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Tax Rate Preferences: Understanding the Effects of Perceived and Actual Current Tax Assessments

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Some researchers and policymakers argue that public attitudes toward fair tax rates should be discounted. Problems include assertions that attitudes are not uniformly held, there are public misperceptions, and taxpayers are self-interested (Blum and Kalven, 1953; Keene, 1983; Slemrod, 1983). Gerbing (1988), however, demonstrated that tax rate structure significantly impacts taxpayer perceptions of overall tax system fairness, and prior studies have reported a significant positive association between tax rates and evasion (Webley et al., 1991; Alm et al., 1992). Given that the Federal tax gap is estimated at over $300 billion (IRSOB, 2004), public acceptance or rejection of the Federal tax system could be a major factor in its success or failure.

One of the reasons researchers have asserted that taxpayer preferences are illusive is that behavioral anomalies bias the process toward particular preferences (Krishna and Slemrod, 2003). A wide variety of framing biases have been identified (Schelling, 1981; Shefrin and Thaler, 1988; McCaffery and Baron, 2004). For example, prior studies have shown that taxpayers favor higher tax rates when they are asked to respond in percentages rather than in dollar amounts (Hite and Roberts, 1991; McCaffery and Baron, 2003). The literature has not yet examined the behavioral impact of another potential source of bias, the status quo effect for actual tax assessments, on tax rate preferences. That is, do perceptions and awareness of the current tax rate structure influence stated preferences for what tax rates should be? The present study examines how status quo tax liabilities, both real and perceived, affect preferences for progressivity.

Specific contributions of this study include the following. First, the study examines a variety of features that could proxy as measures of progressivity to better understand what aspect of progressivity is driving the responses. Prior behavioral research has used the Suits Index (Suits, 1977) but has not specifically emphasized the need to elicit the preferred rate on very low incomes, the preferred rate on very high incomes, or the range of tax rates as dependent variables. In this study, not only is the Suits Index examined, but also features that are most likely to be salient to taxpayers are used, such as the lowest marginal rate, the highest marginal rate, tendency to assess negative taxes, range of tax rates assessed, and measures of relative

tax burden. Second, this is the first study requiring subjects to provide both dollar and percentage responses, forcing them to mathematically reconcile their preferences. This negates the potential measurement error in previous studies, given that those results differ depending on which type of dependent variable is used. Third, this study explicitly tests for a status quo effect of the current income tax system. Prior research has not done this, even though those results may have been influenced by subjects who were parroting the current rate structure because of its familiarity. This study examines the effect of actual U.S. tax liabilities, perceived tax liabilities under the current U.S. income tax system, and the anchoring effect of a hypothetical set of tax liabilities. Fourth, the experiment examines responses for a hypothetical taxpayer with a very high income of $300,000. Prior research examined incomes in which $100,000 was the highest income, but, currently, the top marginal tax rates do not begin until taxable income exceeds $349,701. Fifth, this study extends past research that found subjects were resistant to information on negative taxes. The present study examines how access to actual and hypothetical but comparable rates affect preferences toward negative taxes.

The results show that subjects who are given information about current tax liabilities tend to assess lower overall taxes (except at the highest income level), lower taxes for low-income taxpayers, a higher range of taxes, and steeper progressivity as measured by the Suits Index and relative tax burden, than do subjects without that status quo information. They also show that informative data on actual negative taxes are significantly influential, but the anchoring effect using hypothetical data is not. Even though tax assessment generally result in lower tax preferences for subjects with status quo information compared to subjects without status quo information, tax preferences for those with the information are significantly higher than the actual status quo information itself. This indicates that subjects are influenced by those rates, but they do not merely mimic the displayed rates. Similarly, subjects' perceptions of current tax liabilities affect their assessments of fair tax liabilities. Those who perceive current taxes as relatively high tend to report relatively high fair tax assessments. The implication is that tax rate preferences are influenced by each respondent's *a priori* perceptions. Thus, researchers and policymakers wanting to document tax rate preferences should provide accurate tax data to the respondents so that any potential impact of status quo rates will be based on knowledge and not merely on erroneous misperceptions.

Theory and Hypothesis Development

Progressivity

Determining an equitable tax rate structure is problematic. Walster et al. (1973) suggested that equity is too self-interested to be universal, but Rawls (1971) argued otherwise. He asserted that there is a public conception of justice, and this was later confirmed by Porcano (1984). Porcano examined perceptions of distributive justice in assessing fair tax rates. The experimental design included 18 hypothetical taxpayers with varying demographics (age, marital status, and number of dependents) and incomes ($6,000, $20,000, or $60,000). Total hypothetical incomes added up to $516,000, and the tax revenue needed was set at $100,000, a forced average tax of just under 20 percent. The results reflected a preference for progressive tax rates, including tax relief for low-income taxpayers ($6,000 incomes). Thus, the author concluded that public concepts of distributive justice are dominated by the contributions rules (ability-to-pay) and the needs rules.[1] Consistent with the Porcano study, Hite and Roberts (1992) found that equity perceptions are significantly more salient than are self-interests.

Although there are some underlying constructs that garner support such as contributions and needs rules, the consensus on an exact tax rate structure is less clear. Prior research has found that preferences for tax rates are evenly split among two broad categories: proportional or flat taxes and moderately progressive rates (Hite and Roberts, 1991; McCaffery and Baron, 2004). To examine tax rate preferences, McCaffery and Baron (2004) gave a questionnaire to subjects solicited on the World Wide Web. Subjects were given a moderately progressive set of tax rates ranging from 12 percent to 30 percent for four incomes ranging from $20,000 to $160,000. Using a within-subjects design, respondents were asked whether a flat tax (either 19.2 percent or 28.8 percent) or a steeply progressive tax (ranging from either -19.2 percent to 38.4 percent or -28.2 percent to 57.6 percent) was relatively more fair or less fair than the original set of moderately progressive rates. Subjects, on average, indicated the flat and steeply progressive rates were significantly less fair than the given standard. Thus, researchers concluded that moderate progressivity is preferred over flat and steeply progressive systems. That conclusion, however, cannot be generalized to all flat or steeply progressive systems. Subjects may not have preferred the flat tax in that study because both scenarios (19.2 percent and 28.8 percent) were high rates, especially for low-income taxpayers. The two steeply progressive sets of rates could have been relatively unfavorable for several reasons.

[1] Public consensus was also documented by Wildavsky (1996), who found that taxpayers across the country agreed that the maximum tax burden a taxpayer with $200,000 of income should have is an average 25 percent.

The authors assert that subjects did not like the negative tax concept in which low-income taxpayers did not pay any income taxes but instead received monetary help from the government. This is a potential explanation, but other explanations also exist. Subjects may have disapproved of the zero tax liability at the $40,000 income level. They may have disapproved of the highest marginal rates of 38.4 percent on $160,000 as well as 57.6 percent on $160,000. In addition, they may have disagreed with the wide ranges from -19.2 percent to 38.4 percent (a 57.6-point differential) and from -28.8 percent to 57.6 percent (an 86.4-point differential). Those are large spreads compared to the 18-point differential for the moderately progressive set of income tax rates (ranging from 12 percent to 30 percent) that was used for the comparison.

Hite and Roberts (1991) documented a taxpayer preference for slight progressivity based on respondents' assessments of what fair taxes should be for a given set of hypothetical incomes. In addition to calculating average tax rates at each level of income, researchers calculated the Suits Index (Suits, 1977) for the respondents' answers. The Suits Index measures the relationship between the cumulative percentage of total tax burden and the cumulative percentage of total income (Hite and Roberts, 1991). A score of -1 indicates maximum regressivity, 0 indicates a proportionate tax, and +1 indicates maximum progressivity. Hite and Roberts (1991) calculated an index of .18 using their respondents' tax assessments on hypothetical incomes, indicating a preference for a mildly progressive system. The Suits Index from Statistics of Income (SOI) data at the time of the study was estimated at .218. Finding that taxpayers prefer a mildly progressive system, as measured by the Suits Index, was consistent with a set of qualitative questions that compared five different tax rate structures (four progressive sets and one flat set). When asked which system is the most fair, preferences were divided primarily among three sets of rates: 34 percent of the respondents indicated the 20-percent flat tax is most fair, 33 percent indicated progressive rates from 14 percent-45 percent are most fair, and 28 percent indicated a preference for progressive rates ranging from 15 percent-33 percent. When asked about the other two sets of rates, 79 percent of all subjects disagreed that progressive rates from 18 percent-59 percent are fair, and 86 percent disagreed that rates from 23 percent-66 percent are fair. These results are consistent with the assertion that there is public sentiment against steep progressivity, as measured by the spread and highest marginal rates.

Status Quo

Despite nearly 40 changes in individual tax rates in the 90-year history of U.S. income taxes (Hite and Roberts, 1991), public opinion regarding tax rates is not well understood. Research has shown that taxpayers tend to indicate a slight preference for mildly progressive tax rates (Porcano, 1984; Hite and Roberts, 1991; McCaffery and Baron, 2004). That conclusion, however, could be a mere reflection of the current tax rate structure, indicating a status quo effect. It is unclear whether current tax rates set expectations for what tax rates should be or whether public opinions favoring mildly progressive tax systems have influenced congressional laws to reduce high marginal tax rates, thereby creating the moderately progressive tax rates that the U.S. currently has.

A possible explanation for the preferred mildly progressive system over the flat and steeply progressive systems in the McCaffery and Baron study (2004) could be the subjects' fixation on their standards of comparison. Subjects were asked to compare a proposed set of rates to a given standard ranging from 12 percent to 30 percent. Thus, they could have anchored on the initial standards as if it were a valid or presumed acceptable standard. Moreover, that standard of comparison did not substantially differ from actual nominal tax rates at the time of the study. Under 2001 tax law (when the study was conducted), the statutory rates ranged from 10 percent (with the new rebate) to 39.1 percent. Thus, subjects could have fixated on the actual nominal tax rates. Respondents might have believed those rates were more fair, or they may have been biased by familiarity with the status quo and therefore resistant to unfamiliar alternatives.

In 1989, Hite and Roberts (1991) surveyed households across the United States about different types of income tax rate structures. On average, subjects assigned tax rates ranging from 11 percent for the minimum tax rate to 28 percent for the maximum tax rate. Since statutory tax rates at the time of the study were 15 percent to 28 percent, the authors cautioned that respondents could have been influenced by the current status quo. When examining standards of fairness in a profit-seeking transaction, prior researchers documented the importance of a reference transaction (Kahneman et al., 1986). They noted that a reference transaction is frequently a relevant precedent, but the basis for fairness could be driven by the fact that it is a normal state of affairs rather than because it is just. This argument presumes that people eventually conform to the established standard. To be eventually accepted, the status quo standard would need to be known.

McCaffery and Baron (2004) examined status quo bias in a tax setting. They did not examine the salience of actual tax rates, but they presented a variety of tax assessments as the initial bases to compare a proposed set of tax assessments. Their results showed that Web-based subjects, more often than not, preferred the specified starting point to any change. The general resistance to change was described as a reaction to the resulting winners and losers caused by the decision choices. The tax choices involved tradeoffs between single and married taxpayers with and without children, and subjects were predominantly females with a median age of 30.

Studies in cognitive psychology have shown that, all else equal, subjects are resistant to change (Samuelson and Zeckhauser, 1988). Much of the research on perceptions of tax fairness is based on survey questions that take the *status quo ante* for granted (McCaffery and Baron, 2004). The present study is an experiment that directly tests the effect of status quo inertia. The information makes the status quo apparent and serves as a valid reference point for those subjects. Some of the subjects are asked to report what they think current tax assessments are for the same set of given incomes. Hence, the study examines the impact of actual knowledge about status quo tax assessments, as well as perceptions of what status quo tax assessments currently are.

Knowledge or Bias

The seminal status quo study by Samuelson and Zeckhauser (1988) examined experimental data with student subjects, as well as actual health insurance and TIAA/CREF investment data. When choosing between types of health insurance policies and retirement investment allocations, people tended to continue with their previous choices, demonstrating status quo inertia. Similarly, when subjects were given hypothetical decision frames, they tended to stick with the status quo option.

The researchers concluded that status quo bias could result from a psychological commitment related to sunk cost misperceptions, regret avoidance, and a desire for consistency. They also noted, however, that status quo effects could result from cognitive misperceptions, and status quo inertia could be the consequence of rational decisionmaking in the presence of transition costs or uncertainty. The researchers asserted that their experimental scenarios did not include any information asymmetry; yet they did concede that some decision settings could have been interpreted as implicitly rational and therefore plausibly retained. If status quo tax rates are provided

to subjects, subjects may be tempted to accept them as fair, given the cost of acquiring evidence to the contrary. After all, when policymakers alter tax rates, they begin with factual status quo information and make changes from there. Hence, the first null hypothesis tests whether subjects who are provided data regarding actual tax rate assessments for a set of incomes are likely to be influenced by those assessments when reporting fair tax liabilities.

> H1: When provided with a set of current tax assessments, subjects' assessments for fair tax liabilities will not differ from those not receiving that information.

Ex Ante Perceptions

The above hypothesis suggests that a significant difference between the groups with and without status quo information supports a status quo effect. It is important to distinguish between a status quo effect and a status quo bias. As noted earlier, status quo inertia does not prove a bias if there is some implicit rationality behind the status quo choice.

To the extent providing status quo data represents factual knowledge, the ultimate responses could be informed choices which should be a positive factor, not a bias. Based on referent cognitions theory, Wartick (1994) and Roberts (1994) found that tax education and information about the tax system significantly increased positive attitudes toward the tax system.

Whether biased or informed, the first hypothesis reflects the sentiment expressed in previous tax preference studies that respondents may have been parroting current tax rates rather than providing unbiased tax rate preferences. The conjecture, however, presumes that respondents actually knew what those current tax rates were. In other words, a status quo effect could result from the presentation of actual tax assessments, or it could result from *a priori* perceptions of what current tax assessments are. To the extent that *ex ante* perceptions of current tax liabilities influence what fair assessments should be, then that would demonstrate a status quo effect. If the *ex ante* perceptions are not consistent with actual Government-assessed tax liabilities, then the effect would be based on a misperception, which is indicative of a bias. Thus, the second hypothesis tests for the effect of perceived tax liabilities on assessments of fair tax liabilities.

> H2: Subjects' beliefs about what tax liabilities are currently assessed will not be positively associated with their assessments of what fair tax assessments should be.

Anchoring

Another way to test for a status quo effect related to knowledge or bias is to test for an anchoring effect based on a hypothetical set of tax liabilities rather than actual tax liabilities. Samuelson and Zeckhauser (1998) argue that status quo anchoring is a type of cognitive misperception. It involves using an initial value as a starting point and then adjusting that value for the incremental facts. If subjects in the present study are significantly influenced by the actual status quo assessments, as well as by the hypothetical income tax liabilities, then it would imply that subjects are being influenced by the anchor of any status quo position, not by the substance or knowledge inherent in the actual status quo data. Thus, the third hypothesis tests for an anchoring effect by using a hypothetical set of tax liabilities.

> H3: When provided with a hypothetical set of tax assessments, subjects' assessments of fair tax liabilities will not significantly differ from those without the hypothetical data.

Research Method

This experiment tests for a perceived status quo effect and for an anchoring effect. Thus, besides providing status quo data to one set of subjects, another set of subjects is given a hypothetical set of tax assessments as an anchor, and some subjects are asked to report the tax assessments that they believe current tax law requires. Pairwise comparisons are made to evaluate the impact of the status quo manipulation versus the control group, the anchor manipulation versus the control group, and the status quo group versus the anchor group.

Subjects

Preferences for tax rates are difficult to assess. Using adult taxpayers, prior research has documented a significant relationship between tax rate preferences and self-interest, indicating that high-income taxpayers tend to prefer flat tax rates and low-income taxpayers tend to prefer progressive tax rates (Gerbing, 1988; Hite and Roberts, 1991). Hite and Roberts (1992), however, found that tax attitudes were more affected by equity factors than by self-interests. Similarly, Porcano (1984) concluded that his student and faculty subjects did not make tax assessments based on self-interest. Moreover, the author reported that the findings were consistent for both types of subjects. Student subjects were also used in one of the first and most prominent framing studies (Schelling, 1981). That research reported significant differences

in progressivity preferences when a two-child family is allowed an exemption compared to assessing a premium for the childless family. Given that students are considered to be a relatively homogeneous group of subjects compared to the adult taxpaying population, students are an appropriate choice of subjects for testing the theoretical impact on preferred tax rates when different sets of information on current tax rates are examined (Ashton and Kramer, 1980). In addition, an advantage to using students in this study is the opportunity to examine aspects of progressivity that have not been controlled or specifically examined in prior studies because of time and complexity limitations that could deter adult taxpayers from participating.

On the first day of class in January 2004, upper-level undergraduate students majoring in accounting at a large public university were asked to complete a questionnaire surveying their opinions about Federal income taxes. The students were enrolled in one of three introductory tax classes. Of the 121 completed surveys, none of the students had previously taken a tax class, the average self-reported GPA was 3.36, and 24 percent of the respondents were female.

Task

Students were asked to provide fair tax assessments for a hypothetical set of five taxpayers with incomes of $10,000, $20,000, $50,000, $100,000, and $300,000. The students were randomly assigned into one of four groups, and differences among groups on their fair tax assessments were examined. The first group was not given any additional information but was merely asked to report what tax liabilities would be fair for each income level. The second, third, and fourth groups were first asked to report what tax liabilities they thought current tax law requires a married couple with one dependent child to pay for each level of income (Exhibit 2). *A priori* beliefs about current tax assessments are used as covariates in the subsequent ANCOVAS. After responding to the perception about current tax assessments, the third group was given actual 2003 status quo assessments (Exhibit 1), and the fourth group was given a hypothetical set of tax assessments (Exhibit 3). These three groups then provided fair tax assessments for each level of income.

As noted earlier, prior research has shown that tax preferences expressed as percentage tax rates are significantly higher than tax preferences expressed in dollar amounts (Hite and Roberts, 1991; McCaffery and Baron, 2003, 2004). McCaffery and Baron (2003) argue there is a progressivity illusion because using a dollar frame makes flat rates appear progressive. Roberts et al. (1994) suggest that taxpayers' familiarity with concrete dol-

lar amounts may increase the subjects' comprehension, causing the dollar amounts to be the more correctly intended response. Furthermore, subjects are likely to recall the higher, marginal rates rather than the average tax rate on all of the income.[2]

There is no evidence establishing which assessment, dollars or percentages, is more reliable. To increase the reliability of the responses, subjects in this study are asked to report their tax assessments in both dollars and percentage terms. Hence, progressivity illusion is minimized, and concrete comprehension is maximized. Although the reliability of the responses was enhanced, the mathematical difficulty was also increased. Even though the subjects were accounting majors armed with calculators, 24 out of 121 made mathematical errors in which the dollar response was not equivalent to the percentage response on the fair tax assessments, and another 12 made mathematical errors when providing their perceptions of current tax assessments. Since those responses are ambiguous, the results presented in this paper are based on the remaining 85 respondents with mathematically correct responses.[3] The frequency of mathematical errors on this task is consistent with the frequent math errors that IRS consistently reports as a common error on tax returns. In addition, some of the error rate may be driven by the difficulty respondents have when they try to reconcile tax rate preferences with opinions about what the dollar liability should be. This supports the notion that studies on progressivity preferences should measure those preferences in both dollars and percentages. This would, however, be a difficult task for the average taxpayer in a behavioral study.

Independent Variables

The experiment used STATUS QUO tax assessments as the manipulated variable for group 3 and ANCHOR, a set of hypothetical tax liabilities, for group 4. STATUS QUO is coded as "0" for the scenario that did not mention what actual tax assessments would have been assessed by the IRS in 2003 for the given set of hypothetical incomes. It is coded as "1" for the scenario that did present that information. Similarly, ANCHOR is coded as "1" when the hypothetical information is provided to the subjects and "0" when it is not.

[2] In 2004, the average Federal income tax rate for all taxpayers was 12.1 percent; it was 15.2 percent in 2001 and 13.7 percent in 1989 (http://www.irs.gov/pub/irs-soi/04in06tr.xls).

[3] The significant outcomes for STATUS QUO presented in Table 2 are essentially equivalent when the mathematically incorrect responses are included.

Dependent Variables

Findings from prior research reporting taxpayer preferences for moderately progressive tax structures are based either on average tax assessments for hypothetical incomes or on rating alternative sets of nominal tax rate structures. The present study used multiple measures for multiple facets of progressivity. The STATUS QUO effect and the ANCHOR effect were examined on several attributes of progressivity: Suits Index, lowest income bracket, highest income bracket, range of tax rates, and relative tax burden for various income levels.

The first dependent variable is the Suits Index. The index provides a parsimonious measure capturing the overall steepness of a set of tax assessments to the respective set of taxpayer incomes (Suits, 1977; Hite and Roberts, 1991). Since this outcome variable is for the student subjects, it is not intended to represent public opinion about the exact level of desired progressivity; it is merely a well-established summary statistic to measure the resulting difference in progressivity for varying context frames. The second aspect of progressivity is the tax assessment preference for a low-income bracket of $10,000 for a married couple's household. McCaffery and Baron (2003, 2004) assert that taxpayers are averse to assessing negative taxes, or Government supplements via the income tax system, although Porcano (1984) found some evidence of support for negative taxes.

The third dependent variable measures the average tax assigned to a household income of $300,000, the highest income bracket. Under 2006 tax law, taxable income over $336,550 was taxed at a marginal rate of 35 percent, but the average rate would be less than 28 percent for a married couple who does not itemize and who has one young child. Many taxpayers may judge progressivity by the highest marginal tax rate, because they agree that higher rates for higher incomes are appropriate. Nonetheless, most agree that a maximum fair rate exists. It is quite plausible that taxpayers assume progressivity is synonymous with high marginal rates, i.e., that a tax system with a 60-percent top rate is more progressive than a system with a 40-percent top rate. That is not necessarily true; yet the maximum tax rate is a visible attribute that could readily affect taxpayer perceptions about fair tax rates.

Another dependent variable is the range of tax rates that each respondent assesses. The minimum rate (tax on $10,000) is subtracted from the maximum rate (tax on a $300,000 household). Lastly, the relative tax burden for each income group is examined. This dependent variable is calculated by dividing the percentage of total taxes assessed for a specific income group relative to the percentage of total income received by that

same income category. Arguments underlying the concept of vertical equity (Porcano, 1984) are grounded in the assumption that one's tax burden is equitable relative to others with higher and lower incomes. This variable is a tautological expression of that concept.

Demographic Control Variables

Demographic variables were tested for potential variation with the dependent variables. Gender, GPA, age, and prior preparation of own returns were examined. Prior preparation was the only one that correlated with one or more of the dependent variables. This variable was added to the ANCOVA models as a covariate to control for its extraneous effects. The results with and without the covariate were statistically equivalent. Thus, results presented in this paper are those without the variable for prior tax preparation, and the only relevant covariate included in the calculations is the subjects' *a priori* beliefs of what the current tax liability is.

Results

The results are based on the 85 student subjects who responded with mathematically correct answers, resulting in about 21 students in each of the four experimental groups. As noted earlier, 36 subjects were eliminated because of mathematical errors, and the task took an average of about 32 minutes to complete. The frequency of math errors illustrates the difficulty in using randomly-selected adult taxpayers to complete a similar future study. Since presence of these math errors leaves uncertainty about the respondent's exact preference, we present the results of those with mathematically consistent answers. Overall, the results are statistically similar when the responses of all subjects are included in the analysis.

The descriptive statistics for subjects in the three treatment groups are presented in Table 1. One of the four groups was not asked to provide *a priori* current tax assessments as the other three groups were. Therefore, only the latter three groups provide the data to test for the study's main hypotheses, and the former group is subsequently used as a comparison group to test for the effect of soliciting *a priori* perceptions. For the three groups, the average fair tax assessments were $-418, $973, $7,029, $19,432, and $76,915 for incomes of $10,000, $20,000, $50,000, $100,000, and $300,000. The average range was 29.8 percent, and this reflected a mildly progressive Suits Index of 13.7. [Including all four groups, the average fair tax rates assigned to taxpayers with incomes of $10,000, $20,000, $50,000, $100,000, and $300,000 were $-351, $1,109, $7,417, $20,119, and $79,380. Thus,

the average range was 30 percent (from 26 percent to -4 percent). This is reflected in a mildly progressive Suits Index of .13.]

TABLE 1
DESCRIPTIVE STATISTICS FOR DEPENDENT VARIABLES+

Dependent Variables	Mean (s.d.) Assessment~	N	Mode	Actual STATUS QUO
Fair Tax on $10,000	$ -418[1a] (2,006)	61	$ 0	$ -3,547[1b]
Fair Tax on $20,000	$ 973[2a] (2,675)	61	$ 2,000	$ -2,570[2b]
Fair Tax on $50,000	$ 7,029[3a] (3,790)	61	$ 7,500	$ 3,003[3b]
Fair Tax on $100,000	$ 19,432[4a] (6,935)	61	$ 20,000	$10,345[4b]
Fair Tax on $300,000	$ 76,915[5a] (24,310)	61	$ 75,000	$76,525[5a]
Fair Range	29.81 (24.71)	61	0	61
Fair Suits Index	.137 (.102)	61	0	33
Current Tax on $10,000	$ 666[1c] (1,583)	61	$ 1,000	$ -3,547
Current Tax on $20,000	$ 2,707[2c] (1,630)	61	$ 3,000	$ -2,570
Current Tax on $50,000	$ 10,103[3c] (3,401)	61	$ 10,000	$ 3,003
Current Tax on $100,000	$ 27,131[4c] (7,581)	61	$ 30,000	$10,345
Current Tax on $300,000	$ 97,426[5c] (24,915)	61	$ 105,000	$76,525

+Paired t-test indicated that 1-5a, b, and c differ significantly from each other, as did all income levels except at $300,000.

~Expressed in percentage terms, the average fair tax for incomes of $10,000, $20,000, $50,000, $100,000, and $300,000 are respectively -4 percent, 5 percent, 14 percent, 19 percent, and 26 percent. For average perception of current taxes, the respective rates are 7 percent, 14 percent, 20 percent, 27 percent, and 32 percent.

Suits Index. Hite and Roberts (1991) report that taxpayer preferences in the spring of 1989 reflected an average Suits Index of .18, which corresponded to their calculation of a .22 index on 1987 SOI data. This suggests that the tax system in the late 1980s was mildly progressive and was consistent with taxpayer preferences at the time. In the present study, the Suits Index on the 2003 tax assessments for five different married couples (each with one young child), as presented in Exhibit 1 and used in the experiment as the STATUS QUO, is .33. This Suits Index is more progressive than the Hite and Roberts (1991) results and the 1987 SOI results. Higher progressivity under current law is largely a function of the negative tax assessed to households with $10,000 and $20,000 incomes who qualify for the earned income credit and the child tax credit. SOI tables report that nearly half of the data for low-income categories include tax returns filed by dependent taxpayers who do not qualify for such credits. Thus, data from SOI tables appear less progressive than they actually are, because child and earned income credits are not apparent in the composite data.

The overall assessed taxes, as provided by subjects in the present study, resulted in a .137 Suits Index, suggesting preferences for a much more moderate tax rate system. The focus in this study is not on the actual index but on whether that index (representing a summary statistic for relative extent of progressivity) varies when respondents are informed about actual tax assessments. Based on a pairwise comparison of the control group who did not get the information (mean Suits Index of .09) and the status quo group (mean .21), the latter index differed significantly ($F = 25.07$, $p < .001$, shown in Table 2, Panel A). Thus, the data support Hypothesis 1. Subjects receiving the status quo data tended to assess a more progressive system, albeit still mildly progressive.

Range of Tax Rates. Taxpayer preferences for tax rates may be influenced by statutory tax rates printed in the annual tax instruction booklet and publicized in the media (e.g., 2003 rates are 10 percent, 15 percent, 25 percent, 28 percent, 33 percent, and 35 percent). These differ greatly from average tax rates. The highly visible statutory rates reflect a range of 25 percent (35-percent maximum less a 10-percent minimum rate, when a rate is assessed). In reality, many low-income taxpayers have a negative tax, making the range much larger. In contrast, for average rates based on the current assessed tax liabilities (shown in Exhibit 1) the range was 61 percent (25.5 percent to -35.5 percent). Panel B of Table 2 shows that Hypothesis 1 is supported, as the range was significantly higher for the STATUS QUO group than for the control group (relative means of 43 and 19, $F = 17.40$, $p < .001$). If taxpayers assume that a larger range represents a more progressive tax, then range can provide a simple proxy for desired progressivity measures.

TABLE 2
ANOVA RESULTS FOR ACTUAL STATUS QUO MANIPULATION ON PROGRESSIVITY WHILE CONTROLLING FOR *A PRIORI* PERCEPTIONS

		Means	S.D.	N	F-tests
Panel A: Suits Index	Control	.086	.059	24	
	Status Quo	.212	.110	21	
	Overall	.145	.107	45	
	Covariate[a]				1.72
	Main Effect				25.07***
Panel B: Range	Control	18.875	12.83	24	
	Status Quo	43.219	24.71	21	
	Overall	30.236	22.68	45	
	Covariate[a]				.09
	Main Effect				17.40***
Panel C: Relative Tax Burden[b]	CONTROL		STATUS QUO		
Income Level	Percentage of Total Tax	Relative Burden	Percentage of Total Tax	Relative Burden	F-tests Ind.Var/Cov
$10,000	.6%	.27	-1.7%	-.84	11..36***/.34
$20,000	2.2%	.54	-.9%	-.21	28.13***/.95
$50,000	7.8%	.75	4.9%	.47	11.89**/2.68
$100,000	19.6%	.94	17.1%	.82	8.97**/4.65*
$300,000	69.8%	1.12	80.6%	1.29	23.67***/2.12*

*p < .05, **p < .01, ***p< .001 based on ANOVAS for STATUS QUO.

[a] The covariate is each subject's *a priori* perception of tax liability.

[b] Relative tax burden is percentage of tax assessed divided by percentage of income received which is a constant for each income category. Consequently, the F-test for significance is the same whether the dependent variable is percentage of tax or relative tax burden.

Relative Tax Burden (RTB). The share of taxes that should be borne by a specific income group is often influenced by the share of total income received by that group. Using 2003 tax liabilities as shown in Exhibit 1, the share of taxes computed for each level of income are -4.2 percent, -3.1 percent, 3.6 percent, 12.4 percent, and 91.3 percent. When percentage share of taxes is divided by respective percentage share of income (2.1 percent, 4.2 percent, 10.4 percent, 20.8 percent, and 62.5 percent), the respective RTBs calculated for the experimental scenario are -2.0 percent, -.74 percent, .35 percent, .60 percent, and 1.46 percent. As a result of the 2003 increased child credit, reduced tax rates, and increased deductions for a married couple, the relative tax burdens on the low-income group were greatly decreased. This relative decrease, of course, is mirrored by the significant increase on the highest income group.

The STATUS QUO group had significantly lower RTBs at the $10,000, $20,000, $50,000, and $100,000 levels, and a significantly higher RTB at the $300,000 level ($p < .001$). Panel C of Table 2 shows the RTBs for the STATUS QUO and comparison group (respectively, -.84, -.21, .47, .82, and 1.29 versus .27, .54, .75, .94, and 1.12). The latter RTBs for those without the actual 2003 tax liabilities had the following percentage share of tax allocations by respective level of income: .6 percent, 2.2 percent, 7.8 percent, 19.6 percent, and 69.8 percent. These tax allocations are consistent with the taxpayer responses in Hite and Roberts (1991) which were 1 percent, 3 percent, 9 percent, 16 percent, and 71 percent. In contrast, the tax allocations by income level for the STATUS QUO group were -1.7 percent, -.9 percent, 4.9 percent, 17.1 percent, and 80.6 percent, which reflects a significantly higher tax allocation for the high-income level because of low allocations for the low-income levels.

Average Tax on $10,000. After running a series of experiments on the Internet, McCaffery and Baron (2003, 2004) concluded that subjects are unwilling to assess a negative tax on low-income taxpayers. The present study further tests that assertion by giving subjects information on negative taxes under current law. Status quo information is expected to increase the respondents' likelihood of giving a negative tax assessment. The STATUS QUO effect was separately examined for just the low-income scenario. Panel A of Table 3 shows that the mean tax reported by the STATUS QUO group was a negative tax of ($1,626), and the mean tax for the control group was $527 at the $10,000-income level. The significant difference ($F = 21.85$, $p <.001$) reflects the test of a comparison between the STATUS QUO group and the control group that included *a priori* perceptions of tax liability on $10,000 as a covariate. (The effect of the *a priori* perception is discussed later in the paper.) Thus, the likelihood of a negative tax is much greater for the STATUS QUO group. Knowing that current law provides a negative tax for low-income taxpayers resulted in the assessment of fair tax liabilities that tended to be negative, supporting the primary hypothesis. This increased tendency to assess a negative tax, when current tax liabilities are known, explains the wider, significant range of rates reported for the status quo group.

Average tax on $300,000. Taxpayers may prefer a progressive tax system, but they may also believe in a maximum income tax rate that any taxpayer should have to pay. After all, Wildavsky (1996) found that respondents nationwide believed that a taxpayer family of four with a $200,000 income should not pay more than a combined total of 25 percent for all types of taxes. The present study examined the status quo effect of actual tax law assessments on preferences for a maximum tax rate. The STATUS QUO

TABLE 3
ANCOVA RESULTS FOR STATUS QUO MANIPULATION FOR SPECIFIC INCOMES WHILE CONTROLLING FOR *A PRIORI* PERCEPTIONS

		Means	S.D.	N	F-tests
Panel A: $10,000 ($AR^2$ = .31)	Control	$ 527	$ 975	24	
	Status Quo	$ -1,626	$2,162	21	
	Overall	$ -478	$1,950	45	
	Covariate				2.22
	Main Effect				21.85***
Panel B: $20,000 ($AR^2$=.41)	Control	$ 2,204	$1,675	24	
	Status Quo	$ -780	$2,618	21	
	Overall	$ 812	$2,611	45	
	Covariate				7.83**
	Main Effect				29.02***
Panel C: $50,000 ($AR^2$=.33)	Control	$ 7,927	$3,439	24	
	Status Quo	$ 5,048	$4,373	21	
	Overall	$ 6,584	$4,121	45	
	Covariate				15.47***
	Main Effect				10.27**
Panel D: $100,000 ($AR^2$=.26)	Control	$20,146	$7,136	24	
	Status Quo	$17,278	$6,971	21	
	Overall	$18,808	$4,127	45	
	Covariate				14.93***
	Main Effect				3.42*
Panel E: $300,000 ($AR^2$=.12)	Control	$72,438	$25,261	24	
	Status Quo	$80,920	$23,186	21	
	Overall	$76,396	$24,418	45	
	Covariate				6.51**
	Main Effect				.91

*p < .10, **p < .01, ***p< .001 based on ANOVAS for STATUS QUO.

effect was significant at all income levels in this study except for the $300,000 level (F = .91, p > .05). The means as shown in Panel E of Table 3 were $72,438 for the control group and $80,920 for the STATUS QUO group compared to the actual 2003 tax liability of $76,525. The lack of difference at the $300,000 level is consistent with the Wildavsky study (1996) asserting that taxpayers nationwide were in agreement that the maximum average tax rate for upper-income taxpayers should be around 25 percent. Hence, the first hypothesis is not supported at the highest income level. The overall average tax rate of 26 percent appears to represent a consensus for these student subjects, which is not unlike the 25 percent reported by Wildavsky (1996).

Status Quo Perceptions

To demonstrate the effect of current perceptions on fair tax assessments, ANCOVAS were computed for each level of income. Perceived current tax liability was used as a covariate to control for *a priori* perceptions of what current law requires, while simultaneously testing for the strong status quo treatment effect (see Exhibit 2). Table 3 shows that the covariate for *a priori* perceptions significantly affected the fair tax assessments. Those who perceived current taxes as high tended to assess higher "fair" tax liabilities than did those who perceived current taxes as relatively lower. This finding suggests that subjects' reports of fair tax assessments are affected by their own perceptions of the status quo. Consequently, it could be inferred that subjects should be made aware of actual current tax assessments so that any misperceptions about current tax liabilities could be mitigated.

The STATUS QUO group was asked to report *a priori* perceptions prior to receiving actual 2003 tax liabilities. Table 3 shows that status quo manipulation and *a priori* perception were significantly associated with the fair tax assessment on $20,000, $50,000 and $100,000. At the $10,000 level, status quo manipulation dominated the *a priori* effect. Subjects were more willing to abandon their prior perceptions and accept current policies of negative taxes for the lowest income level. However, at the $300,000 level, the STATUS QUO treatment was not significant, but the *a priori* perception about current tax liability on $300,000 was significant, which supports the second hypothesis and emphasizes the strength of those perceptions.

A test of the adjusted R^2 indicated that adding *a priori* perceptions at the $20,000, $50,000, and $100,000 levels significantly increased ($p<.01$) the explanatory power of the models over and beyond what the status quo main effect contributed. At the $20,000 level, the adjusted R^2 increased to .41 from .29, to .33 from .18 at $50,000, and to .26 from .14 at $100,000. At $300,000, status quo manipulation was not significant, and all of the explanatory power was driven by the *a priori* perception (AR2=.12). The only response not significantly affected by *a priori* perception was at the $10,000 level where the results were only attributable to the status quo manipulation.

The acceptability of those *a priori* perceptions was examined by calculating paired t-tests at each level of income for subjects' current tax assessments compared to their fair tax assessments. Table 1 shows the means for the fair tax assessments and *a priori* current tax perceptions at all five income levels for the combined three groups who were asked to provide the *a priori* perceptions. Perceived current tax liabilities were significantly higher than fair tax assessments at every income level ($p < .001$). The respective means at $10,000, $20,000, $50,000, $100,000, and $300,000 for percep-

tions of current assessments were $666, $2,707, $10,103, $27,131, and $97,426 and were ($418), $973, $7,029, $19,432, and $76,915 for reported fair assessments. Subjects apparently believed current tax liabilities are too high.

In order to analyze the effect of soliciting perceptions of current tax liabilities, a fourth group was asked to report fair tax assessments without being asked about current tax perceptions. This group was compared to the group who reported current and fair tax assessments without a confounding status quo or anchor manipulation. The fair tax assessments were not significantly different at any of the five levels of income ($p<.05$). The implication is that the subjects' ultimate decision about fair taxes is affected by *a priori* perceptions even when those perceptions are not explicitly solicited.

Next, paired t-tests were calculated to compare the correctness of current perceptions to actual tax liabilities as shown in the STATUS QUO manipulation (also shown in Table 1). Current perceptions at every income level exceeded the STATUS QUO liabilities ($p < .001$). In addition, paired t-tests were calculated to examine whether fair tax assessments significantly differed from actual 2003 tax liabilities as shown in the STATUS QUO scenario. At the $10,000, $20,000, $50,000, and $100,000 levels, fair tax assessments were significantly higher than the 2003 actual tax liabilities ($p < .001$). However, at $300,000, fair tax liabilities did not significantly differ from actual 2003 assessments. In sum, perceptions of current tax liabilities were higher than fair tax assessments, and fair tax assessments were higher (except for the $300,000 income) than actual 2003 tax assessments.

Anchoring Effect

Given the significant STATUS QUO effects reported in Tables 2 and 3, a possibility exists that the manipulation was significant because of its initial anchoring position rather than the knowledge-value inherent in the data. To test solely the anchoring position, a set of hypothetical tax liabilities for the five income levels was created (see Exhibit 3). One group of subjects received the hypothetical data, while the control group did not. Table 4 presents the results of comparing the ANCHOR group against the control group with *a priori* tax liability perceptions as the covariate. At every level of income, no significant difference was found for the ANCHOR effect ($p > .10$). Consequently, the anchor effect was insignificant on Suits, range, and RTBs (except at RTB for $10,000, $p = .047$). Hence, the third hypothesis is not supported. Merely suggesting possible tax rates was not sufficient to influence preferences, but factual knowledge about current assessments was significantly influential.

TABLE 4
ANCOVA RESULTS FOR ANCHOR MANIPULATION WHILE CONTROLLING FOR *A PRIORI* PERCEPTIONS

		Means	S.D.	N	F-Value
Panel A: Suits Index	Control	.086	.059	24	
	Anchor	.114	.087	16	
	Overall	.097	.072	40	
	Covariate				2.15
	Main Effect				1.03
Panel B: $10,000 Income	Control	$ 527	$ 975	24	
	Anchor	$-250	$2,214	16	
	Overall	$ 216	$1,611	40	
	Covariate				2.81
	Main Effect				3.12
Panel C: $300,000 Income	Control	$72,438	$25,261	24	
	Anchor	$78,375	$24,736	16	
	Overall	$74,813	$24,906	40	
	Covariate				2.77
	Main Effect				.47
Panel D: Range	Control	18.875	12.83	24	
	Anchor	28.625	24.33	16	
	Overall	22.775	18.66	40	
	Covariate				.004
	Main Effect				2.66
Panel E: Relative Tax Burden	CONTROL		ANCHOR		
Income Level	Percentage of Total Tax	Relative Burden	Percentage of Total Tax	Relative Burden	F-value Ind.Var/ Cov
$10,000	.6%	.27	-.4%	-.18	4.22*/2.03
$20,000	2.2%	.54	1.2%	.29	3.48/1.12
$50,000	7.8%	.75	7.7%	.73	.01/2.27
$100,000	19.6%	.94	19.6%	.94	.14/2.03
$300,000	69.8%	1.12	71.9%	1.15	.66/2.19

*p < .05, **p < .01, ***p< .001

Discussion and Conclusions

The results from research on rate preferences are somewhat problematic in that tax rate preferences are typically based only on the average rates. The present study reports several measures of progressivity to better understand what aspect of progressivity is driving the responses. In addition, prior

research on taxpayer preferences for progressivity has reported either group averages for tax rates, group averages for dollar assessments, or frequency of preferences for qualitative comparisons of different sets of tax rates. The research concludes that taxpayers prefer moderately progressive tax systems. No prior study, however, has specifically emphasized the preferred rate on very low incomes, the preferred rate on very high incomes, or the range of tax rates as dependent variables. When examining preferences on progressivity, it is important to look at a variety of measures, because the extent of progressivity is not perfectly correlated with the range of tax rates or the highest marginal tax rate. Nonetheless, those are most likely the features that are salient to respondents. Furthermore, progressivity can be altered in a variety of ways. For example, it can be lessened by reducing only the top marginal rates or by reducing the rate of acceleration between all income brackets. It can be increased by raising not only the nominal rates at the upper end but by accelerating the negative tax for low-income taxpayers. Additionally, changes in progressivity can be more subtle. Reduced dividend and capital gain tax rates decrease progressivity, while restricted deductions and limited credits for upper-income taxpayers effectively increase progressivity.

This study examines the effect of knowing what current tax assessments are. Because perceptions of progressivity, can be captured by a variety of measures, we report the effects of STATUS QUO on the following measures: Suits Index, relative tax burden, assessed tax for low-income taxpayers, assessed tax for high-income taxpayers, and range between lowest and highest tax rates.

The results indicate that, when subjects with information about current tax liabilities are compared to subjects without that information, informed subjects tend to assess lower overall taxes, lower taxes for low-income taxpayers, a higher range of taxes, and steeper progressivity as measured by the Suits Index and relative tax burden. Even so, while status quo tax assessments lead to lower tax preferences compared to subjects without status quo information, those tax assessments are still significantly higher than the actual status quo information. The implication is that average Federal income tax liabilities under current law may be much lower than most taxpayers realize, since media coverage highlights marginal tax rates, not average tax rates. If true, then knowledge of actual assessments may improve taxpayer perceptions of the fairness of current tax rates. Our data suggest this is true. Not only did fair tax assessments exceed 2003 tax data, but subjects' perceptions of current tax liabilities were significantly higher than their fair tax assessments.

Another important result is how similar the subjects' allocations of tax burden are to the tax burden allocations reported by Hite and Roberts

(1991) using a nationwide sample of taxpayers. This was especially true for subjects who did not receive any status quo information.

We also tested for the influence of *a priori* perceptions regarding tax liabilities, and the results strongly support a bias driven by *a priori* perceptions. Although subjects indicated that perceived current tax liabilities were higher than fair assessments should be, those with higher current tax perceptions tended to assess higher fair tax assessments. Thus, it appears responses from subjects providing fair tax assessments are influenced by their *a priori* perceptions of what current law requires. The implication is that researchers and policymakers wanting to solicit taxpayer rate preferences should control for these *a priori* beliefs. Furthermore, if subjects are influenced by misperceptions of what current tax liabilities are, then subjects should be informed about factual data on current tax liabilities to mitigate the *a priori* perception bias.

Another significant finding in this study is that the STATUS QUO manipulation, providing actual tax liabilities, was not solely due to its anchoring position. When we presented subjects with a hypothetical set of tax liabilities, they were not significantly influenced by those data. In contrast, presentation of the actual tax data was quite significant. Hence, the results of this study tend to support prior research (Wartick, 1994; Roberts, 1994) that cognitive information could significantly improve taxpayer attitudes toward the tax system.

The lack of an anchoring effect could be a function of the tax rates chosen for the anchor treatment. Clearly, a wide variety of alternative tax assessments could be tested by future research. McCaffery and Baron (2004) used hypothetical tax systems as a comparison data set, and their subjects were affected by the initial anchor which they labeled as a status quo effect. Our study could have described the anchor treatment as actual rates rather than hypothetical, but that would have been a deceptive manipulation.

A limitation of this study is that it only examined the tax liabilities for married couples with one dependent child. Using actual tax information results in a lower tax liability for a married couple with one child than using a single taxpayer without a child. Prior research has found that taxpayers believe tax liabilities should not differ by marital status, but taxes should be lower when there are dependent children (Hulse and Wartick, 1998; Christensen et al., 2000).

Another limitation of this study is whether providing the actual STATUS QUO "biased" the ultimate responses. Knowing what current tax assessments are may have led to more precise, knowledgeable responses, or it may have led to biased responses that mimic assessments that are required under current tax law, under the presumption that current law is merely a

familiar option. Among the actual responses, however, only one subject repeated the exact status quo responses, and average preferences significantly differed from the actual 2003 data that were provided.

Given that the subjects' *a priori* beliefs influenced their responses, future research should consider controlling for potential misperceptions by measuring those *a priori* perceptions, as well as providing informative factual data. Furthermore, the methodology used in this study should be tested on a representative random sample of adult taxpayers. Although many of the results in this study are consistent with taxpayer preferences reported in other studies, student subjects have not had any substantial experience with filing tax returns. Thus, if possible, future researchers may want to test these findings on an adult, taxpaying, representative random sample. However, research should give careful attention to the length and difficulty of getting mathematically correct responses, given that tax agencies frequently report mathematical error as one of the most common errors that taxpayers make.

Future research should also examine what the precise measure for progressivity preferences should be. The Suits Index for example has been heavily utilized in the debate on progressivity, but that measure can be affected by a variety of intrinsic data (e.g., the lowest tax rate, the highest tax rate, and the number of taxpayers in each bracket). Moreover, it is unlikely that taxpayers would have strong preferences for that measure, as most would not understand it. In contrast, taxpayers probably do have opinions about a minimum tax rate, a maximum tax rate, and relative burdens among people with different taxpaying abilities.

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Exhibit 1. Sample Scenario for 2003 STATUS QUO

This survey deals with your opinions about FAIR income tax rates. Besides paying Social Security taxes, sales taxes, property taxes, and many other types of taxes, the most visible tax is the Federal income tax. What do you think is the fair amount of Federal income tax that taxpayers should pay?

You will need to calculate the fair amount of tax and the fair percentage of tax for five different income levels ranging from $10,000 to $300,000. In all cases, you can respond with $0 or with a negative amount of tax. (Negative amounts mean the Government will not require the taxpayers to pay any income tax. Instead, the Government will help the taxpayers by sending them tax-free money.)

Just so you know, the 2003 Federal income tax net liability or negative tax for a married couple with one young child is as follows:

Income Level	$ Income Tax Paid (Negative Tax)	Percentage of Income Tax (Column B/Column A)
$10,000	($3,547)	(35.5 percent)
$20,000	($2,570)	(12.9%)
$50,000	$3,003	6.0%
$100,000	$10,345	10.3%
$300,000	$76,525	25.5%
Totals $480,000	$83,756	17.4%

Fill in the amount of income tax you think is FAIR for each level of income below. The rates and amounts can be flat, regressive, or progressive—whatever you think is most appropriate. To ensure your answer is clear, calculate the fair amount of tax in dollars, $, and in percentage terms, %. (e.g., if you thought individuals making $70,000 should pay $14,000 of tax, then that means the individuals should be paying a 20-percent average tax rate—$14,000/$70,000. On the other hand, if you think 20 percent is too high and prefer 15 percent, then you would need to change your $ answer to $10,500 so that both answers are consistent.) You may have to change your answer a couple of times until you agree that your responses in dollar amounts and in percentage terms accurately represent your opinion. Make sure your FINAL answer is clear. Assume the income below is from combined salaries for a married couple who has one young child.

A Income Level	B (Col. A * Col. C) Fair Dollar Amount of Federal Income Tax	C (Col. B/Col. A) Fair Percentage of Federal Income Tax
$10,000	$_____	_____%
$20,000	$_____	_____%
$50,000	$_____	_____%
$100,000	$_____	_____%
$300,000	$_____	_____%
Totals $480,000	$_____	_____% Average [Column B/Column A]

Exhibit 2. Sample Scenario for Current Perceptions

[Prior to responding to Exhibit 2 for the actual STATUS QUO group or Exhibit 3 for the ANCHOR group, subjects in those groups as well as the control group were asked to report what they believe tax liabilities currently are. The following excerpt was presented to the subjects:]

Fill in the amount of tax currently being paid for each level of income below. To ensure your answer is clear, calculate the amount of tax in dollars, $, and in percentage terms, %. (e.g., if you thought individuals making $70,000 pay $14,000 of tax, then that means the individuals are paying a 20-percent average tax rate—$14,000/$70,000. On the other hand, if you think 20 percent is too high and you think they are paying around 15 percent, then you would need to change your dollar answer to $10,500, so that both answers are consistent.) Make sure your final answer is clear. Assume the income below is from combined salaries for a married couple who has one young child.

A Income Level	B (Col. A * Col. C) Dollar Amount of Current Federal Income Tax	C (Col. B/Col. A) Current Percentage of Federal Income Tax
$10,000	$_____	_____%
$20,000	$_____	_____%
$50,000	$_____	_____%
$100,000	$_____	_____%
$300,000	$_____	_____%
Totals $480,000	$_____	_____% Average [Column B/Column A]

Exhibit 3. Sample Scenario for ANCHOR

This survey deals with your opinions about FAIR income tax rates. Besides paying Social Security taxes, sales taxes, property taxes, and many other types of taxes, the most visible tax is the Federal income tax. What do you think is the fair amount of Federal income tax that taxpayers should pay?

You will need to calculate the fair amount of tax and the fair percentage of tax for five different income levels ranging from $10,000 to $300,000. In all cases, you can respond with $0 or with a negative amount of tax. (Negative amounts mean the Government will not require the taxpayers to pay any income tax. Instead, the Government will help the taxpayers by sending them tax-free money.)

Assume the government in a hypothetical country (similar to the U.S.) wants to make its tax system fairer. If its current rates are the ones shown below, how would you change them to make the system fairer for these taxpayers (all married couples each with one young child):

Income Level	$ Income Tax Paid (Negative Tax)	Percentage of Income Tax (Column B/Column A)
$10,000	($4,000)	(40.0%)
$20,000	($1,000)	(5.0%)
$50,000	$10,000	20.0%
$100,000	$25,000	25.0%
$300,000	$90,000	30.0%
Totals $480,000	$120,000	25.0%

Fill in the amount of income tax you think is FAIR for each level of income below. The rates and amounts can be flat, regressive, or progressive—whatever you think is most appropriate. To ensure your answer is clear, calculate the fair amount of tax in dollars, $, and in percentage terms, %. (e.g., if you thought individuals making $70,000 should pay $14,000 of tax, then that means the individuals should be paying a 20-percent average tax rate—$14,000/$70,000. On the other hand, if you think 20 percent is too high and prefer 15 percent, then you would need to change your $ answer to $10,500 so that both answers are consistent.) You may have to change your answer a couple of times until you agree that your responses in dollar amounts and in percentage terms accurately represent your opinion. Make sure your FINAL answer is clear. Assume the income below is from combined salaries for a married couple who has one young child.

A Income Level	B (Col. A * Col. C) Fair Dollar Amount of Federal Income Tax	C (Col. B/Col. A) Fair Percentage of Federal Income Tax
$10,000	$_____	_____%
$20,000	$_____	_____%
$50,000	$_____	_____%
$100,000	$_____	_____%
$300,000	$_____	_____%
Totals $480,000	$_____	_____% Average [Column B/Column A]