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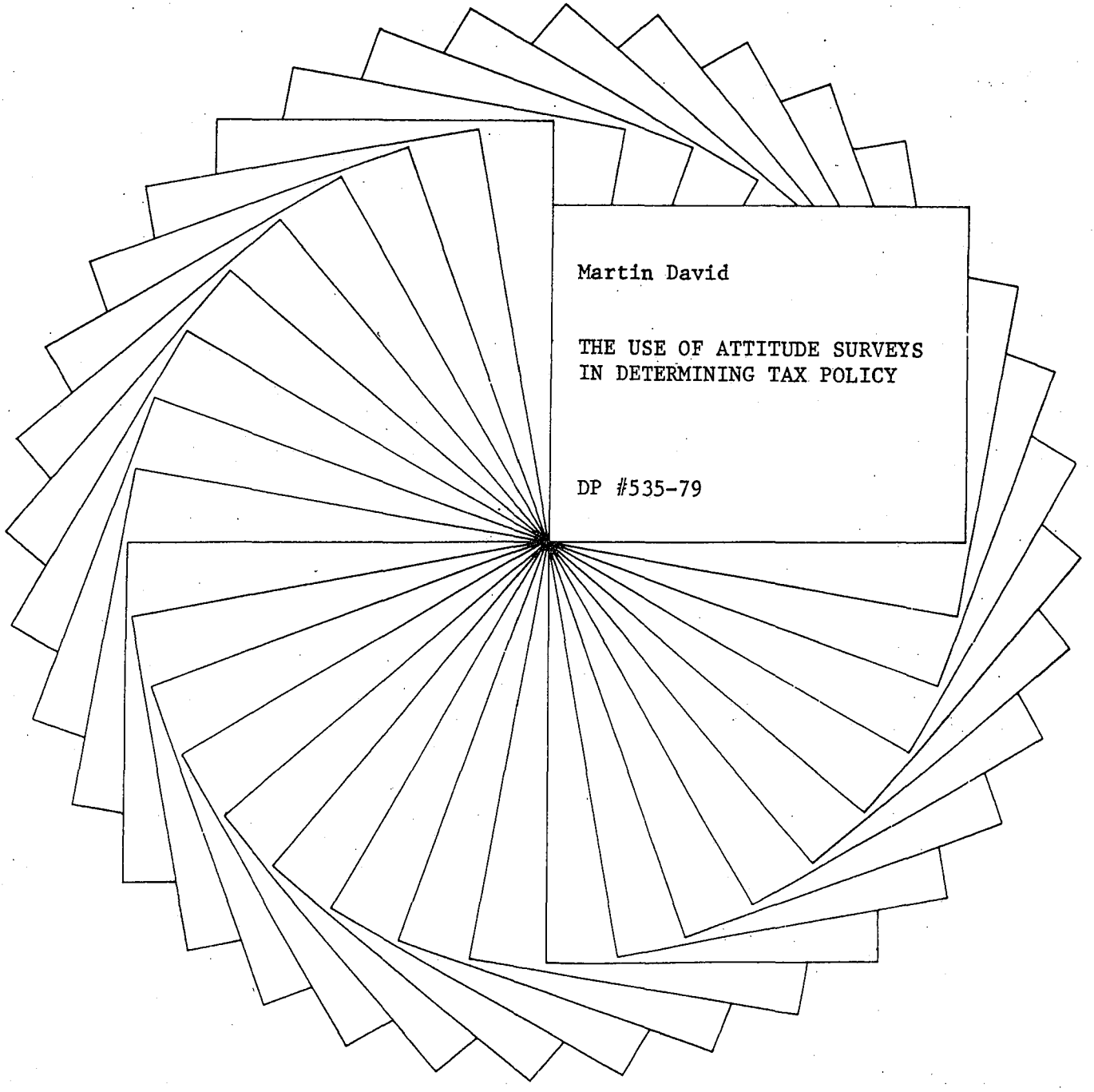

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THE USE OF ATTITUDE SURVEYS IN DETERMINING TAX POLICY

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ABSTRACT

Studies of attitudes towards taxation have been deficient in producing reliable measures of support for tax reform. This article documents some of the problems in making measurements and points to the necessity for measurements to fill the existing gap in policy-relevant information.

A methodology for identifying relationships between attitudes towards tax structure and demographic characteristics is presented and tested using data collected on a probability sample of the Wisconsin adult population in 1978. The study concludes that it is extremely important to screen responses for inconsistent and uninformed persons before attempting multiple variable analysis of the data. It is hypothesized that responses from informed and consistent respondents are stable over time; they constitute an important input in the design of tax reform programs.

The paper includes a bibliography of major U.S. studies of attitudes towards taxation and work in this field to date.

1. INTRODUCTION

This paper raises some questions about the use of attitude surveys in the formulation and execution of tax policy. A discussion of the need for measuring attitudes toward taxes in a representative democracy, examples of past measurements, and an evaluation of the present state of the art are presented in that order. Detailed analysis comes from a recent survey of attitudes toward taxation that was commissioned by the Tax Burden Study Commission of the State of Wisconsin. For that reason special emphasis is given to the problems of tax policy of the state and local governments in a federal government system.

To introduce the subject I will give a brief review of some of the major features of the U.S. federal tax structure in mid-1978, when many of these measurements were taken. The federal structure of the U.S. government reserves powers to the state government, except where they are specifically assigned to the national government. Similarly in Wisconsin (and many other states) the state government reserves most powers to itself, unless they are specifically delegated to the lesser governments. In the field of taxation this has tended to mean that local governments are often limited in the type of tax levy that they may raise, and perhaps even in the amount of the levy that is permitted (Ladd, 1978). In Wisconsin the principal source of local government revenue is the property tax levied on real property and some items of personal property (such as the inventories held by business enterprises).

In order to ameliorate the financial problems created by the limitation of sources of local government revenue and to stimulate the

provision of public services that are judged to be in the interests of the higher governments, a complex system of intergovernmental grants and formulae has evolved, sharing out revenue collected by the higher government to the lesser governments. For this reason an important policy choice exists as to which level of government shall collect the revenue to finance expenditures by the local (lesser) governments.

A basic choice must be made as to which level of government is to be responsible for particular types of services, or on what basis the responsibilities are to be shared among the levels of government. Conceptually such a choice will be influenced by such matters as economies of scale in the supply of services, the heterogeneity of the needs of the population in different geographical areas, and the ability to pay for financing the services.

These structural features of federal government in the United States were affected by the substantial inflation over the last ten years. Prices doubled in the ten years from 1968 to 1978. As a consequence taxes with progressive rate structures extracted increasing proportions of constant real incomes. To some extent this was ameliorated at the federal level by aggressive increases in the transfer of income to the poor, reductions in income taxation, and substantial increases (and later indexing) of payments made through the old-age insurance system. These social security payments created an increasing burden on the wage earner, who has been expected to contribute large portions of a larger share of his earnings to the social insurance system since 1964. Inflation increased the cost of government services because of the increased cost of salaries for the civil service.

In addition, aggressive demands for pension rights from civil servants, increasing regulations to improve safety, environmental quality, and health care, and demands from the federal government for increased reporting on the use of its grant funds all caused the cost of government per family to increase substantially. Many people are skeptical that the increased cost has produced additional service of value.

The inflation, coupled with dislocations in the economy due to the rising cost of energy and the imbalance in the U.S. balance of payments, led to a situation in which land and real estate have became a preferred form of investment for the American public.

The three trends together--inflation, increased government, and rising land prices--have reallocated the burden of taxation. Many individuals were upset by the increased taxation of real property that resulted. Others were startled to discover that amendment of the income tax laws has led to a situation in which some wealthy persons can shelter a substantial amount of their income against taxation. Discontent with the level, balance, and form of specific taxes led to movements and publicity on "taxpayers' revolts" (Neufeld, 1977). None has received so much publicity as the astonishing passage of Proposition 13 on the California ballot in early summer of 1978. This proposition stipulated a maximum level of property taxation and a maximum level of increase in property taxation in future years for governments in the state of California. The passage of this referendum required substantial cuts in government budgets and services across the state.

One attitude that fueled the passage of Proposition 13 was a view that government had become less efficient or more wasteful. A second

attitude (which probably heightened opposition to government activity) was a growing distrust of government, particularly government that was not locally controlled (Mushkin, 1979).[1]

By 1978 then, inflation had created a policy problem for most state and local tax structures. The problem was both to decrease reliance on rapidly growing property taxes and to eliminate increases in rates that were associated with nominal increases in constant levels of real income. Citizens expressed an attitude that taxes required "basic reform."[2] This attitude was probably intensified by increased surpluses at the state level of government. The surpluses provided obvious evidence that some defects existed in the tax structure, even though most taxpayers were not aware that the surpluses often represented a single "lump sum" that could only change tax structure for a year or two and could not serve as the basis for a permanent change in the flow of revenue.

Many of these economic and attitudinal trends characterized the state of Wisconsin. However, two important differences between Wisconsin and most other states should be noted. First, the state legislature had reduced the proportion of local government that was financed by property taxation by increasing and revising revenue-sharing and grant-in-aid programs; the share of property taxes in the total state and local revenue picture had dropped substantially between 1968 and 1978. Secondly, the state had monitored its revenues carefully, so that surpluses did not accumulate until the 1977-1979 budget period, when it became clear that a combination of great economic strength in Wisconsin industry and unanticipated declines in welfare payments had produced unplanned revenue. The fiscal picture that characterized California was not like that in Wisconsin.[3]

2. THE NEED FOR ATTITUDE MEASUREMENTS

The foregoing history, however titillating, does not directly argue for measurements on the public's attitudes toward tax structure and tax policy. This sectioin will review recent writing on the theory of representative democracy and will demonstrate the need for such measurements.

Several attempts have been made to describe the processes through which the public's preferences are translated into acceptable levels of publicly provided services. The theories of Wicksell and Lindahl have been refined into a justification for a collective agreement on the level of service supplied and the tax shares that are to be paid by each member of the community. Unfortunately, as Johansen (1965, pp. 131-141) and D. Mueller (1976) demonstrate, strategic behavior may benefit particular participants in the voluntary exchange contract, and the contracting process becomes tedious and costly when large numbers of individuals are involved.

Rothenberg (1965) and Breton (1974) have pushed the analysis one step further by investigating the ramifications of the representative nature of the decision making that characterizes governmental choices in most public bodies.[4] Both authors comment on the fact that citizens must seek to infuence their representatives by communicating views through some extra-governmental route--parties, lobbies, special-interest groups, or informal communication. The representative must interpret these messages in such a way as to assure his success in reelection--a task that is not always easy, given the limited information that may be available about the number and characteristics of the citizens that a particular lobby may represent.

Ellickson (1971) takes another view of the equilibrium in public choice. He concentrates his analysis on the level of public service and taxation chosen in a group of communities serving a single labor market or metropolitan center. By making plausible, but highly restrictive, assumptions concerning the nature of local public services, citizen preferences, tax levies, and voting behavior, Ellickson demonstrates that there is a natural equilibrium between the value of land, the level of taxation from land, and the level of local public services. A quick review of his apparatus shows that the equilibrium is no longer determinate under more general conditions.

Assume the community consists of N identical individuals with utility based on consumption of housing (h), other private goods (x), and public services (g). Let x serve as the numeraire; the price of housing is given by p. The unit cost of government services is r. On the assumption that all goods are normal, citizens with less than the median level of income desire less government services than the median voter. Buchanan (1967) and others demonstrate that if the tax price is fixed at r*, the median voter will determine the level of service at g*. However, the tax price is not fixed. The median voter can be required to pay the cost, r*, under an infinite number of combinations of taxes levied on the several bases: property, affecting the price of housing; sales, affecting the relative cost of goods; or income, affecting the proportion of the total resources that the individual may use for the purchase of private services.

Each of the many possible tax mixes reflects a different distribution of the cost of government, g*, among the members of a community. The voter that is median with respect to expenditure levels at a fixed tax price therefore is in a position to alter the tax prices of others by

changing the mix of taxation used to collect the needed revenue. Assuming that the demand for government services is normal, citizens with more resources than the median will be willing to pay a tax price higher than r^* for the level of services desired by the median voter; those with less resources are not willing to pay as much as r^*. The median voter can support a progressive tax system that does not affect his tax share or the level of public services but simply operates to reduce the "political disequilibrium" created by a majority vote that sanctions the level of public service, g^*, at a fixed price of r^*.

This example clearly demonstrates that citizens' views on tax structure have a bearing on the choice of tax instruments, even when their self-interst is not at stake. Thus, a first need in attitude research on the tax system is to understand the marginal rate of substitution that taxpayers exhibit with respect to a change in tax instruments (holding the level of utility or real income of the taxpayer constant).

The second need for attitudinal research on tax structure is to assess the extent of "political disequilibrium" created by majority rule, representative voting and time elapsed between elections, and failure in the communication between citizens and their representatives. Work along these lines was pioneered in the United States by E. Mueller (1963) and replicated by Fowler (1974) and Curtin and Cowan (1975), but the leads established by these workers have not been taken up in a systematic program that covers expenditure decisions at all levels of government and continually samples public opinion to ascertain changes in the level of disequilibrium.

A third type of attitudinal data relates to the debates surrounding the concept of Pareto-relevant redistribution introduced by Hochman and

Rodgers (1969) and the notion that income redistribution is a public good for which the public is willing to pay (Thurow, 1971). Both lines of argument indicate that there is an altruistic component in the relationship between the taxpayer and the government, so that revealed preferences, whether measured through polls or referenda, should reflect choices that are not consistent with the pure pursuit of self-interest. Measurement of the extent of altruistic choice, or the relative degree of altruism and self-interest displayed among the population, is an important datum for the making of policy that includes both redistributive taxation and a redistributive component in the provision of particular government services. (E. David, 1967, pioneered in defining self-interest from attitudinal data.)

These three areas--trade-offs in the tax structure, measurement of disequilibrium, and measurement of altruism versus self-interest would appear to be the primary foci for attitudinal measurement on citizens that are implied by existing theories of the public sector and its activities.

Four additional areas can be mentioned. (They have received rather less attention in the theoretical development of the field of public economics over the last twenty years.)

User charges. For many public services it is possible to control use by money prices or fees. Theoretical debate had tackled the question of balance between public subsidy and fees in the provision of transport facilities in particular (Mohring, 1972; Mushkin, 1972). It is clear that economies of scale, the existence of option demand, and the peculiar characteristics of congestible public services may require a division of financing between tax revenue and public prices.

Public views on the appropriate division between these two modes of finance may be a critical input to the decisions that determine the financing of government enterprises.

Taxpayer morality. Schmoelders's (1960) research on compliance with tax systems in Europe has demonstrated the value of attitudinal data for assessing the effectiveness of revenue collection and identifying areas of noncompliance with the tax laws (cf. Song and Yarbrough, 1978). Widespread tax evasion may dictate dependence on less desirable forms of taxation which can be more easily enforced and audited.

Taxpayer compliance costs. It appears desirable to collect information on the cost to the taxpayer of complying with the law. Even in countries where taxpayer morale is high, it is inadvisable to design taxes that create large compliance burdens of collecting information, hiring professional assistance, and preparing elaborate forms. Minimizing the total social cost of financing the government could well lead to policies that are less finely adjusted to more traditional objectives of tax structures, such as equity and tax-based incentives, but which substantially reduce compliance costs through simplification, reduced need for litigation, or the reduction in data required to complete the tax return. (Considerable analysis of this area appears in M. David, 1979, and H & R Block, 1978.)

Taxpayer information levels. A different perspective on the value of attitudinal measurements of the general population can be obtained by considering what the public knows about legislative proposals and their alternatives. Measurement can reveal how well the critics grasp the issues and anticipate the consequences of legislative proposals.

Measurement can ascertain the manner in which such information is acquired. Proposals that are in the general interest (such as the proposal to withhold taxes from the payment of interest in savings accounts, or the proposal to tax capital gains on assets when they are transferred at death) often fail because the public is uninformed on these subjects. Both legislators and citizens are therefore open to manipulation by special interests.

3. MEASUREMENT OF ATTITUDES TOWARDS TAXATION IN PRACTICE

The need to understand attitudes towards tax policies, tax structure, compliance, and expenditures appears clear. Improved policy could be enacted on the basis of the values and beliefs of the citizenry. However, the skeptic is likely to question the feasibility of meaningful measurement of attitudes. One does not have to look far for apparent inconsistencies and paradoxes.

In the period immediately preceding and following the Proposition 13 referendum a number of surveys were conducted on topics related to the property tax and its role in the financing of government services. One area that was explored was the taxpayer's judgment as to the efficiency of the several governments with which he deals. Closely related questions were asked in three national polls and two Wisconsin surveys. The results are summarized in Table 1.

Attitude measurements on the most efficient level of government show large variation. (Attitudes reflect an implicit trade-off in extent of centralization of government services.) The first two columns appear contradictory. The larger sample shows that most citi-

Table 1

Attitudes towards the Most Efficient Level of Government--Various Surveys, 1978

Level of Government	United States: Positive Wording ACIR (11-30 May 1978) (1)	United States: Positive Wording GALLUP (7-8 June 1978) (2)	United States: Negative Wording CBS-NYT (19-23 June 1978) (3)	United States: Independent Questions NBC-AP (12-13 June 1978) (4)	North-Central ACIR (5)	Wisconsin: Positive Wording CPP (14-23 Sept. 1978) (6)	Wisconsin: SRL Two Questions (15 July-10 Sept. 1978) (7)	Wisconsin: SRL Two Questions (15 July-10 Sept. 1978) (8)
				Rank (%)				
Federal	35% (1)	22% (1)	62%	IV 21/94% (1)	37%	5% (1)	9% (1)	..
State	20 (2)	23 (2)	12	III 30/93 (2)	19	15 (2)	19 (2)	..
Local	26 (3)	35 (3)	5	..	27	..	50 (3)	..
County	..	..	..	II 39/92 (3)	..	19 (3)	..	9 (1)
City	..	..	..		..	18 (4)	..	25 (3)
School District	..	..	..	I 45/89 (4)	..	18 (5)	..	12 (2)
None	..	..	13[a]		..	12 (6)	10 (4)	1 (4)
Uncertain, Don't Know	19	20 (4)	8		16	13	13	3 (5)
Total	100	100	100		100	100	100	50
N =	2110	750	1527	1600		622	1016	

Questions Asked:

ACIR: From which level of government do you feel you get the most for your money--federal, state, or local? (ACIR, 1978).

GALLUP: Which level of government gives you the most for your tax dollars? (ACIR, 1978).

CBS-NYT: Which level of government do you think wastes the biggest part of its budget--federal government, the state government, or local governments? (ACIR, 1978).

NBC-AP: Do you feel that you get your money's worth from the tax dollars you may pay to the federal government [state government, local government, local schools], or don't you think you get your money's worth? (ACIR, 1978).

CPP: Which level of government do you feel is using your tax dollars most efficiently, the federal, state, county, city, or local school district government? (CPP, 1978).

SRL (7): Which level of government is spending your tax dollars most efficiently--the federal, the state, or the local governments? (M. David, in press).

SRL (8): Within your local government what part is using your tax dollars most efficiently--your county government, your school board, or your local community government? (M. David, in press).

Column 8 is the distribution of responses by the 50% who opted for local government in column 7.

Notes: A number of parentheses following a percentage indicates the order of the alternative to which the respondent answered. Roman numerals show rank order of the affirmative responses to the questions. The numbers separated by a slash indicate the percentage responding affirmatively to the question out of the total percentage of definite resources. The pairs of dots indicate that this alternative was not offered to the respondent.

[a]None or all equal.

zens have greatest confidence in the federal government as the mode through which their money is most efficiently spent; the smaller quota sample, taken a week later, shows local government as that mode. This might be dismissed as a matter of sampling technique, until the result in the third column is considered. Negative wording of the question elicits a very strong attitude that the federal government is the most wasteful of the three levels of government. (It is possible that the population is divided into those who accord the greatest efficiency to the federal government and those who accord the least efficiency to that level, so that the responses in columns (1) and (3) could have been derived from the same survey, but I view that as a highly unlikely outcome.)

Column (3) also indicates an important facet of the responses provided--responses were recorded for a neutral alternative, "none; all equally wasteful." The substantial number of persons who elected this alternative indicates a group of people for whom the choice is not one that reflects a deep conviction. Presser and Schuman (1978) report that the absence of such a middle position in wording the questions does not distort the proportions giving polar responses, but it does tend to produce results in which persons with volatile views or leanings are confounded with those who hold strong beliefs.

Further confirmation of column (2) is given in column (4), where independent questions about disequilibrium or perceived value of each level of government are asked independently. Again local government performance receives the highest ranking. These differences in findings are not due to the passage of the Proposition 13 referendum. ACIR has asked its questions repeatedly since 1972 with similar

results, and the minimum observed in 1974 and 1979 shows 29% ascribing the greatest efficiency to the federal level.

In the right-hand four columns we see further difficulties. Results for the North Central region from the ACIR sample look very different from results using probability samples from Wisconsin, a member state in the North Central region. Within Wisconsin the proportions endorsing different levels of government as the most efficient vary depending on the poll taken. Several differences in technique may be responsible. Most obviously the SRL poll--columns (7), (8)--formulates the stimulus to the respondent as two questions, the CPP as only one. As a result answers to the CPP poll are picked from a longer list of government bodies and are not as comparable to the ACIR poll as the first question in the SRL poll. Hidden behind these data lies a more subtle difference. The SRL poll persisted in contacting the selected persons through repeated telephone contacts; more than a third of the contacts were only made after the third attempt. In contrast only two attempts were made to reach CPP respondents (and only 46% of the SRL sample was contacted on the first or second call). The SRL necessarily represents persons who are not usually at their home phone to a greater degree than the CPP poll.

The material presented in Table 1 is worthy of analysis for several reasons. The area under question does not evoke direct calculations of self-interest, even though it might well be that a transfer of functions to the most efficient level of government would either increase services or reduce taxes generally. The questions formulated in an attempt to measure the perceived productivity of the several levels of government show clearly that question wording is crucial to

the measured response, that both positive and negative approaches to the same subject matter are possible, and that a response may be captured from simple or compound question sequences. Lastly, comparison of the highly similar Wisconsin measures raises the often unnoticed problem that the representativeness of the sample is crucial to the value of the product.

A second type of question is explored in Table 2. Again a range of measurements were obtained in several studies, some contemporaneously. Here the area under measurement is the political disequilibrium felt by the respondent. In all cases respondents are asked whether the scale of government should be altered. Questions vary as to valency (i.e., whether a positive response implies an increase or decrease in government spending), scope, direction of change in scale of government activity that is probed, and the balance of alternatives. In columns (1) and (2) the questions differ in three respects. The question in column (1) asks for a positive response to support the current level of services. The question in column (2) asks for a negative response to support the current level of services. The counterfactual posed in (1) is that the cost of the current level of services rises; the counterfactual posed in (2) is that costs can be reduced if service levels are reduced. Lastly, the questions differ as to scope. Column (1) refers only to local expenditures; column (2) to both state and local expenditures. Columns (4)-(6) also are purely local in scope, but differ as to the population sampled, the date of the measurement, and valency.

Comparison of columns (6)-(8) with (3) and (4) suggests the hypothesis that the difference in the two measurements on Wisconsin is due to the

Table 2

Attitudes Towards Changed Scale of Government (Balanced Budget)--
Various Surveys 1970-1978

Implied Change in Government Activity	Milwaukee 1970 Local; Negative Wording	Milwaukee 1978 State & Local; Positive Wording	Wisconsin, 1978 State & Local; Positive Wording	Wisconsin, 1978 Local; Neutral Wording	U.S., 1972 Local; Positive Wording	Michigan, 1978 Local; Neutral Wording	Michigan, 1978 State; Neutral Wording	Michigan, 1978 State & Local; Neutral Wording
	URBAN OBS	CPP	CPP	SRL	GALLUP	SRC	SRC	SRC
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Reduction	73(-)	49(+)	49(+)	3(++) 23(+)	..	16	35	33
Neutral	27(+)	39(-)	36(-)	53(-) 9(--)	56(-)	60	51	53
Expansion	..	..	..	..	36(+)	22	10	11
Uncertain	..	12	14	5	8	2	2	3
Don't Know	..	..	..	7				
Total	100	100	100	100	100	100	98	100
N	443	NA	622	1016	NA	2001		

Questions Asked:

URBAN OBS: As you know, costs keep going up. If a choice has to be made, do you think taxes should be raised or services like those on the list should be cut down? (Fowler, 1974).

CPP: Would you favor a tax cut if it meant a cut in government services? (CPP, 1978).

SRL: To what extent do you approve or disapprove of reducing property taxes by cutting local services? (M. David, in press).

GALLUP: Suppose the local public schools said they needed much more money. As you feel at this time, would you vote to raise taxes for this purpose, or would you vote against raising taxes for this purpose? (GALLUP, 1978).

State & Local SRS: Taking into consideration all of Michigan's state and local government programs and services, do you think these governments should be spending more, spending less, or about the same overall as they do now? (Survey Research Center, unpublished 1978 data).

SRS State: Now considering just the state government in Michigan which spends mainly on education, highways, and welfare--would you favor an across-the-board <u>increase in both</u> state spending <u>and</u> taxes, a <u>decrease in both</u> spending <u>and</u> taxes, or would you favor no change? (Survey Research Center, unpublished 1978 data).

SRC Local: Now considering just your local governments which spend mainly on schools, police, fire, parks, and sanitation services--would you favor an across-the-board increase in both local spending and taxes, a decrease in both local spending and taxes, or would you favor no change? (Survey Research Center, unpublished 1978 data).

Notes: Negative wording implies that a negative response (-) alters the status quo; positive wording implies that a positive response (+) alters the status quo; neutral wording implies that a middle position maintains the status quo. The pairs of dots indicate that this alternative was not offered to the respondent. (NA = not ascertained.)

scope of the questions. Attitudes towards scale of government are more negative for state government than for local government. The results also invite speculation that the greater sentiment in favor of reduction of public services in Wisconsin as compared to Michigan may be due to the fact that an opportunity was not presented for the respondents to record an opinion in favor of expansion of the public sector (with concomitant tax increases).

One can conclude from these questions, all of which represent balanced budget alternatives for the respondent, that it is probably important to record the intensity of sentiment held by the respondent, which was done in both the SRL-Wisconsin and SRC-Michigan studies but not in the others. The SRL question achieves a measure of intensity via the 5-point scale on which only 12% of the population records an extreme position. The SRC question obtained information on intensity of feelings via the probe tabulated in Table 3.

The main finding from Table 2 is negative. Despite repeated studies that sample the same population, the data collected are not strictly comparable. Both valency of the question and the nature of the counterfactual posed influence results. Therefore question standardization is required if comparisons over time are to be meaningful. Table 2 also shows that the scope of the question clearly alters responses, and it appears that there is less positive sentiment for support of the present or increased scope of state government than for local government across the several studies investigated. This finding supports and dovetails with opinions on efficiency reported in Table 1.

Table 3

Intensity of Feeling on Changed Scale of Government--
Michigan, 1978

Category of Respondent	State	Local
Favors increased expenditure and taxes		
More than + 20%	0%	1%
11-20	1	2
6-10	4	8
1-5	5	11
Mean increase favored (percentage points)	(+8)	(+9)
Favors no change in taxes and expenditures	56	62
Favors decreased expenditure and taxes		
-1 - -5%	7	4
-6 - -10	14	5
-11 - -20	9	5
More than -20%	3	2
Mean reduction favored (percentage points)	(-12)	(-14)
All	100%	100%
Mean change favored	(-3.5)	(-.2)
Standard deviation of response	8.8	8.5
N	1842	1907

Source: Survey Research Center, unpublished 1978 data.

Notes: The question sequence consisted of the direction questions reported in Table 2, followed by the intensity probe:

How much of an (increase/decrease) in both state spending and taxes would you favor: a 5% (increase/decrease), 10%, 15%, a 20% (increase/decrease) or what?

For local government the intensity probe was identical except that local is substituted for state.

4. IMPROVING THE QUALITY OF ATTITUDINAL DATA ON TAXATION

The foregoing examples show that only a very modest beginning has been made in measuring attitudes towards tax problems and tax policy. While some may argue that the wide range of measured responses makes the survey instrument inappropriate for use in tax policy, it appears to me that we have no better tool with which to understand the three critical measurement areas discussed earlier--trade-offs in tax structure, degree of self-interest in tax policy, and extent of political disequilibrium. What appears to be inappropriate, in view of the large expenditures and critical decisions that are made by governments, is that so little effort is made to measure attitudes and to improve the quality of information reported. More resources are required to adequately sample attitudes, to assure an appropriate depth of measurement, and to provide more than the naive count of responses as an analysis.

Sample

The studies reported earlier range from samples of 400 to samples of 2,000 persons. At the lower end of this range it is questionable whether the measurement permits analysis of important differences among population groups (i.e., income groups). Sampling errors are too large.

Furthermore, a number of the studies that have been done do not adhere to rigorous probability samples, so that the count of interviews taken tends to overstate their value for representing <u>all</u> of the underlying population.

In addition, the samples that have been carried out, with the exception of the ACIR investigations, have lacked the continuity that permits the assembly of time series on changes in attitudes and analysis of the interdependency between policy changes and attitudes. It is desirable to have continuing measures of attitudes as indices of the state of public support for the tax system.

One may contrast the efforts that have been made to understand the attitude towards taxation with the effort that is made in many countries to assess the extent of unemployment. Sample surveys involving large numbers of persons (65,000 households in the U.S.) are conducted on a regular monthly basis. It would seem appropriate to ask whether the marginal return to a higher level of investment in measuring attitudes toward taxation (and expenditures) would not earn a higher return in terms of improved policymaking than the marginal return on resources that are now invested in the field of unemployment and labor force measurements.

In any case, Bailar and Lanphier (1978) clearly fault the existing state of attitude measurement for its failure to report adequately on methodology and nonresponse. They also fault studies for inadequate estimates of the variances associated with statistics such as the one presented above. In a pilot investigation of some 36 surveys they discovered numerous cases in which the sample was not completed according to probability methods and others in which the response rate was unavailable or inappropriately calculated. Such conditions undoubtedly occur in the measurements of attitudes towards taxation.

Question Design

Though sample design and execution are problems, the quality of

measures of tax attitudes depends far more heavily on questionnaire design. Two difficulties can be cited: (1) latency and (2) technicality. Much of the material that is pertinent to tax policy does not enter the day-to-day thoughts of citizens--after all the taxes that must be paid may as well be forgotten! Hence attitudes are latent. The problem of the analyst is to detect strongly held beliefs and consistent patterns of thinking that represent a significant factor in the setting of tax policy. Such strong beliefs must be distinguished from casual opinion, ideas that are ephemeral, and mimicry that follows editorial views of the press and other sources of opinions. Beliefs are difficult to measure because even strongly held views may not be articulate.

The issue of technicality of tax matters also limits the domain of discussion in cross-sectional surveys. The average citizen cannot be expected to understand complex accounting rules, the limits of definitions used in the tax law, and so forth. This implies that views must be solicited from general questions and then interpreted. The H & R Block (1978) study is an excellent example of how technicality may be avoided, while M. David (1979) indicates that persons are willing to commit themselves on broad policy questions of some difficulty, if the question phraseology is not technical.

In most studies of attitudes towards taxation, almost nothing has been done to distinguish intensity of convictions. Yet it is well known in the survey profession that some proportion of respondents have no opinions and may respond with answers they feel the enumerator wishes to hear, as they have no interest in taking the time to compose a thoughtful answer.

As a consequence, questions must be designed with redundancy, with techniques for revealing intensity of feelings, and with the flexibi-

lity to accommodate different ways of articulating beliefs about taxation. Redundancy is perhaps the easiest objective to obtain. Inclusion of both positive and negative forms of a question (as in Table 1) identifies persons who give inconsistent responses (e.g., the federal government is both the most and the least efficient government). Inclusion of several questions on the same issue permits the construction of scales reflecting both the consistency of views and the intensity of feelings on that issue.

Intensity of feelings can be captured in sequences of questions that identify direction and extent, as in the SRC sequence reported in Table 3. Another technique of particular value is the open-ended approach, in which respondents are invited to define problems, ideas about tax structure, and so forth, in advance of structured questions on particular issues. This approach is expensive, because topics that are volunteered must be carefully read for content and coded by a trained person. (Questions with fixed answers can be coded mechanically at low cost.) Persons with articulated views in open-ended questioning will provide a measure of the saliency of a particular problem, while choice among predetermined fixed alternatives provides no indication that the problem has been considered in advance of the questioning by the interviewer.

Use of redundancy in questioning and open-ended questions in advance of fixed-question sequences covering the same areas has an additional advantage. The sequence of questions creates a context in which the respondent has more time to consider the areas under discussion and to react meaningfully. Work by Cannell et al. (1977) indicates that longer questions may enhance the completeness of

responses. (One of the principal limitations of the ACIR sequence is that the number of questions is so limited that respondents have little opportunity to digest the areas under question and explore the implications. As a result it is hard to assess the meaning of a shift in answers over time. Does the change reflect some real conviction or merely a flutter in the random winds of opinion expressed by those without strong views? We shall never know.)

Even the use of limited numbers of fixed-answer questions can be improved by careful planning. Balance in the question wording is important, if sequences of related questions are not used. Expanding upon the number of fixed-answer alternatives is also important. The use of a neutral category and a five-point scale of intensity of feeling conveys a great deal more than a dichotomous choice in which those with "leanings" are not distinguished from those who hold strong views.

It is not possible to catalog the number of ways in which attitudinal measures can be improved by apt design of questions. What should be clear by now, however, is that it is not possible to gain substantial information about public attitudes without also making a commitment to measurement. The commitment requires periodic probability sampling of the citizenry. It requires a major effort to reach all parts of the population. It also requires a commitment of time on the part of the respondent to consider seriously the issues posed by policy choices and the answers to several related questions. Much of past attitudinal measurement has fallen short in one of these three areas.

Even where deficiencies in the collection of data have not arisen, deficiencies in its presentation have flawed the value of the results.

Analysis of attitudes. In the SRL study reported here a considerable effort was made to identify persons with no firmly held convictions on matters of taxation. The entire interview was scrutinized to determine the respondent's knowledge about government policies and his own tax affairs. In addition, questions regarding tax policy were reviewed to determine whether the respondent avoided answering. Just over 10% of the respondents were deemed uninformed because they gave no indications of involvement with their own tax affairs and they responded to at least three of fourteen questions on tax policy with "Don't know." (This group also comprises about 40% of those who were poorly informed on matters of economic policy generally.) See Table 4, which shows that citizens are generally informed and sufficiently knowledgeable to answer questions on tax structure.

On many questions of tax policy the views expressed by the "uninformed" were significantly different from the remainder of the sample. It would be inappropriate to give much weight to such views in policy formulation.

For the remaining population (informed respondents), we investigated the consistency of answers. Four sets of questions were identified in which an inconsistency could be identified with a particular pattern of response. The extent of inconsistencies is reported in Table 5. On average just under one inconsistency appeared in each interview, but two-thirds of the respondents reported one or no inconsistencies. Limiting the analysis of responses to informed persons who demonstrate less than two inconsistencies requires discarding nearly 40% of the respondents (28% for inconsistencies and 10% for being uninformed).[5]

Table 4

Cumulative Distribution of Information Levels of Wisconsin Citizens on Taxation and Related Economic Matters

Number of Questions to Which Respondent Answered "Don't Know"	Subject Area		
	Tax Structure (1)	Government and Economic Conditions (2)	Government and Economic Conditions (uninformed subsample) (3)
None	27%	69%	39%
1 or less	54	92	60
2 or less	76	98	86
3 or less	85	100	100
4 or less	92	100	100
5 or less	95	.	.
6 or less	96	.	.
11 or less	100	.	.
16 or less	100	.	.
Mean	1.78	0.406	1.06

Note: In columns (2) and (3) only a maximum of four "Don't know" responses was possible. The questions used in the count of columns (1) and (2) are fully listed in M. David (1979).

Table 5

Consistency of Responses on Tax Structure

Number of Inconsistent Responses	Type of Respondent		Total
	Informed	Uninformed	
0	33%[a]	8%	41%
1	29[a]	2	30
2	16	1	16
3, 4	12	--	12
Total	90%	10%	100%

Note: Inconsistency is measured by the following responses:

a) The respondent gives priority for change in tax structure to one that would shift financing from a tax source considered more burdensome to one that is considered less burdensome.

b) Respondent indicates that he is opposed to increased state financing and reduction in property taxation, but endorses that priority in response to questions concerning which taxes should be changed.

c) Respondent indicates that the assessment level on his owned home is not correct but also gives the opinion that assessment in his municipality is fair and honest.

d) Respondent is opposed to increased income taxes combined with increased school aids and favors reduced property taxes and income tax increases.

It is logically possible for the abcve patterns to represent a well-reasoned position, but unlikely. Hence "consistency" must be thought of as a crude device for sifting out the more coherent responses, while incorrectly excluding some individuals with well-reasoned positions.

[a]Sample subgroup identified as knowledgeable and consistent.

Table 6

Attitude Differences between Consistent, Knowledgeable Respondents and Uninformed or Inconsistent Respondents

Attitude	Scale Value	Consistent, Knowledgeable	Inconsistent or Uninformed	All Respondents
A. Reduce property taxes, increase grants to school districts, and increase state income tax				
Strongly approve ++		4%	1%	3%
Approve +		32	14	25
Depends 0		2	2	2
Disapprove -		46	58	51
Strongly disapprove --		12	16	13
Don't know, NA		5	9	7
		100	100	100
B. Reduce property taxes, increase state taxes				
Strongly approve ++		3%	1%	2%
Approve +		34	17	28
Depends 0		2	2	2
Disapprove -		41	58	47
Strongly disapprove --		11	9	10
Don't know, NA		10	13	11
		100	100	100
	(SCALE4)			
C. Approve of property tax cuts and cuts in local services[a]				
++, Specific services mentioned	5	3%	2%	3%
++,	10	*	*	*
+, Specific services mentioned	15	15	9	13
+	20	9	12	10
0, Specific services mentioned	25	4	2	4
0	30	2	2	2
-	40	51	56	53
--	50	10	7	9
Don't know, NA	___	6	10	7
		100	100	100
Mean SCALE4		34.0	34.0	
Standard deviation		(12.1)	(11.8)	

Table 6 (cont.)

	(TYINDEX)			
D. Favor indexing of income tax[b]				
++, Priority	5	11%	7%	10%
++	10	11	6	9
+, Priority	15	13	19	15
+	20	36	34	35
0	25	1	3	2
-	30	13	13	13
--	40	2	3	2
Don't Know, NA	___	13 100	17 100	14 100
	(TYPROG)			
E. Favor income tax progression for Wisconsin				
Flat rate	1	24%	28%	26%
Progressive rate	2	25	28	27
Progressive rate and priority for fairness	3	45	36	42
Don't know	___	4 100	8 100	6 100

*Less than 0.5 percent.

[a]Attitude position is shown first using ++, + ... -- to abbreviate for categories shown under A. above. Differentiation of non-negative resonses is obtained by discriminating between those respondents who gave specific examples of services that could be cut and those who did not.

[b]Priority indicates that respondents preferred indexation to fairness and simplification as objectives for reform.

The population subgroup identified as knowledgeable and consistent reports significantly different attitudes from the remaining persons. Table 6 indicates differences between the identified subgroup and the remaining sample for several types of attitude measurements. The attitude scales A and B measure disposition towards the role of the state government in financing expenditures by the local government. The area under question does not correlate clearly with the self-interest of well-defined demographic groups; a change in the level of shared taxes (collected by the state and paid to localities) or grants-in-aid may benefit both high- and low-income persons, both owners and renters, and so forth. (These are examples of trade-offs in the tax structure discussed earlier.) The attitude scale C measures the political disequilibrium perceived by the individual. The next attitude (D) pertains to the indexing of tax brackets and exemptions used in the income tax; a favorable position is in the self-interest of middle-income persons in particular, although it may not be perceived in that fashion. The last attitude (E) reflects opinion on tax progression and is clearly a scale on which self-interest positions are defined for both low-and high-income taxpayers.

The results in Table 6 indicate wide disparities in the views of the knowledgeable and consistent group and the remaining population on the first two scales. Knowledgeable respondents give fewer unresponsive answers (Don't know) and express more positive attitudes. For the remaining scales no great differences in the distribution of definite answers exist, although the knowledgeable group gives fewer unresponsive answers.

The knowledgeable and consistent group should demonstrate more meaningful responses than the remaining population, who may be charac-

terized as less interested, less motivated to involve themselves in questions of taxation, and more likely to have views that will be susceptible to manipulation by friends, the press, or organizations. With this in mind attitudes reported in Table 6 were studied through multiple regression on population characteristics.

The first two attitude scales lend themselves well to such analysis, because the questions are closely related. The first directs attention of the respondent to a specific tax focus and a specific expenditure impact of the change in balance of state and local finance. The second attitude is more general and refers to recent history and approval of change that has already been incorporated into the tax structure. The intensity of positions expressed on both questions was probed through the use of two additional questions designed to determine whether a favorable attitude would be altered by negative consequences. It was thus possible to construct a scale based on four questions, using the redundancy in the questions and probes to reinforce the scale reading and adding the responses to reduce the impact of measurement error.[6] This is SCALE3.

Less depth of questioning was available to investigate the other attitudinal areas, but in each case information from at least two questions was combined to form a scale for analysis.

Parallel analysis was carried out on each of the four attitudinal scales: SCALE3, pertaining to the balance of state funding versus local funding; SCALE4, pertaining to disequilibrium in the level of taxes and services; TYINDEX, the attitude towards indexing the income tax; and TYPROG, the attitude towards progression in the income tax. Analyses were replicated for the knowledgeable and consistent taxpayers and the remaining sample.

The income level of the respondent was allowed to have a different effect for owners of homes than for renters, as special tax provisions are advantageous to homeowners, who are generally more aware of the property taxes that they pay. Higher-income owners should prefer higher property taxation to higher income taxation as a matter of self-interest.

Conceptually it also appeared likely that the disequilibrium felt in the level of services received from local government is a determinant of attitudes towards state-financed local expenditures, but that the converse would not be true.

A number of demographic variables were investigated to determine their correlations with the scale variables. Sex and education of the respondent showed significant zero-order correlations; marital status, age, the presence of children in the household, and employment in a managerial or professional self-employed capacity did not. Thus the multiple regression model in Table 7 was estimated. Three findings stand out among the knowledgeable and consistent respondents:

1) Women favor state financing to a lesser degree than men.
2) Persons with more education tend to favor state financing to a greater extent than do persons with less education.
3) The predicted differences in the income response of homeowners and renters is present, with high-income homeowners less willing to see state financing and reductions in property taxes than low-income homeowners. No significant difference in attitudes of renters could be ascribed to income level.

One can argue that the last of these findings is an artifact of the political disequilibrium in which higher-income persons find themselves. They pay high taxes and do not value public services to the

Table 7

Regression Analysis of Attitude towards Substituting State Level Financing for Local Property Taxation--SCALE3

Explanatory Variable	Coefficient (t-ratio)	Coefficient (t-ratio)	Mean (standard deviation)
Sex of respondent (Male = 1; Female = 2)	6.11 (3.42)	5.40 (3.03)	1.487 (.5003)
Education of respondent[a]	-.191 (2.29)	-.198 (2.40)	26.11 (11.03)
Income class of renters (in $1000's)	-.144 (1.04)	-.111 (0.79)	4.052 (7.582)
Income class of homeowners (in $1000's)	+.195 (2.07)	.232 (2.29)	11.52 (11.63)
Scale 4--Attitude towards cuts in property taxes and local services	-- --	.232 (3.21)	33.98 (12.16)
Constant	70.47	63.48	76.24 (20.13)
$\bar{R}^2$	.044	.062	
F	6.81	7.61	
N	505	505	

[a]Educational achievement is coded as follows:

00	None;
01-08	Elementary schooling only (highest grade level completed);
11	Ninth grade; 12 Tenth grade; 13 Eleventh grade;
21	High school graduate;
31	1 year college; 32 2 years college; 33 3 years college;
41	College graduate;
51	Post-graduate training; 52 MS or equivalent; 53 MD or equivalent;
61	Ph.D.

extent of their loss of disposable income. To test for this latter effect, the expressed desire to cut both services and taxes (SCALE4) was also included in the model. Each of the foregoing effects was maintained, and in addition the expressed attitude towards the scope of government significantly increased R^2 and operates in the expected direction.

While the multiple regression findings are not startling and leave a great deal that is not explained, they indicate some stability and logic in the relationships between expressed attitudes and characteristics of knowledgeable and consistent respondents. The same model applied to the uninformed or inconsistent group exhibits no statistical relationships between the attitudes on state financing and respondent characteristics.

Investigation of the two attitudes pertaining to the income tax revealed no relationships to demographic characteristics, save a negative correlation between age and sentiment in favor of progression. Relationships between the measures of attitudes about the income tax and the scales already studied were also lacking, as can be seen by the correlations in Table 8.

5. CONCLUSIONS

A role clearly exists for well-designed, periodic measurements of attitudes towards tax policy and tax structure. Legislation ought not to be undertaken without information on both the nature of public opinion and its recent trends. To undertake such measurement will clearly involve an order of magnitude greater effort than has been undertaken in the past (at least in the U.S.). Failure to undertake relevant

Table 8

Correlation of Attitude Scales and Selected Demographic Variables

	SCALE4	TYPROG	TYINDEX	Age	Sex	Education	Income	
							Owners	Renters
A. Knowledgeable and Consistent Respondents, N = 435[a]								
SCALE3	.156	-.076	-.007	.037	.149	-.101	+.101	-.129
SCALE4		-.046	.004	-.019	.136*	-.005	-.041	-.050
TYPROG			.026	-.106	.012	-.036	-.067	.034
TYINDEX				.030	.071	-.066	.023	-.062
B. Inconsistent or Uninformed, N = 258								
SCALE3	.003	-.041	.009	.037	-.049	.021	.132	-.061
SCALE4		-.002	-.058	.044	.041	-.165	-.202	-.128
TYPROG			-.043	.001	-.047	-.001	-.017	-.072
TYINDEX				.044	-.083	.005	-.017	-.034

[a]Except for correlations of SCALE3 and SCALE4 to variables used in Table 7, where N = 505.

*Highly significant with t = 2,6

measurement invites undue influence from special-interest groups, demagogues, and legislative protocol on the process of tax reforms.

The SRL-Wisconsin study that we have presented provides an interesting case study of how attitude measurements can be used in the policymaking process. Its findings were made public well in advance of the legislative session at which tax reform was considered in January 1979. The study indicated a higher level of knowledge about tax structure and a greater degree of satisfaction with the structure than might have been supposed from other sources (such as press reports on Proposition 13 and the property tax revolt). The evidence obtained in the study did not point to radical change in the current tax structure, but provided information on how marginal shifts in several programs (e.g., circuit breakers, aid to school districts, property tax exemptions, and user fees) were regarded.

As has been illustrated here, the analysis of the SRL study was carefully undertaken to disclose differences between informed and uninformed persons; the analysis of Table 6 shows how, in addition, better understanding can be derived from testing a broad range of answers for consistency in order to discover relationships between opinion and population characteristics.

The major failure of the SRL study, in terms of influencing tax policy, was that very little effort was made to disseminate the findings. The public was not informed that the mentality of Wisconsin citizenry appeared to be markedly different from that in California, and legislators continued to support programs to reduce property taxes relative to other tax reforms, despite the fact that the SRL findings could not be taken as a clear signal for this position.

A representative democracy cannot afford to ignore the attitudes of its citizens in the crucial area of taxation. A major research effort and a continuing measurement program are required to understand and use these attitudes on tax policy in the decision-making process. This paper should serve to indicate some of the problems entailed in constructing and interpreting the necessary surveys.

NOTES

[1]Several organizations have been monitoring public trust in government in the United States. The Center for Political Studies, Institute for Social Research, University of Michigan, shows a steady decline in public confidence since the late 1950s in questions primarily at the national government. Watts and Free (1978, p. 30) ask specifically about the lesser governments of the United States system:

Trust and Confidence (composite scores)

	1972	1974	1976
State government	60	64	61
Local government	57	61	57
Federal government (domestic issues)	61	52	50

The conclusion is that only the trust and confidence in the national government clearly deteriorated during this period. Also it appears that local government is generally less favored than state government.

[2]The interpretation of the words "tax reform" by the public displays a remarkable degree of altruism and social concern as opposed to a tax-minimizing orientation. H & R Block (1978, Vol. 2, Q6) report:

When you hear the words "tax reform" which of these things does it mean to you?

	Income Group ($1000's)			
	Under 7	7-15	15-25	25+
a. That the income tax system would be revised to make it fairer to everyone--the poor, the rich, and the middle class.	41%	46%	48%	51%
b. That the income tax forms would be simplified and made easier to fill out.	12	11	8	6

	Income Group ($1000's)			
	Under 7	7-15	15-25	25+
c. That the income tax system would be revised to make it fairer to people like you.	13	13	14	9
d. That the income tax system would be tightened up so that tax loopholes that work to the advantage of some people would be eliminated.	22	26	34	34
e. That your personal taxes would probably go down.	5	6	5	4
f. That your personal taxes would probably go up.	2	4	6	6
Other	1	2	2	3
Don't Know	14	7	4	3
N	374	648	606	358

(Responses total more than 100% as respondents were permitted to pick several categories.)

[3]Net property taxes declined as a share of state and local collections from 1951 to 1978:

1951	1961	1966	1971	1977	1978
48%	51%	40%	52%	32%	31%

Source: Wisconsin Tax Reform Commission (1979, p. 13).

[4]It is true that even in a country as large as the United States some local governments retain a direct, rather than a representative, form of democracy. New England town governments annually decide upon the allocation of revenues and the level of taxation in "town meetings".

[5]It is not possible for the uninformed persons to appear as inconsistent as the informed persons, because they responded "Don't know" to questions used in developing the inconsistency scale.

[6]Separate analyses of the two major questions and their probes revealed completely parallel results, so that aggregation to the scale presented is appropriate.

SCALE3 is defined as follows:

1. The categories shown for A. and B. in Table 6 were assigned values from 10 (++) to 50 (--). NA's were excluded.
2. Responses to probes of position (++) or (+) were added to A. and B. as follows:

    2 Affirmed positive attitude

    4 Depends on additional considerations

    5 Don't know, not ascertained

    6 Denied positive attitude

3. The two scales A. and B. were summed.

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