains, but are risk taking when the same choices are presented as losses. Although the stock market questions in Table 5 do not involve uncertainty, the framing of the questions reveals a similar reversal in the treatment of losses. One-half of the sample was presented with a concurrent gain on one stock and a loss on a second stock and then asked whether they would tithe the gain, the net gain (subtracting out the loss), or none of the gain. Half of that sample responded that they would pay on the net gain, with a quarter of the sample paying only on the gain and not subtracting the loss. In contrast, when the same scenario was split into two separate questions for the other half of the sample, far fewer respondents chose to deduct the loss from their tithable income base. That is, when combining the responses to questions 6A and 7A, only 19% would tithe the net gain, with 48% of the sample paying on the gain but not subtracting out the loss. Tversky and Kahneman (1991) present similar evidence from surveys and experiments that reference points matter even in riskless choice. Related anchoring and reference dependence effects are discussed in Kahneman (1992).

The frame-dependent treatment of losses we observe in our study fits in well with the type of mental arithmetic developed by Thaler. He proposes that individuals set up mental accounts for related decisions and then make judgements in relation to the balances in these accounts. This type of thinking can explain, for example, why individuals often violate the principle of fungibility in their personal finances or why individuals do not ignore sunk costs when a decision is linked to a mental account in which the balance is negative (see Thaler [1985]; Shefrin and Thaler [1992]). One explanation for our results is that when individuals are presented with a combined gain and loss, they mentally bundle the two events into a single transaction, in this case a gain of $300. Here the neutral reference outcome is breaking even, so individuals perceive a gain of $300. However, when the gain and loss questions are asked separately, the $200 loss is viewed as a distinct event, and individuals do not feel comfortable taking a separate deduction from their total income. This type of mental accounting, which depends on the grouping of gains and losses and the reference income a loss would be deducted from, could also explain why individuals do not agree on the tithing treatment of a capital gain on a house when a new house is purchased with the proceeds (question 4). Perhaps some respondents view the selling of an old home and the buying of a new home as a single transaction, with no net increase resulting from the exchange. In contrast, fewer individuals seem to view the proceeds from the sale of a home and the subsequent rent payments for a condominium as belonging to the same mental account (question 5A).

*Miscellaneous Deductions*

A variety of deductions for specific expenditures appear in current federal tax law. For example, ever since the implementation of the tax code in 1913, state and local taxes have been deductible before figuring out the income base for federal taxes. Special rules govern many transfer and insurance payments; for example, certain types of disability benefits receive preferential tax treatment. Moreover, employer-paid benefits, such as company health plans, are not taxed, and individuals can deduct contributions made to charitable organizations. In addition to the many current deductions in the tax code, a few items have changed or disappeared over time. For example, while unemployment compensation was initially fully excludable, in 1979 certain limitations were imposed, and since 1987 these benefits have been fully includable. Adherence to an HS standard for these items would require a definition of potential consumption. For example, if taxes represent consumption fees and charitable contributions represent consumption choices (not transfers of the ability to consume), then neither should be excluded from the tax base. Similarly, for social insurance programs and health plans, the HS criterion does not dictate how to tax benefits except in connection with the tax treatment of premiums.

The results of the survey indicate that LDS members consider most of the deductions just mentioned to be tithable income (see Table 6). The majority of respondents would not deduct federal and state taxes before tithing their paychecks, and there is solid consensus that disability and unemployment benefits should be tithed. Though a majority of respondents do not feel health insurance costs for the self-employed should be excludable from income, almost one-third believe they should. Because few LDS members probably calculate the value of their employer's health insurance plan and tithe the amount, perhaps some of the respondents answering "no" felt that the self-employed should not have to tithe this item either. A possible interpretation of the various results in Table 6 is that deductions and exclusions in the U.S. tax code are viewed by many as loopholes rather than adjustments reflecting an individual's ability to pay.

The final question on deductions deals with the treatment of a charitable contribution in the form of directly supporting a church missionary.[14] We chose this church-related donation rather than a donation to another charitable organization, such as the United Way, for two reasons. First, LDS members are familiar with the missionary program of the LDS Church. In addition, a donation to support a missionary clearly aids a specific church endeavor, so we felt this question would provide the strongest test for whether individuals view voluntary contributions as reductions in tithable income.[15] The survey results indicate that most respondents do not feel this charitable contribution should be deducted from their tithing base. The most plausible interpretation is that supporting a missionary is a consumption choice which does not decrease an individual's tithable income. If the consumption interpretation can be applied to charitable contributions in general, then arguments that do not rely on an individual's ability to pay are needed to support the deductibility of charitable donations from the federal tax base.

### *Retirement Savings*

Under current federal tax law, workers can save for their retirement through tax-favored plans such as individual retirement accounts (IRAs) and 401(k)s. Under certain conditions, the law allows taxation on the amounts deposited into qualified accounts, as well as the interest earnings of the accounts, to be postponed until retirement. In 1997 Roth IRAs were added to the mix of investment options, with deposits being taxable and interest earnings being tax-free if certain requirements are met. These plans depart from the HS criterion of taxing all savings regardless of the purpose of the investment, but coincide in spirit with Fisher's notion that investment income should only be taxed once.

The questions in Table 7 ask respondents how they would tithe retirement savings by asking two questions, with the second question being contingent on the answer to the first. Though LDS members do not agree on a single unified treatment of retirement savings, combining the answers to questions 11, 12.1, and 12.2 does provide some insights. Almost one-fifth of the sample would tithe both the contributions as well as the full amount of the monthly retirement check. One-third of respondents would follow something closer to an HS approach, choosing to pay on contributions and later on the interest earnings of the account.[16] Respondents could choose to tithe contributions and then not the monthly retirement check or not to tithe contributions and then tithe the entire amount of the monthly retirement check; however, far fewer respondents chose the first option (4% versus 18%). These two approaches closely

14. The cost of a mission was $375 per month at the time of the survey, regardless of the geographical location where the individual was asked to serve. Usually, missionaries and their families provide their own funding; however, when this is not possible, individuals or local congregations provide financial support.

15. Note that although the church has made clear that missionary contributions are separate from any tithing payment, whether to deduct the contribution from income before figuring out the tithing base is a different issue.

16. Of course, a strict HS approach would require interest earnings to be taxed yearly as they accrue, an option not presented to respondents.

mirror the options available to taxpayers with the Roth IRA and the traditional IRA. More individuals seem to favor a tithing approach that parallels the traditional IRA versus the Roth IRA; however, it should be remembered that the Roth IRA was not yet law at the time the survey was administered. Altogether, about a quarter of the sample indicated that they were not sure how to deal comprehensively with retirement savings.

One possible explanation for the wide variation in responses is that individuals have differing amounts of experience with retirement savings, and their answers are influenced by their personal circumstances. For example, the fact that so many respondents would double tithe the principal may appear to indicate lack of serious thought about the issue. However, further analysis reveals that respondents who have an IRA or 401(k) plan are just as likely to say they would double pay compared to the rest of the sample (18% versus 20%). The most likely explanation is that some individuals have a cautious desire to be extremely generous in tithing in an effort to obey God's will. This reasoning could also explain why many respondents are reluctant to deduct investment losses from income even though they include gains (questions 6A, 6B, and 7A). The other possible choices for how to tithe retirement savings are likewise not significantly influenced by whether an individual has ever made contributions to a retirement account. One interpretation of this result is that respondents are not financially motivated to skew their definition of income to benefit themselves.

Does financial self-interest explain respondents' views about the appropriate income base in general? In Dahl and Ransom (1999), we explore whether or not self-serving biases affect tithable income definitions. A more detailed analysis can be found there; in summary, we find little evidence that income definitions are affected by the potential for pecuniary gain. Having received a sizable gift or inheritance does not seem to affect individuals' views of whether gifts and inheritances should be tithed. Likewise, whether an individual has invested in the stock market, been unemployed, or owned his or her own business does little to change the perception that stock market gains, unemployment benefits, and monies used by the self-employed to purchase health insurance belong in the tithing base. As already mentioned, the tithing treatment of retirement accounts does not depend on whether an individual has ever made contributions to an IRA or 401(k) plan. However, our results do reveal strong evidence of self-interested tithing behavior in the treatment of capital gains from a home, with homeowners being less likely to say they would tithe a housing capital gain compared to renters.

## VI. DETERMINANTS OF TITHING BELIEFS

The previous section examined the definition of income for the entire sample of LDS members who completed our survey. Further examination reveals that the degree and sometimes even the direction of consensus differs by respondent characteristics. For example, consider question 2A, which asks if respondents would tithe a $10,000 cash inheritance. Those who attend church services less than once a month on average answered "yes" 41% of the time ("no" = 49%, "not sure" = 10%), revealing a sharp division in opinions. However, the group of respondents who attend church every week exhibited strong internal consensus, with 90% answering "yes" ("no" = 5%, "not sure" = 5%). The effect of church attendance for other survey questions is depicted in Figures 1 and 2, revealing substantial differences in tithing beliefs.

Such variation across groups of individuals illustrates the fundamental role of the income definition in equitable assessments of tax burdens. Two types of individuals may each donate 10% of what they consider to be income, but if one type excludes more items from the income base, those individuals might be paying much less than 10% given an expanded income definition. How the effective rate (the percentage of "true" or comprehensive income paid in tithing or taxes) varies according to alternative income base definitions is particularly germane to the flat tax literature, because a flat tax does not necessarily tax all individuals at the same effective rate. For example, wealthier people will on average be taxed at a lower effective rate if capital gains are excludable but actually belong in comprehensive income. The Congressional Budget Office, the Joint Committee on Taxation, and the Treasury

**FIGURE 1**

Responses to Survey Questions by Average Monthly Church Attendence, Ballot A

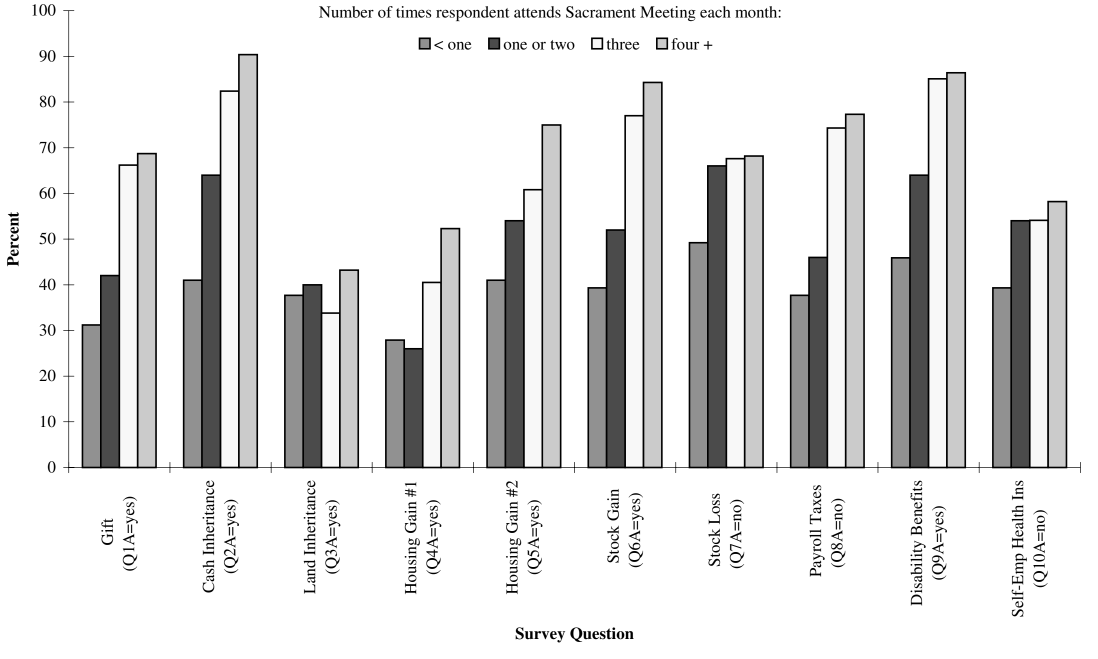
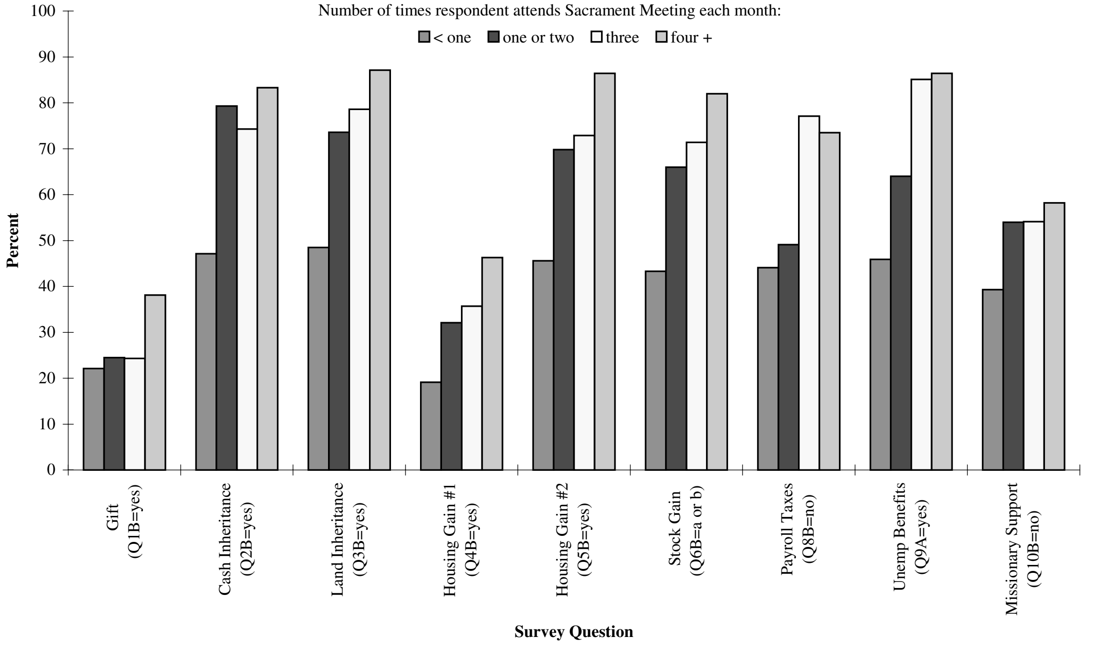



**FIGURE 2**

Responses to Survey Questions by Average Monthly Church Attendence, Ballot B



each have their own definition of comprehensive income. Consequently, as Graetz (1995) points out, these three organizations differ in their estimate of effective federal tax rates for the various tax brackets by anywhere from two to ten percentage points.

Other characteristics besides church attendance also affect individuals' definitions of income. To analyze the joint influence of church activity, demographic, and income variables in determining beliefs about tithable income, we created an overall index of "generosity." This index was formed by summing the number of questions an individual answered in such a way as to increase tithable income. For example, the index increased by one if the individual responded that they would tithe a cash gift (question 1A) or if they answered that they would not deduct taxes before tithing a paycheck (questions 8A and 8B). A similar index to measure "uncertainty" was created by totaling the number of times a respondent chose "not sure." For simplicity, we excluded the questions dealing with retirement savings, because it is unclear how the combined answers to questions 11 and 12.1/12.2 should enter the indices. Hence, the generosity and uncertainty indices range from zero to ten for ballot A and zero to nine for ballot B.[17] Throughout the analysis, we do not mean to imply that individuals who have a broader definition of income necessarily have the "right" measure of income; rather, in this section we describe how the income definition varies among survey respondents.

In Table 8 we present the results of regressing each of these indices on church activity, demographic, and income variables using ordinary least squares. Looking first at the generosity regression, these variables explain almost a quarter of the variation in the index. The church activity questions have the greatest impact on tithing generosity, so that a respondent who attends church every week, participates in church social activities, has served a mission, and holds a calling has an index that is over three points higher on average compared to respondents with no such church involvement. Women, LDS members with more children, and respondents in the lowest family income group also have significantly higher generosity indices on average compared to men, respondents without children, and higher family income groups. In the uncertainty regression, far less of the variation in responses can be explained by the regression variables. Once again, church activity, gender, and the number of children significantly affect the index. As might be predicted, those who refused or answered "not sure" to the income question also answered "not sure" to the tithing questions more often. Rather than reducing uncertainty, outside advice about tithing seems to increase the number of "not sure" responses; perhaps those who seek advice tend to be more uncertain to begin with.

As underscored by Table 8, measures of church activity emerge as the most important determinants of tithing beliefs. How should one interpret the strong positive correlation between church activity and the willingness of an individual to include an item in tithable income?[18] As explained in section III, committed LDS Church members likely feel a stronger moral obligation to think seriously about the tithe and donate generously. Presumably those more involved with the church maximize utility by thinking about the income base more broadly, as they place more weight on the financial well-being of the church and their relationship with God. In addition, active church members may be more willing to contribute generously because they approve of church expenditures, even though the expenditures do not benefit them directly. Experimental evidence dealing with federal taxation by Alm et al. (1992) supports this view. They find that voluntary tax compliance depends on the degree of satisfaction individuals have with the government and tax expenditures on public goods.

If active members are more likely to actually tithe their income, then their beliefs are arguably of more interest in understanding

17. When we assigned fractional points based on a ranking of the different options for questions 11 and 12.1/12.2, the regression results were almost identical. Assigning different weights on the responses for the various questions making up the index did not alter the general results either.

18. At first glance, the reader might suspect that devoted church members feel a stronger desire to "share their worldly goods" and hence inflate their tithing base. However, more direct avenues exist for increasing contributions, including the categories on donation slips labeled "fast offerings," "missionary work," "humanitarian aid," and "other." As noted earlier, these donations are separate from the tithe.

**TABLE 8**
Determinants of Tithing Generosity and Uncertainty

| | Dependent Variable | | | |
|---|---|---|---|---|
| | Generosity Index[a] | | Uncertainty Index[b] | |
| | Coefficient | SE | Coefficient | SE |
| Intercept | 3.4103** | 0.7068 | 1.224** | 0.4340 |
| Version B dummy | 0.3279** | 0.1136 | −0.2327** | 0.0698 |
| No. times attend church each month | 0.2981** | 0.0465 | −0.0580** | 0.0286 |
| Attend church social activities | 0.8989** | 0.2004 | 0.0922 | 0.1230 |
| Respondent or spouse served mission | 0.4870** | 0.1315 | −0.0566 | 0.0807 |
| Respondent or spouse holds calling | 0.8485** | 0.1651 | −0.0382 | 0.1014 |
| Asked advice about tithing | −0.0190 | 0.1223 | 0.2074** | 0.0751 |
| Discuss items to tithe with spouse | 0.1491 | 0.1301 | −0.0338 | 0.0799 |
| Age | 0.0171 | 0.0205 | −0.0172 | 0.0126 |
| Age squared × 100 | −0.0136 | 0.0184 | 0.0189** | 0.0113 |
| Female | 0.2020* | 0.1198 | 0.2795** | 0.0735 |
| Number of children | 0.0612** | 0.0295 | 0.0045 | 0.0181 |
| Any children living at home | 0.2076 | 0.1849 | −0.2033* | 0.1135 |
| Married | −0.4337** | 0.1728 | 0.1094 | 0.1061 |
| Years of education | −0.0138 | 0.0320 | −0.0163 | 0.0197 |
| income<30K | — | — | — | — |
| 30K ≤ income < 60K | −0.5688** | 0.1504 | 0.1199 | 0.0923 |
| 60K ≤ income | −0.4277** | 0.1894 | −0.1787 | 0.1163 |
| Refused income question | −0.5967** | 0.1925 | 0.3107** | 0.1182 |
| Urban[c] | 0.0758 | 0.1387 | 0.0260 | 0.0851 |
| *F*-statistic | 17.45 | | 4.93 | |
| $R^2$ | 0.213 | | 0.071 | |
| Observations | 1182 | | 1182 | |

[a]Number of questions answered in such a way as to increase tithable income (excluding questions 11 and 12.1/12.2).
[b]Number of questions respondent answered "not sure" (excluding questions 11 and 12.1/12.2).
[c]Salt Lake, Utah, Weber, or Davis County.
*Significant at the 10% level; **significant at the 5% level.

the popular definition of income.[19] However, just as one would want to consider the attitudes of people who do not feel particularly connected to the federal government when examining the federal tax base, including members who are only marginally attached to the church reveals if there is an income definition everyone can agree on. It is interesting to note that respondents who do not tithe incur no monetary cost by defining income broadly, yet the individuals we would expect are less likely to tithe (members marginally involved with the LDS Church) seem to hold to a narrower income definition. The implication for tax reform is that citizens' attitudes about government and tax expenditures likely impact their willingness to adopt and comply with a more comprehensive income base, especially for the nonvoluntary federal tax system.

## VII. CONCLUSION

Attempts to reform the U.S. income tax code must thoughtfully consider how to fairly define the income tax base. Indeed, the main substantive difference between the many alternative tax reform proposals is the appropriate definition of the income base. Citizens' views about what should count as income for tax purposes likely affect the feasibility of such changes and the degree of voluntary compliance with tax law. Our survey

19. The degree of consensus increases when examining active LDS Church members separately, but the general conclusions about which types of items people regard as income do not change.

on tithing practices provides an independent body of thinking on how ordinary people define income. We find that LDS Church members generally agree on which items discussed in our survey should count as income. For the few items where consensus cannot be reached by the relatively homogeneous group of LDS members who share common religious beliefs, it may be too much to hope for broad consensus from the much more diverse U.S. population. However, the results of our tithing survey can help tax reformers identify where people most likely agree and the accounting rules individuals use to define income.

Our survey indicates that respondents use a very simple accounting system to determine tithable income, focusing on cash inflows not earmarked for specific consumption purposes. This simple definition includes savings and does not allow deductions. The income concept that emerges from our survey stands in stark contrast to the characteristics of comprehensive income listed in section II. The main deviation is in respondents' focus on cash income, an approach the U.S. government uses in other contexts, such as measuring poverty. In respondents' simple cash inflow system, the source and use of potential income items matters, cash receipts and realized gains are generally regarded as income, whereas in-kind transfers and unrealized gains are not and losses are not always deducted from the income base. Although it is difficult to provide a single explanation for why respondents define income as they do, we find varying degrees of evidence for the influence of the current tax code, framing effects and mental accounting, and financial motivations. As expected, we also find that respondents who are actively involved in the LDS Church generally subscribe to a much broader definition of income for tithing purposes.

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