SALES TAX ON SERVICES:

A MICHIGAN PERSPECTIVE

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ABSTRACT

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The growth of Michigan's sales tax revenue is procyclical and inadequate as it declined during recessions and it fell beneath gains in personal income. The states non-taxed service industry revealed a more stable growth pattern compared with the cyclical manufacturing sector. As Michigan policy makers face the challenge of maintaining collections they could avert a future tax rate increase with the broad based taxation of services, raising up to $950 million. While there is no economic justification for exempting services, their taxation tends to improve equity and efficiency. Florida's service tax repeal created uncertainty over the feasibility of taxing services. However, the controversy may be explained by a tax shift from multi-state firms with economies of scale to in-state taxpayers. The intangible nature of services and high transaction costs complicated tax administration and consequently weaken public acceptance.

ACKNOWLEDGEMENTS

The investigation and analysis of the Michigan sales tax on service exemption would not have been possible without the professional and personal support of many people.

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I wish to thank Pat Neumann for her technical support in word processing. Her time, patience, thought and tireless effort in assembling the tables and graphics greatly enhanced the report's presentation.

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Therefore, I am grateful to those public service colleagues who have enhanced my knowledge of the Michigan economy and tax policies over the years.

Finally, I wish to express my appreciation to my family and friends. My parents, Gerald and Gertrude Bump, instilled the value of being actively involved in government. My father's pursuit of taxation issues and my mother's desire for leaving the community a better place then how she found it, stimulated my interest in developing public finance alternatives. My Aunt Elsie Vance provided me with an invaluable role model and an appreciation for the written word. While growing up, I was inspired by her work as an educator at a time before women pursued careers. My brother, Kenneth Bump, and friends, Ella Jean Buss, Mary Pollock, Cecilia Morris, and Lois Dean, provided constant personal support. With their encouragement, I was able to make a greater contribution than would have otherwise been possible.

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CHAPTER 1

Introduction

1.1 Statement of the Problem

Michigan policy-makers are presently being challenged by the ever growing demand for public services, but with less real resources to finance them. Several policy changes may be made to provide additional revenue to Michigan state government such as enacting new taxes or reducing tax expenditures. This policy analysis will examine the option of repealing the sales tax on services exemption and the impact it would have on the current tax structure as measured by equity, efficiency, revenue adequacy and stability. An institutional framework will be applied to predict the consequences of taxing business and individuals in the political economy.

1.2 State Revenue Growth

The growth of Michigan's state revenue collections has slowed over the past decade. The federal government has reduced federal aid sent to the state and at the same time increased the number of federally-mandated programs. From 1981 to 1990, federal grants-in-aid to Michigan have decreased by over $1 billion (Michigan Executive Budget Fiscal 1990-91, 1990). In addition, state revenue collections have not kept up with the growth of expenditures. As illustrated in Table 1.1, from 1978-1988 Michigan's real revenue growth has increased by only $225 million. This was measured by the

TABLE 1.1

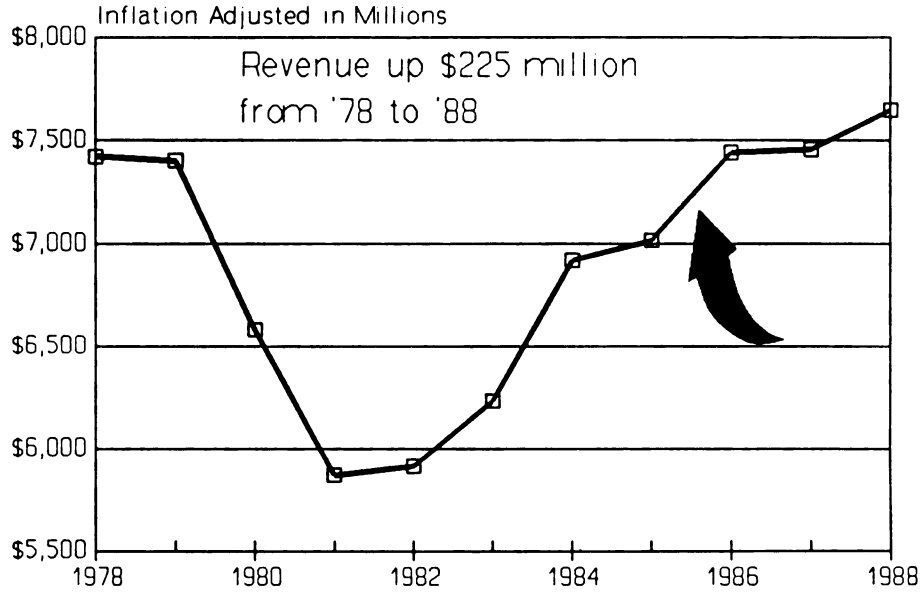
Michigan Revenue Growth, 1978-88[a]
(Millions of Dollars)

	FY 78	FY 79	FY 80	FY 81	FY 82	FY 83	FY 84	FY 85	FY 86	FY 87	FY 88
Total GF-GP	3,863.1	4,314.3	4,455.2	4,302.2	4,445.4	4,876.2	5,610.8	5,691.4	6,166.1	6,322.4	6,699.5
Sch. Aid.	872.7	956.0	962.7	1,105.2	1,216.3	1,317.6	1,474.9	1,733.6	1,880.4	1,936.3	2,084.4
TOTAL	4,735.8	5,270.3	5,417.9	5,407.4	5,661.7	6,193.8	7,085.7	7,425.0	8,046.5	8,258.7	8,783.9
Percent Chg.	15.1%	11.3%	2.8%	-0.2%	4.7%	9.4%	14.4%	4.8%	8.4%	2.6%	6.4%
FY DET CPI	0.638	0.712	0.823	0.921	0.957	0.994	1.024	1.058	1.081	1.108	1.149
Percent Chg.	6.9	11.6%	15.6%	11.9%	3.9%	3.8%	3.0%	3.4%	2.2%	2.4%	3.7%
Real Revenue	7,423	7,402	6,583	5,871	5,915	6,233	6,921	7,016	7,442	7,457	7,648
Percent Chg.	7.7%	-0.3%	-11.1%	-10.8%	0.7%	5.4%	11.0%	1.4%	6.1%	0.2%	2.6%
Dollar Chg.	530	-21	-819	-712	44	318	688	95	426	15	191

Source: Data from Michigan Department of Management and Budget, Office of Revenue and Tax Analysis and Michigan Department of Treasury. Detroit consumer prices from the Bureau of Labor Statistics.

[a] State revenue as measured by total general fund-general purpose and lottery plus total school aid fund.

annual change in Michigan state government's major operating funds including the Michigan General Fund - General Purpose, School Aid and Lottery collections (Office of Revenue and Tax, 1989). See Figure 1.1.



Source: Data from Office of Revenue and Tax Analysis, Michigan Department of Management and Budget and Michigan Department of Treasury.

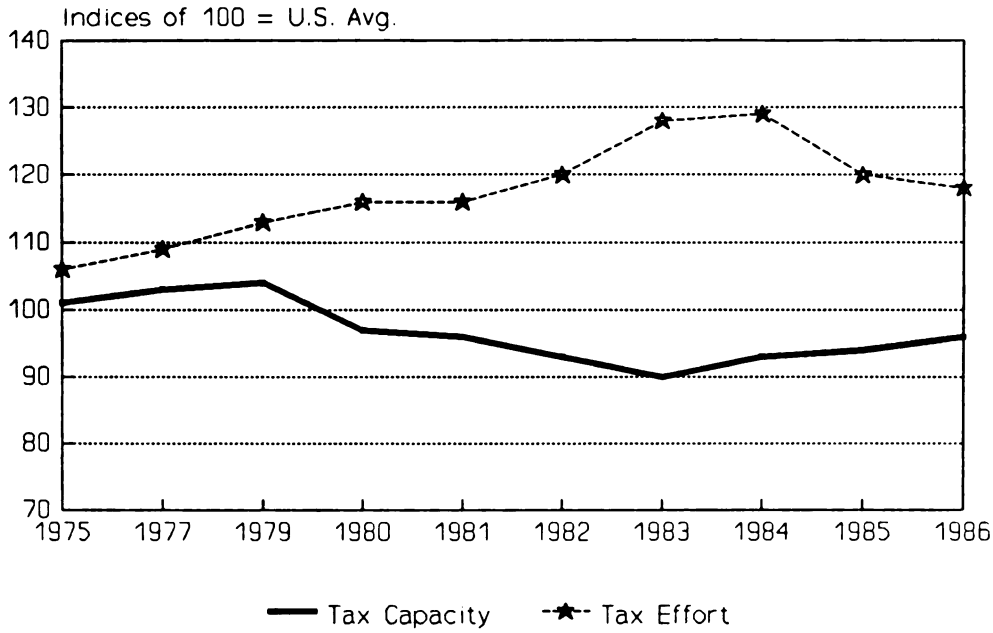
Note: Michigan revenue is defined as the General Fund - General Purpose Fund plus School aid and Lottery which reflect the state government operating sources.

Figure 1.1. Michigan's Inflation Adjusted Revenue Declines with Recession

Since the revenue base reflects Michigan's economic activity some portion of the low revenue growth may be attributed to the state's declining manufacturing sector, particularly in the dominant motor vehicle industry. World-wide competition has shifted auto production and the associated employment away from the traditional domestic auto-makers located in Michigan. The traditional U. S. domestic auto-makers production fell from 100 percent of total domestic production in 1978 to 86.5 percent in 1989 (Drake, 1989). Similarly, employment in the U. S. motor vehicle industry has fallen from the

pre-recession peak of 1,004.9 thousand in 1978 to 841.5 thousand in 1987, a drop of 16.3 percent (Facts and Figures, 1988).

To facilitate a comparative fiscal analysis, the Advisory Commission on Intergovernmental Relations (ACIR, 1989) provides an index of state fiscal capacity and effort. Fiscal capacity is defined as "the dollar amount of revenue that each state and its local government would raise if they applied a nationally uniform set of tax rates to a commonly used set of tax bases." (ACIR, 1989, p.2.). Examples of the taxes included in the representative tax base are personal income, corporate income, sales or gross receipts, motor fuel, beer and wine, tabacco, insurance, vehicle registration, vehicle operating licenses, property taxes, estate and gift taxes, etc. Fiscal capacity reflects a state's potential revenue base while effort measures the actual tax burden levied on the base. Fiscal effort is determined by dividing the states actual revenue collections per capita by its capacity per capita times 100. It provides a relative indicator of the states utilization of its potential revenue base relative to other states. ACIR provides fiscal capacity and effort for the sales tax as well as for total state taxes. The U. S. average is equal to an index value of 100. From 1975 to 1986, Michigan's tax capacity index declined from 101 to 96 while its effort has followed an upward trend from 106 to 118. This is illustrated in Figure 1.2 and Appendix Tables A and B. As Michigan's tax capacity declined beginning in the recession years, taxpayers were required to make a greater tax effort to maintain revenues. The state's tax capacity has improved from the recessionary low index level of 90 in 1983. However, as Michigan moved well into an expansionary period in 1986, the state's tax capacity remained 8 index points below the prerecessionary peak of 104 index points in 1979. Thus, the state's potential revenue base has not recovered from the last economic downturn.



Source: Data from Advisory Commission on Intergovernmental Relations, 1989.

Figure 1.2. Michigan's Total Revenue Capacity and Effort

Given low revenue growth rates, state policy makers are examining alternatives for financing state government which also improve the tax structure. Policy alternatives such as implementing new taxes or increasing tax rates are less viable options because of the public sentiment voiced in the last decade by tax revolt movements. Several states are attempting to increase revenues by altering their tax structure through the closing of selected tax expenditures which result in revenue losses. A tax expenditure is revenue foregone due to exemptions, exclusions or deductions from the tax base, credits applied to tax liability or preferential tax rates.

1.3 Tax Expenditures

The broadest definition of tax expenditures includes all tax exclusions, exemptions, deductions, credits or preferential rates, while more narrow definitions include only those tax provisions which substitute for direct expenditures. The objective of a tax expenditure is to either to provide a tax incentive to promote certain behavior the taxpayer would not make without the tax provision or to reduce the tax burden for specific groups of taxpayers.

Tax expenditures allocate government resources for selected programs which accomplish performance objectives similar to direct spending programs but at lower administrative costs. Lawmakers may choose between the two types of funding mechanisms based on the performance desired for a particular type of good or service. Even though the dollar amounts of tax expenditures are comparable in size to direct budget outlays, tax expenditures are not reviewed as closely and often lack political exposure. Direct expenditures for one program are weighed against competing needs for other programs because lawmakers must match direct expenditures with total revenue to balance the budget. This type of institutional budget constraint has not been made explicit for tax expenditures. Structural mechanisms to control the growth of tax expenditures have not been developed and implemented. Without these structural limits, the performance of the tax structure to provide an adequate level of financing for the state budget is depressed by the growth of lost revenues.

The enlargement of the tax expenditure budget is an example of a social trap. This is a situation in which policy makers get started in one direction that they later find unpleasant (Platt, 1973). Interest groups are given a back door appropriation by lowering their taxes through tax expenditures. As the cost of these provisions rises there is no painless way to retreat from providing them. After tax expenditures are enacted

into law policy-makers are reluctant to eliminate tax expenditures, like sales tax on services, due to pressure from special interest groups. It is in the lawmakers short-run interest to accommodate a special interest groups with a tax preference, but the associated revenue loss eventually requires them to increase taxes at which point it becomes a social trap. Since this link between the provision of a tax preference and the need for increased revenues at a later time is not well established or immediate, lawmakers may not realize the long run consequences of their actions.

To illustrate the cost of tax expenditure, states like Michigan have taken the first step to develop a tax expenditure budget to catalog and estimate the revenue foregone. In fiscal 1978-88, the State of Michigan estimated that Michigan's state and local tax expenditure budget exceeded $9 billion dollars. After cataloging and estimating the magnitude of the revenue loss, the next step is to evaluate the effectiveness of tax expenditures. However, most states have not undertaken this project because evaluating these provisions is difficult when tax expenditures are hidden in the tax code and records of those benefiting from the expenditure are not always available or readily identifiable.

1.4 Sales Tax Expansion

This paper will discuss the sales tax on services exemption, one of the tax expenditures recently under consideration for change by several states. Proposals to expand the sales tax are prevalent due, in part, to the public acceptance of the tax. According to a survey of changing public attitudes on government and taxes conducted by the Advisory Commission on Intergovernmental Relations (1988), the sales tax is a popular tax. When asked "what was the better way to increase taxes for state government," 57 percent of the respondents indicated they preferred the sales tax.

The popularity of expanding the sales tax has risen because much of the revenue potential from state property and income taxes has already been captured. The sales tax ranks as the second largest state revenue source nation-wide. In Michigan, sales and use tax base comprised 32.6 percent of total general fund - general purpose state revenue in fiscal year 1988.

1.5 Service Exemption

The rational for a services exemption falls under the broad definition discussed above which is to reduce the tax burden for specific taxpayers or groups of taxpayers. The primary reason for the service exemption is that the service sector was a smaller proportion of the economy when the Michigan sales tax was enacted in 1933. According to John Due, the objective of a sales tax is to distribute the costs of government services in relation to consumer spending with the assumption that taxes are shifted forward by the firms from which the tax is collected to consumers. Consumers gain satisfaction from services just as they do from goods. Thus, there is no economic distinction between goods and services that justifies not taxing services, (Due, 1983).

1.6 Definition of Goods and Services

In recent years a common theme in describing the U. S. economy is that consumers are shifting their consumption from one dominated by goods to one with a more equal share of services. "Goods are essentially tangible objects which consumers can purchase for their own or some other party's use. Services are essentially intangible objects, normally actions performed for the benefit of consumers, which consumers may buy." (Passero, undated). A more technical definition between goods and services is provided by the Bureau of Labor Statistic's division between the private economy goods

producing and service producing industries. The service producing industries include transportation and public utilities, wholesale trade, retail trade, finance, insurance and real estate and services. The goods producing industries include mining, construction, and manufacturing. The discussion of this paper will focus on the service industry within the broader service producing economy.

1.7 Political Feasibility of Taxing Services

In 1987, Florida broadened the sales tax base to include services but the legislation was repealed within 6 months after considerable political controversy. Several states considered legislation to tax services during the 1987 legislative sessions but after the Florida experiment failed, state legislative activity waned due to insufficient support. State policy makers, cautious not to repeat Florida's performance, have set up tax reform committees to study the issue. Policy makers may consider taxing services after reviewing studies which point out the merits of the tax based on public finance criteria. However, these recommendations have met with resistance as many policy makers are proceeding with caution, claiming that taxing services is not politically feasible and citing Florida's tax repeal as evidence. While some authors conclude that taxing services is too politically sensitive to merit consideration, others argue that policy makers are likely to renew their interest in taxing services as memories of Florida's tax repeal fade and the demand for financing state programs intensifies without adequate revenue growth. Thus, the crux of the policy discussion is focused on whether taxing services is politically feasible.

1.8 An Institutional Framework

This paper will draw from an institutional approach for analyzing the situation, structure and performance of the Michigan Sales tax structure. The paper will expand on the public finance theories to include an institutional framework to address issues like political feasibility. The model uses an industrial organization input-output model to describe the performance of a particular market or sector of the economy as a function of the behavior of the participants within the market structure. The input-output model as adapted by Shaffer and Schmid (1972), coined the "Community Economics Model", includes a political economy component and public choice theory for non-market decisions. The consequences of an institutional structure are applied within a given situation of interdependence. The structure of rights gives order to this interdependence and creates opportunity sets for the participants. Performance is the flow of consequences, results or outputs from a particular activity, program or organization.

The Florida experiment raised several issues which states like Michigan need to consider when taxing services. These issues will be analyzed using institutional concepts. Questions to review include: the impact of firms and individuals on state tax policies as they attempt to shift the tax burden to others; the impact of politicians as they attempt to maximize votes; and the impact of bureaucrats as they maximize security, as outlined by Bartlett (1973). The consequences of alternative methods used by interest groups to influence decisions as outlined by Hirschman (1970) through exit, loyalty and voice. How influencing policy makers through the subsidization of transaction and information costs is impacted by the distribution of wealth as outlined by Coase. How interest groups may respond to change in property rights by challenging the tax through the legal system as discussed by Samuels (1982). How Michigan may adjust the tax structure to accommodate the situational characteristic of services which are intangible and makes

tax nexus difficult to determine. How political boundaries and sense of community impact the use tax levied on services purchased out-of-state but used in-state.

1.9 Research Objectives

The investigation into the Michigan sales tax exemption addresses the following research objectives:

1. Analyze sales tax on services from an institutional framework with the community choice model and the Situation, Structure and Performance Paradigm.
2. Review the Michigan sales tax structure to determine its strengths and weaknesses based on the traditional public finance criteria for a good tax structure. This analysis addresses the issues of equity, efficiency, revenue stability and adequacy. In addition, a simple tax structure eases administration and public acceptance. A balanced proportion of collections derived from more than one source prevents over relying on any single tax which could exaggerate the impact from the negative characteristics found in any tax. By creating a broadly based tax structure, the positive characteristics of one tax may offset the negative aspects of other taxes for a more well rounded outcome (Kleine and Shannon, 1985).
3. Compare Michigan's state tax capacity and effort with that of other states.
4. Identify and analyze what other states have chosen to include or exclude services from their tax base.
5. Analyze the service sector in Michigan using Gross State Product and Census Data. Determine the extent to which the Michigan economy has shifted away from a goods producing economy toward a service economy and the impact on the sales tax base.

6. Estimate the revenue from taxing services assuming alternative exemptions in the tax base.
7. Identify and develop policy alternatives for providing a Michigan sales tax on services.
8. Determine what Michigan can learn from Florida's tax repeal by applying the community choice model.

1.10 Summary

The challenge of balancing the state budget requires policy makers to examine tax policy alternatives which maintain collections. The growth of Michigan's state revenue collections has slowed over the past decade. The federal government has reduced federal aid sent to the state and at the same time increased the number of federally-mandated programs. From 1978 to 1988, state revenue as measured by collections from the General Fund-General Purpose, School Aid and Lottery, grew only $225 million on an inflationary adjusted basis, up 3 percent. This low growth rate is due, in part, to declines in the manufacturing sector, particularly the auto industry. Thus, the demand for public services continues to grow, while the real resources available to finance them are rising at a depressed rate. Consequently, as Michigan losses its tax capacity, taxpayers are required to make a greater tax effort to maintain revenues.

Proposals to expand the sales tax are prevalent as it ranks as the second largest state tax nation-wide. The Michigan sales and use tax base comprised 32.6 percent of total general fund - general purpose state revenue in fiscal year 1988. In addition, the sales tax is a popular tax which would reduce the political resistance to expanding its use. The public acceptance of a tax depends on the degree of backing for the government program its finances. A taxpayer constituency has been developed for the programs that

the sales tax finances. For example, Michigan policy makers have previously identified education as needing finance reform to ensure collections. Since 60 percent the sales tax is distributed to the school aid fund for education there is popular justification for extending its use.

This paper will discuss the sales tax on services exemption, one of the tax expenditures recently under consideration for change by several states. According to John Due (1983), the objective of a sales tax is to distribute the costs of government services in relation to consumer spending. Consumers gain satisfaction from services just as they do from goods. Thus, there is no economic justification for the exemption of services which would warrant its continuation. Nonetheless, once tax expenditures like the sales tax on services are enacted into law, policy makers are reluctant to eliminate them due to pressure from special interest groups. It is in the lawmakers short-run interest to accommodate a special interest groups with a tax preference, but the associated revenue loss eventually requires them to increase taxes. Since the connection between the provision of a tax preference and the need for increased revenues at a later time is not well established or immediate, lawmakers may not realize the long run consequences of their actions.

After the Florida service tax repeal some authors have concluded that taxing services is too politically sensitive to merit consideration. However, others argue that states are likely to renew their interest in taxing services as memories of Florida's tax repeal fade and the demand for financing state programs intensifies without adequate revenue growth. Thus, the policy discussion has expanded beyond the economic impacts of the tax and is focused on whether taxing services is politically feasible.

CHAPTER 2

The Structure of the Michigan Sales and Use Taxes

2.1 The Community Choice Model

The Situation, Structure and Performance Paradigm is a framework for analyzing community problems and policies developed by Schmid (1985). The model assumes that people are interdependent and share scare resources. Because of this interdependence there are conflicts and possibilities for mutually beneficial joint action. Joint action may result in high transaction costs to attain joint benefits. The ability to act collectively to manage conflict and produce joint benefits results from human choice. A sense of community is required to be interdependent and act collectively.

A community economics analysis provides a framework for predicting and explaining the consequences of the policy decisions. The model is concerned with the establishment of rights and obligations within a community and collective acquisition through taxation and purchase of good and services for community consumption. The analysis begins with the identification of one type of situational variable, the characteristic of a good or service. The characteristic of a good will combine with the structural alternative applied to determine a particular performance.

2.2 Michigan's Structural Provisions

Structural examples include establishing rights and obligations for members using resources and methods of collective taxation. The structure establishes the opportunity

set and incentives and disincentives which result in behavior by community members. The paper will discuss the structural variables which define the existing sales and use tax structure including the legal basis for taxing sales, the sales tax rate and its constitutional limit, the base, exemptions and distribution by fund source. Michigan's sales tax will be compared to other states to determine the relative degree to which these factors impact Michigan in similar and different ways. The sales tax effort and capacity will be measured against the national average to illustrate its under utilization and the taxes ability to sustain expansion. Next, the paper will discuss Michigan's recent legislation to tax computer software which illustrates the distinction between that portion of an item which is a taxable good and a non-taxable service. The paper will discuss the use tax and the potential for developing structural provisions to apportion services delivered out-of-state but used in state. The intangible characteristic of the service transaction makes delivery of the good difficult to determine. Michigan could adjust its structural provisions from apportioning the Single Business Tax to apportion the use tax on business services. Finally, the impact of increasing state revenue will be analyzed given the limit on total state revenue growth through the Headlee Amendment.

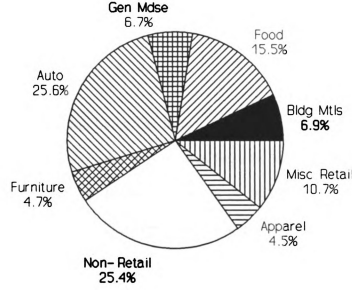
The structure of Michigan's sales tax impacts its effectiveness. Chapters three and four will analyze the strengths and weaknesses resulting from these sales tax policies based on the traditional public finance criteria for a good tax structure. This analysis addresses the issues of equity, efficiency, revenue stability and adequacy. In addition, a structure which is simple eases administration and public acceptance. The state may desire a balance in the proportion of collections derived from a single revenue source because over relying on a tax will exaggerate the impact from the negative characteristics present in any tax. By creating a broadly based tax structure, the positive characteristics

of one tax may offset the negative aspects of other taxes for a more well rounded outcome (Kleine and Shannon, 1985).

2.3 Legislative Act and Tax Base

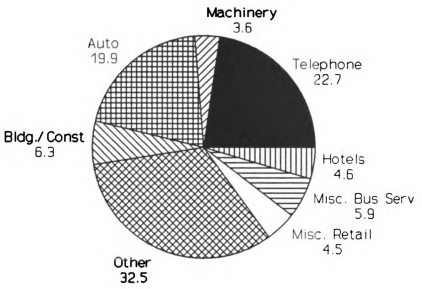
The sales tax was enacted in 1933 (P.A. 167) and levied on the gross proceeds from retail sales of tangible personal property for use or consumption. The initial rate was set at 3 percent but was raised to 4 percent by Michigan voters as a result of a constitutional amendment in 1960.

The Michigan use tax is a companion to the sales tax and was enacted in 1937 and levied on the use, storage, and consumption of certain tangible or material personal property and services such as intra-state telephone, telegraph and other leased wire communications, used cars sold by individuals, hotel and motels. Figures 2.1 and 2.2



Source: Data from Office of Revenue and Tax Analysis, Michigan Department of Management and Budget, Fiscal 1990-91 Executive Budget Document

Figure 2.1. Michigan Sales Tax Collections by Business Category, FY 1989



Source: Data from Office of Revenue and Tax analysis, Michigan Department of Management and Budget, Fiscal 1990-91 Executive Budget Document.

Figure 2.2. Michigan Use Tax Collections by Business Category, FY 1989

illustrate the distribution of sales and use tax base by the object of taxation for fiscal year 1989.

2.4 Michigan's Constitutional Sales Tax Rate

In 1960, the maximum sales tax rate was fixed by the Michigan Constitution at 4 percent. P.A. 1 and P.A. 2 of the second session of 1960, set the four percent tax rate for both the sales and use tax. The higher rate of 4 percent became effective January 1, 1961. A Constitutional limit was not placed on the use tax, but the Michigan Supreme Court held in 1959 that if the use tax rate was higher than the sales tax rate, the difference could not be applied to the items subject to the sales tax (Brazer and Blume, 1982). The constitutional limit on the sales tax rate of 4 percent has provided a disincentive to raise the rate because to do so would require a significant amount of

political support for altering the state Constitution, and thus, Michigan's tax rate has remained constant.

2.5 Estimated Cost of Exemptions

Michigan provides several exemptions to the sales and use tax base and therefore it is not a pure consumption tax which would include all transactions. According to Blume (1982), nearly 82 percent of Michigan's sales tax base is received from households and 18 percent is levied on business. In addition to the $2.48 billion in revenue collected from the sales tax in fiscal 1988, another $1.9 billion of sales tax revenue was foregone due to exemptions. Beyond the exemption for services, the largest exemptions are for food and industrial processing. Table 2.1 identifies the exemptions and revenue foregone. Chapter 5 will discuss the estimated revenue loss from services in greater detail.

2.6 Distribution by Fund Source.

The Michigan sales tax revenue is distributed by statute, section 205.75 of P.A. 167 of 1933 as amended, as follows: 60 percent to the School Aid Fund, 15 percent to cities, villages and townships and 25 percent to the General Fund. The Comprehensive Transportation Fund receives 27.9 percent from the general fund's portion of the auto related sales tax as set in statute. The use tax differs from the sales tax in that is distributed 100 percent to the general fund, according to section 205.111 of P.A. 94 of 1937 as amended. Thus, most of the sales tax revenues goes to education and local government. See figure 2.3.

Table 2.1

Michigan Sales and Use Tax Expenditures

Tax Expenditure (in thousands)	FY 87	FY 88
Air and Water pollutlion	$ 1,399	$ 1,483
Bad Debts	6,996	7,416
Churches	4,,601	4,919
Collection Fee	18,656	19,679
Commercial Domestic Aircraft	n.a.	n.a.
Commercial Vessels	1,936	2,052
Communication and Telephone Exemption	8,745	9,270
Computer Software	5,830	1,545
Damaged Beer	n.a.	n.a.
Donated Property	65	69
Driver Training	1,924	2,039
Enterprise Zone	0	0
Food	397,755	422,680
Food for Students	2,950	3,127
Government or Red Cross	2,950	3,127
Gratuity and Tips	1,796	1,904
Horticultural and Agricultural Products	37,067	39,291
Hospital and Nursing Homes	2,950	3,127
Industrial Processing	260,018	284,099
Inmate Purchases	123	130
Interstate Sales	42,000	44,520
Isolated Sales	n.a.	n.a.
Military Post-Exchange Sales	2,682	2,843
Military Vehicle Sales (Non-resident)	770	816
Military Vehicle Sales (Resident Out-of-State)	38	40
Newspaper, Periodicals and Films	19,880	21,073
Non-profit Ambulance and Fire Service	65	69
Non-profit Hospital or Housing Construction	2,693	2,855
Non-profit Organizations	22,189	23,520
Non-resident Property	n.a.	n.a.
Ophthalmic and Orthopedic Products	10,377	11,000
Prescription Drugs	15,730	16,647
Radio and TV	1,411	1,527
Sales of Business	n.a.	n.a.
Sale of Water	2,180	2,311
Services	949,140	1,006,088
Small Out-of-State Purchases	1,274	1,350
Telephone Services	3,475	3,684
Textbooks Sold by Schools	1,411	1,496
Vehicle and Aircraft Transfer	5,351	5,672
Vehicles Purchased for Use in Another State	n.a.	n.a.
Vending Machines	13	14
TOTAL	$1,836,440	$1,951,482

Source: Michigan Executive Budget, Tax Expenditure Appendix Fiscal Year 1987-88.

Note: The State of Michigan estimated revenue foregone for services differs from the updated 1987 estimate shown in Chapter 5 of this report because the Executive Budget estimates are based on the 1982 Census of Services adjusted upward for inflation from 1982 to 1988.

The distribution of government programs benefiting from the tax collections is a significant factor because public acceptance of tax changes is stronger when taxpayers are able to link the tax increase with a specific government program (Bradford, Case and Ebel, 1989). Even when the link to a government program is apparent, public support will vary depending on the taxpayers degree of utility for the program.

2.7 Michigan Sales Tax Effort and Capacity

Chapter one reviewed the ACIR index for tax effort and capacity for Michigan's total revenue. This section will discuss the same measures applied to the sales tax instead.

Michigan policy makers may evaluate the performance of the Michigan sales tax structure by comparing to that of other states. To facilitate an interstate comparative fiscal analysis, the Advisory Commission on Intergovernmental Relations (ACIR, 1989) provides an index of state fiscal capacity and effort. Fiscal capacity is defined as "the dollar amount of revenue that each state and its local government would raise if they applied a nationally uniform set of tax rates to a commonly used set of tax bases." (ACIR, 1989, p.2.). Fiscal capacity reflects a state's potential revenue base while effort measures the actual tax burden levied on the base. Fiscal effort is determined by dividing the states actual revenue collections per capita by its capacity per capita times 100. It provides a relative indicator of the states utilization of its potential revenue base relative to other states. ACIR provides fiscal capacity and effort for the sales tax as well as for total state taxes as illustrated in Appendix Tables A and B.

In 1986, Michigan's sales tax per capita capacity index was recorded at 97.8, ranking 23 in the nation. Michigan's sales tax effort was 79.9, ranking 36 in nation.

The distribution of government programs benefiting from the tax collections is a significant factor because public acceptance of tax changes is stronger when taxpayers are able to link the tax increase with a specific government program (Bradford, Case and Ebel, 1989). Even when the link to a government program is apparent, public support will vary depending on the taxpayers degree of utility for the program.

2.7 Michigan Sales Tax Effort and Capacity

Chapter one reviewed the ACIR index for tax effort and capacity for Michigan's total revenue. This section will discuss the same measures applied to the sales tax instead.

Michigan policy makers may evaluate the performance of the Michigan sales tax structure by comparing to that of other states. To facilitate an interstate comparative fiscal analysis, the Advisory Commission on Intergovernmental Relations (ACIR, 1989) provides an index of state fiscal capacity and effort. Fiscal capacity is defined as "the dollar amount of revenue that each state and its local government would raise if they applied a nationally uniform set of tax rates to a commonly used set of tax bases." (ACIR, 1989, p.2.). Fiscal capacity reflects a state's potential revenue base while effort measures the actual tax burden levied on the base. Fiscal effort is determined by dividing the states actual revenue collections per capita by its capacity per capita times 100. It provides a relative indicator of the states utilization of its potential revenue base relative to other states. ACIR provides fiscal capacity and effort for the sales tax as well as for total state taxes as illustrated in Appendix Tables A and B.

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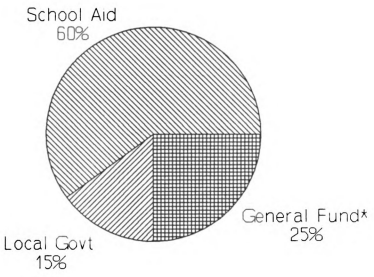


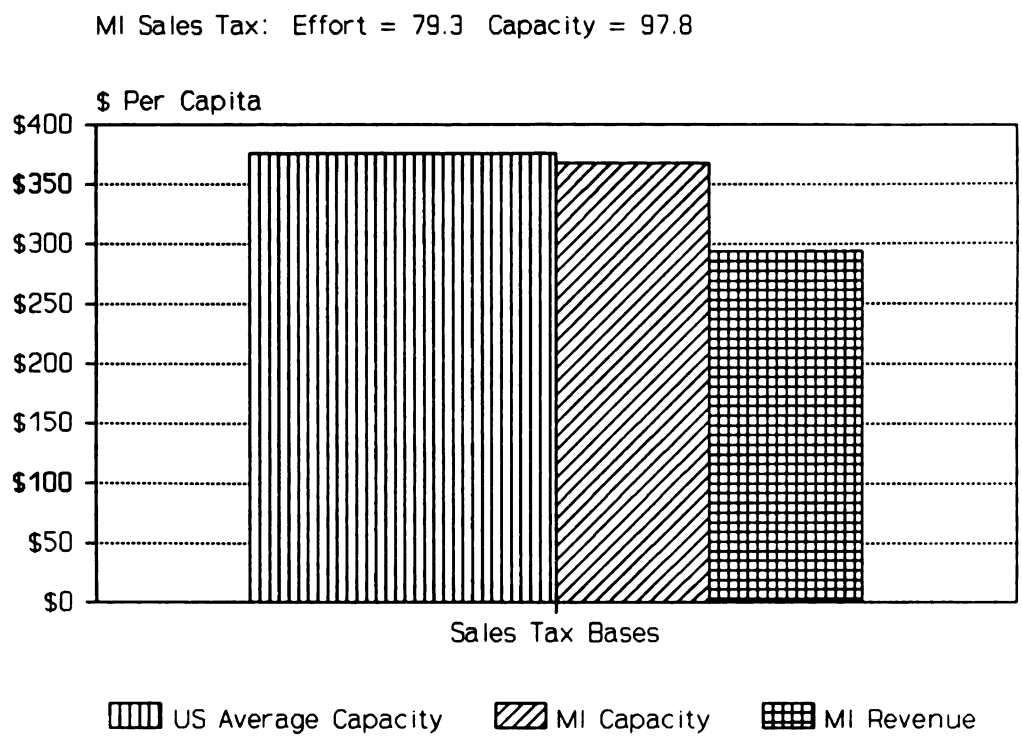
*CTF receives 27.9% of auto related GF

Figure 2.3. Distribution of Michigan Sales Tax by Fund Source

This illustrates that Michigan's sales tax capacity is only slightly below average while its tax effort is significantly below the index. While Michigan's sales tax effort is below average, its total tax effort is above average. This suggests that the sales tax effort is under utilized relative to other state taxes. Appendix Table C provides an interstate comparison of the sales tax index. (See Figure 2.4.)

2.8 Interstate Comparison of Rates and Exemptions

One explanation of Michigan's low tax effort index is that Michigan's sales tax rate of 4 percent is relatively low compared to other states. A total of 30 states have state sales tax rates which are higher than Michigan's 4 percent in 1989. In addition, Michigan's per capita sales tax revenue was recorded at $293.82 which is below the U.S. average of $375.89. (See Appendix Table C.)



Source: Data from Advisory Commission on Intergovernmental Relations, 1989.

Figure 2.4. Michigan Sales Tax Use Falls Below Potential, 1986

Exemptions provide another interstate indicator of Michigan's sales tax base. A count of states which grant exemptions also provided by Michigan is listed in the Appendix Table D. Of the 45 states which levy a sales tax, 27 exempt food, 44 exempt prescription drugs, 30 exempt custom computer programs, 25 exempt repair charges, 28 exempt installation services and 44 exempt materials for manufacturers, producers and processors. Thus, the Michigan exemptions listed in the table are provided by most states.

Of the 45 states leving a sales tax, only 3 levy a broad based tax on services, including: New Mexico, Hawaii and South Dakota. Eight states, including Michigan, do not as a rule tax services. The 34 states remaining levy the tax on a limited number of services. Appendix Table F lists the degree of service taxation in each state. Appendix Table G lists the number of states which tax the service item.

In 1987, legislative proposals to tax services were prevalent. Minnesota extended the sales tax to selected services not including professional services. Several states considered taxing services but the proposals were not enacted due to insufficient support. States included in this category were Arkansas, Illinois, Indiana, North Dakota, Oklahoma, Washington, Iowa, Colorado, Montana, Nevada, Texas and Wisconsin. After the Florida tax repeal, the issue became almost non existent in 1988 (Boucher, 1988).

2.9 When Goods And Services Are Joint

The Michigan tax structure has been adjusted to accommodate the situation when goods and services are joint. The structural provisions which taxes goods and exempts services creates an incentive for taxpayers to itemize services out of any transaction. However, it is difficult to separate out that portion of the transaction which is a good versus a services as is illustrated by Michigan's recent enactment of legislation to tax computer software. The legislation was introduced in response to Macabees Mutual Life Insurance Co. v State Department of Treasury, 1983. This case held that the software adapted to the needs of a specific user was exempt from the use tax because the "focus of the instant transaction is on the personalized service of the software vendors an intangibles transaction." The court said that customized software should be separated from canned software (Schrager, 1984). The legislation separated that part of the

software which was a tangible and taxable good from the intangible non taxable service. House bills 4608 and 4612 were introduced in May 1987 by Representative Mary C. Brown. House bill 4608 amended the Sales Tax Act to specify the type of computer software was subject to the state sales tax. House Bill 4612 similarly amended the use tax. The tax would be levied on computer software for sale to the public and software modified or adapted to the buyers needs only if it was available on an "as-is" basis. The tax would not apply to software designed for the exclusive use of the purchaser and for any technical support required to adapt or modify the software to the purchaser needs (House Legislative Analysis, 1987).

These bills separated that portion of the software which is considered a tangible taxable goods from that portion of the good which is not taxable as an intangible service. The bills focused on the taxation of canned, pre-written and off the shelf software. These forms of software would be taxed but the customized software would not. If the canned software is mixed with the customized software in one package, only the canned portion is taxable. The legislation illustrates the administrative and legislative difficulty of taxing tangible goods and not taxing intangible services when the goods and services are mixed into one product. In most state court decisions on software, the courts have reasoned that the true value of the transaction was in the service provided and that the purchase of tangible personal property, in a disk for example, was incidental to the transaction. The mixing of goods and services is an increasing occurrence in the new technological age.

2.10 Use Tax Defined

To tax in-state sales, states like Michigan have found it necessary to levy a use tax on goods purchased out-of-state but used or consumed in the taxing state. Consumers may not be aware of the distinction between the sales versus the use tax because the tax rate is the same and it is levied on a similar base. One difference is that the good is purchased out of the taxing state. For example, a Michigan resident buying a car in Ohio but using the car in Michigan would pay a Michigan use tax on the purchase price of the vehicle rather than a sales tax because it is an out-of-state purchase used or consumed in Michigan. The Michigan resident pays the tax to only one state as reciprocity laws prevent double taxation. The purpose of the use tax is to create a level playing field. Without it, consumers have an incentive to buy from out-of-state firms to avoid the tax. States have found that creating a level playing field requires that the tax liability of the purchaser must be the same regardless of the sellers location. Thus, the use tax is a long standing compliment to most state sales taxes.

Michigan can learn from the taxation issues identified by the Florida tax repeal experience as much of the controversy focused on the use tax of business services which were non-geographically specific to the state. Multi-state firms doing business in Florida lobbied against the tax as will be discussed in Chapter 6. While some argue that it would be simpler not to levy the use tax on out-of-state services and the courts do not require it, the trade-off is the lack of equity for in-state businesses. Michigan currently does not apportion the use tax for out-of-state firms because the state of use is more easily determined when the item of purchase is a concrete good. When a state taxes an intangible service, however, it may be necessary to make adjustments to the tax structure.

2.11 Characteristic of Services

The nature of services as intangibles complicates its taxation compared with the tangible characteristics of goods. The long standing situs rule in most states is that use or consumption occurs at the point where the seller or his agent delivers the goods. The point of delivery is more easily manipulated for service firms which have greater mobility to move to other states because they require less investment in physical plant and inventory than do the manufacturing of goods. For example, services require less interstate transportation costs as a telephone call or envelope may be used to deliver the tangible result of work from a consultant. Thus, due to these characteristics of the service transaction, the firm may more easily move out of state without disrupting service to the customer (Francis, 1988).

2.12 Apportionment of the Business Taxes in Michigan

Michigan does not apportion its use tax on goods. However, it does have experience in apportioning business taxation for multi-state firms. An example of how Michigan has structured an apportionment formula is illustrated in the Michigan Single Business Tax (SBT), the states tax on business activity. SBT tax liability for out-of-state firms is apportioned by the three-factor formula, weighing payroll, property and sales equally.

The three factor apportionment formula has long been accepted as a fair way to apportion business income and therefore, a likely approach for policy makers to extend to the taxation of services. Some form of apportionment is used by most state business income tax structures. Of the 45 states which levy a business income tax not including Michigan, 26 have a simple average of the three factors of property, payroll and sales, 7

states weight property and payroll by 25% each and sales 50% and 12 states have some other combination of apportioning these factors (ACIR, 1990).

Michigan's apportionment formula was recently challenged in the Michigan Supreme Court. In 1988, Trinova Corporation, an Ohio-based firm whose business activity in Michigan involved $103 million in sales with a small sales office, argued for a refund using an alternative method of apportioning under section 69 of the Single Business Tax. Using this apportionment method, the firm would have had no Michigan tax liability. The firm asserted that, "there is no justification for apportionment when the geographic locus of a tax base can be identified with precision. Thus, there is no warrant for apportioning an ad valorem tax. The SBT, in adopting a formulary apportionment approach, wrongly assumes that the value added by the taxpayer's business activities cannot be specifically attributed to the states in which it conducts those activities, and, in so assuming, has in this case produced "a grossly distorted result." (Petition For a Writ, 1989, p.18) The Michigan Supreme Court held that apportionment relief under section 69 of the Michigan Single Business Tax may be obtained if the firms "business activity attributed to the state is out of all appropriate proportion of the taxpayer's intrastate business activity or has led to a grossly distorted result." The purpose of the apportionment provision is to ensure that each state taxes only its fair share of the interstate transaction. Trinova Corporation failed to show that the statutory apportionment provision was out of all proportion to the businesses activity in Michigan (Haggerty, 1988, p.1-2). The outcome of the case is uncertain as it was appealed to the U. S. Supreme Court.

This court case challenged the Michigan three factor formula was for apportioning the tax liability of a multi-state corporation. It illustrates that firms are

likely to resist apportionment as a procedure for evaluating tax liability when the actual state of business activity may be determined in another way. In the case of intangible services, however, apportionment may be required.

2.13 Constitutional Amendment to Limit Revenue Growth

Other features of the Michigan tax structure such as the constitutional amendment to limit state revenue growth could impact the states policy on taxing services. In a 1978 general election, Michigan voters said "yes" to a Constitutional amendment, often referred to as the Headlee Amendment, restricting the growth in state revenue. Section 30 of the amendment ensured state spending on behalf of local governments, section 29 concerned state requirements of local governments and section 31 focused on local property tax millage reductions. Section 26 regarded the limitation placed on the collection of state revenue. The enactment of the Headlee amendment added complexity and raised additional tax policy issues for the legislature when considering tax structure reforms. Policy makers need to evaluate how the addition of services to the tax base will impact the total growth of state revenue. The growth of total state revenue can not exceed the specified percentage of total state personal income as outlined by section 26.

The legislature enacted P. A. 504 of 1988 to implement this restriction which required an official calculation of the fiscal 1979 base year state revenue limitation. This calculation determined that total state revenue for fiscal year 1979 equaled 9.49 percent of the applicable personal income for calendar year 1977. The section 26 revenue limit is based on personal income as reported in August of the year following the year being measured. The limit is tied to a fixed percentage which is not a fixed dollar amount.

The dollar amount changes as the personal income data for the state changes. Since there is a lag between the calendar year being measured and the fiscal year being limited, it is possible that a strong fiscal year following an economic downturn will result in state collections exceeding the limit.

Policy makers became aware of the sensitivity of the calculation after periods of economic downturn in 1985 as Michigan came close to exceeding the revenue limit. The state remained below the revenue restriction by only an estimated $6.1 million. This gave the state a very close margin of error given that this dollar amount is a relatively small portion of state's total revenues which exceed $15 billion. The cyclical nature of this limitation amendment is evident in estimates of the amount under the limit. These estimates range from $1,757.4 million in fiscal 1990 to $6.1 million in fiscal year 1985 (Drake, 1989).

The tax limitation amendment could impact the alternatives available to state policy makers for taxing services. During periods of steady upward growth the added revenue from taxing services while adding to total revenue would probably not place collections beyond the limit. However, as the state moves out of a year of economic downturn, the added revenue will likely exceed the limit. The constitutional amendment to limit total state government revenue growth provides policy makers with an incentive to stabilize revenue growth over the business cycle. This incentive is likely to increase the use of counter cyclical tax structures.

2.14 Flexibility

Tax policy makers could build flexibility into the tax structure with an adjustment mechanism which takes this revenue constraint into account. While state revenues are

capped, there is flexibility in the choice of taxes levied. One alternative would be to expand the base and use the additional revenue gained to lower the rate. The state would gain from increased efficiency and revenue stability resulting from a broader base. Secondly, the state could provide a low income tax credit and adjust the percentage applied for the credit depending on estimates for revenue exceeding the limit. One disadvantage of type of provision is that it is counter cyclical as consumers would receive an added boost to income after the recessionary period. Nonetheless, if the credit is targeted to low income individuals, this group is most likely to be the last taxpayers benefiting from the recovery.

2.15 Summary

The following chapter has illustrated how the present tax structure levied on the tangible goods results in a tax capacity and effort. According to the Advisory Commission on Intergovernmental Relations, Michigan's sales tax capacity is just below the average state capacity while the sales tax effort is significantly below that of other states. Michigan's tax rate is relatively low when compared to other state tax rates, resulting in less tax effort and less revenue but more efficiency. Michigan could improve its tax effort and capacity by taxing services. To do so would require adjustments to the tax structure which take into account the intangible nature of services such as developing an apportionment formula for the use tax. In addition, policy makers would need to address how to build flexibility into the structure to comply with the Headlee Amendment. One way is to provide a low income credit which could be adjusted as the business cycle changes.

CHAPTER 3

The Equity and Efficiency of Taxing Michigan Services

3.1 Introduction

The design of a good tax system may be rated using traditional principles of taxation such as equity, efficiency, simplicity and revenue adequacy and stability. This chapter will review how taxing services would impact the equity and efficiency characteristics of the sales tax structure. Michigan's sales tax equity rating will be reported since the impact that taxing services depends on the progressiveness of the present sales tax base. Michigan's effort to improve equity by providing exemptions for food and drugs will be reviewed. The distributional characteristics of services by income class will be evaluated to assess how taxing services may impact the progressiveness of the sales tax structure. Factors impacting tax incidence, or who pays the tax, will be examined. The report will discuss the impact of taxation on efficiency and Michigan's sales tax will be compared to other consumption tax alternatives.

3.2 Equity Defined

According to Thurow (1973), every time taxes are levied or public expenditures are incurred, decisions about economic equity are being made. In market economies, individual preferences determine market demands for goods and services and as a consequence determine the market distribution of income. However, individual preferences are weighted by economic resources before they are communicated to the

market. A basic responsibility of government in a market economy is to create an equitable distribution of income and wealth if it has not been produced by the market. Thus, greater equity is ensured by evaluating the equity impact of proposed changes to the tax structure.

Equity may be defined in various ways. It may be seen from the perspective of satisfied needs. Wants may not be satisfied but needs can be. In a relative sense, equity may be interpreted using historical and cultural trends as a basis of comparison. Alternatively, equity has been thought of as the common good indicating that society should provide the basic goods and services like health, education and welfare. As equity may be defined from several perspectives, each interpretation involves a value judgement on the part of policy makers. Thus, equity is not an economic criteria but a principle of justice, according to Boadway and Wildasin (1984).

3.3 Horizontal Equity

Fairness issues within public finance are evaluated using horizontal and vertical equity. It is concerned with how the burden of output reduction in the private sector is distributed within society given various tax structures. A tax is horizontally equitable if two persons with equal welfare before the tax is imposed, have equal welfare after the tax is levied. The horizonal equity of the sales tax structure which taxes goods and exempts services could be improved. If individual A's utility equals individual B's utility before the tax, but A has a higher preference for services and a lower taste for goods compared to B, then after the tax, A's utility would not equal B's utility. Taxing services would increase the equality of welfare for those with a utility or preference for goods versus services. For example, a consumer purchasing a lawn mower pays a sales tax on

the machine while a consumer purchasing a lawn care service is favored because they pay no tax.

Horizontal equity also addresses the trade-off between the taxed good and the exemption on leisure. A sales tax on goods will discriminate against the person with a strong preference for commodities as opposed to leisure. Since leisure is not taxed its use it being encouraged relative to consumption of goods x and y. The best tax, as one that most discourages leisure, was formalized by Corlett and Hague (1953-4). While no tax is levied directly on leisure, the tax which discourages the use of leisure creates less distortion. Leisure may be defined as the total number of hours available minus labor. Since the number of hours is fixed, as labor increases leisure will decrease. A rise in labor represents an decrease in utility and a decrease in leisure. Consumers may substitute leisure for commodities and thus we may interpret leisure like other goods. Given two commodities, x and y, and leisure, z, the best tax would increase the tax rate on the good which is a complement to leisure, creating indirect tax on recreation (Boadway and Wildasin, 1984). Complements describe a relationship between two goods such that if the price of one good increases, the quantity purchased of the other good will fall (Nicholson, 1985). Examples of services which are complements to leisure are amusement services like motion pictures, golf, bowling, and fitness services. Thus, if the price of amusements rises, due to the tax, the quantity of leisure consumed would fall.

While the principle of horizontal equity is generally accepted, its difficult to implement because it requires a judgement of when two persons have equal welfare levels. Even when individuals have the same budget constraint, income, and consumption of goods and services, they may not be judged as equals because they differ in their capacity to enjoy the commodities. The traditional definition of horizontal equity as the equal treatment of those equally situation is inadequate for implementation

purposes because the diversity in individuals tastes makes comparisons of individual utility ambiguous.

For completeness, horizontal equity should also take into account the relative benefits of public expenditures of different individuals. This is difficult to do, however, since the advantages of public programs to various taxpayers are not revealed in the market price (Boadway and Wildasin, 1984). Despite the difficulties in making horizontal equity operational, the consideration of horizontal equity as a criteria for evaluating a tax policy alternative will improve economic justice.

3.4 Vertical Equity

Vertical equity is concerned with how the tax system treats persons of differing welfare levels. To evaluate vertical equity the entire tax structure is included in the review because the progressiveness of one tax may somewhat offset the regressiveness of other taxes. The degree to which the tax system is vertically equitable is determined after making a value judgment about the appropriate way to treat people at different utility levels. For example, it is a value judgement to find that a rise in the price of a necessity good will reduce social welfare more than a rise in the price of a luxury good (Boadway and Wildasin, 1984).

Conventional wisdom finds the burden of the present state sales tax is mildly regressive (Fox and Murray, 1988). They cite the Tax Foundation (1970), Pechman and Okner (1974), Musgrave and Musgrave (1980), and Phares (1987). However, Davies (1969), argued that the focus on income and consumption within a single year overstates the regressiveness of the sales tax. Households may experience a temporary fall or rise in income but maintain the former consumption level more in keeping with their expected permanent income. While a person's consumption patterns may be based on

permanent income rather than current income levels, taxes must be paid from current income (Bohm and Craig, 1987).

3.5 Distributional Characteristics of a Good

Research suggests that while the average propensity to consume taxable goods declines as income increases, the average propensity to consume potentially taxable services may increase depending on the service. Vertical equity would be enhanced by including selected services in the sales tax base. Different commodities will be consumed in different proportions by various income or utility groups. One can compare the relative effects on social welfare of price changes in various commodities by the use of Feldstein's "Distribution Characteristic of a Good" which is the weighted average of marginal social utilities of income of all persons in the economy weighted by the proportion of total output of the commodity. Equity implications of raising the price of a good requires knowledge of (1) the proportions in which different income groups consume the good; and (2) a value judgement made about the marginal social utility of incomes of various persons (Boadway and Wildasin, 1984). The first part of this question has been researched by Bohm and Craig (1987). They calculated the average propensity to consume services out of current period income by income class using the 1984 Consumer Expenditure Survey.

The Bohm and Craig analysis reveals that for all services combined, regressivity is confined largely to those earning less than $30,000 after which the tax is roughly proportional through $60,000 (See Table 3.1.). In particular, the taxation of medical services, and personal services would be regressive across most income classes as illustrated in Figures 3.1 and 3.2. For example, other activities, transportation and professional services, shown in Figures 3.3 and 3.4, exhibit a regressive pattern only in

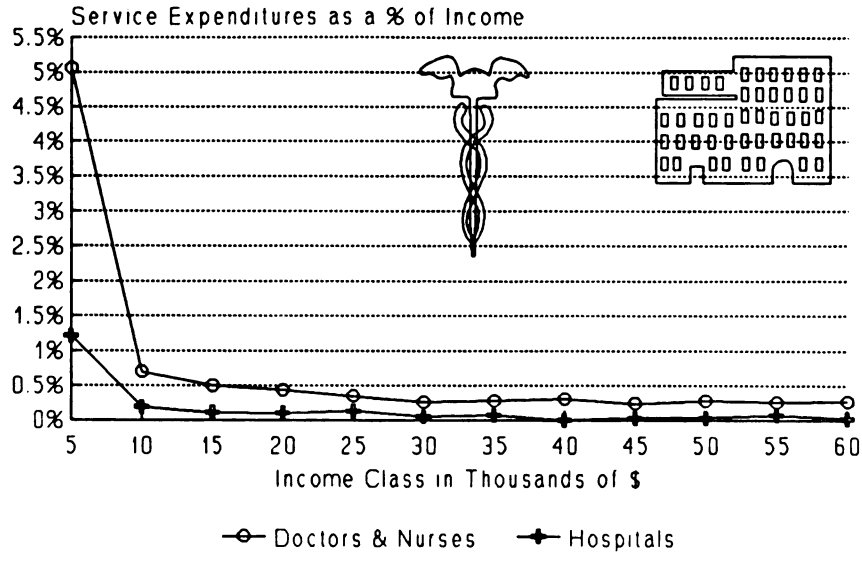
Table 3.1

Selected Service Expenditures as a Percent Income[a]

Expenditure	5,000	10,000	15,000	20,000	25,000	30,000	35,000	40,000	45,000	50,000	55,000	60,000	+60,000
Household Services													
Non-automotive Repair	2.58	0.32	0.19	0.16	0.18	0.12	0.11	0.09	0.14	0.11	0.20	0.12	0.11
Other Household	3.43	0.34	0.24	0.21	0.19	0.18	0.17	0.18	0.19	0.18	0.16	0.21	0.23
Medical													
Prescription Drugs[b,c]	1.58	0.39	0.24	0.18	0.12	0.09	0.08	0.07	0.06	0.05	0.05	0.04	0.04
Doctors and Nurses	5.06	0.70	0.50	0.44	0.35	0.26	0.28	0.31	0.24	0.28	0.26	0.27	0.21
Equipment	0.59	0.10	0.05	0.05	0.04	0.05	0.06	0.03	0.03	0.03	0.05	0.03	0.02
Hospitals	1.21	0.19	0.11	0.10	0.13	0.05	0.07	0.00	0.03	0.03	0.07	0.02	0.04
Insurance													
Property	5.28	0.81	0.60	0.55	0.48	0.43	0.41	0.38	0.41	0.38	0.37	0.34	0.26
Health	4.10	1.06	0.54	0.38	0.31	0.18	0.16	0.14	0.12	0.11	0.11	0.11	0.10
Personal	4.26	0.36	0.27	0.24	0.28	0.27	0.26	0.23	0.25	0.23	0.24	0.24	0.22
Lodging	2.91	0.32	0.24	0.18	0.15	0.15	0.15	0.16	0.15	0.15	0.16	0.17	0.16
Transportation													
Local	0.95	0.12	0.09	0.06	0.06	0.03	0.04	0.02	0.02	0.04	0.02	0.03	0.02
Non-local	2.59	0.33	0.16	0.20	0.16	0.14	0.12	0.14	0.13	0.12	0.18	0.19	0.22
Other	0.34	0.03	0.03	0.02	0.03	0.02	0.02	0.03	0.02	0.02	0.02	0.03	0.03
Admission & Entertainment	3.93	0.35	0.28	0.29	0.26	0.25	0.24	0.22	0.26	0.25	0.25	0.30	0.29
Personal Services	2.64	0.33	0.24	0.19	0.17	0.15	0.14	0.15	0.15	0.12	0.12	0.11	0.11
Private Education	7.66	0.42	0.30	0.32	0.19	0.24	0.23	0.24	0.23	0.29	0.24	0.32	0.23
Professional													
Legal	1.70	0.29	0.09	0.05	0.05	0.05	0.05	0.01	0.02	0.03	0.04	0.07	0.04
Other	0.65	0.08	0.06	0.05	0.05	0.05	0.04	0.03	0.04	0.04	0.04	0.04	0.04
Miscellaneous	1.65	0.22	0.15	0.10	0.13	0.08	0.09	0.06	0.08	0.05	0.05	0.06	0.05
Automotive Repair	3.65	0.46	0.41	0.33	0.34	0.25	0.23	0.24	0.22	0.22	0.19	0.16	0.16
Rentals													
Recreational	0.05	0.01	0.00	0.01	0.01	0.01	0.01	0.00	0.01	0.01	0.01	0.01	0.01
Automotive	0.33	0.04	0.02	0.02	0.03	0.03	0.01	0.04	0.03	0.03	0.06	0.06	0.06
Other	0.38	0.05	0.04	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.04	0.02
Restaurants	11.27	1.06	0.94	0.86	0.79	0.70	0.65	0.60	0.62	0.59	0.56	0.62	0.53

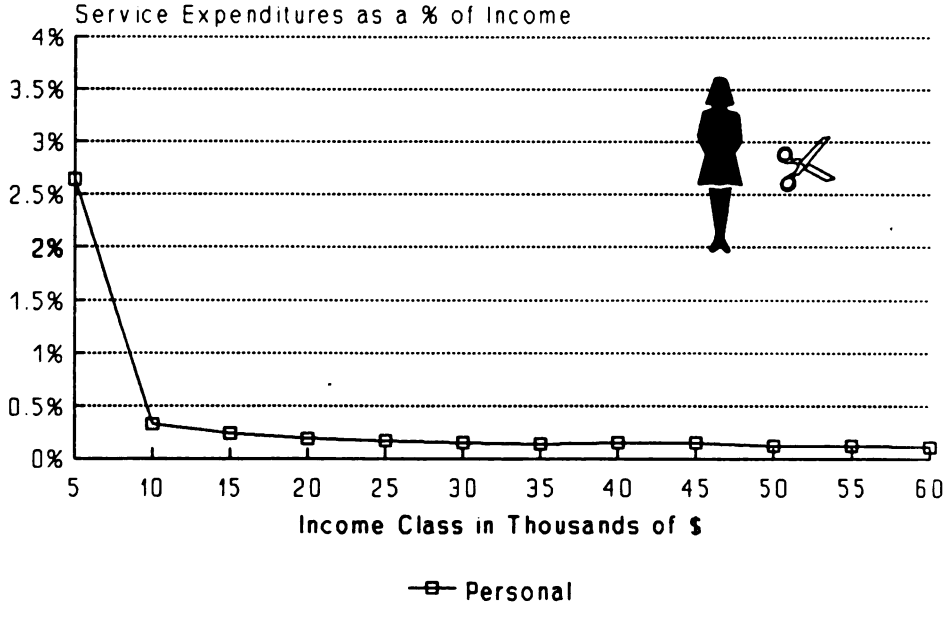
[a] The income classes are delineated by reporting upperbounds; e.g., $5,000 reflects the $0 to $5,000 range, and so. on.
[b] Negative cost included.
[c] Negative costs set to zero

Source: * Bohm and Craig (1987) as reported by Fox and Murray, NTA, Vol. XLI, March, 1988, p. 30.



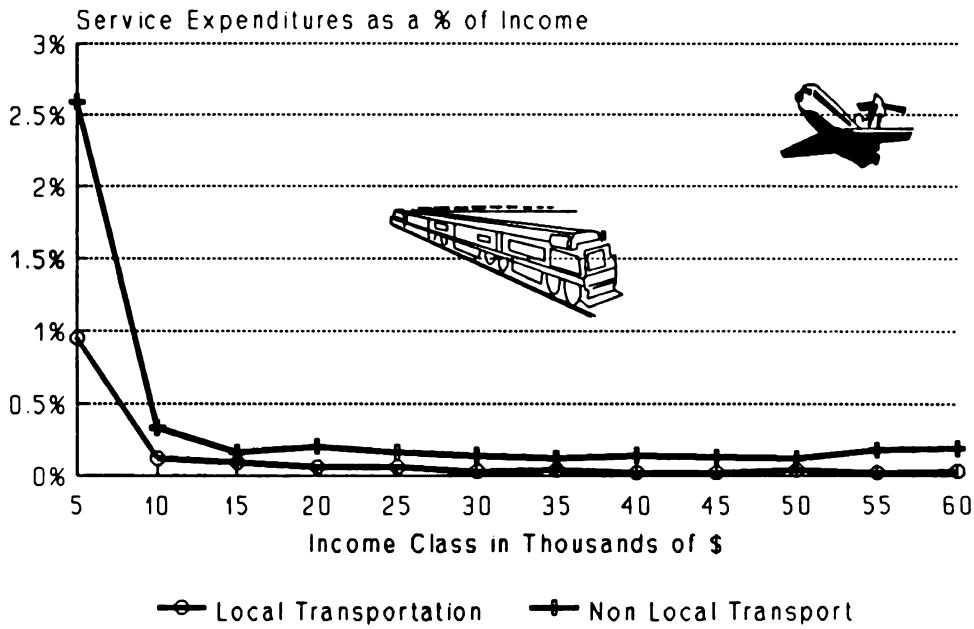
Source: Data from Bohm and Craig, 1987 and U.S. Consumer Expenditure Survey, 1984.

Figure 3.1. Medical Service Expenditures as a Percent of Income, 1984



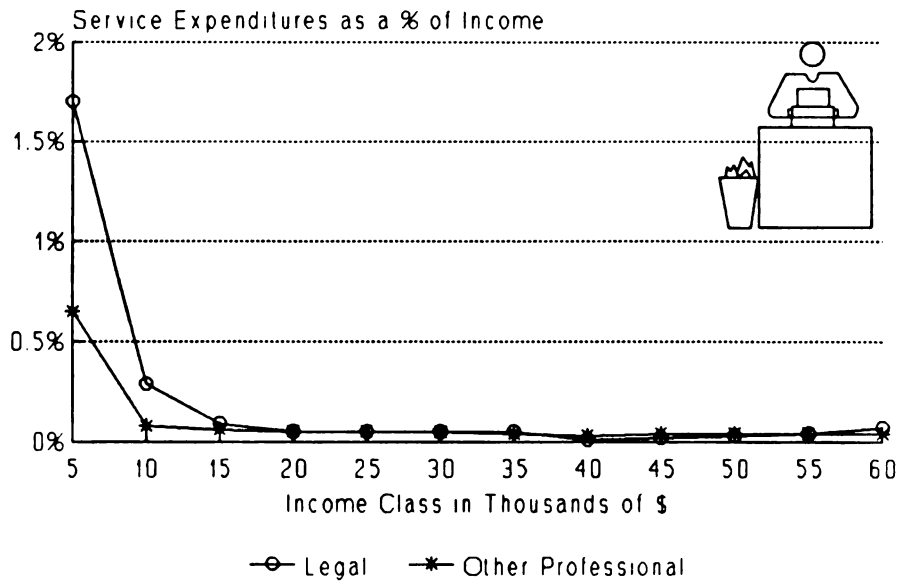
Source: Data from Bohm and Craig 1987 and U.S.. Consumer Expenditure Survey, 1984.

Figure 3.2. Personal Service Expenditures as a Percent of Income, 1984



Source: Data from Bohm and Craig 1987 and U.S. Consumer Expenditure Survey, 1984

Figure 3.3. Transportation Service Expenditures as a Percent of Income, 1984



Source: Data from Bohm and Craig 1987 and U.S. Consumer Expenditure Survey, 1984

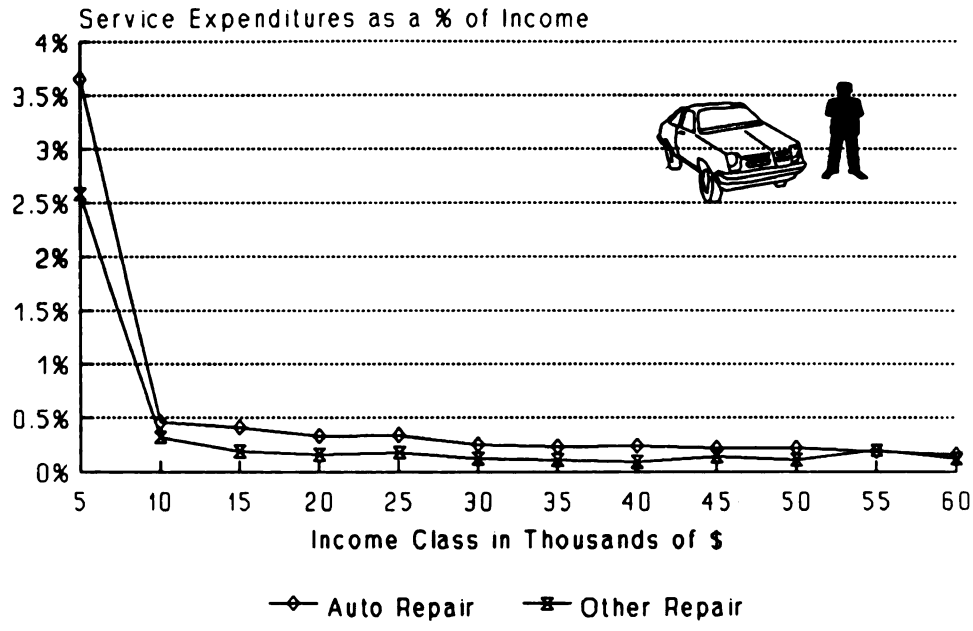
Figure 3.4. Legal and Other Professional Service Expenditures as a Percent of Income, 1984

the lowest income classes, but would yield a proportional burden in the higher income classes (Fox and Murray, 1988). Figures 3.5 and 3.6 indicate the regressive pattern of repair and entertainment services. Since regressivity is focused at the lowest income levels, tax equity could be improved with a low income credit. Further research is needed on the equity impacts for Michigan based on more current information.

3.6 Michigan's Equity Rating

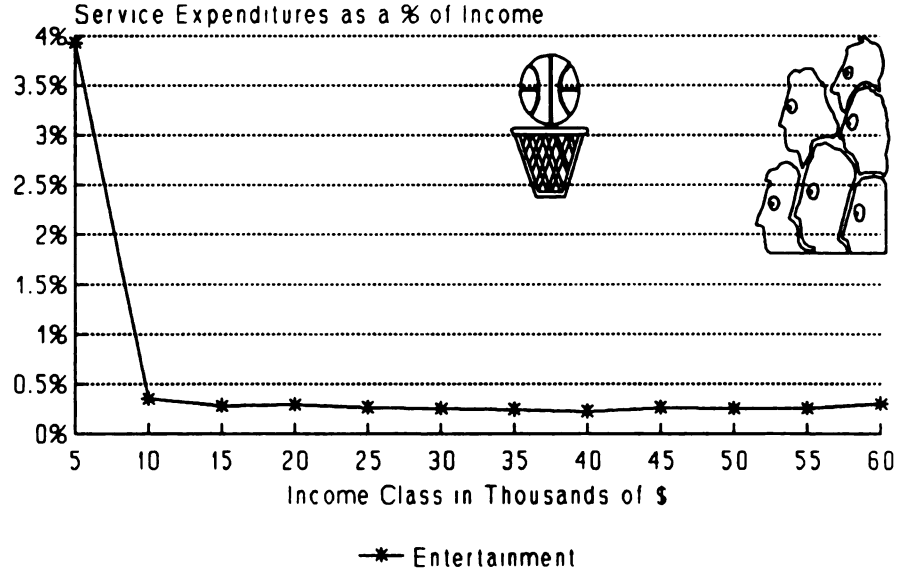
The marginal equity implications of taxing services in Michigan depends on the progressiveness of the existing base. The Michigan sales and excise tax burden, measured by the share of income for families of four in 1987, is below the U. S. average for every income quintile. While Michigan's sales tax structure is more equitable than the average state, it is still regressive. Families earning an average of $8,633 pay 2.5 percent of their income in sales taxes while higher income families with earnings averaging $66,164 pay 1.4 percent of income. States with the least regressive tax systems exempt selected necessities like food for home consumption or prescription drugs and/or provide low income sales tax credits on the state income tax (Nickels and Dimes, 1988).

States tended to levy more progressive income taxes in the late 1970's and early 1980's. According to Case and Ebel (1989), policy makers are favoring more regressive state taxes based on a comparison of data from the Advisory Commission for Intergovernmental Relations data from 1978 through 1987. States had experienced rapid growth in the use of the personal income tax during the 1970's and early 1980's. However, by the mid 1980's state reliance on personal income taxes and property taxes leveled off, and reliance on the remaining sales taxes increased. Michigan's effort to improve sales tax equity has been primarily provided through a food and prescription drug exemption.



Source: Data from Bohm and Craig, 1987 and U.S. Consumer Expenditure Survey, 1984.

Figure 3.5. Repair Service Expenditures as a Percent of Income, 1984



Source: Data from Bohm and Craig 1987 and U.S. Consumer Expenditure Survey, 1984.

Figure 3.6. Entertainment Service Expenditures as a Percent of Income, 1984

3.7 Michigan's Food and Drug Exemption

Michigan adds progressivity to the tax by exempting food for home consumption with an estimated revenue loss of $423 million and a prescription drug exemption, costing $17 million (Fiscal 1987-88 Michigan Tax Expenditure Appendix, 1989). Nearly two-thirds of the 45 states that tax sales exempt food purchased for home consumption. Almost all states provide an exemption for prescription drugs and utilities. The disadvantage of providing relief for the poor through an exemption is that much of the benefits go to non-poor households (Gold, 1990). Tax credits may be targeted at those in poverty or near poverty. The disadvantage is that the benefits may not reach those for which it was intended because of their lack of knowledge of the credit.

3.8 Tax Incidence

There are alternative ways to measure tax incidence for state sales taxes. Tax incidence is a branch of public finance which evaluates the segment of the economy which bears the ultimate burden of taxation. The agent bearing the tax incidence may differ from the agent paying the tax, as defined by statute, because market responses to the tax may result in a shift in tax incidence to someone other than the initial agent. Since many markets may be impacted at the same time tax incidence is difficult to determine (Nicholson, 1985).

According to Pechman (1985), in a competitive model, the sales tax is borne by consumers in proportion to their total expenditures since the tax does not change the relative prices and thus alter consumption. Nonetheless, some analysts are skeptical of traditional incidence theory because markets are not perfectly competitive, labor and capital may not be mobile and taxation may affect savings and work effort. Since firms are not perfectly competitive or perfectly monopolistic they do not necessarily follow

profit maximizing policies. Businesses may set prices to cover costs plus a mark up for profits. Firms may target a rate of return on invested capital and shift the tax forward to consumers or backward to workers or some portion of both. The leading firm in an industry may raise prices to recover the tax providing an umbrella to less efficient producers. Whether or not the firm is able to pass the tax on to individuals through higher prices depends on the competitive characteristics of the market and pricing structures and the price elasticity of the service. The price elasticity of demand for a service is the percentage change in the quantity of the service demanded in response to a 1 percent change in the price of the service. Houthakker and Taylor (1970), researched the price elasticity of demand for some service industries which will be further discussed in Chapter 5.

In a competitive market, if the demand for a service is price elastic, rising prices from taxation will more than proportionately reduce demand and the firm will absorb a portion of the tax through reduced business volume. If the demand is inelastic, a price increase will result in a proportionately smaller decline in quantity demanded and the firm will more easily add the full tax to prevailing prices. In addition, if the firm operates in a national market with a less price flexibility due to a national pricing structure, shifting the tax to individuals may be more difficult. Future research is needed on the price elasticity of demand for service industries and the characteristics of their markets and pricing structures to estimate tax incidence.

In addition, the measurement of sales tax incidence based on current consumption from current income assumes that the tax is shifted entirely forward to the consumer in the form of higher prices (Bohm and Craig, 1987). However, a portion of the tax will not be shifted to in-state consumers. According to Coopers and Lybrand, an accounting firm, who studied the financial records of service businesses in Florida, and

found that about two-thirds of business service purchases are believed to be made by multi-state businesses who would find if difficult to pass on the tax to in-state consumers because of their national pricing structures. In addition, Browning (1979), argues that a sales tax is borne by the owners of inputs in the form of lower input prices as the tax lessens aggregate demand. Furthermore, the tax is less regressive because low income households may be eligible to receive transfer payments which are indexed to inflation and therefore their income rises with prices increases (Bohm and Craig, 1987).

3.9 Efficiency

Administrative and economic efficiencies are other important criteria used to judge tax structure changes. Further research is needed on the administrative efficiency aspects of taxing services. Economic efficiency describes a situation in which there is an optimal allocation of resources. That is, when resources are allocated so that no activity can be increased without reducing another activity (Nicolson, 1985). Economic efficiency is derived from the pareto optimality where no one can be made better off without at the same time making at least one other person worse off. A change in resource allocation constitutes a pareto improvement if at least one person is made better off as a result of the change and no one is worse off. Most changes in the economy can not be judged according to the pareto principle because it requires value judgments about interpersonal welfare comparisons. In general, government prevents the attainment of pareto optimality through the market mechanism when it imposes taxes that provide a distortion through changes in prices and income.

3.10 Efficiency and Rights

Efficiency defines trades within the market as a private and voluntary choice within a certain legal structure. However, the impact of altering the law to tax services is the specific situation to be determined by policy evaluation. The specification of law or rights will govern the outcome of efficiency analysis or who is in the position to make choices in the market. Judgements about who receives the rights and who does not, tend to reinforce the existing distribution of wealth as to the party most valuable. Solutions of the optimal tax are without meaning unless adequately defined. There are efficient adjustments to any legal change and thus efficiency can not be judged without first deciding the purpose of the activity and this requires a value judgement. Therefore, efficiency can be used as an evaluation tool only after rights are granted which is a distributional principle (Samuels, 1982).

3.11 Deadweight Loss

Efficiency may be evaluated within a certain rights structure. The most efficient taxes minimize these distortions in welfare called deadweight losses (Boadway and Wildasin, 1984). Raising revenue with a sales tax on good X will increase its price relative to an untaxed service Y. The imposition of a tax on good X creates a wedge between the higher price paid by demanders and the lower price received by supplies.

As the price paid by consumers increases due to a sales tax, less overall quantity is demanded and a deadweight loss is imposed on good X. The deadweight burden is a measurement of the loss to the economy resulting from the implementation of a tax which distorts. It is the excess of the income that would have to be given to a consumer to restore them to their pretax situation (Diamond and McFadden, 1974).

Whether the tax imposed is an ad valorem tax or a specific tax makes a difference in how firms adjust either the quality or quantity of the service produced. Both types of taxes increase prices by the same amount but the supplier response is different. Since the sales tax is an ad valorem tax, or a percentage tax on the dollar value of sales, firms have an incentive to reduce quality because the tax is based on the value of sales. For a specific tax, levied on the quantity sold, the situation would be reversed as producers would tend to reduce quantity. Thus, the price may rise by less than the tax increase as producers make adjustments in the quality or quantity of sales (Nicholson, 1985).

3.12 Inverse Elasticity Rule

The inverse elasticity rule governs which tax is most effective from an efficiency perspective. This rule states that the rate at which taxes should be levied on commodities depends on the characteristics of the price elasticity of demand. The optimal tax is inversely proportional to the price elasticity of demand. Services characterized with inelastic demands should have the highest tax rates because they impose the least deadweight loss (Boadway and Wildasin, 1984). If the extreme case, when the demand is perfectly inelastic, the tax is fully paid by the consumer. If demand is infinitely elastic, the tax is completely paid by the firm.

The inverse elasticity rule highlights the trade off between equity and efficiency. The optimal set of taxes, from an efficiency perspective, minimizes the relative deadweight losses incurred from taxing commodities. However, this conflicts with the equity criteria because the most efficient taxes are levied on necessities which comprise a large portion of the low income groups budget. Thus, a tax structure with fair

distribution of the burden of output reduction in the private sector among various members of society may not be the most efficient tax.

3.13 Consumption Taxes and Exemptions

The taxation of all goods and services creates less distortion between taxed and untaxed goods from an efficiency view point. A sales tax will distort relative prices and create an excess burden when some goods are not taxed. Nonetheless, no state levies a pure sales tax because excluding all business sales would narrow the tax base to such an extent that states would need to raise the tax rate. While a sales tax on all consumption would have no effect on relative prices of consumption goods, it would affect the trade off between leisure and consumption as leisure is not taxed. In addition, it would complicate the sales tax administration as definitions would be needed to differentiate between consumer and business items. Some business services may be exempt to reduce multiple taxation of business inputs. This will be discussed in Chapter 5 on business services. Simplicity of tax administration necessitates that these definitions be clear enough for third party collection agents to apply the tax at the check out counter. Thus, state sales tax structures differ from the a pure sales tax.

3.14 Comprehensiveness of the Sales Tax Base

Administrative and political decisions have been made regarding exemptions in order to define the consumption basis of the sales tax. According to Musgrave and Musgrave (1984) these exemptions have narrowed the tax base to an estimated 37 percent of consumption (Fox and Murray, 1988). Michigan's sales and use tax exemptions are estimated at $1.9 billion compared with sales and use tax collection of $2.8 billion for fiscal 1988 as shown in Table 3.2. The large portion of the sales and use

Table 3.2

Potential Tax Base: Michigan Sales and Use Taxes
(Dollars in Thousands)

Revenue or Exemption	FY 88	Percent of Total
Sales Revenue	$ 2,449,794	50.9
Use Revenue	416,062	8.6
Services	1,006,000	20.9
Food	422,680	8.8
Prescription Drugs	16,647	0.3
Industrial Process	284,099	5.9
Other Exemptions	222,056	4.6
Total	$ 4,817,338	100.0

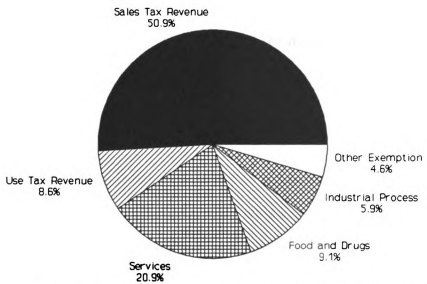
Source: Data from Fiscal 1990-91 Executive Budget and Tax Expenditure Appendix, Fiscal 1987-88.

Note: The State of Michigan estimated revenue foregone for services differs from the updated 1987 estimate shown in Chapter 5 of this report because the Tax Expenditure Appendix estimate is based on the 1982 Census of Services adjusted upward for inflation.

tax base which is exempt is illustrated in Figure 3.7. The major exemptions include services, food and prescription drugs and industrial processing. From the $4.8 billion potential sales and use tax base recorded, 59 percent is taxed. Thus, the Michigan's sales and use tax base is less comprehensive than a broad based consumption tax.

3.15 Gross Receipts and Value Added Taxes

Alternative forms of consumption taxes could be levied by states at different stages of production. The retail sales tax is different from a gross receipts tax in that the sales tax is levied on final sales while the gross receipts tax is applied to all sales. A value added tax is conceptually equivalent to a similarly comprehensive pure retail sales tax. The value of the good is equal to the sum of the value added at each stage in the production process. However, most state's retail sales tax applies to more than the



Source: Data from Fiscal 1990-91 Executive Budget and Fiscal 1987-88 Tax Expenditure Appendix.

Figure 3.7. Michigan Sales and Use Tax Exemption Comprise Large Portion of Tax Base, Fiscal 1988

finished good because goods are purchased by business. The advantage of the value added tax over the retail sales tax is that business items are taxed only once providing less distortion over production and consumption decisions. The advantage of the sales tax is its simplicity and familiarity to U.S. business. In addition, to the extent that the tax falls on owners of capital, the sales tax is less regressive (Francis, 1988). Thus, the retail sales tax, gross receipts tax or the value added tax are various forms of consumption taxes which could be levied and provide different a different impact when taxing services.

3.16 Summary

The sales tax has gained popularity and acceptance as a viable alternative for raising revenue. In general, states are moving away from progressive taxation structures and toward more regressive alternatives like the sales tax. One disadvantage is that most

authors agree that state sales tax structures are mildly regressive. The tax equity on low income taxpayers could be improved by offering exemptions or credits. Horizontal equity addresses the trade-off between the taxed good and the exemption on leisure. A sales tax on goods will discriminate against the person with a strong preference for commodities as opposed to leisure. As a proxy for taxing leisure, the state could tax its complements. Examples of services which are complements to leisure are amusement services like motion pictures, golf, bowling, and fitness services.

Within a specified rights structure, the efficiency benefit from broadening the sales tax base is that there is less distortion and substitution between taxed and non-taxed goods. Reviewing the efficiency of the present sales tax structure provides a basis for comparison required to determine the impact of adding services. The most efficient taxes are those that minimize the distortion from changes in prices and income resulting from the tax. A pure consumption tax would not effect relative prices because all items would be taxed except leisure. However, no state levies a pure consumption tax due to the exemptions and credits applied with the tax. States could choose to tax consumption with alternatives to the retail sales tax such as the gross receipts tax or a value added tax. These taxes would result in different efficiency impacts with the value added tax creating the least amount of distortion on business items. Nonetheless, most states continue to levy a retail sales tax because of its familiarity, consumer acceptance and administrative simplicity. As will be discussed in Chapter 5, states could gain efficiency by expanding the base to services and lowering the tax rate on a revenue neutral bases. Chapter 5 will also discuss the new legislative proposals considered by states which have tended to tax services on an incremental basis rather than the broad based approach and thus these tax structures are less likely to improve efficiency.

CHAPTER 4

The Michigan Sales Tax Base: Revenue Adequacy and Stability

4.1 Introduction

Chapter four will analyze the revenue stability and adequacy of the Michigan sales tax base. Issues to be addressed concern whether the sales and use taxes will provide sufficient and adequate revenue for public programs. The cyclical nature of sales tax collections will be reviewed to illustrate how limiting the taxation to the goods producing sector has contributed to the instability of collections. A review of the service sector, during this same period, illustrates its more stable or growth orientated history.

4.2 Michigan Sales Tax Collections

The Michigan sales tax data illustrates that collections have followed a procyclical pattern. Table 4.1 of sales and use revenue by category is measured in nominal collections by fiscal year. The cyclical nature is illustrated in the recessions of the early 1980's. According to Peterson (1984), the business cycle fell from a peak in January 1980 to the trough in July 1980 for a contraction of 6 months in fiscal year 1980. A 12 month expansion followed reaching another peak in July 1981. The subsequent trough was recorded in January 1983, ending a 18 month contraction which overlapped fiscal years 1981-83. Sales tax collections, as measured by the annual percent change, fell during the business contraction as shown in Table 4.2. The growth of nominal sales tax

Table 4.1

Sales and Use Tax Revenue by Category
(Millions $)

Year	Build	Gen Mer	Food	Auto	Appar	Furnit	Misc	Non Ret	Sales Tax	Use Tax	MI Pers Income
1976	73.9	114.4	168.7	272.4	50.4	45.8	107.3	234.6	1,067.5	193.3	61,886
1977	84.4	124.2	184.2	321.4	56.5	54.2	118.4	270.4	1,213.7	183.3	69,967
1978	101.9	138.3	207.4	257.2	61.4	62.8	133.4	306.0	1,368.5	210.5	78,086
1979	115.1	144.8	226.5	381.2	66.4	70.5	145.2	351.9	1,501.7	232.9	87,053
1980	105.7	146.2	243.0	350.5	66.7	68.2	150.2	386.1	1,516.6	232.3	92,012
1981	99.1	156.7	255.5	370.8	70.4	69.5	152.6	413.1	1,587.9	245.7	99,342
1982	83.2	155.0	260.0	371.3	70.1	64.3	156.5	420.0	1,581.3	247.4	100,981
1983	89.1	159.5	271.8	422.8	73.6	69.4	166.2	423.3	1,675.8	279.5	105,038
1984	105.3	174.9	289.3	525.3	82.2	78.2	186.3	469.4	1,911.1	317.3	115,734
1985	119.8	189.9	315.5	608.8	89.3	89.1	203.9	495.2	2,111.5	341.2	124,715
1986	136.8	187.7	333.1	641.6	96.8	99.9	227.3	538.1	2,261.3	390.5	134,327
1987	157.4	178.5	360.4	614.1	102.5	107.8	239.2	571.3	2,331.2	394.7	140,847
1988	167.3	167.2	377.2	637.0	107.9	114.1	255.4	623.5	2,449.8	416.1	150,439
1989	178.5	173.3	400.8	664.8	115.5	122.1	278.3	659.0	2,592.3	446.6	161,730

Source: Data from Michigan Executive Budget, various years.

Table 4.2

Sales and Use Tax Revenue by Category
Annual Percent Change
(%)

Year	Build	Gen Mer	Food	Auto	Appar	Furnit	Misc	Non Ret	Sales Tax	Use Tax	MI Pers Income
1977	42.2	8.6	9.2	18.0	12.1	18.3	10.3	15.3	13.7	-5.2	13.1
1978	20.7	11.4	12.6	11.1	8.7	15.9	12.7	13.2	12.8	14.8	11.6
1979	13.0	4.7	9.2	6.7	8.1	12.3	8.8	15.0	9.7	10.6	11.5
1980	-8.2	1.0	7.3	-8.1	0.5	-3.3	3.4	9.7	1.0	-0.3	5.7
1981	-6.2	7.2	5.1	5.8	5.5	1.9	1.6	7.0	4.7	5.8	8.0
1982	-16.0	-1.1	1.8	0.1	-0.4	-7.5	2.6	1.7	-0.4	0.7	1.6
1983	7.1	2.9	4.5	13.9	5.0	7.9	6.2	0.8	6.0	13.0	4.0
1984	18.2	9.7	6.4	24.2	11.7	12.7	12.1	10.9	14.0	13.5	10.2
1985	13.8	8.6	9.1	15.9	8.6	13.9	9.4	5.5	10.5	7.5	7.8
1986	14.2	-1.2	5.6	5.4	8.4	12.1	11.5	8.7	7.1	14.4	7.7
1987	15.1	-4.9	8.2	-4.3	5.9	7.9	5.2	6.2	3.1	1.1	4.9
1988	6.3	-6.3	4.7	3.7	5.3	5.8	6.8	9.1	5.1	5.4	6.8
1989	6.7	3.6	6.3	4.4	7.0	7.0	9.0	5.7	5.8	7.3	7.5

Source: Data from Michigan Executive Budget, various years, and personal income from U.S. Dept. of Commerce, Bureau of Economic Analysis.

collections slowed to 1 percent in 1980, followed by a slight upturn in 1981 of 4.7 percent and then declined -0.4 percent in 1982. Use tax collections followed a similar trend.

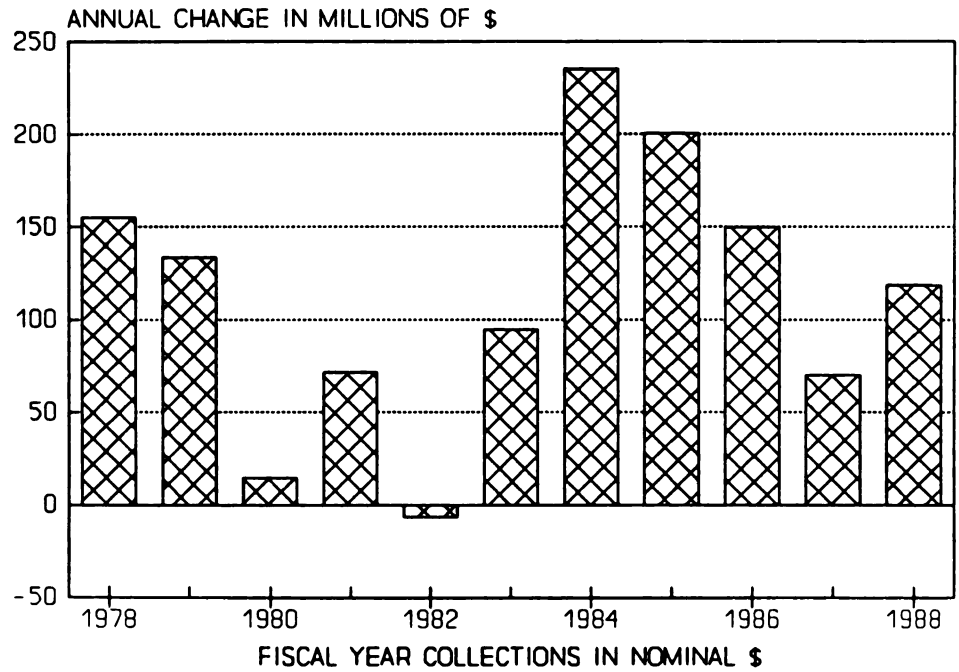
4.3 Real Sales Tax Collections

Sales tax collections are compared on a nominal and real basis to illustrate the impact of inflation on collections. Figure 4.1 shows the change in nominal dollars collected from 1978 to 1988. Michigan sales tax collections actually declined by over $6 million in fiscal 1982. Figure 4.2 indicates the change in physical trends, measured by inflation adjusted sales tax collections. Real collections fell in 1979, slightly preceding the recessionary period and continued to decline until 1983. Figure 4.3 summarizes the comparison of the annual change of sales tax collections on a nominal and real basis from 1978 to 1988.

4.4 Stable Revenue Base Defined

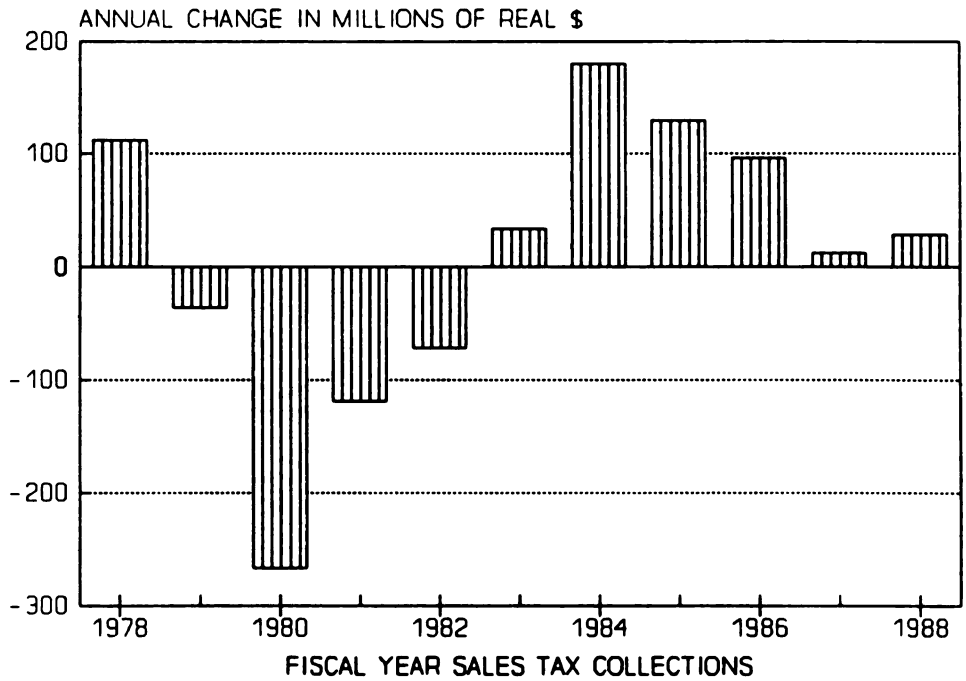
A revenue source is defined as stable when the growth rate of revenues is constant over the business cycle. This occurs when the short run income elasticities of revenue collections rise in recessions and fall in expansions. See figure 4.4. Fox and Murray (1988) found the sales tax to be relatively unstable as elasticities were very procyclical across the business cycle.

Short run income elasticities of Michigan sales tax collections are presented in Table 4.3. These year to year measures of the annual percent change in sales tax over the annual percent change in personal income fell in the early 1980's recessions and rose in expansionary years. A review of the sales tax elasticities by category reveals that the components falling behind the growth of personal income and contributing most to the decline from 1980-82 include building materials, autos and furniture. Auto sales tend to



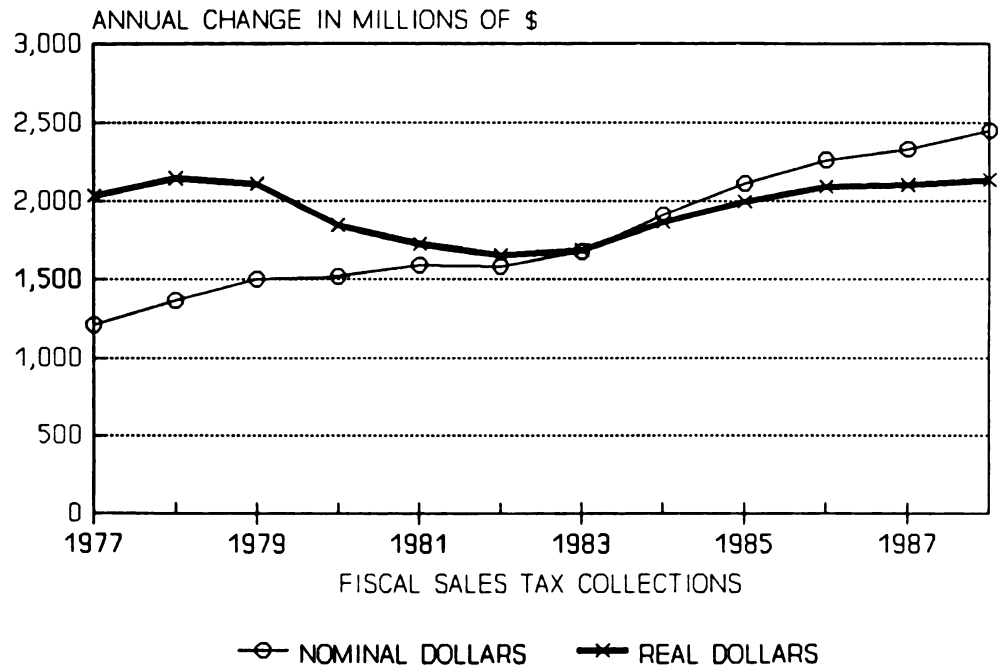
Source: Michigan Executive Budget, various years and Departments of Management and Budget and Treasury.

Figure 4.1. Growth of Michigan Sales Tax



Source: Michigan Executive Budget, various years and Departments of Management and Budget and Treasury.

Figure 4.2. Growth in Michigan Sales Tax Adjusted for Inflation



Source: Michigan Executive Budget, various years and Departments of Management and Budget and Treasury.

Figure 4.3. Michigan Sales Tax, Growth in Real vs. Nominal Dollars

Source: Collections from Michigan Executive Budget, and personal income from Bureau of Economic Analysis.

Figure 4.4 Sales Tax Income Elasticity

Table 4.3

Sales and Use Tax Revenue by Category
Income Elasticity by Component

	Year	Build	Gen Mer	Food	Auto	Appar	Furnit	Misc	Non Ret	Sales Tax	Use Tax
	1977	1.09	0.66	0.70	1.38	0.93	1.40	0.79	1.17	1.05	-0.40
	1978	1.79	0.98	1.09	0.96	0.75	1.37	1.09	1.13	1.10	1.28
	1979	1.13	0.41	0.80	0.59	0.71	1.07	0.77	1.31	0.85	0.93
	1980	-1.43	0.17	1.28	-1.41	0.08	-0.57	0.60	1.71	0.17	-0.05
	1981	-0.78	0.90	0.65	0.73	0.70	0.24	0.20	0.88	0.59	0.72
	1982	-9.72	-0.66	1.07	0.08	-0.26	-4.53	1.55	1.01	-0.25	0.42
	1983	1.77	0.72	1.13	3.45	1.24	1.97	1.54	0.20	1.49	3.23
	1984	1.79	0.95	0.63	2.38	1.15	1.25	1.19	1.07	1.38	1.33
	1985	1.77	1.11	1.17	2.05	1.11	1.80	1.22	0.71	1.35	0.97
	1986	1.84	-0.15	0.72	0.70	1.09	1.57	1.49	1.12	0.92	1.87
	1987	3.10	-1.01	1.69	-0.88	1.21	1.63	1.08	1.27	0.64	0.22
	1988	0.92	-0.93	0.68	0.55	0.77	0.86	0.99	1.34	0.75	0.80
	1989	0.89	0.49	0.83	0.58	0.94	0.93	1.19	0.76	0.78	0.98
Average	1977-89	0.32	0.28	0.96	0.86	0.80	0.69	1.05	1.05	0.83	0.95
Average	1980-82	-3.98	0.14	1.00	-0.20	0.17	-1.62	0.78	1.20	0.17	0.37
Average	1983-89	1.73	0.17	0.98	1.26	1.07	1.43	1.24	0.92	1.04	1.34

Source: Data from Michigan Executive Budget, various years.

dampen during recessions as consumers tend to delay the purchase of large durable goods. In addition, consumers who require financing of car sales are particularly sensitive to interest rates which tend to rise during recessions. Further, the low growth of furniture and building materials may be explained by fact that these goods are complements to new housing which usually is postponed during economic downturns. These procyclical goods, autos, furniture and building materials, comprised 37.2 percent of the sales tax base in fiscal 1989. Thus, a large portion of Michigan's sales tax collections are unstable and cyclical in nature.

4.5 Adequate Revenue Base Defined

An adequate tax can be defined as one where the long-run total income elasticity of tax revenues equals the long run total income elasticity of expenditures. The total elasticity for all a state and local expenditures financed from own sources was 1.12 between 1970 and 1984, illustrating that an adequate tax structure would be slightly elastic. A tax is inadequate if the demand for public services has a higher total income elasticity (Fox and Murray, 1988). Since Michigan's Constitution requires a balanced budget, expenditures are reduced to equal revenues and therefore an income elasticity of expenditures would not reflect true expenditure growth.

Nonetheless, the principle that the income elasticity of revenue should be slightly elastic may be applied to Michigan. Michigan's long-run income elasticity for the sales tax averaged 0.83 from 1977 to 1989, less than an elasticity of one. This period was chosen because prior to 1975, Michigan taxed food and this change substantially impacts the amount collected. The Michigan income elasticity for the use tax was 0.95. This is more adequate but with less impact on state finances as it only representing 17.2 percent

of the sales tax collections in 1989. Thus, the adequacy of Michigan's sales tax base could be improved.

4.6 Data Sources

Tax collections are not available for services in Michigan because they are not currently taxed. The analysis, therefore will be based on information obtained from government agencies. To assess the magnitude of the service sector, the Census of Service Industries data from the U. S. Department of Commerce will be utilized. The Census of Services Industries for 1987 records gross receipts of establishments. Receipts are the basic dollar volume measurement for service establishments of firms subject to the Federal Income tax. In general, it includes receipts from customers or clients for services provided, from the use of facilities and from merchandise sold in 1987 even if payment was not received in 1987.

The economic census is a major source of facts about the structure of the economy. Title 13 of the U. S. Code, sections 131, 191, and 224 directs the Census Bureau to take the economic census every 5 years, covering years ending in 2 and 7. The next economic census is scheduled to cover 1992, and thus the 1987 data (published in 1989) is the most recent available. The Census of Services data is organized by the newly revised standard industrial classification system (SIC). Selected reports are included with bridge tables to link old and new classification systems for a comparison with the 1982 data.

Data are presented for establishments in the following classifications: hotels, rooming houses, camps and other lodging places, personal services, business services, automotive repair, services and parking, miscellaneous repair services, motion pictures, amusements and recreation services, health services, legal services, selected educational

services, social services, museums, art galleries and botanical and zoological gardens, selected membership organizations, engineering, accounting, research, management and related services. Excluded services generally have a non-profit character and include: elementary and secondary schools, colleges, universities, professional schools and junior colleges, labor unions and similar labor organizations, political organizations, religious organizations and private households. Government establishments are excluded except for government operated hospitals which were included.

The Census report presents data for the U. S. as a whole, each state, each consolidated and primary metropolitan statistical area and each county. All data in the report originated from either census questionnaires or administrative records of other Federal agencies. Summary statistics include data on number of establishments, receipts, annual payroll, first quarter payroll, paid employees for pay period including March 12, and unincorporated businesses or operations separated by individual proprietorships and partnerships.

Another source of data on services in the Michigan economy is the gross state product (GSP). The gross state product is the state version of the U. S. Gross National Product prepared by the Bureau of Economic Analysis, (BEA). Estimates are prepared for 61 industries and is composed of four components including compensation of employees, proprietors' income, indirect business tax and non-tax liability and other charges. GSP data is provided by component and by industry for each state.

The advantages of the GSP data compared with the Census data is that it is available on an annual basis while the census data is only collected every 5 years. Since GSP data is estimated annually it provides an opportunity to review the change in services during expansion and recession periods. In addition, GSP data provides a basis for direct comparison of the value of good and services. For example, large durable

goods like cars have a higher value than a small services like lawn care. An alternative indicator like employment illustrates the growth rate of services but not the magnitude of the dollar base.

BEA provides estimates of GSP in both current and constant dollars. Current dollar GSP estimates reflect the trends in the command over resources associated with production. The analysis is this paper is based on the constant dollar GSP estimates which reflect the physical trends in the volume of production. Constant dollar GSP estimates are now based on national price deflators by industry.

4.7 Shift Toward Service Sectors

Michigan's economy is in the process of equalizing consumption between goods and services. GSP data in Table 4.4 and Figure 4.5 illustrates that the manufacturing sector of Michigan's economy has declined from 36.6 percent in 1963 to 34.7 percent in 1986. At the same time, the private service producing sectors including transportation, communications and utilities, wholesale trade, retail trade, finance, insurance and real estate services have shifted from 42.4 percent to 50.8 percent. The years of 1963 and 1986 were compared because they span a long run time period and are the beginning and ending years for which GSP data are available. In addition, they are similar points in the business cycle, following the trough by two to three years. This comparison reflects the long term change in Michigan's economy rather than the cyclical changes which usually occur over the business cycle.

4.8 Growth of Services

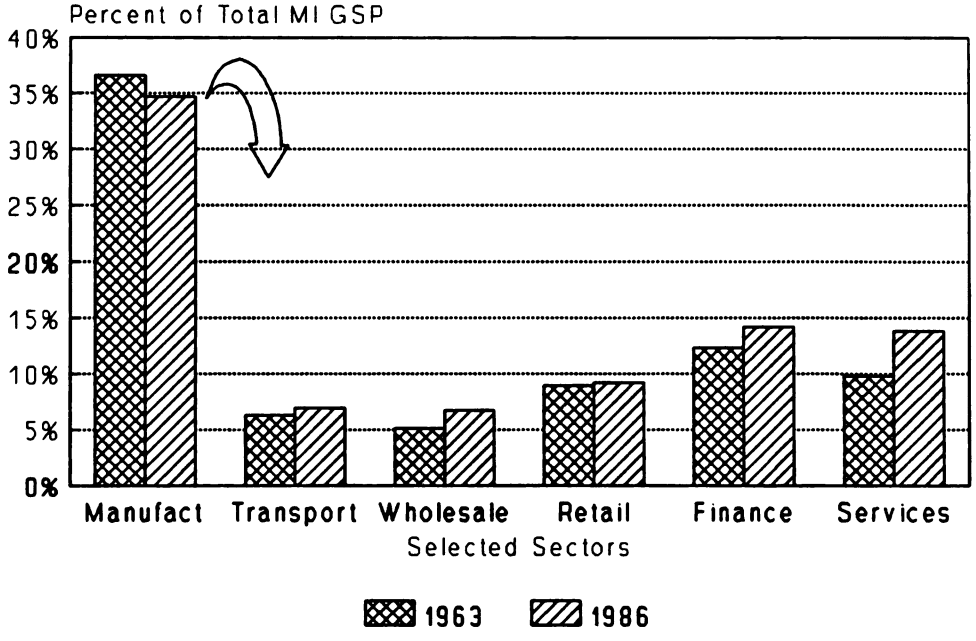
The GSP line graph in Figure 4.6 illustrates the stability of the service industry, narrowly defined, compared to the cyclical manufacturing sectors. The stability of the

Table 4.4

Michigan Gross State Product, 1963 and 1986
(Real Dollars in Millions)

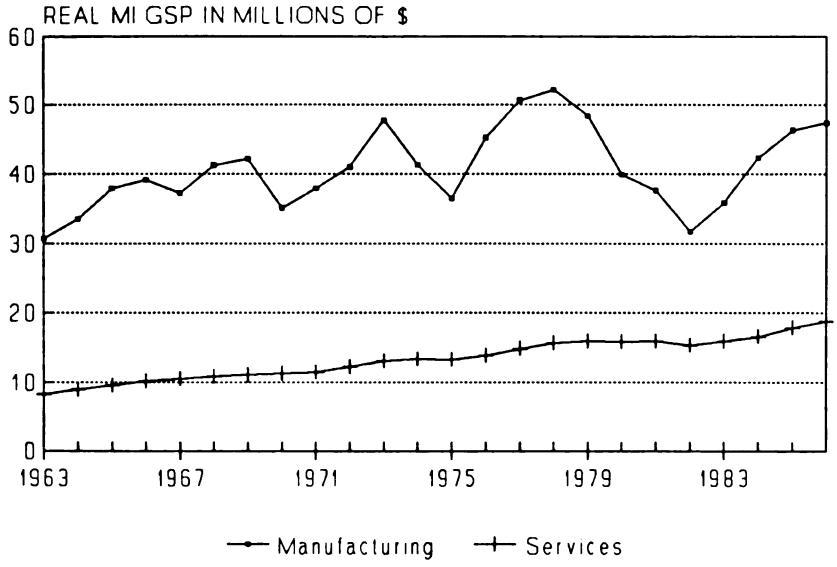
		Dollars 1963	% of Total 1963	Dollars 1986	% of Total 1986
Total		83,796	100.0%	136,433	100.0%
	Manufacturing	30,638	36.6%	47,408	34.7%
	Transportation, Comm., and Util	5,261	6.3%	9,465	6.9%
	Wholesale Trade	4,245	5.1%	9,093	6.7%
	Retail Trade	7,489	8.9%	12,598	9.2%
	Finance, Insur., and Real Est.	10,293	12.3%	19,432	14.2%
	Services	8,236	9.8%	18,782	13.8%
	Other	17,633	21.0%	19,655	14.4%

Source: Gross State Product data from U.S. Department of Commerce, Bureau of Economic Analysis, 1988.



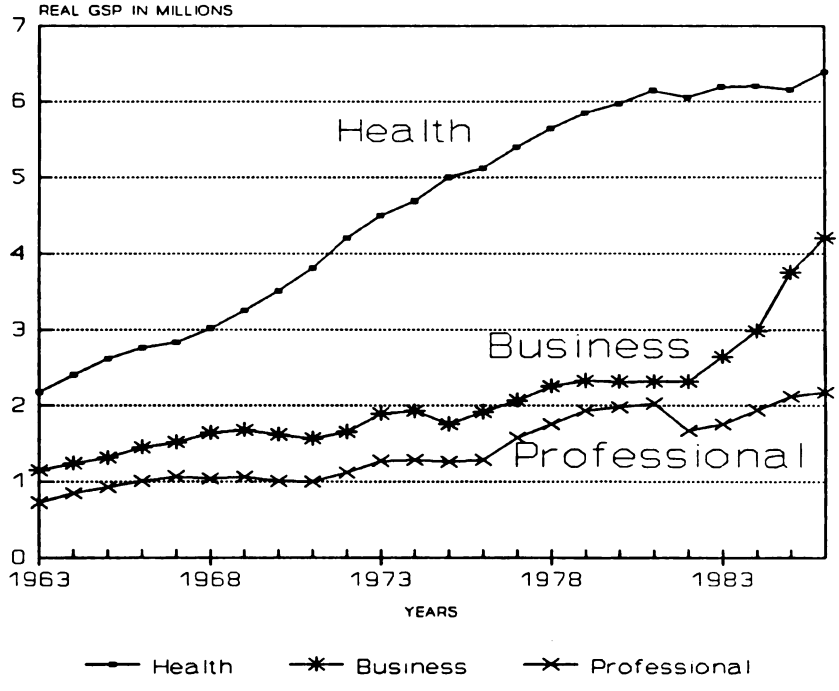
Source: Gross State Product data from U.S. Department of Commerce, Bureau of Economic Analysis, 1988.

Figure 4.5. Michigan's Economy Shifts, 1963-1986



Source: Michigan Gross State Product, Bureau of Economic Analysis, 1988.

Figure 4.6. Growth of Services vs. Manufacturing, 1963-1986



Source: Michigan Gross State Product, Bureau of Economic Analysis, 1988.

Figure 4.7. Selected Major Service Industries, Long Term Growth, 1963-1986

service sector may be explained by the growth of the three largest industries with GSP of over a billion real dollars in 1986. The fairly steady upward trend of dominant health, business and professional services from 1963 to 1986 is shown in Figure 4.7. The growth of the smaller service industries is shown in Figure 4.8 which includes auto service, amusement, educational, legal and social services.

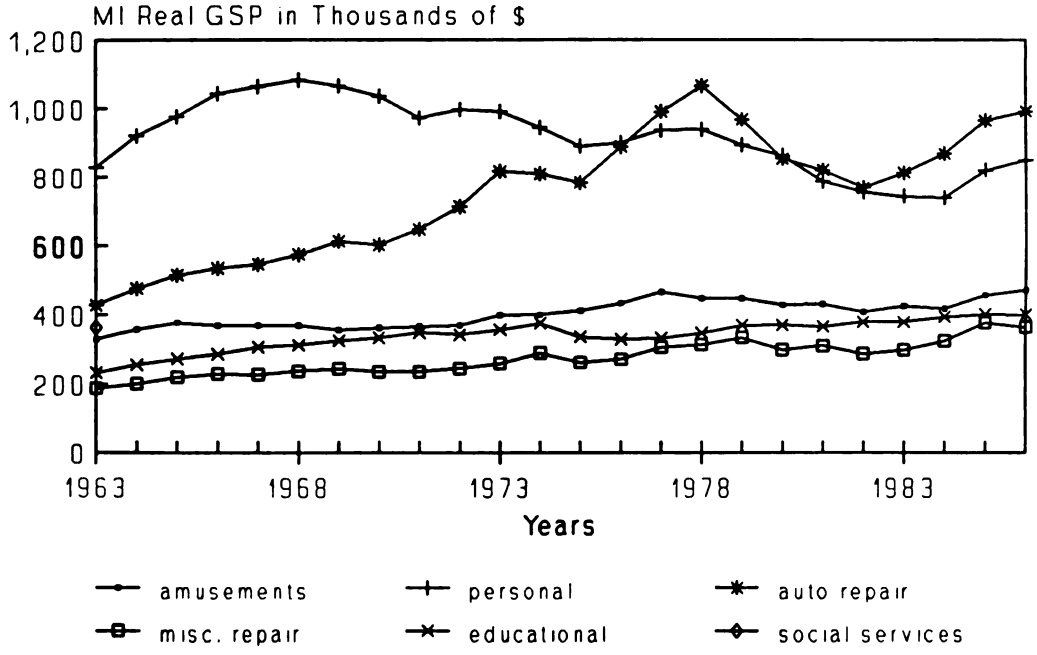
4.9 Ratio of Services to Manufacturing

Another measure of the change in the Michigan economy, measuring the more stabile growth of services compared to manufacturing is the ratio of services to manufacturing. Figure 4.9 illustrates that this ratio has risen from 26.9 percent in 1964 to 39.6 percent in 1986. In addition, the ratio peaked at 48.4 percent in 1982 as the level of manufacturing fell during the recession years.

4.10 Summary

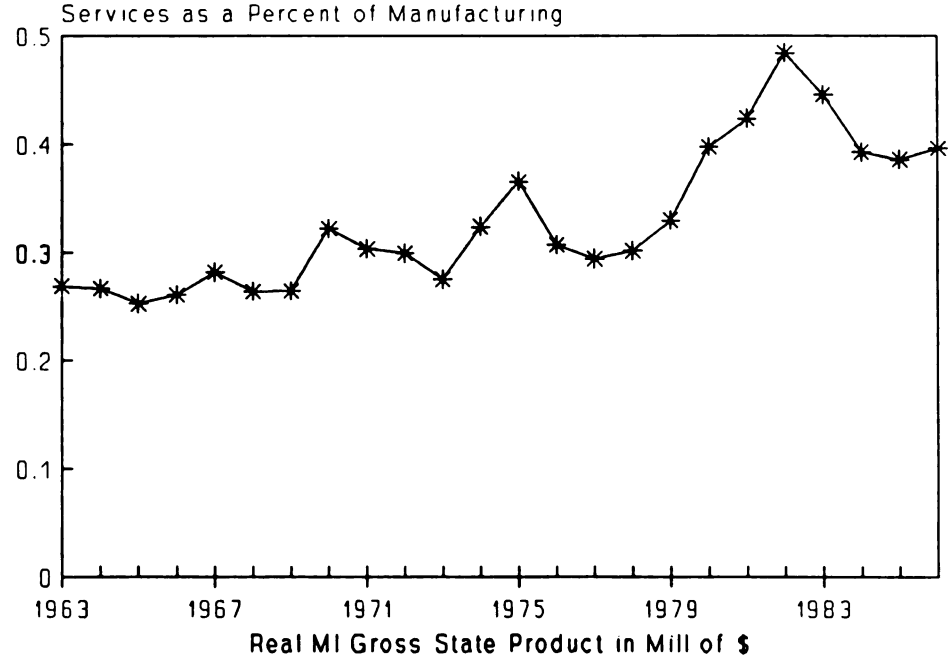
Michigan's sales tax collection data illustrates that revenues have followed a procyclical pattern as measured by the low rates of growth during the recessions of the early 1980's. A revenue source is defined as stable when the growth rate of revenues is constant over the business cycle. This occurs when the short run income elasticities of revenue collections rise in recessions and fall in expansions. Fox and Campbell (1988) found the sales tax to be relatively unstable as elasticities were very procyclical across the business cycle.

Michigan's economy is in the process of equalizing consumption between goods and services as the manufacturing sector of Michigan's economy has declined from 36.6 percent in 1963 to 34.7 percent in 1986. At the same time, the private service producing



Source: Michigan Gross State Product, Bureau of Economic Analysis, 1988.

Figure 4.8. Selected Small Service Industries, Long Term Growth, 1963-1986



Source: Michigan Gross State Product, Bureau of Economic Analysis, 1988.

Figure 4.9. Ratio of Services to Manufacturing, 1963-1986

sectors including transportation, communications and utilities, wholesale trade, retail trade, finance, insurance and real estate services have shifted from 42.4 percent to 50.8 percent. GSP data illustrates the stability of the service industry, narrowly defined, compared to the cyclical manufacturing sectors. Thus, adding services to the tax base may increase the stability and adequacy of sales tax revenues over the business cycle.

Some authors assert that the growth spurt experienced by the service sector may not continue as these sectors mature. Future research is needed to forecast the growth of services. While the future growth of services may not contribute as much to tax revenue as they could have if taxed in the past, they are likely to produce a more stable collection base.

CHAPTER 5

Impact of the Michigan Sales Tax on Services

5.1 Introduction

The following chapter will address the impact of levying a sales tax on services on selected industries. The purpose is to evaluate the issues surfaced in specific service sectors and to provide the reader with a better understanding of the industries composing the service sector tax base. The narrative will outline the composition of the service industries, revenue estimates, growth trends and policy alternatives.

5.2 Services Defined

Services are intangible objects which consumers buy that usually result in actions performed for the benefit of the purchaser. According to the Bureau of Labor Statistic's items may be separated into the private economy goods producing and service producing industries. The private service producing industries include: transportation and public utilities, wholesale trade, retail trade, finance, insurance and real estate and services. The private goods producing industries include mining, construction, and manufacturing. This chapter will limit the analysis to narrowly defined service industry within the service producing economy.

The intangible nature of services complicates the administration of the tax compared to the tangible characteristics of goods. When taxing services, most states

apply the long standing situs rule that use or consumption occurs at the point where the seller or his agent delivers the goods. The point of delivery for service items is easily manipulated to another state because service firms have greater mobility as they require less investment in physical plant and inventory than do those firms manufacturing goods. Delivery of services requires less interstate transportation costs as a telephone call or envelop may be used for delivery.

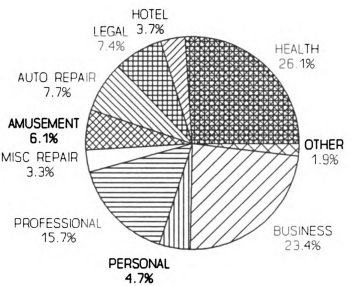
Services may be categorized into site specific and non-geographic specific services for taxation purposes. The administration of a service tax is simplified if the service is performed for use at a specific site such as landscaping services which may be attributed to a certain location. In this case, the state of use is more easily determined. Non-geographic specific services require the tax collector to determine the state of use, perhaps through an apportionment formula. Firms cost of compliance rises when intangible services with some site specific characteristics are mixed with non-geographic specific services or when an item is composed of both goods and services but the cost of the service is not itemized. The intangible nature of services makes administering the tax difficult because transactions are not easily separated.

5.3 Service Industry Composition

To evaluate the impact of taxing services, the Census of Service Industries data from the U. S. Department of Commerce will be used as a proxy for the Michigan sales tax base. Figure 5.1 illustrates the composition of the service sectors based on the 1987 Michigan Census of Services which records the gross receipts of establishments.

Categories of service establishments listed in the Census of Services include: 1) hotels, rooming houses, camps and other lodging places, 2) personal services, 3) business services, 4) automotive repair, services and parking, 5) miscellaneous repair services, 6)

motion pictures, amusements and recreation services, 7) health services, 8) legal services, 9) selected educational services, 10) social services, museums, art galleries and botanical and zoological gardens, selected membership organizations, and 10) engineering, accounting, research, management and related services. Services which are excluded



Source: Michigan Census of Services, 1987.

Figure 5.1 Service Industries Composition

have a non-profit characteristic. Government establishments are excluded except for government operated hospitals which were included. The list of categories in the Michigan Gross State Product data is nearly the same as in the Census of Services but with less industry detail. One difference is that professional services are listed in the GSP rather than engineering, accounting and research. In addition, GSP data includes a separate category for motion pictures which is listed as a subdivision of amusements and recreation in the Census data. GSP also includes a separate category for household services.

5.4 Revenue Estimates

Sales tax on services revenue estimates are shown in Table 5.1 and were based on the Michigan Census of Services for 1987. The industries are listed in descending order by size of establishments. A revenue estimate with further breakdowns by four digit SIC code is provided in the Appendix Table I. These estimates assume that all services receipts could be taxed and thus they may be viewed as the maximum amount of revenue to be raised from in state activity. Additional revenue would be gained from a use tax on items purchased out-of-state but used by Michigan residents and firms. More precise revenue estimates would require further research and policy decisions on use tax revenues, exempt sales, presently taxable activity, compliance problems, apportionment activity of in-state and out-of-state firms and consumers, sales to affiliated groups and

Table 5.1

Sales Tax on Services, Revenue Estimates

Kind of Service Business	Establish-ments (No.)	Receipts (Millions of $)	Estimated Revenue[a] (Millions of $)
Health Services	15,382	6,219.9	248.8
Business Services	7,846	5,576.2	223.1
Engineering, Accounting, Research,	6,300	3,748.3	149.9
Automotive Repair, & Parking	5,357	1,840.7	73.6
Legal Services	4,326	1,769.9	70.8
Amusement and Recreation	3,436	1,447.3	57.9
Personal Services	6,338	1,127.0	45.1
Hotels, Rooming Houses, & Camps	1,434	893.7	35.7
Miscellaneous Repair Service	2,240	788.6	31.5
Social Services	1,578	219.2	8.8
Selected Educational Services	260	127.1	5.1
Other Services	870	101.9	4.1
Total	55,367	$23,859.8	$954.4

[a] Receipts times the 4% tax rate.

Source: Data from 1987 MI Census of Services, 1989.

behavioral responses to the tax increase such as vertical integration by firms and reduction in quantity demanded by individuals.

Before Florida taxed services, the state commissioned a Coopers and Lybrand study of 20,000 firms to assess the impact of the tax. Gathering information to more precisely estimate the revenue from the tax is a significant task (Rockwood, 1987).

The Census of Services classifies firms according to their primary activity. For example, if a manufacturing firm provides services, the firms gross receipts are classified as manufacturing not services. According to the Census of Service Industries, receipts do not include service receipts of manufactures, wholesalers, retail establishments or other businesses whose primary activity is something other than services. These receipts, however, do include receipts other than from services rendered like the sale of merchandise to individuals or other businesses by establishments primarily engaged in performing services which are classified as service industries. For more precise estimates, further research is required to determine the portion of service firms receipts that is already included in the tax base as tangible goods. Another limitation of the Census of Service data is that it does not include establishments with less than five employees on the payroll and therefore some repair and professional services are not included. Despite the limitations of establishment data, estimates based on the Census of Service data provide a useful indication of the magnitude of the service tax base.

5.5 Sales to Income Ratio

Another method for estimating revenue and gaining some insight is to review the collections of states which already tax services. This approach is outlined by Payne, Lathen and Bain (1990) and relies on determining the percentage of taxable sales to personal income from New Mexico and South Dakota, two of the three states with a

broad based tax on services. Both states are included to illustrate the contrast in state tax structures and consumption patterns to provide a broader base of comparison and a more generalized projection. This percentage is then applied to Michigan's personal income to estimate the amount of revenue Michigan would raise assuming Michigan consumed services at the same rate of personal income and Michigan adopted the same tax base and exemptions as the other states.

The limitation of this approach is that Michigan's economy may not be similar to that of New Mexico or South Dakota. State differences may exist in consumers behavior due to the weather, geography, cultural practices, family size, urban to rural mix, administrative practices, tax collection enforcement effort, legal interpretation and the proportion of the economy represented by major industries like the auto sector. Table 5.2 illustrates the differences between Michigan and the states of New Mexico and South Dakota in terms of state size. This comparison illustrates that Michigan is a significantly larger state based on personal income data. New Mexico and South Dakota record personal income of only 12.6 percent and 6.3 percent of Michigan's personal income level, indicating that these states have smaller economies. In addition, a review of per capita income levels indicates that Michigan's per capita personal income is over 18 percent higher than South Dakota's and over 29 percent higher than New Mexico's. Since consumption of services tends to rise with income, Michigan residents may consume a higher proportion of services than these states.

The other limitation of this approach is that there are only 3 states which levy a broad based service tax including New Mexico, South Dakota and Hawaii. Idaho's taxation of services is primarily levied on personal services. Although Idaho is sometimes included in a comparison, it is more appropriately classified in the middle between a narrow and broad base of taxation. Florida no longer taxes services, and

Table 5.2

Michigan's Economy Ranks Larger Than New Mexico and South Dakota

State	Region	1987 Personal Income (Millions of $)	Percent of MI	1987 Per Capita Personal Income (Dollars)
Michigan	Great Lakes	141,618	-----	15,393
New Mexico	Southwest	17,812	12.6%	11,875
South Dakota	Plains	8,900	6.3%	12,550

Source: Personal income from Survey of Current Business, August, 1988.

therefore revenue collection data is available for only a few months. Given the limited number of states which tax services the sample is small.

The advantage of this method is that it does provide additional information by type of service. Table 5.3 illustrates the revenue Michigan could collect using New Mexico or South Dakota's consumption of services as a percent of personal income and tax base definitions. The analysis indicates that personal services, auto repair services and legal service revenues may provide more revenue and that business services, medical services and engineering and architecture may provide less revenue than shown above.

Personal services are taxed uniformly by both New Mexico and South Dakota as neither provides personal service exemptions. Further research on the amount of services provided by firms primarily classified as goods producing may uncover a larger revenue base.

Auto repair services are recorded by both New Mexico and South Dakota as 1.8 percent of personal income. The estimate for Michigan is net of repair services provided by new car dealers as this service is not reported by the Census of Service Survey because new car dealers are classified primarily as goods producing firms.

Business services illustrate the range of possibilities for taxation as New Mexico's consumption is 3.5 percent of personal income, nearly triple the 1.2 percent recorded by South Dakota. New Mexico may have a larger industrial base with less exemptions

Table 5.3

Comparison of New Mexico and South Dakota Service Tax Base as a Percent of Personal Income with Michigan's Taxable Service Base

	Taxable Sales as a Percent of Personal Income		Michigan Estimated Revenue Based on Sales as Percent of Income			Difference in Tax Base from Michigan	
Services	NM	SD	NM	SD	MI	NM	SD
	(%)	(%)	(Millions of $)			(Millions of $)	
Personal	1.0	1.0	56.3	56.3	45.1	-11	-11
Auto Repair	1.8	1.8	101.4	101.4	73.6	-28	-28
Business	3.5	1.2	197.2	67.6	223.1	26	155
Motion Pictures	0.2	0.2	11.3	11.3	19.2	8	8
Amusement & Recreation	0.5	0.5	28.2	28.2	38.7	11	11
Medical	2.8	N.A.	157.7	N.A.	248.8	91	N.A.
Legal	1.3	0.7	73.2	39.4	70.8	-3	31
Engineering, Architecture	1.2	N.A.	67.6	N.A.	149.9	82	N.A.

Source: For New Mexico and South Dakota Taxable Sales as percent of income from Payne, Lathen and Bain, 1990. For 1987 Michigan personal income of $140,847 million, from U.S. Department of Commerce, Bureau of Economic Analysis.

Note: The revenue estimate for amusements and recreation of $57.9 million includes motion picture receipts. To match the categories of New Mexico and South Dakota taxable sales, the total amusement and recreation revenue estimate of $57.9 was subdivided into a motion picture estimate of $19.2 and a amusement and recreation net of motion pictures of $38.7 million.

compared to South Dakota. This range of taxable sales as a percent of personal income illustrates that Michigan's revenue would depend on the level of business exemptions and business service consumption in the state.

Medical services are taxed heavily by New Mexico, including tax collection from services paid by Medicare and Medicaid. Michigan's gross receipts from medical services comprised 4.4 percent of personal income, suggesting that Michigan residents consume a higher proportion of medical services than New Mexico's residents. This percentage is similar to the proportion based on the 1982 Census of Services where Michigan's health services comprised 4 percent of personal income. One difference between the 1982 and 1987 Census of Services data is that the 1987 survey includes hospitals. This adds an additional $242 million to the $6,220 million of health care services. Health services comprised 4.2 percent of Michigan's personal income in 1987 when hospitals were removed from the health service total, making the data comparable. Michigan residents may consume a higher proportion than New Mexico residents because Michigan's health services are financed to a greater extent by the auto industry, a dominant employer in the state providing above average health insurance benefits.

Legal services are taxed broadly by both New Mexico and South Dakota. South Dakota only exempts legal services for schools, governmental agencies and social service agencies. The difference in taxable sales as a percent of income may be attributed to New Mexico's larger business tax base.

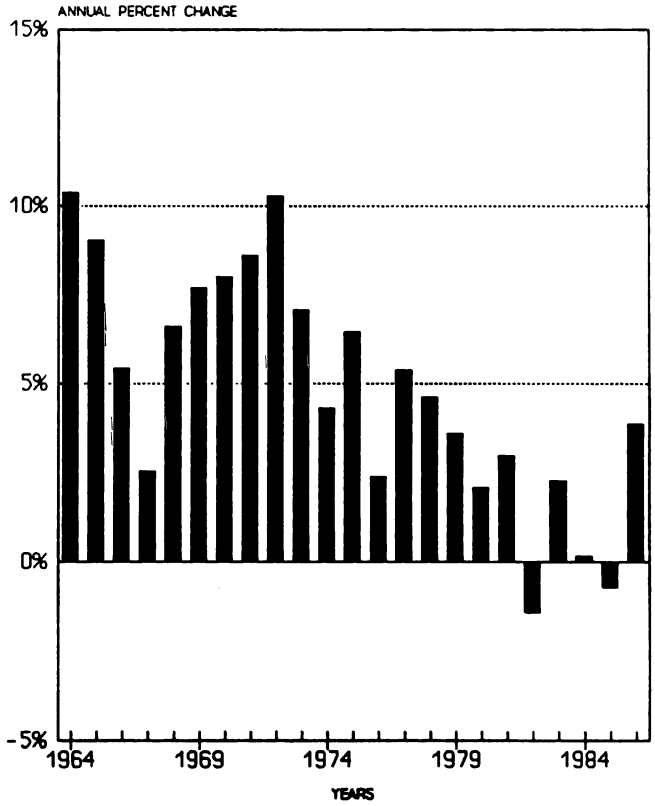
Engineering and architectural service are exempt in South Dakota but taxed in New Mexico which accounts of the difference in taxable sales. Michigan's gross receipts are significantly larger than New Mexico's, recorded at 2.7 percent of personal income in 1987, compared to 1.2 percent of income in New Mexico. The greater industrial base in Michigan could account for this difference.

In summary, the analysis of taxable sales to state personal income in New Mexico and South Dakota illustrates that consumption patterns and tax structures vary between

the service taxing states. Despite the limitation, the comparisions provide a useful indication of the potential range of revenue estimates for taxing services in Michigan.

5.6 Health Services

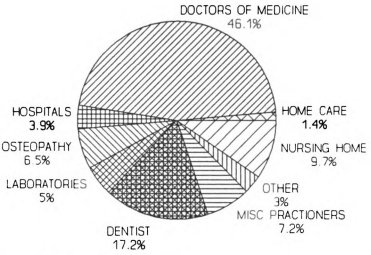
Medical Services is the largest and fastest growing service industry and is shown in Figure 5.2. Given its significant proportion of the total, the health service industry will be discussed more fully than the smaller service sectors. The revenue lost by not taxing medical services is $248 million. Medical services comprise 26 percent of total services, as measured by Michigan Census of Services gross receipts and over 9.5 percent of the Michigan sales tax base levied primarily on goods. Michigan health care services, as



Source: Real MI GSP.

Figure 5.2: Growth of MI Health Services

measured by Michigan gross state product adjusted for inflation, have grown fairly steadily since 1963 with the exception of a few recession years in the early 1980's. Figure 5.3 illustrates the composition of the medical industry gross receipts from the 1987 Michigan Census of Services.

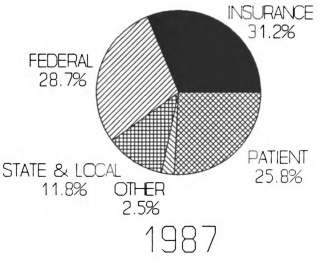


Source: MI Census of Services, 1987.

Figure 5.3: Health Service Industry Composition

5.6.1 Medical Inflation

Medical cost inflation for both goods and services is a long established fact in the U.S. Over the past 20 years, U. S. health care expenditures grew at a 12.7 percent compound annual rate. National data on health expenditures from the Health Care Financing Administration indicates that medical spending began to accelerate after slowing in the 1980-85 period. The U.S. Department of Commerce projects that medical costs will rise in the range of 11-13 percent annual rate during the 1990-93 period. Demographic trends, technology and the labor-intensive nature of the sector contribute to the hyperinflation. However, structural factors are the primary reasons for the high cost. For example, direct patient payments pay for only a small portion of health care



Source: Health Care Finance Administration.

Figure 5.4. Financing of Health Services

spending. Nearly three fourths of the bill is paid by health insurance and government. Of the $469.6 billion spent on national health care in 1987, the source of financing is distributed as follows: 25.8 percent directly from the patient, 31.2 percent from health insurance, 28.7 percent from the federal government, 11.8 percent from state and local government and 2.5 percent from other. (See Figure 5.4.) Since third parties such as insurance and government pay for a majority of the cost, consumers may be less interested in cost containment. The free market competition which could force down prices is not present. In addition, the fee for service cost structure provides an incentive for health care providers to expand services. Further, as the baby boomers age, more consumers will move into the population group using a greater share of health care services. The average American spends nearly 85% of their total medical costs for life over the last two years of life. The Bureau of the Census estimates that the over 65 and above 75 year old age groups will increase by 23 percent and 35 percent during 1985-2000. (Standard and Poors Industry Survey, 1989).

5.6.2 Health Benefits by Income

While health care is provided to those on public assistance and middle and upper income groups, the working poor without health care insurance would be most in need of tax relief for medical services. Congress expanded health care benefits for the 33 million Americans relying on medicare with the passage of the Medicare Catastrophic Coverage Act of 1988. The U.S. is the only industrialized country in the West without a comprehensive national health care system and thus 37 million Americans are presently without health care coverage. Lower middle class consumers, earning more than the medicaid eligibility requirements but lacking employer provided health care insurance, comprise the largest segment of the medically uninsured (Ibid., 1989).

5.6.3 Health Service Expenditures

Medical Service costs are paid by insurance, government or directly by the consumer. Medical service expenditures recorded in the Consumer Expenditure Survey are the out-of-pocket medical expenditures which are not covered by insurance plans. This data is available by region from the Consumer Expenditure Survey from 1984 to 1986. Medical Service expenditures are published for the average before tax income in the U. S. and for the Midwest, the smallest regional breakdown which includes Michigan. This data provided in Table 5.4 indicates that medical services comprise approximately 2 percent of the average income before taxes in both the U. S. and the Midwest. In addition, consumers spend between 2 and 3 percent more on other health care such as health insurance, drugs and medical supplies. Categories of individuals who may pay more than the average 2 percent of income on medical services include the poor, the medically uninsured and the older consumer.

Table 5.4

Medical Services, Consumer Expenditure Survey, 1984-86

ITEM	U.S.	Midwest	% of Income Before Tax U.S.	% of Income Before Tax Midwest
1984				
Average Income Before Tax	$ 23,464	$ 22,354		
Medical Services	454	414	1.9%	1.9%
Other Health Care	595	582	2.5%	2.6%
1985				
Average Income Before Tax	$ 25,127	$ 24,120		
Medical Services	496	508	2.0%	2.1%
Other Health Care	613	634	2.4%	2.6%
1986				
Average Income Before Tax	$ 25,460	$ 23,316		
Medical Services	502	413	2.0%	1.8%
Other Health Care	632	665	2.7%	2.9%

Source: Data from Consumer Expenditure Survey for 1984-86, U.S. Department of Labor, Bureau of Labor Statistics, Bulletin 2333, 1989, p. 36, 74 and 114. Calculation of percent by author.

Note: Other health care includes health insurance, drugs and medical supplies.

Bohm and Craig (1987, p.30) have determined the percentage of consumer income allocated to medical service expenditures based on the 1984 Consumer Expenditure Survey. While health care services comprise a small percentage of income at every income level, those at higher income levels spend a much smaller portion of their income on medical expenses. For example, those consumers with income of $5,000 pay 5.06 percent on doctors and nurses and 1.21 percent on hospitals. This percentage drops significantly at the next highest income of $10,000 to 0.7 percent on doctors and nurses and 0.19 on hospitals. In contrast, at incomes above $60,000 expenditures drop to 0.21 percent for doctors and nurses and 0.04 to hospitals. A listing of service expenditures as a percent of income is provided in Chapter Three, Table 3.2.

Health care consumption is concentrated in the older age groups. According to a Bureau of Labor Statistics study, households allocate a larger portion of total consumption to health care as they age because older people are more susceptible to disabilities and illnesses. Total health care service spending as a percent of consumption rises with the age of the reference person from 5.5 percent in the 55-64 age group, to 8.2 percent in the 65-74 age group to 11.2 percent for those over 75 years old (Passero, undated).

Expenditures on health care are over four times larger for services than goods. Thus, taxing medical services as compared to medical goods would have a greater impact on costs as they are a higher portion of the health care bill.

5.6.4 Taxing Medical Services

Of the three states that levy a broad based sales tax on services, including Hawaii, New Mexico and South Dakota, New Mexico is the only state which taxes health services (Boucher, 1988). However, a low income credit is provided by New Mexico to offset the negative equity impact.

Several issues need to be addressed when policy makers evaluate whether to tax medical services or continue the exemption. Policy makers in favor of taxing medical services argue that including them will improve the stability and adequacy of the tax base. In addition, specific medical services like cosmetic surgery, face lifts and some elective surgery may be classified as a luxury service. The taxation of that portion of health care which comprises luxury services would contribute to the progressiveness of the tax base. One policy option is to repeal the exemption for medical services which are not necessities such as selected cosmetic surgery or elective procedures. Further research is needed to classify medical services into necessity vs luxury categories.

The rational for not taxing medical services is that health care is a necessity and taxing it would be regressive. In addition, because a significant portion of medical services are paid by health insurance plans a tax on medical services could drive up the already high health insurance rates paid primarily by employers.

A large portion of medical services are paid by insurance, as discussed previously. Without specific legislation, health insurance companies could elect not to pay the tax. In this case, the tax could shift to either the health care provider or the patient. Alternatively, the health insurance companies could pay the tax in the interim time until their contracts are renegotiated with employers. Further research is required to determine the degree to which the tax would be paid by insurers, providers or consumers.

Incidence theory discussed in Chapter 3 suggests that who pays the tax is influenced by the market structure and the price elasticity of demand for the service. Medical services categorized as necessities are more inelastic. Based on a study by Houthakker and Taylor, (1970) the relative price elasticities for physicians and dentists were not significant but were estimated at -0.27 for other medical professionals. Given this inelastic service, the tax incidence falls on the consumer or insurer rather than on the firm or worker through reduced demand. That is, a price increase resulting from the tax has a less than proportionate decrease in quantity demanded. Thus, the tax would not result in a significant reduction in the demand for health care services.

The structure of the health care industry is characterized by monopoly power. Since health care is in short supply, the industry is less competitive. With monopoly power, health care providers have more control over the pricing structure. The market area for health care is the immediate surrounding area. An increase in price resulting from the tax is not likely to result in providers losing business to a non taxing state

located near by. Due to the local market, monopoly pricing and the inelastic nature of the service a tax on health care would have less adverse impact on the industry.

5.6.5 Medical Services Exemption vs. Credit

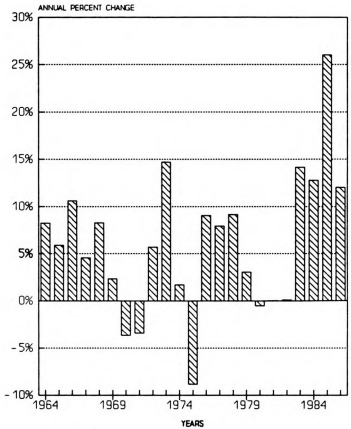
Low income tax relief for medical services may be provided through either an exemption or credit. However, the policy impact would differ depending on which tax provision was used. Exempt services are not taxed at the check out counter and provide a tax subsidy on the entire amount purchased. The consumer would be required to file a tax form in order to receive a credit. A credit may either reduce the entire tax liability or only a portion of the tax liability. A refundable credit provides tax relief even when no tax liability is owed. The disadvantage of an exemption compared to a credit is that it provides a sizable tax subsidy to non-poor households, increasing the provision's cost. The advantage of providing a medical services credit over an exemption is that by targeting the tax subsidy to low income and working poor households less revenue is lost. The disadvantage of the credit over the exemption is that some low income households, lacking knowledge of the credit, will not apply for the reduced tax liability. In addition, credits increase the cost of administration and may complicate the income tax form compared to exemptions.

The benefit of a low income health service credit is that it is more affordable. For example, the cost of a medical services credit for the 945,000 individuals classified as living in poverty according to the 1980 census, using the New Mexico credit of $7.50 per individual is $7.1 million compared to $248 million for the exemption. This illustrative example shows that the cost of the credit would be less because the tax subsidy is not automatically provided to non-poor households. This credit could be expanded to the working poor and gradually phased out at higher incomes.

5.7 Business and Professional Services

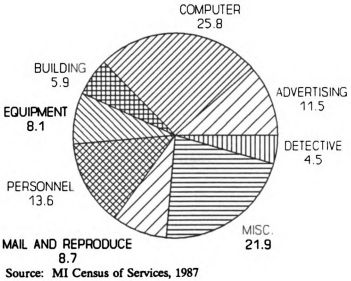
Business services comprise the second largest service industry. The revenue loss from exempting business services is $223 million. As shown in Figure 5.5, Michigan business services, as measured by Michigan gross state product adjusted for inflation has grown at a steady annual pace since 1964. Business services have only declined a few times over the last 23 years and thus would add to the revenue stability of the tax base. Figure 5.6 illustrates the composition of Business Services in Michigan.

Professional Services rank as the third largest service industry in Michigan. The revenue estimate for these engineering, accounting and research firms is $149.9 million. This estimate could be increased with the inclusion of a use tax on professional services purchased out-of-state but used by Michigan firms and consumers. Figure 5.7 on the growth of professional services, illustrates that his sector is affected by the business cycle as the rate of growth declines during periods of downturn. Since 1963, this sector has recorded a decline in only 5 years with the largest fall in the early 1980's. Many of the arguments for and against taxing business services may be applied to professional services as they are purchased by business. Figure 5.8 indicates the composition of professional services in Michigan.



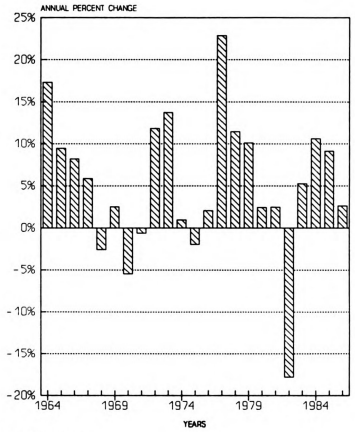
Source: Real MI GSP.

Figure 5.5. Growth of MI Business Services



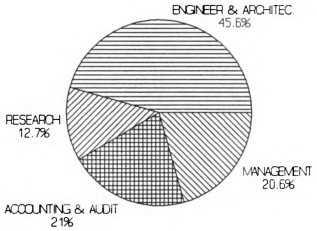
Source: MI Census of Services, 1987

Figure 5.6. Business Service Industry Composition



Source:: Real MI GSP.

Figure 5.7. Growth of Professional Services



Source: MI Census of Services, 1987.

Figure 5.8. Misc. Professional Service Industry Composition

5.7.1 Taxing Business Services

The debate over taxing business services centers on the degree to which tax pyramiding occurs because the final purchase price includes the taxation of services taxed at previous stages of production. In theory, a pure sales tax would not be levied on items used as inputs into the retail service. However, in practice, an estimated 20 to 40 percent of sales taxes are paid by businesses. Some economists argue that the sales tax should not be extended to any business services. They argue for a value added tax rather than a retail sales tax because business inputs are taxed only once in the production process as discussed in Chapter Three. Others argue that business services should be taxed in a fashion which was consistent with taxation of business goods. To tax services on a consistent basis with goods, a business service input exemption could be developed. This exemption would require a definition of business inputs. The exemption could be designed to be consistently applied to good and services or it could be adjusted to ease the administration of services which have shown themselves to be difficult to administer because of there intangible nature. A description of business input exemptions for goods and/or services provided by other states is included as a basis of comparison.

5.7.2 Business Inputs Defined

The broad-based taxation of services sweeps into the tax base purchases of business inputs. For example, certain services like advertising and accounting are almost entirely consumed by business. Some authors argue that this may be undesirable because it is inconsistent with the premise that a retail sales tax is a single-stage levy on the final sale of goods and services. Those favoring taxing business services argue that in the goods sector most states tax business inputs to some degree. In addition, some economists are concerned that the omission of this largest category of services from

revenue systems will result in sales tax collections which lag behind the growth of consumption and personal income.

5.7.3 Marginal Rate of Substitution

The inclusion of business inputs results in pyramiding of the tax burden on the final consumer whose purchase price includes the taxation of services taxed at previous stages of the economic process. If goods and services are taxed at multiple stages of production, the tax rate will not be the same for all goods and interferes with choice as consumers choose among high and low taxed goods. Producers choose among methods of production with distortions in the marginal rate of substitution between goods.

5.7.4 Vertical Integration

The extent of tax pyramiding will depend on the degree of vertical integration and the proportion of inputs which are taxable. The taxation of business services might induce the business to provide those services in-house to avoid the tax. This may lead to inefficiencies through distortion in resource allocation and creating a competitive advantage for businesses that provide their own services. Production costs are affected differently depending on the firm size and legal structure. Larger firms, benefiting from economies of scale, may have more incentive to integrate. Firms will vertically integrate when the diseconomies from integration are lower than the tax cost added to the inputs (Hellerstein, 1988).

5.7.5 Sales Tax on Business Inputs

A general commodity tax may be levied at various stages of production including retail, wholesale or manufacturing levels (Boadway and Wildasin, 1984). Studies

indicate that business purchases make up a large portion of the present state sales tax base even though every state exempts some business inputs from taxation. Fox and Murray, (1988) estimated that between 20 to 40 percent of state sales taxes are paid on business purchases. In Texas, 58 percent of the sales tax is levied on business purchases, compared with 24 percent in Illinois, 14 percent in Ohio and 25 percent of the Florida base before the service tax (Hellerstein, 1988). Thus, the objection to the service tax on the basis that it would tax business inputs applies to the existing sales tax base.

An estimate of the proportion of business purchases taxed in Michigan is not available and therefore further research is needed. However, an estimate of the business input exemption on goods used directly in manufacturing is available.

5.7.6 Michigan's Industrial Processing Exemption

Michigan provides an industrial processing exemption from the sales and use tax for direct inputs used in agriculture and industrial processing. The industrial processing exemption is estimated at $284 million in fiscal 1988, comprising over 10 percent of the sales tax collections (Fiscal 1987-88 Tax Expenditure Report, 1989). Michigan could provide a similar exemption for services. In general, states have not provided an exemption for all business services because narrowing the tax base to only consumer purchases would require raising the rate to maintain revenue. For Michigan, raising the sales tax rate would be especially difficult because it would require a change to the state Constitution and voter approval.

5.7.7 Interstate Comparison of Business Input Exemptions

A review of the sales tax exemptions provided by other states for business inputs in the goods sector provides a basis of comparison needed to construct a similar

exemption for service business inputs. Many states provide exemptions for goods used by business. Nearly all states exempt those materials used for manufacturing and processing. States may target the exemption to materials used as an ingredient or component part of the good. In addition, states like Texas, provide an expanded exemption, on gas or electricity used primarily for manufacturing. Other states extend the exemption to machinery, equipment and tools not consumed in manufacturing. The Illinois exemption is also extended to the machine used to repair machinery as well as an exemption on the machinery and equipment used for manufacturing. In the retail industry, some states exempt selected packaging items. Ohio, for example, exempts items of tangible personal property used in retailing. Thus, exemptions for business inputs in the goods sector vary from state to state (Prann, 1988).

Although the advantages of a sales for resale exemption may be generally accepted on a conceptual level, implementation of rules for administration of the exemption were controversial in Florida. Florida's debate with taxing business services was not focused on whether business purchases were taxable. In Florida, goods received an exemption only if they themselves were resold or incorporated physically into another good to be resold. In general, goods purchased by a firm that were necessary for its business were taxable. Florida's debate centered on the resale exemption and the definition most consistent with the existing policy for goods which was easy to administer. The dispute concerned the administrative definition to determine when services were purchased for internal use by a business vs. purchased on behalf of a business customer.

5.7.8 Resale Exemption Guidelines

Jim Francis (1988), a Florida state official, outlined the three issues states need to address when providing a sales for resale exemption. (1) The conceptual basis for the

resale exemption for goods should be clearly said and uniformly applied. (2) These guidelines should be adjusted for application to service items. Goods and services differ in that services are more abstract in nature and unlike the goods there is no physical trail from the manufacturing firm to the final consumer. (3) Legislation should be enacted giving dealers practical rules to follow for determining whether they qualify for the resale principle. These administrative definitions are significant as the state relies on third parties to collect the sales tax. Since business people are not tax experts, the exemption rules should be easy to interpret.

5.7.9 Cost of Resale Exemption

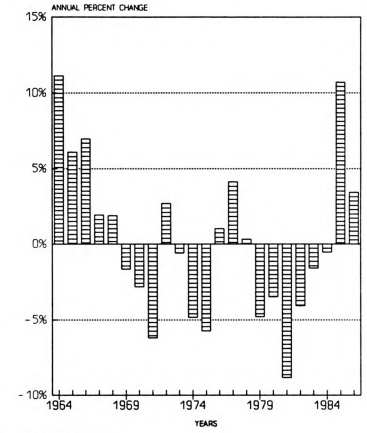
To tax Michigan services, decision makers would need to address the issues surrounding the sale for resale exemption as much of the service tax base is comprised of business services. Further research is required to determine the proportion of business services which are produced for business inputs used for direct production of other goods and services rather than for final consumption.

In addition to the sales tax, a sale for resale exemption estimate is needed for the use tax. Michigan could levy a use tax on out-of-state firms using Michigan services to make the playing field level for taxing business services. Michigan would gain revenue from the use tax on business services but these out-of-state firms would also receive the resale exemption. Future research is required to determine the extent that the resale exemption would apply to out-of-state firms using Michigan services in order to estimate the amount of services which would be taxable and the cost of the use tax resale exemption. An estimate of the use tax sale for resale exemption requires further research on the degree to which firms would claim the exemption depending on whether the firm applied the allocation method for site specific purchases or used the

apportionment method for non-geographic specific purchases. The sale for resale exemption would be more applicable to the site specific purchase because a specific item would need to be identified for exemption. The resale exemption would be difficult to apply with the apportionment method as previously reviewed in the discussion of the Florida experience. An estimate of the cost of the exemption would require an extensive survey as data on these firms is not available through the Census as the Michigan Census of Services data is limited to Michigan service firms only.

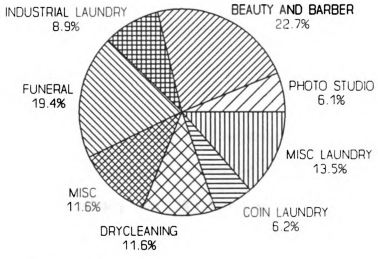
5.8 Personal Services

The estimated revenue gain from taxing personal services is $45 million. Personal Services are uniformly taxed by states levying a broad based service tax including Hawaii, New Mexico, South Dakota and Florida before the tax repeal. As shown in Figure 5.9, the growth of personal services adjusted for inflation is more cyclical than the other service industries already evaluated, adding less stability and adequacy to the revenue base. Figure 5.10 illustrates the composition of the industry gross receipts from the 1987 Michigan Census of Services. The disadvantage of taxing personal services is that they tend to be regressive. According to Bohm and Craig (1987), personal services are regressive particularly at the lower income levels. At the $5,000 and under category, personal comprise 2.64 percent of income. This percentage drops significantly at $10,000, the next income level, to 0.33 percent. The ratio of personal service consumption to income continues to decline at higher income continues to decline at higher income categories but generally levels off in the $20-30,000 range. Beauty and barber shops comprises 22.7 percent of the total personal service industry. One may analyze the market structure, pricing practices and price elasticity of demand for the service in order to evaluate the tax incidence for beauty and barbershops. If the



Source: Real MI GSP.

Figure 5.9. Growth of MI Personal Services



Source: MI Census of Services, 1987.

Figure 5.10. Personal Services Composition

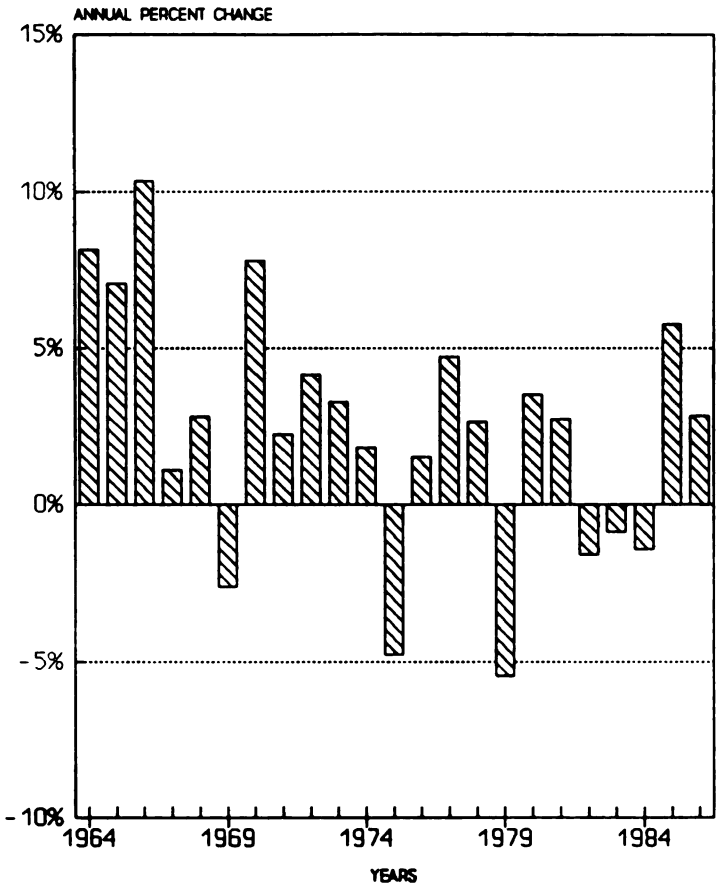
industry demand for the service provided is perfectly price inelastic, all of the tax will be passed to consumers in the long run. However, the industry will absorb a portion of the price increase if the price elasticity of demand is inelastic through a reduction in business volume. The demand for beauty and barber shop services is generally price inelastic, although some services are more discretionary. (Nebraska Legislative Revenue Committee, 1986). A price increase in the four percent range is not likely to significantly alter public demand.

The firms ability to pass the tax burden to consumers is affected by the market. Beauty and barber shops primarily operate within a local market and the firms they compete with are similarly impacted by the tax. Their ability to pass on the tax could be diminished if the higher prices from the tax adversely affected the volume of services demanded.

The firms ability to add the full tax to the existing prices would depend on the level of competition and on the firms pricing practices. Barber and beauty shops operate within a competitive local market and prices reflect the income for labor to provide the service. Price differences result from product differentiation based on location and special services. These service firms purchase few services used as inputs into the final product and thus would not be negatively affected by higher operating costs.

5.9 Legal Services

The estimated revenue gain from legal services is $70.7 million, not including legal services provided by out-of-state firms used by Michigan residents. Figure 5.11 shows the growth of the industry since 1964 based on Michigan Gross State Product. (Industry composition on a more detailed level is unavailable.) According to Bohm and Craig (1987), legal services comprise a low percent of personal income and are regressive



Source: Real MI GSP.

Figure 5.11. Growth of Legal Services

at the lower income levels. Legal services comprise 1.7 percent of income at the $5,000 which falls to 0.09 percent of income at the $15,000 income group. This low percentage of personal consumption may reflect that, in part, legal services are consumed by business as a cost of operating and then consumed by individuals indirectly. In addition, evaluating an individuals consumption of legal services based on averages may be misleading because legal services are not usually a reoccurring, everyday purchase. However, these services may be a large portion of an annual income in the year of use.

Law firms may operate beyond the local market and their pricing structures consider more than price competition. If the legal service operated in a local market, the tax could be fully passed on to the consumer given that the firms had a flexible

pricing structure. The relative price elasticity of demand for legal services was recorded at -0.37 (Hauthakker and Taylor, 1970). Given that the service is characterized as inelastic, the tax incidence falls on the consumer through higher prices not on the firm or workers through a reduction in quantity of the service demanded.

If the firm is competing with businesses in other states, the ability to pass on the tax would be affected by whether the tax was assessed based on the location of the firm or the location of the client. Since the tax is usually assessed based on the location of the client, in state and out-of-state firms would be treated the same, and this factor would not affect the firms ability to pass on the tax.

Price competition is the only kind of competition which limits the firm from passing on the tax. However, law firms compete based on factors other than price. In the case of a contingency fee, where the charge may be determined by past practice or law such as a percentage of the award, the firms may not be able to pass on the tax. In summary, law firms are likely to be able to pass on the tax, although the firms ability to pass on the tax may be limited if the fee is fixed. However, this probably does not comprise a large portion of the total revenue collected (Nebraska, 1986).

5.10 Amusement and Recreation Services

Figures 5.12 and 5.13 illustrate the growth of amusement and recreation services. Motion pictures, the largest component of amusements, comprises 23.6 percent of the total based on Michigan gross state product. Figure 5.14 indicates the composition of the industry gross receipts from the 1987 Michigan Census of Services.

Arguments for taxing amusements include that they are discretionary luxury items, the taxation of which adds to the progressiveness of the tax structure. Given that amusements are compliments to leisure, and leisure is an untaxed item, their taxation

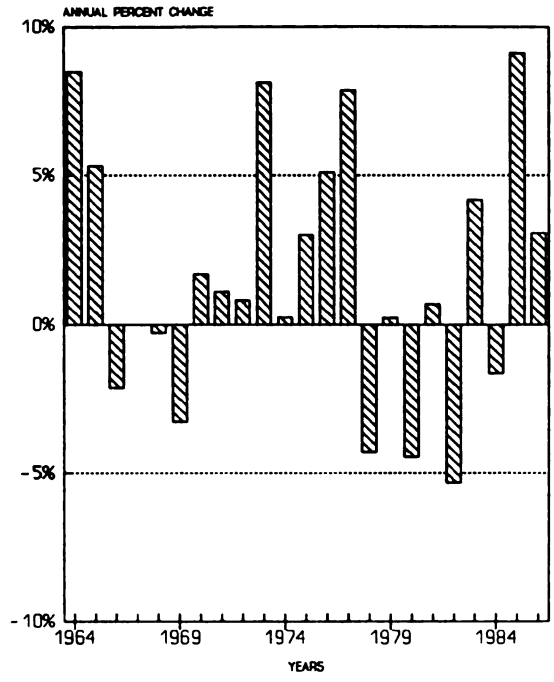
adds to the efficiency of the tax structure. In addition, to the extent that they are consumed by tourist, the tax is exported. An argument against taxing some amusements is that those provided by government may not be taxed while similar privately provided recreation services would be taxed.

The tax incidence for amusements is impacted by the price elasticity of demand for services. Estimates are available for selected amusements including: motion pictures at - 0.87, theater and opera at -0.18 and other recreation services at -0.56. For commercial sports, the relative price elasticity was not found to be significant (Hauthakker and Taylor, 1970). Given the inelastic nature of these selected services, the tax incidence falls on the consumer not the firm.

5.11 Auto and Miscellaneous Repair Services

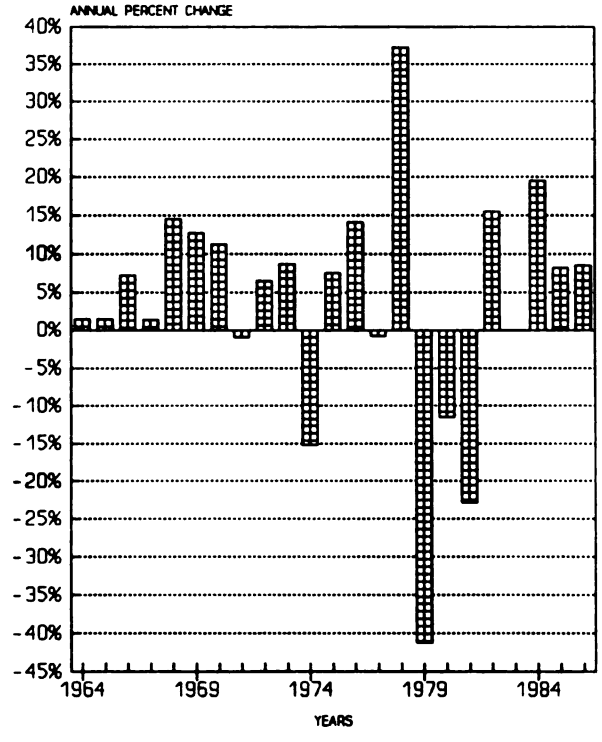
Figures 5.15 and 5.17 illustrate the growth of auto repair and miscellaneous repair services. The auto service industry growth tends to decline during recessions as might be expected following the procyclical pattern of the auto industry. Significant declines were recorded in the early 1980 recessions. Figures 5.16 and 5.18 show the composition of these industries gross receipts from the 1987 Michigan Census of Services. The revenue estimate from auto repair is $73 million. Further research is required to determine what portion of the auto repair service receipts are for auto parts which are already taxed and would reduce the estimate. In addition, as mentioned previously, the revenue estimated does not include collections from auto dealer repairs in not listed in the Census of Services.

Auto repair services and misc. repair services operate in a competitive local market and demand is price inelastic. Auto repairs may be delayed but repairs will need to be made eventually. An increase in auto repair prices could result in consumers



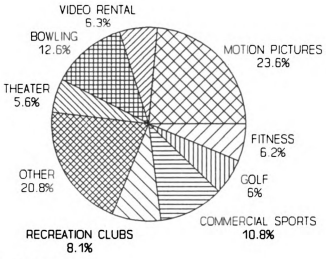
Source: Real MI GSP.

Figure 5.12. Growth of Amusement and Recreation Services



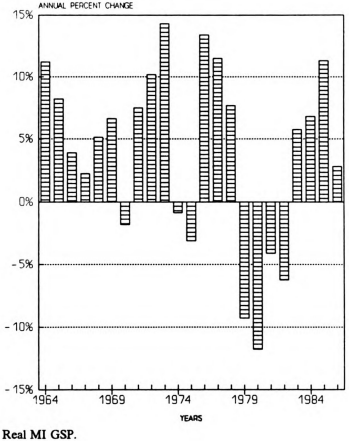
Source: Real MI GSP.

Figure 5.13. Growth of Motion Picture Services



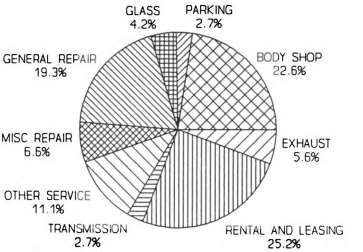
Source: MI Census of Services, 1987

Figure 5.14. Amusement Industry Composition



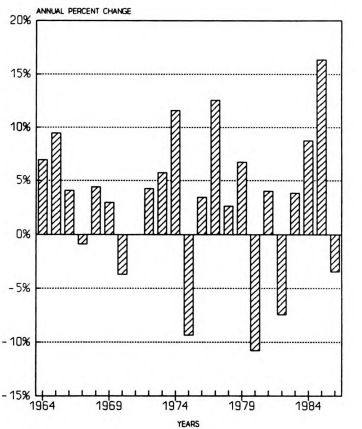
Source: Real MI GSP.

Figure 5.15. Growth of Auto Repair Services



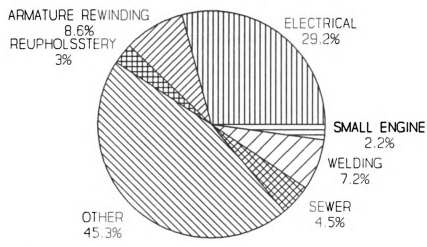
Source: MI Census of Services, 1987.

Figure 5.16. Auto Repair Industry Composition



Source: Real MI GSP.

Figure 5.17. Growth of Misc. Repair Services



Source: MI Census of Services, 1987.

Figure 5.18. Misc. Repair Industry Composition

making their own repairs. According to Hauthakker and Taylor (1970), the relative price elasticity of demand for auto repairing, greasing, washing, parking and storage and rental was estimated at -0.40 and for radio and television repair was estimated at -0.47. The impact of the sales tax on services would be small for these firms as most of the tax would be passed on to the consumer given the inelastic character of the service. One advantage the auto repair shops have is that a portion of their income results from the sale of parts as well as services and the price increase from the tax on the parts portion of their business volume will not change.

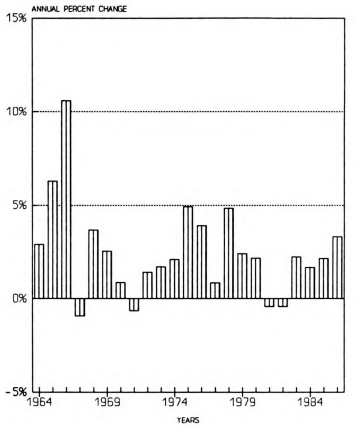
5.12 Selected Education and Social Services

The estimated revenue gain for social services is $8.8 million and for selected private education services is $5.1 million. The growth of these industries is shown in Figures 5.19 and 5.21. The composition of these industries gross receipts from the 1987 Michigan Census of Services is illustrated in Figure 5.20 and 5.22. The taxation issue for

social services and selected private education services is that private firms are taxed for the same service which is provided by government on a tax exempt basis. In addition, policy makers may desire to subsidize education and social services to encourage the consumption of these items. New Mexico is the only state to tax selected private education services. Day care, a privately provided social service, is taxed by New Mexico and Hawaii.

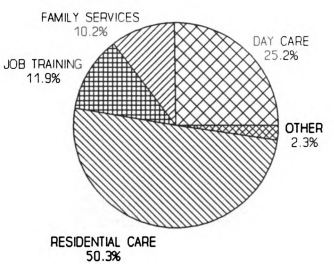
5.13 Hotels and Motels Services

The revenue estimate for hotels and motels is $36 million. However, according to national data, the hotel industries business is composed of the sale of food and beverages, which may already be included in the tax base. Applying the Laventhol and Horwath survey statistics for the U. S. lodging industry, 1989, 7.1 percent is for beverages and 30.3 percent is for food. Guest room rentals comprise 55.2 percent and other items comprise 17.4 percent. The taxation status of these other items requires further research. The revenue estimate of nearly $36 million could be adjusted downward for the inclusion of food and beverages in the industry receipts. If these national percentages were applied to discount the gross receipts of hotels for food and beverages which is already taxed, the estimated sales collections would fall to $23 million. To obtain a more precise estimate of this industries sales on service in Michigan would require an industry survey. Figure 5.23 indicates the growth of this industry since 1964 based on Michigan Gross State Product. Figure 5.24 illustrates the composition of the industry gross receipts from the 1987 Michigan Census of Services.



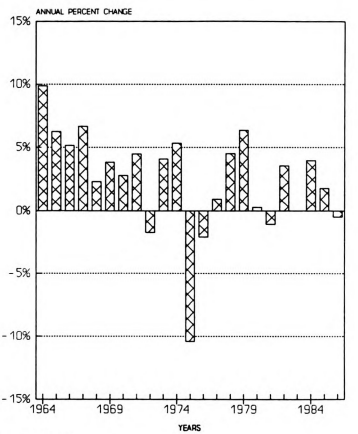
Source: Real MI GSP.

Figure 5.19. Growth of Social Services



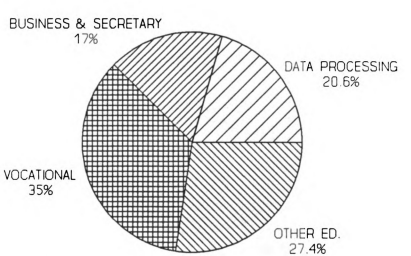
Data: MI Census of Services, 1987.

Figure 5.20. Social Service Industry Composition



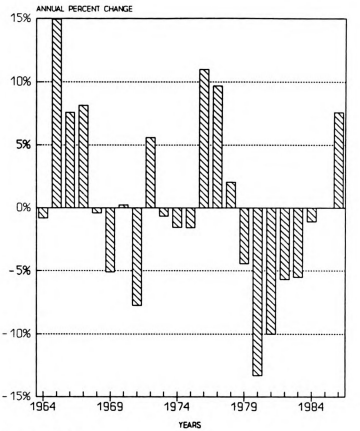
Source: Real MI GSP.

Figure 5.21. Growth of Education Services



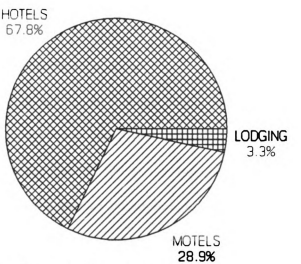
Source: MI Census of Services, 1987.

Figure 5.22. Selected Education Industry Composition



Source: Real MI GSP.

Figure 5.23. Growth of Hotel Services



Source: MI Census of Services, 1987.

Figure 5.24. Hotel Industry Composition

One of the arguments against a sales tax on motels and hotels is that an accommodations tax is already levied on lodging in Michigan. Those in favor of taxing hotel services argue that more than one tax is levied on other items. In the case of gasoline, for example, consumers pay a gas tax as well as a sales tax.

5.14 Policy Alternatives

The impact of taxing Michigan services will be analyzed for several policy options. 1) The first policy decision is to determine whether the state would tax services following either a broad based or incremental strategy. If selected services were taxed, the impact would differ depending on the industry included. Assuming a broad based strategy, the policy options include 2) taxing services with the existing rate, 3) taxing services with exemptions for business sales for resale, medical services and a low income credit and 4) taxing services and lowering the rate. 5) The option of raising the tax rate on the existing base will also be examined as a bases for comparing the service tax with a more traditional revenue raising approach. An illustrative example of the relative magnitude of revenue which could be raised from each of these options is shown in Figures 5.25 through 5.28.

5.15 Broad Based vs. Incremental Taxation

The two legislative approaches which have been followed for taxing services include the broad-based approach identified with Florida, New Mexico, Hawaii and South Dakota. Although the Florida tax is now repealed, the tax experience provides a basis for analyzing potential issues to be applied in Michigan. Idaho is included for a comparison of its taxation of personal services. The items taxed by these states are listed in Table 5.5. The incremental taxation of services was followed by Missouri, Minnesota,

Table 5.5

Comparison of Taxable Services for Selected States with Broad Based Structures

T = Taxable	State				
ITEM	HI	IA	NM	SD	FL
PERSONAL SERVICES					
Beauty and Barber Shops	T	T	T	T	
Non-coin Operated Laundry, Dry Cleaning	T	T	T	T	T
Tanning Beds and Salons	T	T	T	T	T
Auto Repair and Services	T	T	T	T	T
Dog Grooming	T	T	T	T	T
Photography, Photo, Developing and Enlarging	T	T	T	T	T
Car Washing	T	T	T	T	T
Cable TV	T	T	T	T	T
Misc Repair Services	T	T	T	T	T
Amusement and Recreational Services	T	T	T	T	
Financial Planning	T	T	T	T	T
Investment Counseling	T	T	T	T	T
BUSINESS SERVICES					
Employment Agencies	T	T	T	T	T
Collection Agencies	T		T	T	T
Consulting Mgmt, and PR Services	T		T	T	T*
Engineering, Architectural and Surveying	T		T		T
Advertising	T		T		T
OTHER SERVICES					
Educational Services			T		
Health Services			T		
Day Care	T		T		
Garbage Collection and Transportation	T		T		
Agricultural Services	T				
Funeral Services and Crematories	T		T	T	
Mass Transportation	T		T		
Taxicabs	T		T		
Travel Agents Commissions	T		T		
Real Estate Commissions	T		T	T	T
Stock and Commodity Brokerage Services	T		T		
Legal Services	T		T	T	T
Accounting, Auditing, and Bookkeeping Service	T		T	T	T

* Mgmt. was taxable, consulting was exempt

Source: Karen Boucher, "Sales Tax on Services: The New Source of State Revenues," Journal of State Taxation, Fall 1988, Volume 7, No. 3, pp. 284-285.

Note: States with broad based service taxes include Hawaii, New Mexico and South Dakota. The table also includes Florida before the service tax repeal and Idaho because of its wide taxation of personal services.

Arkansas, Nebraska, North Dakota, Texas and Kentucky (Fox and Murray, 1988) The comprehensive approach makes the assumption that all activity is taxable. Rather than justify each extension of the sales tax to exempt items, this strategy requires opponents to justify each proposed exemption. In 1987, many states were considering taxing services but after Florida's tax repeal most states withdrew the proposals from consideration. A review of these tax proposals illustrates that many states intended to tax services on an incremental basis with personal services taxed the most heavily. The reluctance of states to adopt a broad based strategy is analyzed in the Florida Chapter. In general, the intangible nature of services made the use tax on business services difficult to administer and public support for the tax weakened after a media campaign was launched by advertisers against the tax.

While enacting any tax increase is difficult, the incremental taxation of services adds the transaction costs associated with justifying the taxation of each service (Boucher, 1988). This explains, in part, why state legislation to tax services was less than successful. Incremental taxation of services provides an opportunity for more powerful interest groups to exert political influence to shift the tax to those with less influence. According to Bartlett, upper income consumers have the resources to contribute to political campaigns and lobby to influence politicians to shift the tax to lower income consumers. Similarly, firms attempt to shift the burden to consumers (Bartlett, 1973). This explains the pattern of incremental service taxation which favors business services and services consumed by upper income taxpayers with exemptions. Table 5.5 indicates the services most frequently taxed by broad based service tax states. Many of the personal services, resulting in regressive taxation, are uniformly taxed. The taxation of professional services which would add to the progressiveness of the tax structure are taxed to a lesser degree.

The vertical equity impact of taxing services depends on which services are taxed as discussed in Chapter Three. The sales tax could be made more progressive by taxing selected services such as professional services of investment brokerages, architects, lawyers, real estate agents, and accountants which weigh more heavily on high income budgets. In contrast, lower income individuals tend to spend a higher percentage of their income on consumption. Regressivity would not be reduced if the tax included medical services, funeral services, beauty and barber services (Fox and Murray, 1988).

Within the broad based strategy, there are several policy options. The broadest policy option is to tax all services with the existing rate. The next broadest proposal is to tax services with some exemptions or credits such as the business sales for resale exemption, medical services exemption or credit and a low income credit. Finally, services could be taxed with some exemptions or credits and the rate could be lowered.

5.16 Tax All Services

The broadest policy option is to tax all services with no adjustments for exemptions or credit. Politicians, following the vote maximizing behavior as outlined by Bartlett (1973), are more likely to make adjustments for special service interest groups. Thus, this alternative is included primarily to illustrate the maximum amount of revenue which could be raised. Over $950 million could be added to the sales tax base from services. This approach raises more revenue and is more efficient but less equitable than the other plans. See Figure 5.25.

TAX ALL SERVICES

TAX STRUCTURE	IMPACT
Broad Based	Policy:
Service Taxation	More Revenue Adequacy
	and Stability
	More Efficient
	Less Equitable
	Revenue:
Existing Base	$ 2,600 million
Tax All Services	+ 950

Total	$ 3,550 million

Figure 5.25. Tax All Services

5.17 Tax Most Services

The next broadest proposal is to tax services with some exemptions or credits such as the business sales for resale exemption, medical services exemption or credit and a low income credit. This approach raises less revenue than the broader alternative and is less efficient but more equitable and vote maximizing. The resale exemption and medical service exemption or credit has already been discussed in this paper. The next section will examine the low income credit.

5.17.1 A Low Income Credit

The progressivity of the Michigan sales tax could be enhanced by providing a sales tax credit for low income taxpayers on the income tax. One policy option is to finance the credit from expanding the base to a sales tax on services rather from than drawing down the income tax revenue because this provision is designed to offset sales tax liability. The disadvantage of a credit is that relief may not reach the targeted low income taxpayers because they may not have an income tax liability to reduce. However, voters may find the tax credit more politically acceptable if they see a clear link between raising revenues and their use. The use of the sales tax credit on the income tax to provide progressivity may be too weak a correspondence (Case and Ebel, 1989)

A low income credit could be available to the poor and/or moderate income households. Several states provide targeted credits including Idaho, Kansas, Wyoming, Hawaii, New Mexico and Vermont. Even though these credits are available on the state income tax they are meant to provide relief from the state sales tax. In addition, they ease filing and administration by not requiring sales tax receipts to document a particular households sales tax liability. These state credit structures are included to illustrate the

TAX MOST SERVICES

TAX STRUCTURE	IMPACT
Broad Based Service Taxation With Adjustments	Policy: Compared to The Existing Base The Revenue is More Stable and Adequate Compared To Taxing All Services The Revenue Gain Is Lower, The Tax Is Less Efficient But More Equitable
	Revenue:
Existing Base	$ 2,600
Tax All Services	+ 950
Business Inputs	n.a.
Medical Credit	- 7*
Low Income Credit	- 50
Total	$ 3,493 Million

* If a medical exemption is provided rather than a medical credit, the revenue loss would be $248 million at the 4 percent tax rate.

Figure 5.26. Tax Most Services

various alternatives for determining the beneficiaries, refundability, the amount of the credit and the phase-out income.

5.17.2 Relief Provision Criteria

According to Gold, there are several desirable features which may be used to develop state relief provisions including:

1) A reasonable cost of relief
2) The benefits should be received by the targeted taxpayers
3) The tax relief should be distributed following the principles of vertical and horizontal equity
4) All deserving taxpayers should receive the benefits.
5) The range of benefits for those that qualify for the benefit and those that nearly qualify for it should be reasonable. Thus, large notches should be avoided.
6) The tax system should create positive incentives and avoid negative effects like discouraging work or savings.
7) The programs should be designed to be administered cost effectively.
8) The tax system should not discourage taxpayers from filing for benefits because it is too complicated. Tax provisions may be made less difficult to understand when presented in table form.
9) The appropriate level of government should pay for the tax relief. These criteria will be used to evaluate various aspects of taxing services (Gold, 1987).

Achieving all of these criteria at the same time is difficult. Improving equity requires tradeoffs with other tax criteria like simplicity, efficiency, revenue adequacy and

stability. Some analyst argue that to attain all these goals plus vertical equity requires a system wide approach including taxes characterized as progressive and regressive.

5.17.3 Comparison of Low Income Sales Tax Credits

While most state sales tax structures are regressive, several states have improved the equity of their tax structures by including sales tax credit provisions in the state income tax. For example, Idaho provides a credit which ranges from $15 to $60 based on household factors. The credit is available either through the personal income tax or by filing an application when an income tax return is not required. This refundable provision solves one of the problems usually associated with credits, that some low income taxpayers may not collect the benefit because they are not required to file a return. Kansas offers a graduated credit for taxpayers with incomes up to $13,000. South Dakota's credit varies from $74 to $220 for families and from $46 to $110 for single taxpayers. This credit is an alternative to the property tax circuit breaker and phases out at $7,375 and $4,625, respectively and thus is targeted to the low income taxpayer.

Wyoming's senior citizen and disabled persons credit is meant to offset a portion of the sales tax, property tax and utility tax expenses. The credit is available for qualifying taxpayers with incomes below $10,000 if single and $14,000 if married. The credit starts at $630 if single and $723 if married. With rising income, the credit phases out beginning with incomes of $6,000.

Hawaii provides taxpayers with incomes up to $20,000 a credit varying from $8 to $48 per exemption based on income. New Mexico with one of the most comprehensive

tax bases provides a credit reaching into the middle incomes range. Taxpayers receive a credit of up to $45 per exemption for food and $7.50 per exemption for medical and dental expenses, or four percent of medical expenses if that is the greater amount. This credit is phased out at adjusted gross income levels of $30,000 to $45,000 for joint returns. Finally in Vermont, persons with incomes below $13,500 not claimed as a dependent receive a credit that ranges with the number of personal exemptions. The maximum credit is for a household with 10 exemptions and an income below $2,000 (Gold, 1987).

Even though providing a sales tax credit on the state income tax eases the tax burden on the poor, the use of the credit method by states is less effective than it could be. According to Citizens for Tax Justice (Nickel and Dimes, 1988), only New Mexico attempts to reduce the burden of sales tax on poor families by more than half. The credit method is less effective after federal tax reform because most poor families do not file an income tax return. A 1984 U.S. Treasury Department study on a national sales tax concluded that, in practice, the credit system would only offset less than half of the sales tax burden on poor families (Nickels and Dimes, 1988).

In summary, most authors agree that state sales tax structures are mildly regressive. States are moving away from progressive taxation structures and toward more regressive alternatives like the sales tax. Some states offer credits to offset the tax incidence on the low income tax payers. However, only the credit provided by New Mexico attempts to reduce the sales tax burden on the low income taxpayer by more than half. Nonetheless, the sales tax has gained acceptance as a viable alternative tax structure and offering exemptions or credits would increase its progressivity.

5.17.4 Summary of Taxing Services with Adjustments

When the policy options of providing a low income credit, a resales exemption and a medical service exemption or credit are mixed together the joint policy impact is difficult to assess. Overall, these provisions reduce the level of collections available for state programs. From the $950 million available from taxing all services, $248 million would be spent on a medical service exemption or $7.1 million on a medical service credit for those in poverty. A lower income credit would cost about $50 million for those in poverty. The cost of either the low income credit or the medical services credit would increase if the working poor and lower middle income groups were included. Exemptions could be provided for selected education services of $9 million and for social services of $5 million. The revenue could be lowered by the resales exemption for which an estimate is not available. As shown in Figure 5.26, an additional $893 million could be raised over the existing base collections of $2,600. In conclusion, this policy alternative would be more equitable but less efficient and raise less revenue than the proposal to tax all services.

5.18 Tax Services and Lower the Rate

Broadening the base to include services and lowering the rate minimizes distortion. Lower tax rates result in less price distortion and substitution between taxed and non-taxed goods. However, the policy option of lowering the rate may be less attractive to policy makers as Michigan already has a relatively low sales tax rate of 4 percent with 28 states levying rates above Michigan's in 1987 (Advisory Commission on Intergovernmental Relations, 1987).

Broadening the base and lowering the rate a half a percent may be more politically acceptable because less revenue is initially raised. The advantage of this alternative is that it could forestall raising the rate in the future as services tend to be a more stable and adequate tax base for revenue collections. The provision of exemptions or credits would reduce the revenue available to finance lowering the rate a full percent. In addition, as politicians follow vote maximizing behavior outlined by Bartlett (1973) and compromise to accommodate the interests of selected service groups, the revenue raising potential will be diminished, leaving less revenue available for a rate reduction. To lower the rate a full cent to 3 cents on the dollar and maintain the existing collection level would require $650 million in added revenue. Although Michigan residents are accustomed to a tax rate in full cent units, many states levy rates in the tenths or hundredths place and provide a tax table for ease of calculation. The trade-off is the administrative simplicity with a full cent tax rate vs. revenue adequacy. A tax rate with units less than one percent complicates the tax structure. Nonetheless, other states levy tax rates in this manner. See Appendix Table A-5 for a listing of state tax rates.

An illustrative example of the cost of taxing services with adjustments and lowering the rate to 3.5 cents, is shown in Figure 5.27. Lowering the rate from 4 cents to 3.5 cents, would result in a decline in the existing base from $2,600 million to $2,275 million. Likewise, the total service revenue would decline from $950 million to $831 million. The cost of the exemptions and credits would also be less with a lower rate. The state could expand the base, lower the rate and still raise additional revenue. The revenue raised would be lowered by the resale exemption for which an estimate is not available. In summary, compared to the other plans, this alternative is more politically

TAX SERVICES & LOWER RATE

TAX STRUCTURE	IMPACT
	Policy:
Tax Most Services at Lower Rate	Revenue More Stabile and Adequate than Existing Tax Base
	Complicates Tax Rate
	More Efficient
	More Equity from Low Income Credit
	Political Acceptance
Tax Rate of 3.5%	Revenue:
Existing Base	$ 2,275
Tax Services	+ 831
Medical Credit*	- 6
Low Income Credit	- 44
Business Input	n.a.
Total	$ 3,056

[a] If a medical exemption is provided rather than a medical credit, the revenue loss would be $217 million given a 3.5 percent sales tax rate.

Figure 5.27. Tax Services and Lower Rate

acceptable and efficient. However, less revenue is raised and the tax rate is more complicated. The equity of the tax structure could be improved by providing a low income credit.

5.19 Exempt Services and Raise the Rate

Raising the rate is the typical policy adopted by states to increase revenue. Many states have raised their tax rates in the last 15 years. West Virginia and Nevada have increased their tax rates to the greatest extent. Only 13 states, including Michigan, have not increased the tax rate since 1973. (Hilker, 1988).

Raising the tax rate on the existing base which exempts services has the advantage of providing more revenue from a well established, familiar tax. This option was more politically acceptable tax to Michigan policy makers crafting tax proposals as it was recently included in an unsuccessful ballot proposal which raised the tax rate from 4 to 6 percent along with other tax changes. The disadvantage of this option is that it aggravates the existing problems of regressivity, and revenue adequacy and stability. In addition, as the goods producing tax base continues to decline, and less goods are taxed, the incentive to substitute untaxed services for taxed goods will persist.

The disadvantage of raising the rate is that it does not produce as much revenue per one percent increase. The revenue gain from raising the rate is somewhat less than the collections per one percent as states raising their tax rates have experienced (NASBO meeting, 1990). Firms and consumers respond to rate increases by altering their consumption away from the taxed good or service through vertical integration, and substitution of untaxed consumption for taxed consumption. Michigan's sales tax has the

potential of raising up to $650 million per one percent and the use tax could raise up to $111.7 million per one percent based on 1989 collections. See Figure 5.28.

5.20 Summary

This chapter analyzed the growth trends, revenue potential, sector composition and tax policy issues for each industry. Over the last two decades, services have grown steadily. The service industries with the largest revenue potential include health, business and professional services. The broadest policy alternative is to tax all services without exemptions or credits and results in the maximum revenue potential. The next broadest proposal is to tax services with adjustments. To improve equity, a low income credit and a health service exemption or credit could be provided. In addition, business service resale exemption could be developed to reduce double taxation of intermediate services incorporated into the final service. Taxing services with adjustments would be more equitable and politically acceptable but less efficient and raise less revenue. The policy alternative of taxing services and lowering the rate was included to illustrate that a proposal to tax services could meet the tax policy goals of efficiency and revenue adequacy and stability with a smaller gain in collections.

Policy makers could avoid the issues raised when broadening the base by increasing the tax rate. Many states have raised their tax rates in recent years and Michigan considered a rate increase on a recent ballot proposal. Raising the tax rate is a likely option because it results in the least amount of change. According to Schmid (1985), there is a trade-off between continuity and change. A stable set of expectations

RAISE THE TAX RATE

TAX STRUCTURE	IMPACT
Raise the Tax Rate 1 Cent and Exempt Services	Policy: Large Revenue Gain Revenue Less Stabile and Adequate Less Equitable Less Efficient Simple & Familiar
	Revenue:
Existing Base	$ 2,600
Increase 1 Cent	+ 650
Total	$ 3,250 million

Figure 5.28. Raise the Tax Rate

is needed for long-term investments and continuity is built into our system of law. Nonetheless, a degree of change is required to prevent stagnation. Consumers are changing their buying patterns from one dominated by goods to a more equal mix of goods and services but the tax structure remains stagnate and thus the state's tax base will continue to decline. To some extent, taxing services builds on continuity because it is based on the familiar sales tax. The benefits of expanding the sales tax to include services may be apparent. However, with change, existing rights are called into question and policy makers are faced with the challenge of balancing the need for change and the desire for continuity. Table 5.6 summarizes the revenue raising potential of the policy alternatives discussed above.

Table 5.6

Comparison of Sales Tax Policy Alternatives*
(Dollars in Millions)

	Policy Alternative	Revenue	Change from Existing Tax Base	Change from Taxing All Services
1	Existing tax base	2,600	0	--
2	Tax all services	3,550	950	0
3	Tax most services	3,493	893	-57
4	Raise rate one percent	3,250	650	-300
5	Tax most services & lower rate to 3.5%	3,056	456	-494

* Use tax revenue not included.

Chapter 6 illustrates the policy issues which were revealed by taxing services in Florida. These issues need to be addressed by states like Michigan prior to taxing services.

CHAPTER 6

The Florida Experiment: An Institutional Analysis

6.1 Introduction

An analysis of the Florida tax repeal is included in this paper on taxing Michigan services because the Florida experiment created uncertainty over the political and economic impacts of the tax. As indicated by Boucher (1988), over a dozen states considered taxing services in 1987, but after the Florida set back legislative action was nonexistent in 1988. Swendson and Kozub (1988, p.225) analyzed Wisconsin's attempt to tax services and concluded that "The experience in Wisconsin and Florida shows that the expansion of the sales and use tax to services is not politically acceptable."

According to Shaffer (1975), uncertainty impacts political-economic power because when the policy impact is unpredictable, special interests have the advantage of persuading politicians to accommodate their concerns. When the immediate benefits of serving unified interests are definite, but the effect of tax changes are not certain, politicians are more likely to vote for immediate and assured results rather than for

those with distant and dubious consequences. Since we live in an interdependent world, politicians are not likely to proceed with this tax policy without a better understanding of why the Florida tax was repealed and what Michigan can learn from the experience.

Base on an economic analysis alone, there are many advantages of taxing services for revenue adequacy and stability and efficiency. The disadvantages may be remedied with provisions like a low income credit, medical service credit or exemption, business input exemption, etc. Florida policy makers took into consideration these traditional criteria for improving the tax structure and attempted to resolve the policy issues before the tax was enacted. Nonetheless, the tax met with resistance leading to its repeal. A literature review indicates that the advertising industry was very influential in defeating the tax and that the most controversial provision involved the use tax on out-of-state firms. The following institutional analysis will provide additional insight into the factors leading to the tax repeal.

6.2 Predicting Policy Outcomes

As discussed in Bartlett (1973), it is difficult to use the traditional, normative tax policy principles to analyze tax policies. Regardless of the improvements which would result from following the principles of equity and efficiency, votes required to retain office will take priority. While equity and efficiency describe what "ought to be", these guidelines are limited in that they do not predict the outcomes of tax policy decisions. By analyzing the motivations and behavior of interest groups who influence decisions, the outcomes of tax policy decisions may be predicted. Florida's experience will be used as a case study to analyze the issues raised in states who have taxed services.

6.3 Situation, Structure and Performance

The following section will apply the community choice model to Florida's situation prior to the new tax through its repeal. This Situation, Structure and Performance Paradigm (SSCP) is a framework for analyzing community problems and policies developed by Schmid (1985). The model assumes that people are interdependent and share scare resources. Because of this interdependence there are conflicts and possibilities for mutually beneficial joint action. Joint action may result in high transaction costs to attain joint benefits. The ability to act collectively to manage conflict and produce joint benefits results from human choice. A sense of community is required to be interdependent and act collectively.

A community choice analysis begins with the situation creating interdependence and opportunities for conflict and cooperation. Opportunities for person A to impact person B depends on their preference and the characteristics of the goods and services under study. Identification of the situation refers to the varying characteristics of resources, goods, and services.

The structure refers to all the predetermined social characteristics of the community system and its members which influence the members' choices. Structural examples include establishing rights and obligations for members using resources, methods of collective taxation and purchase of goods and services and methods of collective production of goods and services. The structure establishes the opportunity set and incentives and disincentives for each member. The structure will result in behavior by community members because of their opportunity sets which is called conduct. Conduct refers to all the choices, decisions, or strategies that the members adopt within the opportunity set established by the structure. Conduct by members will have consequences defined as performance. Performance is identified as costly or beneficial

depend on the preferences of individuals. The taxation issues identified by the Florida tax repeal will be analyzed from the SSCP perspective by identifying the tax situation and structure which results in the conduct and performance of firms and consumers.

6.4 Florida's Revenue Shortfall

Expanding the sales tax to services was Florida's answer to the need for additional resources to provide public services. Florida was under continued pressure for capital outlays for a growing population, an expensive education system and environmental management (State Policy Reports, 1987). The sales tax rate was five percent and was levied primarily on tangible goods. The performance of the sales tax could be improved as it was regressive, less efficient and collections were inadequate. As a result, politicians were supportive of alternatives which raised additional revenue and also improved the tax structure.

6.5 Heavy Reliance on Sales Tax

The state constitution prohibited an income tax which provided Florida policy makers with an incentive to utilize the sales tax, the second largest source of state tax collection (ACIR, 1988 and 1989). As a consequence of the income tax prohibition, Florida relied heavily on the sales tax as it comprised 53.3 percent of total revenue collections (Rockwood, Fresen and Francis, 1988). A good tax structure is balanced when it minimizes over reliance on any one tax source. When more than 30 percent of a total state tax collections are derived from the sales tax, the overall tax structure is not balanced (Kleine and Shannon, 1985). In addition, the constitutional prohibition against an income tax focused political consideration on a more limited number of tax alternatives. This increased the potential for further reliance on the sales tax.

6.6 Low Visibility

The political support for the tax may predicted by analyzing the conduct, behavior and motivations of consumers, firms, politicians and bureaucrats. Consumers are not directly involved in the decision making process. Consumers delegate tax decisions to policy makers (Bartlett, 1973) to minimize costs of collecting information.

Policy makers favored the sales tax because they perceived it to be vote maximizing given its low visibility characteristic. Taxes reduce consumers utility from the market by lowering disposable income and introducing distortions into the relative prices. Taxes and public expenditures may increase or decrease a consumers utility in the market and the consumers perspective on the utility of government policies will determine their political response. Tax structures are less visible when the tax is an old tax because the perceived tax burden fades with time. In addition, the visibility of the tax is lessened when the tax is collected on each sale and consumers view the tax as part of the price (Bartlett, 1973). Thus, when a tax is less visible, consumers perceive a lower tax burden than may actually exist and they voice less political opposition.

6.7 Tax Shifts

Another benefit to Florida consumers was that some portion of the tax burden could be shifted to business. According to Bartlett (1973), it is in the consumers interest to shift the burden of taxation to other taxpayers if the cost of influencing government is less than the tax burden. The tax could be exported to residents of other states to a greater degree than most states could benefit from tax exporting because Florida is a large tourist state with many seasonal senior citizen consumers. In addition, the tax is regressive which shifts the tax burden away from the more influential higher income

groups with resources to oppose the tax. In summary, the constitutional ban on the income tax and the perceived benefits of the sales tax on services lead to the initial support for the tax by policy makers.

6.8 Sunset Strategy

Broad based political support is usually required to increase taxes. In this case, however, the tax could be implemented by sunsetting the tax expenditure because services were exempt from the sales tax base. Sunsetting the exemption proved to be a powerful strategy because it changed the typical political dynamics as it is easier to pass a sunset bill than to repeal the exemptions. Sunsetting required less political capital because no special interest was singled out. Because the effective date was delayed for a year to study the tax no immediate consequences would result. To reinstate the exemptions would require a new law and the majority of both houses and the governor's approval (Rockwood, Fresen and Francis, 1988). Although the statutory strategy to sunset exemptions required less political capital, the approach failed to develop adequate political support needed to ensure long term public acceptance for working through the difficulties of implementation. Consumers and firms failed to respond and provided little political opposition because of the delay in implementation. For example, firms delayed developing procedures to collect the tax. As a result, firms lacked knowledge of the tax impact after it was implemented which contributed to uncertainty. Nonetheless, the benefits of taxing services lead its adoption. Policy makers sunsetted the exemptions and the state gained greater efficiency, revenue adequacy and stability.

6.9 Tax Implementation

Florida implemented the sales tax on services on July 1, 1987 with several exemptions. Policy makers extended specific exemptions when political opposition was suspected in the case of hair cuts and medical services (Ibid). Politicians are motivated by the desire for less controversy and visibility concerning tax issues as voter behavior depends on the perceived utility of the tax and expenditure. The tax which is least visible will be the vote maximizing tax. The list of exemptions includes medical services, governmental services, barbering services, services sold in Florida but used outside of Florida, services sold for resale, services sold between certain related parties, occasional or isolated sales, services rendered by an employee to his employer, financial and investment advisory services, legal services with respect to criminal proceedings with limits and advertising services apportioned to services provided outside of Florida.

6.10 Consumer Taxation

Some individuals articulated their preferences against the Florida proposal. As discussed by Bartlett (1973), consumers may be expected to disapprove of taxes because they reduce consumer utility through higher prices. Consumer influence of government includes the least costly voting to other non-voting influence such as campaign contributions. They will exert influence depending on the how they perceive the value of their tax burden relative the value of government spending. They usually incur the transaction cost of exerting non-voting influence only if the benefit exceeds the cost. Firms joined with consumers to finance a media campaign against the tax. Business groups provided media services and through their joint action lowered the price of influence to Florida consumers.

Consumers differed in the degree of utility and political support for the government programs that the tax financed. Taxpayers were uncertain as to how their interests were served by the tax. For example, some senior citizens resisted the tax because they were confused as to whether the sales tax was levied on medical services, a significant component of their budgets. Other consumers supported the tax which financed the continuation of education programs popular with government employees and those citizens benefiting from the programs. Given these constituency groups, politicians were reluctant to repeal the tax once it was enacted.

6.11 Business Taxation

Firms perceive taxes as lowering profits. To maximize profits, given the assumptions of rationality and self-interest, they will attempt to shift tax burden to others. One way to shift the tax to consumers is in the form of higher prices. As discussed in Chapter 5, firms in competitive local markets may be more successful in the performance of shifting the tax forward to consumers. However, if the firm operates in a national market with national pricing structures, shifting the tax to consumers through higher prices is more difficult. This was the situation with multi-state firms whose service was covered by the use tax.

6.12 Taxation of Out-of-State Firms

Much of the controversy in Florida was concerned with the criticism of the use tax on business services. According to several authors, (Rockwood, Fresen and Francis, 1988) interstate transactions complicated the tax. The use tax is levied when a sale is made out-of-state but the use or consumption occurs in the state and is a long standing compliment to most state sales taxes. The purpose of the use tax is to create a level

playing field. This exists only if the tax liability of the purchaser is the same regardless of the sellers location. Without a use tax, citizens have an incentive to buy from out-of-state firms. According to Hellerstein (1987), the issue was not one of double taxation. Out-of-state firms taxed by Florida were not liable to pay taxes twice when they had already paid taxes to another state.

The policy decision for states like Michigan to consider is whether to include out-of-state services used within the state in the tax base. The issue addresses the trade-off between simplicity and equity. It may be simpler to exempt out-of-state firms, because it makes the tax easier to administer. However, Florida was not required by law to tax out-of-state firms. Exempting out-of-state services is less equitable for in-state firms as it raises their costs relative to the competing out-of-state business. To tax out-of-state firms policy makers are faced with the challenge of adjusting the tax structure to accommodate firms with national political power who sell an intangible service.

6.13 Apportionment

The Florida tax structure included several apportionment definitions. The taxation of services used in Florida was levied on the full purchase price unless the transaction had no specific geographic situs or the seller was a multi-state business and the service was shared between states. In this case, a special apportionment formula was used. Examples of services which are shared among states include: interstate transportation, legal services and advertising.

The structure of the apportionment law was based on an income tax principle of formulary apportionment. This formula assumed that non-geographic specific services purchased by a multi-state business were used in a state in portion to its profits (Francis, 1988). The three factor apportionment formula has long been accepted as a fair way to

apportion business income and therefore, an understandable approach for policy makers to extend taxation of services. Some form of apportionment is used by most state business income tax structures. Despite the formula's wide spread use, its application to non-geographic specific services was not generally accepted by the Florida business community.

Apportionment factors raised the cost of compliance for multi-state businesses. They experienced high information costs when attempting to differentiate between service purchases which were subject to apportionment and collected by the firm from service purchases which were subject to allocation, and site specific to Florida. These site specific purchases were self accrued by the purchaser not the firm. Florida gave multi-state businesses the option of treating all purchases as apportionable. However, this universal apportionment met with resistance because businesses would then have to forego exemptions which were provided on selected services. The intangible nature of services made them difficult to itemize by state and by type of service for exemption purposes. Nonetheless, the assertion that apportionment raised the cost to business may be a short run argument if other states also began to tax services (Francis, 1988).

6.14 Delivery of Non-geographic Services

The taxation of services became complicated when the intangible nature of services combined with the long standing situs rule in most states that use or consumption occurs at the point where the seller or his agent delivers the good. The point of delivery is more easily manipulated for service firms which have greater mobility to move to other states because they require less investment in physical plant and inventory than do the manufacturing of goods. Services require less interstate transportation costs as a telephone call or envelop may be used to deliver the tangible

result of work from a consultant. Thus, due to these characteristics of the service transaction, the firm may more easily move out of state without disrupting service to the customer (Francis, 1988).

The following example illustrates the complexity of taxing non-geographic specific services. An Ohio based company could hire a Chicago based advertising agency. This agency would contract with a New York magazine for advertising within a national magazine. Florida could tax the national magazine based on its Florida circulation level even if the ad was not written or published in Florida. If these out-of-state transactions were not taxed, an incentive would be provided to not hire Florida advertisers. (State Policy Reports, 1987). Firms have an incentive to change the state to which the service is delivered. Hirshman's (1970), concept of exit may be applied to firms who object to the change in the tax structure and evade the tax in this way. Thus, the intangible nature of services provided firms with the opportunity to more easily manipulate the state of delivery.

6.15 Economies of Scale

Firms use other strategies to shift the tax liability to other groups such as exerting political influence and challenging the states right to tax in court. Firms previously not required to pay a use tax to a foreign state are likely to resist the new tax levy. Producers may shift the tax burden to other producers by lowering their own tax liability or by obtaining tax policies which improve the firms position in the market with tax subsidies or tariffs on competitors goods. This type of tax shift requires direct political activity. Firms exert influence over politicians through contributions to campaigns and advertising. They may run public relations campaign to gain the political support of

consumers by stressing the prices will increase as producers pass on the tax. Not all firms will engage in political activity. The degree of political activity is related to the size of the firm and opportunity for gain.

Multi-state firms exhibit economies of scale which is a characteristic of a good with decreasing cost. Human interdependence, is affected because to sell the large number of physical units produced usually requires advertising to influence a greater number of people to adopt common tastes (Schmid, 1985). The firms income is influenced by the preferences of others. The advertising industry, one of the most vocal industries influencing the tax repeal is characterizes by economies of scale. The advertisers market, by necessity, extends beyond state boarders. According to McCann-Erickson, of the total advertising volume by the media, 55.6 percent operated in the national market in 1988 (Standard and Poors Industry Survey, 1989).

There are economies of scale to producing political influence. Bartlett (1973) predicts that firms in competitive industries participate to a lesser degree while large, oligopolistic firms are much more active in political influence. This explains why out-of-state firms with economies of scale were more vocal than in-state firms with local markets. Florida advertising industry filed legal challenges and launched a media campaign against the tax. They financed the cost of information to persuade consumers not to support the tax.

The distribution of ownership makes a difference for resource allocation when transactions costs are high, according to the Coase rule. Transaction costs are the costs incurred in making decisions. The three kinds of transaction costs include contractual, information and policing (Schmid, 1985). Since these costs are seldom distributed evenly, the wealth of an interest group will determine their ability to bear these costs. If interest groups wish to increase their income they may either use the existing rules or

change the rules, in which case wealth is important. The ability to finance transaction costs was important in Florida because when the rules of the game changed, firms with economies of scale, wielding national power could make their interests known.

Services firms characterized by economies of scale are motivated to develop national markets and become multi-state businesses. To achieve large markets, barriers to trade must be curtailed. Application of the Constitution's commerce clause made extension to national markets possible, and shifted legal rights away from local interests. As courts struck down barriers to interstate commerce, they gave firms income much like governments provide a tax subsidy (Schmid, 1985).

Property rights for the use tax had already been established by the courts. To tax out-of-state services used in Florida required that the state have sufficient nexus or connection with the service. The state needed a link with the person, property or transaction to justify the taxing power. In addition, the state must assert jurisdiction over the seller to collect the tax. The Due Process and Commerce Clauses of the Constitution requires that taxes to be apportioned fairly and thus, Florida had the legal right to tax services (Hellerstein, 1987). Nonetheless, out-of-state firms challenged the constitutionality of this right and filed court cases against it.

6.16 Sense of Community

The advertising industry benefitted from a national market, which included Florida, but did not agree to the validity of Florida's right to tax them. One explanation of the advertising industries rejection of Florida's jurisdictional reach may be explained, in part, by their lack of a sense of community. According to Schmid (1985, pp.30-31), a community is "...defined through a common problem or the mutual advantage of joint action... Participation in the market is not itself a legitimation of the bonds that are

necessary for its long run sustenance. A person can trade without agreeing to the validity of the balance of rights brought to the trade. A sense of community, bonds, rights and performance interact." According to Olson's "principle of fiscal equivalence" stipulates that the boundaries of a jurisdiction to procure a public good should be drawn so the benefits and costs for the users can be internalized (Olson, 1969).

When the transaction involves a non-geographic specific service the link erodes further as firms lack a sense of community with the taxing state. The use tax on non-geographic specific services lacked a strong connection between taxation and how the firm would benefit from that taxation. According to Bradford, Case and Ebel, (1989), the public is more likely to support taxation when they perceive a link between the tax and the government program it will support. Olson's solution of drawing boundaries to internalize the benefits and costs for taxing multi-state businesses may be difficult, particularly when the object of taxation is intangible. A structural policy alternative to the discrepancy between the firms multi-state market and the state jurisdictional boundary is to develop a national sales tax for national firms which would be redistributed back to the appropriate states.

6.17 Tax Shift to Consumers

The tax was repealed effective January 1, 1988, six months after it was enacted. Politicians attempted to vote maximize and ward off the political damage. When the tax was regarded as a political liability, the governor and legislator backed away from supporting it.

Florida policy makers returned to the issue of raising additional revenue for public services. Politicians accommodated the interest of supporters of public programs

by finding a replacement source of revenue. However, they turned to a more politically acceptable solution of raising the sales tax rate one percent.

The state gained revenue from the increase in the sales tax rate. However, out-of-state service firms like advertisers were able to shift the tax burden back to consumers. While in-state goods producing firms and consumers paid a higher sales tax rate, service producing businesses were no longer required to contribute to the tax base. According to Shaffer (1975), traditional economic theory does not acknowledge that the relationship between political and economic power is inseparable. Those with wealth will have more incentive and capacity to sway the rules of the game. There is limited incentive for an individual consumer to participate in the policy process but the benefit for the concentrated interests is large because significant gains may be won by influencing policy makers.

Politicians in other states were affected by the tax repeal as illustrated by their hands off attitude. Advertisers have revealed themselves to be an effective lobbying force opposed to taxation of their industry. Access to the media lowered the industries transaction cost for turning public opinion against the tax. The ability of any lobbying group to shift the tax burden to others could be reduced by placing limits on the amount of lobbying expenditures. In addition, states could provide a rigorous tax education program explaining the impact of taxing services.

6.18 Summary

The Florida tax repeal created uncertainty over the political, and economic impacts of the tax. Taxing services was Florida's answer to the need for additional resources to provide public services. Politicians were supportive of alternatives which raised additional revenue and also improved the tax structure. The economic advantages

of taxing services include revenue adequacy and stability and efficiency. The state constitution prohibited an income tax which provided Florida policy makers with an incentive to utilize the sales tax. Policy makers favored the sales tax because it was vote maximizing given its low visibility characteristic. In addition, some portion of the tax burden could be shifted from consumers to business. The tax could be exported to residents of other states because Florida is a large tourist state. The tax is regressive which shifts the tax burden away from the more influential higher income groups with resources to oppose the tax.

Sunsetting the exemptions proved to be a powerful strategy because it changed the usual political dynamics as it is easier to pass a sunset bill than to repeal the exemptions. Since the effective date was delayed for a year to study the tax, political opposition was minimal as no immediate consequences would result. Florida implemented the sales tax on services on July 1, 1987 with several exemptions. Consumers differed in the degree of utility and political support for the government programs that the tax financed.

Florida's controversy focused on the use tax of business services. Firms perceive taxes as lowering profits and will attempt to shift the tax burden to others. However, firms operating in a national market experience difficulty in shifting the tax to consumers through higher prices because of national pricing structures. The policy decision for states like Michigan to consider is whether to include out-of-state services used within the state in the tax base. The issue addresses the trade-off between simplicity and equity. The taxation of services became complicated when the intangible nature of services combined with the long standing situs rule in most states that use or consumption occurs at the point where the seller or his agent delivers the goods. The point of delivery is more easily manipulated for service firms which have greater mobility

to move to other states. Service firms characterized by economies of scale are motivated to develop national markets and become multi-state businesses. Out-of-state firms challenged the constitutionality of taxing services by filing court cases against it and exerting political influence. The degree of political activity is related to the size of the firm and opportunity for gain as there are economies of scale to producing influence. According to the Coase rule, the distribution of ownership does not make any difference for resource allocation except when transactions costs are high. The advertising industry benefitted from a national market, which included Florida, but did not agree to the validity of Florida's right to tax them. When the transaction involves a non-geographic specific service the link erodes further as firms lack a sense of community with the taxing state. A policy alternative to the discrepancy between the firms multi-state market and the state jurisdictional boundary is to develop a national sales tax for national firms which would be redistributed back to the appropriate states.

The tax was repealed effective January 1, 1988, six months after it was implemented. Politicians accommodated the interest of supporters of public programs by finding a replacement source of revenue. However, they turned to a more politically acceptable solution of raising the sales tax rate one percent. The state gained revenue from the increase in the sales tax rate. However, out-of-state service firms like advertisers were able to shift the tax burden back to consumers because they were no longer required to contribute to the tax base. Policy makers in other states were affected by the tax repeal as illustrated by their hands off attitude toward service tax proposals which had been under consideration. The ability of any lobbying group to shift the tax burden to others could be reduced by placing limits on the amount of lobbying expenditures. Finally, states could reduce taxpayer uncertainty by providing a rigorous tax education program explaining the impact of taxing services.

CHAPTER 7

Summary, Conclusions and Future Research Needs

7.1 Problem Statement

Taxing services would result in an additional $950 million in state revenues. The challenge of balancing the state budget requires policy makers to examine tax policy alternatives which maintain collections. From 1978 to 1988, state revenue as measured by collections from the General Fund-General Purpose, School Aid and Lottery, grew only $225 million on an inflationary adjusted bases, up 3 percent. This low growth rate is due, in part, to declines in the manufacturing sector, particularly the auto industry. Thus, the demand for public services continues to grow, while the real resources available to finance them are rising at a depressed rate.

From the financing alternatives which could be examined, including enacting new taxes or closing tax expenditures, this paper analyzed repealing the sales tax expenditure on services. The sales and use tax base comprises 32.6 percent of total general fund - general purpose state revenue, in fiscal 1988 the second largest state tax in Michigan. There is no economic justification for the exemption of services which may warrant its continuation. In addition, the sales tax is a popular tax which would reduce the political resistance to expanding its use. A taxes public acceptance also depends on the degree of backing for the government program its finances. Michigan policy makers have previously identified education as needing finance reform to ensure collections. Since 60 percent the sales tax is distributed to the school aid fund for education there is popular

justification for extending its use. The sales tax base has declined on an inflationary bases during periods of economic downturn resulting in less revenue stability. In addition, the sales tax base has eroded in response to shifting consumer purchases away from taxable goods to non-taxable services.

The policy impact of a change in the sales tax base varies depending on the performance of the present situation. The Michigan sales tax structure was reviewed to determine its strengths and weaknesses based on the traditional public finance criteria for a good tax structure. This analysis addresses the issues of equity, efficiency, revenue stability and adequacy. In addition, a simple structure eases administration and public acceptance. The state could balance the proportion of collections derived from any one tax because over relying on a tax will exaggerate the impact from the negative characteristics found in any tax. By creating a broadly based tax structure, the positive characteristics of one tax may offset the negative aspects of other taxes for a more well rounded outcome (Kleine and Shannon, 1985). In addition, the report evaluated service industry growth trends, revenue estimates, sector composition and tax policy issues. An institutional framework was applied to the Florida experience to predict the tax policy issues Michigan may need to address prior to taxing business and individuals.

7.2 Sales Tax Structure

Since the sales tax is levied primarily on the tangible goods, Michigan's tax capacity and effort is limited. According to the Advisory Commission on Intergovernmental Relations, Michigan's sales tax capacity is just below the average capacity while the sales tax effort is significantly below that of other states. Michigan's tax rate is low relative to other states, resulting in less tax effort and less revenue but

more efficiency. Thus, there is sufficient latitude for Michigan to recuperate its tax effort and capacity by taxing services.

7.3 Equity and Efficiency

According to a review of the literature, most state sales tax structures are regressive, particularly at the lower income level. States are moving away from progressive taxation structures and toward more regressive alternatives like the sales tax. Some states offer credits to offset the tax burden on the low income tax payers. The sales tax has gained acceptance as a viable alternative tax structure and offering exemptions or credits would increase its progressivity.

Reviewing the efficiency of the sales tax structure provides a basis for determining the impact of adding services. The most efficient taxes are those that minimize the distortion from changes in prices and income resulting from the tax. A pure consumption tax would not effect the relative prices because all items would be taxed. However, no state levies a pure consumption tax as they provide exemptions. States could choose to tax consumption with alternatives to the retail sales tax such as the gross receipts tax or a value added tax. These taxes would result in different efficiency impacts with the value added tax creating the least amount of distortion on business items. Nonetheless, most states continue to levy a retail sales tax because of its familiarity and simplicity. The efficiency benefit from broadening the sales tax base is that there is less distortion and substitution between taxed and non-taxed goods.

7.4 Revenue Adequacy and Stability

The sales tax is less adequate and stable given that the growth of inflation adjusted collections declined during recessionary periods. The growth of Michigan's

sales tax collections did not keep pace with growth of its personal income. The gross state product data was used to compare manufacturing sector and service sectors, illustrating that services followed a steady upward growth while manufacturing followed a procyclical pattern. Over the last two decades, services have grown steadily. The business, professional and health services are dominate by size and offer the most revenue gain. Their annual growth rate has followed a fairly steady path upward. Thus, a sales tax on services would improve revenue stability and adequacy.

7.5 Policy Options

The broadest policy alternative is to tax all services without exemptions or credits, raising up to $950 million. From an efficiency view point, the Michigan tax structure could be improved with a broad based service tax. Since a broad based tax includes business and professional services in the base, it raises the issue of whether to levy a use tax on out-of-state firms when their services are used in Michigan. This issue was addressed by Florida's policy makers. The taxation of out-of-state firms may require that an apportionment formula be developed for the use tax which takes into account the intangible nature of services

The next broadest proposal is to tax most services. To improve equity, adjustments could be provided such as a low income credit and a health service exemption or credit. In addition, a business service resale exemption could be provided to reduce double taxation of intermediate services incorporated into the final service. Taxing services with adjustments would be more equitable and politically acceptable but less efficient and raise less revenue than the first option. The revenue estimate for this option depends on the design of the tax exemptions or credits provided.

The policy alternative of taxing services and lowering the rate was included to illustrate that a proposal to tax services could meet the tax policy goals of efficiency and revenue adequacy and stability without increasing taxes. Services could be taxed without a significant increase in collections and a lower tax rate would probably receive public support.

The policy issue to address is the trade-off between a broader tax base and lower tax rates or a narrower base and higher tax rates according to Dr. Ronald Fisher, Professor of Economics at Michigan State University. In a presentation before the Michigan House Tax Expenditure Subcommittee, Dr. Fisher discussed that the relevant issue to evaluate when analyzing the tax structure is the distribution of revenues among alternative types of tax sources and the composition of the tax base. That is, "What mix of tax sources is best for our state at this time? What tax bases and rates should be adopted for each tax to accomplish the desired mix?" The question concerns whether it is better to levy a 4 percent rate on the sale of some consumer items and no tax on other commodities or a 2 percent rate of most commodities including services (Fisher, 1990, p. 2).

Policy makers could bypass the issues raised when broadening the base by increasing the tax rate. Many states have raised their tax rates in recent years and Michigan considered a rate increase on a recent ballot proposal. Raising the tax rate is a likely choice because it results in the least amount of change, easing tax implementation and public understanding.

7.6 Florida's Experience

In 1987, Florida broadened the sales tax base to include services but the legislation was repealed within 6 months after considerable political controversy. Several states considered legislation to tax services during the 1987 session but after the Florida experiment failed, state legislative activity waned due to insufficient support. State policy makers, cautious not to repeat Florida's performance, have set up tax reform committees to study the issue. Policy-makers may consider taxing services after reviewing studies which point out the merits of the tax based on public finance criteria. Nonetheless, these recommendations have met with resistance as many policy makers are proceeding with caution, claiming that taxing services is not politically feasible and citing Florida's tax repeal as evidence. While some authors conclude that taxing services is too politically sensitive to merit consideration, others argue that policy-makers are likely to renew their interest in taxing services as memories of Florida's tax repeal fade and the demand for financing state programs intensifies without adequate revenue growth. Thus, the focus of the future policy discussions revolve around whether taxing services is politically feasible.

Taxing services was Florida's answer to the need for additional resources to provide public services. Politicians were supportive of alternatives which raised additional revenue and also improved the tax structure. The economic advantages of taxing services included revenue adequacy and stability and efficiency. The state constitution prohibited an income tax which provided Florida policy makers with an incentive to utilize the sales tax. Policy makers favored the sales tax because it was vote maximizing given its low visibility characteristic. In addition, some portion of the tax burden could be shifted from consumers to business. Additionally, the tax could be exported to residents of other states because Florida is a large tourist state. The tax is regressive which shifts the tax burden away from the more influential higher income

groups with resources to oppose the tax. Sunsetting the exemptions proved to be a powerful strategy because it changed the usual political dynamics as it is easier to pass a sunset bill than to repeal the exemptions. Since the effective date was delayed for a year to study the tax, political opposition was minimal as no immediate consequences would occur. Florida implemented the sales tax on services on July 1, 1987 with several exemptions. Consumers differed in the degree of utility and political support for the government programs that the tax financed.

Florida's controversy highlighted the use tax levied on business services. Firms perceive taxes as lowering profits and will strive to shift the tax burden to others. However, firms operating in a national market experience difficulty in passing on the tax to consumers through higher prices because of national pricing structures. The policy decision for states like Michigan to consider is whether to include out-of-state services used within the state in the tax base. The issue addresses the trade-off between simplicity and equity. The taxation of services became complicated when the intangible nature of services combined with the long standing situs rule in most states that use or consumption occurs at the point where the seller or his agent transfers the service. The point of delivery is more easily manipulated for service firms which have greater mobility to move to other states. Service firms characterized by economies of scale are motivated to develop national markets and become multi-state businesses. Out-of-state firms challenged the constitutionality of taxing services by filing court cases against it and exerting political influence. The degree of political activity is related to the size of the firm and opportunity for gain as there are economies of scale to producing influence. According to the Coase rule, the distribution of ownership does not make any difference for resource allocation except when transactions costs are high. The advertising industry benefitted from a national market, which included Florida, but did not agree to the

validity of Florida's right to tax them. When the transaction involves a non-geographic specific service the link erodes further as firms lack a sense of community with the taxing state. A policy alternative to the discrepancy between the firms multi-state market and the state jurisdictional boundary is to develop a national sales tax for national firms which would be redistributed back to the appropriate states.

The tax was repealed effective January 1, 1988, six months after it was implemented. Politicians accommodated the interest of supporters of public programs by finding a replacement source of revenue. However, they turned to a more politically acceptable solution of raising the sales tax rate one percent. The state gained revenue from the increase in the sales tax rate. However, out-of-state service firms like advertisers were able to shift the tax burden back to consumers because they were no longer required to contribute to the tax base. Policy makers in other states were affected by the tax repeal as illustrated by their hands off attitude toward service tax proposals which had been under consideration. The ability of any lobbying group to shift the tax burden to others could be reduced by placing limits on the amount of lobbying expenditures. Finally, states could reduce taxpayer uncertainty by providing a rigorous tax education program explaining the impact of taxing services.

7.7 Continuity vs. Change

A proposal to tax services brings to light the trade-off between continuity and change. A stable set of expectations is needed for long-term investments and continuity is built into our system of law. Nonetheless, a degree of change is required to prevent stagnation, according to Schmid, (1985). Consumers are changing their buying patterns from one dominated by goods to a more equal mix of goods and services but the tax structure remains stagnate and thus the state's tax base will continue to decline. To

some extent, taxing services builds on continuity because it is based on the familiar sales tax. The benefits of expanding the sales tax to include services may be apparent. However, with change, existing rights are called into question and policy makers are faced with the challenge of balancing the need for change against the desire for continuity.

7.8 Future Research Needs

Future research is needed as a basis for designing a marketing approach which informs and educates the public about the benefits of a new tax prior to its implementation. Future research could focus on alternative ways of structuring exemptions and credits which could improve equity or efficiency. The provision's structure will impact the cost to the state as it determines the number of qualifying taxpayers. Advanced research is needed to design an apportionment formula which addresses the intangible nature of services, minimizes the information cost and maximizes public acceptance. Additional research is needed to determine the number and size of firms operating in local or national market and to estimate the price elasticity of demand for these service firms.

APPENDIX A

APPENDIX A

Table 1

RTS Tax Capacity Indices, 1975-86
(100 = U.S. Average)

	1975	1977	1979	1980	1981	1982	1983	1984	1985	1986
Alabama	77	77	76	76	75	74	75	73	75	74
Alaska	155	158	217	260	324	312	272	250	259	177
Arizona	92	89	91	89	89	96	97	99	99	99
Arkansas	78	78	77	79	82	79	78	75	74	73
California	110	114	116	117	115	116	119	119	120	118
Colorado	106	107	110	113	113	121	122	121	118	117
Connecticut	110	112	109	112	110	117	124	124	127	135
Delaware	125	120	110	111	111	115	118	123	123	121
DC (Washington)	118	123	110	111	111	115	117	120	123	122
Florida	102	101	100	100	101	104	103	105	103	105
Georgia	86	84	81	82	81	84	87	89	90	94
Hawaii	109	107	103	107	105	117	114	118	117	113
Idaho	89	88	91	88	87	86	83	78	78	77
Illinois	112	112	112	108	104	99	98	97	96	96
Indiana	98	100	98	92	91	89	86	87	87	87
Iowa	106	105	108	105	102	96	91	87	84	84
Kansas	109	105	109	109	109	106	102	100	99	96
Kentucky	85	83	85	83	82	82	79	77	78	76
Louisiana	97	100	104	109	117	113	107	102	97	90
Maine	84	82	80	80	79	84	90	88	89	95
Maryland	101	101	99	99	98	100	99	105	105	108
Massachusetts	98	95	93	96	96	101	107	111	113	124
Michigan	101	103	104	97	96	93	90	93	94	96
Minnesota	97	100	105	102	100	99	97	101	101	102
Mississippi	70	70	70	69	72	71	68	70	69	65
Missouri	96	96	97	94	92	91	89	89	91	93
Montana	103	103	113	112	114	110	105	95	90	88
Nebraska	106	101	100	97	97	97	101	93	94	91
Nevada	145	148	154	154	148	151	147	146	146	147
New Hampshire	103	102	96	97	96	100	108	110	112	119
New Jersey	109	106	102	105	105	106	112	114	117	121
New Mexico	97	98	103	107	114	115	108	103	99	91
New York	98	94	89	90	89	92	95	98	101	107
North Carolina	85	83	82	80	80	82	87	87	86	88
North Dakota	101	99	109	108	124	115	111	106	102	94
Ohio	104	104	101	97	94	92	89	90	91	91
Oklahoma	98	101	108	117	127	126	115	113	105	98
Oregon	100	104	106	103	99	99	96	94	95	93
Pennsylvania	98	99	93	93	90	89	88	88	89	90
Rhode Island	88	87	84	84	80	81	86	86	88	92
South Carolina	77	77	76	75	75	74	76	77	77	79
South Dakota	95	91	95	90	86	87	87	83	82	78
Tennessee	84	83	81	79	79	77	80	81	83	84
Texas	111	112	117	124	132	130	124	117	111	104
Utah	86	88	87	86	87	86	82	81	81	80
Vermont	94	93	85	85	84	89	94	95	97	99
Virginia	94	91	93	95	94	94	96	96	98	101
Washington	98	100	103	103	99	102	101	99	101	98
West Virginia	89	90	92	94	90	92	87	79	77	76
Wisconsin	98	100	100	95	91	87	87	89	89	86
Wyoming	154	154	173	196	216	201	182	181	169	151

Source: ACIR compilation from previous ACIR volumes on measuring fiscal capacity.

APPENDIX B

APPENDIX B

Table 1

RTS Tax Effort Indices, 1975-86
(100 = U.S. Average)

	1975	1977	1979	1980	1981	1982	1983	1984	1985	1986
Alabama	79	79	86	85	91	87	87	90	87	86
Alaska	77	130	129	166	185	180	166	141	128	168
Arizona	108	110	115	117	106	92	91	95	97	99
Arkansas	78	78	81	86	79	81	83	87	91	91
California	119	117	95	102	100	99	92	93	94	95
Colorado	90	95	96	90	84	81	79	82	85	83
Connecticut	99	103	102	100	103	99	96	99	99	94
Delaware	84	80	96	89	87	84	82	77	80	81
DC (Washington)	94	118	132	131	146	145	146	139	138	143
Florida	74	73	78	74	73	72	75	74	76	77
Georgia	89	89	96	96	97	96	93	89	90	89
Hawaii	119	115	128	125	126	105	108	99	99	105
Idaho	90	89	91	88	87	85	87	91	90	90
Illinois	99	96	99	103	105	107	107	110	106	106
Indiana	92	83	84	84	89	88	89	95	96	94
Iowa	93	90	93	96	98	105	109	112	112	113
Kansas	85	89	87	88	87	88	92	95	96	96
Kentucky	84	84	87	89	88	89	91	89	87	89
Louisiana	87	79	82	78	77	81	81	81	93	91
Maine	104	100	110	111	113	107	100	105	104	99
Maryland	106	105	109	109	107	106	107	100	101	99
Massachusetts	129	133	144	135	134	119	112	105	106	103
Michigan	106	109	113	116	116	120	128	129	120	118
Minnesota	118	112	115	111	109	111	124	124	119	108
Mississippi	96	94	97	97	95	92	95	95	93	97
Missouri	84	80	82	84	81	82	87	85	84	82
Montana	92	94	88	92	92	97	94	101	107	103
Nebraska	85	98	98	102	95	94	94	99	93	96
Nevada	70	62	65	60	62	63	64	65	64	65
New Hampshire	75	73	78	75	74	75	69	69	65	62
New Jersey	103	113	118	112	112	113	109	109	105	103
New Mexico	85	77	85	83	89	83	79	85	86	88
New York	160	168	171	167	171	170	163	158	156	152
North Carolina	86	87	91	97	95	94	88	89	93	92
North Dakota	93	88	78	79	74	83	81	93	92	89
Ohio	80	78	86	87	89	94	103	105	103	103
Oklahoma	73	72	74	72	73	78	80	76	84	85
Oregon	96	92	93	93	101	95	104	103	101	98
Pennsylvania	93	94	105	104	105	106	105	105	102	101
Rhode Island	112	114	121	123	130	133	126	123	118	111
South Carolina	85	86	91	96	95	96	96	95	95	94
South Dakota	87	87	84	88	93	91	85	87	87	95
Tennessee	79	82	87	84	87	86	82	81	82	84
Texas	68	68	64	65	65	66	67	69	76	79
Utah	89	91	99	101	97	97	98	106	109	107
Vermont	108	104	110	104	105	103	95	94	93	91
Virginia	87	88	88	88	90	90	89	88	87	85
Washington	101	94	96	94	92	93	104	103	95	103
West Virginia	85	80	82	82	83	86	88	100	103	98
Wisconsin	115	114	118	116	120	128	137	133	128	134
Wyoming	70	82	83	74	73	105	113	105	108	117

Source: ACIR compilation from previous ACIR volumes on measuring fiscal capacity.

APPENDIX C

APPENDIX C

Table 1

General Sales and Gross Receipts Taxes – 1986

State	Tax Base*	Capacity Per Capita	Per Capita Capacity Index/Rank	Tax Capacity	Tax Revenue	Revenue Per Capita	Tax Effort Index/Rank
Alabama	$15,167	$270.57	72.0 / 50	$1,096.6	$1,266.8	$312.56	115.5 / 11
Alaska	3,747	507.27	135.0 / 2	270.9	54.8	102.66	20.2 / 47
Arizona	15,832	345.10	91.8 / 34	1,144.7	1,749.6	527.48	152.8 / 2
Arkansas	9,512	289.94	77.1 / 48	687.7	777.3	327.70	113.0 / 12
California	159,400	427.15	113.6 / 12	11,524.9	13,020.3	482.57	113.0 / 13
Colorado	19,065	421.93	112.3 / 13	1,378.5	1,396.7	427.53	101.3 / 21
Connecticut	20,311	460.49	122.5 / 6	1,468.5	1,624.9	509.54	110.7 / 15
Delaware	3,785	432.34	115.0 / 11	273.7	0.0	0.00	0.0 / Z
DC (Washington)	3,519	406.40	108.1 / 16	254.4	361.0	576.73	141.9 / 7
Florida	70,140	434.37	115.6 / 10	5,071.2	5,076.6	434.83	100.1 / 22
Georgia	31,004	367.25	97.7 / 24	2,241.7	2,172.2	355.86	96.9 / 25
Hawaii	6,783	461.81	122.9 / 5	490.4	746.7	703.10	152.2 / 4
Idaho	3,920	282.59	75.2 / 49	283.4	250.5	249.73	88.4 / 28
Illinois	56,727	355.01	94.4 / 29	4,101.5	4,602.6	398.39	112.2 / 14
Indiana	27,051	355.35	94.5 / 28	1,955.8	2,161.3	392.68	110.5 / 16
Iowa	12,751	323.36	86.0 / 42	921.9	768.6	269.58	83.4 / 31
Kansas	12,027	353.34	94.0 / 30	869.6	710.2	288.60	81.7 / 33
Kentucky	14,964	290.21	77.2 / 47	1,081.9	881.3	236.39	81.5 / 34
Louisiana	19,322	310.38	82.6 / 44	1,397.0	2,129.9	473.20	152.5 / 3
Maine	6,449	397.14	105.7 / 18	466.2	383.3	326.51	82.2 / 32
Maryland	25,372	411.03	109.4 / 14	1,834.4	1,189.6	266.55	64.8 / 42
Massachusetts	38,960	483.00	128.5 / 4	2,816.9	1,721.3	295.16	61.1 / 44
Michigan	46,494	367.59	97.8 / 23	3,361.6	2,687.0	293.82	79.9 / 36
Minnesota	23,883	409.77	109.0 / 15	1,726.8	1,369.9	325.08	79.3 / 38
Mississippi	9,474	260.94	69.4 / 51	685.0	1,031.0	392.78	150.5 / 5
Missouri	26,760	381.93	101.6 / 19	1,934.8	2,021.7	399.08	104.5 / 18
Montana	3,782	333.86	88.8 / 40	273.4	0.0	0.00	0.0 / Z
Nebraska	7,777	351.88	93.6 / 31	562.3	407.4	254.96	72.5 / 40
Nevada	11,925	895.29	238.2 / 1	862.2	524.8	544.96	60.9 / 45
New Hampshire	7,035	495.29	131.8 / 3	508.7	0.0	0.00	0.0 / Z
New Jersey	46,157	437.96	116.5 / 9	3,337.3	2,614.4	343.09	78.3 / 39
New Mexico	7,059	345.07	91.8 / 35	510.4	742.7	502.15	145.5 / 6
New York	89,226	363.00	96.6 / 25	6,451.2	8,798.3	495.07	136.4 / 10
North Carolina	29,854	340.95	90.7 / 38	2,158.5	1,861.6	294.04	86.2 / 30
North Dakota	3,755	399.83	106.4 / 17	271.5	179.0	263.55	65.9 / 41
Ohio	51,779	348.19	92.6 / 33	3,743.7	3,498.2	325.35	93.4 / 27
Oklahoma	15,988	349.76	93.0 / 32	1,155.9	1,092.0	330.42	94.5 / 26
Oregon	13,352	357.82	95.2 / 27	965.4	0.0	0.00	0.0 / Z
Pennsylvania	56,482	343.49	91.4 / 36	4,083.8	3,241.4	272.64	79.4 / 37
Rhode Island	5,030	372.97	99.2 / 20	363.6	291.4	298.85	80.1 / 35
South Carolina	15,029	321.68	85.6 / 43	1,086.7	1,112.4	329.31	102.4 / 20
South Dakota	3,293	336.30	89.5 / 39	238.1	248.6	351.15	104.4 / 19
Tennessee	23,918	360.05	95.8 / 26	1,729.3	2,431.0	506.15	140.6 / 8
Texas	85,591	370.96	98.7 / 22	6,188.4	5,393.7	323.32	87.2 / 29
Utah	6,688	290.41	77.3 / 46	483.5	679.1	407.88	140.4 / 9
Vermont	3,371	450.53	119.9 / 7	243.7	98.6	182.21	40.4 / 46
Virginia	29,725	371.38	98.8 / 21	2,149.2	1,370.2	236.77	63.8 / 43
Washington	21,166	342.90	91.2 / 37	1,530.4	3,496.6	783.47	228.5 / 1
West Virginia	7,910	298.03	79.3 / 45	571.9	612.5	319.18	107.1 / 17
Wisconsin	21,856	330.24	87.9 / 41	1,580.2	1,543.4	322.54	97.7 / 24
Wyoming	3,156	450.11	119.7 / 8	228.2	225.0	443.78	98.6 / 23
U.S. Total	$1,253,321	$375.89	100.0	$90,617.7	$90,617.7	$375.89	100.0

Note: All per capita amounts are in dollars; total amounts are in millions of dollars.

Representative Rate = 7.23%.

*Tax base is retail sales in millions of dollars.

Z = Zero revenue reported.

Source: Price Waterhouse

APPENDIX D

Major Features of State Sales Taxes, October 1989

Region and State	Tax Rate	States Exempting											States Granting Related Tax Credit[16]
										Sale of Materials to –			
		Food[1]	Prescription Drugs	Consumer Electric and Gas Utilities	Clothing	Telecommunication Services	Custom Computer Programs	Repair Charges	Installation Service[2]	Contractors[3,4]	Manufacturers, Producers, Processors[5]	Repairers[3]	
Plains *(cont.)*													
Missouri + *	4.225		X	X			X	X[12,13]	X[12,13]		X[15]		
Nebraska +	4	X	X					X	X[12]		X[15]		
North Dakota + *	6	X	X	X		4.0	X	X[12]	X[12]		X[15]		
South Dakota + *	4		X			5.5					X[15]	X	X
Southeast													
Alabama + *	4		X	X		[7]	X	X[12,13]	X[12]		X[15]		
Arkansas + *	4		X	X					X		X[14]		
Florida +	6	X	X	X			X				X[15]	X	
Georgia + *	4		X					X[12]	X[12]		X[15]		
Kentucky + *	5	X	X				X	X[12]	X[12]		X[14,15]		
Louisiana +	4					X	X		X[12]		X		
Mississippi	6		X			[8]					X[14]		
North Carolina + *	3		X			3.0 and 6.5	X	X[12,13]	X[12,13]		X[15]	X	
South Carolina	5		X	X				X[12,13]	X[13]		X[15]		
Tennessee +	5.5		X	X		[8]					X		
Virginia +	3.5		X	X		X	X	X[12]	X[12]		X[14,15]	X	
West Virginia	6		X	X		n.a.				X	X	X	
Southwest													
Arizona +	5	X	X			[9]	X	X[12]	X[12]	X	X[15]		
New Mexico + *	4.75					3.75					X[15]		X
Oklahoma + *	4		X	X			X	X	X[12]		X[14]		
Texas + *	6	X	X	X		5.0					X[15]		

Table 1 (Continued)

Table 1 (Continued)

Major Features of State Sales Taxes, October 1989

Region and State	Tax Rate	States Exempting											States Granting Related Tax Credit[16]
										Sale of Materials to–			
		Food[1]	Prescription Drugs	Consumer Electric and Gas Utilities	Clothing	Telecommunication Services	Custom Computer Programs	Repair Charges	Installation Service[2]	Contractors[3,4]	Manufacturers, Producers, Processors[5]	Repairers[3]	
Rocky Mountain													
Colorado +	3	X	X	X			X	X[12,13]	X[12,13]		X[15]		
Idaho +	5		X	X		X	X	X[12]	X[13]		X[15]		X
Montana	No state sales tax												
Utah + *	5.0[3,8]		X				X				X[15]	X	
Wyoming + *	3		X								X[15]		X
Far West													
California + *	5	X	X	X		0.5[10]	X	X[12,13]	X[12,13]		X[15]		
Nevada + *	5.75	X	X	X		X		X[12,13]	X[12,13]		X[15]		
Oregon	No state sales tax												
Washington + *	6.5	X	X			11	X			X	X[15]		
Alaska +	No state sales tax												
Hawaii *	4		X	X									X
Total Exempting		27	44	26	6	8	30	25	28	4	44	12	7
Total Taxing		19	2	20	40	37	16	21	18	42	1	34	

Notes

X = Exempt

\+ = Additional local sales tax rates may be added. See Table 27, on Combined State-Local General Sales Tax Rates, Selected Cities, for local rates.

[1] State sales tax exemption usually applies for food for home consumption only—not for on-premise consumption..

[2] Charges that are merely incident to sale are usually taxable.

[3] If sale to contractor or repairer is exempt, resale is taxable, and vice versa.

[4] Exempt if contract makes contractor a government agent and title passes directly from seller to U.S. This rule apparently applies in every jurisdiction.

[5] Producing tangible personalty for sale.

[6] Wisconsin is the only state to include intra and interstate carrier access charges in the tax base. Similar provisions to apply the sales tax to access charges were repealed in South Carolina effective 7/1/87, and in Maine effective 1/1/88.

[7] Alabama telephone service is not taxed under the sales tax statute; however, a 4% privilege tax, limited to utilities, is considered equivalent to a sales tax.

[8] Mississippi and Tennessee have interpreted their statutes to include end user (customer) access charges, which are interstate services established by the FCC.

Table 1 (Continued)

Major Features of State Sales Taxes, October 1989

[9] The 30% exemption on interstate sales is intended to adjust for the intrastate portion of interstate service.

[10] In California, tax is a 911 surcharge.

[11] Basic local exchange service is exempt.

[12] Exempt when billed separately from materials.

[13] Books must show receipts separately from sales and from services.

[14] Exempt if sales to businesses in enterprise zone (Arkansas, Colorado, Kansas, Kentucky, Louisiana, Michigan, New Jersey, Oklahoma, Texas). In Virginia, all items for businesses in the zone are exempt for 5 years. In Illinois, exemption applies to building materials and operating high-impact service facilities. In Oklahoma, exemption applies to materials for new or expanded manufacturing facility costing over $5 million and adding at least 100 new full-time jobs.

[15] If becoming an ingredient or component part of property manufactured.

[16] The sales tax credit may be administered either in conjunction with a personal income tax (Hawaii, Idaho, New Mexico) or as a separate refund program (Kansas, South Dakota, Wyoming).

***State Notes**

Alabama	Prescription drugs for persons over age 65 are exempt.
Arkansas	Exempts the first 500 kilowatt hours of electricity per month for residential customers whose income is not more than $12,000 per year.
Connecticut	Clothing less than $75 and all children's (under age 10) clothing is exempt.
Georgia	Certain foods will be exempt after 9/1/90.
Hawaii	Although Hawaii does not exempt food from the general sales tax, a tax credit is granted on the state income tax to help offset the sales tax (and other excise taxes). This credit is available to taxpayers earning $20,000 or less.
Illinois	One percent tax on food and drugs effective 1/1/90. Sales tax is scheduled to increase to 6.25% on 1/1/90.
Kansas	Related income tax credit allowed for senior citizens depending on income level. Local tax is imposed on sales of natural gas, electricity, heat, and water delivered through mains, lines, or pipes.
Kentucky	Coal for the manufacturing of electricity is exempt. Sales of sewer services, water, and fuel is exempt.
Louisiana	Food is taxed at 3% until 1/1/90; 2% until 8/1/90. Prescription drugs are taxed at 1% until 1/1/90. Exemptions do not apply to local sales taxes.
Maine	The first 750 KWH per month is exempt.
Massachusetts	Sales tax applies if an item of clothing or footwear is more than $175.
Minnesota	Residential use of natural gas or electricity for heating purposes is exempt from November through April.
Missouri	The sales tax is 4.425% until 7/1/90.
New Mexico	Although New Mexico does not exempt food and prescription drugs from the general sales tax, a tax credit (refundable if no tax is due) is available to taxpayers with modified gross income less than $10,000 to offset the tax.
Nevada	The state has a mandatory 3.75% local sales tax, which in practice gives the state a statewide tax rate of 5.75%.
North Carolina	Food purchased with food stamps is exempt. There is a non-refundable credit on the personal income tax to help offset the sales tax on food purchases. The credit ranges from $15 to $25 depending on income level. The credit is not available to taxpayers with taxable income greater than $15,000.
North Dakota	Gross receipts from sales of electricity is exempt.
Oklahoma	Cities and counties are not prohibited from levying and collecting taxes on the sale of natural gas and electricity.
Rhode Island	Sales tax applies for sports clothing.
South Dakota	Related income tax credit allowed for senior citizens depending on level of income.
Texas	Cities may impose their local tax on the residential use of gas, electricity, and telecommunications.
Utah	Rate will decrease to 5.0% on 1/1/90. Utility sales tax rate on gas, electricity, heat, coal, fuel oil or other fuels for residential use is 2.0938% (2% effective 1/1/90).
Washington	Sales of natural or manufactured gas.
Wisconsin	Residential use of natural gas or electricity for heating purposes is exempt from November through April.

Sources: ACIR staff compilations as of October 1989 based on Commerce Clearing House, *State Tax Guide*, and Prentice-Hall, *All States Tax Handbook, 1989*.

APPENDIX E

APPENDIX E

Table 1

State General Sales Tax Rates

Region & State	10/1/89	10/1/88	7/1/87	7/1/86	7/1/85	7/1/84	7/1/82	7/1/80	7/1/78
U.S. Median	5.0%	5.0%	5.0%	5.0%	4.75%	4.75%	4.0%	4.0%	4.0%
New England									
Connecticut	8.0	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.0
Maine	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Massachusetts	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
New Hampshire	No tax								
Rhode Island	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Vermont	4.0	4.0	4.0	4.0	4.0	4.0	4.0	3.0	3.0
Mideast									
Delaware	No tax								
District of Columbia	6.0	6.0	6.0	6.0	6.0	6.0	6.0	5.0	5.0
Maryland	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
New Jersey	6.0	6.0	6.0	6.0	6.0	6.0	5.0	5.0	5.0
New York	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Pennsylvania	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Great Lakes									
Illinois	5.0[1]	5.0	5.0	5.0	5.0	5.0	4.0	4.0	4.0
Indiana	5.0	5.0	5.0	5.0	5.0	5.0	4.0	4.0	4.0
Michigan	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Ohio	5.0	5.0	5.0	5.0	5.0	5.0	5.0	4.0	4.0
Wisconsin	5.0	5.0	5.0	5.0	5.0	5.0	5.0	4.0	4.0
Plains									
Iowa	4.0	4.0	4.0	4.0	4.0	4.0	3.0	3.0	3.0
Kansas	4.25	4.0	4.0	4.0	3.0	3.0	3.0	3.0	3.0
Minnesota	6.0	6.0	6.0	6.0	6.0	6.0	5.0	4.0	4.0
Missouri	4.425[2]	4.225	4.225	4.225	4.225	4.125	3.125	3.125	3.125
Nebraska	4.0	4.0	4.0	3.5	3.5	3.5	3.5	3.0	3.0
North Dakota	5.0	5.5	5.5	4.0	4.0	4.0	3.0	3.0	3.0
South Dakota	4.0	4.0	5.0	4.0	4.0	4.0	4.0	5.0	4.0
Southeast									
Alabama	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Arkansas	4.0	4.0	4.0	4.0	4.0	4.0	3.0	3.0	3.0
Florida	6.0	6.0	5.0	5.0	5.0	5.0	5.0	4.0	4.0
Georgia	4.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Kentucky	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Louisiana	4.0	4.0	4.0	4.0	4.0	4.0	3.0	3.0	3.0
Mississippi	6.0	6.0	6.0	6.0	6.0	6.0	5.0	5.0	5.0
North Carolina	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
South Carolina	5.0	5.0	5.0	5.0	5.0	5.0	4.0	4.0	3.0
Tennessee	5.5	5.5	5.5	5.5	5.5	5.5	4.5	4.5	4.5
Virginia	3.5	3.5	3.5	3.0	3.0	3.0	3.0	3.0	3.0
West Virginia	6.0	6.0	5.0	5.0	5.0	5.0	5.0	3.0	3.0
Southwest									
Arizona	5.0	5.0	5.0	5.0	5.0	5.0	4.0	4.0	4.0
New Mexico	4.75	4.75	4.75	4.75	3.75	3.75	3.5	3.75	3.75
Oklahoma	4.0	4.0	4.0	3.25	3.25	3.0	2.0	2.0	2.0
Texas	6.0	6.0	6.0	4.125	4.125	4.0	4.0	4.0	4.0
Rocky Mountain									
Colorado	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Idaho	5.0	5.0	5.0	5.0	4.0	4.0	3.0	3.0	3.0
Montana	No tax								
Utah	5.0938[3]	5.0938	5.0938	4.5938	4.625	4.625	4.0	4.0	4.0
Wyoming	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Far West									
California	5.0[4]	4.75	4.75	4.75	4.75	4.75	4.75	4.75	4.75
Nevada	5.75[5]	5.75[5]	5.75[5]	5.75[5]	5.75[5]	5.75[5]	5.75[5]	3.0	3.0
Oregon	No tax								
Washington	6.5	6.5	6.5	6.5	6.5	6.5	5.4	4.5	4.6
Alaska	No tax								
Hawaii[6]	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

[1] Illinois' rate is scheduled to be 6.25% after 1/1/90.

[2] Missouri's rate is scheduled to be 4.425% from 10/1/89 to 6/30/90, unless extended by the voters.

[3] Utah's rate is scheduled to decrease to 5% on 1/1/90.

[4] California's rate is temporarily increased to 5% to provide funds for earthquake relief.

[5] Includes statewide state-levied local tax of 3.75% and a 2% state rate.

[6] Hawaii levies its retail sales tax as part of a multirate general excise (gross receipts) tax.

Source: ACIR staff compilation from Commerce Clearing House, *State Tax Guide*, October 1989. See Table 27 for local sales tax rates.

APPENDIX F

APPENDIX F

Interstate Comparison of Service Taxation, 1985[1]

Degree of Taxation	Tax Structure Provisions
	General Taxation of Services
Hawaii	
New Mexico	Excludes agricultural harvesting and warehousing non profit hospital services, retirement accommodations, insurance premiums.
South Dakota	Exempts health and education services; engineering, architectural, and surveying services on projects out-side South Dakota.
	Limited Taxation of Services - Narrow
Arizona	Local advertising services taxed until January 1, 1986. Tax on materials/service combinations if value of material predominates.
Connecticut	Selected business services taxed 7.5 percent; computer and data processing credit information, collection and employment agencies, marketing, private investigation, armored car, sign construction, interior design, photo finishing, telephone answering, stenographic, photocopying, certain services to realty, business analysis, and piped in music. Also, cable television.
N. Carolina	Laundry and dry cleaning
S. Carolina	Laundry and dry cleaning
	Limited Taxation of Services - Substantial
Arkansas	Alteration, repair, etc., of motor vehicles, aircraft, farm machinery and implements, motors, tires and batteries, boats, electrical

[1] Tax treatment of services other than utilities, admissions, and transient accommodations.

	appliances, instruments, machines, bicycles, office equipment, shoes, tin, and sheet metal, computer equipment and hardware, and mechanical tools and shop equipment; printing.
Florida	Repair of tangible personal property. Florida taxes cable television.
Kansas	Repair of tangible personal property, laundry and dry cleaning. Cable television, washing and waxing vehicles, and installation of tangible personal property in Kansas.
Louisiana	Repair of tangible personal property.
Mississippi	Repair of tangible personal property, laundry and dry cleaning. Cable television in Mississippi.
New Jersey	Repair of real and tangible personal property.
New York	Maintenance, servicing, and repair of real and tangible personal property (except laundry, dry cleaning, tailoring, services contracted by private landowner), information services, installation, printing.
Ohio	Repair and installation of tangible personal property; washing, waxing, polishing and painting of motor vehicles; and industrial laundry and linen services; exempts repair and remodeling of real property and coin-operated car washes.
Pennsylvania	Repair of tangible personal property. Except wearing apparel and shoes in Pennsylvania.
Tennessee	Repair and installation of tangible personal property, laundry and dry cleaning, parking. Cable television in Tennessee. Tennessee exempts repairs to certain machinery and equipment (natural resource extracting, road building, and excavating and construction, and shipping container loading) if delivered or shipped outside state after repair.
Texas	Amusement services (amusement, recreation, entertainment); cable television; personal services (SIC group plus massage parlors, escort services, and Turkish baths, from group 729); motor vehicle parking and storage; and repairing, remodeling, maintenance, and restoration of tangible personal property (except aircraft, motor vehicles, ships, boats or vessels other than sport fishing and other pleasure craft).
Utah	Laundry and dry cleaning; repairs, renovations, cleaning, washing, or installing tangible personal property.
Wisconsin	Repair of tangible personal property, laundry and dry cleaning, photocopying, parking, cable television, landscaping and lawn maintenance.

Wyoming	Repair, alteration, or improvement of tangible personal property; geological services.
Dis. of Columbia	Repair, reproduction, addressing, mailing, textile renting, parking.

Limited Taxation of Services - Board

Iowa	Repair of motor vehicles, garments, farm equipment, appliances and electronics, investment counseling, bank service charges, barber and beauty shops, carpentry, laundry and dry cleaning, photography, equipment rentals, flying service, interior decorating, warehousing of agricultural products, printing, wrapping, packing, and packaging of merchandise other than meat and vegetables, optional service on warranty contracts. Employment agency services exempt. Cable television, campgrounds, carpet and upholstery cleaning, gun and camera repair, janitorial and building maintenance, lawn care, landscaping, lobbying services, pet grooming, reflexology, security and detective, tanning beds and salons, water conditioning and softening.
Washington	Repair and installation of real and tangible property; laundry and dry cleaning; credit bureaus; abstractors; parking. Virtually all services covered by the business and occupation tax.
W. Virginia	All services exempt personal (including barber shop and beauty shop parlors) and professional (licensed by the state). Included in the taxed categories, for example, are bookkeeping, collection services; private detectives.

No Taxation of Additional Services

Alabama	
California	
Colorado	
Georgia	
Idaho	
Illinois	Service Occupation Tax applies only to tangible personal property transferred by servicement; services are exempt.
Indiana	Cable television taxed. Indiana also taxes water softening and conditioning service.
Kentucky	

Maine	Cable television taxed.
Maryland	Laundry services rendered to commercial establishments are taxed.
Massachusetts	
Michigan	
Minnesota	Cable television taxed.
Missouri	
Nebraska	Cable television taxed.
Nevada	
North Dakota	
Oklahoma	Printing, parking, and advertising are taxed.
Rhode Island	Cable television taxed.
Vermont	Cable television taxed.
Virginia	

Source: Due and Mikesell, Sales Taxation, State and Local Structure and Administration (Baltimore: Johns Hopkins University Press, 1983); and Commerce Clearing House, State Tax Review, as reported by Steve Gold, Reforming State Tax Systems, National Conference of State Legislatures, December, 1986, pp.220-221.

APPENDIX G

APPENDIX G

Summary of State's Taxation of Service Items

Sales Tax Items, by SIC Code, 1987	Taxed	Exempt	Unspecified*
Advertising	12	17	17
Photography	36	10	-
Commercial Art & Graphic Design	9	0	37
Steno graphic Services	7	0	39
Services to Dwellings & Other Businesses	10	0	36
Miscellaneous Equipment Rental & Leasing	4	0	42
Personnel Supply Services	6	0	40
Computer Programming, Data Processing, Etc.	9	8	29
Automobile Rental & Leasing	14	0	32
Automobile Parking	16	2	28
Miscellaneous Repair Services	20	6	20
Motion Picture Production, Distribution, Theaters	4	2	40
Video Tape Rentals	4	2	40
Amusement & Recreation	28	3	15
Health	3	9	34
Legal	3	2	41
Educational	3	6	37
Social	2	3	41
Museums, Art Galleries, Etc.	2	0	44
Membership Organizations	8	3	35

Summary of State's Taxation of Service Items (Continued)

Sales Tax Items, by SIC Code, 1987	Taxed	Exempt	Unspecified*
Engineering, Architectural & Surveying	2	3	41
Accounting, Auditing & Bookkeeping	2	1	43
R & D Testing	3	3	40
Management & Public Relations	2	0	44
Private Households	2	1	43
Transient Accommodations	40	6	-
TPP Maintenance, Installation & Repair	34	12	-161.5
Processing & Printing	34	0	12
Cable TV	14	0	32
Transportation	14	4	28
Personal Services	7	5	34
Professional Services	4	5	37

* In these cases, the states' tax laws do not specify whether these services are taxed or exempt. They may be implicitly exempt or taxed, depending upon the way in which the states' laws are written. For example, stenographic services are not explicitly exempt from taxation in New York; however, because they are not specifically classified as being taxable,, they are implicitly exempt from sales taxation.

Source: Tax Expenditure Reporting for the Sales and Compensating Use Taxes, A Discussion Paper, August, 1989, New York State Department of Taxation and Finance, pp. A-9, A-10.

APPENDIX H

APPENDIX H

Table 1

MICHIGAN GROSS STATE PRODUCT, 1963-1986
REAL $ GSP IN MILLIONS

INDUSTRY	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974
TOTAL	83,796	90,038	98,936	103,322	102,553	108,514	109,617	102,172	107,116	113,837	122,991	115,796
Manufacturing	30,638	33,518	37,946	39,160	37,237	41,231	42,149	35,115	37,930	41,001	47,794	41,299
Durable goods	25,742	28,365	32,471	33,420	31,658	35,205	35,821	28,958	31,411	33,879	39,879	34,380
Nondurable goods	4,896	5,153	5,476	5,739	5,579	6,025	6,328	6,156	6,518	7,122	7,916	6,919
Transportation, communication, & public util.	5,261	5,544	6,086	6,714	6,824	7,347	7,588	7,564	7,760	8,252	9,131	9,162
Wholesale trade	4,245	4,548	5,182	5,516	5,796	6,158	6,351	6,559	7,142	7,654	7,670	7,411
Retail trade	7,489	7,966	8,717	9,042	9,123	9,606	9,540	9,451	9,812	10,453	11,144	10,430
Finance, insurance, and real estate	10,293	10,862	11,617	12,334	12,842	12,960	12,200	12,527	13,246	13,854	13,783	13,687
Services	8,236	8,940	9,587	10,214	10,491	10,875	11,148	11,302	11,497	12,260	13,145	13,350
Hotels and other lodging places	371	368	423	455	492	490	465	466	430	454	451	444
Personal services	827	919	975	1,043	1,063	1,083	1,065	1,035	971	997	991	943
Business services	1,143	1,237	1,310	1,449	1,515	1,640	1,678	1,617	1,562	1,651	1,894	1,926
Auto repair, services and garages	428	476	515	535	547	575	613	602	647	713	815	808
Miscellaneous repair services	188	201	220	229	227	237	244	235	235	245	259	289
Motion pictures	68	69	70	75	76	87	98	109	108	115	125	106
Amusement and recreation services	330	358	377	369	369	368	356	362	366	369	399	400
Health services	2,176	2,402	2,619	2,761	2,831	3,018	3,250	3,510	3,812	4,204	4,501	4,695
Legal services	576	623	667	736	744	765	745	803	821	855	883	899
Education services	233	256	272	286	305	312	324	333	348	342	356	375
Social services and membership organizations	725	746	793	877	869	901	924	932	926	939	955	975
Miscellaneous professional services	722	847	927	1,003	1,062	1,035	1,061	1,003	997	1,115	1,268	1,280
Private households	449	438	419	396	390	364	325	296	275	261	247	209

Table 1 (Continued)

MICHIGAN GROSS STATE PRODUCT, 1963-1986
REAL $ GSP IN MILLIONS

INDUSTRY	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986
TOTAL	109,217	119,929	129,279	135,247	132,845	121,360	118,356	108,627	114,259	123,886	131,417	136,433
Manufacturing	36,456	45,216	50,681	52,188	48,373	39,906	37,611	31,690	35,833	42,327	46,335	47,408
Durable goods	29,818	37,812	42,669	44,006	40,181	32,511	30,262	24,493	28,120	34,221	37,912	38,767
Nondurable goods	6,638	7,405	8,012	8,181	8,192	7,396	7,349	7,197	7,713	8,106	8,423	8,641
Transportation, communication, & public util.	9,115	9,658	10,097	10,632	10,563	9,866	9,380	8,603	9,007	9,281	9,357	9,465
Wholesale trade	6,849	6,632	7,004	7,446	7,553	6,857	6,817	6,541	6,718	7,885	8,408	9,093
Retail trade	10,464	10,989	11,506	11,917	11,947	11,147	10,801	10,266	10,789	11,386	11,813	12,598
Finance, insurance, and real estate	13,293	13,428	13,936	15,566	16,571	16,772	17,926	17,554	17,740	18,080	18,532	19,432
Services	13,311	13,873	14,899	15,726	15,938	15,860	15,936	15,343	15,959	16,612	17,876	18,782
Hotels and other lodging places	437	485	532	543	519	450	405	382	361	357	357	384
Personal services	889	898	935	938	893	862	786	754	742	738	817	845
Business services	1,756	1,915	2,067	2,256	2,325	2,313	2,314	2,316	2,644	2,982	3,758	4,210
Auto repair, services and garages	783	888	990	1,066	967	853	818	767	811	866	964	991
Miscellaneous repair services	262	271	305	313	334	298	310	287	298	324	377	364
Motion pictures	114	130	129	177	104	92	71	82	82	98	106	115
Amusement and recreation services	412	433	467	447	448	428	431	408	425	418	456	470
Health services	4,998	5,117	5,392	5,641	5,843	5,965	6,142	6,052	6,189	6,199	6,152	6,390
Legal services	856	869	910	934	883	914	939	924	916	903	955	982
Education services	336	329	332	347	369	370	366	379	379	394	401	399
Social services and membership organizations	1,023	1,063	1,072	1,124	1,151	1,176	1,171	1,166	1,192	1,212	1,238	1,279
Miscellaneous professional services	1,255	1,281	1,574	1,754	1,931	1,978	2,027	1,667	1,755	1,941	2,118	2,174
Private households	191	193	195	187	170	161	157	159	166	178	177	180

Source: Data from Bureau of Economic Analysis, U.S. Department of Commerce.

Table 2

MICHIGAN GROSS STATE PRODUCT, 1963-1986
ANNUAL PERCENT CHANGE OF REAL DOLLARS

INDUSTRY	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974
TOTAL	7.4	9.9	4.4	-0.7	5.8	1.0	-6.8	4.8	6.3	8.0	-5.9
Manufacturing	9.4	13.2	3.2	-4.9	10.7	2.2	-16.7	8.0	8.1	16.6	-13.6
Durable goods	10.2	14.5	2.9	-5.3	11.2	1.7	-19.2	8.5	7.9	17.7	-13.8
Nondurable goods	5.2	6.3	4.8	-2.8	8.0	5.0	-2.7	5.9	9.3	11.1	-12.6
Transportation, communication, & public util.	5.4	9.8	10.3	1.6	7.7	3.3	-0.3	2.6	6.3	10.7	0.3
Wholesale trade	7.1	13.9	6.4	5.1	6.2	3.1	3.3	8.9	7.2	0.2	-3.4
Retail trade	6.4	9.4	3.7	0.9	5.3	-0.7	-0.9	3.8	6.5	6.6	-6.4
Finance, insurance, and real estate	5.5	7.0	6.2	4.1	0.9	-5.9	2.7	5.7	4.6	-0.5	-0.7
Services	8.5	7.2	6.5	2.7	3.7	2.5	1.4	1.7	6.6	7.2	1.6
Hotels and other lodging places	-0.8	14.9	7.6	8.1	-0.4	-5.1	0.2	-7.7	5.6	-0.7	-1.6
Personal services	11.1	6.1	7.0	1.9	1.9	-1.7	-2.8	-6.2	2.7	-0.6	-4.8
Business services	8.2	5.9	10.6	4.6	8.3	2.3	-3.6	-3.4	5.7	14.7	1.7
Auto repair, services and garages	11.2	8.2	3.9	2.2	5.1	6.6	-1.8	7.5	10.2	14.3	-0.9
Miscellaneous repair services	6.9	9.5	4.1	-0.9	4.4	3.0	-3.7	0.0	4.3	5.7	11.6
Motion pictures	1.5	1.4	7.1	1.3	14.5	12.6	11.2	-0.9	6.5	8.7	-15.2
Amusement and recreation services	8.5	5.3	-2.1	0.0	-0.3	-3.3	1.7	1.1	0.8	8.1	0.3
Health services	10.4	9.0	5.4	2.5	6.6	7.7	8.0	8.6	10.3	7.1	4.3
Legal services	8.2	7.1	10.3	1.3	2.8	-2.6	7.8	2.2	4.1	3.3	1.8
Education services	9.9	6.3	5.1	6.6	2.3	3.8	2.8	4.5	-1.7	4.1	5.3
Social services and membership organizations	2.9	6.3	10.6	-0.9	3.7	2.6	0.9	-0.6	1.4	1.7	2.1
Miscellaneous professional services	17.3	9.4	8.2	5.9	-2.5	2.5	-5.5	-0.6	11.8	13.7	0.9
Private households	-2.4	-4.3	-5.5	-1.5	-6.7	-10.0	-8.9	-7.1	-5.1	-5.4	-15.4

Source: Data from Bureau of Economic Analysis, U.S. Department of Commerce.

Table 2 (Continued)

MICHIGAN GROSS STATE PRODUCT, 1963-1986
ANNUAL PERCENT CHANGE OF REAL DOLLARS

INDUSTRY	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986
TOTAL	-5.7	9.8	7.8	4.6	-1.8	-8.6	-2.5	-8.2	5.2	8.4	6.1	3.8
Manufacturing	-11.7	24.0	12.1	3.0	-7.3	-17.5	-5.8	-15.7	13.1	18.1	9.5	2.3
Durable goods	-13.3	26.8	12.8	3.1	-8.7	-19.1	-6.9	-19.1	14.8	21.7	10.8	2.3
Nondurable goods	-4.1	11.6	8.2	2.1	0.1	-9.7	-0.6	-2.1	7.2	5.1	3.9	2.6
Transportation, communication, & public util.	-0.5	6.0	4.5	5.3	-0.6	-6.6	-4.9	-8.3	4.7	3.0	0.8	1.2
Wholesale trade	-7.6	-3.2	5.6	6.3	1.4	-9.2	-0.6	-4.0	2.7	17.4	6.6	8.1
Retail trade	0.3	5.0	4.7	3.6	0.3	-6.7	-3.1	-5.0	5.1	5.5	3.8	6.6
Finance, insurance, and real estate	-2.9	1.0	3.8	11.7	6.5	1.2	6.9	-2.1	1.1	1.9	2.5	4.9
Services	-0.3	4.2	7.4	5.6	1.3	-0.5	0.5	-3.7	4.0	4.1	7.6	5.1
Hotels and other lodging places	-1.6	11.0	9.7	2.1	-4.4	-13.3	-10.0	-5.7	-5.5	-1.1	0.0	7.6
Personal services	-5.7	1.0	4.1	0.3	-4.8	-3.5	-8.8	-4.1	-1.6	-0.5	10.7	3.4
Business services	-8.8	9.1	7.9	9.1	3.1	-0.5	0.0	0.1	14.2	12.8	26.0	12
Auto repair, services and garages	-3.1	13.4	11.5	7.7	-9.3	-11.8	-4.1	-6.2	5.7	6.8	11.3	2.8
Miscellaneous repair services	-9.3	3.4	12.5	2.6	6.7	-10.8	4.0	-7.4	3.8	8.7	16.4	-3.4
Motion pictures	7.5	14.0	-0.8	37.2	-41.2	-11.5	-22.8	15.5	0.0	19.5	8.2	8.5
Amusement and recreation services	3.0	5.1	7.9	-4.3	0.2	-4.5	0.7	-5.3	4.2	-1.6	9.1	3.1
Health services	6.5	2.4	5.4	4.6	3.6	2.1	3.0	-1.5	2.3	0.2	-0.8	3.9
Legal services	-4.8	1.5	4.7	2.6	-5.5	3.5	2.7	-1.6	-0.9	-1.4	5.8	2.8
Education services	-10.4	-2.1	0.9	4.5	6.3	0.3	-1.1	3.6	0.0	4.0	1.8	-0.5
Social services and membership organizations	4.9	3.9	0.8	4.9	2.4	2.2	-0.4	-0.4	2.2	1.7	2.1	3.3
Miscellaneous professional services	-2.0	2.1	22.9	11.4	10.1	2.4	2.5	-17.8	5.3	10.6	9.1	2.6
Private households	-8.6	1.0	1.0	-4.1	-9.1	-5.3	-2.5	1.3	4.4	7.2	-0.6	1.7

Source: Data from Bureau of Economic Analysis, U.S. Department of Commerce.

APPENDIX I

APPENDIX I

TABLE 1

CENSUS OF SERVICE INDUSTRIES, 1987

KIND OF BUSINESS	No. of Establish-ments	Receipts (1,000) Dollars	Multiplied by 4% Tax Rate
TOTAL	55,367	23,859,804	954,392
Hotels, rooming houses camps, & other lodging places (except membership lodging)	1,434	893,658	35,746
Hotels and motels	1,234	864,056	34,562
Hotels	396	605,668	24,227
Hotels, 25 guestrooms or more	267	591,582	23,663
Hotels, less than 25 guestrooms	129	14,086	563
Motels, motor hotels & tourist courts	838	258,388	10,336
Motels, tourist courts	762	207,916	8,317
Motor hotels	76	50,472	2,019
Other lodging places	200	29,602	1,184
Rooming and boarding houses	28	2,801	112
Camps and recreational vehicle parks	172	26,801	1,072
Sporting and recreational camps	43	10,207	408
Recreational vehicle parks & campsites	129	16,594	664
Personal services	6,338	1,126,971	45,079
Laundry, cleaning, & garment services	1,811	453,663	18,147
Power laundries, family & commercial	67	28,069	1,123
Linen supply	63	78,942	3,158
Coin-operated laundries & drycleaning	536	69,564	2,783
Coin-operated laundries & drycleaning	517	56,115	2,245
Coin-operated laundry machine routes	19	13,449	538
Drycleaning plants, except rug cleaning	715	131,225	5,249
Carpet and upholstery cleaning	213	26,093	1,044
Industrial launderers	55	100,690	4,028
Other laundry, cleaning & garment services	162	19,050	762
Garment pressing and agents for laundries & drycleaners	80	4,612	184
Laundry and garment services, nec	82	14,438	578
Diaper and other laundry services nec	77	14,244	570
Diaper service	8	7,852	314
Other laundry services nec	69	6,392	256
Seamstresses and dressmaking services	5	194	8
Photographic studios, portrait	376	68,583	2,743
Beauty and barber shops	2,619	255,319	10,213
Beauty shops	2,487	245,221	9,809
Barber shops	132	10,098	404
Shoe repair shops and shoeshine parlors	89	7,204	288
Funeral service and crematories	585	218,824	8,753
Miscellaneous personal services	858	123,408	4,936
Tax return preparation services	311	35,537	1,421
Miscellaneous personal services nec	547	87,871	3,515
Health-related personal services	197	11,690	468
Other personal services nec	350	76,181	3,047

Table 1 (Continued)

KIND OF BUSINESS	No. of Establish-ments	Receipts (1,000) Dollars	Multiplied by 4% Tax Rate
BUSINESS SERVICES	7,846	5,576,244	223,050
Advertising	573	639,750	25,590
Advertising agencies	398	522,544	20,902
Outdoor advertising services	39	50,884	2,035
Radio, television, publishers' advertising representatives	78	38,491	1,540
Advertising, nec	58	27,831	1,113
Consumer credit reporting agencies, mercantile reporting agencies, and adjustment and collection agencies	201	107,809	4,312
Adjustment and collection services	150	59,723	2,389
Credit reporting services	51	48,086	1,923
Mercantile and reporting services	6		
Consumer credit reporting services	45		
Mailing, reproduction, commercial art and photography, and stenographic services	926	488,428	19,537
Direct mail advertising services	99	118,012	4,720
Photocopying and duplicating services	138	68,261	2,730
Blueprinting and photocopying services	112	61,136	2,445
Duplicating services, except printing	26	7,125	285
Secretarial and court reporting services	217	39,699	1,588
Commercial photography, art and graphics	472	262,456	10,498
Commercial photography	126	34,227	1,369
Commercial art and graphic design	346	228,229	9,129
Commercial art	124	74,722	2,989
Graphic arts and related design	222	153,507	6,140
Services to dwellings and other buildings	1,411	330,758	13,230
Disinfecting and pest control services	140	49,270	1,971
Building cleaning and maintenance services nec	1,271	281,488	11,260
Window cleaning	41	4,540	182
Other building cleaning and maintenance services, nec	1,230	276,948	11,078
Miscellaneous equipment rental and leasing	746	452,723	18,109
Medical equipment rental and leasing	79	58,889	2,356
Heavy construction equipment rental and leasing	129	130,324	5,213
Leasing and rental of heavy construction equipment without operators	74	78,754	3,150
Rental of heavy construction equipment with operators	55	51,570	2,063
Equipment rental and leasing, nec	538	263,510	10,540
Equipment rental	432	211,781	8,471
Equipment leasing, except finance leasing	106	51,729	2,069
Personnel supply services	780	761,549	30,462
Employment agencies	294	90,934	3,637
Help supply services	486	670,615	26,825
Temporary help supply	403	566,549	22,662
Help supply except temporary	83	104,066	4,163

Table 1 (Continued)

KIND OF BUSINESS	No. of Establish-ments	Receipts (1,000) Dollars	Multiplied by 4% Tax Rate
Business services - continued			
Computer programming, data processing, & other computer related services	1,252	1,437,441	57,498
Computer programming, prepackaged software, & integrated	668	585,294	23,412
Systems design			
Computer programming services	445	383,901	15,356
Prepackaged software	80	59,942	2,398
Computer integrated systems design	143	141,451	5,658
Data processing services	309	470,628	18,825
Computer processing, information retrieval	282	445,658	17,826
Computer processing and data preparation & processing services	272	437,926	17,517
Information retrieval services	10	7,732	309
Computer facilities management services	27	24,970	999
Computer rental and leasing, maintenance & related services	275	381,519	15,261
Computer rental and leasing	28	129,877	5,195
Computer maintenance and repair	115	198,297	7,932
Computer related services, nec	132	53,345	2,134
Miscellaneous business services	1,957	1,357,786	54,311
Detective agencies and protective services	392	248,839	9,954
Detective, guard and armored car services	318	181,245	7,250
Detective agencies and guard services	299	164,621	6,585
Armored car systems	19	16,624	665
Security systems services	74	67,594	2,704
News syndicates	14	10,401	416
Photo finishing laboratories	177	109,666	4,387
Photo finishing labs except mini labs	120	96,003	3,840
One hour photo finishing labs	57	13,663	547
Business services nec	1,374	988,880	39,555
Sign painting shops	69	13,523	541
Interior designing	109	27,542	1,102
Telephone answering services	106	21,889	876
Other business services	1,090	925,926	37,037
Water softening services	104		
Packaging and labeling services	79	174,111	6,964
Trading stamp services	1		
Miscellaneous business services nec	906	709,543	28,382

Table 1 (Continued)

KIND OF BUSINESS	No. of Establish-ments	Receipts (1,000) Dollars	Multiplied by 4% Tax Rate
Automotive repair, services, and parking	5,357	1,840,704	73,628
Automotive rental and leasing, without drivers	379	464,200	18,568
Truck rental and leasing, without drivers	182	246,491	9,860
Truck rental, without drivers	92	60,660	2,426
Truck leasing, except finance leasing	90	185,831	7,433
Passenger car rental and leasing without drivers	170	209,460	8,378
Passenger car rental, without drivers	119	133,750	5,350
Passenger car leasing, without drivers	51	75,710	3,028
Utility trailer and recreational vehicle rental	27	8,249	330
Automobile parking	144	48,965	1,959
Parking lots	106	15,485	619
Parking structures	38	33,480	1,339
Automotive repair shops	4,004	1,123,477	44,939
Top, body, and upholstery repair shops and point shops	1,337	416,580	16,663
Top and body repair shops	1,249	390,203	15,608
Paint shops	88	26,377	1,055
General automotive repair shops	1,543	355,316	14,213
General automotive repair shops, except diesel	1,421	310,049	12,402
Diesel repair shops	122	45,267	1,811
Other automotive repair shops	1,124	351,581	14,063
Automotive exhaust system repair shops	302	104,088	4,164
Tire retreading and repair shops	47	25,548	1,022
Automotive glass replacement shops	168	76,533	3,061
Automotive transmission repair shops	232	50,086	2,003
Automotive repair shops, nec	375	95,326	3,813
Radiator repair	121	32,469	1,299
Brake, front end and wheel alignment	134	38,670	1,547
Automotive electrical and fuel system services	81	13,074	523
Carburetor repair shops	21	2,451	98
Automotive electrical repair shops	60	10,623	425
Other automotive repair shops, nec	39	11,113	445
Automotive services, except repair	830	204,062	8,162
Carwashes	458	97,338	3,894
Automotive services, except repair and carwashes	372	106,724	4,269
Lube shops	95	33,665	1,347
Other automotive services, nec	277	73,059	2,922
Miscellaneous repair service	2,240	788,597	31,544
Electrical repair shops	599	230,358	9,214
Radio and television repair shops	206	56,481	2,259
Other electrical and electronic repair shops	393	173,877	6,955
Refrigeration and air conditioning service and repair shops	102	51,338	2,054
Electrical and electronic repair shops nec	291	122,539	4,902
Watch, clock and jewelry repair	55	5,514	221
Reupholster and furniture repair	219	23,706	948
Miscellaneous repair shops and related services	1,367	529,019	21,161
Welding repair	194	56,421	2,257
Armature rewinding shops	100	68,154	2,726
Repair shops and related services	1,073	404,444	16,178
Farm machinery and equipment repair shops	28	7,306	292
Lawnmower and other small engine repair	83	17,242	690
Sewer and septic tank cleaning services	105	35,401	1,416
Other repair and related services, nec	857	344,495	13,780

Table 1 (Continued)

KIND OF BUSINESS	No. of Establish-ments	Receipts (1,000) Dollars	Multiplied by 4% Tax Rate
Amusement and recreation services, including motion pictures	3,436	1,447,353	57,894
Motion picture production, distribution and services	184	341,815	13,673
Motion picture production, except for television	65	27,620	1,105
Motion picture and tape production for television	35	19,220	769
Services allied to motion picture production	53	204,508	8,180
Motion picture film exchanges	21	84,022	3,361
Film and tape distribution for television	3		
Services allied to motion picture distribution	7		
Motion picture theaters	263	137,242	5,490
Motion picture theaters, except drive-in	215	130,387	5,215
Drive in motion picture theaters	48	6,855	274
Video tape rental	679	91,676	3,667
Theatrical producers (except motion picture)	128	81,608	3,264
Theatrical producers (except motion picture) bands, orchestras	61	54,378	2,175
Producers of live theatrical productions	18	5,281	211
Producers of radio and television shows except tape	5	2,364	95
Artists' and entertainers' managers or agents, concert bureaus, booking agents	21	16,817	673
Other theatrical services	17	29,916	1,197
Bands, orchestras, actors and other entertainers	67	27,230	1,089
Dance groups and artists	2		
Symphony orchestras, opera companies and chamber music			
Other music and entertainment presentations	65		
Other music groups and artists	37		
Other entertainers and entertainment groups	28	15,675	627
Bowling centers	431	182,283	7,291
Commercial sports and other amusement and recreation services	1,751	612,729	24,509
Commercial sports	87	156,862	6,274
Professional sports clubs and promoters	25	50,714	2,029
Baseball clubs	2		
Football clubs	1		
Other professional sports clubs	7		
Managers and promoters	15		
Racing, including track operation	62	106,148	4,246
Auto racetrack operation	10	9,775	391
Horse racetrack operation	7	85,876	3,435
Dog racetrack operation			
Racing stables and racing nec	45	10,497	420

Table 1 (Continued)

KIND OF BUSINESS	No. of Establish-ments	Receipts (1,000) Dollars	Multiplied by 4% Tax Rate
Other amusement and recreation services, including museums	1,664	455,867	18,235
Dance studios, schools and halls	121	8,955	358
Physical fitness facilities	370	90,143	3,606
Physical fitness centers, except gymnasiums and athletic	399	80,583	3,223
Membership gymnasiums and athletic clubs	20	8,146	326
Nonmembership gymnasiums and athletic clubs	11	1,414	57
Public golf courses	244	86,955	3,478
Coin-operated amusement devices	129	25,327	1,013
Amusement parks	36	22,970	919
Membership sports and recreation clubs	269	116,854	4,674
Amusement and recreation services, including museums	495	104,663	4,187
Concession operators of amusement devices and rides	22	3,799	152
Carnivals, circuses and fairs	14	8,045	322
Carnivals and circuses	13		
Fairs	1		
Billiard and pool establishments	14	1,874	75
Other recreation & amusements, Incl. museums	445	90,945	3,638
Museums, art galleries, and botanical and zoological	5	585	23
Museums and art galleries	4		
Arboreta and botanical or zoological gardens	1		
Roller skating rinks	83	17,102	684
Ice skating rinks	12	3,953	158
Other amusements and recreation services nec	345	69,305	2,772

Table 1 (Continued)

KIND OF BUSINESS	No. of Establish-ments	Receipts (1,000) Dollars	Multiplied by 4% Tax Rate
Health services	15,382	6,219,908	248,796
Office and clinics of doctors of medicine	6,300	2,875,183	115,007
Offices of doctors of medicine	6,145	2,697,211	107,888
Clinics of doctors of medicine	155	177,972	7,119
Offices and clinics of dentists	4,268	1,071,311	42,852
Offices of dentists	4,235	1,056,567	42,263
Clinics of dentists	33	14,744	590
Offices and clinics of doctors of osteopathy	1,127	403,149	16,126
Office and clinics of other health practitioners	2,184	445,329	17,813
Offices and clinics of chiropractors	795	111,880	4,475
Office and clinics of optometrists	598	161,762	6,470
Offices and clinics of podiatrists and other health practitioners	791	171,687	6,867
Offices and clinics of podiatrists	396	84,868	3,395
Offices and clinics of health practitioners nec	395	86,819	3,473
Nursing and personal care facilities	418	601,733	24,069
Skilled nursing care facilities	293	524,688	20,988
Nursing and personal care facilities except skilled nursing care facilities	125	77,045	3,082
Intermediate care facilities	71	47,938	1,918
Nursing and personal care facilities nec	54	29,107	1,164
Hospitals ,	12	242,808	9,712
General medical and surgical hospitals	2		
Psychiatric hospitals	6		
Specialty hospitals, except psychiatric	4		
Other health services	1,073	580,395	23,216
Medical and dental laboratories	537	307,925	12,317
Medical laboratories	237	243,273	9,731
Dental laboratories	300	64,652	2,586
Home health care services	195	87,246	3,490
Miscellaneous health and allied services nec	341	185,224	7,409
Kidney dialysis centers	7		
Specialty outpatient facilities nec	211	101,105	4,044
Health and allied services, nec	123		
Legal services	4,326	1,769,856	70,794
Selected educational services	260	127,149	5,086
Libraries			
Vocational schools	109	92,291	3,692
Data processing schools	24	26,167	1,047
Business and secretarial schools	32	21,584	863
Vocational schools, nec	53	44,540	1,782
Correspondence schools	2		
Vocational schools, except correspondence and vocational high schools, nec	51		
Schools and educational services nec	151	34,858	1,394

Table 1 (Continued)

KIND OF BUSINESS	No. of Establish-ments	Receipts (1,000) Dollars	Multiplied by 4% Tax Rate
Social Services	1,578	219,167	8,767
Child day care services	653	55,233	2,209
Other social services	925	163,934	6,557
Individual and family social services	196	22,441	898
Job training and vocational rehabilitation services	44	26,118	1,045
Residential care	648	110,227	4,409
Social services, nec	37	5,148	206
Engineering accounting, research, management, and related services	6,300	3,748,258	149,930
Engineering, architectural, and surveying services	2,073	1,710,303	68,412
Engineering services	1,402	1,407,709	56,308
Architectural services	471	252,741	10,110
Surveying services	200	49,853	1,994
Accounting, auditing, and bookkeeping services	2,187	787,110	31,484
Research, development and testing services except noncommercial	360	476,923	19,077
Commercial physical and biological research	122	334,520	13,381
Commercial physical research	74	292,306	11,692
Commercial medical and biological research	48	42,214	1,689
Commercial economic, sociological, and educational research	146	78,720	3,149
Testing laboratories	92	63,683	2,547
Engineering, accounting, research, management, and related services (except noncommercial research organizations) - con			
Management and public relations services	1,680	773,922	30,957
Management services	508	314,131	12,565
Management consulting services	832	298,858	11,954
Public relations services	112		
Facilities support management services	2		
Business consulting services, nec	226	112,160	4,486
Services, nec	870	101,939	4,078
Scientific and related consulting services	114	27,881	1,115
Other services, nec.	756	74,058	2,962

Source: Data from U.S. Department of Commerce, Bureau of the Census, Michigan Census of Services, 1987, pp. 6-10.

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