Consumer Response to the Timing of Income: Evidence from a Change in Tax Withholding

By MATTHEW D. SHAPIRO AND JOEL SLEMROD*

In his State of the Union Address of January 28, 1992, President George Bush proposed a package of fiscal measures designed to stimulate an economy that was experiencing, at best, a sluggish recovery. All but one of the proposals required Congressional approval, which he never obtained. The policy change that the President could implement by administrative action was a reduction in standard rates of withholding for income taxes. This policy reduced an employee's tax withholding by about $29 per month, unless the employee filed a new W-4 form to offset the mandated change in the withholding schedule. The rationale for this policy was, presumably, that households would spend at least part of this extra take-home pay and hence stimulate output in the less-than-fully-employed economy.

Whether the change in tax withholding schedules would in fact change personal consumption behavior is, of course, central to some of the most controversial questions in macroeconomics. If consumers face no liquidity constraints and behave rationally and frictionlessly, then a temporary increase in disposable income, offset by an approximately equally sized decrease within a year, should not affect consumption. On the other hand, if they do face liquidity constraints or other frictions, they should spend an increment to current disposable income. The change in withholding provides an unusually valuable experiment for studying consumer behavior because it changes the timing of cash flow with essentially no impact on lifetime resources.

Inspecting the aggregate consumption data around the implementation date for signs of a break in behavior would be one natural way to examine this phenomenon.[1] In this paper we have chosen another strategy. We surveyed consumers 1–2 months after their withholding changed, asking them whether they would spend or save the extra take-home pay. This procedure has the benefit of providing direct information on the consequence of the policy change, at the cost of having to rely on individuals' statements about their behavior. Moreover, a virtue of the survey methodology is that it generates microeconomic data enabling us to investigate correlations of planned consumption behavior with other attributes in a cross section. We believe that such evidence is a useful supplement to more traditional econometric evidence.

The next section summarizes the policy change. The subsequent sections describe the survey instrument and presents the results.

*Shapiro: Department of Economics and Survey Research Center, University of Michigan, Ann Arbor, MI 48109, and National Bureau of Economic Research; Slemrod: Department of Economics and School of Business Administration, University of Michigan, Ann Arbor, MI 48109, and National Bureau of Economic Research. We thank Richard Curtin for advice about the wording of the survey, Charles C. Brown for helpful comments, and anonymous referees for helpful reports. Shapiro gratefully acknowledges support of the Alfred P. Sloan Fellowship.

[1] In a related application, David Wilcox (1990) has investigated how aggregate consumption reacts to changes in the timing of the payment of income tax refunds. He uses time-series techniques to relate the aggregate monthly data to the underlying higher-frequency behavior of consumers and the Internal Revenue Service. Since our paper deals with a single aggregate event, the time-series approach does not apply.

I. The Policy

The President's executive order directed employers to reduce income taxes withheld in paychecks issued after February 28, 1992. The change amounted to $28.80 per month for married workers and $14.40 for single workers. A married couple with two earners would receive $57.60 extra take-home pay per month. Employees in the 31-percent tax bracket (wages more than $90,200 annually for married employees and more than $53,200 for singles) did not receive the extra take-home pay.[2] To offset the effect of the order on take-home pay, a taxpayer would have to complete a new W-4 form. A person with more than one job would need to file new W-4's with each employer. President Bush argued in his State of the Union Address that the change could return an extra $25 billion at an annual rate into the economy, "money people can use to help pay for clothing, college, or to get a new car." The $25 billion figure in the State of the Union Address corresponds roughly to $25 per month times ten months over which the policy would apply in 1992 times payroll employment of about 100 million. Therefore, the President was implicitly assuming that households would spend essentially all of the extra take-home pay.

II. Survey Methodology

We added a module composed of seven questions to the April 1992 *Survey of Consumers*, conducted by the Survey Research Center (SRC) of the University of Michigan. This monthly telephone survey is given throughout the month to approximately 500 people. Our seven questions came after many questions about the household's financial situation and expectations, which are asked each month. After our questions were special sections on savings and financial investments, savings motivation, home purchases, environmental concerns, and motor vehicles. The survey concluded with questions about demographic characteristics.

The survey instrument for our module is shown in the Appendix Table A1. The questions ask first about the tax refund status of the household and whether, if there is a refund, it is usually spent or saved. The questions explicitly refer to spouse as well as the respondent when the respondent is married. If either is working for pay, the respondent is then asked whether he or she had noticed a change in the amount of tax being withheld. Finally, the key question is posed:

> The federal government *has* recently changed the amount of income tax that is being withheld from paychecks. On average, the change in withholding should *increase* your take-home pay by about $25 per month, or by a total of about $250 for all of 1992. It also means that next year your tax refund will be about $250 less than otherwise, or you will have to pay about $250 more in taxes next year than otherwise. How do you think you will use the extra $25 per month—do you think you will *spend most* of it, *save most* of it, use *most* of it to *repay debts*, or what? (PROBE: What do you think you will do with *most of the extra money*?)

In addition to the responses (A) *spend*, (B) *save*, and (C) *repay debt*, other responses were allowed. A number of respondents volunteered that they would or did change their withholding. We tabulate these separately as (D) *change withholding*.

Our survey concerns an actual policy change affecting households' take-home pay. It was carried out soon after the policy change went into effect. Because it does ask

[2]Since the reduced withholding was not refundable, the increased take-home pay was phased in for employees who had less than $28.80 (or $14.40 for single employees) withheld per month under the old schedule. Similarly, there was a rapid phase-out for employees in the 31-percent bracket. See Department of the Treasury, Internal Revenue Service, *Employer's Tax Guide* (Circular E) for February 1992, compared to January 1992. Self-employed individuals were not affected, because the rules for estimated tax payments were not adjusted. The changes in the withholding tables remained in force beyond the end of 1992.

about a concrete change in economic circumstance to which households have to adjust, it is not phrased in the subjunctive, as it would be had we been asking about a hypothetical change in take-home pay. We worded the question instead in the future tense in order to focus on the steady-state response throughout the year. Because the survey was carried out after the policy change went into effect, it clearly referred to current behavior as well as to intentions concerning future behavior.

III. Tabulation and Cross-Tabulation of Results

Of the 501 respondents, 120 said that no one in the household was currently working for pay, so the withholding change did not apply to them.[3] Of the 381 households where the head of the household or at least one spouse had payroll employment, 36 claimed to have adjusted their withholding to offset the mandated change;[4] 19 gave no response or did not know. Of the remaining 326 respondents for whom the change did apply,[5] 158 said they would spend the additional money, 66 said they would save it, and 102 said they would repay debts. Repaying debts is a form of saving. Hence, slightly less than half (48 percent) planned to spend the extra money and slightly more than half (52 percent) planned to save it. If we count those adjusting their withholding as savers, the fraction planning to spend most of their extra cash flow is 43 percent.

Even though the change in withholding had begun at least a month before the survey, almost as many respondents (175) had not noticed any change in withholding as had noticed a change (179), and of those who professed to have noticed, 58 said they had noticed that their tax withholding had gone up rather than down.[6] Thus, more than one month after the policy was in place, slightly less than one-third of the relevant respondents (121 out of 381) had correctly discerned the withholding change.[7]

It is not obvious what the behavior would be of a household that genuinely was unaware of the increase in take-home pay. It depends on what is passive behavior in this context. A household that routinely spends all its pay (or all its pay after saving a fixed amount) would, ipso facto, spend the change in withholding. On the other hand, a household that consumes a fixed amount per period, if it ignored that change in withholding, would automatically save it. What households tell us they would do with the extra $28.80 should inform us about their behavior in these cases. The patterns of response discussed below did not differ significantly between those who professed to be aware of the change and those who said that they were not aware of it.

The failure of many respondents to have been aware of the change in withholding becomes less troubling, however, once one recognizes the possibility that the respondent's spouse (but not the respondent) was on a payroll. Nonworking spouses might have been unaware of the change in take-home pay, even though they might actively participate in the consumption/saving deci-

[3]Hence, in 381 households, at least one spouse or the unmarried head of household is working for pay. In aggregate, the rate of payroll employment is substantially lower, but the aggregate rate refers to individuals, while these data refer to the fraction of households where at least one spouse is employed.

[4]The IRS has not compiled data on what fraction of taxpayers took this action. Indeed, the way payroll taxes are routinely collected means that such aggregate figures would be hard to obtain. Most employers retain the W-4. They make payments to the IRS for the total withholding due from their firms. They only report on individual withholding on the annual W-2 form.

[5]As noted above, the change did not apply to taxpayers whose wages were above a certain amount. As we do not know the wage income of each earner, but only total household income, we are unable to exclude these people from the analysis. The income breakdown in Table 1 suggests that this is a minor issue.

[6]Of the 381 respondents in households with payroll employment, 27 did not know the answer to this question.

[7]The survey was conducted throughout April 1992. The changes in withholding went into effect on March 1, 1992, so individuals on weekly payrolls would have seen a change in take-home pay early in March, while those on monthly payrolls would not have seen a change until the end of March.

TABLE 1—PLAN TO SPEND OR SAVE EXTRA TAKE-HOME PAY? RESPONSES BY CURRENT INCOME LEVEL

Income range	(A) Spend	(B) Save	(C) Repay debt	(D) Offset withholding change	(E) Spend percentage	(F) p value
\$0–\$10,000	1	1	1	0	33.3	
\$10,000–\$20,000	20	9	18	2	40.8	
\$20,000–\$30,000	22	9	23	2	39.3	
\$30,000–\$40,000	33	13	20	10	43.4	0.72
\$40,000–\$50,000	26	9	10	4	53.1	
\$50,000–\$60,000	9	4	13	4	30.0	
\$60,000–\$75,000	17	8	8	6	43.6	
> \$75,000	18	10	7	6	43.9	
Total:	146	63	100	34	42.6	

Notes: Columns A–D report the number of respondents to the survey, classified according to how they responded to question A31 listed in Appendix Table A1. Column E is the number in column A as a percentage of the sum of columns A, B, C, and D. Column F gives the marginal significance level for the hypothesis test that the spend percentage in column E is equal across income groups.

sion of the household. Such respondents are not overrepresented (by virtue, for example, of being more likely to be home to answer the phone) because interviewers are not allowed to make substitutions from the respondent randomly preselected by the Survey Research Center.

Tables 1 and 2 tabulate the results and present cross-tabulations of the response to the change in withholding by characteristics that might be related to liquidity constraints. In particular, we investigate the relationship to income, change in financial condition (both retrospectively and prospectively), and current financial condition. In no case is there a clear relationship between the professed response to the withholding change and these indicators of liquidity constraints. Table 1 gives a breakdown by income group of the responses to the survey question about what they did with the extra cash flow.[8] Columns A–D give the number of respondents in each income group saying they planned to spend, save, pay off debt, or change withholding. Column E gives the percentage who planned to spend as a fraction of the total. Column F gives the marginal significance level ("p value") for the hypothesis test that, within each block of the tables, the percentage of households planning to spend the extra take-home pay is equal across rows.

The bottom row of Table 1 gives the overall results. The sample is large enough to make fairly precise the estimate that 43 percent of households planned to spend the extra take-home pay. The standard error of the 43-percent estimate is 3 percentage points. Hence, we have strong evidence against the hypotheses that the spend percentage is either zero (the pure life-cycle hypothesis) or close to 1 (the naive Keynesian consumption function). Because of small cell sizes, the estimates of the spend percentage for some of the income ranges are less precise.[9] The average standard error for the spend percentages for a particu-

[8]The income used to classify responses is the total for the household. The change in withholding phased out rapidly for married individuals with payroll earnings over \$90,200. Few households in the survey reported that much total income, let alone individual payroll recipients.

[9]In Shapiro and Slemrod (1993), we also use parametric techniques to investigate the relationship between the decision to spend the extra take-home pay and income.

TABLE 2—PLAN TO SPEND OR SAVE EXTRA TAKE-HOME PAY? RESPONSES BY FINANCIAL CONDITION

Financial condition	(A) Spend	(B) Save	(C) Repay debt	(D) Offset withholding change	(E) Spend percentage	(F) p value
Financial condition compared to last year:						
Better	68	34	37	17	43.6	
Same	49	17	27	8	48.5	0.36
Worse	41	15	38	11	39.0	
Future financial condition compared to this year:						
Better	71	27	40	17	45.8	
Same	68	33	50	18	40.2	0.10
Worse	18	5	6	1	60.0	
Income next year compared to past year:						
Higher	109	41	70	31	43.4	
Same	29	18	20	3	41.4	0.69
Lower	20	7	12	2	48.8	
Use savings to make purchase?						
OK	41	16	17	13	47.1	0.39
Reluctant	104	47	76	20	42.1	

Notes: Totals for various questions are not equal because of failure of respondents to answer various questions. Columns A–D report the number of respondents to the survey, classified according to how they responded to question A31 listed in Appendix Table A1. Column E is the number in column A as a percentage of the sum of columns A, B, C, and D. The p value in column F is the marginal significance level for the hypothesis test that the spend percentages in column E in each block are equal.

lar income range is 11 percentage points. Hence, while the eye might detect an inverted U-shaped pattern for the percentage planning to spend the reduced withholding, there is in fact no systematic relationship with income. (The p value for the test that the percentages are equal across income ranges is 0.72).

Table 2 relates the responses to the change in withholding to the household's financial condition. The first two questions ask whether the household's financial situation is better, the same, or worse than in the previous year or than what is expected for the next year. The third question asks about income growth.[10] There is no strong pattern in the responses for any of these questions about the timing of financial condition or income. Moreover, for each question, we cannot reject the hypothesis that the fraction planning to spend the extra take-home pay is the same regardless of response to the question.[11] Note, however, that the retrospective question is difficult to interpret without knowing the serial correlation of income. If transitory disturbances are important, which is likely at the household level, then households reporting worse conditions in the current year relative to the previous year are more likely to be liquidity-constrained. However, in our sample, these households are less likely to report spending the increment to their take-home pay (39 percent of households compared with 44 percent and 49 percent for

[10]These covariates are part of the standard *Survey of Consumers*. There is also a question that asks for a quantitative forecast of income growth. We use that question in Shapiro and Slemrod (1993).

[11]For the second block of Table 2, the hypothesis of equality can be rejected at the 10-percent level, but with the "wrong sign." Those expecting their financial condition to get worse next year were less likely to save the extra cash.

households with better or the same financial condition).

The theoretical prediction for expected future income growth is more straightforward. If households are liquidity-constrained, those expecting growing income should be more likely to plan to spend the extra cash flow. For both the qualitative questions about future financial condition and future income growth, however, those expecting to be worse off in the future are the most likely to spend currently.

Finally, in Table 2, we group respondents by whether, given their current financial condition, they would judge it OK or be reluctant to use their savings to make a large purchase. Recent work by Christopher Carroll (1992) shows how the marginal propensity to consume can be quite sensitive to the size of the stock of savings that consumers have as a buffer against unexpected events. We interpret the responses to this question as conveying information about whether the household has such a buffer. Those who said it would be OK to use savings to make a purchase were only slightly more likely to plan to spend the increased take-home pay than those who would be reluctant to spend. Hence, although this last tabulation in Table 2 supports the predicted pattern of behavior, the differences in behavior are too small to provide the basis for strong conclusions.

We also included in the survey several questions about previous withholding behavior. Table 3 tabulates the responses to these questions. The results of our survey confirm the well-known finding that most households are overwithheld and therefore get a refund instead of making a final payment. Moreover, the size of the refund is quite large—typically between $500 and $1,000, but frequently over $1,000.[12] We are able to compare these responses to our survey questions with actual filings to the Internal Revenue Service. In both our survey and for all tax returns filed in 1989, one-quarter showed final payments and three-quarters showed refunds. See Appendix Table A2 for a comparison of our survey results and actual filings by size of final payments and refunds. By size of refunds, the distributions are quite similar.[13] The similarity with IRS statistics provides some evidence that our survey is doing a good job of representing the population.

In Table 3, we examine whether the planned disposition of the extra cash flow from the change in withholding is a function of how well the household carries out tax planning. The first block of Table 3 shows that households that typically get a refund said they were slightly more likely to spend the extra take-home pay than those who make final payments. Again, the differences in the spend percentages are small and insignificant. Yet the results do indicate that those who are making voluntary loans to the government are slightly more likely to be induced to spend out of the extra income. Such behavior is consistent with inertia, lack of foresight, or failure to optimize, but not with liquidity constraints.

The next two blocks of Table 3 stratify the responses by the size of final payment or refund. Particularly in the block breaking down responses by final payment, there are few responses, so the numbers must be interpreted with caution. Households making big final payments (over $500) are substantially more likely to save the extra take-home pay. (The $0–$250 final-payment row should be ignored because it has so few responses.)

[12]The extent to which households make voluntary, interest-free loans to the government is, of course, a puzzle. It has been studied in detail (see Joseph Cordes et al., 1991). Although voluntary overwithholding is potentially related to the response to the change in the timing of withholding, they are distinct behaviors. Households make selections that yield a certain refund or final payment. While it is a puzzle to economists that so many elect refunds, most households appear to value refunds. Perhaps, they fear being underwithheld. Regardless of what behavior leads to overwithholding, our paper investigates to what extent a change in the timing of tax payments engineered by the government can affect this outcome.

[13]For final payments, there are too few responses to the survey to estimate the distribution precisely, but the two distributions have some similarity.

TABLE 3—PLAN TO SPEND OR SAVE EXTRA TAKE-HOME PAY? RESPONSES BY PREVIOUS WITHHOLDING BEHAVIOR

Previous behavior	(A) Spend	(B) Save	(C) Repay debt	(D) Offset withholding change	(E) Spend percentage	(F) p value
Usual final tax settlement:						
Final payment	37	21	27	10	38.9	0.24
Refund	120	45	75	24	45.5	
Amount of final payment:						
> $1,000	17	6	18	5	37.0	0.26
$500–$1,000	4	5	4	1	28.6	
$250–$500	14	5	5	2	53.8	
$0–$250	2	4	0	2	25.0	
Amount of refund:						
$0–$250	20	9	11	3	46.5	0.55
$250–$500	35	15	18	7	46.7	
$500–$1,000	29	9	24	10	40.3	
> $1,000	33	11	19	4	49.3	
Disposition of usual refund:						
Spend	44	6	19	10	55.7	0.05
Save	28	28	8	4	41.2	
Pay debt	44	11	47	10	39.3	
Noticed change in withholding:						
Yes, gone up	23	14	17	2	41.1	0.73
Yes, gone down	52	18	26	25	43.0	
No, haven't noticed	79	33	55	7	45.4	

Notes: Totals for various questions are not equal because of failure of respondents to answer various questions. Columns A–D report the number of respondents to the survey, classified according to how they responded to question A31 listed in Appendix Table A1. Column E is the number in column A as a percentage of the sum of columns A, B, C, and D. The p value in column F is the marginal significance level for the hypothesis test that the spend percentages in column E in each block are equal.

There is little variation in saving behavior among those receiving refunds, but they are more likely to spend than those making the big final payments. Hence, there is a connection between being a rational tax planner and not letting the timing of tax payments affect consumption.

The fourth block of Table 3 shows that among those who receive a refund, those who typically save the refund are more likely to plan to save the extra cash flow. We do not give much significance to this finding. Similarity in wording of the questions might induce the correlation. The result is statistically significant at the 5-percent level.

The final block of Table 3 categorizes responses by whether the respondent had noticed a change in withholding. As noted above, less than a third of respondents correctly noticed the change in withholding. There is no significant difference in how the households respond to the change in withholding as a function of whether they noticed the change.[14]

In summary, the results in Table 3 show that households that make large final payments on their tax returns were somewhat more likely to plan to save the extra take-home pay than the other households. The results of the cross-tabulations in Tables 1 and 2 suggest that there are not any strong systematic patterns in how people reacted

[14]Recall that the respondent is often not the wage-earner, so the misperception of the change in withholding is not as striking as it might first appear. There is no information from the survey about whether the respondent is himself or herself on a payroll, so we cannot tabulate the results accordingly.

to the change in withholding as a function of economic condition. In particular, the findings conditioned on the profile of expected income suggest that liquidity constraints do not motivate the spending behavior of the 43 percent of households who report that the timing of tax payments would affect their consumption.

It is possible that, even though simple relationships do not hold, conditional relationships are important. To investigate this possibility, we performed a multivariate probit analysis of whether households planned to spend or save the extra take-home pay from the withholding change. The logarithm of income, age, and age squared, plus dummy variables for educational attainment and marital status, were included as control variables.[15] We find that the indicators of the propensity to be liquidity-constrained fare no better in the multivariate probit estimations than they did in the cross-tabulations of Table 2. None of the indicators of the level or change of income has a quantitatively or statistically significant association with the disposition of the extra take-home pay.

IV. Conclusions

When President Bush announced in his 1992 State of the Union Address that he would reduce the amount of tax withheld from paychecks, few economists expected that it would provide much stimulus to the economy. Their reasoning was that few taxpayers would interpret the change in withholding as an increase in lifetime resources; the increased after-tax income in 1992 would be offset by a decreased net tax transaction with the government in the spring of 1993. Consumption would be increased only by those who were liquidity-constrained in 1992 and expected to be unconstrained in 1993.

The results of this paper shed doubt on both presumptions. Forty-three percent of those who responded to a telephone survey said they would spend most of the extra take-home pay. Such a high percentage suggests that the program would be moderately effective in stimulating aggregate consumption. The direct impact of the policy would be to increase consumption by an $11 billion (43 percent of $25 billion) annual rate. Any multiplier effect would make the amount larger. The direct impact corresponds to 0.2 percent of GDP, which is a significant amount, especially given the slow recovery in 1992. But it is significantly less than the 0.5 percent of GDP that would have been generated were all of the extra take-home pay to have been spent.

We could uncover no relationship between indicators of liquidity constraint and the tendency to spend the extra income. Neither current financial status nor expected future financial status plays an important role in what households said they would do with the extra cash from the reduced withholding. Hence, our results do not support the theory that liquidity constraints explain a high marginal propensity to consume out of transitory income.

Yet our findings do support the notion that a substantial fraction of consumers simply spend their current paychecks. Our analysis of these findings and our quantitative estimates are similar to what John Campbell and N. Gregory Mankiw find in aggregate data. Our figure of 43 percent is similar to Campbell and Mankiw's (1989) estimate, based on aggregate time series, that 50 percent of income goes to "rule-of-thumb" consumers.[16] Because the propensity to spend does not appear to be a function of either the level or change in income, our findings do not support the notion that the failure to smooth consumption arises

[15]The dependent variable in the probit model is 1 for those respondents planning to save the reduced withholding ("save," "pay down debt," or "change withholding") and 0 for those planning to spend it. These estimates are tabulated in the working-paper version of this paper (Shapiro and Slemrod, 1993).

[16]Their estimate refers to the fraction of income going to such consumers, while ours refers to the number of such consumers. Because the propensity to spend does not appear to be a function of the level of income, our fraction also refers to the fraction of income.

from liquidity constraints. The absence of support for liquidity constraint leads us to favor myopia or rule-of-thumb behavior as the explanation for why so many households report that they would let the timing of tax payments affect their consumption. Moreover, a small fraction of households have rational tax planning whereby they typically make a large final tax payment. That these households are somewhat more likely to save the transitory income provides a modicum of affirmative support for the hypothesis that myopic or rule-of-thumb decision-making underlies the behavior of the fraction of households that report spending the transitory income. This explanation is especially compelling in the context of tax withholding, for which there is a long-standing puzzle as to why so many taxpayers choose to overpay their taxes during the tax year, only to receive a refund, with zero interest, at tax filing time.

APPENDIX TABLE A1—SURVEY OF CONSUMERS (APRIL 1992): QUESTIONS ON TAX WITHHOLDING

A25. When you (and your husband/wife) file your federal income tax return, do you usually get a refund, or do you usually have to pay more when you file your federal income tax return? [If get refund, skip to A27.]
A26. Is the additional amount that you (and your husband/wife) need to pay when you file your federal income tax return usually less than $250, between $250 and $500, between $500 and $1,000, or more than $1,000? [Skip to A29.]
A27. Do you (and your husband/wife) usually get a federal income tax refund of less than $250, between $250 and $500, between $500 and $1,000, or more than $1,000?
A28. Do you (and your husband/wife) usually *spend most* of your tax refund, *save most* of your tax refund, or use *most* of it to *repay debts*, or what? (What you do usually do with *most* of the tax refund?)
A29. Are you (or is your husband/wife) doing any work for pay at the present time? [If no, skip to next page.]
A30. In the past month or so, have you noticed a change in the amount of federal income tax that is being withheld from your paycheck (or your husband's/wife's paycheck)? (Has the amount withheld gone up or gone down?)
A31. The federal government *has* recently changed the amount of income tax that is being withheld from paychecks. On average, the change in withholding should *increase* your take-home pay by about $25 per month, or by a total of about $250 for all of 1992. It also means that next year your tax refund will be about $250 less than otherwise, or you will have to pay about $250 more in taxes next year than otherwise. How do you think you will use the extra $25 per month—do you think you will *spend most* of it, *save most* of it, use *most* of it to *repay debts*, or what? (What you do think you will do with *most* of the extra money?)

Note: Question numbers are from the survey instrument.

APPENDIX TABLE A2—REFUND OR FINAL PAYMENT? TAX RETURNS AND SURVEY RESULTS COMPARED

	(A)	(B)
	Percentage of tax returns	
Tax settlement	IRS	Survey
Usual final tax settlement:		
Final payment	25.0	26.5
Refund	75.0	73.5
Amount of final payment:		
> $1,000	32.5	48.9
$500–$1,000	15.8	14.9
$250–$500	17.5	27.7
$0–$250	34.1	8.5
Amount of refund:		
$0–$250	23.5	16.7
$250–$500	21.7	29.2
$500–$1,000	24.8	28.0
> $1,000	30.0	26.1

Notes: This table compares frequency of refunds and final settlements for actual returns received by the IRS and for the responses to the survey. IRS figures are taken from *Statistics of Income*, Individual Income Tax Returns, 1989 tax year. The percentages may not sum to 100 percent due to rounding. For IRS tabulation, the total receiving refunds includes 2.8 percent of all returns that had exactly zero tax due.

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