

TAX EXPENDITURES:
REPORT UTILIZATION BY STATE POLICY MAKERS

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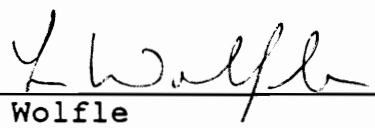
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(ABSTRACT)

SUBJECTS: tax expenditure reporting, information utilization, legislative oversight, governmental accounting, and path analysis

Tax expenditures are deviations from a normative tax structure which take the form of exemptions, deductions, credits, etc. Tax expenditure reports show estimates of revenues foregone from tax expenditures.

This study investigated report use in ten states by (1) examining tax expenditure reporting processes and report use and (2) applying three path models of technical information use to tax expenditure reports. Data were gathered from report preparers, legislative staff persons and legislators.

The adoption of recommended standard features was examined. Commonly adopted core features and innovative features were identified. Examination of tax expenditure reports and reporting processes supports the following findings:

- (1) The tax expenditure concept has broad acceptance.
- (2) Reporting achieves an educational objective by facilitating an understanding of tax structure.

- (3) Use of reports is consistent with the use of technical information in general.
- (4) Legislators and staff persons share similar perceptions on reporting.
- (5) The practice of formally comparing tax and direct expenditures has not been widely adopted.
- (6) Awareness of tax expenditure costs may protect revenues by fostering resistance to new tax expenditures.

In the three specified path models of information use, the dependent variable is level of report use. The independent variables in each model represent three theory of information use. The most paths were retained as significant in the information specific model, but the individual attribute model explained the highest percentage of variance in level of use (28.1%). The role constraint model was unsupported. A final combined model, explaining 34.3% of variance in level of use, shows that the information specific and personal attribute models are related. In the combined model: (1) report usefulness has the largest direct and total effect on level of use, (2) the exogenous variables, quality of report communication and fiscal analysis attitude affect report usefulness by affecting the intervening variables, relevance of report and technical quality of report. This suggests report preparers may influence marginally report use by improving report communication and technical quality of reports.

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If men were angels, no governments would be necessary. If angels were to govern men, neither external nor internal controls on government would be necessary. In framing a government which is to be administered by men over men, the great difficulty lies in this: you must first enable the government to control the governed; and in the next place oblige it to control itself. A dependence on the people is, no doubt, the primary control on the government; but experience has taught mankind the necessity of auxiliary precautions.

Alexander Hamilton or James Madison
The Federalist, No. 51

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CHAPTER I
INTRODUCTION

The subject of this study is the use of tax expenditure reports by state policy makers. Tax expenditures are deviations from a normative tax structure. Such deviations take the form of exemptions, deductions, credits, preferential rates, or deferred liabilities. In practice, any benefit resulting from these mechanisms may be reported as a tax expenditure.

Revenue foregone by adopting tax expenditures can be viewed as resource allocations. In contrast to direct allocations, tax expenditures result in allocation of resources indirectly via reduction in taxes. A state tax expenditure report shows estimates of revenues foregone by the state as a result of the state having exemptions, deductions, credits and other tax expenditure mechanisms in its tax laws. Such benefits are in substance expenditures described in tax language (Surrey and Hellmuth, 1969).

Disclosing the costs of revenues foregone through a reporting process has been advocated to increase public awareness of and control over resources allocated through tax benefits. In 1967, Surrey advocated a full accounting to identify and publicize the magnitude of revenue lost from tax expenditures.¹ As Surrey's arguments for reporting gained acceptance, the federal government and nineteen states adopted periodic tax expenditure reporting. See Exhibit A in Appendix for a list of states which report tax expenditures.

It is extremely difficult to evaluate the effect of tax expenditure reporting in controlling tax expenditures. However, it is clear that policy makers must use the information reported if reports are to have a control effect. Thus, use of report information is a surrogate for control effect. Use of tax expenditure reports may be broadly defined to mean consider.²

Purpose of Study

The purpose of this study is to examine the use of

¹This proposal was made when Stanley S. Surrey was on leave from Harvard Law School and serving as Assistant Secretary for Tax Policy in the U. S. Treasury Department during the Kennedy administration. His initial proposal was made in a speech to the Money Marketeers in New York City on November 15, 1967. See Surrey and Hellmuth (1969).

²Webber (1983, p. 32) interprets use as consideration.

tax expenditure reports by state policy makers. In examining usage, this study has dual focuses: (1) examining tax expenditure reporting processes and report use and (2) applying three models of technical information use to tax expenditure reports. The first focus is intended to provide a systematic examination of reporting processes and reports. The second focus is on applying three general models of technical information use from existing literature on technical information use to tax expenditure report use. These models are the (1) information specific model, (2) personal attribute model and (3) role constraint model.

Each model is represented in a path diagram and explains the level of use of information based on a particular set of attributes. The information specific model attributes information use to the user's perception of how information is created and communicated. The personal attribute model attributes use to personal attributes of users. The role constraint model attributes use to organizational influences which affect users. The information specific model is of particular importance because report preparers have greater potential for influencing variables in this model than in the other two models.

Level of use is important because it is an indicator of the potential controlling effect of tax expenditure reporting. The identification of how variables, which are controllable by the preparer, affect level of use, could lead to modifications in the reports which enhance their use, and accordingly, increase the control effect of state tax expenditure reports.

The perspective adopted in this study is that tax expenditure reporting represents a form of technical information which is intended to strengthen fiscal control over tax expenditures. The use of technical information in policy analyses is an emerging interdisciplinary subject. Researchers investigating information utilization have described information use and identified attributes associated with information use. Thus, the information utilization literature provides a framework to examine how tax expenditure reports are used and what attributes influence that use.

The primary benefits of this study are:

- (1) an extension of analysis of policy information use to the state level in a time when states are continuing to adopt tax expenditure reporting,
- (2) a systematic description of tax expenditure reporting processes and tax expenditure reports,
- (3) a better understanding of tax expenditure report use including purpose of use, policy process stage of use, and control focus of use,

- (4) an extension of general models of technical information use to specific tax expenditure report use,
- (5) an extension of the application of technical information use models from legislators and administrators, in general, to tax committee members in specific, and
- (6) an enhancement of understanding about variables which may influence the level of use of tax expenditure reports.

Organization of Study

The remainder of this study is divided into six chapters:

Chapter II, Tax Expenditure Reporting,
Chapter III, Information Utilization,
Chapter IV, Research Design and Methodology,
Chapter V, Reporting Process and Report Use,
Chapter VI, Model Evaluations, and
Chapter VII, Conclusion.

Chapters II and III, respectively, review the existing literature on tax expenditure reporting and information utilization. Chapter IV describes how the study is designed to collect data from the multiple perspectives of report preparers, legislative staff persons, and legislators who serve on tax committees. Chapters V and VI report the results of the study with Chapter V focusing on the examination of reporting process and report use and Chapter VI focusing on the evaluation of general models of technical information use. Chapter VII summarizes study findings and discusses areas for future research.

Limitations of Study

Among the limitations of this study are:

- (1) model evaluations focus only on one group of tax expenditure reports users, legislators,
- (2) the number of reports which legislators have used, length of service on tax committees, and specific content of reports will vary,
- (3) collection of data is dependent on the recall of respondents,
- (4) variable specification relies heavily on perceptual measures, and
- (5) respondents may have anticipated and given socially desirable responses.

Because the study focuses on one group of users, legislators, the models of use which the data support may not be generalizable to other users. Differences in legislators' experience using reports, legislators' experience on tax committees, and report content may affect use. These concepts are not operationalized, and, accordingly, the analysis is not controlled for the affect of these concepts on use. Additionally, the collection of data is dependent on respondents' recall and perception, which to some extent may reflect respondents' judgments on how tax expenditure reports should be used rather than how reports actually are used.

CHAPTER II

TAX EXPENDITURE REPORTING

Tax expenditure reporting is an innovation that is advocated to increase resource control. Reporting reflects the idea that reductions in normative taxes are implicit allocations of resources. Budgetary control over such allocations is basic to preserving revenues and to understanding the distributional impact of benefits. The production of reports, which estimate the amounts of implicit allocations, is advocated as a necessary tool for managing implicit spending occurring via tax policies.

The purpose of this chapter is to review the relevant literature on tax expenditure reporting. This chapter reviews theories on political motivations for tax expenditures and reporting, traces the adoption and implementation of reporting as a fiscal innovation, and discusses the utility of reporting. Current reports and

policy maker observations on report use will be discussed in a later chapter.

The tax expenditure concept represents the application of opportunity costs to tax revenue structures. Reporting of tax expenditures is a relatively new innovation for disclosing fiscal information. Most of the literature on tax expenditures focuses on definitional issues relating to expenditures, advocacy of reporting or descriptions of reports. The political motivations for adopting tax expenditures and reporting are discussed in a much smaller body of literature

Surrey (1973), an early and powerful advocate of tax expenditure reporting, initially directed his attention to developing the concept of tax expenditures as a part of his advocacy of reporting. The production of reports created diverse ideas on criteria for classifying items as tax expenditures³ and methods for estimating tax expenditures. Recent literature includes issues relating to accounting for and reporting of tax expenditures.

³For discussion of definitional problems see M. McIntyre (1980), Pomp (1988), Richardson (1989), and Thuronyi (1988).

Tax Expenditure Concept

Vickery (1947) discussed the idea that a reduction in taxable income constituted a subsidy to taxpayers. McKenna (1963) wrote a seminal paper on disclosing the opportunity cost of granting tax preferences. Wolfman noted that "tax support of science resembles a direct federal expenditure."⁴ Surrey (Forman, 1986) coined the term, "tax expenditures" in a 1967 speech, and for sixteen years was the most influential person in gaining acceptance of the tax expenditure concept by policy makers in the United States and abroad.⁵

Surrey describes the tax expenditure concept as:

... through deliberate departures from accepted concepts of net income and through various special exemptions, deductions and credits, our tax system does operate to affect the private economy in ways that are usually accomplished by expenditures in effect to

⁴Bernard Wolfman, "Federal Tax Policy and the Support of Science," University of Pennsylvania Law Review 114 (December 1965): 171.

⁵Among Surrey's achievements are introducing the tax expenditure concept at the United States Treasury Department in 1967 (Forman, 1986), leading the academic debate on the validity of the tax expenditure concept (Bittker, 1969a, 1969b; Surrey and Hellmuth, 1969), overseeing the research that produced the first tax expenditure budget for the United States in 1968 (Forman, 1986; Wolfman, 1984), promoting the adoption in 1974 of the tax expenditure budget into the annual budget (Wolfman, 1984), and authoring or co-authoring three of the most comprehensive books on the subject of tax expenditures (McDaniel and Surrey, 1984; Surrey, 1973; Surrey and McDaniel, 1985). Wolfman (1984) lists a complete bibliography of Surrey's works.

produce an expenditure system described in tax language.⁶

Surrey and McDaniel write:

The term "tax expenditures" refers to the fact that many of the provisions of the U.S. tax laws are intended, not as necessary structural parts of a normative tax, but rather as tax incentives or hardship relief provisions. These provisions are thus really spending measures.⁷

When the tax expenditure concept originally was articulated, Surrey and Bittker debated the merits of the general concept (Bittker, 1969a, 1969b; Surrey and Hellmuth, 1969). Criticisms of the tax expenditure concept are stated succinctly by Bittker (1969a, 1969b).

Bittker's (1969b) primary criticism is that tax expenditures cannot be identified because a normative tax system cannot be defined. Surrey and Hellmuth

⁶Speech by Stanley S. Surrey, Assistant Secretary for Tax Policy, United States Treasury Department before Money Marketeters, New York City, New York, 15 November 1967, quoted in Stanley S. Surrey and William F. Hellmuth, "The Tax Expenditure Budget--Response to Professor Bittker," National Tax Journal 22 (December 1969): 528.

⁷Stanley S. Surrey and Paul R. McDaniel, "The Tax Expenditure Concept and the Legislative Process," in The Economics of Taxation, eds. Henry J. Aaron and Michael J. Boskin (Washington, D.C.: The Brookings Institution, 1980), 123-124.

respond that the purpose of tax expenditures is not to "show deviations from an 'ideal tax base,'" but "to represent the cost of special tax provisions ... to allow decisions which make the most effective use of all budgetary resources."⁸ McDaniel reports that the first decade of national tax expenditure reporting in the United States reveals, "remarkably little controversy over the items that have been included in tax expenditure lists."⁹ ¹⁰

Bittker's (1969b) secondary criticism is that tax expenditures cannot be estimated because no adjustment is made for the behavioral responses of taxpayers. Surrey and Hellmuth (1969) question why different methodological standards should be applied when the same procedures are used to estimate direct and tax expenditures. They explain that second level interactive effects reflecting beneficiary behavior are not incorporated into either tax or direct expenditure analysis. McDaniel (1979b) argues that the problems of

⁸ Surrey and Hellmuth, 1969, 530.

⁹ Paul R. McDaniel, "The Tax Expenditure Concept: Theory and Practical Effect," Tax Notes 8 (May 14, 1979c): 589.

¹⁰ For a discussion of differences relating to classification of tax expenditures at the national level by the Congressional Budget Office and executive's Office of Management and Budget, see McDaniel and Surrey (1982) and Sheppard (1984).

estimation are no different for tax expenditures than for direct expenditures. A change in either type of expenditure may trigger second level interactive effects, increasing or decreasing another expenditure. Additionally, the estimation of tax and direct expenditures, depends on assumptions pertaining to future economic conditions and behaviors of those affected by programs. McDaniel (1979b) concludes that, for planning purposes, methodological limitations do not invalidate the concept of estimating direct expenditures or tax expenditures.

Examples

McDaniel (1979c) provides a comprehensive listing of various forms tax expenditures may take. These include the following items:

- (1) departures from a normative tax base such as exclusions, exemptions, deductions, and credits,
- (2) departure from normal rate structures such as the granting of preferential rates on capital gains,
- (3) departure from rules defining taxable units such as the rule that corporations and their shareholders are separate entities,
- (4) departure from normal accounting period rules such as the authorization of accelerated depreciation, and
- (5) departure from normal international tax rules such as exclusion of income earned abroad.

Political Motivation for Tax Expenditures and Reporting

Reporting of tax expenditures obviously depends on the existence of tax expenditures. Tax expenditures have been described as a form of hidden financing or subsidization (Bennett and DiLorenzo, 1983). Three standard controls are avoided by using the tax expenditure vehicle to encourage desired behaviors or relieve hardships.

- (1) Unless reporting is adopted, the costs of public support for programs implemented via tax structure are not disclosed in any public record.
- (2) Implementing programs via tax structure expands the power of tax committees to include revenue disbursement as well as revenue collection thereby circumventing the traditional control of dividing these duties to protect against abuse of power.
- (3) Absent integration of tax expenditures into the appropriations process, periodic scrutiny over programs funded via tax structure is avoided.

Thus, tax expenditures may be hidden from public disclosure, excluded from the segregation of legislative powers, and shielded from periodic scrutiny.

Political scientists posit several explanations why incentive and/or hardship relief programs are administered through treasury, a support department, rather than by operating departments, such as commerce, education, agriculture, etc., which were established to

provide services to the public.¹¹ Additionally, political scientists offer some explanations regarding the motivations for tax expenditures and reporting.

Motivation for Use of Tax Expenditures

Hansen (1983) constructs a general theory to explain hidden spending. The core of the theory posits tax expenditures are encouraged by two significant advantages: (1) benefits will be highly visible to beneficiaries but virtually invisible to non-beneficiaries, and (2) costs will be obscured for both beneficiaries and non-beneficiaries.

King (1984), Schlick (1986) and Steinmo (1986) contribute to a social benefit theory which explains the desirability of using tax expenditures for intrusion into the private sector. Social benefit theory posits that mature democratic governments assume the primary role of redistributing income and purchasing services rather than providing services (Schlick, 1986). Schlick (1986) argues that this change in governmental role has been accompanied by a shift from administrative budgeting, designed to exercise control over cash

¹¹The distinction between support and operating departments in the public sector is similar to the distinction between line and staff in private enterprise. Support departments, such as treasury, provide resources needed by operating departments, such as education, to provide services to the public.

receipts and disbursements, to transfer budgeting. With transfer budgeting, public and private sector boundaries are blurred and the primary purpose is to influence beneficiary behavior. Accordingly, tax expenditures are beneficial mechanisms because such mechanisms enable governments to influence private sector behaviors by supporting private sector endeavors in a non-intrusive manner. Thus, tax expenditures are viewed as serving a unique function rather than merely substituting for direct expenditures.

Tax expenditures and direct expenditures are viewed as substitutes because either may be used to transfer resources. However, the substitute nature of tax expenditures and direct expenditures may not extend to administration. The view that tax expenditures and direct expenditures are distinct instruments of fiscal administration is supported by observations on the magnitude and pattern of growth in tax expenditures and direct expenditures. Schlick (1986) discusses the relationships between growth in indirect expenditures, such as tax expenditures, and growth in direct expenditures and transfer spending.¹² He observes that both direct expenditures and tax expenditures grew

¹²Schlick (1986, p. 6) defines transfer spending as, "spending to influence the behavior of households, firms, and other private recipients of public funds."

rapidly in the post-war years and are both subject to reduction in times of budgetary stress. Thus, tax expenditures seem to serve a unique function. King (1984), Schlick (1986) and Steinmo (1986) recognize the tendencies for democratic governments to transfer benefits from the public sector to private sector through tax expenditures, and to finance traditional public services direct expenditures. King (1984) grouped U.S. tax and direct expenditures into eighteen categories by budget function. He found weak reliance on tax expenditures in military categories, moderate reliance in social welfare and product promotion categories and strong reliance in intergovernmental fiscal assistance. Thus, tax expenditures seem to be more adaptable to certain purposes than others.

Havemann (1977) and Surrey and McDaniel (1980) suggest an individual political benefit theory. Independent of the possible provision of social benefit, tax expenditures may provide an individual power benefit to tax committee members. Operational issues can become tax issues when related to a tax expenditure. Thus, tax committee members may exercise power over operational programs and appropriations by advocating tax expenditures (Havemann, 1977; Surrey and McDaniel, 1980).

Motivation for Tax Expenditure Reporting

Tax expenditure reporting is at the core of distributive policies regarding "who gets what." Havemann (1977) documents the intensely partisan nature of the debate on reporting. Wildavsky (1979a) describes the tax expenditure mechanism as "end run" around normal allocation procedures, and contends its use does not result from economic ignorance. Russell Long, in referring to tax expenditures, states "I have never been confused about it. I've always known that what we were doing was giving government money away."¹³

Schlick's (1986) analysis lays the foundation for an explanation of motivations for tax expenditure reporting that is dependent on budgetary stress from fully utilizing revenue capacity. Schlick (1986) contends that budgetary stress to reduce the growth in direct spending has led to similar stress to reduce indirect expenditures. He views the production of reports as a response to the budgetary stress to reduce indirect expenditures such as tax expenditures. Benker (1985) also views reporting as a means of increasing options in times of fiscal need. She writes that

¹³ Comment by Russell Long, Chairman, Senate Finance Committee Note 129 in "The Tax Expenditure Concept and the Budget Reform Act of 1974," by Stanley S. Surrey and Paul R. McDaniel, Boston College Industrial and Commercial Law Review, 17 (June 1976): 716.

reporting can, "provide lawmakers with budget flexibility during economic downturns."¹⁴

Both Benker (1985) and Schlick (1986) cite high budgetary stress as a possible motivation for tax expenditure reporting. However, they attribute the stress to different sources. Schlick (1986) views the stress as a result of excessive growth in transfer spending; whereas Benker (1985) suggests the stress develops from poor economic conditions.

Tax expenditure reporting is intended to meet a need for cost information. The need for cost information arises because revenue is a scarce resource, especially apparent in times of budgetary stress. Without cost information, tax expenditure could escape public oversight. The motivation for reporting is to provide cost information, contributing to public oversight of resource allocations.

Adoption of Tax Expenditure Reporting

The tax expenditure concept has gained wide acceptance. The United States and most European countries have adopted some form of tax expenditure reporting. Following a slow but steady trend, over a third of the states in the United States have adopted

¹⁴Benker, 1985, 25.

periodic reporting of tax expenditures. Municipalities have joined the trend, by focusing on recording property tax abatements.

Tax Expenditure Reporting by Countries Other Than United States

West Germany was the first country to adopt tax expenditure reporting and published its first report in 1966 (McDaniel, 1980). Benker (1985) lists nine countries that report tax expenditure.¹⁵ In a 1983 study, the Committee on Fiscal Affairs of the Organization for Economic Co-operation and Development (OECD) (1984) described these reports and reviewed multi-national use and implementation of reporting. This OECD study listed three arguments in favor of reporting and tax expenditure oversight.

(1) Tax expenditures are a route for governments to pursue policies and should be subject to the same evaluation and control procedures that are applied to government subsidies provided by direct expenditures.

(2) A review of government policies in any area will be more effective if all the different methods of government intervention ... are taken into account and if similar budgetary techniques are used to evaluate the cost of tax and direct expenditures.

¹⁵The nine countries that issue tax expenditure reports are Austria, Australia, Canada, France, West Germany, Japan, Spain, the United Kingdom, and the United States.

(3) Control of government expenditure will stand less chance of success if tax expenditures can be easily substituted for direct expenditures.¹⁶

The primary obstacle to adoption of reporting identified by OECD countries is the conceptual difficulty of defining a normative tax structure.

Among countries that report tax expenditures, Canada has adopted the most extensive structure for integrating control of tax and direct expenditures in a budget system (Doern, 1983; McCaffery, 1984; Schlick, 1986). In the Canadian system, cabinet committees (departments) are assigned responsibility for managing an envelope (portfolio) of resources which includes both tax expenditures and direct expenditures. Tax expenditure increases are charged to the envelope reducing the resources available for direct expenditure. Reduction in tax expenditures are added to the envelope if the tax expenditure is judged equivalent to a direct expenditure. Otherwise, reductions in tax expenditures are added to general revenues. All changes to envelopes must be approved by the minister of finance and the minister responsible for the affected operating policy.

¹⁶Committee on Fiscal Affairs, "Tax Expenditures, (Paris: Organization for Economic Co-operation and Development, 1984), 10.

Tax Expenditure Reporting by United States

The first tax expenditure report for the United States was prepared in 1967 under the direction of Surrey, and was included in the Annual Report of the Secretary of the Treasury for Fiscal 1968.¹⁷ In 1974 Congress passed the Congressional Budget Act which mandated the Congressional Budget Office (CBO) to publish an annual report of tax expenditures for individual and corporate income taxes. The actual tax expenditure estimates are prepared by the staff of the Joint Committee on Taxation for the CBO. The same 1974 law required the executive Office of Management and Budget (OMB) to include a tax expenditure analysis with the President's Annual Budget. This analysis has been published annually since 1976 as "Special Analysis, Section G," of the President's Annual Budget.

In 1982, OMB introduced two changes which caused its tax expenditure report to differ from the CBO's report. OMB adopted a more restrictive definition of tax expenditures which excluded thirteen items of tax expenditure listed by the CBO,¹⁸ and implemented outlay

¹⁷For additional discussion on the history of reporting in the United States see Benker (1985), Edwards (1988) and Forman (1986).

¹⁸True (1981) sets forth the arguments for the OMB's restricted definition of tax expenditures, whereas McDaniel and Surrey (1982) respond by defending the

equivalence, as a second method of measuring expenditure costs.¹⁹ The most significant item excluded by OMB is accelerated depreciation.

Tax Expenditure Reporting by States in United States

California was the first state to adopt tax expenditure reporting in 1971, and issued its first report in 1976. Since 1980, the number of states publishing periodic reports has increased from four to nineteen. Of the nineteen states that issue periodic reports, four states initiated reporting prior to 1980, nine states initiated reporting between 1980 and 1985, and six states initiated reporting after 1985. Some states report annually and others report biennially. Eleven states have issued at least five reports, and an additional five states have issued three or four reports.

Tax expenditure reporting at the state government level has been the subject of three recent descriptive studies (Benker, 1985; Gold and Nesbary, 1986; State of New York Legislative Commission on Public-Private Cooperation (LCPPC) (1987). Authors of these studies

CBO's broader definition.

¹⁹ Outlay equivalent cost is the cost of the direct expenditure that would be required to provide the same benefit to beneficiaries directly (McDaniel and Surrey, 1982).

were associated with organizations concerned with promotion of reporting standards. Benker (1985) prepared the first and most extensive study for the National Association of State Budget Officers. This study included analysis of a survey made in 1984 of executive and legislative budget offices by the Advisory Commission on Intergovernmental Affairs. Gold and Nesbary (1986) of the National Conference of State Legislatures (NCSL) analyzed data obtained from a separate 1984 survey of state legislative fiscal officers. The New York LCPPC report (1987) was made for the New York State Assembly, and subsequently summarized by Edwards (1988) for the Government Finance Officers Associations.

Both the NCSL and New York LCPPC addressed the issue of what processes and report content should characterize tax expenditure reports. Each of these groups recommended model reporting programs. These model programs provide a basis for evaluating report quality. The recommended models share some common attributes, but the unique attributes of each are not in conflict. Features of each model are described in Chapter V.

At the state government level, tax expenditures reporting differs in three ways from reporting at the

federal government level. First, the general concept is broader than that adopted at the federal government level. Second, state tax expenditure analyses exclude more items of expenditure from estimation than federal tax expenditure analyses. And third, state tax expenditures are estimated using one rather than two methods of estimation. (Gold and Nesbary, 1986).

Gold and Nesbary (1986) explain that the tax expenditure concept tends to be more complicated or broader at the state level because state analysts extend the concept to more types of taxes. The extension of the concept to sales and other taxes is necessary because state governments rely less on income taxes than the federal government. However, the extension to other taxes is complicated because there is less general agreement on normative tax structure of other taxes. For example, Gold and Nesbary (1986) indicate that if a sales tax is viewed as a consumption tax, the exemption of services represents a tax expenditure; but if the sales tax is viewed as a tax on personal property, the exemption of services does not represent a tax expenditure.

State tax expenditure analyses may exclude more items from estimation than federal tax expenditure analyses. Some states exclude the effect of any

provision required by the state's constitution or any provision adopted for conformity with federal tax structure (Gold and Nesbary, 1986). These tax expenditures may be viewed either as part of a modified normative structure or practically beyond change. Additionally, some states impose threshold values on expenditure estimates before reporting or restrict reporting to expenditures adopted after a base year (Benker, 1985). The imposition of threshold values restricts the use of scarce analytical resources to material tax expenditures, and reporting on expenditures adopted after a base year shifts the focus to the recently adopted, less entrenched tax expenditures.

State tax expenditures are estimated using the revenue foregone method of measurement (Gold and Nesbary, 1986). In contrast, the federal government uses both the revenue foregone and outlay equivalence measurement methods.

There has been a steady interest in tax expenditure reporting at the state level for the past fifteen years. Organizations concerned with fiscal policy control have sponsored studies to describe state-level reporting and proposed model reports. These studies establish that (1) reporting by states differs from reporting by the

federal government, and (2) reporting by states is a highly diverse, rather than uniform, activity.

Tax Expenditure Reporting by Municipalities

At the municipal level, interest has centered on the recording and uniform reporting of property tax abatements. A 1986 survey of local governments found twenty-five percent of cities and forty-two percent of counties report information on tax abatements and cancellations²⁰, a subset of tax expenditures (Ingram and Robbins, 1987). The Government Finance Officer's Association (GFOA) has supported research calling for issuance of governmental accounting standards on the recording and reporting of tax abatements. The GFOA published a research report by Regan (1988) arguing for the issuance of tax expenditure reports for economic development incentives including tax abatements. Uniformity of reporting is an issue because numerous political subdivisions within a state may abate taxes. Local decisions to abate taxes, especially property taxes, may effect obligations of the state to finance services or evaluations at the state level concerning financing of local economic development. Additionally,

²⁰Martin (1989) defines a tax abatement as a temporary reduction in tax for a limited time period during which economic development is expected to occur.

the GFOA authorized the preparation of a research report by Martin (1989) recommending an accounting model for incorporating property tax abatements into traditional accounting records.

Literature on the extent of tax expenditure reporting supports the conclusion that the tax expenditure concept has broad applicability and has gained widespread acceptance. The tax expenditure concept has been adapted to a variety of taxes, and reporting has been adopted by multiple levels of government.

Implementation of Tax Expenditure Reporting

As the number of governmental entities adopting tax expenditure reporting increases, issues related to implementation begin to emerge. Among implementation issues are measurement methods, accounting procedures, and analysis of reported data.

Measurement Methods

Three distinct theoretical methods exist for measuring tax expenditures. These methods are known as the (1) revenue foregone, (2) revenue gain and (3) outlay equivalence methods. (Committee on Fiscal Affairs, 1984). Most reporting governments use the revenue foregone method, while the United States uses

both the outlay equivalence and revenue forgone methods. The object of measurement differs with each measurement method.²¹

The revenue foregone method is designed to measure the amount by which tax revenues are reduced because of the existence of a particular provision. It is an after-the-fact measure of the cost of a given provision. The foregone amount is the difference in revenue based on a comparison of existing legislation and the same legislation without the provision. Taxpayer behavior is accepted as observed for the period under consideration.

The revenue gain method is designed to measure the amount by which tax revenues would increase if a given provision were repealed. In theory, use of this method requires consideration of secondary effects such as changes in taxpayer behavior, changes in the level of economic activity, and interactions among taxes. This method is seldom applied because of the difficulty of taking secondary effects into consideration.

The outlay equivalence method is designed to measure in pre-tax dollars the direct expenditure that would be required to achieve the same after-tax dollar

²¹For additional discussions of these measurement methods see Committee on Fiscal Affairs (1984), Gold and Nesbary (1986), McDaniel and Surrey (1984), McDaniel and Surrey (1982), Richardson (1989), and Schlick (1986).

benefit if a tax expenditure were replaced by a corresponding direct expenditure program. The outlay equivalence method differs in perspective and objective from the revenue foregone and revenue gain methods (Schlick, 1986). The revenue foregone and revenue gain methods assume a government entity perspective with a cost management objective, while the outlay equivalence method assumes a citizen beneficiary (taxpayer) perspective with a benefit objective.

Additional variations in tax expenditure reporting are created based on the accounting basis and time frame in applying a measurement method. When selecting an accounting basis, estimates may be based on actual cash flow or on accrued tax liabilities. When selecting a time frame, estimates of revenue impact may be limited to one fiscal year or extended to multiple years, considering time lag effects. Recent debate over reducing the rate of tax on capital gains suggests that the initial impact from rate reduction may provide a benefit from increased revenues while the cost of reduced revenues will be incurred in later years. although applying present value adjustments for the time value of money when estimating costs over multiple years is theoretically sound, no references have been found to

reporting governments adjusting multiple year estimates for present value.

Accounting Procedures

The issue of recording and reporting tax expenditures is evolving at the state and local government level. A high level of concern exists because by granting tax abatements one governmental entity acting independently may increase the fiscal obligation of another governmental entity. This often occurs when local governments grant tax abatements. The tax abatements result in a reduction of local revenues which, based on funding provisions, triggers an increase in the state's obligations for services which local revenues would have provided. Regan (1988), argues that the Governmental Accounting Standards Board (GASB) should issue recording and reporting standards for tax expenditures. Hughes and Motekat (1988) report four of seven presenters at a 1988 hearing on future governmental accounting issues encouraged the addition of tax expenditure recording and reporting standards to the GASB's agenda. The Governments Finance Officers Association (GFOA) (Malan et al., 1988; Regan, 1988) has initiated an extensive study at the request of GASB on recording and reporting tax abatements.

The initial concern of the GFOA is recording and reporting of tax abatements for economic development purposes. Regan (1988) advocates legislation requiring localities in New York State to record the value of abatements and provide a report to each affected jurisdiction (city, state or county).

Hughes and Motekat (1988) outline how recording of tax expenditures could be incorporated into an accounting system. They suggest recording the gross revenue before allowance for tax expenditures and then recording the expenditure as a deduction from revenue. In a research report to GFOA, Martin (1989) recommends a similar accounting model for recording property tax abatements. The proposed treatment is analogous to the recording of tuition waivers by universities²² and charity and insurance allowances by hospitals.²³ The advancement of proposals to incorporate reporting of tax abatements into the traditional accounting system reflects acceptance of the tax expenditure concept and confidence in the measurement of tax expenditures.

Analysis of Reported Data

Much of the literature on tax expenditure reporting

²² Audits of Colleges and Universities (1975).

²³ Hospital Audit Guide (1985).

centers on conceptual arguments about what is a tax expenditure or on arguments for adopting reporting. The informational content of reports and influence of reporting on policy making has received much less attention. This type of analysis is limited to several case reports on the impact of reporting specific federal tax reform initiatives (R. McIntyre, 1981; Richardson, 1988; Surrey and McDaniel, 1980; Thuronyi, 1988). Except for the Surrey and McDaniel (1980) case report, each of the cited cases question whether report information has a significance impact on policy making.

Empirical analyses of report information in the aggregate are rare except for the evaluation of individual tax expenditures. King (1984) identifies policies supported by federal tax expenditures. Weinberg (1987) estimates the distributional impact of federal tax expenditures. Hildred and Pinto (1986) estimate the impact of federal tax expenditures on state revenues. The non-additiveness of tax expenditure estimates resulting from the disregard of secondary effects is a major obstacle to aggregate studies. Other obstacles are the lack of comparability among state reports, lack of comparability over time because of changing estimation models and classifications, and the absence of data disclosure except by tax.

Utility of Tax Expenditure Reporting

The purported utility of tax expenditure reporting is achievement of greater control in managing fiscal resources. The magnitude of tax expenditures and rapid increase in growth relative to direct expenditures justifies a strong interest in control. The absolute value of tax expenditures is substantial at the federal and state levels and often approximates the absolute value of direct expenditures (Manvel, 1979; Vasche, 1987).

Manvel (1979) shows, that for the 1970s, tax expenditures at the federal level exceeded direct expenditures. Additionally, the rate of growth in tax expenditures exceeded the rate of growth in direct expenditures. At the state level, Vasche writes about California, "the tax expenditure budget appears to be growing at a much faster pace than the direct expenditure budget."²⁴ ²⁵

Tax expenditure reporting advocates do not specify in detail how control will be achieved. Legislators do not appear to initiate control as a resource oversight

²⁴Jon David Vasche, "Tax Expenditure Reporting-- A Comment," National Tax Journal 40 (June 1987): 256.

²⁵For additional discussion on magnitude of passive tax expenditures, expenditure passed to state by automatic incorporation of federal tax policy into state tax law, see Hildred and Pinto (1986).

responsibility merely because tax expenditure information is available to them. Few states have developed any form of institutionalized tax expenditure oversight process.

Legislators tend to respond to constituent pressure. The major reality forcing legislators to consider tax expenditure control may be strong public resistance to increase in tax rates. Resistance to tax rate increases may discourage adoption of new tax expenditures and consideration of base broadening.

The tax expenditure literature presents reporting as a tool to aid in control of fiscal resources.²⁶ The absolute magnitude of tax expenditures and growth in tax expenditures justify a concern for oversight control. Precisely how control will be achieved is not adequately addressed in the tax expenditure literature. However, certain control objectives are discussed.

Control Utility Objectives

The general overall objective of tax expenditure reporting is to contribute to an increased awareness of tax expenditure cost stimulating control over tax expenditures. At least four control objectives are related to systematically recording tax expenditures.

²⁶For a discussion of advantages and disadvantages of tax expenditure reporting see Benker (1985).

From the inception of reporting, cost comparison and revenue comparison were mentioned as objectives (Surrey and Hellmuth, 1969; Surrey, 1972). The earliest and most frequently mentioned objectives, cost comparison and revenue comparison may be regarded as primary objectives. The first of these objectives, comparison of direct expenditure costs with indirect tax expenditure costs, is advocated as a means of encouraging adoption of the most cost beneficial means for administering social programs (Benker, 1985; Surrey and Hellmuth, 1969; Wolfman 1965; McDaniel, 1979a). A second objective is to protect revenue bases from erosion (Benker, 1985; Gold and Nesbary, 1986; Regan, 1988; Surrey, 1972) by considering revenues foregone from tax expenditures. Erosion of revenue bases, from increases in tax expenditures, may have the same effect on public deficits as increases in direct expenditures (Richardson, 1989).

A third objective is to achieve an equitable distribution of tax structure impact by considering the combined distributional impact of tax benefits and liabilities in evaluating tax burdens (McDaniel, 1975; Surrey, 1972; Weinberg, 1987). A fourth objective is to contribute to designing tax incentives that operate in the most cost beneficial manner (Regan, 1988). Given

the recent and limited discussion by reporting advocates of distributional impact and efficient design of tax incentives these objectives appear peripheral.

Management control by legislature

Methods for controlling tax expenditures are not as well defined as the control problem or the desirability of control. Surrey and McDaniel recognized the relevance of tax expenditure reporting to control. They wrote,

... it is being increasingly recognized that unless attention is paid to tax expenditures, a country does not have either its tax policy or its budget policy under full control.²⁷

Earlier McDaniel described tax expenditure reports as providing an, "... analytic tool to be used by practical legislators and government policy officials responsible for real budget and tax policy decisions."²⁸

Discussing the use of the federal tax expenditure budget or report, McDaniel (1979b) recommends regular review of tax expenditure programs, co-ordination of tax expenditure programs with direct expenditure programs, and automatic termination or sunseting of tax expenditures. Surrey and McDaniel (Surrey and McDaniel, 1980; McDaniel and Surrey, 1982) advocate breaking the

²⁷ Surrey and McDaniel, 1980, 24.

²⁸ McDaniel, 1979c, 589.

tax expenditure report into functions in a manner similar to the direct expenditure budget. The National Conference of State Legislatures (Gold and Nesbary, 1986) suggests submission of a tax expenditure report with the direct expenditure budget, assignment of review responsibilities to a specific committee, automatic termination of new tax expenditures, and review and disposal of the tax expenditure report in a manner analogous to the direct expenditure budget. Pomp (1988) emphasizes the need for the state to institutionalize a periodic comprehensive reviews of selected tax expenditures including the examination and disclosure of beneficiaries. Each of these recommendations assumes the availability of tax expenditure report information.

The institutionalization of tax expenditure oversight has been neglected at the federal level and haphazard at the state level (Pomp, 1989; Richardson, 1989). Sunsetting, automatic termination of expenditures by states, though not customary, is common. Some states have put limits on a few types of tax expenditures. A few states have assigned review responsibilities to specific legislative committees. But for the most part, co-ordination of tax expenditure programs with direct expenditure programs, limiting the overall amount of tax expenditures, co-ordination

between tax committee and other substantive committees, increased involvement of spending committees, and treatment of the tax expenditure reports in a manner analogous to the direct expenditure budget has not occurred. The weakness in oversight would seem to reflect an absence of commitment rather than a lack of technical means.

Improvement of public debate

Davenport (1980) argues that one of the primary benefits of the tax expenditure concept and reporting is the improvement in the quality of debate, generating pressure on legislators to justify their actions. Casual observation reveals that a perspective on policy discussions that was once limited to academic journals is appearing in more common forums. Organizations such as Common Cause have developed criteria for evaluating tax expenditures (Benker, 1985). Discussion of the desirability of a specific direct expenditure program to rescue the savings and loan industry versus an alternative tax expenditure program appeared in Newsweek (Reibstein and Friday, 1989). Arguments for eliminating mortgage interest deductions on second homes to obtain financing to meet public housing needs appeared in a regional newspaper, Roanoke Times & World News (London, 1990).

Other functions

Benker (1985) identifies three additional functions served by tax expenditure reports as follows:

- (1) enhancement of tax structure understanding through cataloging or orderly listing, often by beneficiary category, of state tax code provisions that have accumulated in layers over time,
- (2) provision of helpful information when a fiscal crisis presents a need to raise revenue with limited time available to undertake a comprehensive study, and
- (3) identification, through description of original legislative intent incorporated into tax expenditure reports, of whether circumstances relevant to original legislative intent merit continuation of tax expenditures.

The literature on tax expenditure reporting supports the conclusion that reporting serves many functions relating to the evaluation of public policies in general and tax policies in specific. Further utility is limited to a single objective. Rather reporting is intended as a general information source contributing to the achievement of multiple objectives.

Impact on Policy Making

The impact of tax expenditure information on policy makers is a subject which has not been addressed. In part, the subject may have been deferred until time has given policy makers the opportunity to accumulate experience in using such information. However, advocates of reporting, while supporting greater

institutionalization of tax expenditure oversight, seem to assume that tax expenditure report information will be used as a management tool in preparing economic cost/benefit comparisons to guide fiscal decisions. This is an assumption that has not been verified, and disregards the influence of political rationality on decisions.

McDaniel states, "... it would be interesting to undertake a comprehensive study of the extent and ways in which the (tax expenditure) concept has affected consideration of tax reform issues."²⁹ He concludes, "... it remains for the political scientists to establish the impact of the analytic technique in the tax legislation process."³⁰ Wolfman (1985) calls for the development of cases showing the utility of reports, but research on this subject is lacking.

Assessments of the utility of tax expenditure reporting tends to be based on personal accounts. Praising reporting, M. McIntyre makes the following observation.

It has induced Congress to alter its procedures for scrutinizing tax subsidies, now

²⁹Paul R. McDaniel, "The Impact of the Tax Expenditure Concept on Tax Reform," The Quest for Tax Reform, ed. W. Neil Brooks (Toronto: Carswell, 1988), 393.

³⁰McDaniel, 1988, 395.

called tax expenditures, and it has focused public attention on the indefensible consequences that often result when Congress uses special deductions, exemptions and other tax mechanisms to achieve its spending goals.³¹

Salamone (1989) describes the Minnesota Tax Expenditure Report as, "a key tax reference document used in tax committee discussions."³²

California's Governor Deukemejian is a critic of reporting. In 1984, he recommended its termination stating, "the report seems to have little impact, since a number of tax expenditures have been adopted over the last decade."³³ ³⁴ Thuronyi observes, "... institutional problems aside, evidence also indicates that Congress has not taken the tax expenditure concept fully to heart."³⁵

³¹Michael J. McIntyre, "A Solution to The Problem of Defining a Tax Expenditure," University of California, Davis Law Review 14 (1980): 79.

³²Dan Salamone, "Minnesota's Experience with Tax Expenditure Reporting." in 1988 Proceedings, ed. Frederick D. Stocker (Columbus, OH: National Tax Association--Tax Institute of America, 1989), 32.

³³Karen Benker, Tax Expenditure Reporting: Closing The Loophole in State Budget Oversight, (Washington, DC: National Association of State Budget Officers, 1985), 44.

³⁴California continues to report tax expenditures.

³⁵Victor Thuronyi, "Tax Expenditures: A Reassessment," Duke Law Journal 1988 (December 1988): 1171.

A few published references to tax expenditure report utility are inconsistent with the rational objectives advanced by reporting proponents. R. McIntyre (1981) observes that the availability of tax expenditure analyses has supported the evaluation and adoption of new tax benefits on spending grounds while fairness and administrability have been ignored. Pomp (1988) reports that tax expenditures data have been used by legislators to show the value of tax benefits enacted on behalf of their constituency and by special interest groups to show need for additional tax benefits.

Tax expenditure report information has been produced by the federal government for over two decades and by some state governments for a decade. A systematic multi-state study of reporting is undertaken in this dissertation because limited data are available on whether policy makers use report information and, if so, how report information is used. If findings suggest that reporting is not judged useful by policy makers, the continuation of reporting warrants review. Additionally, if reporting is not regarded as useful, the development of alternative control mechanisms merits consideration. If findings suggest reporting is useful, policy makers in non-reporting states may wish to consider adoption of reporting mechanisms.

CHAPTER III
INFORMATION UTILIZATION

Information utilization research focuses on how technical information is used and the factors which influence use and non-use. Technical information results from data gathering and summarizing by persons with technical knowledge using professionally accepted and systematic procedures. The term, technical information, used here is similar to Caplan et al.'s (1975) use of "social science information" and Lindblom and Cohen's (1979) use of "professional social inquiry." Caplan et al. define social science information as "... information derived empirically from the ... behavioral science (including economics)."³⁶ Lindblom and Cohen define professional social inquiry as the "... sustained, elaborate and skilled practice of these

³⁶Nathan Caplan, Andrea Morrison, and Russell J. Stambaugh, The Use of Social Science Knowledge in Policy Decisions at the National Level (Ann Arbor, MI: Institute for Social Science Research of the University of Michigan, 1975). xi-xii.

(inquiry) activities by professional persons bearing such designations as social scientist, statistician, systems analysts, or researcher."³⁷

The purpose of this chapter is to discuss concepts and theories from the information utilization literature to provide a framework for addressing questions pertaining to the use of tax expenditure report information. Technical information utilization research attempts to understand use in order to improve information utilization. Frequently, as with tax expenditure reports, technical information is prepared by one group of persons to be used by a different group of persons. Users may totally ignore the information prepared for them or may use the information in a manner not envisioned by preparers.

The study of technical information use was proposed by Robert Merton (1949). However, investigation of information utilization by policy makers began in the early 1960s (Rogers, 1988). Rogers (1988) traces the increasing reliance of public policy makers on technical information from the social and physical science perspectives. Studies tend to focus on technical information relating to either program administration or

³⁷ Charles E. Lindblom and David K. Cohen, Usable Knowledge (New Haven, CT: Yale University Press, 1979): 12-13.

scientific endeavors. In a broad sense, much fiscal information relates to administration or management of organizational activities. More specifically, tax expenditure reporting is intended to relate to tax structure management. As discussed previously, McDaniel (1988) and Wolfman (1985) are concerned about the use of tax expenditure reports.

Some authors distinguish between information and knowledge and between the processes of creating and communicating information. Malchup (1980, 1962), who produced the seminal works on knowledge production and distribution, considered the term "information" and "knowledge" to be synonymous. Additionally, Malchup (1980, 1962) integrated information creation and information communication into the concept of information. Malchup's convention of considering information and knowledge to be synonymous will be adopted in this study. Unless specifically distinguished, "information" will include both creation and communication processes.

Aspects of Use

In examining technical information use, it is helpful to consider different aspects of use. Three aspects of use are relevant to this research. These are (1) purpose of use, (2) policy stage of use, and (3)

control focus of use. These aspects of use address key questions related to use. Purpose indicates how information is being used, stage indicates when information is being used, and focus indicates why information is being used.

Information use is a multifarious concept. Interpretation ranges from mere awareness to direct application. Identifying diverse aspects of use is important in attempting to understand the complex phenomena of information use. If information use is conceptualized narrowly, one may conclude hastily that the information of interest is not being used. But if use is conceptualized broadly, one may observe evidence of use which may otherwise be ignored.

Adopting a broad use concept, Weiss describes the illusive nature of use:

Evidence suggests that government officials use research less to arrive at solutions than to orient themselves to problems. They use research to help them think about issues and define the problematic of a situation, to gain new ideas and new perspectives. They use research to help formulate problems and to set the agenda for future policy actions. And much of this use is not deliberate, direct, and targeted, but a result of long-term percolation of social science concepts, theories, and findings of informed opinion.³⁸

³⁸Carol H. Weiss, "Research for Policy's Sake: The Enlightenment Function of Social Research," Policy Analysis 3 (Fall 1977): 534.

When a broad concept of use is adopted, identifying or observing use is difficult. But adopting a narrow concept of use, such as directly observable immediate influence, excludes much actual use.

Two aspects, (1) purpose of use and (2) stage of use, have been widely discussed in general terms in information utilization literature. The third aspect, focus of use, is introduced here because of its specific relevance to tax expenditure reporting. Tax expenditure reporting advocates contend that tax expenditure information should be used to achieve control objectives, such as costs comparison of direct expenditures and tax expenditures (Surrey and Hellmuth, 1969). Observers of reporting question whether report information is applied to achieve the purported control objectives (Thuronyi 1988; and R. McIntyre, 1981). Each aspect of use will be discussed in more detail in this chapter.

Purposes of Use

In 1978, Holzner called for the development of a "sociology of knowledge application."³⁹ The terms, information utilization, knowledge utilization and evaluation research, have been used to describe the type

³⁹Burkart Holzner, "The Sociology of Applied Knowledge," Sociological Symposium 21: 8.

of studies called for by Holzner (1978). The first aspect of use to be considered was purpose, "how is information used?" No single concept was found to adequately capture the multiple dimensions of purpose of use.

A number of researchers in addressing the question, how is information used, sought to define typologies of purpose of use. This effort began with Caplan et al. (1975) with contributions from Rich and Caplan (1976), Rich (1977), Knorr (1977), Peltz (1978) and Weiss (1979) developed similar typologies relating to how information is used. The purpose of use typology articulated by Peltz (1978) incorporates aspects of related typologies, and is adopted to guide the examination of purpose of use in this study. The Peltz (1978) typology will be discussed later in this chapter in its chronological order.

Caplan et al. (1975) interviewed 204 officials in the executive branch of the U.S. government to determine how they use social science information. They classify information as hard and soft. Hard information is characterized by empirical evidence, statistical data, scientific experiments, or mathematical analysis. In contrast, soft information is characterized by general principles which may be expressed in nontechnical

language. No attribute clearly distinguishes hard from soft information. Hard information that is given a popular translation for nontechnical audiences becomes soft information.

Caplan et al. (1975) found that information did not have to dictate policy to be of importance. Simply retrieving and relating information to specific policy alternatives constitutes a use. Their findings suggest this type of use is substantive but easy to overlook. They found the use of soft information had the most pervasive effect on policy making by integrating information into an entire perspective to form a frame of reference. However, the use of soft information was difficult to detect. In contrast, the use of hard information was easier to detect, but had a less pervasive effect on policy making.

Rich and Caplan (1976) observe that it is difficult for policy makers to identify decision outputs with information inputs. They express two criticisms of the input/output model.

First, because knowledge accumulates and builds within organizational memories, some decisions (outputs) are made which seem to be independent of any identifiable, discrete inputs. ... Secondly, because knowledge produces (multiple) effects it is often impossible to trace outputs back to their specific inputs, even when it is possible to

identify the universe of informational inputs.⁴⁰

Rich and Caplan conclude that "conceptual uses ... of social science knowledge should not be viewed as failures of policy makers to translate research findings into actions."⁴¹ Rather, they contend that problem structuring and organizational learning are important products of conceptual use.

In a separate study, Rich (1977) conducted repeated interviews with executives in federal agencies on the use of Continuous National Survey data. In his analysis, Rich (1977) distinguishes instrumental and conceptual use as two basic forms of information use. He defines instrumental use as cases where a user could document how information was used, and conceptual use as influencing a user's thinking about an issue. Additionally, Rich (1977) recognizes the purely

⁴⁰R. F. Rich and N. Caplan, "Instrumental and conceptual uses of social science knowledge and perspectives: Means/ends matching versus understanding," (Bogota, Columbia: OECD Conference on Dissemination of Economic and Social Development Research Results, June 1976). Quoted in Donald C. Peltz, "Some Expanded Perspectives on Use of Social science in Public Policy," in Major Social Issues, eds. J. Milton Yinger and Stephen J. Cutler (London: The Free Press, 1978), 350.

⁴¹Rich and Caplan quoted in Peltz, 1978, 350.

political use of information, but places this outside the policy making process.

Knorr (1977), in a study of seventy Austrian federal government decision makers, identifies a third basic concept of information use, symbolic use. She distinguished two aspects of symbolic use. Substitute use which occurs when information is sought or a study is undertaken to justify delaying or avoiding a decision and legitimating use which occurs when information is used to support a decision made on grounds totally independent of the information presented.

Peltz (1978) argues that the distinction among instrumental, conceptual, and symbolic (legitimating) use is not sharp. He traces the emergence of these concepts from empirical studies and argues the multiple use concepts contribute to a broader perspective on how social science information may be used by policy makers.

Weiss (1979) develops a typology of social science research use into seven categories or models incorporating the categories specified by Peltz (1978). These seven categories incorporate the concepts of instrumental (problem solving), conceptual (enlightenment) and symbolic (political) uses as well as four additional concepts. The four other categories

added by Weiss (1979) are knowledge driven, interactive, tactical and intellectual enterprise.⁴²

Rich and Goldsmith (1983) argue that utilization is multifaceted and has often been confused with direct, concrete application. Knorr best captures the nature of the argument as follows:

The main area of utilization consists of an indirect (bound to undergo further decision processes), diffuse (taken into account to various degrees and at different positions), difficult to localize utilization responsibility (distributed over various decision levels), and possibly delayed discursive processing of the result in the stage of program development and decision preparation.⁴³

Rich defines use as "information entering into the

⁴²Knowledge-driven use is use which results from the sheer fact that knowledge exists. This is the motivation for much basic research; new knowledge will find application. Interactive use refers to the use of research information by a diverse group of persons pooling their talents in a complicated process incorporating experience, political insight, pressure, social technologies, and judgment. Tactical use which is similar to Knorr's (1977) substitute use concept, is use unrelated to the substance of the information. Examples are production of information to give the appearance that something is being done or delay an action. Intellectual enterprise use is use resulting from the emergence of some issues as fashionable aspects of intellectual pursuit.

⁴³Karin D. Knorr, "Policymaker's Use of Social Science Knowledge: Symbolic or Instrumental?" in Using Social Research in Public Policy Making, ed. Carol H. Weiss (Lexington, MA: Lexington Books, 1977), 180.

policy making process."** Utilization research suggests that use, rather than being an independent concrete event, is a micro process embedded within the macro process of policy making. While instrumental use is a popular concept of use, research shows it is not the only concept of use. In this study inquiries are made to identify instrumental use, conceptual use and the legitimating as opposed to substitute from of symbolic use. Additionally, indicators are developed to reflect a broad conceptual type of use.

Policy Process Stage of Use

A second aspect of use relates to when use occurs in the policy analysis process. Four stages of the policy process have been identified, and related to the use of information. These stages are (1) issue development, (2) option analysis, (3) action selection, and (4) result monitoring. Jones (1977) and Dunn (1981) each develop a framework for conceptualizing policy processes in stages. Although not identical, the policy

**Robert F. Rich, "Using Social Science Information by Federal Bureaucrats: Knowledge for Action versus Knowledge for Understanding," in Using Social Research in Public Policy Making, ed. Carol H. Weiss (Lexington, MA: Lexington Books, 1977): 200.

process stages discussed by Jones (1977) and Dunn (1981) share these same four common stages.⁴⁵

The four stages of policy process parallel the four policy stages identified by Mitchell (1981) in his study of the impact of social science information on legislatures in three states and by Florio et al. (1979) in their study of educational policy in the U.S. Congress. Although Mitchell (1981) and Florio et al. (1979) assign different names to the four stages, the concepts are the same.⁴⁶ Mitchell (1980) relates the use of social science information to policy process stages. He concludes that social science information appears to have the strongest influence when introduced in the initial problem articulation or issue development

⁴⁵Jones' (1977) basic policy process framework contains five stages: formulating proposals (issue development), legitimating programs (option analysis), securing appropriations (action selection), implementing programs (action selection related), and evaluating programs (result monitoring). Dunn's (1981) framework contains five types of policy relevant information: problems (issue development), alternatives (option analysis), actions (action selection), outcomes (result monitoring related), and performance or effectiveness information (result monitoring).

⁴⁶Mitchell (1980) named the stages articulation (issue development), aggregation (option analysis), allocation (action selection), and oversight (result monitoring). Florio et al. (1979) named the stages development (issue development), deliberation (option analysis), decision (action selection), and oversight (result monitoring).

stage of policy making. Florio et al. (1979) sought to identify the kinds of information which were most important at different stages in the policy process. They found data on a policy's potential effect or impact was important in the issue development stage and cost/benefit data was important in the result monitoring stage.

Understanding when use occurs may affect both the conceptualization of use and the design of information. Employing a concept of multiple use stages may influence the ability of information researchers to observe use as well as the capacity of information producers to enhance report usefulness. From the prospective of the information researcher, if information is used as one of many inputs in the issue development stage, its use may be more subtle and difficult to observe than if information is used as the decisive factor in selecting one action from many alternatives. From the perspective of the information producer, if information is used in the issue development stage, rough estimations may meet the users' needs. But, if information is used in the action selection stage, more precise information may be desired. Use in both stages of policy analysis is important, but understanding the policy stage of use may alter expectations of the information researcher and

objectives of the information producer. Although agreement on a policy stage framework is not universal, extant research supports division of the policy process into the previously identified four stages: (1) issue development, (2) option analysis, (3) action selection, and (4) result monitoring. In this study, inquiries are made to assess whether or not use occurs in each of these policy process stages.

Control Focus of Use

A third aspect of the use, control focus, pertains to fiscal analysis, in general and to tax expenditure reports, in specific. Tax expenditure reports are intended to be a processual control⁴⁷ contributing to the analysis of fiscal options. The overall objective of reporting is to contribute to an increased awareness of tax expenditure costs resulting in the stimulation of control over tax expenditures. As discussed in Chapter II, the reporting process has been advocated as a means of facilitating four control objectives: (1) facilitating costs comparison of between tax and direct expenditures, (2) facilitating revenue comparisons of costs resulting from tax expenditures, (3) evaluating the combined distributional impacts of tax liabilities

⁴⁷Dremer (1988) defines processual controls as procedures that are designed to improve decisions.

and tax expenditures, and (4) contributing to the design of cost efficient tax incentives. In this study, inquiries are made to investigate the acceptance of two control focus objectives, cost comparisons and revenue comparisons. The rarely mentioned distributional impact and incentive design objectives, that are secondary in importance, are not investigated in this study.

Cost comparison describes the objective of comparing costs of tax expenditures with direct expenditures. Cost comparison is a total resource type of evaluation in which direct and tax expenditures are treated as alternative means of finance. Revenue comparison describes the objective of comparing the expenditures. This is a narrower type of evaluation than cost comparison in which tax expenditures are evaluated independent of direct expenditures. Motivation for revenue comparisons may include general oversight of expenditure effectiveness, capturing new revenues by repealing expenditures, and protecting existing revenues by rejecting new tax expenditures.

Three aspects of use: (1) purpose, (2) policy process stage and (3) control focus have been discussed. Each of these aspects of use has been subdivided into multiple categories or dimensions. Conceptualizing three kinds of purpose, four policy process stages, and

two control focuses produces a broad structure for characterizing use. It is the structure which will be used in this study to analyze use of tax expenditure reports.

Theories of Use

Havelock (1969, 1973) produced the seminal work on information utilization and dissemination. He surveyed a sample of school districts on characteristics including the utilization of innovations and resource use. His work culminated in a communications flow model involving information producers, information or messages, channels, and information users.

Decisions models, basic to the study of organizational behavior, relate to the general use of information. Examples of such models include: (1) rational actor model (Allison, 1971) (2) satisficing model (March and Simon, 1958) and (3) contextual model (Allison, 1971).⁴⁸ The rational actor, satisficing, and

⁴⁸Rich and Goldsmith (1983) describe the rational actor as one who gathers all relevant information, has the capability to process all available information, applies all available information to a problem, and takes the best action dictated by available information to maximize a result. The focus of the rational actor model is on value maximizing. The satisficing theory articulated by March and Simon (1958) adapts to the limitations of the rational actor theory. The satisficer seeks enough information to make an acceptable decision. Contextual models such as Allison's (1971) organizational process and bureaucratic

contextual models represent general theories on organizational behavior. None of these models attempts to explain why certain, specific information is used and other information is not used.

Caplan et al. (1975) expanded on the work of Havelock (1969, 1973) to construct specific theories on information use. They conducted an extensive literature review to classify the most commonly held positions regarding the use and non-use of scientific knowledge. Their review revealed three theoretical orientations to explain the development of barriers which encourage non-use.

Caplan (1977) describes the three theories of non-use: (1) knowledge specific, (2) two community orientations and (3) policy-maker constraint. In each of these theories, attention is directed to a different party as the builder of barriers that result in non-use. The knowledge specific theory focuses on the information producer; the two-community theory focuses on the absence of commonality between information producers and users; and the policy-maker constraint theory focuses on

process models, reflect the influence of social, political and economic environments on organizational behavior. Rational and satisficing models focus on the flow of objective information through formal structures while contextual models focus on the cultural context of behavior.

the institution which supports communication channels. Most utilization research occurring after Caplan et al. (1975), can be related to one of these three basic theories. Accordingly, the development of each theory will be discussed separately.

Information Specific Theory

Source: Knowledge Specific Theory

The roots of information specific theory is in Caplan's (1977) knowledge specific theory. Caplan (1977) attributes non-use to "the way information is gathered or the behavior of the social scientist."⁴⁹ Berg et al. (1978), elaborating on this theory, attribute non-use to the information producer as a result of factors arising from "disciplinary narrowness, ideological bias, overly quantitative orientation, lack of policy orientation, and inadequate or inappropriate theory."⁵⁰ Thus, this theory arises from the

⁴⁹Nathan Caplan, "A Minimal Set of Conditions Necessary for the Utilization of Social Science Knowledge in Policy Formulation at the National Level," in Using Social Research in Public Policy Making, ed. Carol H. Weiss (Lexington, MA: Lexington Books, 1977), 194.

⁵⁰Mark R. Berg, Jeffery L. Brudney, Theodore D. Fuller, Donald N. Michael, and Beverly K. Roth, Factors Affecting Utilization of Technology Assessment Studies in Policy-Making (Ann Arbor, MI: Institute for Social Research of the University of Michigan, 1978), 3.

perspective of the information user regarding the orientation of the information producer.

Information specific theories are the focus of much research on information utilization. Information producers can exercise more control over information specific variables than variables reflecting the personality or organizational role of an information user. Information specific theory has been expanded to include the means of presenting information as well as the means of gathering information and the user's perception of the information presented. Researchers focus on information attributes or the users perceptions of information attributes to explain use and non-use. Weiss and Bucuvalas (1980a, 1980b), by factor analyzing experimental data, reduced twenty-five indicators to four factors, each representing a distinct concept. They used factor coefficient scores to weight a single indicator variable to represent each concept. These four factor derived variables^{5 1} and the variable, relevance, were associated with the utilization of research. Each of the variables identified by Weiss and

^{5 1}The four factors identified by Weiss and Bucuvalas (1979) were research quality, conformity with user's expectations, action orientation, and challenge to status quo.

Bucuvalas (1980a, 1980b) related to the user's perception of information specific attributes.

Levison and Hughes (1981) judgmentally, rather than statistically, classified five sets of variables associated with the use of information. Each of these five variable sets relates to an attribute of the information or information user. The variable sets are: (1) relevance, (2) communication, (3) user involvement and advocacy, (4) information processing, and (5) credibility. In addition to listing the variables in each set, Levison and Hughes (1981) specify the direction, positive or negative, of association between each variable and information utilization.

Personal Attribute Theory

Source: Two Community Orientation Theory

Personal attribute theory is adapted from the two-community theory. Caplan's (1977) two-community theory evolved from Snow's (1965) two culture theory. The two-community and two-culture theories emphasize the absence of commonality between information producers and users. Berg et al. (1978) identify these differences as including "language, reward systems, values and goals, methodologies, standards of quality and significance, etc."^{5 2} Two-community theory arises from the

^{5 2}Berg et al., 1978, 3.

perspective of an independent observer focusing on the utilization process as part of the information system.

The basis of the two-community theory is that conflicting personal attributes of information producers and users preclude them from engaging in meaningful communication. Caplan (1977) presents evidence that conflicts between information producers and users account for 70% of the explained variation in information utilization scores.

Extension of two-community theory to personal attribute theory shifts attention to differences in personal attributes among users, such as technical and non-technical user orientations, which effect information utilization. Although called a two-community model, Webber (1983) investigates differences among users to apply what is actually a personal attribute model.

Role Constraint Theory

Source: Policy Maker Constraint Theory

Caplan's (1977) policy maker constraint theory relates to organizationally created constraints which influence non-use of information. Caplan's (1977) theory attributes non-use to constraints under which the policy maker operates such as the need to make a decision rapidly and considers only variables which can

be manipulated. Policy maker constraint theory arise from the perspective of information producers viewing non-use as resulting from organizational role constraints imposed on users.

Webber (1983) adapts the general policy maker constraint theory, to the attributes and beliefs fostered by a legislative role. To investigate the effects of legislator attributes and beliefs on information use, Webber (1983) constructed a model of information use for application in the organizational context of a state legislature. His model includes attributes, such as legislator job image, which are dependent on the user being a member of the legislature.

The basis of Webber's (1983) operationalization of role constraint theory was that general orientation toward the legislature influences policy information use. Using path analysis, Webber found that policy information use is directly influenced by a legislator's political ambition (public service commitment), job image as an information conveyor, and decision locus or view that committee meeting are the site of most important legislative decision. Additionally, Webber (1983) found policy information use is influenced indirectly by political ambition (public service commitment) influencing job image, job image influencing

party role or commitment, and party role influencing decision locus. Webber (1983) concludes that the importance of job image in determining policy information use suggests organizational changes will be unlikely to overcome a constituent service orientation to promote policy information use.

Summary

Information utilization literature supplies a structure for characterizing information use, and three theoretical orientations to guide the application of models for investigating the effect of select variables on information use. As applied to tax expenditure reporting, the structure for characterizing use provides a means of analyzing use. The three theoretical orientations provide guidance for adapting three models to identify variables which affect tax expenditure report use. Caplan et al. (1975) use these three theoretical orientations as guiding constructs, and Webber (1983) applies adaptations of two of the three orientations in a study of technical information use in a state legislature. In this study, these three orientations will be used to guide the application of three models to identify variables which affect tax expenditure report use. The information specific model is modified to reflect recent information utilization

research findings, and the personal attribute and role constraint models are applied as replications of Webber's (1983) research.

CHAPTER IV
RESEARCH DESIGN AND METHODOLOGY

The purpose of this chapter is to describe the research design for addressing the research questions. This design is related specifically to the examination of tax expenditure report use. The research design draws on concepts from tax expenditure and information utilization literature to analyze tax expenditure report use and evaluate relationships among three sets of variables hypothesized to affect level of use.

Structural Design

This study is divided into two parts: (1) analysis of tax expenditure reporting processes and examination of multiple aspects of tax expenditure report use and (2) application of general theories of technical information use to tax expenditure reporting. The two parts of the study represent two alternative approaches to investigating tax expenditure report usage. In applying general theories of technical information use

to tax expenditure reporting, three path models are evaluated.⁵³ Each model reflects specific hypotheses about relationships among variables which may affect level of use.

Research Questions

Tax expenditure report usage is the subject of central importance in this study. This study addresses three facets of its use:

- (1) the nature of the tax expenditure reporting process,
- (2) the use of tax expenditure reports, and
- (3) how information specific, personal, and role constraint attributes relate to use of tax expenditure report information.

Facets one and two are discussed in the first part of the study, reports and report use, and facet three is discussed in the second part of the study, models of attributes affecting use.

Reports and Report Use

Existing tax expenditure literature provides limited information on the nature of the tax expenditure reporting process, but rather focuses on advocacy of reporting and reporting standards. Consequently, the first part of this analysis generates information

⁵³ See Exhibit F in Appendix for discussion of path models.

describing the reporting process and tax expenditure reports.

Two motivations exist for analyzing reporting processes and tax expenditure reports. First, description of reporting process and reports facilitates the study of tax expenditure reporting and contributes to the analysis of report use and factors affecting use. Secondly, constructing a systematic description of the reports and the reporting process fills a void in the tax expenditure literature. Results are reported in Chapter V.

Aspects of use

Three aspects of use were discussed in Chapter III: (1) purpose, (2) policy stage and (3) control focus. The second part of this analysis utilizes these three aspects of technical information use to examine tax expenditure reports use. Investigating multiple aspects of use reflects a broad use concept, and reduces the possibility of ignoring subtle forms of use.

The absence of dramatic change in traditionally accepted tax expenditure provisions supports an argument that reporting is not productive.⁵⁴ Critics, such as

⁵⁴ See Chapter II, for additional anecdotal remarks that suggest tax expenditure report information is not used.

Freeman, argue that additional scrutiny is redundant.

No public laws are subject to more painstaking and detailed congressional study, to more extensive open hearings, to more thorough debate, year after year, than tax laws. With but few exceptions, remedial tax provisions were put in the law not out of inadvertence, ignorance or, as a rule, a desire to give favored groups improper advantage or privileges. On the contrary, most remedial provisions aim to provide greater equity among various economic groups and individuals or to offer incentives for activities that are held to be desirable as a matter of public policy. If Congress retains provisions that have been long assailed as loopholes by some groups, it does not from lack of knowledge or in response to sinister influences but because its majority believes, after due consideration, that the provisions have merit.⁵⁵

Although Gold and Nesbary (1986) advocate reporting, they concisely state the argument that reporting is non-productive.

..., tax expenditure budgets are unlikely to produce any meaningful policy changes except under special circumstances. Most tax preferences are so well entrenched that their curtailment is not politically likely. Those who benefit from them will generally put up a much better fight than those who do not benefit.⁵⁶

The argument that reporting is not productive or not used may be incorrect for any of several reasons.

⁵⁵Roger A. Freeman, Tax Loopholes: The Legend and Reality (Washington, DC: American Enterprise Institute-Hover Policy Study, 1973) 87-88.

⁵⁶Gold, Steven and Dale Nesbary, "State Tax Expenditure Review Mechanisms," Tax Notes 30-9 (March 3, 1986): 888.

First, remarks sustaining the conclusion of non-use may result from biased, non-systematic opinion gathering. Second, the concept of use may be narrowly restricted to an instrumental purpose. Third, the search for use may be limited to one stage of the policy process. And fourth, observation of impact may be restricted to the failure to achieve a single focal objective.

Purpose of tax expenditure report use Three purposes of use were discussed in Chapter III: (1) instrumental, (2) conceptual and (3) symbolic. Surrey (1973) and McDaniel (1979c) argue that tax expenditure report information should be used instrumentally as an analytic tool for controlling tax expenditures. Davenport (1980) and Benker (1985) argue that report information may be used conceptually to improve the quality of debate on tax expenditures and enhance general understanding of the tax structure. It also is possible that report information may be used symbolically to support pre-existing positions.

In this study the instrumental-conceptual-symbolic typology of purpose is applied to tax expenditure reporting. The objective in applying this typology is to gain insight on the specific purposes for which tax expenditure report information may be used.

Policy process stage of tax expenditure report use

Four policy stages of use were identified in Chapter III: (1) issue development, (2) option analysis, (3) action selection, and (4) result monitoring. Florio et al. (1979), in a study of information use, found that impact data⁵⁷ were useful in the first policy stage, issue development, and cost data were useful in the last policy stage, monitoring results. Given the findings of Florio et al. (1979)⁵⁸, one would expect high usage of tax expenditure report information at the beginning of the policy process (issue development) and at the end of the policy process (result monitoring).

Tax expenditure report data may serve two functions closely associated with issue development and result monitoring. Report data may be viewed as impact data, when projected onto future years, and as cost data, when reported for past years. However, proponents and critics of reporting have focused their recommendations and searches for use on the middle policy stages, option analysis and action selection. Proponents of reporting have advocated the use of report information in the option analysis stage, and critics have cited the

⁵⁷ Impact data are data on the potential effect of a policy.

⁵⁸ See Chapter III, for a more complete discussion of study.

absence of impact in action selection stage. It is possible that the use of report information is the least in the action selection and option analysis stages which have been the focus of attention.

In this study, the four policy stages are investigated relative to the use of tax expenditure report information. The objective is to consider variation in use among policy process stages. If use varies among stages, observed patterns will be compared to those found by Florio et al. (1979) in their study on use of education policy information.

Control focus of tax expenditure report use Four control focuses were discussed in Chapter II: (1) costs comparison, (2) revenue comparison, (3) equitable distribution of tax impact, and (4) efficient tax incentive design. Cost comparison and revenue comparison are the control focuses most widely discussed by advocates of tax expenditure reporting whereas the remaining control focuses are seldom mentioned. Although accepted by reporting advocates, cost comparisons and revenue comparison may not be commonly accepted control focuses by users of reports.

Institutional structure may discourage the acceptance of control focuses by tax expenditure report users. The responsibility for raising revenues and

appropriating funds tends to be divided between two distinct legislative committees. Tax committees have no responsibility for evaluating operating programs funded by budgeted appropriations, and appropriation committees have no responsibility to scrutinize indirect appropriations made via adoption of tax expenditures. Thus, no one committee is responsible for making cost comparisons between direct expenditures and indirect tax expenditures. Additionally, legislators may find it more rewarding to dispense highly visible benefits to small groups of beneficiaries than to protect revenues to support appropriation of less visible services to a larger public (Hansen, 1983a).

In this study, the acceptance of cost comparison and revenue comparison as control focuses is investigated. The objective of analysis is to determine if the control focuses assumed by reporting advocates are accepted by report users.

Model of Attributes Affecting Tax Expenditure Report Use

Three theories of technical information use which were applied to tax expenditure report use are identified in Chapter III: (1) information specific, (2) personal attribute and (3) role constraint. Similar theories of information use were employed by Caplan et al. (1975) in their study on use of social science

knowledge. These three theories guide the specification of three path models. Each path model represents a general hypothesis about the pattern of relationships among variables which may affect report use. The paths within each model represent specific hypotheses on how variables are related.

General hypotheses on use

Three theories on technical information use have been identified. Each theory posits information use as dependent on a specific set of variables. As discussed in Chapter III, these theories are:

- (1) information specific theory -- use is dependent primarily on attributes of the information of interest, such as means of collecting and presenting information, and/or user's perception of characteristics of information.
- (2) personal attribute theory -- use is dependent primarily on attributes of the user, independent from information of interest and from the organization within which the user functions, and
- (3) role constraint theory -- use is dependent primarily on constraints created by user's role within an organization.

Each of these theories supports a general hypothesis on technical information use. These are:

Hypothesis 1: The level of use is dependent on attributes of the information,

Hypothesis 2: The level of use is dependent on personal attributes of the user, and

Hypothesis 3: The level of use is dependent on constraints created by the user's role within an organization.

These three hypotheses regarding technical information use are applied to tax expenditure reports by constructing a path model for each general hypothesis. Tax expenditure reports are a form of technical information because they are typically prepared by fiscal analysts using conventional econometric and systematic procedures to produce quantitative estimates of revenue foregone.⁵⁹

Path models are constructed to apply the hypotheses to use of tax expenditure reports. Each path in the path model, represents a specific hypothesis about the relationship between two variables. The explanatory power of each model and strength of hypothesized relationships in each model will be measured using correlation and path analysis techniques. See Exhibit F in Appendix for a discussion of path analysis.

Models of use

The purpose of this section is to explain the design of three path models relating to tax expenditure report use. Each model represents a separate theory on information use. A two-fold objective exists for

⁵⁹See Chapter III for discussion of term, technical information.

constructing separate models of use rather than a single comprehensive model. One objective is to evaluate the strength of relationships within each model. A second objective is to evaluate the relative strength of each model. The strength of each model is measured by the amount of variance (total r^2) in the endogenous (dependent) variable, level of use, explained by all other variables specified in the model.

Examining the three theories as separate models offers four advantages. First, the impact of three different theoretical positions on level of use can be evaluated. Secondly, a greater understanding may be obtained about specific means of influencing level of use. For example, evaluating a single comprehensive model may indicate that variables controllable by information producers are not significant in determining variation in level of use, but separate models may provide more information on the relative importance of controllable variables. Thirdly, separating potentially significant variables into three models on the basis of different theories directs the analysis by restricting the number of relationships considered. Fourthly, separating variables into three models increases the power of analysis given a finite number of observations. The construction of each model will be discussed in the

remainder of this chapter. For each model, the discussion of literature will follow the flow of the model from left to right.

Information specific model Leviton and Hughes (1981) found researchers have often investigated the relationships between the dependent variable, information use and independent variables: (1) information producer/user interaction and (2) action orientation of recommendations. Findings consistently indicate that the independent variables are associated positively with information use.

The most reasonable circumstance for producer/user interaction is in the communication of report information. Communication of technical information would be especially important to legislators due to the limited amount of time available to review information.

Weiss and Bucuvalas (1980a, 1980b) found action orientation of recommendations was associated positively with information use. In general, the inclusion of action-oriented recommendations is positively related to technical information use (Leviton and Hughes, 1981). The customary absence of recommendations in tax expenditure reports precludes the evaluation of actual recommendations and may discourage report use. However,

the desirability of including recommendations in reports may be evaluated.

It is assumed the communication of report information and general desire for recommendations should precede any perceptions related to the specific content of reports. In the proposed model, perceived quality of report communication and desirability of including recommendations are exogenous variables. Both variables are hypothesized to be associated directly and positively with relevance. Perceived quality of report communication also is hypothesized to be associated positively with perceived technical quality.

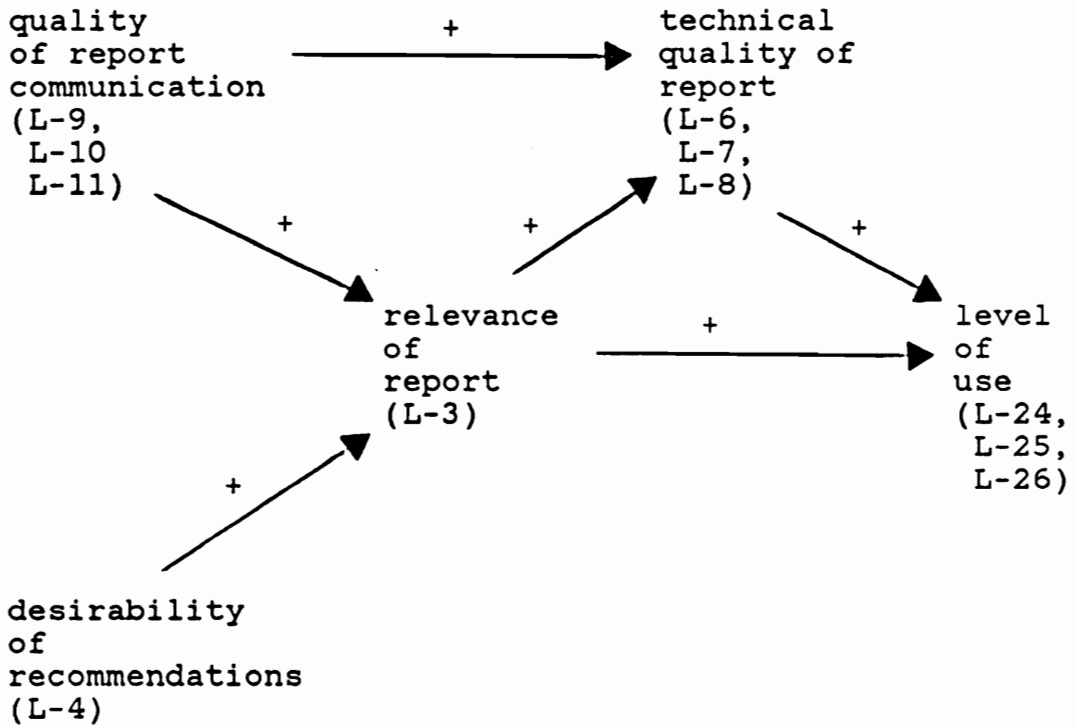
Weiss and Bucuvalas (1980a, 1980b) identified relevance as being associated with information use. Patton et al. (1977) and Dunn (1980) did not find that the relevance of information was associated significantly with use. However, Patton et al. (1977) and Dunn (1980) focused on results from the application of specific recommendations or findings. In contrast, Weiss and Bucuvalas (1980a, 1980b) found perceived relevance was associated positively with a broader concept of information use which was not restricted to application. Holland (1989) found that relevance was the strongest predictor of perceived truthfulness (an indicator of quality) and usefulness of information.

She posits that users may first need to accept information as relevant before considering its truthfulness.

Assuming Holland's (1989) insight is correct, one would expect the evaluation of relevance to precede the evaluation of technical quality. This relationship is consistent with the relationship suggested by Weiss and Bucuvalas (1980a, 1980b). They found that users employed a utility test and then a truth test in deciding when to use information. The proposed information specific model shows perceptions on relevance (an indicator of utility) preceding technical quality (an indicator of truth). It is hypothesized that relevance is related directly and positively to users' perceptions on technical quality and level of use.

Weiss and Bucuvalas (1980a, 1980b) found that technical quality of information was associated positively with use. In contrast, Weeks (1979) and van de Vall and Bolas (1980), using methodological rigor as an indicator, found technical quality was associated negatively with information having a policy effect. The objective of both of these studies was to investigate effect, a narrow concept of information use. Recent research has not supported the existence of a negative

Exhibit 1



L-# references Legislator Mail Survey, Exhibit E in Appendix.

EXHIBIT 1, INFORMATION SPECIFIC MODEL

relationship between technical quality and a broader concept of use (Sunesson et al., 1989; Holland 1989). Sunesson et al. (1989) found that technical quality did not preclude use of technical information. Holland (1989), extending the work of Weiss and Bucuvalas (1980a, 1980b), found the perceived technical quality of research significant in predicting the truthfulness and usefulness of information. It is hypothesized that perceived technical quality is related directly and positively to level of use. These relationships are illustrated in Exhibit 1.

Variables in the information specific model are operationalized as follows:

- (1) quality of report communication -- measures scaled from one to six indicating user's perception of general quality of report producer's communication, understandability of presentation, and adequacy of interpretive assistance (L-9, L-10, L-12)^{6°},
- (2) desirability of recommendations -- measure scaled from one to six indicating user's perception on desirability of including recommendations in reports (L-4),
- (3) relevance of report -- measure scaled from one to six indicating user's perceptions on pertinence of reports to tax issues with which user is concerned (L-3),
- (4) technical quality of report -- measures scaled from one to six indicating user's perception of general technical quality, adequacy of information

^{6°}References L-# are to Legislator Mail Survey, Exhibit E in Appendix.

disclosure, and reliability of information (L-6, L-7, L-8), and

- (5) level of use -- measures scaled from one to six indicating user's likelihood of considering, referring to, and seeking out report information (L-24, L-25, L-26).

Personal attribute model The personal attribute model, with modifications and additions, replicates a similar model by Webber (1983) in a study of technical information use in the Indiana State Legislature. In the modified model, exogenous variables are open mindedness, support for free markets, and educational background.

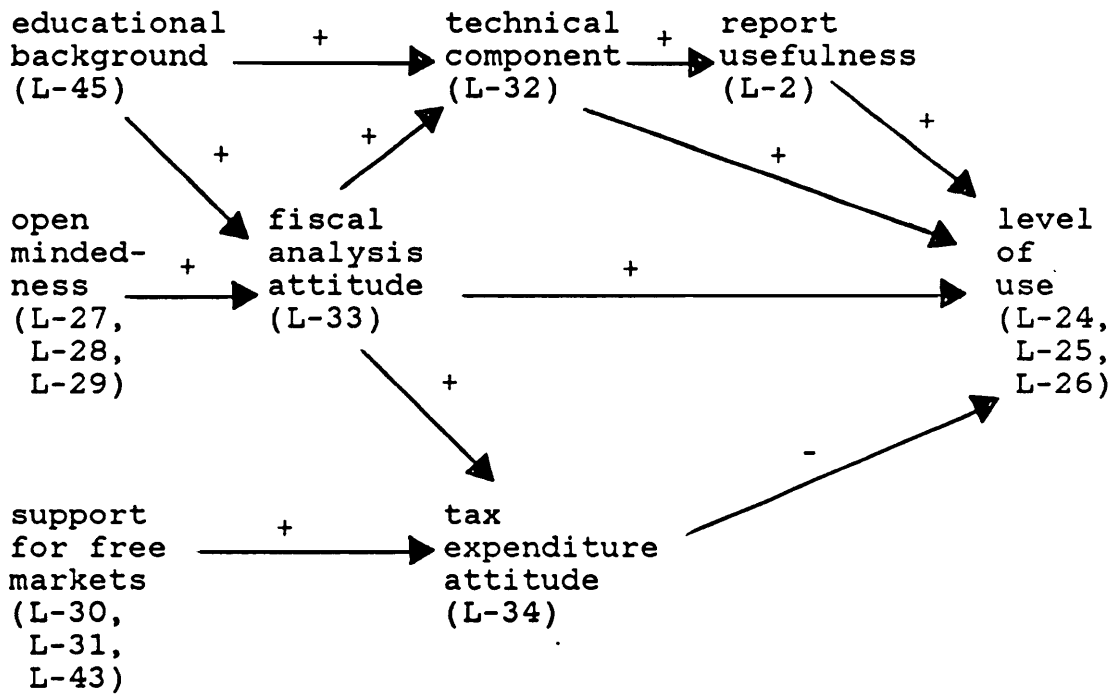
Webber's (1983) focus was on use of general technical information produced by social scientists. In this study, the focus is on use of specific information, tax expenditure reports, produced by fiscal analysts using methods from one social science, economics. In applying this model to tax expenditure reports, social science attitude is narrowed to fiscal analysis attitude. Open mindedness was found to be related to social science attitude (Webber, 1983). Webber (1983) also found open mindedness was related weakly to use of technical information in general.

The theoretical work of King (1984), Schlick (1986), and Steinmo (1986) and empirical work of Haverman (1977) indicate support for free markets is an

important variable influencing support for tax expenditure reporting. The argument focuses on tax expenditures as the least coercive form of industrial regulation, and are favored by constituencies which support free markets. However, expenditures which allocate benefits to the private sector appear most sensitive politically and beneficiaries may oppose reporting. It is hypothesized that support for free markets will relate directly and positively to a favorable tax expenditure attitude, but a favorable tax expenditure attitude will relate directly and negatively with level of use.

Educational background is incorporated in the model due to the strong reliance of tax expenditure reporting on economic concepts. Caplan et al. (1975) found type of education made a difference in research information use, with physicians reporting the highest use and attorneys the lowest use. Accordingly, educational background is added to Webber's (1983) model. It is hypothesized that users with social and natural science backgrounds will view fiscal analysis as important and hold a perception of tax issues as having a significant technical component. The remainder of the personal attribute model replicate findings of Webber (1983). These relationships are illustrated in Exhibit 2.

Exhibit 2



L-# references Legislator Mail Survey, Exhibit E in Appendix.

EXHIBIT 2, PERSONAL ATTRIBUTE MODEL

Variables in the personal attribute model are operationalized as follows:

- (1) open mindedness -- measures scaled from one to six indicating user's willingness to initiate independent analysis of policy (L-27, L-28, L-29),
- (2) fiscal analysis attitude -- measure scaled from one to six indicating importance assigned to fiscal analysis (L-33),
- (3) support for free markets -- measures scaled from one to six indicating user's economic conservatism and liberalism (L-30, L-31, L-43),
- (4) tax expenditure attitude -- measure scaled from one to six indicating user's willingness to include tax expenditures in tax structure (L-34),
- (5) technical component -- measure scaled from one to six indicating user's perception of presence of technical component in tax issues (L-32),
- (6) report usefulness -- measure scaled from one to six indicating user's perception of contribution of report information to tax issues of concern to user (L-2),
- (7) educational background -- classification by categories, legal, social or natural science, and other (L-45), and
- (8) level of use -- same as previously defined (p. 83).

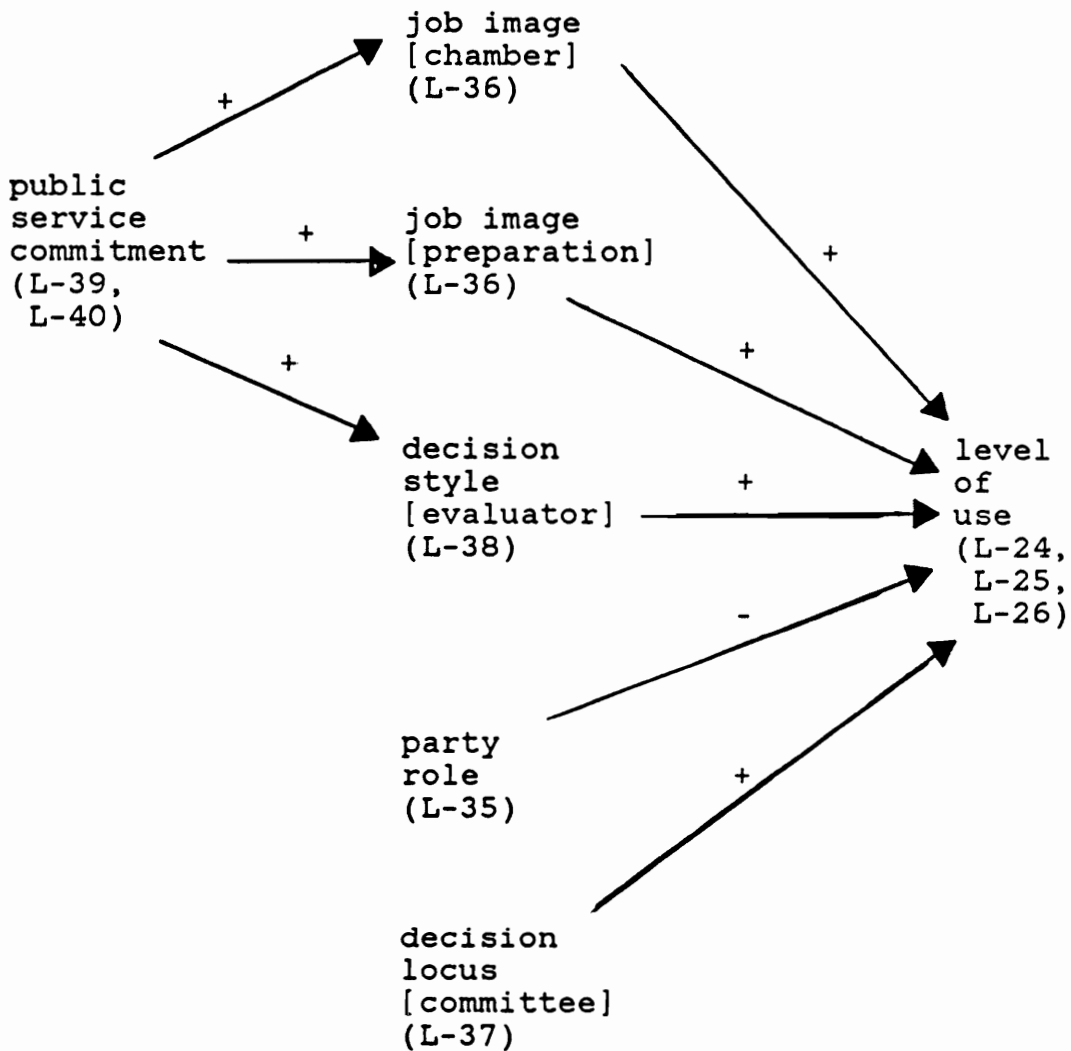
Role constraint model With one exception, the role constraint model replicates a similar model constructed by Webber (1983). Webber (1983) removed legislative decision style or approach from the model because it lacked statistical significance. This variable is reincorporated into the role constraint model because one type of legislative decision style is the evaluation

of policy costs and benefits (Webber, 1983). Proponents of tax expenditure reporting contend reporting is an analytic tool which facilitates cost comparisons (Surrey and Hellmuth, 1969). Webber (1983) defines five decision styles which are distinguished later in this chapter. One of these decision styles, evaluator, is characterized by the user attaching importance to the evaluation of costs and benefits in making policy decisions. It is hypothesized that identification with an evaluator decision style will relate directly and positively to level of use.

All the other variables in this model, political ambition (public service commitment), job image, decision style, party role, and decision locus are drawn from the model developed by Webber (1983). Accordingly, these variables are operationalized in a manner similar to their use in the Webber's (1983) study.

Most of the variables in the information specific and personal attribute models are represented by ordinal measures. However, many of the variables in the role constraint models are categorical. The respondent is asked to identify the most useful category from a list of categories relating to job images, decision style, etc. The categories, appearing in brackets (Exhibit 3)

Exhibit 3



L-# references Legislator Mail Survey, Exhibit E in Appendix.

EXHIBIT 3, ROLE CONSTRAINT MODEL

indicate which categories which are expected to be most strongly associated with level of use. For example, when considering decision styles, it is hypothesized that evaluators, those who compare costs and benefits, have a higher motivation for using tax expenditure reports than legislators with other decision styles, and thus, a higher level of use. These relationships are illustrated in Exhibit 3.

Variables in the role constraint model are operationalized as follows:

- (1) public service commitment -- measure scaled from one to six indicating user's willingness to continue public service in same or higher office (L-39, L-40),
- (2) job image, chamber -- identification of legislative chamber activity as important by ranking such activity first or second in importance from six possible activities (L-36),
- (3) job image, preparation -- identification of preparation activity as important by ranking such activity first or second in importance from six possible activities (L-36),
- (4) decision style, evaluator -- identification of evaluator approach as important by ranking such approach first or second in importance from five possible decision styles (L-38),
- (5) party role -- measure scaled from one to six indicating importance of a legislator voting with his or her party (L-35),
- (6) decision locus, committee -- indication of committee location as important by ranking such location as first or second in importance from seven possible decision locations (L-37), and

(7) level of use -- same as previously defined (p. 83).

All variables in the role constraint model will be discussed in greater detail.

Willingness to seek higher office and to continue in the legislature are used as dual measures of political ambition or public service commitment. Willingness to continue in legislature is included because it may capture the commitment of those who want to build power within the legislature. Webber (1983) used willingness to seek higher office, as a measure of political ambition.

Legislative job images were identified by Webber (1983) from a set of sixteen activities specified by the Obey Commission (Cavanaugh, 1979) as relating to the job of legislator. Using factor analysis, Webber (1983) reduced sixteen activities to six job images. These images are:

- (1) preparation focused -- focus is on keeping up with events, basic research, legislative oversight, and office management,
- (2) chamber focused -- focus is on building power within legislative chambers,
- (3) service focused -- focus is on talking with and helping constituents,
- (4) information focused -- focus is on conveying policy information to constituents,
- (5) election focused -- focus is on participating in activities to secure reelection, and

(6) contact focused -- focus is on meeting with constituents.

Respondents were ask to rank the three most important job activities. A ranking of first or second is used to indicate that activity is one of importance to the respondent.

Legislative decision style contains five categories of decision approaches specified by Webber (1983).

These are:

- (1) compromiser -- doing what is most acceptable,
- (2) reflector -- doing what the average citizen would do,
- (3) evaluator -- doing what is most efficient based on examination of costs and benefits,
- (4) moralist -- doing what is morally or ethically right, and
- (5) satisfier -- doing what satisfies colleagues or other officials.

Respondents were asked to rank the three most important decision styles. A ranking of first or second is used to indicate that decision style is one of importance to the respondent.

Party role indicates a legislator's willingness to vote with his or her party. Legislators who are committed to voting with their party would have little motivation to consider technical information. It is hypothesized that a strong commitment to party will be

associated negatively with level of use of report information.

The decision loci considered by Webber (1983) include: study commissions, party caucus, committee meetings, floor of legislature, governor's office, and leadership meetings. Given the special interest of this study in tax committees, the committee meeting category was subdivided into tax committee meetings and non-tax committee meetings. Respondents were asked to rank the three most important decision locations. A ranking of first or second is used to indicate that decision location is one of importance to the respondent. Because of the open nature of committee meetings and the need to present rational support for positions, it is hypothesized that those viewing tax committees as important power centers will be more inclined to seek technical information to support their positions than those viewing other power centers as important.

Operational Design

Operationally, this study was designed as three separate but related surveys. The first survey was designed to gather information from report preparers, who have oversight responsibility for report preparation, on tax expenditure report preparation and perceived use. The second survey was designed to gather

information from legislative staff persons who are responsible for communicating fiscal information to legislators who serve on tax committees. The third survey was designed to gather data from legislators who serve on tax committees to analyze aspects of report use and evaluate models of technical information use.

Surveys were directed to report preparers, legislative staff persons and legislators in ten states. The ten states were California, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Nebraska, and Wisconsin. These state were selected because each has issued at least three reports (Benker, 1985) and each report includes estimates of the same major taxes such as sales tax, personal income tax, corporate income tax, and other miscellaneous taxes (Edwards, 1987).⁶¹

Data Collection

The first survey (Exhibit C in Appendix), of tax expenditure report preparers, was designed to address the nature of the reporting process. This survey

⁶¹Arizona, Florida, Texas, and Washington were excluded because reporting in these states does not cover the same type taxes as those on which the ten subject states report. Delaware, Montana and South Carolina were excluded because each of these states has issued less than three reports. Hawaii was excluded because its report is restricted to tax credits.

obtained background information to discuss the current reporting process. Data were obtained via telephone interviews, approximately forty-five minutes in length, with the person responsible for report preparation in each of the ten focal states and two pilot test states.

Interviews were arranged by obtaining copies of all relevant reports, identifying the agency responsible for preparation, telephoning the agency to identify the person with oversight responsibility for report preparation and writing that person to request an interview. Copies of all questions were mailed to report preparers in advance of the interview.

The second survey (Exhibit D in Appendix) was addressed to legislative staff persons to investigate tax expenditure reports use. The purpose of this survey was to collect data from legislative staff persons on personal report use and observations on legislators' report use. Questions were designed to indicate the general purposes of report use, policy analysis stages of use, and level of report use. A secondary purpose of this survey was to provide a validity check on the data provided by legislators in the third survey. Data were obtained via telephone interviews, approximately thirty minutes in length, with legislative staff persons.

The Tax Directory (1989) lists tax committees in each state. By telephoning listed committees in the ten states, seventeen committees were identified as having substantial responsibility for tax policy. Interviews were arranged by asking the chief administrator of each committee to identify the legislative staff person with primary responsibility for communicating fiscal policy information to legislators who serve on tax committees. Letters requesting an interview, together with copies of all questions were mailed to legislative staff persons in advance of the interview. Eleven of seventeen staff persons were interviewed.

The third survey (Exhibit E in Appendix) was designed to examine aspects of report use and attributes associated with report use. This survey gathered the data to evaluate the information specific, personal attribute, and role constraint models of technical information use. The sample was composed of 275 legislators who serve on tax committees. Legislators who serve on tax committees were selected for study because their use of report information is critical if reporting is to have potential usefulness as a fiscal control tool.

A pilot test was conducted to assess the response rates using mail and telephone survey procedures advocated by Dillman (1978) and to evaluate question wording. Fifty-two legislators serving on tax committees in Delaware and Washington were surveyed because reporting was most similar to that of the ten states of interest. However, neither Washington or Delaware had reported long enough to issue three reports. In the pilot test, half the legislators were telephoned and half were mailed survey instruments. Fifty-six percent of legislators responded to the mail survey and 50% of legislators participated in telephone interviews. As a result of the pilot test, the wording of several questions was modified, and the decision was made to use a mail survey technique.⁶²

The 275 legislators represent the entire membership of the relevant committees rather than a random sample of members. These person were identified initially from The Tax Directory (1989). Committee membership was verified by obtaining a list of current members with capitol and home district addresses. The procedure used

⁶²The advantage of telephone surveying was that feedback on confusing questions was excellent. The disadvantage of the telephone survey was the amount time consumed for both researcher and respondent. Data collection by telephone survey required approximately sixty minutes as opposed to fifteen minutes for completing the mail survey instrument.

to maximize the response rate are, with slight modification, those recommended by Dillman (1978) as follows:

- (1) On January 2, 1990, one week in advance of first mailing the survey instrument, a letter was mailed to each subject stating the subject would receive a survey questionnaire the following week.
- (2) On January 2, 1990, one week in advance of first mailing the survey instrument, a letter was mailed to each committee chair asking the chair to mail to each committee members a pre-printed memo drafted on behalf of the chair describing the study. Pre-addressed, stamped envelopes were included for mailing the memos to committee members.
- (3) On January 9, 1990, the survey instrument was mailed to all subjects.
- (4) On January 16, 1990, a reminder letter was sent to all subjects thanking respondents for return of the survey and asking non-respondents to consider completing the survey instrument.
- (5) On February 6, 1990, the survey instrument was mailed to all non-respondents. As some respondents were unfamiliar with Virginia Polytechnic Institute and State University, a small pocket brochure providing basic information on this university was included with each survey instrument.
- (6) On February 27, 1990, the survey instrument was mailed to all non-respondents. As recommended by Dillman (1978), letters in this mailing were sent by certified mail to attract the attention of non-respondents.
- (7) During the course of the survey, a hand written thank you note was mailed to each respondent as survey instruments were received. Thank you notes were sent to express appreciation and build legitimacy for the survey as respondents and non-respondents, being in session, were in close communication with each other.

All correspondence was printed on university letterhead,

mailed in stamped university envelopes with typed addresses, and, when appropriate, included a postage-paid return envelope. The twelve page survey instrument was printed neatly in the simple form recommended by Dillman (1978). Forty-eight percent of the legislators responded.

Data Analysis Methods

Data analysis is presented in Chapter V and Chapter VI. Chapter V contains (1) descriptive data on the nature of tax expenditure reporting processes and reports, and (2) an analysis characterizing use by purpose, policy process stage and control focuses. Chapter VI contains an evaluation of the path models. The evaluation focuses on hypothesized relationships among variables which affect use of tax expenditure reports. Model evaluation tests the significance of specified path relationships. Special attention is directed to analyzing the relationships among variables in the information specific model because these variables are most subject to control by tax expenditure report preparers.

Path analysis

Path analysis is the primary means of data analysis in this study. This technique has been used in

accounting studies by Aranya et al. (1982), Chenhall and Brownell (1988), Ferris (1981) and Harrell et al. (1986). Path analysis is a technique which is designed to evaluate the strength of association among two or more variables that are hypothesized to be linked causally. The paths show how variables are hypothesized to relate to each other and the significance of each path is estimated using regression techniques. Both direct and indirect causal effects can be estimated. The assumptions made for the application of path analysis are similar to those required for the application of multiple linear regression. See Exhibit F in Appendix for a discussion of path analysis.

Ordinary least squares regression is used to estimate the path coefficients. Four elements support the use of ordinary least squares regression. These are: (1) specified path models are recursive having a one-way data flow, (2) variables have one indicator, (3) the focus is on evaluating specified models rather than generating models that best fit data, and (4) the small number of observations (n).⁶³

⁶³Had these elements differed, it would have been appropriate to consider using LISREL, a sophisticated computer program for estimating structural equation models which contain latent or unmeasured variables and which allows for multiple indicators of latent variables. See Appendix Exhibit G (Observations, Means and Standard Deviations) and Exhibit H (Correlation

Construction of variable indicators with weighted indices

In operationalizing indicators for many variables, measures are based on respondents evaluation of a single scaled response. However, multiple measures are designed for certain concepts to construct indicators using weighted indices. The objective in constructing multiple measures is to improve the internal validity of the models by having a non-arbitrary means of weighting indices in operationalizing variables. Factor analysis is used as a means of testing the validity of indicators and obtaining weights for constructing indices. Loading of multiple measures on the same factor provides support for arguing that the measures represent the same latent variable and standardized factor loadings provide the weights for constructing composite indicators.

Multiple measures were designed for complex and abstract concepts. The variables incorporating multiple measures are quality of report communication, quality of report content, open mindedness, support for free markets, public service commitment, and level of use. Except for public service commitment, each of these variables incorporates three measures. Public service commitment incorporates two measures. Assuming the

Matrix) for data to apply LISREL.

measures for each of these variables loads positively and strongly on one factor, the standardized factor loadings are used to weight the measures to construct a composite indicator for each variable.

Analysis procedure

Before analyzing each path model, bivariate Pearson correlations were reviewed. The purpose of such a review was to consider the potential existence of multicollinearity and to observe how many of the hypothesized correlations between dependent variable and independent variables are statistically significant.

Ordinary least squares regression is used to estimate the relationships among variables in each model. The relative importance of each independent variable is estimated by regressing the endogenous (dependent) variable of interest on the exogenous (independent) variables. Standardized regression coefficients may be interpreted as path coefficients in a chain of causal variables which alone or in combination affect the dependent variable. The resulting path coefficients, indicating the strength of relationships between variables included within each model, provide empirical support for retention and elimination of causal links. Conventionally, paths with

coefficients of less than .10 are eliminated from the model (Webber, 1983).

The analysis provides a measure of the relative importance of each model in explaining the dependent variable, level of use. When completed, the path analyses will provide an indication of the validity of the model as specified, and show the proportion of variance in level of use explained by the three sets of variables included the three models of information use. Path analysis provides a means of modifying theoretically posited models by eliminating paths that are inconsistent with the data. The validity of the model as originally specified may be judged by comparing it with the modified model resulting from analysis of the data. The coefficient of determination (unadjusted r^2 for the final regression), which indicates the proportion of variance in the dependent variable (level of use) explained by preceding variables, is an approximate measure of general fit of a path model. The residual path coefficient is represented by the upper case letter, R. One minus the square of the residual path coefficient ($1 - R^2$) also indicates the proportion of variance in the dependent variable, level of use, which is explained by preceding variables in the model. Conversely, the square of the residual path coefficient

(R^2) indicates the proportion of variance in the dependent variable, level of use, not explained by preceding variables in a model.

CHAPTER V

REPORTING PROCESS AND REPORT USE

Two facets of tax expenditure report usage are addressed in this chapter:

- (1) the nature of the tax expenditure reporting process, and
- (2) the use of tax expenditure reports.

The purpose of this chapter is to describe the tax expenditure reporting process and tax expenditure report use. Additionally, reporting process and report use will be examined relative to purpose of reporting. Neither reports nor reporting processes have been discussed thoroughly in extant literature.

Respondents

Data were collected from three groups of persons: (1) report preparers, (2) legislative staff persons and (3) legislators who are tax committee members. Report preparers had oversight responsibility for tax expenditure report production, while legislative staff persons were responsible for communicating fiscal

information to legislators who are tax committee members. Twelve preparers were asked to participate in semi-structured telephone interviews, and all agreed to participate. The preparers were from the ten focal states and two pilot test states. Eighteen staff persons were asked to participate in structured telephone interviews, and twelve participated in this study. The staff persons were from eight of the ten focal states. Data were collected during the first quarter of 1990.

Two hundred and seventy-five legislators serving on tax committees in ten states were surveyed by mail. One hundred and thirty-four (49%) responded. The survey was conducted during the first quarter of 1990. Exhibit 4 profiles respondents. Fifty percent of respondents were male members of the Democratic party (L-46)⁶⁴ serving in the lower house of the legislature who viewed themselves as moderate, rather than liberal or conservative on fiscal matters (L-30, L-31, L-43). Almost one-half were between forty-five and fifty-nine years of age (L-47). Mean years of experience in the legislature for respondents was 9.1 years (L-41) and means years of

⁶⁴Reference L-# is to question in Legislator Mail Survey, Exhibit E in Appendix; reference S-# is to question in Legislative Staff Interview Guide, Exhibit D in Appendix; and reference P-# is to Report Preparer Interviewer Guide, Exhibit C in Appendix.

Exhibit 4
RESPONDENT PROFILE (n = 134)

Age	under 44	39%	Party	Democrat	71%
(L-47):	45 to 59	50%	(L-46):	Republican	27%
	over 60	11%		Other	2%
Sex:	male	86%	House:	upper	34%
	female	14%		lower	66%

Economic Ideology (L-43):	conservative	28%	Experience (L-41, L-42):	legislature	9.1 yrs
	moderate	48%		committee	6.4 yrs
	liberal	24%			

Public Service	would return to legislature	58%
Commitment	would seek higher office	63%
(L-39, L-40):		

Level of Education	graduate degree	48%
(L-45):	bachelor's degree	32%
	secondary and/or some college	20%

Educational discipline of highest degree	law	32%
(L-45) n = 88:	social science	19%
	education	14%
	humanities/arts	14%
	business	11%
	natural science/engineering	10%

Attitudes:	taxes are technical	93%
(L-32, L-33):	fiscal analysis is helpful	95%

RANK (absolute number; n = 110)		<u>1st</u>	<u>2nd</u>
Dominant job images (L-36):	chamber (committee work)	46	32
	preparation	27	18
	liaison to public	17	36
Dominant decision locus (L-37):	tax committee meetings	57	24
	leadership meetings	20	25
	study commissions	17	16
Dominant decision style (L-38):	cost/benefit comparison	71	26
	doing ethically right	24	17
	compromising	9	25

experience on tax committees was 6.4 years (L-42). Fifty-eight percent of respondents indicated a willingness to continue serving the present positions, and 63% indicated a willingness to seek higher office (L-39, L-40).

Eighty percent of respondents had earned bachelor degrees, and 48% percent had earned graduate degrees (L-45). Thirty-one percent of respondents were attorneys. An additional 29% of respondents had either social science or humanities backgrounds. There was strong agreement among respondents that tax policy incorporated important technical components (L-32) and that fiscal analysis was useful in formulating tax policy (L-33).

The legislators' characteristics are consistent with those argued to motivate the use of tax expenditure report information. The responding legislators identified most strongly with the chamber focused job image of building power with the legislature (L-36b). They designated tax committees as the most important location for tax policy decisions (L-37c). Lastly, they found the evaluator decision style of comparing costs and benefits most effective in settling tax policy issues (L-38c).

Tax Expenditure Reporting Processes and Reports

Data for examining the tax expenditure reporting

process were gathered from two questions: (1) what is the nature of production, distribution, communication and oversight review of report information, and (2) what is the nature of resulting product, the reports? Data addressing these questions were collected from telephone interviews with report preparers and legislative staff persons, a mail survey of legislators, and an examination of current tax expenditure reports.⁶⁵ Questionnaires for collecting data from report preparers, legislative staff persons, and legislators are Exhibits C, D and E respectively, in Appendix.

Interviews with report preparers were the primary source of information on tax expenditure reporting processes.

Production, Distribution, Communication, Oversight

Four aspects of the reporting process are considered: (1) production, (2) distribution, (3) communication, and (4) oversight. In the typical tax expenditure reporting process, production is directed by a person in an economic research unit of the state revenue department who is responsible for making some cost estimates and obtaining other cost estimates from field divisions. When completed, the report is reviewed

⁶⁵ No interviews are referenced individually because all respondents were promised anonymity.

internally and subsequently distributed to legislators, fiscal analysts, legislative staff persons, and other interested parties at the time the governor's budget is released. In most states, there is no formal review of reports before or after their issuance.

Production

Exhibit 5 lists basic production information: (1) year first tax expenditure report was issued, (2) year reporting was adopted, (3) frequency of reporting, and (4) state agency preparing report. Twenty states engage in some form of tax expenditure reporting. No state has repealed a statute requiring reporting. Since 1982, one or two states have initiated the preparation of reports each year. Report frequency conforms to the state's budget cycle. With the exception of California, all reports are produced by an agency in the executive branch of government, usually the revenue department.

Analysis of data collected from tax expenditure report preparers provides insight on initiation of reporting, differences in systems of report production and difficulties in producing reports. Report preparers indicated pressure for reporting originated from legislators in eight states and was supported by a public interest group, Common Cause, in five states (P-14). Judging from report preparer descriptions of their

Exhibit 5
 REPORTING PROCESS: PRODUCTION:

<u>STATE</u>	<u>DATE ADOPTED</u>	<u>FIRST REPORT</u>	<u>FREQUENCY</u>	<u>PREPARED BY</u>
WI	1973	1975	biennial	Dept. of Revenue
CA	1971	1976	annual,	Legislative Analysts,
MD	1975	1977	annual	Dept. of Budget and Fiscal Planning
NE	1979	1979	biennial	Dept. of Revenue
MI	1979	1980	annual	Dept. of the Treasury
ME	1981	1983	biennial	Dept. of Finance
LA	1982	1983	annual	Dept. of Revenue and Taxation
MA	1983	1984	annual	Dept. of Revenue
WA,	1983	1984	biennial	Dept. of Revenue
MN	1983	1985	biennial	Dept. of Revenue
MS	1986	1986	annual	Center for Policy Research and Planning
DE,	1986	1987	quadrennial,	Div. of Revenue

NOTES: (1) Authority for reporting in all above states is a statutory requirement. (2) California and Delaware initiated reporting on a biennial basis. California changed to an annual basis and Delaware changed to a quadrennial basis. (3) In California in addition to the report issued by Legislative Analysts, the Department of Finance issues a summary report. (4) Washington and Delaware were pilot test states.

SOURCES: Benker (1985), New York State (1988) and interviews conducted with tax expenditure report preparers for this study.

involvement (P-1), there are three systems for organizing report production: (1) coordination, (2) estimation and (3) combination. Under the coordination system, the report preparer acts as a coordinator, obtaining estimates of costs from field divisions responsible for administering taxes, such as the sales tax division. Under the estimation system, a working group, in the economic research unit, prepares cost estimates. The combination system incorporate elements of the coordination and estimation systems; some estimates may be obtained from field divisions while others are prepared within the economic research unit. Preparer comments suggest the estimation system is used in six states, the combination system in two states, and coordination system in one state.

Specific data on report preparation costs were not collected. Because the work is allocated among different revenue department divisions and research unit staff are assigned to multiple activities, the costs of producing the report are not identified normally. Even if report preparation costs had been obtained, comparability would have been impaired by differences in reporting experience and tax structure. Reporting in newly adopting states appears to be more expensive than in experienced states, and reporting in states with many

taxes is generally thought to be more expensive than in states with a few taxes. Although report preparation costs were not collected, discussion with report preparers and review of final reports indicate that resources allocated to report production varies among states.

Nine report preparers (75%) mentioned inadequate data as the most important problem they encountered in preparing reports (P-2). Inadequate data is often a problem in estimating the revenue foregone from tax exempt transactions, especially sales tax exempt transactions. Generally limited or no data are available with limited resources for developing adequate data on tax exempt activities. The lack of adequate data is a difficult problem to overcome. Approaches used by states to address this problem include: sampling from tax returns to develop new data bases, increasing informational reporting requirements, and sharing data among states.

Review of reports tends to be restricted to the preparing agency (P-31, P-32). However, reports are reviewed by an executive agency other than the revenue department in Maine, Maryland, Massachusetts, Michigan, and Washington (P-32). The purpose of the review is to consider the adequacy and accuracy of reports.

Exhibit 6
 REPORTING PROCESS: DISTRIBUTION

<u>STATE</u>	<u>NUMBER OF REPORTS/ TIME OF DISTRIBUTION (P-3/ P-4)</u>	<u>SUBMITTED BY/ SUBMITTED TO</u>
WI-75	200 copies/ with budget	Governor/ Legislature
CA-76	500-600 copies/ start of session <u>not</u> with budget Finance Dept. Report: as part of budget	Legislative Analysts/ Legislature
MD-77	50-100 copies/ with budget, summary is in budget	Governor/ Legislature
NE-79	75-100 copies/ with budget -- before Nov. 15th	Dept. of Revenue/ Exec. Board of Legislative Council, Chairs of Revenue and Appropriations Committees, and Legislature
MI-80	600 copies/ few months after budget as an appendix to budget	Governor/ Legislature
ME-83	unknown copies/ part of budget	Governor/ Legislature

NOTE: (1) States are ordered by date of first report.

SOURCES: New York State (1988) and interviews conducted with tax expenditure report preparers for this study.

Exhibit 6, continued
 REPORTING PROCESS: DISTRIBUTION

<u>STATE:</u>	<u>NUMBER OF REPORTS/ TIME OF DISTRIBUTION (P-3/ P-4)</u>	<u>SUBMITTED BY/ SUBMITTED TO</u>
LA-83	75 copies/ time of budget six weeks before start of session, <u>not</u> part of budget	Sec. Dept. of Revenue/ Governor and Legislature
MA-84	1,200 copies/ part of budget	Dept. of Revenue/ exec. secretariats, Deputy Comm. of Capital Planning, Ways and Means and Joint Taxation Committees, and Legislature
WA-84	700 copies/ start of session	Dept. of Revenue/ Legislature
MN-85	800 copies/ supplement to budget	Commissioner of Revenue/ Legislature
MS-86	400 copies/ time of budget <u>not</u> part of budget	Center for Policy Research and Planning/ Legislature
DE-87	300 copies/ time of budget <u>not</u> part of budget	Division of Revenue/ Governor and Legislature

NOTE: (1) States are ordered by date of first report.

SOURCES: New York State (1988) and interviews conducted
 with tax expenditure report preparers for this study.

Distribution

Exhibit 6 lists basic distribution information by state, ordered by year of first report. Items listed include approximate number of report copies distributed, time of distribution, party submitting reports, and parties to whom report is submitted. The number of report copies distributed varies widely among states. All twelve states distribute reports to legislators. With the exception of California, reports are submitted by a state's governor or revenue department to the legislature. In California, the primary report is submitted by Legislative Analysts, an office of the legislature, to the legislature. A second report is prepared by the executive branch, Department of Finance, and submitted to the legislature.

Communication

Exhibit 7 shows information pertaining to communication of tax expenditure reports. Report preparers identify common users of reports as others involved in report preparation, budget and fiscal analysts, tax committee members and staff, and special interest groups such as industry and public interest groups (P-35). Except for special interest groups, these users are consistently identified as the most frequent report users (P-36). Notably non-tax committee

Exhibit 7
 REPORTING PROCESS: COMMUNICATION:

	Report Preparer <u>n=12</u>	Comm. Staff <u>n=12</u>
(1) USERS PERCEIVED BY PREPARERS (P-35)		
Report preparers	12	
Legislative branch budget or fiscal analysts	11	
Legislative tax committee staffs	11	
Executive branch budget or fiscal analysts	10	
Tax committee members	10	
Representative of special interest groups	09	
Other committee staffs (not tax committee)	04	
Other legislators	04	
Citizens in general	02	
(2) CONVEYORS OF INFORMATION TO STAFF (S-6)		
Report preparers		10
Executive branch budget or fiscal analysts		09
Legislative branch budget or fiscal analysts		06
Representative of special interest groups		04
Legislative tax committee staffs		03
Constituents of legislators		02
Legislators		01
(3) MOTIVATIONS FOR USING REPORTS (P-39; S-5)		
Anticipated revenue shortages	08	08
Proposed new tax legislation	08	08
Tax reform	06	06
(4) MEANS OF COMMUNICATION USED BY STAFF (S-5)		
Personally reading report		11
Written discussions or summaries		05
Verbal discussions or summaries		04

NOTE: (1) Columns indicate number of report preparers and committee staff persons responding.

SOURCES: Interviews conducted with tax expenditure report preparers and legislative staff persons for this study.

embers and staff persons are not perceived as frequent report users (P-35).

Substantial agreement exists on motivations for tax expenditure report use, who uses reports, and the direct nature of use. Two-thirds of preparers (P-39) and staff persons (S-5) indicate that pending revenue shortages and new legislation motivates report use. Legislative staff persons acknowledge receiving report information from report preparers, budget and fiscal analysts, and special interest groups (S-6). The verification of these sources of report information by legislative staff persons partially confirms report preparer perceptions of who uses reports. Ninety-two percent of the staff persons and 94% of the legislators obtain report information by personally reading the report (S-5, L-48). Given the limited time of these persons, it may be argued that if they personally are reading the reports, the reports must have value.

The tax expenditure report is itself the primary vehicle for communicating tax expenditure information. In Maryland, Mississippi and Washington, report preparers also brief tax committees (P-10). In the other nine states, direct communication between preparers and users normally is limited to preparers response to questions.

Report preparers indicated basic content changes have been made in three states, while format changes have been made in five states over the past ten years. Two of the content changes were initiated by legislatures, and the third was the result of adjusting to changes in federal taxes. The two content changes initiated by state legislatures were (1) Delaware expanded the number of taxes covered and (2) Wisconsin removed its property tax from coverage. In four of the five states which changed their reporting format, changes were initiated by report preparers in an effort to improve reports (P-16). In one other state, a tax committee chair asked that the report be made more useful but left specifics to the preparers.

Recommendations for changing tax laws are included in only three reports (P-12).⁶⁶ One preparer, in a state not providing recommendations, viewed reports as purely descriptive. Two preparers indicated that recommendations were deliberately excluded because including recommendations in a resource document would be inappropriate; one of these preparers stressed the

⁶⁶California, Nebraska and New York include recommendations in reports. In California, the Legislative Analysts produce a separate comprehensive review of selected tax expenditures which includes recommendations.

report was a resource document rather than a policy document.

Oversight

Oversight generally refers to the supervision of policy actions. The specific policy action of interest here is the review of tax expenditures. Exhibit 8 describes oversight activities that are related to reporting. Although tax expenditure reporting usually is required by statute, only California and Michigan require review of reports (P-29). Maine requires review of tax expenditures but not the report. Tax committees in Maryland, Mississippi, and Washington simply are briefed on tax expenditure reports by report preparers (P-10). Individual legislators or committees, especially tax committees, may review the report at their discretion. Notably, appropriations committees are not involved formally in report review processes (P-32). The involvement of appropriations committees would be expected if direct and tax expenditures were evaluated as alternative means of finance.

All states that subject reports to a pre-issuance review also have some form of post-issuance review. This suggests that the scrutiny of a formal post-issuance review may promote pre-issuance review.

Exhibit 8
REPORTING PROCESS: OVERSIGHT

STATE: Oversight (P-29)

WI-75 Joint Survey Committee on Tax Exemptions may review report.

CA-76 Tax committees must review report and may propose a tax expenditure revision bill.

MD-77 Tax committees are briefed by report preparer.

NE-79 none

MI-80 Report is reviewed by Tax Expenditure Subcommittee of House Tax Committee.

ME-83 Joint Tax Committee must review one-fourth of tax expenditures (not report) each year.

LA-83 none

MA-84 none

WA-84 Tax committees are presented with report and briefed by report preparer.

MN-85 none

MS-86 Tax committees are briefed by report preparer.

DE-87 none

NOTES: (1) States are ordered by date of first report.

SOURCES: New York State (1988) and interviews with tax expenditure report preparers for this study.

Summary

State tax expenditure reporting started fifteen years ago in 1975. Thus, reporting is a relatively recent fiscal innovation. A major problem in preparing reports is inadequate data, most common in estimating the cost of tax exempt activities. Reports usually are prepared by revenue departments, which are executive agencies, and submitted to legislatures. Reports are of special interest to fiscal analysts, tax committee members and staffs. Most legislative staff persons and legislators are aware of reports from personally having read them suggesting that report information is useful. Report preparers perceive high tax committee interest, but virtually no interest by appropriation committees. Thus, the value of reporting, as seen by report preparers, is greater as input to tax issues than for appropriation issues. A minority of states have formal, institutionalized oversight procedures, but these are regarded generally as weak. Given the absence of formal oversight procedures, the reporting process seems to direct information for individual rather than collective consideration.

Tax Expenditure Report Examination

Tax expenditure reports, which are available to the public, were obtained from twenty states, the ten focal

states and ten other non-focal states. Most of the non-focal states adopted reporting recently. The states and report titles are listed in Exhibit B in Appendix. Seventeen of these reports were examined. The reports of Hawaii, North Carolina and Texas were excluded from review because of their limited scope: Hawaii reports information only on tax credits; North Carolina does not estimate the cost of expenditures; and Texas limits reporting to sales and franchise taxes.

Common Report Features

Exhibit 9 shows common tax expenditure report features adopted in three-fourths of states grouped by function. No set of features has been adopted formally as reporting standards. As discussed in Chapter II, it has been proposed that the Governmental Accounting Standards Board (GASB) adopt reporting standards. However, they have not yet acted. The absence of standards may be attributed to the fact that reporting is a relatively new activity in many states.

In the typical tax expenditure report, expenditures are estimated using the revenue foregone method. Neither the revenue gain method nor outlay equivalence method is employed. Expenditures are disclosed by type of tax. Disclosure by either budget category or general government function, which would facilitate expenditure

Exhibit 9
COMMON REPORT FEATURES

F -- focal states	10
N -- non focal states	<u>7</u>
T -- total states	17

<u>FEATURE</u>	<u>ADOPTERS</u>		
	<u>n = 17</u>		
	<u>F</u>	<u>N</u>	<u>T</u>
(1) USER ASSISTANCE			
defines tax expenditure:	09	07	16
names state	09	07	16
gives legal authority for reporting	09	07	16
names state agency preparing report	08	07	15
includes explanatory information	08	07	15
includes name of person or agency to write	07	07	14
(2) PROCEDURAL DISCLOSURE			
gives reporting period	10	07	17
estimates revenue foregone:	10	07	17
discusses report methodology limitations	07	06	13
states expenditures are not additive	07	06	13
(3) EXPENDITURE DISCLOSURE BY ITEM			
estimates expenditure amount:	10	07	17
describes expenditure:	09	07	16
references legal cite:	08	07	15

NOTE: (1) Item is a recommended standard report feature (Exhibit 10).

SOURCE: Review of seventeen tax expenditure reports. See Exhibit B in Appendix for list of reports.

Exhibit 9, continued
COMMON REPORT FEATURES

F -- focal states	10
N -- non focal states	<u>7</u>
T -- total states	17

FEATURE

ADOPTERS
n = 17

F N T

(3) EXPENDITURE DISCLOSURE BY ITEM

covers major taxes --	
personal income	10 07 17
sales and use	10 05 15
corporate income and/or	
business franchise	08 06 14

(4) ANALYSIS

reports expenditures by type tax:	09 07 16
lists summary of expenditure names	08 07 15
lists summary of expenditure amounts	08 07 15

(5) OVERSIGHT

n = 10

(based on reports of ten focal states)

reports prepared periodically:	10
report preparation by executive agency:	09
report submitted at time of budget:	09

NOTE: (1) Item is a recommended standard report feature (Exhibit 10).

SOURCE: Review of seventeen tax expenditure reports. See Exhibit B in Appendix for list of reports.

analysis by contributing to comparisons with direct expenditures, is available only in Maryland, Massachusetts, Michigan and Washington reports.

The appearance of tax expenditure reports varies widely. It is apparent that some documents are produced at minimal costs. These documents are staple or spiral bound with typewritten text and tables duplicated by a low cost means. Other reports are higher cost documents attractively designed. These documents are bound, with printed text and tables. The length of reports varies from fifteen to two hundred pages. Seven reports incorporate special features such as graphic visuals, color, heavy weight or special texture paper, side reference tabs, and indices. From examining reports, there is no distinct relationship between number of copies distributed and appearance.

Recommended Standard Report Features

Recommendations for model reports have been advanced by the National Conference of State Legislatures (Gold and Nesbary, 1986) and State of New York Legislative Commission on Public-Private Cooperation (State of New York, 1987). Recommended standard report features are listed in Exhibit 10. The source of the recommendations is indicated by the designations NY (State of New York Legislative

Exhibit 10
 RECOMMENDED STANDARD REPORT FEATURES

F -- focal states	10
N -- non focal states	<u>7</u>
T -- total states	17

<u>STANDARD</u>	<u>REPORT MODEL</u>	<u>ADOPTERS</u> n = 17		
		<u>F</u>	<u>N</u>	<u>T</u>
(1) USER ASSISTANCE				
define tax expenditure:	SL	09	07	16
describe function of taxes	SL	06	05	11
list adoption year	NY	03	02	05
(2) PROCEDURAL DISCLOSURE				
estimate revenue foregone:	SL NY	10	07	17
disclose criteria for tax expenditure designation	SL	02	03	05
report outlay equivalence	SL	0	0	0
(3) EXPENDITURE DISCLOSURE BY ITEM				
name expenditure item	SL	10	07	17
estimate expenditure amount:	SL	10	07	17
describe expenditure:	NY	09	07	16
reference legal cite:	NY	08	07	15
estimate future costs	NY	06	04	10
give termination date, if any	NY	01	01	02

NOTE: (1) Item is a common report feature (Exhibit 9).

SOURCE: Review of seventeen tax expenditure reports. See Exhibit B in Appendix for list of reports. NCSL model report (SL) from Gold and Nesbary (1986) and LCPPC model report (NY) from State of New York (1987).

Exhibit 10, continued
 RECOMMENDED STANDARD REPORT FEATURES

F -- focal states	10
N -- non focal states	<u>7</u>
T -- total states	17

<u>STANDARD</u>	<u>REPORT MODEL</u>	<u>ADOPTERS</u>		
		<u>n = 17</u>		
		<u>F</u>	<u>N</u>	<u>T</u>
(4) ANALYSIS				
reports expenditures by type tax:	SL	09	07	16
include comparative data	NY	06	05	11
discusses rationale	NY	01	02	03
includes recommendations	NY	02	01	03
reports distributional impact	NY	02	01	03
reports expenditures by budget category	NY	02	0	02
evaluates effective/efficiency	SL NY	0	0	0
includes 5 year projection	NY	0	0	0
(5) OVERSIGHT (based on reports of ten focal states)		<u>n = 10</u>		
report prepared periodically:	NY	10		
preparation by executive agency:	NY	09		
submitted at time of budget:	SL NY	07		
hearings by committee	SL NY	03		
response to review reported	NY	01		

NOTE: (1) Item is a common report feature (Exhibit 9).

SOURCE: Review of seventeen tax expenditure reports. See Exhibit B in Appendix for list of reports. NCSL model report (SL) from Gold and Nesbary (1986) and LCPPC model report (NY) from State of New York (1987). Commission on Public-Private Cooperation) or SL (National Conference of State Legislatures).

Standards widely accepted by reporting states tend to relate to expenditure cataloging rather than expenditure analysis. Reports usually contain a definition of tax expenditures, and the general function of each tax may be discussed. Each expenditure is described, a legal cite is given for its source, and a cost estimate is assigned using the revenue foregone method of estimation. The resulting information is disclosed by type of tax. The process is repeated with each budget cycle, and the report is submitted to the legislators at the same time of the budget.

Standards that have not been widely accepted are those related to the analysis of tax expenditures. These standards include such features as including termination dates, estimating costs using the outlay equivalence method, discussing the rationale for expenditures, reporting expenditures by budget categories, evaluating the effectiveness and/or efficiency of tax expenditures, and institutionalizing review procedures.

Four obstacles discourage the adoption of many report features that facilitate cost analysis. First, the ability to obtain data required by additional features ranges from difficult to impossible. Information on rationale for the tax expenditure or data

to evaluate its effectiveness may not exist. Secondly, technical problems are substantial. Classifying expenditures by budget categories requires allocation methods on which general agreement does not exist. Thirdly, the adoption of new features is costly. Undertaking policy evaluations and/or disclosing information in different ways are high cost activities consuming much staff time. Fourthly, the demand for additional features is uncertain. The benefits of reporting may be subtle, the availability of existing report information is relatively new, and the constituency pressing for additional report features is small.

Innovative Report Features

Almost every state's report has several unique features. The diversity of features reflects the diversity of ideas on how to make reports useful. Exhibit 11 shows innovative report features classified into five categories: (1) user assistance, (2) procedural disclosure, (3) expenditure disclosure by item, (4) low resource consuming analysis, and (5) high resource consuming analysis. Innovations are defined as adopted report features that are not common report features (Exhibit 9) or have not been recommended as standard report features in model reports (Exhibit 10).

Exhibit 11
 INNOVATIVE REPORT FEATURES

F -- focal states	10
N -- non focal states	<u>7</u>
T -- total states	17

ADOPTERS
n = 17

F N T

(1) USER ASSISTANCE

references person or agency to telephone	5	4	9
references year reporting adopted	4	2	6
references year of first report	2	4	6
discusses impact of state expenditures	2	1	3
describes oversight process	1	2	3
includes analysis example	1	1	2
includes reporting statute	1	1	2
discusses impact of local expenditures	1	0	1
describes state's tax structure	1	0	1

(2) PROCEDURAL DISCLOSURE

describes data sources	5	4	9
discloses assumptions	1	2	3

(3) EXPENDITURE DISCLOSURE BY ITEM

reports expenditures by structural type	3	2	5
reports local expenditures	3	0	3
distinguishes reliability of expenditures	1	2	3
reports expenditures by range	1	0	1
reports expenditure by state fund	1	0	1

SOURCE: Review of seventeen tax expenditure reports.
 See Exhibit B in Appendix for list of reports.

Exhibit 11, continued
 INNOVATIVE REPORT FEATURES

F -- focal states	10
N -- non focal states	<u>7</u>
T -- total states	17

ADOPTERS
n = 17

F N T

(4) LOW RESOURCE CONSUMING ANALYSIS

discloses total expenditures	2	2	4
discusses recent repeals and adoptions	2	2	4
reports expenditures as % of revenue	0	2	2
reports expenditures as % of total resources (tax expenditures + revenue)	1	0	1
lists expenditures nearing sunset	1	0	1

(5) HIGH RESOURCE CONSUMING ANALYSIS

reports expenditures by general function	2	1	3
indicates difficulty of repealing expenditures by class	1	1	2
reports number of claimants (limited)	1	1	2
reports expenditures by adoption year	0	1	1
analyzes cost/benefit of industrial incentives	1	0	1
comments on impact	1	0	1
comments on potential revenue gain	0	1	1
discloses conflicts with other laws	0	1	1
reviews selected expenditures extensively	1	0	1

SOURCE: Review of seventeen tax expenditure reports.
 See Exhibit B in Appendix for list of reports.

User assistance innovations suggest an interest in expanding the report audience beyond report preparers and fiscal analysts. These innovations are directed toward new users who may lack familiarity with tax expenditure reporting. In contrast, procedural disclosures, relating to data sources and methodological assumptions, are directed toward experienced users.

The weakness of source data is a persistent problem in tax expenditure reporting. Several states rate the reliability of expenditures estimates. One state, Maine discloses estimates in ranges to provide an assessment of relative the magnitude of expenditures.

Analysis innovations indicate states are moving beyond a simple cataloging of tax expenditures. Analysis features are sub-divided by the amount of resources, primarily staff time, required for compilation. Low resource consuming innovations include: (1) illustrations of tax expenditure magnitude, (2) discussion of recent repeals and adoptions and (3) listing expenditures with pending sunsets dates. These innovations are designed to capture and direct the attention of potential users.

High resource consuming innovations contribute to evaluations of effectiveness and/or efficiency. Resource consumption is high because (1) additional

information must be provided for each expenditure or (2) selected expenditures must be evaluated thoroughly. As a category, these are the least common innovations. Given the uncertain demand for high resource consuming innovations and limited resources, analyses of selected provisions allow for thorough evaluations of a limited number of tax expenditures. Thoroughly evaluating all expenditures would be extremely costly and likely non-productive as many expenditures are so deeply embedded in tax structures that the likelihood of any change is remote. Two states analyze selected expenditures. California produces a supplemental report analyzing selected expenditures, and Nebraska includes a detailed analysis of industrial incentives in its report. As users adjust to reporting, more selected expenditures analyses may be undertaken. During the course of interviews, several report preparers indicated an interest in evaluating selected expenditures.

Reporting Trends

Analysis of tax expenditure reports and interviews with report preparers suggest several trends.

- (1) Comparison of early and late adopting states indicates there is a tendency, although not universal, for the first few reports issued by a state to focus on the statistical compilation of expenditure estimates. As estimation procedures become routine, attention may shift to expenditure analysis.

- (2) One-half of the reports which include extensive explanatory material reflect an interest in making reports more attractive to novice users.
- (3) Report preparers are finding innovative ways to address reporting concerns. Weakness of source data has prompted assigning reliability estimates to expenditures estimates. The absence of detailed analysis has prompted the thorough evaluation of selected expenditures.
- (4) Almost 60% of report preparers were familiar with reports issued by one or more other states (P-26). Thus, preparers would appear to be involved in a dynamic process of learning from each other.

Summary

Reviewing reports supports five findings: (1) a common core of report features is used in most states, (2) form of reports differs, (3) resources allocated for report preparation vary, (4) reporting innovations are occurring, and (5) reporting does not appear to support comparison of tax expenditures with direct expenditures. The common core of features is more closely related to disclosure of expenditure estimates than to analysis of expenditures. For example, common features do not include (1) expenditure disclosure by budget category or general government function, which would contribute to tax and direct cost comparisons or (2) measures of changes in activity intended to be influenced by tax incentives, which would contribute to evaluations of effectiveness. However, common features do include (1)

disclosure of expenditure name, amount and legal source and (2) summary lists of expenditures.

The form of reports differ. About one-half of the reports are statistical compilations with no or minimal explanation. The other one-half of the reports contain extensive explanation oriented to helping novice users, such as new legislators or interested citizens, understand the report. Many low resource consuming innovations appear as the amount of explanatory material in reports increases. Because the cost of adding explanatory materials is low, its presence in reports may reflect an interest in expanding the audience for report information. Additional explanatory material on the nature of reports tends to provide information which would benefit external, novice users rather than internal, experienced users such as professional analysts.

From reviewing of reports, substantial differences in funding are evident in both appearance and content. Examination of reports and interviews with preparers supports the conclusion that the commitment of resources to report production differs. It may be argued that resource commitment reflects strength of interest among legislators and analysts in using report information.

However, survey data indicate there is no obvious relationship between innovation and report use.

Often reporting innovations are introduced resulting in each state's report having one or two unique features. The general purpose of the innovation is to make reports more useful. Of the thirty innovative features in Exhibit 11, fourteen (47%) provide additional information useful for analyzing tax expenditures, nine (30%) relate to making reports easier for users to understand, and five (17%) provide more information per expenditure item. Thus, while analysis has not been the focus of reporting in the past, new innovations tend to contribute to expenditure analysis.

Reporting is not designed primarily for comparison of tax expenditures with direct expenditures. Ten of seventeen states (59%) refer to the utility of expenditure estimates for evaluating direct and tax expenditures. However, no state reports revenue equivalence measures, even for selected expenditures. Of the ten tax expenditure recommendations made in California's 1987-88 and 1988-89 review of selected expenditures, two pertain to an alternative direct expenditure program. No state report addresses the cost of administering tax expenditure provisions which generally is a factor to consider when reviewing direct

expenditures. Only four states report cost data by budget compatible functions or by general government functions categories. These states report the total amount of tax expenditures by government function, but do not identify functions to which individual expenditures support. Appropriations committee involvement, which would be expected if direct and tax expenditures were equated, is minimal. Eleven of twelve report preparers (92%) indicated tax committees were frequent report users, but no preparer indicated frequent use by appropriations committees (P-33). These facts suggest reporting is not being used to compare costs of direct and tax expenditures. The subject of report use will be addressed more thoroughly in the next part of this chapter.

Use of Tax Expenditure Reports

The issue of reporting utility guides the analysis of how reports are used. Three aspects of utility are considered: (1) purposes of use, (2) policy process stage of use, and (3) control focus of use. Before discussing these aspects of utility, level of report use is described.

Report Perceptions and Use

Examination of utility presupposes reports are

used. Report preparers indicated consistently that they used reports in their analysis and that fiscal analysts and tax committee members are frequent users of reports (P-33). General perceptions on report use is summarized in Exhibit 12. It shows staff persons and legislators tend to view reports favorably. However, legislators tend to hold a more favorable view of communication and technical quality than staff persons.

Seventy-seven percent of the legislators indicated acceptance of the tax expenditure concept (L-1). In assessing the utility of reporting, 80% of the legislators and 73% of staff persons indicated reports were pertinent to tax issues (L-3; S-21). However, 78% of the legislators, as opposed to 42% of staff persons, indicated reports made an important contribution to the tax issues with which they dealt (L-2; S-20). The work of staff persons tends to be directed to specific issues, and thus they may prefer information which is more current and detailed than reports provide.

The untimeliness of information and absence of recommendations in reports, does not appear to contribute to the view that reports do not make an important contribution to tax issues. Four staff persons who indicated reports did not make an important contribution to tax issues were satisfied with the

Exhibit 12
 GENERAL PERCEPTIONS ON REPORT USE

Response Scale (1-6)

Responses 4-6
Positive Responses

<u>Issue</u>	<u>Question</u>	<u>n=12 Staff</u>	<u>n=132 Legislator</u>
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GENERAL PERCEPTIONS:

pertinence of report	(S-21; L- 3)	73%	80%
contribution of report	(S-20; L- 2)	42%	78%
timeliness of report	(S-23; L- 5)	83%	67%
desirability of recommendations	(S-22; L- 4)	33%	72%

QUALITY OF COMMUNICATION:
 (three measures)

general quality of communication	(S-27; L- 9)	67%	82%
ease of understanding	(S-28; L-10)	83%	75%
adequacy of assistance	(S-29; L-11)	83%	83%

TECHNICAL QUALITY:
 (three measures)

general technical quality	(S-24; L- 6)	67%	79%
reliability of report	(S-26; L- 8)	58%	82%
adequacy of disclosure	(S-25; L- 7)	50%	75%

SOURCE: Interviews with staff persons (S) and survey of legislators (L).

timing of reports and absence of recommendations. Overall, timeliness of reports was assessed as marginally adequate (S-23). The 15% of staff persons who were most dissatisfied with timing worked in states where report information is behind budget information by more than a year. Concern over timeliness also was evidenced by the legislators from all states. One-third of the legislators indicated information was not available on a timely basis (L-5).

Report preparers and staff persons differed most with legislators on the desirability of including recommendations in reports. Several preparers expressed the view that the report should be a descriptive, factual, resource document rather than policy documents providing recommendations.⁶⁷ Almost 70% of staff persons indicate the inclusion of recommendations in reports would not be helpful (S-22). One staff person expressed concern that inclusion of recommendations would "reduce the influence of reports (S-37)." In contrast to the opposition to inclusion of recommendations expressed by preparers and staff persons, almost 70% of the legislators express a desire for recommendations (L-4). Focusing on fiscal analysis,

⁶⁷For discussion of report preparers' views on recommendations see earlier section of this chapter subtitled, Communication.

staff persons have a narrower role than legislators; and being experienced in fiscal analysis, they may prefer to draw their own conclusion. Legislators, with less time for examining reports and possibly less experience as analysts, may prefer recommendations as a starting point for discussions.

Seventy-five percent or more of the legislators indicated general quality of report communications was high, reports were understandable and interpretative assistance was adequate (L-9, L-10, L-11). Almost 70% of staff persons agreed indicating general quality of report communication was high, and over 80% of staff persons indicated reports were understandable and interpretive assistance was adequate (S-27, S-28, S-29). General technical quality of report information was also viewed favorably by most legislators and staff persons. Seventy-five percent or more of the legislators indicated general technical quality of reports was high, report information was reliable and disclosure of information was adequate (L-6, L-7, L-8). Sixty-seven percent of staff persons indicated general technical quality of reports was high; fewer staff persons, 60%, indicated report information was reliable; and 50% of staff persons indicated disclosure of information was adequate (S-24, S-25, S-26). The less favorable

assessments by staff persons of information reliability and adequacy of disclosure are differences which may reflect staff persons' familiarity with data gathering methods and their need for program specific information. One staff person commented that the report could be improved by aggregating less information and providing more detail.

Exhibit 13 summarizes data related to level of report use observed by legislators and staff persons. One-half of the staff persons indicated that when considering tax issues legislators would both mention and consider report information, and one-third of the staff persons indicated legislators would seek out report information (S-30, S-31, S-32). Responding to the same statements on observed use, the legislators indicated a higher level of use than staff persons observed (L-24, L-25, L-26). Over 75% of the legislators indicated report information would be mentioned and considered when tax policy was discussed and over 60% of the legislators indicated report information would be sought out. When responses are aggregated into three categories (very low, moderate and very high) instead of by two categories (low and high) the strength of indicators diminishes with 25% of the staff persons and 56% of the legislators indicating very

Exhibit 13
LEVEL OF REPORT USE

STAFF PERSONS: observed use of report information
when tax policy issues are discussed

		n = 12			
Response Scale (1-6)		low (1-3)	high (4-6)		
consider	(S-30)	6 (50%)	6 (50%)		
mention	(S-31)	6 (50%)	6 (50%)		
seek out	(S-32)	8 (67%)	4 (33%)		
Response Scale (1-6)		very low (1-2)	moderate (3-4)	very high (5-6)	
consider	(S-30)	2 (17%)	7 (58%)	3 (25%)	
mention	(S-31)	3 (25%)	6 (50%)	3 (25%)	
seek out	(S-32)	3 (25%)	8 (67%)	1 (08%)	

LEGISLATORS: observed use of report information
when tax policy issues are discussed

		n = 133			
Response Scale (1-6)		low (1-3)	high (4-6)		
consider	(L-24)	29 (22%)	104 (78%)		
mention	(L-25)	30 (23%)	103 (77%)		
seek out	(L-26)	51 (38%)	82 (62%)		
Response Scale (1-6)		very low (1-2)	moderate (3-4)	very high (5-6)	
consider	(L-24)	11 (08%)	47 (35%)	75 (57%)	
mention	(L-25)	15 (11%)	44 (33%)	74 (56%)	
seek out	(L-26)	25 (18%)	54 (41%)	54 (41%)	

SOURCE: Interviews with staff persons (S) and survey of
legislators (L).

high likelihood that report information will be considered and mentioned when tax policy issues are discussed. The seeking out of report information is observed less frequently. In the three category classification, 8% of the staff persons and 41% of the legislators, indicated a very high likelihood of seeking out report information.

In summary, regardless of the classification of data into two or three categories, a consistent pattern of use is reflected. Consideration and mention of report information is more common than taking time to seek out report information. Additionally both data classifications indicate legislators observe more widespread report use among themselves than staff persons observe.

Purpose of Report Use

Peltz's (1978) purpose of use typology distinguishing conceptual, instrumental and symbolic uses provides a framework for examining purpose. (Refer to Chapter III for a discussion of this typology.)

Report Preparers

The general perception of report preparers is that tax expenditure reports are intended (1) to encourage examination of tax expenditures and (2) to create

greater public awareness concerning the cost of tax expenditures (P-18). All report preparers indicated reporting has created greater awareness of the magnitude and/or cost of tax expenditures (P-19, P-20). One preparer said, "it (reporting) sinks into the subconscious that actions have a cost, and the result is greater consciousness of tradeoffs."

In the context of conceptual, instrumental and symbolic use, report preparers have a strong conceptual view of the functions reporting actually serves. Preparers view reporting as being educational for legislators, fiscal analysts and the general public (P-20, P-24). Reports are considered to be resources for enhancing the quality of debate. For all interested parties, reports are thought to provide a better overall understanding of the tax structure. Three preparers commented that the extensive coverage of tax structure, and inclusion of explanations and histories of tax expenditures provisions contribute to a better overall understanding of a state's tax structure.

Report preparers indicated that reporting contributes indirectly to the preparation of fiscal notes on the revenue impact of proposed legislation (P-22), but not to improved revenue estimates (P-23). The degree of contribution to fiscal notes varied from

extensive to marginal. Eleven report preparers (92%) commented that because of reporting they were better able to prepare fiscal notes, had more up-to-date data, and better organized data (P-22). In one state the preparation of fiscal notes is unrelated to reporting, and in most states the preparation of revenue estimates is unrelated to reporting. Overall, report preparers viewed reporting as effective in increasing awareness about costs of tax expenditures, providing a starting point for discussions, or contributing to a higher quality of debate on tax issues.

Legislative Staff Persons and Legislators

Three sets of questions queried legislative staff persons and legislators about purpose of report use. Responses are summarized in Exhibit 14. In the context of conceptual, instrumental and symbolic purposes of use, staff persons tended to be conceptual users. Sixty-seven percent of staff persons indicated conceptual use, 42% indicated symbolic use and 33% indicated instrumental use (S-9, S-10, S-11). Legislators tended to be multi-purpose users. Seventy-nine percent of the legislators indicated conceptual use, 70% indicated symbolic use, and 69% indicated instrumental use.

Exhibit 14
PURPOSE OF REPORT USE

REPORT PREPARERS: perceptions on use

conceptual strongly perceived (P-18, P-19, P-20)
instrumental not mentioned
symbolic not mentioned

STAFF PERSONS: evaluations of own use

		n = 12			
Response Scale (1-6)		low (1-3)	high (4-6)		
conceptual	(S- 9)	4 (33%)	8 (67%)		
instrumental	(S-10)	8 (67%)	4 (33%)		
symbolic	(S-11)	7 (58%)	5 (42%)		

Response Scale (1-6)		very low (1-2)	moderate (3-4)	very high (5-6)
conceptual	(S- 9)	3 (25%)	3 (25%)	6 (50%)
instrumental	(S-10)	3 (25%)	7 (58%)	2 (17%)
symbolic	(S-11)	6 (50%)	5 (42%)	1 (8%)

LEGISLATORS: evaluations of own use

		n = 131			
Response Scale (1-6)		low (1-3)	high (4-6)		
conceptual	(L-15)	28 (21%)	103 (79%)		
instrumental	(L-16)	41 (31%)	90 (69%)		
symbolic	(L-17)	39 (30%)	92 (70%)		

Response Scale (1-6)		very low (1-2)	moderate (3-4)	very high (5-6)
conceptual	(L-15)	11 (9%)	41 (31%)	79 (61%)
instrumental	(L-16)	19 (15%)	62 (47%)	50 (38%)
symbolic	(L-17)	17 (13%)	59 (45%)	55 (42%)

SOURCE: Interviews with staff persons (S) and survey of legislators (L).

When response data are aggregated into three categories as opposed to two categories, 50% of staff persons indicate very high levels of conceptual use in contrast to 17% indicating very high levels of instrumental use and 8% indicating very high levels of symbolic use. The lack of symbolic use by staff persons is further reflected in the three category classification of data where 50% of staff persons indicated very low levels of symbolic use as opposed to only 25% of staff persons indicating very low levels of conceptual and instrumental use. For legislators the three category classification of data shows the dominance of conceptual use with 61% of the legislators indicating very high levels of conceptual use as opposed to 38% indicating very high levels of symbolic use and 42% indicating very high levels of instrumental use.

Responses in this study support the dominance of conceptual use found in previous studies (Caplan et al., 1975; Knorr, 1977; and Weiss, 1977, 1982). The relative importance of instrumental and symbolic use has not been investigated in other studies. However, it is not surprising that staff persons would indicate more instrumental use than symbolic use. The staff persons interviewed are responsible for conveying fiscal information to legislators. As a part of their

responsibilities it is likely that they must construct alternative proposals about how to address an issue. The construction of alternative proposals would involve the instrumental use of information. Additionally, legislators could be expected to favor symbolic use more than staff persons. Legislators operate in a political environment where persuasion, which often involves the symbolic use of information, is necessary. In summary, both staff persons and legislators indicated conceptual use tended to be greater than instrumental or symbolic uses.

Policy Process Stage of Report Use

Common stages of policy process defined by Dunn (1981) and Jones (1977), discussed in Chapter III, provide a framework for examining stage of use. These common stages are: (1) issue development, (2) option analysis, (3) action selection, and (4) result monitoring. Staff person and legislator responses to statements concerning policy stage of report use are summarized in Exhibit 15.

Legislative Staff Persons and Legislators

Staff persons and legislators indicate high use for issue development and result monitoring, moderately high use for option analysis and the less use for action

Exhibit 15
POLICY PROCESS STAGE OF REPORT USE

STAFF PERSONS:

	n = 12		
Response Scale (1-6)	low <u>(1-3)</u>	high <u>(4-6)</u>	
issue development (S-12)	4 (33%)	8 (67%)	
option analysis (S-13)	5 (42%)	7 (58%)	
action selection (S-14)	8 (67%)	4 (33%)	
result monitoring (S-15)	3 (25%)	9 (75%)	
Response Scale (1-6)	very low <u>(1-2)</u>	moderate <u>(3-4)</u>	very high <u>(5-6)</u>
issue development (S-12)	2 (16%)	5 (42%)	5 (42%)
option analysis (S-13)	4 (33%)	5 (42%)	3 (25%)
action selection (S-14)	6 (50%)	5 (42%)	1 (8%)
result monitoring (S-15)	1 (8%)	5 (42%)	6 (50%)

LEGISLATORS:

	n = 131		
Response Scale (1-6)	low <u>(1-3)</u>	high <u>(4-6)</u>	
issue development (L-18)	29 (22%)	102 (78%)	
option analysis (L-19)	39 (30%)	92 (70%)	
action selection (L-20)	52 (40%)	79 (60%)	
result monitoring (L-21)	25 (19%)	106 (81%)	
Response Scale (1-6)	very low <u>(1-2)</u>	moderate <u>(3-4)</u>	very high <u>(5-6)</u>
issue development (L-18)	11 (8%)	47 (36%)	73 (56%)
option analysis (L-19)	18 (14%)	59 (45%)	54 (41%)
action selection (L-20)	20 (15%)	76 (58%)	35 (27%)
result monitoring (L-21)	10 (8%)	49 (37%)	72 (55%)

SOURCE: Interviews with staff persons (S) and survey of legislators (L).

selection. Regarding stage of use, 75% of the staff persons indicate result monitoring, 67% issue development, 58% option analysis, and 33% action selection (S-12, S-13, S-14, S-15). Seventy-eight percent of the legislators indicate use for issue development, 81% indicate use for result monitoring, 70% indicate use for option analysis, and 60% indicate use for action selection (L-18, L-19, L-20, L-21). The same pattern of use by policy process stage is reflected in both the two and three category classifications of data. The dominance of use in the issue development and result monitoring stages is consistent with the findings of Mitchell (1980; 1981).

Control Focus of Report Use

Surrey (Surrey and Hellmuth, 1969; Surrey 1972) initiated discussion of two primary control focuses that provide guidance in examining control: (1) cost comparison and (2) revenue comparison. These aspect of control were discussed in Chapter III.

Report Preparers and Legislative Staff Persons

Both report preparers and legislative staff persons indicated the objectives of reporting were: (1) fostering costs comparison, (2) promoting revenue comparison and (3) increased oversight of tax

expenditures through educating policy makers (P-40; S-18). The evidence presented by preparers suggests formal cost comparison seldom occurs and revenue comparison directed toward capturing new revenues has not been effective to date.

The cost comparison objective is prevalent in tax expenditure reporting literature (Surrey, 1973; Surrey and McDaniel, 1985) and referred to in ten state reports. However, the practice of cost comparison analysis is not obvious. No report preparer mentioned that reporting actually was effective in fostering cost comparisons (P-25). Two preparers specifically commented on the lack of report use for cost comparisons in appropriations decisions (P-40). No staff person referred to reporting fostering actual cost comparisons (S-18). Although cost comparison would require the involvement of non-tax committee members, report preparers perceived minimal report use by non-tax committee members in contrast to frequent use by tax committee members (P-33). Neither staff persons nor legislators mentioned the provision of benefits through direct or tax funding as motivating report use (S-35, L-49). Additionally, in three reports that include recommendations, most recommendations do not relate an alternative direct expenditure program.

Two-thirds of the report preparers and staff persons and 85% of the legislators indicated that revenue shortages motivate report use (P-39, S-35, L-49). This motivation suggests a revenue comparison objective. Three preparers indicated that reports were used most often in searching for new revenue sources (P-40). One staff person described reporting as a "menu of revenue sources." But when asked to describe specific tax policies influenced by reporting, all the expenditure changes described by preparers and staff persons were minor (P-44; S-34). No policy changes were cited which captured significant revenues (P-44; S-34). Using reports to search for revenue does not appear to lead to tax expenditure repeals which generate substantial revenues. Evidence on revenue comparison to protect existing revenues is inconclusive. None of the respondents were asked to identify tax expenditures not adopted in order to protect existing revenues. One report preparer and one staff person indicated that revenue protection was a result of reporting (P-40; S-18). However, if using reports to search for revenue is not successful, it is reasonable that the search process may contribute to a resistance to adopt more tax expenditures.

Some evidence supports the objective of greater oversight of tax expenditures through education of legislators. One preparer commented that reporting had increased concern over how to administer or oversee tax expenditures (P-19). High conceptual use is compatible with an education objective. Nine report preparers (75%) and five staff persons (42%) indicated greater awareness of tax expenditure costs resulting from reporting (P-40, S-18). Reporting may also contribute to greater oversight of the tax structure by supporting the preparation of fiscal notes on the impact of new legislation. Eleven report preparers (92%) indicated reporting made the preparation of fiscal notes easier.

The two objectives of education and revenue protection may be related. Fiscal crisis and new tax legislation seem to trigger examination of tax expenditure report information; the examination educates legislators by promoting greater awareness of tax expenditure costs; and the greater awareness of tax expenditure costs may yield resistance to new tax expenditures which has the effect of protecting the revenue base.

Legislative Staff Persons and Legislators

Legislative staff persons and legislators were asked about the control focus of reports on cost

comparison or revenue comparison. Results are summarized in Exhibit 16. Seventy-five percent of the staff persons indicate a high level of focus on revenue comparison, and 42% indicate a high level of focus on cost comparison (S-16, S-17). Seventy-six percent of the legislators indicate a high level of focus on revenue comparison, and 64% indicate a high level of focus on cost comparison (L-22, L-23). When data are aggregated into three categories, the dominance of revenue comparison for staff persons remains with 50% of staff persons indicating a very high focus on revenue comparison, and 25% of staff persons indicating a very high focus on cost comparison. Additionally, 58% of staff persons indicate a very low focus on cost comparison, and 17% indicate a very low focus on revenue comparison. The three category classification of data also reflects a slightly greater focus by legislators on revenue than cost comparison with 48% of the legislators indicating a very high focus on revenue comparison and 43% a very high focus on cost comparison. The difference among the legislators is reflected further by legislators indicating a very low focus on cost comparison. Eighteen percent of the legislators indicate a very low focus on cost comparison, and 8% indicate a very low focus on revenue comparison.

Exhibit 16
CONTROL FOCUS OF REPORT USE

STAFF PERSONS:

	n = 12	
Response Scale (1-6)	low (1-3)	high (4-6)
revenue comparison (S-16)	3 (25%)	9 (75%)
cost comparison (S-17)	7 (58%)	5 (42%)

Response Scale (1-6)	very low (1-2)	moderate (3-4)	very high (5-6)
revenue comparison (S-16)	2 (17%)	4 (33%)	6 (50%)
cost comparison (S-17)	7 (58%)	2 (17%)	3 (25%)

LEGISLATORS:

	n = 131	
Response Scale (1-6)	low (1-3)	high (4-6)
revenue comparison (L-22)	32 (24%)	99 (76%)
cost comparison (L-23)	47 (36%)	84 (64%)

Response Scale (1-6)	very low (1-2)	moderate (3-4)	very high (5-6)
revenue comparison (L-22)	11 (8%)	57 (44%)	63 (48%)
cost comparison (L-23)	24 (18%)	51 (39%)	56 (43%)

SOURCE: Interviews with staff persons (S) and survey of legislators (L).

In summary, both staff persons and legislators indicate the dominant control focus is on revenue comparison. The fact that 25% of the staff persons and 43% percent of the legislators indicate a very high focus on cost comparison is somewhat inconsistent with the lack of evidence from report examinations, report preparer and staff person interviews suggesting an absence of cost comparison. The inconsistency may be partially attributable to wording of the questions to indicate control focus and partially attributable to distinguishing between individual and collective control focuses. The data from report examination, interviews, and staff persons responses to control focus indicators, support the conclusion that there is almost no formal or collective focus on cost comparison. However, 43% of the legislators indicate a very strong focus on cost comparison. It is possible that legislators, having become aware of tax expenditure costs from serving on tax committees, then use that awareness to make informal, individual cost comparisons on decisions involving direct appropriations.

Summary

Six findings are supported from the review of reporting process and report use.

- (1) Tax expenditure reports, which are produced periodically in conformity with budget cycles and available to the public in twenty states, have contributed to broad acceptance of the tax expenditure concept.
- (2) Tax expenditure reporting does achieve an educational objective by facilitating an overall understanding of tax structure and conveying the idea that public programs can be financed at a cost via tax provisions.
- (3) The purpose of use and stage of use of tax expenditure information is consistent with the use of technical information in general.
- (4) Legislator and staff person perceptions on tax expenditure report information are similar.
- (5) A major objective of advocates of tax expenditure reporting, the comparison of tax expenditures with direct expenditures, has not been accepted as widely as the objective of revenue comparison to capture or protect revenue.
- (6) Awareness of tax expenditure costs appears to protect tax bases from erosion by fostering resistance to new tax expenditures.

Tax expenditure reporting is a relatively new innovation. Rather than generating directly observable impacts, tax expenditure reporting is serving as a vehicle for more general understanding. The idea that public programs can be financed through tax provisions is moving from academic journals to newspaper editorials. Reporting promotes the idea that financing occurs via tax provisions and costs attach to such forms of financing.

Tax expenditure reporting has educational utility. Reports contribute to an overall understanding of total

tax structure and the magnitude of benefits provided via tax provisions. Tax expenditure reporting attaches costs to actions.

The use of tax expenditure report information is consistent with other forms of technical information use. The dominant use is for enhancing conceptual understanding rather than instrumental application in solving problems or symbolic justification of prior decisions. Use occurs most often in the issue development and result monitoring stage of the policy process, occurs less often in the option analysis stage and occurs least often in the action selection stage.

The perceptions of legislators and legislative staff persons regarding the use of reports are similar. They generally agree on the purposes and policy stages of use. Additionally, report communication and technical quality of reports are regarded favorably by one-half of the staff persons and three-fourths of the legislators.

Legislators, legislative staff persons, and report preparers accept the idea that tax expenditure report information has multiple objectives. Reporting is accepted by these as being useful for (1) comparing revenues foregone to protect existing revenues or capture new revenues, (2) educating policy makers, and

(3) comparing costs of tax expenditures with direct expenditures. Acceptance of the first objective is dominant among producers and users of tax expenditures reports in practice, whereas the third objective is dominate among advocates of reporting. The second objective is accepted by all parties. The relative merit of these objectives is a question that is outside the scope of this study. Although there is acceptance of the third objective as legitimate, evidence suggests it has not been adopted.

Data from interviews with report preparers and legislative staff persons indicate that neither the revenue comparison objective as directed toward capturing new revenues nor cost comparison objective is being served as reporting is currently implemented. The absence, in the current environment, of cost comparison analysis between tax and direct expenditures does not mean that reporting lacks potential utility in this area. Institutionalized processes to encourage the formal evaluation of direct and tax expenditures as alternative financing means are lacking. No significant constituent group is pressuring legislators for changes in the process. The traditional motivation of constituent groups is to garner resources for direct

self-benefit rather than to pressure for general oversight measures.

Although tax expenditure estimates are imprecise, the information introduces some reduction in risk to a resource transfer environment characterized by conflicting demands of diverse stakeholders. It generally appears that the current influence of report information may surface in two actions by users: (1) not proposing new expenditures before checking the costs, and (2) not approving new expenditures because of the magnitude of benefits currently provided and difficulty of securing additional resources.

CHAPTER VI
MODEL EVALUATIONS

The three information use path models are evaluated in this chapter to determine if they are supported by the data. Before proceeding to model evaluations, the construction of six variables from weighted indices is discussed. Each information use model is then evaluated, and consideration is given to how the three information use models may be related.

Methods

Six variables were constructed using weighted indices. Each index reduced a set of measures to one indicator. The weightings for index construction were obtained from a principal component analysis of each set of measures. Exhibit 17 gives the following information for each set of measures:

- (1) eigenvalue -- measure proportional to variance explained by corresponding factor,
- (2) loadings -- transformation coefficients of original factor, and

Exhibit 17
 PRINCIPAL COMPONENT ANALYSIS FOR WEIGHTED INDICES

Variable: General Technical Quality
 First Factor

		<u>factor</u> <u>loading</u>	<u>std.</u> <u>load.</u>
Eigenvalue			
2.203	Item 06 (L-06):	.907	.411
Variance Explained	Item 07 (L-07)	.815	.370
2.203/3 = 73.43%	Item 08 (L-08)	.847	.384

Variable: General Communication Quality
 First Factor

		<u>factor</u> <u>loading</u>	<u>std.</u> <u>load.</u>
Eigenvalue 1.928	Item 09 (L-09)	.831	.431
Variance Explained	Item 10 (L-10)	.795	.412
1.928/3 = 64.26%	Item 11 (L-11)	.778	.404

Variable: Level of Use
 First Factor

		<u>factor</u> <u>loading</u>	<u>std.</u> <u>load.</u>
Eigenvalue			
2.305	Item 24 (L-24)	.865	.375
Variance Explained	Item 25 (L-25)	.907	.394
2.305/3 = 76.83%	Item 26 (L-26)	.857	.372

NOTES: (1) References such as (L-#) are to Legislator Mail Survey, Exhibit E in Appendix.

Exhibit 17, continued
 PRINCIPAL COMPONENT ANALYSIS FOR WEIGHTED INDICES

Variable: Open Mindedness (Webber, 1983)
 First Factor

		<u>factor</u> <u>loading</u>	<u>std.</u> <u>load.</u>
Eigenvalue			
1.831	Item 27 (L-27) ₁	.759	.415
Variance Explained	Item 28 (L-28)	.709	.387
1.831/3 = 61.03%	Item 29 (L-29)	.867	.472

Variable: Support for Free Market
 (economic conservative/liberal index)
 First Factor

		<u>factor</u> <u>loading</u>	<u>std.</u> <u>load.</u>
Eigenvalue			
2.031	Item 30 (L-30) ₂	.823	.405
Variance Explained	Item 31 (L-31)	.813	.401
2.031/3 = 67.70%	Item 43 (L-43)	.831	.409

Variable: Public Service Commitment
 First Factor

		<u>factor</u> <u>loading</u>	<u>std.</u> <u>load.</u>
Eigenvalue			
1.443	Item 39 (L-39)	.849	.589
Variance Explained	Item 40 (L-40)	.849	.589
1.443/2 = 72.15%			

NOTES: (1) References such as (L-#) are to Legislator Mail Survey, Exhibit E in Appendix. (2) Scale is reversed on Item 30 for consistency of measurement with Items 31 and 43.

(3) standard loading -- standardized measure proportional to loading.

This exhibit shows that, as expected, each set of measures loaded strongly and positively on Factor 1. Because of the large amount of variance explained by loading on the first factor, it is unnecessary to present additional factors, all of which had eigenvalues that were less than one.

The use of weighted indices to construct indicators for the first five variables listed in Exhibit 17 was part of the research design. Two measures were specified for the last variable, public service commitment. One measure, internal (L-39), relating to willingness to remain in the legislature, and the other measure, external (L-40), relating to willingness to seek higher office. Because both of these measures reflected a commitment to public service, the two measures were also reduced to one indicator using the standardized factor loadings from a principal component analysis.

In evaluating each information use model, three exhibits (a, b, c) are presented. The first exhibit (a) shows the model as specified in Chapter IV with the Pearson correlation coefficient matrix. In general, the number of respondents (n) varies slightly by ten or less observations because a few respondents neglected to

provide some responses. In the second exhibit (b), paths connecting variables with correlations of .10 or less are eliminated. This method was adopted as paths with correlations of .10 would not be significant at the .01 level of significance as partial regressions.

A .01 level of significance was selected as a conservative way of preventing false paths from entering the model. Computing an overall significance level for a path model is difficult due to dependencies between paths. However, a conservative .01 level of significance was chosen to minimize problems with multiple comparisons. Removing the paths with a correlation of .10 or less simplifies the model as reflected in the second exhibit (b) which show the remaining model and significant path coefficients.

In the second exhibit (b), the paths which remain have correlation coefficients of more than .10. Of these remaining paths, those with path coefficients which are not significant at the .01 level of significance are marked as not significant. The path coefficients for the significant path are given. Each path coefficient indicates the amount of change in the subsequent variable resulting from a change of one standard unit in the originating variable assuming all other variables are held constant.

Decomposition of total effect on level of use into direct and indirect effects on level of use is shown beneath the model in the second exhibit (b). The total effect indicates the amount of change in the dependent variable, level of use, resulting from a change of one standard unit in the originating variable assuming only those variables affected by the originating variable are allowed to vary and all other variables are held constant.

Paths with coefficients that were not significant at the .01 level of significance as partial regressions were then eliminated in preparing the third exhibit (c) which shows the modified model after elimination of unsupported paths and regression results of level of use on variables in the final modified model. The residual path coefficient (R) is specified for endogenous variables, and regression results are given. Regression measures pertain to regression of the dependent variable, level of use, on all other variables remaining in the final modified models (c). Regression results are provided so that one may compare the path analysis results with results of a regression analysis. The regression measures are:

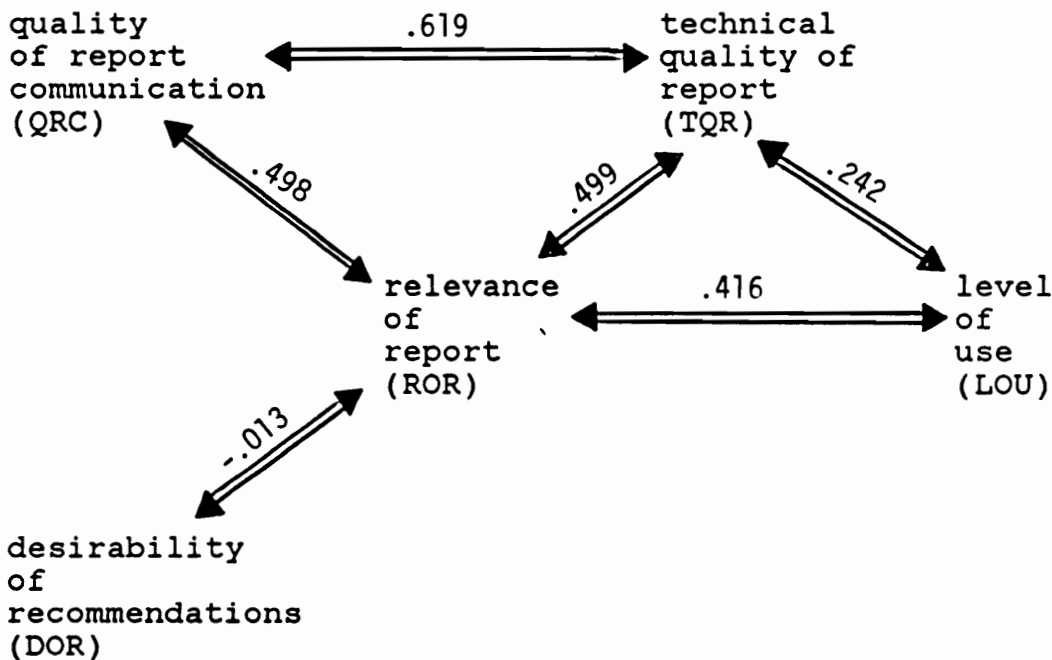
- (1) unadjusted r^2 (coefficient of determination for complete model) -- measure shows proportion of variability explained by regression model,

- (2) adjusted r^2 -- coefficient of determination for complete model adjusted for number of variables in model.
- (3) T for H_0 -- T statistic for regression coefficient for given variable to test the null hypothesis that the regression coefficient equals zero,
- (4) Prob $> |T|$ (probability of a T random variable being greater than absolute value of the observed T) -- this probability is significance level of the observed regression coefficient,
- (5) Type II SS (type II sums of squares) -- sequential sums of square when each variable is entered as the last to enter model (This measure is insensitive to order of entry.), and
- (6) Std. Coef. (standardized coefficient) -- regression coefficient for standardized variables (This measure is proportional to regression coefficient.).

Information Specific Model

Examination of Pearson correlation coefficients (Exhibit 18a), supports removal of the path which shows desirability of recommendations being included in reports affecting relevance of reports. Path coefficients (Exhibit 18b) show relevance of report has the largest total effect on level of use (.425). As expected, quality of report communication affects level of use indirectly via its influence on relevance of report and technical quality of report. Except for removing desirability of recommendations, the modified model (Exhibit 18c) is supported as specified originally. Using multiple regression analysis, the

Exhibit 18a



↔ Double arrowed lines indicate correlation.

EXHIBIT 18a, INFORMATION SPECIFIC MODEL
PEARSON CORRELATION COEFFICIENTS

Variables:

DOR -- desirability of recommendations
 TQR -- technical quality of report
 QRC -- quality of report communication
 LOU -- level of use
 ROR -- relevance of report

Correlation Coefficients:

maximum n = 134

	ROR	DOR	TQR	QRC
DOR	-.013			
TQR	.499	.095		
QRC	.498	.066	.619	
LOU	.416	.168	.242	.385

Exhibit 18b

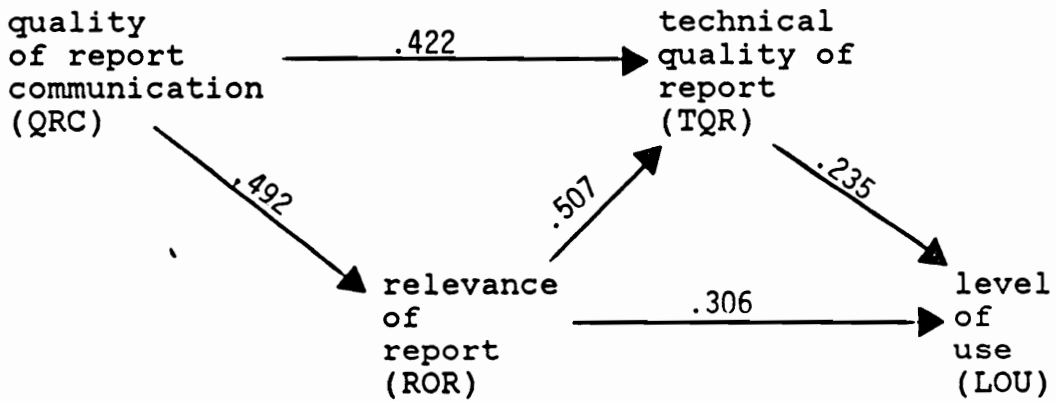


EXHIBIT 18b, INFORMATION SPECIFIC MODEL
PATH COEFFICIENTS

Variables:

QRC -- quality of report communication
 DOR -- desirability of recommendations
 ROR -- relevance of report
 TQR -- technical quality of report
 LOU -- level of use

Direct and Indirect Effects:

	<u>direct</u>	<u>indirect</u>	<u>total</u>
ROR	.306	via TQR .119	.425
QRC	none	via ROR .151 via TQR .099 via ROR & TQR .059	.309
TQR	.235	none	.235

Exhibit 18c

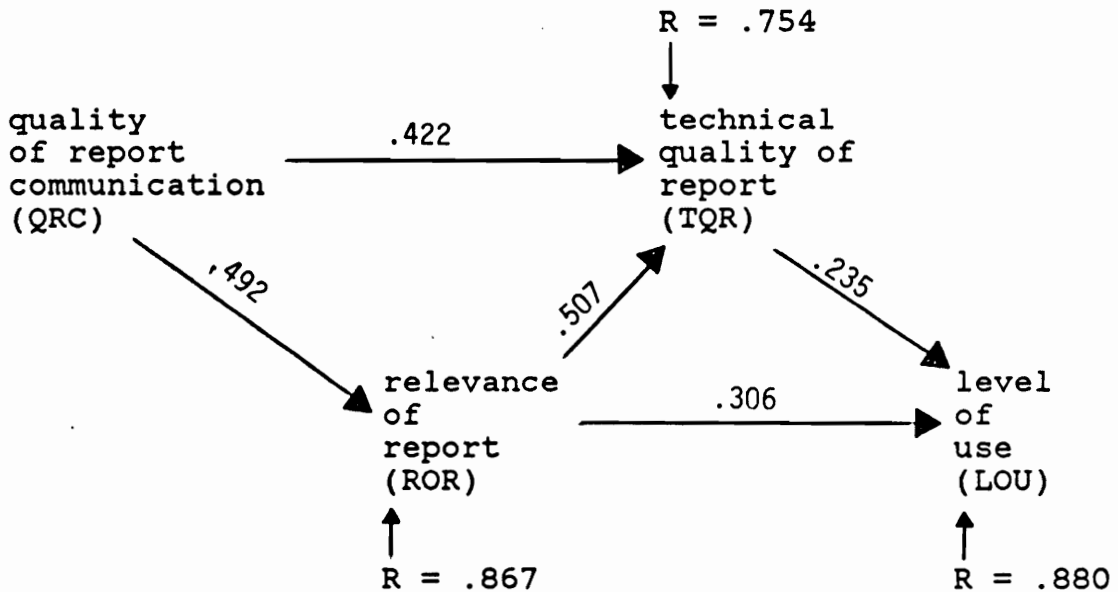


EXHIBIT 18c, INFORMATION SPECIFIC MODEL
MODIFIED MODEL, PATH COEFFICIENTS AND RESIDUALS

Variables:

- QRC -- quality of report communication
- DOR -- desirability of recommendations
- ROR -- relevance of report
- TQR -- technical quality of report
- LOU -- level of use

Regression Results:

$$LOU = b_0 + b_1 QRC + b_2 ROR + b_3 TQR + e$$

unadjusted $r^2 = 22.5\%$

adjusted $r^2 = 20.6\%$

	<u>T for H₀</u>	<u>Prob > T </u>	<u>Type II SS</u>	<u>Std. Coef.</u>
intercept	---	---	---	.0075
QRC	2.853	.005	6.12	.307
ROR	2.994	.003	6.74	.293
TQR	-.725	.470	.39	-.078

NOTE: (1) All variables in regression equation are standardized with mean of zero and standard deviation of one.

variables specified in the modified information specific model, explain 22.5% of the variance in level of use.

Weiss and Bucuvalas (1980a) found action oriented recommendations are related to information usefulness. However, respondents to the Weiss and Bucuvalas (1980a) study compared reports which often included recommendations. Additionally, the respondents were managers or administrators rather than legislators, and thus functioned in a different organizational environment. Because recommendations are seldom included in tax expenditure reports, it is difficult to measure the effect of the absence of recommendations on use. Legislators were asked to indicate the desirability of including recommendations in reports, and most legislators (72%) favored including recommendations in reports. However, the data do not show that the desirability of including recommendations in future reports affects current level of use.

Despite the preference expressed by legislators for recommendations, it is possible that report use may be affected negatively if report preparers initiate recommendations. Several preparers, staff persons, and legislators indicated in interviews that preparer initiated recommendations would impair the neutrality of reports as resource documents. A more appropriate

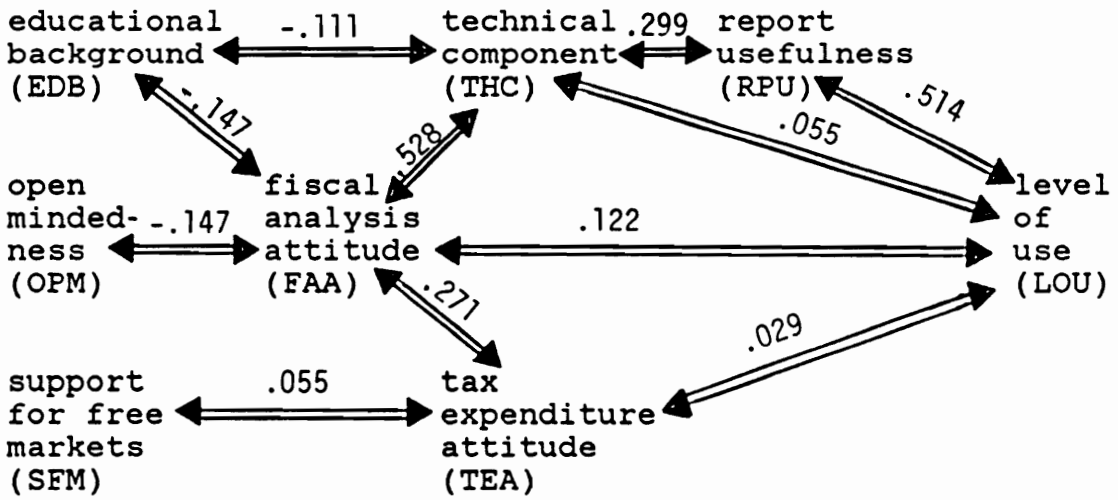
source of recommendations may be a separate document initiated by the governor or a legislative review committee.

Analysis indicates the information specific model, with one modification, is valid as specified. The conclusion that the model is valid is based on most of the paths being supported by the data.

Personal Attribute Model

Examination of Pearson correlation coefficients (Exhibit 19a), supports removal of three paths from the personal attribute model of two paths: (1) technical component directly affecting level of use and (2) support for free markets (economic conservatism) directly affecting tax expenditure attitude (attitude toward using tax expenditures) and (3) tax expenditure attitude directly affecting level of use. Removal of the third path precludes the path from fiscal analysis attitude to tax expenditure attitude continuing to level of use. Path coefficients also indicate the path from fiscal analysis attitude to tax expenditure attitude is not significant, and this path is removed from Exhibit 19b. Considering the paths which remain (Exhibit 19b), report usefulness has the largest and only direct effect on level of use (.512) in the personal attribute model.

Exhibit 19a



↔ Double arrowed lines indicate correlation.

EXHIBIT 19a, PERSONAL ATTRIBUTE MODEL
PEARSON CORRELATION COEFFICIENTS

Variables:

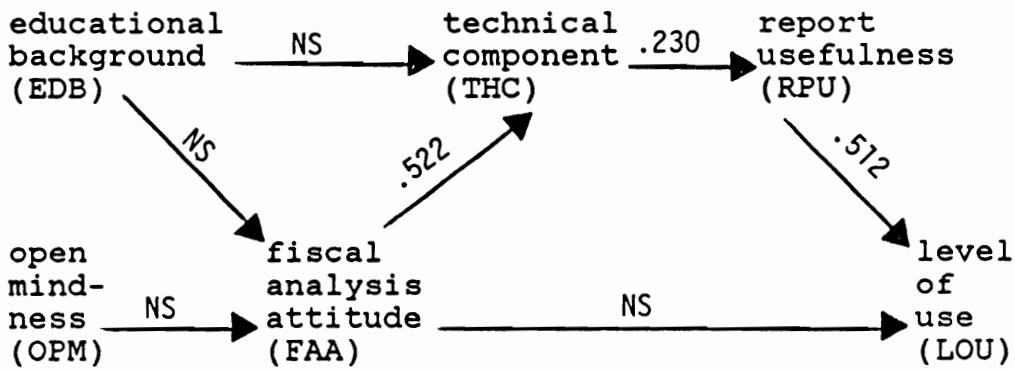
- THC -- technical component
- FAA -- fiscal analysis attitude
- TEA -- tax expenditure attitude
- EDB -- educational background
- OPM -- open mindedness
- SFM -- support for free markets
- RPU -- report usefulness
- LOU -- level of use

Correlation Coefficients:

maximum n = 134

	RPU	THC	FAA	TEA	EDB	OPM	SFM
THC	.229						
FAA	.122	.528					
TEA	.109	.272	.271				
EDB	-.069	-.111	-.147	.026			
OPM	.164	-.043	-.147	.092	-.021		
SFM	.118	.136	.196	.055	.049	-.204	
LOU	.514	.055	.122	.029	-.148	.124	.048

Exhibit 19b



NS -- Indicates path coefficient is not significant at the .01 level of significance as partial regressions.

EXHIBIT 19b, PERSONAL ATTRIBUTE MODEL
PATH COEFFICIENTS

Variables:

- EDB -- educational background
- OPM -- open mindedness
- FAA -- fiscal analysis attitude
- THC -- technical component
- RPU -- report usefulness
- LOU -- level of use

Direct and Indirect Effects:

	<u>direct</u>	<u>indirect</u>	<u>total</u>
RPU	.512	none	.512
THC	none	via RPU	.118
FAA	none	via THC & RPU	.061

Exhibit 19c

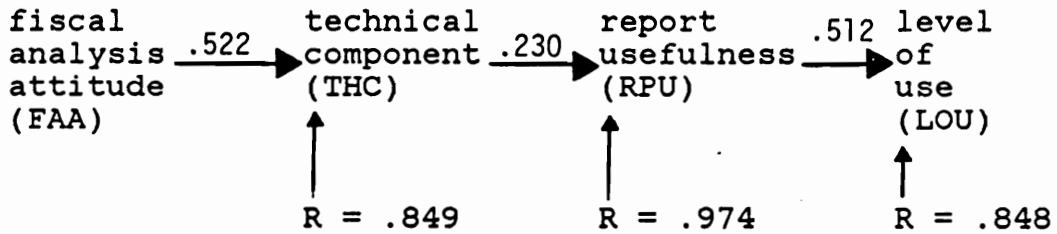


EXHIBIT 19c, PERSONAL ATTRIBUTE MODEL
MODIFIED MODEL, PATH COEFFICIENTS AND RESIDUALS

Variables:

FAA -- fiscal analysis attitude
 THC -- technical component
 RPU -- report usefulness
 LOU -- level of use

Regression Results:

$$LOU = b_0 + b_1 FAA + b_2 THC + b_3 RPU + e$$

unadjusted $r^2 = 28.1\%$

adjusted $r^2 = 26.4\%$

	<u>T for H₀</u>	<u>Prob > T </u>	<u>Type II SS</u>	<u>Std. Coef.</u>
intercept	---	---	---	-.0042
FAA	1.492	.138	1.67	.134
THC	-1.496	.137	1.68	-.137
RPU	6.767	.000	34.33	.529

NOTE: (1) All variables in regression equation are standardized with mean of zero and standard deviation of one.

As defined in Chapter IV, (1) fiscal analysis attitude describes the utility of fiscal analysis in formulating tax policy, (2) educational background is a binary classification of respondents as having (a) legal backgrounds, (b) natural or social science backgrounds or (c) other background, and (3) open mindedness is a measure of a respondent's willingness to make decisions independently. Although specified as original paths, the data do not support: (1) technical component or fiscal analysis attitude affecting level of use, (2) educational background affecting technical component or fiscal analysis attitude, (3) open mindedness affecting fiscal analysis attitude, or (4) fiscal analysis attitude affecting tax expenditure attitude. The modified model (Exhibit 19c) is a single row of four variables: fiscal analysis attitude via technical component and report usefulness affecting level of use. Variables in this model explain 28.1% of variance in level of use.

Four variables were eliminated from the personal attribute model: support for free market, tax expenditure attitude, educational background, and open mindedness. The inclusion of support for free market and tax expenditure attitude, was based on (1) the suggestion of a relationship between economic

conservatism (support for free markets) and strength of approval for using tax expenditures as financing vehicles (tax expenditure attitude) and (2) the implication of a relationship between tax expenditure attitude and level of information use (Havemann, 1977).

Use of tax expenditures are often advocated by economic conservatives as a simpler means of administering public services than direct programs advocated by economic liberals (Havemann, 1977). The data do not indicate that support for free markets or tax expenditure attitude are related to level of use. Additionally, the data do not support a relationship between support for free markets (economic conservatism) and tax expenditure attitude.

Caplan et al. (1973), in a study of managers and administrators who were trained as attorneys, physicians or academics, found educational background was related to information processing styles. Given the virtual absence of physicians and academics from state legislatures, attorneys were compared with persons having a social and/or natural science backgrounds. This is not a precise classification as many attorneys may also have social and/or natural science backgrounds. Additionally, this study investigates the potential relationship between educational background and level of

use rather than educational background and information processing style. The data do not support educational background, as operationalized, having a direct effect on fiscal analysis attitude or technical component.

Webber (1983) found open mindedness was an exogenous variable affecting level of use directly and indirectly via its influence on social science attitude. Open mindedness had the largest total effect of any variable in Webber's (1983) personal attribute model (Hypothesis I) and in Webber's combined model. The operationalization of open mindedness in this study was similar to that of Webber (1983). Thus, it is surprising that the data do not support the retention of this variable in the personal attribute model.

There are several differences between Webber's (1983) study and this study which may contribute to this study's findings. Two differences seem especially important. Webber (1983) related the general concept of open mindedness (independence) to use of policy information in general rather than to use of specific information. Level of use of a particular document pertaining to a particular policy area may not be influenced as much by open mindedness as use of policy information in general. Researcher inquiries relating to a specific document use are more precise. Webber

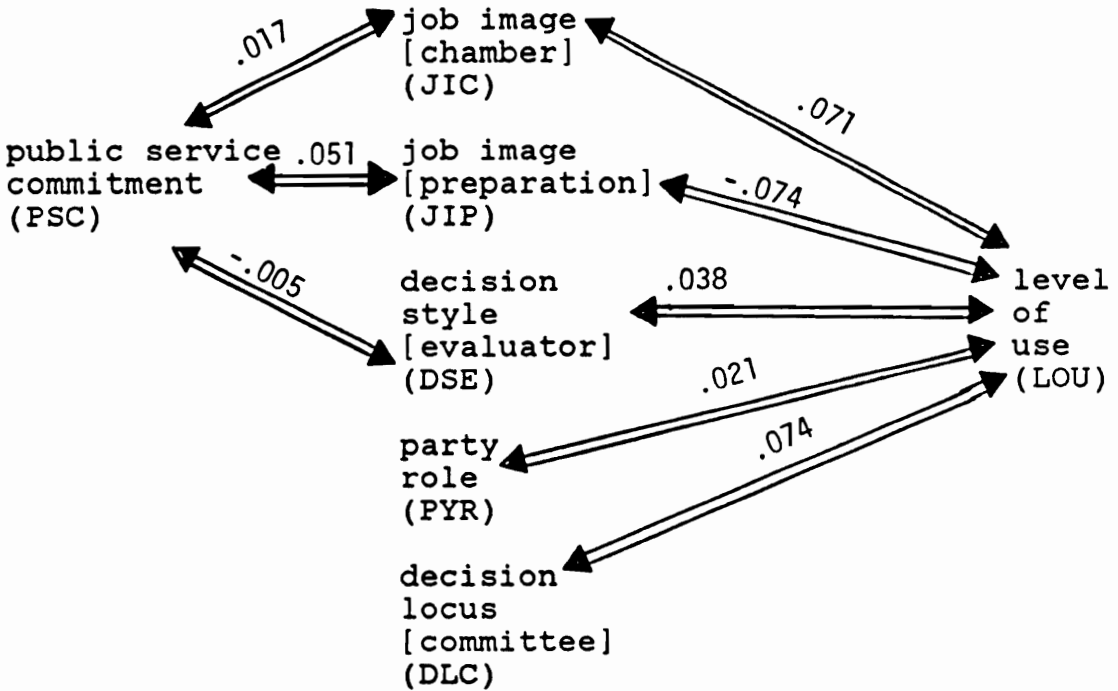
studied a cross section of legislators who may be more diverse as a group than legislators who serve on tax committees. Legislators who serve on tax committees may be more experienced, better educated, and more committed to public service than a cross section of state legislators. The combination of these characteristics could contribute to less variance in open mindedness among legislators who serve on tax committees than among legislators in general.

Examination of data support retention of three explanatory variables from the personal attribute model: report usefulness, technical component and fiscal analysis attitude. Three analogous variables were retained in Webber's (1983) combined model. The path ordering (position) of the variables retained in this study is almost identical to Webber's (1983) ordering of the same variables. Data support the theory that some personal attributes affect level of use and the pattern of effect is similar to that found by Webber (1983).

Role Constraint Model

Examination of Pearson correlation coefficients (Exhibit 20a), indicates the role constraint model is unsupported by the data. Correlations for specified relationships range from $-.005$ to $.074$. The data do not support retention of any of the specified paths.

Exhibit 20a



Double arrowed lines indicate correlation.

EXHIBIT 20a, ROLE CONSTRAINT MODEL
PEARSON CORRELATION COEFFICIENTS

Variables:

- PSC -- public service commitment
- JIC -- job image (chamber)
- JIP -- job image (preparation)
- DSE -- decision style (evaluator)
- PYR -- party role
- DLC -- decision locus (committee)
- LOU -- level of use

Correlations Coefficients:

maximum n = 134

	PYR	JIC	JIP	DLC	DSE	PSC
JIC	.028					
JIP	.022	.122				
DLC	-.146	.026	.212			
DSE	-.066	.192	.390	.422		
PSC	.276	.017	.051	-.080	-.005	
LOU	.021	.071	-.074	.074	.038	.196

Exhibit 20b

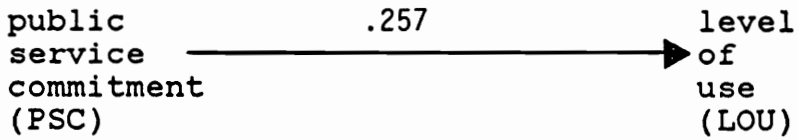


EXHIBIT 20b, ROLE CONSTRAINT MODEL
PATH COEFFICIENT

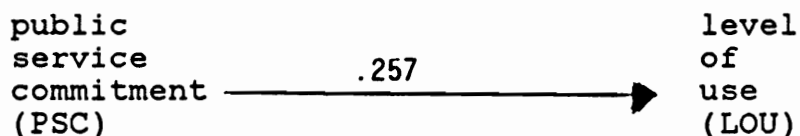
Variables:

PSC -- public service commitment
LOU -- level of use

Direct Effect:

	<u>direct</u>	<u>indirect</u>	<u>total</u>
PSC	.257	none	.257

Exhibit 20c



R = .966

EXHIBIT 20c, ROLE CONSTRAINT MODEL
MODIFIED MODEL, PATH COEFFICIENT AND RESIDUAL

Variable:

PSC -- public service commitment
LOU -- level of use

Regression Results:

$$LOU = b_0 + b_1 PSC + e$$

unadjusted $r^2 = 6.6\%$

adjusted $r^2 = 5.3\%$

	<u>T for H₀</u>	<u>Prob > T </u>	<u>Type II SS</u>	<u>Std. Coef.</u>
intercept	---	---	---	.0075
PSC	2.936	.004	8.41	.257

NOTE: (1) All variables in regression equation are standardized with mean of zero and standard deviation of one.

In evaluating each model, consideration is given to the possibility of specifying new paths. However, theory and data did not combine to support the addition of new paths to the information specific or personal attribute models. The one path which merits evaluation is the direct path from public service commitment to level of use. It seems intuitive that a legislator who is committed to future public service would be more willing to invest time to master important issues than a less committed legislator. The path coefficient (Exhibit 20b) indicates public service commitment affects level of use directly. Other preliminary paths, which independent variable intercorrelations suggest may exist, are obstructed by (1) a weak correlation between correlation between subsequent explanatory variable and level of use and (2) lack of theoretical support. Thus, the modified model (Exhibit 20c) is the direct path from public service commitment to level of use which explains 6.6% of the variance in level of use.

Results from analysis of the role constraint model differ from Webber's (1983) results. Public service commitment (political ambition) was the only variable retained from Webber's (1983) model, and it is retained as having a direct effect on level of use rather than an indirect effect as originally specified. Five variables

were eliminated: job image (preparation), job image (chamber), decision style (evaluator), party role, and decision locus (committee). Webber (1983) tested and eliminated decision style from his model of policy information use. Job image, party role and decision locus were retained in Webber's final combined model. The design of indicators for these variables differs somewhat between studies and may account partially for differences in results.

Differences between this study and Webber's (1983) study may also contribute to differences in results. Webber's (1983) model, as it relates to role constraints, may not be generalizable to a specific group of legislators (tax committee members) when considering a specific document (tax expenditure reports) which pertains to a specific policy area (tax policy). The same role constraint model may not apply because, as previously discussed, the profile of tax committee members may differ from the profile of legislators in general. For example, the policy conveyor job image which exercises a relatively large total effect in Webber's (1983) combined model is not a prevalent job image among legislators who serve on tax committees.

The possibility that state legislatures, as organizations, impose constraints which affect level of information use by those who function in the role of legislator remains open to investigation. The challenge is to identify constraints conceptually, specify variables reflecting the constraints, and operationalize indicators to measure the constraints. Specifying organizationally imposed constraints is a more difficult challenge than specifying information or individual attributes, since it requires the study of multiple state legislatures as organizations. It is also possible that information use may not be affected by organizationally imposed constraints. In this study, the mean levels of use among legislators in the ten states did not differ significantly, although organizationally the legislatures differed.

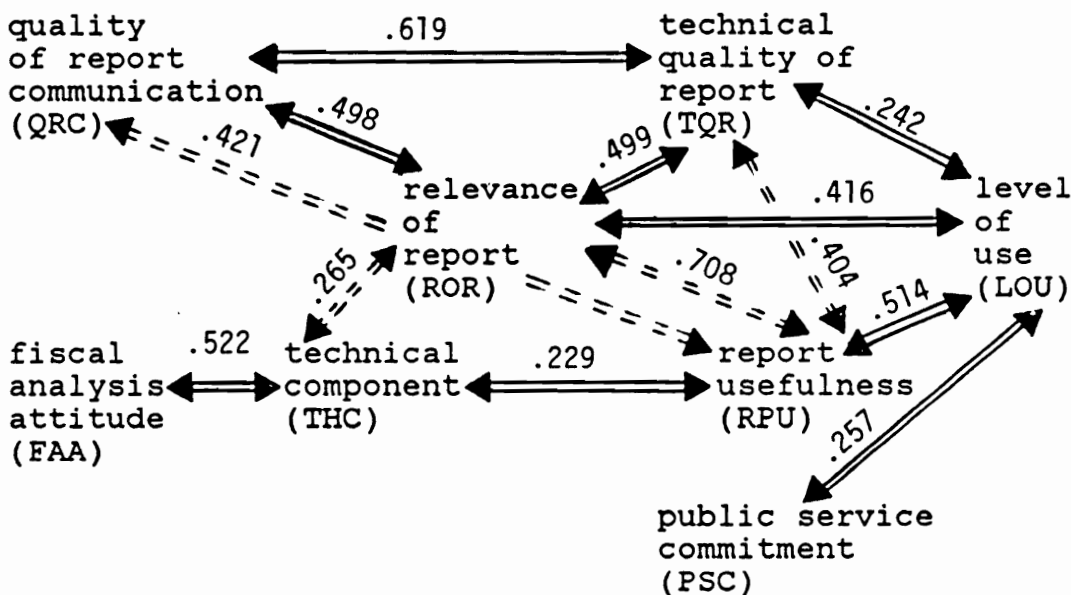
Combined Model

The three models of information use examined are complimentary models rather than alternative models. Accordingly, the validation of one model does not invalidate another model. The validation of all three models is possible and would indicate that the three sets of variables influence use. The variables in each model relate to a distinct theory of information use, but in each model there is an assumption that additional

unspecified variables may affect use. The model in Exhibit 21a shows the correlation coefficients for all modified models. The top three-variable triangle is from the information specific model, the four-variable middle row is from the personal attribute model, and the bottom single variable, public service commitment, is from the role constraint model. In concluding the analysis of path models, possible interrelationships between the three information use models are considered.

Absent a theory, data cannot justify the addition of a new path. Thus, theoretical support for possible interrelationships is considered first, and then data supporting that path is evaluated. Before considering possible new paths, it must be acknowledged that theorizing about how paths relate is conditioned by a scarcity of directly related prior research. This study has drawn extensively on research investigating the use or non-use of technical information by program administrators and legislators. The findings of such research form a framework for approaching use of specific disclosures, tax expenditure reports, which were prepared to support subsequent evaluation of operations rather than actually provide an evaluation. Findings from the two most prominent works providing guidance for this study, Webber (1983) and Weiss and

Exhibit 21a



↔ Double arrowed lines indicate correlation.
 ——— Solid lines indicate specified relationship.
 = = = Broken lines indicate potential relationship.

EXHIBIT 21a, COMBINED MODEL
PEARSON CORRELATION COEFFICIENTS

Variables:

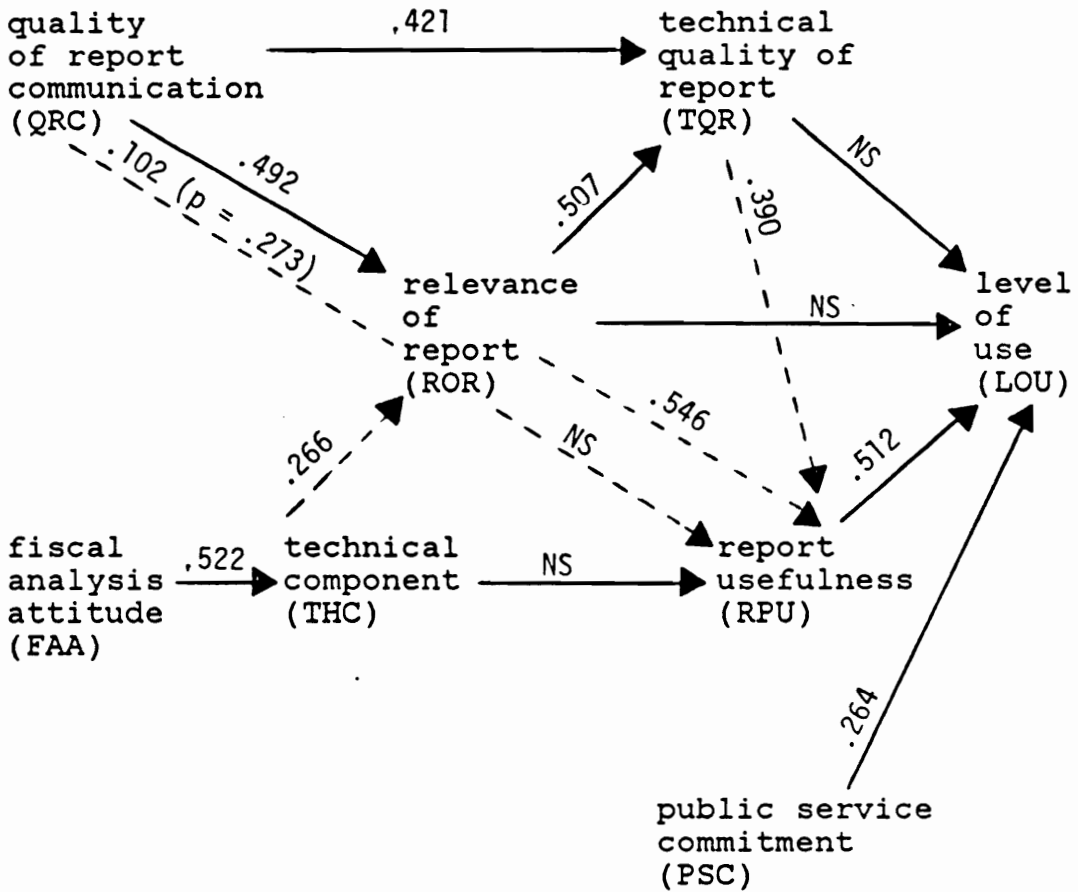
- ROR -- relevance of report
- TQR -- technical quality of report
- PSC -- public service commitment
- FAA -- fiscal analysis attitude
- THC -- technical component
- RPU -- report usefulness
- LOU -- level of use

Correlation Coefficients:

maximum n = 134

	QRC	ROR	TQR	PSC	FAA	THC	RPU
ROR	.498						
TQR	.619	.499					
PSC	.023	.059	.092				
FAA	.096	.072	.247	.130			
THC	.174	.265	.257	.129	.528		
RPU	.421	.708	.404	.145	.122	.229	
LOU	.385	.416	.242	.257	.122	.055	.514

Exhibit 21b



NS -- Indicates path coefficient is not significant at the .01 level of significance as partial regressions.

———— Solid line indicate specified relationship.
 - - - - Broken line indicate potential relationship.

EXHIBIT 21b, COMBINED MODEL
 PATH COEFFICIENTS

Exhibit 21b, continued
 COMBINED MODEL
 PATH COEFFICIENTS

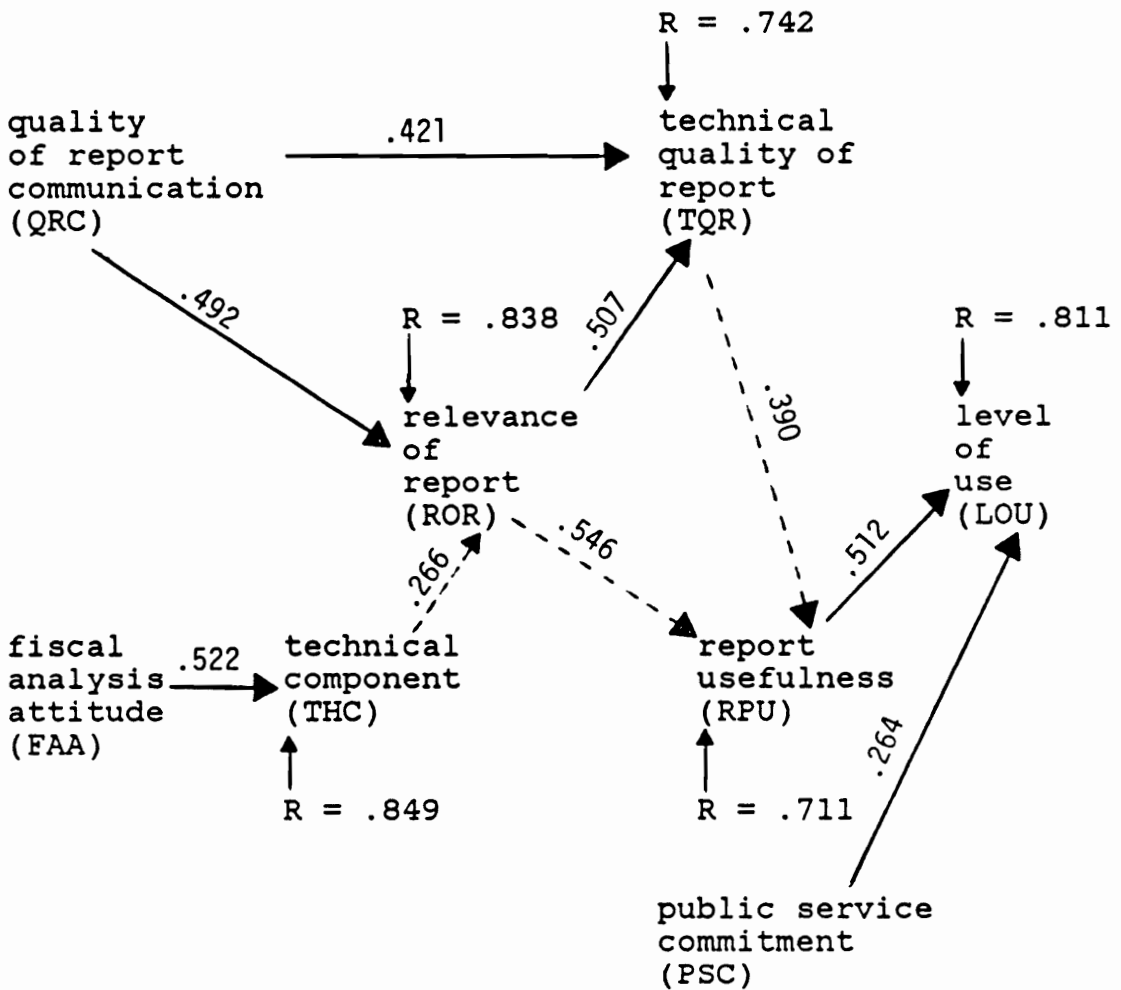
Variables:

QRC -- quality of report communication
 ROR -- relevance of report
 TQR -- technical quality of report
 FAA -- fiscal analysis attitude
 THC -- technical component
 RPU -- report usefulness
 PSC -- public service commitment
 LOU -- level of use

Direct and Indirect Effects:

	<u>direct</u>	<u>indirect</u>		<u>total</u>
RPU	.512	none		.512
ROR	none	via RPU	.280	
		via TQR & RPU	.101	.381
QRC	none	via TQR & RPU	.084	
		via ROR & RPU	.138	
		via ROR, TQR & RPU	.050	.272
PSC	.264	none		.264
TQR	none	via RPU	.200	.200
THC	none	via ROR & RPU	.074	
		via ROR, TQR & RPU	.027	.101
FAA	none	via THC, ROR & RPU	.039	
		via THC, ROR, TQR & RPU	.014	.053

Exhibit 21c



_____ Solid line indicate specified relationship.
 - - - - - Broken line indicate potential relationship.

EXHIBIT 21c, COMBINED MODEL
 PATH COEFFICIENTS AND RESIDUALS

Exhibit 21c, continued
 COMBINED MODEL
 PATH COEFFICIENTS AND RESIDUALS

Variables:

QRC -- quality of report communication
 ROR -- relevance of report
 TQR -- technical quality of report
 FAA -- fiscal analysis attitude
 THC -- technical component
 RPU -- report usefulness
 PSC -- public service commitment
 LOU -- level of use

Regression Results:

$$\text{LOU} = b_0 + b_1 \text{QRC} + b_2 \text{ROR} + b_3 \text{TQR} + b_4 \text{FAA} + b_5 \text{THC} + b_6 \text{RPU} + b_7 \text{PSC} + e$$

unadjusted $r^2 = 34.3\%$

adjusted $r^2 = 29.9\%$

	<u>T for H₀</u>	<u>Prob > T </u>	<u>Type II SS</u>	<u>Std. Coef.</u>
intercept	---	---	---	.008
QRC	2.379	.019	3.86	.260
ROR	1.065	.289	0.77	.127
TQR	-.966	.336	.64	-.105
FAA	1.460	.147	1.45	.140
THC	-1.884	.062	2.42	-.186
RPU	3.071	.003	6.43	.341
PSC	2.507	.014	4.28	.200

NOTE: (1) All variables in regression equation are standardized with mean of zero and standard deviation of one.

Bucuvalas (1980), do not contribute to the consideration of interrelationships. Webber (1983) excluded information specific variables from his models, and Weiss and Bucuvalas (1980) restricted their study to information specific variables.

Because the addition of interconnecting paths cannot be justified without supporting data, the investigation of interrelationships begins by considering theoretical support for new paths between variables having a correlation of .20 or more. Correlations of .20 or more was used as a conservative indicator for considering the addition of paths not supported by previous studies. Seven potential new paths are identified:

- (1) quality of report communication (QRC) to report usefulness (RPU) -- correlation .421,
- (2) quality of report communication (QRC) to level of use (LOU) -- correlation .385,
- (3) technical component (THC) to relevance of report (ROR) -- correlation .265,
- (4) relevance of report (ROR) to report usefulness (RPU) -- correlation .708,
- (5) fiscal analysis attitude (FAA) to technical quality of report (TQR) -- correlation .247,
- (6) technical component (THC) to technical quality of report (TQR) -- correlation .257, and
- (7) technical quality of report (TQR) to report usefulness (RPU) -- correlation .404.

Except for the second path, all the above paths incorporate an information specific variable. Additionally, three paths incorporate the variable, relevance of report, and three other paths incorporate the variable, technical quality of report.

The existence of paths two, five and six appears unlikely. Path two, which was evaluated in examining the information specific model, was not supported by the data. Although a certain quality report communication may be necessary for use, it is more difficult to argue that quality of report communication is sufficient for use. Analysis of the combined model indicated that although quality of report communication has a relatively large total effect on level of use, all of the effect is indirect.

Variable relationships in paths five and six are: (1) unevaluated in prior research, (2) based on dubious logic and (3) weakly correlated relative to other variable correlations. Webber (1983) introduced variables similar to fiscal analysis attitude and technical component, but did not consider technical quality of report in his models. Whereas, it seems reasonable to argue that attitude toward fiscal analysis and perception of technical component in tax issues may affect judgment of relevance of report, it is more

difficult to argue that these same variables directly affect assessments of technical quality of reports.

Path one from quality of report communication to report usefulness reflects the hypothesis that if report information is well communicated, it is more likely to be useful. Windle and Bates (1974) found communication between preparers and users occurred more frequently in studies deemed to be useful. Most prior research considering communication has focused on the frequency of communication during information production or complexity of bureaucratic hierarchy for channeling information from preparers to users (Leviton and Hughes, 1981). In the tax expenditure reporting process, producer/user communications seldom occur during information production, and 94% of legislators (L-48) indicate they personally read reports. Quality of communication was incorporated into the information specific model because of findings in prior research (Weiss and Bucuvalas, 1979) and the existence of quality differences apparent from examining reports. However, it is doubtful that quality of report communication is sufficient to affect report usefulness absent the relevance of the report. Thus, the question that is open to analysis is whether data support quality of

communication directly affecting report usefulness (contribution).

Path three from technical component to relevance of report is supported solely by logic. The hypothesis it reflects is the stronger the perception that tax issues incorporate a technical component, the more likely it is that technical information in the form of tax expenditure reports will be perceived as relevant.

The variables in path four from relevance of report to report usefulness are the most strongly correlated (.708) of any two variables in the combined model. It is intuitively logical that relevance of report should affect report usefulness. Weiss and Bucuvalas (1980) found relevance of information to one's work is related to usefulness (influence or contribution). Findings from two prior studies suggest the existence of an indirect path from relevance of report via technical quality of report to report usefulness. Holland (1989) found relevance is the strongest predictor of perceived truthfulness (an indicator of quality). Holland's (1989) insight suggests judgments on relevance affect judgments on technical quality. Patton et al. (1977) suggest technical quality contributes to utility by enhancing organizational control through the reduction of internal and environmental uncertainty. When

connected, these relationships may form an indirect path.

Two prior studies support path seven from technical quality of report to report usefulness. Patton et al. (1977) draw on organizational theorist Thompson (1967) in making the argument that power and relationships within organizations is a matter of gaining control through the reduction of uncertainty, and that research is a mechanism for reducing uncertainty. Weiss and Bucuvalas (1977) found quality was more likely to influence use when it is essential that the data be convincing. More specifically they found quality was related to the two uses: (1) mobilizing support for a position and (2) changing ways of thinking about an issue. Both uses would seem to apply to tax expenditure reports. Additionally, quality is important for information that is available to the public because quality may contribute to trust or, conversely, absence of quality may contribute to mistrust.

Of the seven potential paths considered, three paths appear to lack theoretical support (paths two, five and six). Additionally, path coefficients did not support the existence of any of these three paths. Data support the retention of three remaining potential paths (paths three, four and seven). Retention of path one

from quality of communication to report usefulness is not supported by the data. Additionally, path coefficients for the combined model support the removal of two paths from individual models, one from technical component to report usefulness and the other from technical quality of report to level of use. The lack of support for these two paths is understandable given the weak correlations in the combined model and relatively low path coefficients in the separate models.

Path analysis (Exhibit 21b) indicates report usefulness (.512) has the largest total effect on level of use. The effects of report usefulness and public service commitment are direct. Excluding public service commitment, all variables affect level of use indirectly through report usefulness. Report usefulness is affected directly by relevance of report and technical quality of report. Public service commitment is an exogenous variable which only affects level of use. Two other exogenous variables, quality of report communication and fiscal analysis attitude affect technical quality of report. Quality of report communication affects technical quality of report indirectly via its effect on relevance of report and directly. Fiscal analysis attitude affects technical

quality of report indirectly via its effects on technical component and relevance of report.

Variables in the final combined model (Exhibit 21c) explain 34.3% of the variance in level of use and 49.5% of the variance in report usefulness.^{6*} The information specific and personal attribute models are interrelated by the effects of (1) relevance of report on report usefulness, (2) technical quality of report on report usefulness, and (3) technical component on relevance of report. No path relates the role constraint model to other models. The only variable surviving from the role constraint model, public service commitment, affects perceptions of use (level of use) but not perceptions of value (report usefulness).

The indirect effects revealed by path analysis contribute to an understanding of how variables influence a report user's assessment that reports are useful. The combined model indicates report usefulness (1) is affected most by information specific variables (quality of report communication, relevance of report and technical quality of report) and (2) is affected somewhat by basic personal attitudes on fiscal analysis and technical component of tax issues. Thus, the

^{6*} Formula for computing amount of variance explained is $(1 - R^2)$. See pages 102-103.

combined model suggests reports preparers may exercise a marginal influence on both level of use and report usefulness by taking actions to improve users' perceptions of quality of communication, relevance of report and technical quality of report.

CHAPTER VII

CONCLUSION

Tax expenditure reports provide periodic estimates of revenues foregone from special tax provisions taking the form of exemptions, deductions or credits. Tax expenditures are an indirect form of public resource allocations, and tax expenditure reporting is part of an indirect procedure to control such allocations. It is assumed that in order to affect tax expenditure control reports must be used. The purpose of this study is to examine the use of tax expenditure reports by state policy makers.

Two aspects of tax expenditure reporting are addressed by this study: (1) reporting process and report use and (2) attributes affecting report use. Data used to examine the first aspects of reporting were obtained from report preparers, legislative staff persons and legislators who serve on tax committees in ten of the twenty states which issue reports.

Additionally, current tax expenditure reports were obtained from all states known to report tax expenditures on a periodic basis. To address the second aspect of reporting, attributes affecting report use, three models of technical information use are applied to tax expenditure report use. Data to evaluate the models were obtained from legislators.

Reporting Process and Report Use

Tax expenditure reporting is a relatively new fiscal innovation. Six states have commenced reporting since 1980, and one or more states have begun issuing reports every year since 1982. Twenty states now report on a periodic basis.

Reporting Process

State revenue departments prepare most reports and issue them at about the time direct allocation budgets are issued. A major problem in preparing reports is the unreliability and absence of data to estimate some expenditures, especially tax exempt activities.

All states distribute reports to legislators, usually in compliance with a statute requiring reporting. Other common recipients are executive and legislative budget analysts, legislative staff persons, and representatives of public interest and industry

groups. In all states, reports also are available on request to the public.

The tax expenditure report is the primary communications vehicle to convey tax expenditure information. Report preparers are available to answer questions, but preparers seldom initiate discussion of report information with legislators or other users. Anticipated revenue shortages, proposed legislation, and pressure for tax reform are events that tend to motivate report use.

A minority of reporting states have adopted limited oversight procedures which encourage legislative review of tax expenditures through review of tax expenditure reports by a tax committee. In a few other states, report preparers brief tax committees on the report. Relative to direct allocation budget review procedures, tax expenditure report review procedures are virtually non-existent or at least weak.

Current tax expenditure reports from seventeen states were examined. From this examination, the common features identified were: basic identifying information, brief discussion of methodology including the limitations thereof, listing of estimated expenditure costs by tax for major taxes together with

an explanation of each tax expenditure provision and statutory reference to each expenditure source.

Two organizations have recommended model reporting standards. Although some of these standards have been accepted widely, others have not. Recommended standards not widely adopted include discussing the function of covered taxes, disclosing criteria for tax expenditure designation, and estimating tax expenditures using an outlay equivalence measure. Information, not generally provided, which model reports incorporate to facilitate tax expenditure analysis, includes: (1) discussion of rationale for expenditures, (2) distributional impact data, (3) expenditure estimation by budget category, (4) efficiency and/or effectiveness evaluations, and (5) recommendations for change. Also, routine hearings by legislative committees to review tax expenditures are a recommended oversight procedure in both model reports.

A variety of innovative report features have been adopted. Many of the features relate to providing more explanatory information which may facilitate report use by novice users, and disclosing information explaining the report preparation process. For example, some states report an indication of the reliability of expenditure estimates. Although one-half of the reports provide no or minimal explanation, one-half of the

reports include substantial amounts of explanatory material.

Many of the innovative features relate to analysis of expenditures as opposed to simple reporting of expenditures. High resource consuming analysis features tend to be less common than low resource consuming analysis features. Low resource consuming analysis features are: (1) illustrations of the magnitude of tax expenditures, (2) discussions of recent tax expenditure adoptions and repeals, and (3) lists of expenditures with approaching termination dates. High resource consuming features are: (1) disclosure of expenditures grouped other than by type of tax, (2) evaluation of the effectiveness and/or efficiency of expenditures, and (3) disclosure of conflicts with other laws.

Although three-fourth of the legislators accept the idea that tax expenditures have an impact similar to direct allocations, survey data and examination of reports indicate reporting functions primarily to support the comparison of foregone revenues with each other rather than the comparison of direct and tax expenditures as alternative means of financing. Four reporting process factors were found that indicate the lack of comparison between direct and tax expenditures: (1) appropriations committees have

minimum involvement in the reporting process, (2) revenue equivalence estimates are not provided even for selected expenditures, (3) expenditure estimates are seldom reported by budget category, and (4) the cost of administering tax expenditures is not disclosed.

Report Use

Both the legislators and the legislative staff persons tended to view reports positively. Roughly three-fourths of the legislators and two-thirds of the legislative staff persons indicated their impressions of report in general, quality of report communication and technical quality, were positive. Legislative staff persons were less likely than legislators to view the report as making a contribution to tax policy issues. Legislative staff persons were less desirous of report recommendations than legislators, but legislative staff persons were more desirous of disclosure of additional information than legislators.

Four aspects of use were investigated: level of use, purpose of use, policy process stage of use, and control focus of use. Three-fourths of all the legislators and one-half of all the legislative staff persons indicated they used (considered) tax expenditure reports. One-half of all the legislators and one-fourth of all the legislative staff persons indicating a very

high level of use (consideration). Both legislators and staff persons indicated that reports are more likely to be used for conceptual purposes (to gain a better understanding of tax policy issues) rather than instrumentally (to solve problems) or symbolically (to support a position). Lastly, legislators and staff persons agreed that reports are most likely to be used at the beginning of the policy process to develop issues and at the end of the policy process to monitor results. Reports are less likely to be used in analyzing policy options, and are least likely to be used in selecting policy actions.

This study indicates that tax expenditure report use generally conforms to findings on the use of other technical information in the policy process. With respect to control objective, a unique objective of tax expenditure reports, legislators indicated reports were used about equally for comparison of direct expenditures with tax expenditures and for the independent comparison of tax expenditures. Legislative staff persons indicated that legislators tended to use reports only for independent comparison of tax expenditures. The difference may result from the legislators reporting on individual use whereas the legislative staff persons are reporting on collective use by tax committees.

The need for revenue generally results in an evaluation of tax expenditures as additional sources of tax revenue. However, this study found that these evaluations seldom result in the repeal of tax expenditure provisions. The process of searching for expenditures to repeal may cause legislators to be more aware of tax expenditure cost and more resistant to the adoption of new tax expenditures. Thus, reviewing expenditures may serve indirectly as a control device.

Examination of tax expenditure reporting processes and tax expenditure report use, supports the following six findings:

- (1) The tax expenditure concept, that the economic impact of tax expenditures is equivalent to economic impact of direct expenditures, has broad acceptance.
- (2) Reporting achieves an educational objective by facilitating an overall understanding of tax structure.
- (3) The purpose of use and policy process stage of use of reports is consistent with the use of technical information.
- (4) Legislator and staff person perceptions of reports are similar.
- (5) The comparison of direct and tax expenditures has not been as widely accepted as the comparison of tax expenditures independent of direct expenditures.
- (6) The comparison of tax expenditures appears to result more in the protection of tax bases from erosion by creating resistance to new expenditures rather than capturing of new revenue from repeal of existing expenditures.

Models of Level of Report Use

Three models of information use are applied to tax expenditure report use. The objective of this analysis is to identify variables, especially variables that report preparers may influence, which affect level of report use. In each model the dependent variable is level of report use. The independent variables in the three models represent three sets of variables: information specific, personal attributes, and role (organizational or environmental) constraint variables. Path analysis is used to analyze the models. The personal attribute model explained a higher percentage of variance in level of use (28.1%) than the information specific model (22.6%). Paths in the role constraint model are not supported by the data. Five of six paths in the information specific model are supported by the data. This model shows that relevance of report and technical quality of report directly affect level of use, and that quality of communication indirectly affects level of use by affecting relevance of report and technical quality. The total effects of the three explanatory variables on level of use are: relevance of report (.507), quality of report communication (.425), and technical quality of report (.235). The effect of desirability of recommendations on relevance of report

was not significant, and this one path was removed from the information specific model.

Three of eleven paths are supported by the data in the personal attribute model. The paths which remain are the paths in a straight row from fiscal analysis attitude to technical component to report usefulness to level of use. Of the three explanatory variables retained only report usefulness directly affects level of use. The total effects of the three explanatory variables on level of use are: report usefulness (.512), technical component (.118), and fiscal analysis attitude (.061).

The three exogenous variables (educational background, open mindedness, and support for free markets) and the endogenous variable, tax expenditure attitude, were removed from the personal attribute model. The removal of the exogenous variables indicates that general characteristics such as educational background (legal education), open mindedness (independence), and support for free market (economic conservatism) do not affect level of use. Two paths compose the lower branch: (1) support for free markets (economic conservatism) to tax expenditure attitude and (2) tax expenditure attitude to level of use. The removal of both these paths indicates support for free

markets (economic conservatism) does not affect attitude toward tax expenditures, and attitude toward tax expenditures does not affect level of use.

None of the eight specified paths in the role constraint model are supported by the data. As modified, this model is a single path from public service commitment to level of use which was added after analyzing the data and considering the theory. The direct effect of public service commitment on level of use is .257. The explanatory variable, public service commitment, explains 6.6% of the variance in level of use. The removal of all other variables indicates job image, decision style, party role and decision location do not affect level of use.

A final combined model, which explains 34.3% of the variance in level of use and 49.5% of the variance in report usefulness, explores the interrelationship of the three information use models. This model shows that the information specific and personal attribute models are related through the hub variables, relevance of report, technical quality of report, and report usefulness. No path relates the role constraint model to other models. The only variable surviving from the role constraint model, public service commitment, directly affects level of use but not affect report usefulness. Excluding

public service commitment, all variables affect level of use indirectly through report usefulness. The exogenous variables, quality of report communication and fiscal analysis attitude (attitude on utility of fiscal analysis for formulating tax policy), positively impact report usefulness by affecting relevance of report and technical quality of report. Quality of communication affects technical quality of report directly and indirectly via its effect on relevance of report. Fiscal analysis attitude affects relevance of report indirectly via its effects on technical component.

The indirect effects revealed by path analysis contribute to an understanding of how variables influence a report user's assessment that reports are useful. The combined model indicates report usefulness is affected most by information specific variables (quality of report communication, relevance of report and technical quality of report). This suggests report preparers may be able to influence marginally report use by taking actions which improve perceptions of quality of report communication, relevance of report and technical quality of reports.

Future Research

The tax expenditure topic provides diverse opportunities for additional research. Interest in the

subject is motivated by the increasing importance of state taxes to taxpayers, and the magnitude of tax expenditures. Two major areas for future research are (1) the study of tax expenditure reporting process and (2) the evaluation of tax expenditures and the tax expenditure mechanism.

One aspect of the reporting process relates to the information reports should contain and how report content influences use. The identification of users and their needs would contribute to understanding the information reports should contain and what reporting standards are appropriate. Understanding how report content influences use could enhance the value of reporting by contributing to the inclusion of information that promotes report use. There is an absence of information on factors which affect perceptions about reporting, and how report features influence perceptions. Specific questions pertain to the relationship of report features and methodologies to perceptions of reports, and the relationship of perceptions of quality to actual quality.

A second aspect of reporting processes relates to how tax expenditure reporting functions as a control. Subjects to consider are: relationships between tax expenditure and direct expenditure budgeting processes;

relationships between tax expenditure reporting and other means of tax expenditure control; the relationship between reporting and tax expenditure control. Other questions relating to tax expenditure control are: what criteria should be considered in targeting tax expenditures for comprehensive review; how can the effectiveness of tax expenditure controls be judged; and when should tax expenditures be recorded as disbursements in accounting records.

Tax expenditure reporting is contributing to a demand for specific expenditure evaluation and for evaluation of tax expenditures as financing mechanisms. There is an obvious public interest in individual expenditure evaluation: what standards should be used in the evaluating expenditures and does the application of those standards indicate expenditures are effective and/or efficient. Additionally, a number of public policy questions relate to evaluating reliance on tax expenditures mechanisms: how does the cost of financing via tax expenditure compare to the cost of financing via direct expenditure, are the government functions supported by tax expenditures different from those supported by direct expenditures, and what impact do tax expenditures have on commerce between states and countries.

Peripherally this study has raised three other issues which merit investigation: do legislators who serve on tax committees differ in basic ways which would affect technical information use from legislators in general, does legislator efficacy affect use of technical information by legislators, and what kind of environment motivates states to focus on tax expenditure control.

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TOPIC KEY:

GM--general miscellaneous RM--research methodology
IU--information utilization SF--state finance
OC--oversight control TE--tax expenditure

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APPENDIX

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APPENDIX, EXHIBIT A
STATES THAT REPORT TAX EXPENDITURES

STATES THAT REPORT TAX EXPENDITURES:

STATE	FREQUENCY	FIRST REPORT	NO. OF REPORTS	REASON EXCLUDED FROM STUDY
Arizona	annual	1982	8	dissimilar tax base
California	annual	1976	14	
Delaware	annual	1987	2	recent adopter
Hawaii	annual	1982	8	report is limited to tax credits
Louisiana	annual	1983	7	
Maine	biennial	1983	4	
Maryland	annual	1977	13	
Massachusetts	annual	1984	5	
Michigan	annual	1980	10	
Minnesota	biennial	1985	3	
Mississippi	annual	1986	4	
Montana	annual	1988	2	recent adopter
Nebraska	biennial	1979	6	
New York	annual	1990	1	recent adopter
Ohio	biennial	1988	1	recent adopter
South Carolina	annual	1989	1	recent adopter
Texas	biennial	1981	5	dissimilar tax base
Washington	biennial	1984	3	dissimilar tax base
Wisconsin	biennial	1975	8	

NOTE: (1) North Carolina identifies tax expenditure items in an annual report, but does not estimate costs. Alabama and Kentucky have prepared reports for internal use only. Arkansas, Indiana and Missouri have issued special, non-periodic reports.

SOURCES: Benker (1985), Edwards (1988), New York State (1988), and interviews with report preparers.

APPENDIX, EXHIBIT B
TAX EXPENDITURE REPORT TITLES AND SOURCES

TAX EXPENDITURE REPORT TITLES AND SOURCES

1. ARIZONA (AZ). Title: The Revenue Impact Statement of Arizona's Tax Expenditures, November 15, 1989. Prepared by: Arizona Department of Revenue, 1600 West Monroe, Phoenix, Arizona, 85007-2605. Telephone number: (602) 542-3887 ext 141.
2. CALIFORNIA (CA). Titles: Analysis of the 1987-1988 Tax Expenditures Budget: Volume II Detailed Compendium of Individual Tax Expenditure Programs, supplemented by detailed analysis of certain tax expenditures in Report on the 1988-89 Tax Expenditure Budget Tax Expenditure Budget and Analysis of the 1987-99 Tax Expenditure Budget: Volume I Overview and Analysis of Selected Individual Programs. Prepared by: Legislative Analyst, State of California, 925 "L" Street, Suite 650, Sacramento, California, 95814. Telephone number: (916) 445-4656. (\$2 charge per publication)

Special note: In California the executive Department of Finance prepared an abbreviated report. Although not reviewed, this report is identified below. Title: Tax Expenditure Report, 1989-90. Prepared by: Financial Research, Department of Finance State of California, 915 "L" Street, Sacramento, California 95814-3701. Telephone number: (916) 322-2263.
3. DELAWARE (DE). Title: Delaware Tax Preference Report, November 15, 1988. Prepared by: State of Delaware, Division of Revenue, Carvel Office Building, 820 N. French Street, Wilmington, Delaware 19801. Telephone number: (302) 571-3749. (After 1988, Delaware will report every 4 years instead of every 2 years.)
4. LOUISIANA (LA). Title: Annual Tax Exemption Budget, 1987-88. Prepared by: Department of Revenue and Taxation, State of Louisiana, Post Office Box 201, Baton Rouge, Louisiana 70821-0201. Telephone number: (504) 925-7951.

5. MAINE (ME). Title: Tax Expenditure section for fiscal years 1988, 1989, 1990, and 1991 of State budget. Prepared by: Department of Finance, State of Maine, Station 58, Augusta, Maine 04333. Telephone number: (207) 289-2881.
6. MARYLAND(MD). Title: Tax Expenditure Report, Fiscal Year 1990. Prepared by: Department of Budget and Fiscal Planning, State of Maryland, State Treasury Building, Annapolis, Maryland 21401-1985. Telephone number: (301) 974-2281.
7. MASSACHUSETTS (MA). Title: Volume 3, Tax Expenditures: The Governor's Budget Recommendations for Fiscal Year 1990. Prepared by: Department of Revenue, Commonwealth of Massachusetts, Room 805, 100 Cambridge Street, Boston, Massachusetts 02204. Telephone number: (617) 727-7702.
8. MICHIGAN (MI). Title: Tax Expenditure Appendix, 1987-1988 Fiscal Year to Executive Budget. Prepared by: Department of the Treasury, State of Michigan, Treasury Building, Lansing, Michigan 48923. Telephone numbers: (517) 373-9863 and 373-9002.
9. MINNESOTA (MN). Title: Tax Expenditure Budget, January 1989. Prepared by: Minnesota Department of Revenue, Mail Station 2230, St. Paul, Minnesota 55146-2230. Telephone number: (612) 296-3425.
10. MISSISSIPPI (MS). Title: The Annual Tax Expenditure Report, October 1988. Prepared by: Center for Policy Research and Planning, Mississippi Institutions Of Higher Learning, 3825 Ridgewood Road, Jackson, Mississippi 39211-6453. Telephone numbers: (601) 982-6408 and 982-6516.
11. MONTANA (MT). Title: Tax Expenditures for the State of Montana, Fiscal years 1990 and 1991. Prepared by: Montana Department of Revenue, Research Bureau, Room 421, Mitchell Building; Helena, Montana 59620. Telephone number: (406) 3526.
12. NEBRASKA (NE). Title: Tax Expenditure Report, 1989. Prepared by: Department of Revenue, State of Nebraska, Post Office Box 94818, Lincoln, Nebraska 68509-4818. Telephone number: (402) 471-5695. (\$10 charge per publication)

13. NEW YORK (NY). Title: Tax Expenditure Report, 1990-1991. Prepared by State of New York, Department of Taxation and Finance, W. A. Harriman Campus, Albany, NY 12227. Telephone number: (518) 457-3184.
14. OHIO (OH). Title: State of Ohio Executive Budget For The Biennium July 1, 1989 to June 30, 1991: Book Two Report on Tax Expenditures. Prepared by: Ohio Department of Taxation, Tax Analysis and Local Government Distributions Division, Columbus, Ohio 43266-0030. Telephone number: (614) 466-3960.
15. SOUTH CAROLINA (SC). Title: South Carolina Tax Commission Tax Expenditure Report, (February 1, 1989). Prepared by: South Carolina Tax Commission, Post Office Box 125, Columbia, SC 29214. Telephone number: (803) 737-4405.
16. WASHINGTON (WA). Title: Tax Exemptions, 1990. Prepared by: Washington State Department of Revenue, Research Section, Evergreen Plaza Building, Olympia, WA 98504-0090. Telephone number: (206) 753-5569.
17. WISCONSIN (WI). Title: Summary of Tax Exemption Devices, January 1989. Prepared by: Division of Research and Analysis, Department of Revenue, Post Office Box 8933, State of Wisconsin, Madison, Wisconsin 53708. Telephone number: (608) 266-5773.

NOTES:

- (1) Hawaii provides a comprehensive review of seven tax credits in Tax Credits Claimed by Hawaii Residents, 1987. Prepared by Tax & Research Planning, State of Hawaii, Department of Taxation, Post Office Box 259, Honolulu, Hawaii 96809. Telephone number (808) 548-7635.
- (2) North Carolina catalogs tax expenditures but does not estimate foregone revenue in North Carolina Biennial Tax Expenditure Report, 1986. Prepared by Tax Research Division, State of North Carolina, Department of Revenue, Post Office Box 25000, Raleigh, North Carolina 27640. Telephone number: (919) 733-4548.

NOTES, continued:

- (3) Texas reports revenues losses from sales and franchise tax exemptions only in Sales and Franchise Tax Exemptions, January 1989. Prepared by Texas State Comptroller, Economic Analysis Center, Post Office Box 13528, Capitol Station, Austin, Texas 78711. Telephone number: (512) 463-4204.
- (4) Missouri Department of Revenue prepared a Limited Tax Expenditure Study but has not engaged in periodic reporting. Edwards (1988) also refers to Arkansas and Indiana as having issued one-time studies and to Alabama, Florida, and Indiana as having issued brief or internal reports.

APPENDIX, EXHIBIT C
REPORT PREPARER INTERVIEW GUIDE

Report Preparer Interview Guide
Tax Expenditure Report Research Study

Jean Harris
Research Associate
(703) 951-3502

Department of Accounting
R. B. Pamplin College of Business
Virginia Polytechnic Institute and State University
Blacksburg, Virginia 24061

Survey Number _____

1. How many years and in what capacities you have been involved in the preparation of reports?

_____ YEARS

CAPACITY:

2. Judging from your own experience, what are the most important problems in preparing reports?

a. _____

b. _____

Three separate sets of question follow. The first and largest set of questions is about the reporting process.

Process Questions

3. When reports are issued, approximately how many reports are distributed?

_____ NUMBER

4. Are reports prepared for issuance at a specific time?

_____ YES _____ NO

5. (If answer to 4 is "YES," please answer 5 and 6.) Under ideal circumstances, when are reports issued?

6. Is this deadline usually met?

_____ YES _____ NO

7. Are reports distributed by mail, personal deliver or some other means?

_____ MAIL _____ DELIVERY _____ OTHER

8. Are reports distributed in stages, such as first to the executive branch and then to legislative branch?

_____ YES _____ NO

9. (If answer to 8 is "YES," please answer 9.)
What is the order of distribution?

10. Are any meeting held to explain reports to users?

_____ YES _____ NO

11. (If answer to 10 is "YES," please answer 11.)
Are the meetings usually with individuals or groups?

_____ INDIVIDUAL _____ GROUP

12. As a matter of practice, are recommendations to change tax provisions included in the final copy of the report presented to legislators?

_____ YES _____ NO

13. (If answer to 12 is "YES," please answer 13.)
Who is responsible for preparation of
recommendations? (please name and give
position)

NAME: _____

14. What groups were most responsible for initiating
reporting in your state? (please name)

15. Please answer "YES" or "NO" to indicate if you are
aware of any major changes that have occurred over
time in the following aspects of reporting:

	YES	NO
(a) REPORT CONTENT	_____	_____
(b) REPORT PRESENTATION FORMAT	_____	_____
(c) REPORT COMMUNICATION	_____	_____

16. Who initiated the call for changes?

17. Have any groups advocated termination of reporting?
(please name)

_____ YES _____ NO

GROUPS:

18. What were the original purposes of reporting?

a. _____

b. _____

19. Do you think reporting is serving these purposes?

_____ YES _____ NO

20. Do you think there are other purposes that reporting serves?

_____ YES _____ NO

(If answer to 20 is "YES," please answer 21.)

21. What are the other purposes does reporting seems to serve?

a. _____

b. _____

22. Has the preparation of reports made it easier to meet other requests for analyses on the consequences of proposed new tax legislation?

_____ YES _____ NO

23. Have the data bases built to support reporting, improved the accuracy of revenue forecasting?

_____ YES _____ NO

24. In general, do you think reporting is effective or ineffective and why?

_____ EFFECTIVE _____ INEFFECTIVE

25. Why do you think reporting is
(effective/ineffective)?

26. Are you familiar with reporting in other states?

_____ YES _____ NO

27. (If answer to 26 is "YES," please answer 27
and 28.) What state do you think has the most
effective reporting process and why?

STATE: _____

28. Why do you think the reporting process in
the state named is effective?

* * *

The second set of questions is designed to learn
more about who uses reports.

User Identification Questions

29. As far as you know, are any persons or legislative
committees in your state legally required to review
reports?

_____ YES _____ NO

30. Who is required to review reports? (please
name and give position)

NAME: _____

31. Who assumes primarily responsible for analysis of reports in the executive branch? (please name and give position)

NAME: _____

32. Who assumes primarily responsible for analysis of reports in the legislative branch? (please name and give position)

NAME: _____

33. Among legislative committees which committee seems to be the most frequent users of reports?

NAME: _____

34. Among legislators, have any taken a special interest in focusing attention on report information? (please name)

_____ YES _____ NO

NAME: _____

35. Please answer "YES" or "NO" to indicate if persons from the following groups use reports?

	YES	NO
REPORT PREPARERS	_____	_____
EXECUTIVE BRANCH BUDGET OR FISCAL ANALYSTS	_____	_____
LEGISLATIVE BRANCH BUDGET OR FISCAL ANALYSTS	_____	_____
LEGISLATIVE TAX COMMITTEE STAFFS	_____	_____
OTHER COMMITTEE STAFFS	_____	_____
TAX COMMITTEE MEMBERS	_____	_____
OTHER LEGISLATORS	_____	_____
REPRESENTATIVES OF SPECIAL INTEREST GROUPS	_____	_____
CITIZENS IN GENERAL	_____	_____

OTHERS (please describe):

36. Which user groups seem to be the most serious users of report information?

a. _____

b. _____

37. Have user groups changed during the time you have been working with reports?

_____ YES _____ NO

(If answer to 37 is "YES," please answer 38.)

38. How have user groups changed during the time you have been working with reports?

a. _____

b. _____

* * *

The final set of questions pertains to how report information is used?

Use Questions

39. Do the following circumstances seem to motivate use of report information?

	YES	NO
a. TAX REFORM	_____	_____
b. ANTICIPATED REVENUE SHORTAGES	_____	_____
c. PROPOSED NEW TAX LEGISLATION	_____	_____

d. OTHERS (please describe):

40. For what purpose do reports seem to be used most often?

41. What is the most common misconception by users concerning use of reports?

42. Do users appear to have confidence in reporting?

_____ YES _____ NO

43. Are you aware of any tax policy that reporting has affected?

_____ YES _____ NO

44. (If answer to 43 is "YES," please answer 44.)
Please describe policy and effect?

- a. _____
- b. _____
- c. _____

45. In your opinion, what would encourage future report use?

46. Do you have any other comments you would like to make about reporting?

47. Would you like to receive a summary of the results of this study?

_____ YES _____ NO

APPENDIX, EXHIBIT D
LEGISLATIVE STAFF INTERVIEW GUIDE

Legislative Staff Interview Guide
Tax Expenditure Report Research Study

Jean Harris
Research Associate
(703) 951-3502

Department of Accounting
R. B. Pamplin College of Business
Virginia Polytechnic Institute and State University
Blacksburg, Virginia 24061

Survey Number _____

1. How many years and in what capacities have you used reports?

_____ YEARS

CAPACITY:

2. Judging from your own experience, what are the most important problems in using reports?

a. _____

b. _____

Three separate sets of questions follow. The first set of questions relates to you and your personal use of report information.

3. How would you describe your primary job responsibilities?

A. _____ ECONOMIC AND/OR FINANCIAL ANALYSIS

B. _____ LEGAL COUNSEL

C. _____ OTHER (please describe):

4. Over time has your use of report information increased or decreased?

_____ INCREASED _____ DECREASED

In answering the next two questions, please respond using "YES" or "NO" responses.

5. To obtain report information, do you rely on the following sources of information?

	YES	NO
VERBAL DISCUSSIONS OR SUMMARIES OF REPORT	___	___
WRITTEN DISCUSSIONS OR SUMMARIES OF REPORT	___	___
PERSONALLY READING REPORT	___	___

OTHERS (please describe):

6. Do you receive report information, either written or verbal, from the following persons?

	YES	NO
REPORT PREPARERS	___	___
EXECUTIVE BRANCH BUDGET OR FISCAL ANALYSTS	___	___
LEGISLATIVE BRANCH BUDGET OR FISCAL ANALYSTS	___	___
LEGISLATIVE TAX COMMITTEE STAFF MEMBERS	___	___
OTHER LEGISLATIVE STAFF MEMBERS	___	___
LEGISLATIVE COMMITTEE CHAIRS	___	___
OTHER LEGISLATORS	___	___
REPRESENTATIVES OF SPECIAL INTEREST GROUPS	___	___
CONSTITUENTS OF LEGISLATORS	___	___

OTHERS (please describe):

A list of statements follows. After each statement, please respond using an agreement scale ranging from 1--STRONGLY DISAGREE to 6--STRONGLY AGREE.

7. My office tends to be aware of the availability of report information.

STRONGLY DISAGREE 1 2 3 4 5 6 STRONGLY AGREE

8. My office tends to find report information helpful.

STRONGLY DISAGREE 1 2 3 4 5 6 STRONGLY AGREE

9. Report information is helpful in providing a background for understanding many tax issues.
- STRONGLY DISAGREE 1 2 3 4 5 6 STRONGLY AGREE
10. Report information is helpful for identifying actions to take on pending tax issues.
- STRONGLY DISAGREE 1 2 3 4 5 6 STRONGLY AGREE
11. Report information is helpful for gaining support for positions on tax issues.
- STRONGLY DISAGREE 1 2 3 4 5 6 STRONGLY AGREE
12. Report information is helpful for understanding the nature of potential tax policy problems.
- STRONGLY DISAGREE 1 2 3 4 5 6 STRONGLY AGREE
13. Report information is helpful for assessing the probable consequences of alternative tax policies.
- STRONGLY DISAGREE 1 2 3 4 5 6 STRONGLY AGREE
14. Report information is helpful for determining which specific tax policies to support.
- STRONGLY DISAGREE 1 2 3 4 5 6 STRONGLY AGREE
15. Report information is helpful for understanding the impact of existing tax policies.
- STRONGLY DISAGREE 1 2 3 4 5 6 STRONGLY AGREE
16. Report information is helpful for comparing existing tax benefits in terms of the amounts of revenues foregone.
- STRONGLY DISAGREE 1 2 3 4 5 6 STRONGLY AGREE

17. Report information is helpful for comparing the cost of funding a program by a tax provision with the cost of funding a similar program by budgeted appropriation.

STRONGLY DISAGREE 1 2 3 4 5 6 STRONGLY AGREE

A second set of questions relates to your personal evaluation of reports.

18. What in your opinion is the primary purpose served by reporting?

A list of statements follows. Each question may be answered using a scale ranging from 1 to 6. The scale is defined beneath each statement.

19. How often do you use report information?

NOT OFTEN 1 2 3 4 5 6 VERY OFTEN

20. For the tax issues with which your office deals, how important is the influence or contribution of report information?

NOT IMPORTANT 1 2 3 4 5 6 VERY IMPORTANT

21. For the tax issues with which your office deals, how pertinent or appropriate is the subject matter of reports?

NOT PERTINENT OR APPROPRIATE 1 2 3 4 5 6 VERY PERTINENT OR APPROPRIATE

22. For tax issues with which your office deals, how helpful would it be to have recommendations included in reports?

NOT HELPFUL 1 2 3 4 5 6 VERY HELPFUL

23. How timely is release of report information?
 NOT TIMELY 1 2 3 4 5 6 VERY TIMELY
24. What is the general technical quality of reports?
 VERY LOW 1 2 3 4 5 6 VERY HIGH
25. How adequate is the disclosure of information presented in reports?
 NOT ADEQUATE 1 2 3 4 5 6 VERY ADEQUATE
26. For the tax issues with which your office deals, how reliable is the information presented in reports?
 NOT RELIABLE 1 2 3 4 5 6 VERY RELIABLE
27. What is the general quality of oral and written communications to convey report information?
 VERY LOW 1 2 3 4 5 6 VERY HIGH
28. Considering the format of the report, how understandable is the presentation of information?
 NOT UNDERSTANDABLE 1 2 3 4 5 6 VERY UNDERSTANDABLE
29. How adequate is the assistance available from report preparers in helping to interpret report information?
 NOT ADEQUATE 1 2 3 4 5 6 VERY ADEQUATE

The final set of questions relates to the use of report information you have observed by committee members in general.

Three statements follow. Each may be answered using an agreement scale ranging from 1--STRONGLY DISAGREE to 6--STRONGLY AGREE.

30. When tax policy issues are discussed, it is likely that report information will be considered if it is readily available.

STRONGLY DISAGREE 1 2 3 4 5 6 STRONGLY AGREE

31. When tax policy issues are discussed, it is likely that report information will be mentioned.

STRONGLY DISAGREE 1 2 3 4 5 6 STRONGLY AGREE

32. When tax policy issues are discussed, it is likely that time will be taken to seek out report information.

STRONGLY DISAGREE 1 2 3 4 5 6 STRONGLY AGREE

33. Are you aware of any tax policy that reporting has affected?

_____ YES _____ NO

34. (If answer to 33 is "YES," please answer 34.)
Please describe policy and effect.

- a. _____
- b. _____
- c. _____

35. Based on your observations, have the following circumstances motivated use of report information?

	YES	NO
a. TAX REFORM	___	___
b. ANTICIPATED REVENUE SHORTAGES	___	___
c. PROPOSED NEW TAX LEGISLATION	___	___

d. OTHERS (please describe):

36. Please describe any changes in report content, presentation or communication you would appreciate?

37. Are there any other comments you would like to make about reporting?

38. Would you like to receive a summary of the results of this study?

___ YES ___ NO

APPENDIX, EXHIBIT E
LEGISLATOR MAIL SURVEY

TAX EXPENDITURES:
REPORT UTILIZATION BY STATE POLICY MAKERS

This survey is designed to understand how tax expenditure report information is used by taxation committee members. Please answer all the questions.

If you wish to comment on any question or qualify your answers, please feel free to use the space in the margins. Your comments will be read and given serious consideration.

Thank you for your help.

\$	\$	\$	\$	\$	\$
\$					\$
		STATE			
\$					\$
		TAX			
\$					\$
		REPORT			
\$					\$
\$	\$	\$	\$	\$	\$

DEPARTMENT OF ACCOUNTING
3007 PAMPLIN HALL
R. B. PAMPLIN COLLEGE OF BUSINESS
VIRGINIA POLYTECHNIC INSTITUTE
AND STATE UNIVERSITY
BLACKSBURG, VIRGINIA 24061

TAX EXPENDITURE REPORT STUDY

A tax expenditure report is a report issued on a periodic basis which contains estimates of revenues not collected by a state's treasury because various exemptions, deductions and credits are included in the state's tax laws. This kind of report is referred to as a TAX EXEMPTION REPORT in Nebraska, and is prepared by the Nebraska Department of Revenue.

If you have received any information, solicited or unsolicited, that can be identified with the TAX EXPENDITURE REPORT, your participation in this research project will be valuable. In this questionnaire all references to report information are to TAX EXPENDITURE REPORT information, and all references to reports are to TAX EXPENDITURE REPORTS.

Please make any comments about questions you find confusing in the margin by the question or on the back of question booklet. Both your responses to the questions and comments on the questions are strictly confidential information.

8. For the tax issues with which your office deals, how reliable is the information presented in reports?

NOT RELIABLE 1 2 3 4 5 6 VERY RELIABLE

9. What is the general quality of oral and written communications to convey report information?

VERY LOW 1 2 3 4 5 6 VERY HIGH

10. Considering the format of the report, how understandable is the presentation of report information?

NOT UNDERSTANDABLE 1 2 3 4 5 6 VERY UNDERSTANDABLE

11. How adequate is the assistance available from report preparers in helping to interpret report information?

NOT ADEQUATE 1 2 3 4 5 6 VERY ADEQUATE

12. How often do you use report information?

NOT OFTEN 1 2 3 4 5 6 VERY OFTEN

Items thirteen through twenty-six are statements about reports. Please indicate your response by circling a number from one to six on the scale printed beneath each item.

13. My office tends to be aware of the availability of report information.

STRONGLY DISAGREE 1 2 3 4 5 6 STRONGLY AGREE

14. My office tends to find report information helpful.

STRONGLY DISAGREE 1 2 3 4 5 6 STRONGLY AGREE

15. Report information is helpful in providing a background for understanding many tax issues.
 STRONGLY DISAGREE 1 2 3 4 5 6 STRONGLY AGREE
16. Report information is helpful for identifying actions to be taken on pending tax issues.
 STRONGLY DISAGREE 1 2 3 4 5 6 STRONGLY AGREE
17. Report information is helpful for gaining support for positions on tax issues.
 STRONGLY DISAGREE 1 2 3 4 5 6 STRONGLY AGREE
18. Report information is helpful for understanding the nature of potential tax policy problems.
 STRONGLY DISAGREE 1 2 3 4 5 6 STRONGLY AGREE
19. Report information is helpful for assessing the probable consequences of alternative tax policies.
 STRONGLY DISAGREE 1 2 3 4 5 6 STRONGLY AGREE
20. Report information is helpful for determining which specific tax policies to support.
 STRONGLY DISAGREE 1 2 3 4 5 6 STRONGLY AGREE
21. Report information is helpful for understanding the impact of existing tax policies.
 STRONGLY DISAGREE 1 2 3 4 5 6 STRONGLY AGREE
22. Report information is helpful for comparing existing tax benefits in terms of the amounts of revenues foregone.
 STRONGLY DISAGREE 1 2 3 4 5 6 STRONGLY AGREE

23. Report information is helpful for comparing the cost of funding a program by a tax provision with the cost of funding a similar program by budgeted appropriation.

STRONGLY DISAGREE 1 2 3 4 5 6 STRONGLY AGREE

24. When tax policy issues are discussed, it is likely that report information will be considered if it is readily available.

STRONGLY DISAGREE 1 2 3 4 5 6 STRONGLY AGREE

25. When tax policy issues are discussed, it is likely that report information will be mentioned.

STRONGLY DISAGREE 1 2 3 4 5 6 STRONGLY AGREE

26. When tax policy issues are discussed, it is likely that time will be taken to seek out report information.

STRONGLY DISAGREE 1 2 3 4 5 6 STRONGLY AGREE

Items twenty-seven through thirty-five are about attitudes. Please indicate your responses by circling a number from one to six on the scale printed beneath each item.

27. Few people really know what is in their own best interests.

STRONGLY DISAGREE 1 2 3 4 5 6 STRONGLY AGREE

28. It will always be necessary to have a few strong, able people actually running everything.

STRONGLY DISAGREE 1 2 3 4 5 6 STRONGLY AGREE

29. In this complicated world, the only way we can know what is happening is to rely on experts who can be trusted.

STRONGLY DISAGREE 1 2 3 4 5 6 STRONGLY AGREE

30. Business enterprise should remain free from government regulation.
- STRONGLY DISAGREE 1 2 3 4 5 6 STRONGLY AGREE
31. It is a responsibility of government to provide for social programs such as health care, housing, and job training.
- STRONGLY DISAGREE 1 2 3 4 5 6 STRONGLY AGREE
32. Tax issues have a significant technical component.
- STRONGLY DISAGREE 1 2 3 4 5 6 STRONGLY AGREE
33. Fiscal analysis is useful in formulating tax policy.
- STRONGLY DISAGREE 1 2 3 4 5 6 STRONGLY AGREE
34. Including incentive and relief provisions in tax laws is an appropriate means of administering public policies.
- STRONGLY DISAGREE 1 2 3 4 5 6 STRONGLY AGREE
35. A legislator has an obligation to vote with his or her party.
- STRONGLY DISAGREE 1 2 3 4 5 6 STRONGLY AGREE

For items thirty-six through thirty-eight, please use the designations "1st," "2nd," and "3rd" to rank your top three choices among the options listed.

36. Item thirty-six describes legislative activities. Please indicate which group of activities ought to be treated as most important by a legislator (1st), second most important (2nd), and third most important (3rd).

_____ PREPARING TO MEET RESPONSIBILITIES by performing activities such doing basic research, overseeing government operations, and keeping up with events.

_____ WORKING ON COMMITTEES to focus on activities such as developing legislation, overseeing programs, building support for legislation, and communicating needs of district for public resources

_____ SERVING THE PUBLIC AS LIAISON by engaging in activities such as talking with local officials and helping constituents with personal problems

_____ CONVEYING INFORMATION by getting back to district to explain policy to constituents

_____ INFORMING CONSTITUENTS of legislative activities by sending newsletters

_____ MAINTAINING HOME DISTRICT CONTACTS by meeting with constituents

37. Item thirty-seven describes decision locations. Please indicate the most important location for tax policy decisions (1st), and the second most important location (2nd), and third most important location (3rd).

_____ STUDY COMMISSIONS

_____ PARTY CAUCUS

_____ REGULAR TAX COMMITTEE MEETINGS

_____ REGULAR OTHER (NON-TAX) COMMITTEE MEETINGS

_____ ON FLOOR OF LEGISLATURE

_____ IN GOVERNOR'S OFFICE

_____ LEGISLATIVE LEADERSHIP MEETINGS

38. Item thirty-eight describes approaches to settling tax policy questions. Please indicate the approach which is useful approach (1st), second most useful (2nd), and third most useful (3rd).

_____ FINDING THE MOST ACCEPTABLE GROUNDS FOR SATISFYING CONTESTING GROUPS OR PEOPLE

_____ JUDGING HOW THE AVERAGE CITIZEN WOULD REACT TO EACH ALTERNATIVE

_____ EXAMINING, IN DETAIL, THE COSTS AND BENEFITS OF EACH ALTERNATIVE

_____ DECIDING WHAT IS MORALLY OR ETHICALLY RIGHT

_____ ACCOMMODATING COLLEAGUES IN THE LEGISLATURE OR OTHER ELECTED OFFICIALS

Items thirty-nine and forty are about future public service. Please indicate your response by circling a number from one to six on the scale printed beneath each item.

39. How willing are you to consider serving three or more future terms in the legislature?

NOT WILLING 1 2 3 4 5 6 VERY WILLING

40. How willing are you to run for a higher political office at some point in the future?

NOT WILLING 1 2 3 4 5 6 VERY WILLING

Items forty-one through fifty are about you and how report information is conveyed to you.

41. How many years have you served in the legislature?

_____ YEARS

42. How many years have you served on a legislative committee with substantial responsibility for tax policy?

_____ YEARS

43. On matters of economic policy how would you describe yourself on a scale ranging from very conservative to very liberal? (Please circle reply.)

VERY CONSERVATIVE 1 2 3 4 5 6 VERY LIBERAL

44. Do you serve in the following capacities?

	YES	NO
OFFICER OF LEGISLATURE	___	___
CHAIR OF STANDING COMMITTEE	___	___
VICE-CHAIR OF STANDING COMMITTEE	___	___

45. Please indicate your educational background.

BACHELOR'S DEGREE:

YES ___ NO ___

FIELD OF STUDY _____

GRADUATE DEGREE:

YES ___ NO ___

FIELD OF STUDY _____

46. What is your party affiliation? (Please check one.)

_____ DEMOCRAT
_____ REPUBLICAN
_____ OTHER (_____)

47. What is your age? (Please check one.)

_____ 30 OR LESS
_____ 31 TO 44
_____ 45 TO 59
_____ 60 OR OVER

48. Do you rely on the following sources to obtain report information?

	YES	NO
VERBAL DISCUSSIONS OR SUMMARIES OF REPORT	___	___
WRITTEN DISCUSSIONS OR SUMMARIES OF REPORT	___	___
READING REPORT PERSONALLY	___	___

OTHERS (PLEASE DESCRIBE):

49. Do the following circumstances increase review of report information by your office?

	YES	NO
TAX REFORM	___	___
ANTICIPATED REVENUE SHORTAGES	___	___
NEW TAX LEGISLATION	___	___

OTHERS (PLEASE DESCRIBE):

50. Do you receive report information, either written or verbal, from the following persons?

	YES	NO
REPORT PREPARERS PERSONALLY	___	___
EXECUTIVE BRANCH BUDGET OR FISCAL ANALYSTS	___	___
LEGISLATIVE BRANCH BUDGET OR FISCAL ANALYSTS	___	___
LEGISLATIVE TAX COMMITTEE STAFF MEMBERS	___	___
OTHER LEGISLATIVE STAFF MEMBERS	___	___
LEGISLATIVE COMMITTEE CHAIRS	___	___
OTHER LEGISLATORS	___	___
REPRESENTATIVES OF SPECIAL INTEREST GROUPS	___	___
CONSTITUENTS	___	___

OTHERS (PLEASE DESCRIBE):

Is there anything else you would like to tell us about the use of report information? If so please use this space for that purpose.

Also, any comments you wish to make that you think may help us in future efforts to understand the use of report information will be appreciated either here or in a separate letter.

Your contribution to this effort is appreciated greatly. If you would like a summary of results, please print your name and address on the back of the return envelope (NOT on this questionnaire). We will see that you get it.

* * *

SURVEY NUMBER _____

APPENDIX, EXHIBIT F
PATH ANALYSIS

Path Analysis¹

A path diagram, such as Figure F-1*** can be used to represent, causal relationships among a set of variables.

This model shows a developmental sequence, in which (1) X_1 influences X_3 directly and indirectly via X_2 , and (2) X_2 influences X_3 directly. The location of the variables reflects temporal sequence. The R or residual terms represent the variance in the related variable which is unexplained by variance in other variables in the model.

Path analysis provides a regression based statistical technique for evaluating the accuracy of path models by measuring the direct and indirect effects of one variable on another. This analytical method can be used when one causal variable influences another or independence does not exist among causal variables.

The assumptions of underlying path analysis are as follows²:

- (1) Relations among variables are linear, additive, and causal.
- (2) The residual of an endogenous variable is not correlated with an exogenous variable.
- (3) There is one-way causal flow.
- (4) Variables are measured on an interval scale.
- (5) Variables are measured without error.

When the causal variables are not independent, the model must be described by a set of structural equations.

$$\begin{aligned} X_1 &= p_{1u} R_u \\ X_2 &= p_{21} X_1 + p_{2v} R_v \\ X_3 &= p_{32} X_2 + p_{31} X_1 + p_{3v} R_v \end{aligned}$$

¹This explanation draws extensively from a discussion of path analysis by Manheim and Rich (1986).

²See Pedhazur (1982) for a discussion of assumptions.

Figure F-1***

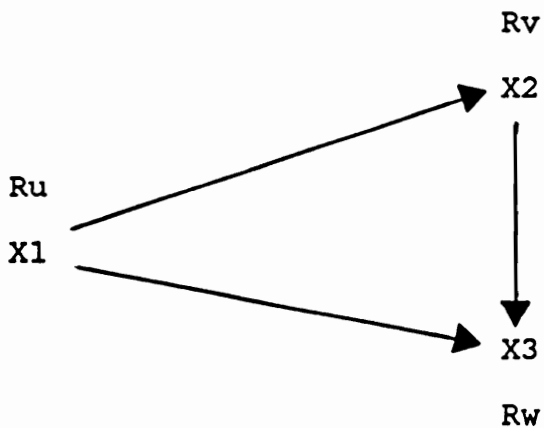


FIGURE 1***, THREE VARIABLE MODEL

Figure F-2***

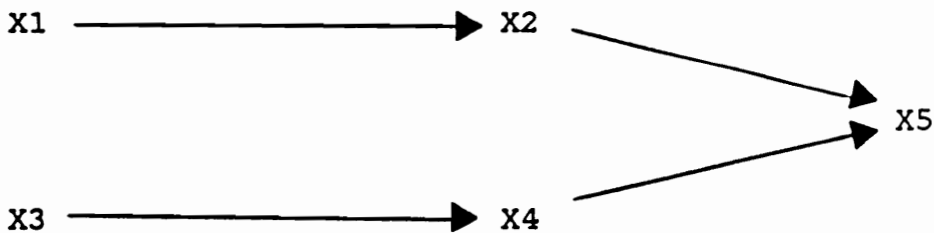


FIGURE 2***, FIVE VARIABLE MODEL

Figure F-3***

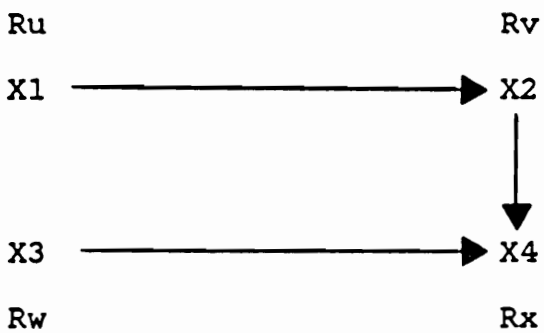


FIGURE 3***, FOUR VARIABLE MODEL

The p terms are called path coefficients and measure the amount of influence one variable has on another when the effects of all other variables are controlled or held constant. The notation p_{21} indicates the path to variable X_2 from variable X_1 . The three equations above indicate X_1 is caused by factors outside the model; X_2 is caused by X_1 and factors outside the model; and X_3 is caused by X_1 , X_2 , and factors outside the model. X_2 and X_3 which are partially determined by variables in the model are described as endogenous. In contrast, X_1 which is determined by factors outside the model is described as exogenous.

The term, recursive, describes a model with one-way causal flow, and the term, non-recursive, describes a model with two-way causal flow. Recursive models may be examined using ordinary least squares regression. Two stage least squares regression may be used to examine both recursive and non-recursive models.

Using ordinary least squares regression, a series of regressions is run in which each endogenous variable is regressed on all variables that are hypothesized to influence it. Assume Figure F-1***, the three variable model, is expanded to a five variable model illustrated in Figure F-2*** with residuals eliminated for simplicity.

Testing this model would require the regression of

- (1) X_5 on X_2 and X_4
- (2) X_4 on X_2 and X_3
- (3) X_2 on X_1
- (4) X_4 on X_3

If any path or standardized regression coefficient has a value near zero indicating statistical insignificance, the model has been misspecified by anticipating a relationship that the data do not support. The absence of effects would be tested by regressing endogenous variables on others to which they are not supposed to be related. For example, the regression of X_3 on X_1 and X_4 on X_1 would test for the absence of a possible relationship. If the path coefficients are significant the model and theory it represents should be modified.

The total effects of one variable on another are equal to the value of the direct path between the two plus the product of the direct paths composing the indirect path. For example, in Figure F-3***, the five variable model, the total effect of X_2 on X_5 is equal to $p_{52} + (p_{42} \times p_{54})$.

Path analysis has been used widely in the social sciences to test large pieces of theory at once. It offers the advantage of facilitating theory elaboration by permitting the interaction of theory and data analysis.

One of the assumptions of path analysis is that the residual of a subsequent variable is not correlated with the preceding variable. If this assumption is violated, the appropriate method of analysis is two stage least squares regression rather than ordinary least squares regression. The two stage least squares regression method requires two successive applications of ordinary least squares regression.

Consider Figure F-3***, a four variable model. Assume R_4 is correlated with X_2 . Accordingly X_4 simply can not be regressed on X_1 , X_2 and X_3 . Using the two stage least squares regression method, the first stage is to regress X_4 on X_1 and X_3 obtaining an estimate of X_2 , and then in the second stage regress the X_4 on X_1 , the estimate of X_2 , and X_3 .

APPENDIX, EXHIBIT G
OBSERVATIONS, MEANS AND STANDARD DEVIATIONS

DESCRIPTIVE STATISTICS OF ALL VARIABLES USED IN PATH MODELS

VARIABLE	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE
ITEM2	134	4.43283582	1.34022645	1.00000000	6.00000000
ITEM3	132	4.40909091	1.21664377	1.00000000	6.00000000
ITEM4	133	4.21052632	1.49267216	1.00000000	6.00000000
ITEM6	130	4.31538462	1.08573995	1.00000000	6.00000000
ITEM7	131	4.12977099	1.08412990	1.00000000	6.00000000
ITEM8	130	4.41538462	0.99443892	2.00000000	6.00000000
ITEM9	131	4.24427481	1.09608817	1.00000000	6.00000000
ITEM10	130	4.16923077	1.05755650	2.00000000	6.00000000
ITEM11	126	4.53174603	1.16403785	1.00000000	6.00000000
ITEM24	133	4.42105263	1.28045048	1.00000000	6.00000000
ITEM25	133	4.40601504	1.35421673	1.00000000	6.00000000
ITEM26	133	3.87969925	1.40366185	1.00000000	6.00000000
ITEM27	131	2.79389313	1.50750715	1.00000000	6.00000000
ITEM28	130	2.81538462	1.52389045	1.00000000	6.00000000
ITEM29	131	3.03816794	1.55615196	1.00000000	6.00000000
ITEM30	131	3.77099237	1.61989974	1.00000000	6.00000000
ITEM31	130	4.24615385	1.37000842	1.00000000	6.00000000
ITEM32	128	5.03906250	0.96719697	2.00000000	6.00000000
ITEM33	132	5.23484848	0.88184556	2.00000000	6.00000000
ITEM34	130	4.36923077	1.16231833	2.00000000	6.00000000
ITEM35	126	2.35714286	1.38254424	1.00000000	6.00000000
ITEM36A	134	0.33582090	0.47404879	0.00000000	1.00000000
ITEM36B	134	0.58208955	0.49506599	0.00000000	1.00000000
ITEM37C	134	0.60447761	0.49079737	0.00000000	1.00000000
ITEM38C	134	0.72388060	0.44875418	0.00000000	1.00000000
ITEM39	125	3.82400000	1.91371957	1.00000000	6.00000000
ITEM40	126	3.91269841	1.84616290	1.00000000	6.00000000
ITEM43	127	3.41732283	1.37691249	1.00000000	6.00000000
ITEM45A	129	2.27906977	0.78039197	1.00000000	3.00000000
LAW	134	0.02985075	0.17081400	0.00000000	1.00000000
S_SCI	134	0.12686567	0.33407130	0.00000000	1.00000000

APPENDIX, EXHIBIT H
CORRELATION MATRIX

CORRELATION MATRIX BETWEEN ALL VARIABLES USED IN PATH MODELS
PEARSON CORRELATION COEFFICIENTS / PROB > IRI UNDER H0:RHO=0 / NUMBER OF OBSERVATIONS

	ITEM2	ITEM3	ITEM4	ITEM6	ITEM7	ITEM8	ITEM9	ITEM10	ITEM11	ITEM24	ITEM25	ITEM26
ITEM2	1.0000 0.0001 134	0.70802 0.0001 132	0.07801 0.3721 133	0.31585 0.0003 130	0.31829 0.0002 131	0.25353 0.0006 130	0.28892 0.0008 131	0.32566 0.0002 130	0.33955 0.0001 126	0.45571 0.0001 133	0.45116 0.0001 133	0.44540 0.0001 133
ITEM3	0.70802 0.0001 132	1.0000 0.0000 132	-0.01277 0.8845 132	0.42896 0.0001 130	0.39612 0.0001 131	0.56287 0.0001 129	0.28880 0.0001 130	0.48371 0.0001 129	0.35117 0.0001 125	0.38245 0.0001 131	0.35485 0.0001 131	0.34848 0.0001 131
ITEM4	0.07801 0.3721 133	-0.01277 0.8845 132	1.0000 0.0000 133	0.07971 0.3673 130	-0.01316 0.8814 131	0.09845 0.2651 130	0.13101 0.1358 131	0.09948 0.9147 130	-0.00915 0.9190 126	0.12214 0.1630 132	0.14745 0.0916 132	0.16799 0.0562 132
ITEM6	0.31585 0.0003 130	0.42896 0.0001 130	0.07971 0.3673 130	1.0000 0.0000 130	0.62504 0.0001 129	0.68561 0.0001 127	0.46231 0.0001 128	0.53144 0.0001 127	0.37894 0.0001 124	0.14237 0.1075 129	0.18202 0.0390 129	0.17213 0.0511 129
ITEM7	0.31829 0.0002 131	0.39612 0.0001 131	-0.01316 0.8814 131	0.62504 0.0001 129	1.0000 0.0000 131	0.50798 0.0000 129	0.39674 0.0001 129	0.42103 0.0001 128	0.33978 0.0001 124	0.14850 0.0918 130	0.20039 0.0223 130	0.24225 0.0035 130
ITEM8	0.25353 0.0006 130	0.31829 0.0001 129	0.09845 0.2651 130	0.68561 0.0001 127	0.50798 0.0001 129	1.0000 0.0000 130	0.47615 0.0001 130	0.54434 0.0001 129	0.27868 0.0016 125	0.10330 0.2440 129	0.13721 0.1210 129	0.09394 0.2897 129
ITEM9	0.28892 0.0008 131	0.28892 0.0009 130	0.13101 0.1358 131	0.46231 0.0001 128	0.39674 0.0001 129	0.47615 0.0001 130	1.0000 0.0000 131	0.48930 0.0001 130	0.47599 0.0001 126	0.15507 0.0781 130	0.24459 0.0050 130	0.30360 0.0004 130
ITEM10	0.32566 0.0002 130	0.48371 0.0001 129	0.09948 0.9147 130	0.53144 0.0001 127	0.42103 0.0001 128	0.54434 0.0001 129	0.48930 0.0001 130	1.0000 0.0000 130	0.41029 0.0001 126	0.19537 0.0239 130	0.25526 0.0034 130	0.16103 0.0672 130
ITEM11	0.33955 0.0001 126	0.35117 0.0001 125	-0.00915 0.9190 126	0.41029 0.0001 126	0.33978 0.0001 124	0.27868 0.0016 125	0.47599 0.0001 126	0.41029 0.0001 126	1.0000 0.0000 126	0.20601 0.0207 126	0.42028 0.0001 126	0.36570 0.0001 126
ITEM24	0.45571 0.0001 133	0.45571 0.0001 133	0.12214 0.1630 132	0.14850 0.0918 130	0.20039 0.0223 130	0.24225 0.0035 130	0.20601 0.0207 126	0.19537 0.0259 130	0.20601 0.0207 126	1.0000 0.0000 133	0.69581 0.0001 133	0.58057 0.0001 133
ITEM25	0.45116 0.0001 133	0.35485 0.0001 131	0.14745 0.0916 132	0.18202 0.0390 129	0.20039 0.0223 130	0.13721 0.1210 129	0.24459 0.0034 130	0.25526 0.0034 130	0.42028 0.0001 126	0.69581 0.0001 133	1.0000 0.0000 133	0.67950 0.0001 133
ITEM26	0.44540 0.0001 133	0.34848 0.0001 131	0.16799 0.0542 132	0.17213 0.0511 129	0.24225 0.0035 130	0.09394 0.2897 129	0.30360 0.0004 130	0.16103 0.0672 130	0.36570 0.0001 126	0.58057 0.0001 133	0.67950 0.0001 133	1.0000 0.0000 133
ITEM27	0.07703 0.3818 131	0.06266 0.4805 129	-0.10164 0.2499 130	-0.06474 0.4696 127	-0.12769 0.1509 128	-0.05935 0.5074 127	-0.02126 0.8117 128	-0.09993 0.2617 128	0.06461 0.4741 125	-0.03117 0.7237 131	0.06335 0.4722 131	-0.07259 0.4099 131

CORRELATION MATRIX BETWEEN ALL VARIABLES USED IN PATH MODELS
PEARSON CORRELATION COEFFICIENTS / PROB > IRI UNDER H0:RHO=0 / NUMBER OF OBSERVATIONS

	ITEM2	ITEM3	ITEM4	ITEM6	ITEM7	ITEM8	ITEM9	ITEM10	ITEM11	ITEM24	ITEM25	ITEM26
ITEM28	0.14734 0.0944 130	0.06926 0.4373 128	0.01018 0.9088 129	-0.10607 0.2372 126	0.06526 0.4660 127	-0.12003 0.1806 126	0.04044 0.6517 127	-0.04037 0.6506 127	0.07345 0.4175 124	0.05104 0.5642 130	0.19629 0.0252 130	0.23508 0.0071 130
ITEM29	0.15742 0.0725 131	-0.00404 0.9638 129	0.06874 0.4371 130	-0.02494 0.7808 128	-0.15278 0.0851 128	-0.06455 0.4573 127	-0.02383 0.7895 128	-0.13308 0.1343 128	0.02411 0.7896 125	0.04581 0.6034 131	0.18486 0.0345 131	0.08981 0.3093 131
ITEM30	0.09375 0.2868 131	0.11905 0.1790 129	-0.04482 0.6126 130	0.23671 0.0074 127	0.15477 0.0811 128	0.21896 0.0134 127	0.04864 0.5856 128	0.23072 0.0088 128	0.14710 0.1016 125	0.04927 0.5763 131	0.05622 0.5236 131	0.03216 0.7134 131
ITEM31	0.12222 0.1660 130	-0.00813 0.9274 128	0.15982 0.0704 129	0.15020 0.0919 127	0.08470 0.3438 127	0.18855 0.0345 126	-0.05550 0.5354 127	0.12920 0.1477 127	0.13417 0.1374 124	-0.02122 0.8106 130	0.02049 0.8170 130	-0.00825 0.9258 130
ITEM32	0.22893 0.0093 128	0.24539 0.0027 126	-0.04314 0.4301 127	0.23210 0.0095 124	0.07179 0.4263 125	0.29743 0.0008 124	0.07836 0.5850 125	0.24989 0.0049 125	0.10120 0.2674 122	0.09457 0.2883 128	0.02962 0.7400 128	0.02162 0.8086 128
ITEM33	0.12159 0.1649 132	0.07193 0.4160 130	0.08601 0.3287 131	0.28444 0.0011 128	0.95508 0.5353 129	0.26333 0.0027 128	-0.05393 0.5439 129	0.23115 0.0084 129	0.04610 0.6097 125	0.15570 0.0746 132	0.12315 0.1595 132	0.04155 0.6362 132
ITEM34	0.10888 0.2175 130	0.13221 0.1369 128	0.07098 0.4241 129	0.23916 0.0070 126	0.22156 0.0123 127	0.20812 0.0194 126	0.07748 0.5853 127	0.14536 0.1030 127	0.09267 0.3060 124	0.08012 0.3649 130	0.00520 0.9532 130	-0.00863 0.9224 130
ITEM35	0.12551 0.1614 126	0.11981 0.1850 124	0.16414 0.0674 125	0.19922 0.0278 122	0.16307 0.0715 123	0.10760 0.2381 122	0.10201 0.2615 123	0.23169 0.0099 123	-0.02711 0.7688 120	0.06292 0.4840 126	0.00606 0.9463 126	-0.01272 0.8876 126
ITEM36A	-0.02932 0.7366 134	-0.00788 0.9285 132	0.06165 0.4809 133	-0.01895 0.0305 130	-0.00873 0.9211 131	-0.04723 0.5936 130	0.00739 0.9333 131	0.04226 0.6331 130	-0.00484 0.9571 126	0.02557 0.7702 133	0.05571 0.5242 133	0.10697 0.2204 133
ITEM36B	-0.03129 0.7197 134	-0.05705 0.5158 132	0.04905 0.5750 133	-0.06201 0.4834 130	0.00197 0.9822 131	0.01330 0.8806 130	0.09116 0.3004 131	-0.04240 0.6319 130	0.03686 0.6820 126	-0.05795 0.5076 133	-0.06416 0.4632 133	-0.07224 0.4086 133
ITEM37C	0.09076 0.2970 134	0.02907 0.7407 132	0.00982 0.9107 133	-0.04247 0.6314 130	0.02346 0.7903 131	-0.10649 0.2278 130	-0.02571 0.7707 131	-0.04080 0.6449 130	0.02820 0.7540 126	0.09536 0.2749 133	0.06981 0.4246 133	0.03024 0.7297 133
ITEM38C	0.05019 0.5647 134	0.04365 0.6192 132	0.00891 0.9189 133	-0.10563 0.2316 130	-0.01882 0.8311 131	-0.13063 0.11385 130	0.11928 0.1748 131	-0.07055 0.4251 130	0.06315 0.4823 126	0.01536 0.8607 133	-0.00481 0.9562 133	0.09281 0.2880 133
ITEM39	0.11225 0.2126 125	0.04013 0.6593 123	0.08344 0.3434 124	0.04699 0.6088 121	-0.08213 0.3665 122	0.14475 0.1117 122	0.00536 0.9531 123	-0.07475 0.4132 122	0.04325 0.6405 119	0.25139 0.0049 124	0.17773 0.0483 124	0.18280 0.0621 124

CORRELATION MATRIX BETWEEN ALL VARIABLES USED IN PATH MODELS
PEARSON CORRELATION COEFFICIENTS / PROB > IRI UNDER H0:RHO=0 / NUMBER OF OBSERVATIONS

	ITEM2	ITEM3	ITEM4	ITEM6	ITEM7	ITEM8	ITEM9	ITEM10	ITEM11	ITEM24	ITEM25	ITEM26
ITEM40	0.12305 0.1698 126	0.04935 0.5864 124	0.11037 0.2204 123	0.04301 0.6381 122	0.06491 0.4757 123	0.13894 0.1254 123	0.06216 0.4928 124	0.10385 0.2510 123	-0.05220 0.5712 120	0.22465 0.0118 125	0.16035 0.0740 125	0.13357 0.1375 125
ITEM43	0.08321 0.3523 127	0.07453 0.4088 125	0.13026 0.1460 126	0.11761 0.1932 123	0.11875 0.1890 124	0.16398 0.0688 124	-0.02731 0.7607 125	0.11038 0.2223 124	0.01832 0.8419 121	0.02815 0.7543 126	0.02005 0.8236 126	0.07099 0.4296 126
ITEM45A	-0.02588 0.7710 129	-0.07242 0.4185 127	0.09904 0.2660 128	0.11516 0.2022 128	0.06487 0.4705 126	0.03279 0.7166 125	0.05059 0.5737 126	0.07317 0.4174 129	0.07336 0.4239 121	-0.04143 0.6424 128	-0.04401 0.6218 128	-0.03249 0.7158 128
LAM	-0.22108 0.0103 134	-0.05147 0.5578 132	-0.05556 0.5253 133	-0.09219 0.2949 130	-0.16015 0.0677 131	-0.01273 0.8857 130	0.05922 0.5016 131	0.02394 0.7869 130	-0.07163 0.4254 126	-0.05812 0.5063 133	-0.11826 0.1752 133	-0.20522 0.0178 133
S_SCI	-0.03960 0.6496 134	-0.07379 0.4004 132	0.00638 0.9419 133	0.00599 0.9460 130	0.14290 0.1033 131	0.07927 0.3700 130	-0.10480 0.2336 131	0.05095 0.5648 130	0.10619 0.2366 126	0.05017 0.5663 133	0.11847 0.1744 133	0.01683 0.8475 133
ITEM2	0.07703 0.5818 131	0.14734 0.0944 130	0.15742 0.0725 131	0.09375 0.2868 131	0.12222 0.1660 130	0.22893 0.0093 128	0.12159 0.1649 132	0.10888 0.2173 130	0.12551 0.1614 126	-0.02932 0.7366 134	-0.03129 0.7197 134	0.09076 0.2970 134
ITEM3	0.06266 0.4805 129	0.06926 0.4373 128	-0.00404 0.9638 129	0.11905 0.1790 129	-0.00813 0.9274 128	0.26539 0.0027 126	0.07193 0.4160 130	0.13221 0.1369 128	0.11981 0.1850 124	-0.00788 0.9285 132	-0.05705 0.5158 132	0.02907 0.7407 132
ITEM4	-0.10164 0.2499 130	0.01018 0.9088 129	0.06874 0.4371 130	-0.04482 0.6126 130	0.15982 0.0704 129	-0.04314 0.6301 127	0.08601 0.3287 131	0.07098 0.4241 129	0.16414 0.0674 125	0.06165 0.4809 133	0.04905 0.5750 133	0.00982 0.9107 133
ITEM6	-0.04674 0.4696 127	-0.10407 0.2372 126	-0.02494 0.7808 127	0.23671 0.0074 127	0.15020 0.0919 124	0.23210 0.0095 124	0.28444 0.0011 128	0.23916 0.0070 126	0.19922 0.0278 122	-0.01895 0.8305 130	-0.04201 0.4834 130	-0.04247 0.6314 130
ITEM7	-0.12769 0.1509 128	0.06526 0.4660 127	-0.15278 0.0851 128	0.15477 0.0811 128	0.08470 0.3438 127	0.07179 0.4263 125	0.05508 0.5353 129	0.22156 0.0123 127	0.16307 0.0715 123	-0.00873 0.9211 131	0.00197 0.9822 131	0.02346 0.7903 131
ITEM8	-0.05935 0.5074 127	-0.12003 0.1806 126	-0.06655 0.4573 127	0.21896 0.0134 127	0.18855 0.0345 126	0.29743 0.0008 124	0.26333 0.0027 128	0.20812 0.0194 126	0.10760 0.2381 122	-0.04723 0.5936 130	0.01330 0.8806 130	-0.10649 0.2278 130
ITEM9	-0.02126 0.8117 128	0.04044 0.6317 127	-0.02383 0.7895 128	0.04864 0.5856 128	-0.05550 0.5354 125	0.07836 0.3850 125	-0.05393 0.5439 129	0.07768 0.3853 127	0.10201 0.2615 123	0.00739 0.9333 131	0.09116 0.3004 131	-0.02571 0.7707 131
ITEM10	-0.09993 0.2617 128	-0.04057 0.6506 127	-0.13308 0.1343 128	0.23072 0.0088 128	0.12920 0.1477 127	0.24989 0.0049 125	0.23115 0.0084 129	0.14536 0.1030 127	0.23169 0.0099 123	0.04226 0.6331 130	-0.04240 0.4319 130	-0.04080 0.6449 130

CORRELATION MATRIX BETWEEN ALL VARIABLES USED IN PATH MODELS
PEARSON CORRELATION COEFFICIENTS / PROB > |R| UNDER H0:RHO=0 / NUMBER OF OBSERVATIONS

	ITEM27	ITEM28	ITEM29	ITEM30	ITEM31	ITEM32	ITEM33	ITEM34	ITEM35	ITEM36A	ITEM36B	ITEM37C
ITEM11	0.06461 0.4741 125	0.07345 0.4175 124	0.02411 0.7896 125	0.14710 0.1016 125	0.13417 0.1374 124	0.10120 0.2674 122	0.04610 0.6097 125	0.09267 0.3060 124	-0.02711 0.7488 120	-0.00484 0.9571 126	0.03686 0.8920 126	0.02820 0.7540 126
ITEM24	-0.03117 0.7237 131	0.05104 0.5642 130	0.04581 0.6034 131	0.04927 0.3763 131	-0.02122 0.8106 130	0.09457 0.2883 128	0.13570 0.0746 132	0.08012 0.3649 130	0.06292 0.4840 126	-0.05795 0.7702 133	0.09536 0.2749 133	
ITEM25	0.06335 0.4722 131	0.19429 0.0232 130	0.18486 0.0345 131	0.05622 0.5236 131	0.02049 0.8170 130	0.02962 0.7400 128	0.12315 0.1395 132	0.00320 0.9352 130	0.00406 0.9463 126	0.05371 0.5242 133	0.06416 0.4632 133	0.06981 0.4246 133
ITEM26	-0.07259 0.4099 131	0.23508 0.0071 130	0.08931 0.3093 131	0.03216 0.7154 131	-0.00825 0.9258 130	0.02162 0.8086 128	0.04155 0.6362 132	-0.00863 0.9224 130	-0.01272 0.8676 126	0.10697 0.2204 133	-0.07224 0.4086 133	0.03024 0.7297 133
ITEM27	1.00000 0.0000 131	0.25218 0.0038 130	0.52147 0.0001 131	-0.13288 0.1303 131	-0.06125 0.4905 129	-0.17170 0.0326 128	-0.13200 0.1329 131	0.07660 0.3864 130	0.00387 0.9437 126	-0.00776 0.9299 131	-0.10278 0.2427 131	0.10144 0.2490 131
ITEM28	0.25218 0.0038 130	1.00000 0.0000 130	0.45889 0.0001 130	-0.25382 0.0039 130	-0.18444 0.0372 128	-0.00055 0.9931 127	-0.18106 0.0392 130	0.07624 0.3905 129	0.01473 0.8705 125	-0.07364 0.4030 130	-0.03724 0.6740 130	0.03926 0.6574 130
ITEM29	0.52147 0.0001 131	0.45889 0.0001 130	1.00000 0.0000 131	-0.16739 0.0560 131	-0.03735 0.5185 129	0.06086 0.4950 128	-0.04565 0.6066 131	0.06437 0.4531 130	0.00563 0.9501 126	-0.03835 0.6620 131	-0.03990 0.6509 131	0.16125 0.0636 131
ITEM30	-0.13288 0.1303 131	-0.25382 0.0039 130	0.45889 0.0001 130	1.00000 0.0000 131	0.48141 0.0001 129	0.07118 0.4246 128	0.17159 0.0500 131	0.02903 0.7430 130	0.07690 0.3920 126	0.18235 0.0371 131	0.08542 0.3320 131	0.00535 0.9516 131
ITEM31	-0.06125 0.4905 129	-0.18444 0.0372 128	-0.05735 0.5185 129	0.48141 0.0001 129	1.00000 0.0000 130	0.13899 0.1206 126	0.18912 0.0312 130	0.17075 0.0540 128	0.14685 0.1036 124	-0.07200 0.4156 150	-0.00230 0.9793 130	0.09376 0.2887 130
ITEM32	-0.17170 0.0526 128	-0.00055 0.9951 127	0.06086 0.4950 128	0.07118 0.4246 128	0.13899 0.1206 126	1.00000 0.0000 128	0.52799 0.0001 128	0.27213 0.0020 127	0.15408 0.0888 123	-0.09134 0.5052 128	-0.14809 0.0953 128	0.29996 0.0006 128
ITEM33	-0.13200 0.1329 131	-0.18106 0.0392 130	-0.04565 0.6046 131	0.17159 0.0500 131	0.18912 0.0312 130	0.52799 0.0001 128	1.00000 0.0000 132	0.27066 0.0018 130	0.10206 0.2555 126	0.04427 0.6142 132	-0.11090 0.2055 132	-0.15992 0.0670 132
ITEM34	0.07660 0.3864 130	0.07624 0.3905 129	0.06637 0.4531 130	0.02903 0.7430 130	0.17075 0.0540 128	0.27066 0.0020 127	0.27066 0.0018 130	1.00000 0.0000 130	0.08287 0.3582 125	-0.05049 0.5684 130	-0.07342 0.4064 130	-0.02101 0.8125 130
ITEM35	0.00387 0.9657 126	0.01473 0.8705 125	0.00563 0.9501 126	0.07690 0.3920 124	0.14685 0.1036 124	0.10206 0.2555 126	0.10206 0.2555 126	0.08287 0.3582 125	1.00000 0.0000 126	0.02763 0.7587 126	0.02188 0.8079 126	-0.14556 0.1039 126

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	ITEM27	ITEM28	ITEM29	ITEM30	ITEM31	ITEM32	ITEM33	ITEM34	ITEM35	ITEM36A	ITEM36B	ITEM37C
ITEM36A	-0.00776 0.9299 131	-0.07364 0.4050 130	-0.03855 0.6620 131	0.18235 0.0371 131	-0.07200 0.4156 130	0.09134 0.3032 128	0.04427 0.6142 132	-0.05089 0.5684 130	0.02743 0.7587 126	1.00000 0.0000 134	0.12193 0.1605 134	0.02580 0.7673 134
ITEM36B	-0.10278 0.2427 131	-0.03724 0.6740 130	-0.03990 0.6509 131	0.08542 0.3320 131	-0.00230 0.9793 130	-0.14809 0.0933 128	-0.11090 0.2033 132	-0.07342 0.4044 130	0.02188 0.6079 126	0.12193 0.1603 134	1.00000 0.0000 134	0.21199 0.0139 134
ITEM37C	0.10144 0.2490 131	0.03926 0.6574 130	0.16125 0.0658 131	0.00535 0.9516 131	-0.09376 0.2887 130	-0.29996 0.0006 128	-0.15992 0.0670 132	-0.02101 0.8125 130	-0.14556 0.1039 126	0.02580 0.7673 134	0.21199 0.0139 134	1.00000 0.0000 134
ITEM38C	-0.06966 0.4292 131	0.01037 0.9050 130	0.02581 0.7698 131	-0.03007 0.7332 131	-0.06316 0.4753 130	-0.12250 0.1684 128	-0.13256 0.1297 132	0.06388 0.4703 130	-0.06595 0.4631 126	0.19175 0.0264 134	0.39046 0.0001 134	0.42214 0.0001 134
ITEM39	0.00069 0.9940 124	-0.03945 0.6648 123	-0.06379 0.4815 124	0.16876 0.0610 124	-0.04346 0.6345 122	-0.00769 0.9333 121	0.06083 0.5021 124	0.05252 0.5640 123	0.07204 0.4342 120	-0.06377 0.4799 125	0.16010 0.0745 125	-0.05048 0.5761 125
ITEM40	-0.11472 0.2027 125	-0.11400 0.2074 124	-0.26664 0.0026 125	0.14043 0.1183 125	0.22790 0.0112 123	0.23154 0.0103 122	0.16611 0.0641 125	0.20245 0.0241 124	0.27569 0.0022 121	0.01667 0.8530 126	0.05066 0.5732 126	-0.08043 0.3707 126
ITEM43	0.05891 0.5052 126	-0.21645 0.0153 125	-0.13218 0.1401 126	0.51184 0.0001 126	0.51440 0.0001 124	0.07372 0.4178 123	0.11120 0.2151 126	0.00617 0.9456 125	0.24307 0.0070 122	0.09215 0.3028 127	0.04543 0.6120 127	0.02624 0.7696 127
ITEM45A	-0.07186 0.4220 127	-0.08888 0.5223 126	-0.21816 0.0137 127	0.07146 0.4247 127	0.11852 0.1862 126	-0.02904 0.7488 124	-0.13711 0.1228 128	0.11304 0.2076 126	-0.01644 0.8568 123	0.07202 0.4173 129	-0.00993 0.9111 129	-0.08887 0.3165 129
LAM	-0.12336 0.1604 131	-0.12505 0.1563 130	-0.14747 0.0928 131	-0.05730 0.5157 131	-0.13005 0.6594 130	0.03932 0.6594 128	0.00305 0.9723 132	0.09707 0.2719 130	0.01878 0.0346 126	0.06098 0.4840 134	0.14863 0.0865 134	-0.12717 0.1431 134
S_SCI	-0.03776 0.6685 131	-0.02708 0.7520 130	-0.03347 0.5442 131	0.09703 0.2702 131	0.03253 0.3528 130	0.12750 0.1515 128	0.12901 0.1404 132	0.03395 0.7013 130	0.03253 0.7176 126	0.06130 0.4817 134	0.00475 0.9266 134	-0.01266 0.8845 134
ITEM38C	0.05019 0.5647 134	0.11225 0.2126 125	0.12305 0.1698 126	0.08321 0.3523 127	-0.02588 0.7710 129	-0.22108 0.0103 134	-0.03960 0.6496 134					
ITEM3	0.04365 0.6192 132	0.04013 0.6595 123	0.04933 0.5864 124	0.07453 0.4088 125	-0.07242 0.4185 127	-0.05147 0.5578 132	-0.07379 0.4004 132					
ITEM4	0.00891 0.9189 133	0.08544 0.3454 124	0.11037 0.2204 125	0.13026 0.1460 126	0.09904 0.2660 128	-0.05356 0.5253 133	0.00638 0.9419 133					

CORRELATION MATRIX BETWEEN ALL VARIABLES USED IN PATH MODELS
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	ITEM36C	ITEM39	ITEM40	ITEM43	ITEM45A	LAM	S_SCI
ITEM6	-0.10563 0.2316 130	0.04699 0.6088 121	0.04301 0.6381 122	0.11761 0.1952 123	0.11536 0.2002 125	-0.09219 0.2969 130	0.00599 0.9460 130
ITEM7	-0.01882 0.8311 131	0.08213 0.3685 122	0.06491 0.4757 123	0.11875 0.1890 124	0.06487 0.4705 126	-0.16015 0.0677 131	0.14290 0.1035 131
ITEM8	-0.13063 0.1585 130	0.14475 0.1117 122	0.13894 0.1254 123	0.16398 0.0688 124	0.03279 0.7166 125	-0.01273 0.8857 130	0.07927 0.3700 130
ITEM9	0.11928 0.1748 131	0.00536 0.9531 123	0.06216 0.4928 124	-0.02751 0.7607 125	0.05059 0.5737 126	0.05922 0.5016 131	-0.10480 0.2336 131
ITEM10	-0.07055 0.4251 130	-0.07475 0.4132 122	0.10385 0.2530 123	0.11038 0.2223 124	0.07317 0.4174 125	0.02394 0.7869 130	0.05095 0.5668 130
ITEM11	0.06315 0.4823 126	0.04325 0.6405 119	-0.05220 0.5712 120	0.01832 0.8419 121	0.07336 0.4239 121	-0.07163 0.4254 126	0.10619 0.2366 126
ITEM24	0.01536 0.8607 133	0.25139 0.0049 124	0.22465 0.0118 123	0.02815 0.7543 126	-0.04143 0.6424 128	-0.05812 0.5043 133	0.05017 0.5663 133
ITEM25	-0.00481 0.9562 133	0.17773 0.0483 124	0.16055 0.0740 125	0.02005 0.8236 126	-0.04401 0.6218 128	-0.11826 0.1752 133	0.11847 0.1744 133
ITEM26	0.09281 0.2880 133	0.18280 0.0421 124	0.13357 0.1375 125	0.07099 0.4236 126	-0.03249 0.7158 128	-0.20522 0.0178 133	0.01683 0.8475 133
ITEM27	-0.06966 0.4292 131	0.00069 0.9940 124	-0.11472 0.2027 125	0.05991 0.5052 126	-0.07186 0.4220 127	-0.12336 0.1604 131	-0.03776 0.6685 131
ITEM28	0.01057 0.9050 130	-0.03945 0.6648 123	-0.11400 0.2074 124	-0.21645 0.0153 125	-0.08888 0.3223 126	-0.12505 0.1563 130	-0.02798 0.7520 130
ITEM29	0.02581 0.7698 131	-0.06379 0.4815 124	-0.26664 0.0026 125	-0.13218 0.1401 126	-0.21816 0.0137 127	-0.14747 0.0928 131	-0.05347 0.5442 131
ITEM30	-0.03007 0.7332 131	0.16876 0.0610 124	0.14043 0.1183 125	0.31184 0.0001 126	0.07146 0.4247 127	-0.05730 0.5157 131	0.09703 0.2702 131

CORRELATION MATRIX BETWEEN ALL VARIABLES USED IN PATH MODELS
 PEARSON CORRELATION COEFFICIENTS / PROB > |RI| UNDER H0:RHO=0 / NUMBER OF OBSERVATIONS

	ITEM38C	ITEM39	ITEM40	ITEM43	ITEM45A	LAM	S_SCI
ITEM31	-0.06316 0.4753 130	0.04346 0.6345 122	0.22790 0.0112 123	0.51440 0.0001 124	0.11852 0.1862 126	-0.13005 0.1403 130	0.05253 0.5528 130
ITEM32	-0.12250 0.1684 128	-0.00749 0.9333 121	0.23154 0.0103 122	0.07372 0.4178 123	-0.02904 0.7488 124	0.05932 0.6394 128	0.12750 0.1515 128
ITEM33	-0.13256 0.1297 132	0.06083 0.5021 124	0.16611 0.0641 125	0.11120 0.2151 126	-0.13711 0.1228 128	0.00305 0.9723 132	0.12901 0.1404 132
ITEM34	0.06388 0.4703 130	0.05232 0.5640 123	0.20245 0.0241 124	0.00817 0.9456 125	0.11304 0.2076 126	0.09707 0.2719 130	0.03395 0.7013 130
ITEM35	-0.06595 0.4431 126	0.07204 0.4342 120	0.27549 0.0022 121	0.24307 0.0070 122	-0.01644 0.8568 123	0.01878 0.8346 126	0.03233 0.7176 126
ITEM36A	0.19175 0.0264 134	-0.06377 0.4799 125	0.01667 0.8530 126	0.09215 0.3028 127	0.07202 0.4173 129	0.06098 0.4840 134	0.06130 0.4817 134
ITEM36B	0.39046 0.0001 134	0.16010 0.0743 125	0.05066 0.5732 126	0.04543 0.6120 127	-0.00993 0.9111 129	0.14863 0.0863 134	0.00475 0.9566 134
ITEM37C	0.42214 0.0001 134	-0.05048 0.5761 125	-0.08043 0.3707 126	0.02624 0.7696 127	-0.08887 0.3165 129	-0.12717 0.1431 134	-0.01266 0.8845 134
ITEM38C	1.00000 0.0000 134	-0.11001 0.2220 125	-0.00545 0.9517 126	-0.10777 0.2278 127	0.01105 0.9011 129	0.10834 0.2128 134	-0.16581 0.0555 134
ITEM39	-0.11001 0.2220 125	1.00000 0.0000 125	0.44268 0.0001 125	0.25104 0.0049 124	0.16245 0.0726 123	-0.12630 0.1603 125	0.08576 0.3416 125
ITEM40	-0.00545 0.9517 126	0.44268 0.0001 125	1.00000 0.0000 126	0.24661 0.0056 125	0.13153 0.1453 124	-0.04064 0.6514 126	0.13740 0.1250 126
ITEM43	-0.10777 0.2278 127	0.25104 0.0049 124	0.24661 0.0056 125	1.00000 0.0000 127	0.13121 0.1431 126	-0.12062 0.1768 127	0.23051 0.0091 127
ITEM45A	0.01105 0.9011 129	0.16245 0.0726 123	0.13153 0.1453 124	0.13121 0.1431 126	1.00000 0.0000 129	-0.00669 0.9400 129	0.06650 0.4540 129

CORRELATION MATRIX BETWEEN ALL VARIABLES USED IN PATH MODELS
 PEARSON CORRELATION COEFFICIENTS / PROB > |R| UNDER H0:RHO=0 / NUMBER OF OBSERVATIONS

	ITEM38C	ITEM39	ITEM40	ITEM43	ITEM45A	LAM	S_SCI
LAM	0.10834	-0.12630	-0.04064	-0.12062	-0.00669	1.00000	-0.06686
	0.2128	0.1605	0.6514	0.1768	0.9400	0.0000	0.4427
	134	125	126	127	129	134	134
S_SCI	-0.16581	0.08576	0.13740	0.23051	0.06650	-0.06686	1.00000
	0.0555	0.3416	0.1250	0.0091	0.4540	0.4427	0.0000
	134	125	126	127	129	134	134

NOTE: LAM and S_SCI are binary variables representing whether individual's field of study was law or social science, respectively. Neither of these variables were found to be significant in the path models.

VITA

Jeannie E. Harris was born in Mercer County, West Virginia in 1947, and attended public schools there. She received a Bachelor of Arts degree in economic and business administration from Furman University in 1968, a Master of Arts degree in economics from West Virginia University in 1971, a Master of Business Administration degree in accounting from the University of New Orleans in 1976, and a Master of Science degree in tax from the University of New Orleans in 1981.

Jeannie passed the Certified Public Accountant examination on her first setting in 1977, and she is a licensed Certified Public Accountant. Her work experience includes three years of public accounting practice and seven years of college teaching.

She enrolled in the doctoral program in business at Virginia Polytechnic Institute and State University in June 1986 to study accounting, public policy and business policy; passed comprehensive examinations in October 1988; and defended a dissertation proposal in October 1989. Jeannie has accepted a teaching position in the School of Business Administration at The Capital Campus of The Pennsylvania State University.

Jeannie E. Harris