

PROPERTY AND SALES TAX PLANS IN OREGON

by

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Health and Social Insurance have long been important political issues in Oregon. In November 1980, a new Oregon Health Insurance Measure A, was approved by voters, because it shifted the property tax rate local governments pay, and the business tax rate to replace the revenue lost by the shift. This will put a strain on the state's general fund until a replacement source of revenue is implemented. This will most likely be a sales tax.

This paper examines three possible tax alternatives. The original property tax system, Measure A, and Measure B combined with a sales tax. These plans are evaluated using the standard economic approach of equity and efficiency. The criteria employed include equity, revenue, and efficiency, equity, independence and stability, and

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State and local taxation have long been important political issues in Oregon. In November 1990, a new property tax limitation, Measure 5, was approved by voters. Measure 5 limits the property tax rate local governments can levy, and also requires the state to replace the revenue lost by K-12 schools. This will put a strain on the state's general fund until a replacement source of revenue is implemented. This will most likely be a sales tax.

This paper examines three possible tax plans for Oregon: the original property tax system, Measure 5, and Measure 5 combined with a sales tax. These plans are analyzed from the standard economic approach of equity and efficiency. The criteria employed include equity, revenue and expenditures, costs, independence and stability, and

macroeconomic effects. Although the original property tax system was best in the short run, the plan including Measure 5 and a sales tax was preferable in the long run.

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C H A P T E R 1

INTRODUCTION

Property tax relief and school funding have long been major political issues in Oregon. Since the turn of the century, property tax relief has been sought to alleviate the burden due to the highly regressive nature of the tax. However, a problem arises with abolishing the property tax altogether because property taxes provide most of the revenue generated to run local governments. Although once a major source of revenue for the state government, state collected property taxes have been replaced by income taxes. This is an infeasible alternative for local governments primarily because income is already heavily taxed. The latest property tax relief proposal enacted by voters was Measure 5. Like so many other past property tax relief proposals, Measure 5 sought to limit the amount collected in property taxes. Unlike many others in the past this proposal failed to include a provision for a sales tax, or any other replacement revenue.

Measure 5 also proposed to benefit Oregon's K-12 school system by forcing the state to distribute more money among the various districts. This should equalize the money received by the school districts and help maintain a general

educational quality throughout the state. Prior to Measure 5, the education of Oregon's school children was primarily the responsibility of local communities. Local school districts were mostly supported by property taxes and state government transfers, with occasional additional help from the state government. This was a system that many found unstable, inequitable, and outdated. Many school districts were not financially able to maintain high quality institutions. This could result in delayed school openings and sometimes even school closures. Also, unequal funding resulted in varied qualities of education throughout the state. Many attempts have been made to rectify the problem of schools such as the school safety net plan passed in the mid-1980s.

This paper examines the property tax and school funding problem in Oregon under three tax plans. These plans include the original property tax system, property taxes under Measure 5, and property taxes under Measure 5 with the addition of a sales tax. These three tax plans are chosen for several reasons. The original property tax system is chosen in order to test if voters made the best decision in approving Measure 5. Measure 5 is examined because it is the current system operating in Oregon. A plan adding a sales tax to Measure 5 is included in the analysis because it is the source of replacement revenue Oregon is most

likely to adopt. Each of these tax systems are analyzed using five criteria to determine the best of the three options for Oregon. The criteria are: (1) equity, (2) revenue and expenditures, (3) costs, (4) independence and stability, and (5) macroeconomic effects. These criteria cover the basic equity and efficiency concerns prevalent in economic analysis.

The second chapter recounts some basic tax history in Oregon, followed by an explanation of property taxes and the property tax system in Oregon. This chapter also includes a similar explanation of sales taxes. This background chapter is important in order to fully understand the complications Oregon faces in establishing an equitable, feasible, and efficient tax system to fund local governments, including schools.

The third chapter details the assumptions used in the analysis and Chapter 4 presents the results. While assumptions can sometimes render the conclusions less reliable than a real life situation, they are necessary for several reasons. Assumptions are useful in solving problems of insufficient data, and in simplifying the analysis. In order to partially reconcile the conclusions from the analysis with real life, some assumptions are dropped in Chapter 5 and the results are discussed.

Chapter 6 discusses the political feasibility of the various tax systems. Since most tax changes occurring in the state must receive voter approval, a tax plan must be politically palatable as well as efficient and equitable. The soundness of voter decisions concerning Measure 5 and sales taxes are examined in this chapter as well.

As a final note, the reader should keep in mind the subjectiveness of tax issues. This is especially true in the equity and revenues and expenditures criteria. While an attempt is made to minimize the amount of subjective conclusions in this paper, complete elimination is impossible.

C H A P T E R 2

BACKGROUND AND HISTORY

Section 1: Oregon Tax History

Taxes in Oregon, as well as in the rest of the United States, have risen enormously in the past century due to large increases in necessary governmental expenditures.¹ In Oregon, population increases and urbanization necessitated more government services such as sidewalks, sewage systems, and waterworks. Technological advances, such as the invention of airlines and the widespread use of cars forced governments to spend money on airports and to improve roads. Societal movements, such as the Civil Rights and environmental movements, led to increased governmental programs as well.

During the 1920s, property taxes were Oregon's primary source of revenue at both the local and state levels. In 1916, a six percent limit was placed on annual property tax increases without voter approval, although special levies were frequently approved in elections. Despite these

¹All tax history from: Bureau of Government Research and Services, Fifty Years of Public Finance in Oregon, (University of Oregon, 1984).

approvals, Oregonians continued to search for property tax relief. Additional types of taxes were proposed, such as the income tax and a retail sales tax, in order to provide such relief. As a result, income taxes are now the most important source of revenue for the state and have generated more than enough income to offset the revenue generated by the original state property tax. In addition, despite several attempts, Oregon has never adopted a sales tax. Most proposals failed to elicit voter approval at the polls.

The first income tax was passed by the legislature and approved by voters in 1923. It was repealed the next year. Further attempts were made in subsequent years but all failed until 1929 when a law based on a 1927 recommendation by the Oregon Property Tax Relief Commission was enacted. The law created a personal income tax, a corporate income tax, and a tax on intangibles.*² These were to be employed to relieve the burden of state property taxes. The tax on intangibles was declared unconstitutional by the Oregon Supreme Court, reenacted in 1931 and lasted only until 1939. By 1942, income taxes generated enough revenue to completely offset state property taxes, although state property taxes were levied until 1953 (but not collected). Income taxes were used to provide some local property tax relief as well.

²Words with an asterisk (*) appear in the glossary.

In 1946, the Basic School Support Program was created to help ease the property tax burden within school districts. Currently, it provides the largest transfer of money between the state and local governments.

Various property tax relief programs have been implemented throughout the last century, although the most important has been the creation of the income tax. Programs such as the Oregon Homeowners and Renter Refund Program, the 1979 Property Tax Relief Program, and various exemptions, deferral programs, and limitations have helped to relieve the property tax burden.

Section 2: Property Taxes

Property has traditionally been a natural base* for taxation, appearing in American history as far back as the Colonial era. Since possessions were few, the property tax originally began as a tax on land. As the amount of personal possessions grew, they became included in the tax base. However, since the Civil War, the trend has reversed and there has been a constant erosion of the property tax base as administration difficulties, political special interest groups, general public opinion, and political goals have imposed exemptions and limitations on the tax base. The primary use of property taxes in the United States is to finance state and local government. In Oregon, only local

governments receive funding through a property tax. It constitutes the major portion of local government revenues. During the 1987-88 fiscal year, local governments in Oregon received 69 percent of their revenue from property taxes.³

There are two types of property taxes: general and classified. A general property tax, or net worth tax, taxes all property equally and provides for a negative tax on economic losses. This tax exists only in theory. A classified property tax only taxes specific types of property or taxes differing types of property at different rates. When a classified property tax system is applied, an unequal distribution of the tax burden results. This is unacceptable only to the extent that the redistribution is socially undesirable. There are several ways to classify a property tax, including partial or complete exemption, different ratios of assessed value to true market value and different tax rates. Classified property taxes exist in Oregon, as well as the rest of the United States.

Property can be divided into real property, or realty, and personal property, or personalty. Real property consists of land in its natural state, any natural resources it possesses, and improvements made on the land. Personal

³Oregon Department of Revenue, Oregon Property Tax Statistics, Fiscal Year 1989-90, p. 2.

property consists of all other forms of property and can be subdivided into tangible personalty and intangible personalty. Tangible personalty is any tangible possession. Examples include refrigerators, clothes, cars, and business inventories. Intangible property includes financial assets owned by an individual such as stocks and bonds.⁴

Governments have succeeded in distorting the apparent equity of a general property tax by reducing the tax base with exemptions which increase the tax liability on the remaining population. There are several reasons for these exemptions. The most important reason exemptions are made for specific types of property are high administration costs.⁵ Intangible and individual personal properties are usually exempted for this reason. These types of property are difficult to assess. They are easy for people to hide and sometimes it is impossible to determine their true market value. In Oregon, intangible property is fully exempted and personal property is exempted in part.

Exemptions are also used to promote socially desirable activities, such as the exemption given to the property of charitable organizations. Also, they are used to give a

⁴See fig. 1.

⁵William Henderson and Helen Cameron, The Public Economy (New York, Random House, 1969), pp.190-195.

subsidy to a particular group of individuals. For example, in Oregon, the property of war veterans is exempted in part. In these sorts of exemptions, the resulting tax burden shift is not absorbed state wide but instead falls on a specific locality. In the case of a subsidy, the amount of the subsidy is not constant among similar groups but instead varies depending on the amount of property a specific group owns.

Federally and state owned land is also exempt from the tax base in Oregon. This becomes a significant problem is the state or federal government owns a large amount of land within a specific district, as is frequently the case in Oregon. Although, in this case, both the federal and the state governments try to increase the transfer payments they make to local governments, these payments do not equal the revenue lost through the government's inability to collect taxes.

Finally, exemptions are used to try to promote a specific economic activity. Local governments try to attract new business into the area by including a decrease or exemption of a new business' property taxes for the first few years. Although this appears to be a good idea, problems occur if businesses frequently change taxing districts in pursuit of a constant exemption. This type of

policy could also result in a loss of efficiency as firms relocate at farther distances from resource sources.

Property tax limitations also decrease the revenue generating capability of this tax. Limitations have a large amount of public appeal as do most tax decreasing programs. Limits can be placed on either the rate of taxation, the maximum increase in assessed values of property, or on the total amount of property taxes that can be collected for a given value of property. Oregon has several different limitations in place. In any one year, the amount levied cannot exceed the highest amount levied in the past three years plus six percent. A safety valve is built in to this limit since temporary special and serial levies can be voter approved. Measure 5 imposed another limitation on the tax rate. Property taxes cannot exceed \$25 per \$1000 assessed value in 1991, this amount decreasing to \$15 per \$1000 during the following few years. A maximum of ten dollars per \$1000 assessed value will be permanently allocated to non-school district local governments, with the maximum portion remaining for school districts to decrease from \$15 to \$5. The state is required to make up the money lost by the schools during the five year phase in of Measure 5. After that, the state no longer has a legal obligation to school districts, although politically, it would be impossible to withdraw the support.

Although most state and local governments must present a balanced budget, a study done on the property tax limitations of the 1930s showed that limitations usually do not cause a decrease in government spending.⁶ Instead they tend to cause governments to find some other means of finance. The alternative means of finance, such as debt or an increase in other taxes, might or might not be less efficient than an unlimited property tax. Absolute maximums, such as those imposed by Measure 5, impose a static barrier within a dynamic system that does not allow the tax to reflect changing economic conditions. Limitations also decrease the independence of local governments from the state as states begin to assume functions no longer performed by local governments due to lack of funding. Also, states might be obligated to help local governments make up revenue lost to property tax limitations.

Oregon property taxes are collected by the counties. The collected money is then distributed among the various special districts* and local governments for which the tax was collected. The first step in the process is to define

⁶James W. Martin, "Relationship Between the Property Taxes and the Economy," Proceeding of the National Tax Association, 1952, quoted by Bernard P. Herber in Modern Public Finance (Homewood, IL., Richard D. Irwin, Inc., 1975), p. 254.

an acceptable base for taxation. An inventory of all taxable property is then drawn up and assessed. A rate is set based on the gap between expenditures and all other sources of revenue, and the tax liability is determined for each taxpayer. Finally, the tax is collected with penalties imposed for delinquent taxes and cases of tax evasion.⁷

Property taxes have been criticized because they are not geared to changes in income. It is important to note that property taxes are not paid out of a reserve of property but out of income. An individual is liable for the tax so long as he or she owns the property regardless if he or she has the income to pay it. Another criticism is that since a classified property tax is not equivalent to a net worth tax, the ability-to-pay criterion may not be met.⁸ Also, assessments are at times unfair or inconsistent, and lag behind general market conditions. Finally, different property taxes can cause population shifts and distortions, and high property taxes can discourage new building.

In spite of all these problems and criticisms, property taxes are still used heavily. Many of the tax inequities

⁷See fig. 2.

⁸Further discussion on the ability-to-pay principle of equity is given in Chapter 3, Section 2.

have already been absorbed through capitalization.* The taxes help diffuse increasing real estate prices in times of economic growth. Also, bases are unlikely to move due to increased tax rates. This implies a constant source of revenue. As a final reason, property taxes are the major source of revenue for local governments. Without them, a significant amount of revenue would have to be earned through some other means of taxation.

Section 3: Sales Tax

The most popular type of a sales tax is a tax on retail sales, yet in reality, there are many forms of sales taxes. Although Oregon has not established a general retail sales tax, it does have several excise taxes* levied on specific commodities such as gasoline and beer.

Sales taxes can be divided into two categories: narrowbased and broadbased.⁹ Narrowbased taxes, generally called specific sales or excise taxes, are levied on only a few commodities. Classic examples include taxes on alcoholic beverages, tobacco, and gasoline. Usually, specific sales taxes are reserved for goods with a low elasticity of demand* so that consumption of these goods is

⁹Herber, pp. 279-283.

not severely affected. Excise taxes on "luxury goods", predominantly purchased by the wealthy, are a means of redistributing income within society. Also, sumptuary taxes* might take the form of excise taxation. Finally, the benefit principle* of tax burden equity might result in specific sales taxes.¹⁰ The revenue from some excise taxes could be "earmarked" for certain programs or agencies. For example, the gas tax is frequently "earmarked" for the building and upkeep of roads and highways.

A broadbased sales tax is one in which a wide range of goods and services are taxed. A general sales tax, called a turnover tax, is the farthest extreme. A turnover tax taxes all transactions in the economy. It is a multistage sales tax because sales at all stages of production are taxed. A value added sales tax, used mostly in Europe, is multistaged as well. It taxes the value added to the final cost of the good as it passes through the various production stages.¹¹ In contrast, a single stage sales tax, such as a producer sales or retail sales tax, only taxes transactions at one level of production.

¹⁰Further discussion of cost-benefit analysis is given in Chapter 3, Section 2.

¹¹See fig. 3.

In order to prevent the purchase of goods outside the tax jurisdiction, retail sales taxes are generally coupled with a use tax. This places a tax on goods bought by residents elsewhere and brought back home. This sort of tax is difficult to enforce since the detection of goods taxed under use taxes is difficult.

Although both excise and retail sales taxes exist in the United States, Oregon only employs excise taxes, despite several attempts to impose a retail sales tax. Most of these attempts were made as property tax relief plans and were rejected every time by voters. With the passage of Measure 5, a retail sales tax is again being proposed in order to make up for revenue lost to limitations.

In the United States, retail sales taxes can be collected by the state and, in some cases, local governments as well. In general, however, it is the state that uses retail sales taxes more heavily. Locally levied retail sales taxes only resulted in three percent of total local revenues in 1971.¹² Also, local retail sales taxes are only levied in large cities which have the capability to administer them. In general, very little revenue generated for city governments comes from a sales tax. Also, since

¹²Herber, p. 292.

Oregon has few large cities, a city sales tax does not seem to be a viable option for most local governments. Even Portland, the largest city in the state, may not be big enough to efficiently levy a sales tax.

In many states, exemptions are given from the retail sales tax. These exemptions narrow the tax base and decrease the amount of revenues collected. For the most part, retail sales taxes are levied only on tangible goods. This releases services from taxation and contributes to the regressivity of the tax since the wealthy tend to buy more services relative to lower income individuals. Sales to public, educational, or charitable organizations are sometimes freed as well. Commodities upon which specific excise taxes have already been levied are also frequently exempted. Curiously, newspapers are commonly exempted to preserve "freedom of the press". Medicine, drugs, and food are also typical exemptions. When these goods are exempted, some of the regressiveness of the tax is eased.

Administration of a sales tax is under the direction of a head official who is either elected or appointed by the governor. Occasionally, direction is shared by a tax board. The state collects the money directly from the sellers at specific intervals. A large part of the collection and compliance costs are paid by the sellers of retail goods. Although there are various programs designed to compensate

the vendor, retailers are still the most vocal opponents to the sales tax.

As has been explained previously, Oregon has yet to enact a sales tax. Thus, the exact nature of such a tax is not known. However, various proposals, modeled after the sales taxes of other states, have been developed. In this paper, the Governor's five percent sales tax on goods and services is examined. This plan has been widely discussed in the newspapers as a leading sales tax proposal. According to The Oregonian, Governor "Roberts said she would make the tax more progressive through exemptions on necessities, such as food, housing, utilities, and medical care."¹³ In this paper, however, the only exemptions are for food and housing costs since there is a lack of data about the costs of utilities and medical care. The only effect of this would be to increase the regressivity of the tax somewhat. The revenue generated by the sales tax is used to relieve the state's obligation to schools. Although the Governor's plan includes the total abolition of property taxes to fund schools, the sales tax in this paper assumes that property taxes for schools are collected in accordance with the limitations of Measure 5.

¹³Barnes C. Ellis, "Politicians See Sales Tax as Best Solution," The Oregonian, 9 Jan 1991, p. A1.

C H A P T E R 3

ASSUMPTIONS, METHODOLOGY, AND CRITERIA

Section 1: General Methodology and Assumptions

Part A: Overview

This chapter is concerned with the methodology of the analysis and its underlying assumptions. The first section presents the overall methodology and general assumptions upon which the analysis is based. From there, each following section will describe the methodology and assumptions particular to each criterion. The methodology described in each of the following sections is general. Refer to the relevant appendices for specific methodology and data. All data used for this analysis is the most recent available.

Part B: Methodology

Three tax programs are analyzed and compared using five criteria developed from economic theory. Underlying these criteria is the common equity and efficiency analysis. These criteria were chosen in order to include the most important effects and concerns that will result due to the implementation of each tax system. The five criteria are as follows: (1) equity, (2) revenues and expenditures, (3) costs, (4) independence and stability, and (5) macroeconomic

effects. Several of the above criteria are evaluated in relation to the original pre-Measure 5 property tax plan. This paper examines, in part, the benefits or costs of deviations from this tax system.

Part C: Assumptions

Several assumptions are made in determining the overall effects of the various tax proposals. These assumptions are made in order to simplify calculations, to overcome absent or incomplete data, and to isolate the effects of each proposal. Since the purpose of this paper is to examine three tax systems, factors affecting the economy, other than changes in taxes, are assumed to remain constant.

Some assumptions are employed throughout all parts of this analysis. Other assumptions are more specific to a particular criterion. It is assumed that there are no other options available to Oregon other than the three analyzed in this paper. This is to contain the scope of the thesis. The tax programs analyzed are chosen because they are the most likely to occur, especially in the short run. This assumption is dropped later and other options are discussed.

The time frame of the analysis is confined to the near future (or the short run). The tax programs are examined as to how they affect the next five or so years in Oregon. This is done because predictions become more ambiguous the farther into the future they are made. This assumption will

likewise be dropped and the long term stability, growth and welfare of the state will be discussed in relation to the various tax proposals. As is already implied, this discussion will necessarily be less concrete than the analysis of the near future.

Section 2: Equity

Part A: Definitions and Background

An "equitable" distribution of the tax burden is perhaps the most important criterion from the perspective of public opinion. No other criterion receives an equal amount of public exposure or understanding. From a purely economic point of view, it is not a credible basis for evaluation. This is because the concept of "equity" in tax burden distribution is defined by the society in which the tax is to be levied. Economic theory can only be applied to enforce the socially determined pattern of equitable distribution. Equity is an ethical concern rather than an economic one and relies almost exclusively on the judgement of society.

In discussing equality, the concept of neutrality and nonneutrality is an appropriate place to begin. Neutral government policy is one in which the actions by government do not disrupt the private sector economy. In reference to taxes, a neutral tax is one that does not cause income

distortions or change the private sector allocation of resources and resulting production of goods. A nonneutral tax is exactly the opposite. The equity of a neutral tax depends on the state of the economy before government intervention. While a neutral tax at first appears to be equitable relative to a nonneutral tax, this is only true provided the initial market economy allocated resources efficiently and provided a socially acceptable distribution of income. Nonneutral taxes could be beneficial if either of these initial conditions is not met.

A seemingly fair distribution of the tax burden occurs under cost-benefit analysis. This concept is related to the contract theory of government and incorporates market-like ideas. The idea is that individuals pay only for those goods and services that directly or indirectly give them benefit. The "tax burden", or in this case the costs of producing the particular good or service, is directly borne by those individuals who receive the benefit or utility* of the good or service. This principle provides for equitable or fair distribution of the costs of government in that payment is voluntary and equals benefits received. Another advantage is that unwanted governmental goods and services are not provided due to lack of funds.

In practice, there are several problems with this method of analysis. Costs and benefits cannot be determined

in many cases, for example, the cost of legislative or judiciary services. Also, much of the consumption of governmental goods and services is done collectively. For many governmental goods and services, once they are provided, everyone can consume them. In this case, there are no barriers to consuming such products. Also, consumption by one person does not affect the consumption by another. So, without a compulsory tax system, there would be a disincentive to pay in this case since each individual will receive the benefit as long as some one pays for it. Public goods* and externalities* will create a "free rider" problem if the production of goods and services by the government is determined from the cost-benefit principle. Under this system, only the primary beneficiary of the service bears the costs. The secondary beneficiaries essentially become "free riders". For example, parks kept up by the government benefit not only those who use them, but help the local businesses by bringing in tourists.

Along the same line, this type of direct payment limits the amount and types of services the government can provide. For example, if those who benefit from a specific program are required to pay the costs of that service, some potentially desirable social services, such as help for the poor, would not be provided by the government. In this case, education would be available only to those who could

afford it. The potential for free-riders along with other practical problems overpower the positive effects of a cost-benefit theory of equitable distribution so much as to render the system impractical. Another form of tax burden distribution must be used.

Absolute equity occurs when each tax payer is liable for the same amount of taxes. Under this theory, the figuring of the tax bill each person is liable for is a simple matter. The amount of total expenditures of the tax collecting entity is simply divided by the amount of taxpayers to arrive at a completely equal distribution of the tax burden. This solution, however, ignores the differing abilities of individuals to pay based on an individual's wealth and income. It is socially undesirable as well.

According to a recent article in The Register Guard, there are "long held beliefs that taxes in the United States should be based on ability to pay."¹⁴ The ability-to-pay basis for tax burden allocation is the one chosen by society in the United States to be the most equitable. Some of the first writings on this theory have come from Adam Smith in his famous "Wealth of Nations". The ability-to-pay theory

¹⁴"Tax Justice Group Decries Burden on Poor," The Register Guard, 23 April 1991, p. 2B.

equalizes the sacrifice of the tax burden among individuals.¹⁵ The individual who suffers the least from a given dollar paid as tax has the greatest ability to pay taxes.

In the United States, the chosen indicators of ability to pay include the amount of an individual's income and to a lesser extent, the value of that individual's property. However, property taxes are paid out of income, making income the dominant indicator. Property is used simply as an indicator of income.

It is assumed that the marginal utility* of income decreases at an increasing rate as income increases. This implies that the sacrifice of giving up an extra unit of income is lessened as the amount of income received rises. This is the basis for choosing income as an indicator of an individual's ability to pay. The ability-to-pay theory then proves that a progressive tax system provides the best means for equalizing sacrifices among taxpayers.¹⁶ A progressive tax system* means that those with the greatest ability to pay bear the largest tax burden. In contrast, a regressive

¹⁵There are three ways such a tax can be equalized among taxpayers: the equal absolute sacrifice theory*, the equal marginal sacrifice theory*, and the equal proportional sacrifice theory*.

¹⁶See fig. 4.

tax program* would increase the burden on those least able to pay. A proportional tax program* seems like an equitable alternative on the surface but usually has regressive effects. For example, a sales tax is proportional in that it applies the same rate to all expenditures, but regressive in reality since lower income people spend a higher percentage of their income than wealthier people. A progressive tax system, in comparison with a regressive or proportional one, provides the most equitable distribution of the tax burden under the current socially acceptable definition.

The ability-to-pay principle also provides for both horizontal and vertical equity. Horizontal equity implies that "equals should be treated equally". In other words, those individuals with the same ability to pay should bear an equal amount of tax liability. Vertical equity implies that individuals with unequal abilities to pay should not be taxed in the same manner.

Part B: Methodology

Clearly, the ability-to-pay principle should be the method used in assessing the equality of the tax burden distributions of the various tax programs. Since income is the accepted measure of ability to pay, households are divided into three income groups and the amount of average tax liability for each group is determined both as a

percentage of income and as a real amount. The tax rates are then graphed in order to determine the regressiveness of each tax individually. Finally, the three tax programs are graphed to determine which program is most equitable based on the ability-to-pay theory.

Part C: Assumptions

Several assumptions need to be made to determine the overall equity of the various taxes and tax programs. The population of Oregon was separated into three groups based on annual household income. An attempt was made to include 25 percent of the population in the low income group, 50 percent in the middle income group, and the remaining 25 percent in the high income group. However, the given separation of the data implied that these percentages be altered somewhat. Each group was then assigned an average income.

An important assumption used to determine average household tax liabilities concerns the reflection of property taxes in rent. It is assumed that property taxes accounted for 10 percent of rent when the property tax rate is 2.5 percent. When the property tax rate is 1.5 percent, the percentage drops to 5 percent, and when the rate is 2.6 percent, the percentage increases to 12 percent. Although there is no empirical evidence of this, the actual percentage is not of significant importance since it is

applied equally across all three income groups. It seems reasonable that the percentage would drop as the tax rate drops since the rent is assumed to remain constant.

Across all income groups, there is a 15 percent gap between the amount of households renting or living in houses, and the total amount of households. In order to compensate for this, the excess amount of households are divided among renters and homeowners based on the allocation of the other 85 percent of households. It is assumed that every household either rents or owns a place to live.

The marginal propensity to consume (MPC)* for each income group is assumed to decrease as income increases. This seems reasonable. Higher income groups have more money to save while lower income groups must spend a higher percentage of their income on necessities.

The main form of property used to determine property taxes is realty. This is because it forms the bulk of the tax base. Personal property is largely exempted and insignificant in comparison to real property value. Furthermore, it is assumed that property tax exemptions are distributed equally across the three income groups and are thus eliminated from the average calculations.

It was estimated by George Bishop that about half of the revenue generated from property taxes comes from

households.¹⁷ The rest comes from utilities, timber, land, farms, and businesses. In computing household tax burdens, when the property tax rate changes, it is assumed to affect the taxes on commercial and private property in the same manner such that the net effect when rates change is to change revenue. Changing the tax rate does not cause a change in allocation of the tax burden between private and commercial property. The equity between these two groups will be discussed later in theoretical form since actual data is difficult to find. Likewise, the equity between school districts, and between K-12 and higher education, will be addressed. Although all forms of equity are important in the public eye, the empirical study of the equity criteria is limited to the analysis of a fair distribution of the tax burden within the private household sector.

Section 3: Revenues and Expenditures

Part A: Definitions and Background

The first purpose of a tax is to earn revenue for the government. Taxes that generate large amounts of money are considered superior to those earning lesser amounts,

¹⁷George Bishop, "The Tax Burden by Income Class, 1958", National Tax Journal, 14 (March, 1961), p. 48.

provided the revenue earned is in line with expenditures. Since a balanced budget is a primary governmental goal, taxes that generate more income than is spent by the government are overproductive and inefficient, while taxes that do not generate enough income must be supplemented or require spending cuts. The nominal amount of revenue generated can be compared directly, as long as the associated quality and quantity of governmental services are taken into account.

While more money does not necessarily mean higher quality services, less money often leads to unwanted cuts. Part of the purpose in passing Measure 5 was an attempt to eliminate governmental waste at the local and state level and to equalize school funding. For this reason, it is important to examine not only the amount of revenue taken in but also how that money is spent. Budget cuts are acceptable and desirable if they eliminate waste and inefficiency. They are harmful and undesirable if they reduce socially desirable programs. Enough money must be collected to do an adequate job of administering desired governmental programs and services, while eliminating excessive spending waste. Examining both sides of the equation will allow a more useful comparison for evaluation.

It must be noted that this criterion is not purely economic since the ideal revenue and expenditure balance

must be determined by society. From an efficiency point of view, whenever someone can be made better off without hurting someone else, a better balance is achieved.¹⁸

However, if making someone better off hurts another person, economics cannot be used to decide which is optimal. An ethical decision must be made instead. Since most of the money used to pay for government spending comes from within the state, in most cases helping one makes another worse off.

Part B: Methodology

Although there are many entities that collect taxes in Oregon, all can be separated under four headings: federal, state, local, and schools. The revenue collections of the federal government are not the focus of this paper and are assumed to be constant. Although the state does not collect property taxes, its revenues and expenditures are important when analyzing the effects of Measure 5. Under Measure 5, the state is required to replace money lost to K-12 schools because of the property tax rate limit. This will eventually require the state to spend about 40 percent of

¹⁸This is also known as Pareto Efficiency.*

its general fund budget on school funding.¹⁹ This is money that is usually spent elsewhere. The state would also be the main collector of the sales tax, although the money would be used to finance schools. The school category includes all K-12 schools, community and junior colleges, and state universities and colleges. Finally local governments include all cities, counties and special districts other than schools that collect taxes. For most of these local governments, property taxes are the predominant source of revenue.

The revenues and expenditures for each type of government under each tax program are compared to the standard developed from public opinion. A primary goal is school equity measured by an equal amount of dollars for each child. School equity has long been a concern for Oregonians. Special levies, school closures, and program cuts have been a constant problem around the state. School equity is a major reason for the passing of Measure 5. Since Measure 5 passed, it seems reasonable to include school equity as a desirable expenditure. Social programs already in place in Oregon are also considered desirable.

¹⁹Colleen Bennett, "No Quick Fix for Salem is Tax Limit Passes," The Oregonian, 16 Oct. 1990, p. B11.

Efficiency requires the elimination of spending waste. The ideal standard should include no waste.

Each tax program is compared to the standard described above and the one most closely matching it was considered the best under this criterion. The other programs are ranked accordingly.

Part C: Assumptions

Since this criterion is heavily rooted in public opinion, several assumptions must be made. In setting up the standard, it is assumed that the existing social programs and levels of services provided by the state and local governments are optimal. This assumption is necessary because most revenue figures are based on this existing level. Since most programs and services are implemented through popular vote or by elected officials, it can be assumed that they are socially desirable. Although some peoples would like more governmental programs and services, others want fewer. The existing level can be considered a reasonable compromise between the two sides. It is also assumed that school equity is desirable based on the reasons given above.

Some other simplifying assumptions are also employed. It is assumed that economic conditions are constant. This implies that there are no changes in the demand for

government services or the amount of revenue received from other sources. Estimates are used from local newspapers and the Governor's proposed budget to determine the reduced revenue levels due to Measure 5 and the amount the sales tax is required to produce. Since it is required that the state have a balanced budget, it is assumed that all revenue collecting entities stick to a balanced budget. This is not a harmful assumption since this is essentially the goal of all government. Also, property values are assumed to remain constant or to grow at a constant rate equal to inflation. This assumption is necessary to prevent unusually large increases in property tax values from affecting revenue. Finally, it is assumed that there is no change in tax collecting policies.

Section 4: Costs

Part A: Background and Definitions

Governmental administration costs are an important criterion in evaluating taxes. If the cost of administering the tax is too high, it significantly reduces the amount of revenue generated. Start-up costs should be considered as well since they contribute to the total cost of administration. Administration costs will have to be estimated for all options except the one involving the pre-Measure 5 property tax limit. Perhaps, lighter emphasis

should be placed on this criterion since real empirical evidence would only be forthcoming if the specific program is implemented.

Like administration costs, enforcement and compliance costs should also be kept as low as possible for a legitimate tax law. Compliance costs include those costs, both real and economic,* incurred by the private sector in order to meet their tax obligations. Enforcement costs are the costs incurred by the government to prevent tax fraud and delinquent tax payments. Similar to administration and start up costs, these costs will have to be reliably estimated.

Part B: Methodology

Three types of costs are analyzed for each tax plan: start-up costs, administration and enforcement costs, and compliance costs. Compliance costs are those costs, both in time and in money, that are expended by the non-government population in order to comply with the tax laws. Enforcement and administration costs are the costs incurred by the government. Finally, start-up costs include all costs needed to implement a new tax program. These include the costs necessary to adapt an old system as well as begin a new tax.

Each tax program is analyzed to determine the specific costs. The plan with the least amount of total costs is

judged first based on this criterion. The importance of the costs are ranked in order to prevent a tie. Start-up costs are considered the most important because they compose the major barrier against the implementation of a specific tax plan. In the short run, these costs are very significant. In the long run, they will be negligible as they are distributed over the long life of the tax. Start-up costs are followed in importance by enforcement and administration costs, and finally by compliance costs. Administration and enforcement costs are a direct expenditure by the government and affect revenue earned. Compliance costs, on the other hand, are usually implicit, hidden costs.

Part C: Assumptions

Several assumptions are made in order to judge the three tax plans based on this criterion. Perhaps the most important assumption is the ranking of the three types of costs. As explained above, this is done to effectively rate all three tax plans. The justification for the ranking is also given above.

Most of the costs are estimated since it is unknown exactly how Measure 5 will effect the existing property tax system and because the sales tax has not been created. The estimated data drawn from newspapers and from theory is assumed to be correct, although there is not strong

statistical evidence of this. Also, enforcement costs are assumed to be similar among the various tax programs and equal to one percent. This is to facilitate comparisons since the actual data is unavailable. Unless the differences in costs are large, this should not affect the ranking significantly.

It is also assumed that the revenue generated from the sales tax is enough to exactly offset the amount Measure 5 obligates the state to pay school districts. This is a simplifying assumption intended to give an empirical estimate of the amount of revenue the sales tax will generate. It will not significantly affect the results since the revenue earned from the sales tax is to go only to schools.

Section 4: Independence and Stability

Part A: Background and Definitions

State education superintendent Norma Paulus noted that "there's such a strong feeling for local control in this state".²⁰ Local governmental independence is generally considered to be socially desirable in the United States.

²⁰David Sarasohn, "All School Roads Lead to Salem," The Oregonian 18 Jan. 1991, p. D6.

It is particularly important in Oregon. However, local independence becomes hampered as local governments receive more funding through state government transfers. As local governments begin to rely more heavily on state grants as a source of revenue, they lose freedom in choosing expenditure levels since expenditures are dependent on revenue.

Stability is also an important quality of a revenue source for state and local governments. Neither state nor local governments have the capacity of the federal government to create money when revenues do not match expenditures. Instead, they must present a balanced budget. What they do not earn, they cannot spend. A reliable, stable source of income helps them stick to the budget. Also, state and local governments do not directly interfere in the economy and engage in fiscal policy.* That is left to the federal government. They do not need flexible revenue sources in order to conduct policy.

Part B: Methodology

Independence can easily be evaluated by determining the percentage of money received by local governments from the state under each program. The higher the percentage of funding the local government receives, the less independence it has. Also, restrictions on collecting revenue should be noted as well. Limitations on collecting funds will inhibit spending and decrease the independence of local governments.

The stability of each tax program can be examined by focusing on the stability of the underlying tax base. A more stable and unchanging tax base will yield a more stable source of revenue. Tax bases that change with economic trends will provide a less stable revenue source.

Part C: Assumptions

It is assumed for this criterion that all money transferred to local governments from the state and federal governments before Measure 5 will remain constant, with the exception of money given to schools. This assumption is needed to provide a basis of comparison. It is the change in independence that is important, not the overall amount.

Section 6: Macroeconomic Effects

Part A: Background

The general state of the economy (and the implied welfare of the people involved) is important to almost everyone. The state of the economy affects the amount of income people earn, the availability of jobs, and the overall quality of life. Both taxes and government spending affect the economy. Although Gross State Product* (state income) is not a strict measure of welfare in an economy, it is a fair indication. The unemployment rate can be taken into consideration as well. Other factors, such as the

amount of leisure time people have, quality of education, air quality, climate, etc..., should also figure into the overall welfare of the citizens in an economy.

Several things affect the level of GSP in a state. These include the level of consumption (which depends partly upon the amount of taxes collected), the amount of investment spending, and the amount of government spending. Thus, both changes in the amount of revenue collected by the government and in government spending can change GSP. The change in GSP resulting from changes in taxes, government spending and investment spending can be greater than the initial spending change due to a multiplier effect. For example, suppose that government spending is increased and everything else is held constant. This increase in spending would cause a necessary increase in production (in order to fulfill the extra demand). This extra production would require the employment of more resources. Suppose that the extra resource is labor. The firm will pay wages to the extra workers employed. These workers will spend a portion of their extra income, causing an even greater increase in demand. Similarly, if part of the extra resources employed are raw materials, the owners of the raw materials will earn a higher income, part of which they will spend. Since only part of the extra income is spent (depending on the MPC) the increase in demand at each round is increasingly smaller.

This process will continue until ultimately the increase in spending and production would trickle to zero. In this simple multiplier example, an exogenous increase in spending causes an even greater increase in GSP or state income. By a parallel argument, it can be proven that a decrease in government spending will cause a decrease in GSP.

Now suppose that the additional constraint of a balanced budget is added. In this case, government spending cannot be increased without a similar increase in revenue. These will have opposite effects. Increased government spending will increase GSP, as seen above. Increasing taxes would cause GSP to decrease. To see this clearly, suppose for a moment that a balanced budget is not required. In this case, an increase in taxes will cause a decrease in the amount of income people could spend (ie. their disposable income or income after taxes will decrease). This will cause a fall in demand, resulting, through the reverse multiplier process, in a decrease in GSP.

The balanced budget multiplier is commonly estimated to be one. This means that an increase in government spending, combined with a similar increase in taxes, would increase GSP by the amount of the increase in government spending.²¹

Once a change in GSP is determined from the multiplier

²¹See fig. 5.

formula, the change in unemployment resulting from the change in GNP can also be estimated from Okun's law.*²² Okun's law is a result generated from a statistical study. The general rule of thumb states that a three percent increase in GNP leads to a one percent decrease in unemployment. This idea can be seen from the multiplier process. A rise in spending causes an increase in demand and a resulting increase in production. This extra production employs extra resources, labor among them.

Part B: Methodology

Each tax proposal will be evaluated based on its affect on GSP and unemployment in Oregon. An increase in Oregon's GSP, and thus a decrease in unemployment, is considered beneficial since this implies economic growth and prosperity. A decrease in GSP, and thus an increase in unemployment, is undesirable since this leads to economic stagnation and unhappiness. Increases and decreases in GSP from the initial level (ie. when the initial property tax system is employed) will be determined using the multiplier formula.* The balanced budget multiplier has been estimated to be one. The resulting change in unemployment will be estimated from Okun's law.

²²William H. Branson, Macroeconomic Theory and Policy (New York, Harper and Row, 1979), p.6.

Part C: Assumptions

Several assumptions are made for this criterion. It is assumed that there is no interaction between Oregon and foreign countries, or between Oregon and other states. Oregon is assumed to be a self-contained, closed economy. This means that all extra resources employed as a result of an increase in spending, (and all extra resources unemployed as a result of a decrease in spending) will come from within the state. This includes labor as well as the owners of raw materials. This assumption is necessary to prevent an outflow or inflow of income from the economy. This assumption will be dropped later as the effect of these tax proposals on Oregon's economy is examined when resources and income are allowed to migrate out of the state. Since the extent of this outflow and the resulting effect on the state's economy is difficult to determine empirically, this case will be discussed in general.

In order to isolate the effect of the tax proposals on income, it is assumed that all other things affecting the state of the economy are held constant. This implies that all federal taxes, other state taxes, local taxes, incomes, prices, etc... are not changed except as a result of the implementation of the specific tax system.

C H A P T E R 4

RESULTS AND RESEARCH

Section 1: Introduction

This chapter presents the results of the analysis. Each section discusses a different evaluation criterion, with the last chapter reserved for the conclusion. The results of this study clearly lead to the conclusion that the original property tax system is the best of the three tax options. However, it is not unlikely that these results are biased by the rather severe assumptions employed in this paper. Some of these assumptions will be relaxed in the following chapter.

Section 2: Equity

Part A: The Private Household Sector

When most people consider equity, they think of equity between households. According to the ability-to-pay theory, wealthier households should bear a larger tax burden than poorer households. A recent study conducted by Citizens for Tax Justice concluded that almost every state possesses a regressive state and local tax system.²³ This means that

²³"Tax Justice Group Decries Burden on Poor," p. 2B.

the poor pay a higher tax burden than the rich. As this analysis of property and sales tax proposals indicates, Oregon possesses a regressive tax system as well.

The regressiveness of the property tax is clearly visible from figs. 6-8. As the amount of income a household earns increases, their property tax rate decreases. This can be seen from the downward sloping curves in the figures where the tax rate is measured on the vertical axis and income on the horizontal axis. The sales tax, on the other hand, begins progressively but ends regressively.²⁴ This is due to the exemptions incorporated into the tax. However, when a sales tax is added to a property tax, the resulting combination is regressive.

Since, as shown be fig. 10, all three tax options are regressive, the best of the three choices will be the least regressive tax plan. A regressive tax is exhibited in the figures as a downward sloping line. The more regressive a tax is, the steeper the slope becomes. The tax plan with the steepest slope is the original property tax plan.²⁵ This system is the most regressive both between low and

²⁴See fig. 9.

²⁵See Appendix D.

middle income households and between middle and high income households. Measure 5 after full phase in, both with and without a sales tax, is the least regressive. The option involving a sales tax is the least regressive as the income increases from low to middle but Measure 5 alone is the least regressive as income rises from middle to high.

Part B: Commercial and Private Equity

Another equity concern in Oregon is the distribution of the tax burden between the private and the commercial sectors. Since firms benefit in many ways from government services and have a large ability to pay relative to the average citizen, most people believe that businesses should pay their fair share. The equity question becomes significant in determining what that fair share is. Although there must be some point where people feel businesses have paid over their ability, the public seems to feel this cutoff is far from reached. Thus, it seems that the more tax laws favor individuals and shift the burden onto businesses, the more equitable they are considered. Margaret Hallock, a former senior economist and revenue forecaster for the state of Oregon, wrote, "Most Oregonians who voted for Measure 5 probably voted for tax relief on homesteads, not realizing the windfall tax break that will

go to large corporate property owners."²⁶ This windfall is undesirable from an equity viewpoint since it reduces the burden on businesses.

Businesses benefit both directly and indirectly from government services. Schools provide businesses with an educated work force. Police and fire services protect their property. Parks, social services, and quality schools provide their employees with a pleasant living environment, leaving the workers more satisfied and less likely to leave. Well maintained roads and public transportation facilitates the transportation of employees and raw materials. Also, business are seen by the public as large faceless organizations. Citizens are generally sympathetic to forcing these entities to bear a larger burden. However, special interest groups and lobbyists have helped to keep the business' share of taxes down.

Measure 5 gave businesses a huge tax break by lowering their property taxes. Utilities, landlords, and business owners all will pay less in taxes. Margaret Hallock writes, "Businesses will receive more than half of the property tax relief from Measure 5. The result could well be a further shift of the tax burden from businesses onto individuals."²⁷

²⁶Margaret Hallock, "You Say You Want a Revolution," Old Oregon, Spring, 1991, p. 25.

²⁷Ibid., p. 24.

Since Measure 5 requires all property to be assessed at real market value, the special assessment ratios allowed for farm property in the past will no longer be used. Farmers could end up paying more taxes. Although their property is used for commercial purposes, farmers have never been associated with big business. Traditionally, farmers have been given sympathy and help to survive. In the equity equation, placing a heavier burden on farmers would be unpopular. Timber companies also stand to gain significantly with Measure 5. In the past, timber companies have not paid taxes on their property every year, but instead on the wood when the timber was sold. The rate could be as high as 6.5 percent.²⁸ Measure 5 could reduce this to 2.5 percent in the first year, and 1.5 percent by 1995. One way to change this would be to no longer allow the severance tax* and instead force timber companies to pay regular property taxes. Also, most businesses are located in urban areas where property taxes are high. This would imply that a high number of large businesses will receive a tax break from Measure 5.

Adding the sales tax will not change the tax relief

²⁸Barnes C. Ellis and Dee Lane, "Questions Arise About Urban Renewal, Timber Severance," The Oregonian 10 Jan. 1991, p. C4.

given to most businesses under Measure 5. Instead it will increase the burden on private citizens relative to commercial entities since households spend a higher percentage of their income on the types of goods and services that will be taxed.

In the discussion of equity between commercial and private sectors, it would seem that the original property tax system would provide the most equitable distribution of the tax burden between commercial and private interests. Measure 5, coupled with a sales tax, relieves the property tax burden on businesses and shifts it to the consumer.

Part C: School Equity

One primary reason Measure 5 passed was to achieve equity among Oregon's schools. In the past, schools were funded almost entirely by property taxes. When the "school safety net" was passed, the state was required to give more money to K-12 schools. Before Measure 5, about 29 percent of school funding in Oregon came from state money.²⁹ Schools located in districts with high property values and people willing to pay for schools, had higher quality education and more athletic, social, and academic programs.

²⁹Gail Kinsey Hill, "Roberts Outlines Plans For Cuts in Spending," The Oregonian 11 Jan. 1991, p. A1.

Schools located in poorer districts and those inhabited with a high percentage of elderly, had to cut back to the bare essentials, and sometimes faced school closure.

Measure 5 requires the state to replace all the money schools will lose because of the property tax rate limit. However, it does not require a one-for-one replacement of each dollar. In other words, \$633 million will be lost state wide in 1991-1993.³⁰ The state is required to give \$633 million to K-12 schools in Oregon, but does not require it to give each school district what it lost because of the rate limit. This gives the state a means of equalizing funding throughout the state by giving poorer districts more money and richer districts less money. The sales tax included with Measure 5 does not disrupt the equalizing function the state can play, although it does relieve the state from having to come up with the necessary money through budget cuts.

While Measure 5 does provide a means to equalize school funding among K-12 schools, it does not provide for higher education. Instead of making higher education more affordable, Measure 5 will cause a decrease in the quality of the programs offered and an increase in tuition as

³⁰Barnes C. Ellis, "Oregon's Property Tax Tangle," The Oregonian 21 Oct. 1990, p. C1.

cutbacks are made to direct the necessary funds into K-12 schools. A sales tax will help ease the strain on higher education by replacing the funds taken from the state's general fund to pay for K-12 schools under Measure 5. This will allow more money to be given to the state's colleges, universities, and Community Colleges.

From this discussion, Measure 5 alone, coupled with a sales tax, seems to be the most equitable solution to school funding in Oregon. It provides an easy means of equalizing school funding among the various districts without taking away from higher education.

Part D: Conclusion

From the examination above, the tax plan including Measure 5 combined with a sales tax for education is the least regressive, and thus the most equitable when considering the distribution of the tax burden among households. The combination also provides a simple means for the equalization of K-12 schools without hurting higher education in the process. However, this tax program does not increase the fairness of the distribution of the tax system between the commercial and household sectors. The original property tax system seemed the most equitable in this respect. The original property tax system is significantly more regressive than the plan including the sales tax. It also allows for unequal funding of K-12

schools by forcing their dependence on property taxes. On two accounts, Measure 5 coupled with a sales tax is the most equitable. Overall, it should be ranked highest under this criteria. Measure 5 should be second since it ultimately leads to a less regressive tax system, and also provides for K-12 school equity. The original property tax system is the least equitable, given that less weight is likely attached to equity between the business and household sectors than to regressiveness and equity in K-12 schools.

Section 3: Revenues and Expenditures

Part A: Local Government

Local governments in Oregon are almost completely funded by property taxes. Measure 5 limits the amount of money available to local governments to \$10 per \$1,000 of assessed value. Local governments include cities, counties, fire districts, police districts, water districts, park and recreation districts, and a variety of other special districts. With the current property tax system, there are obviously no changes from the existing level of service other than normal shifting and expanding. Measure 5 will cause a decrease in the amount of money available and thus will lead to some cutbacks. Since it is mostly urban counties that collect property taxes in excess of the limit, they will be the counties most severely affected by Measure

5. The addition of a sales tax to Measure 5 will not affect local governments since all the money raised from this tax will be used to offset the state's responsibility to school districts.

Under Measure 5, revenue would decrease for local governments only if the original rate was above one percent. The Oregonian estimated that 27 out of the 36 counties in Oregon will suffer some revenue decreases.³¹ The first step in administering cutbacks will be to reduce government waste. However, many cities and counties have already been forced to eliminate unnecessary bureaucracy. Eugene, with a population of about 109,831, stands to lose anywhere from 3.5 percent to 8.5 percent of their budget.³² Since, in recent years, this city has been striving to reduce waste, Measure 5 will cause unwanted cuts. Pendleton, located in eastern Oregon and with a population of 14,765, would have lost about 5.1 percent of its budget if Measure 5 was applied to 1990 property taxes. Roseburg (16,635 people), in southern Oregon, would have lost 12.6 percent. The city of Portland will lose about \$39 million or about 15 percent

³¹Barnes C. Ellis, "Cities Fear Effects of Measure 5," The Oregonian 30 Oct. 1990, p. B3.

³²Ibid., p. B5.

of its budget.³³ These cities are concerned about reductions in the quality and quantity of the services they provide. No city or county wants to reduce police or fire protection, so other services will be cut sooner. The first to be cut will be social programs and funding for parks and other recreation areas, along with reductions in personnel. The city of Salem estimates it will reduce city employees by about 16 percent.³⁴ The reduction in money available to local governments will also cause competition among the various districts competing for the property tax.

Measure 5 hurts local governments by decreasing the amount of money available and forcing cutbacks in wanted services. Adding a sales tax will not help local governments since the money earned from this tax will be allocated to schools. The best of the three tax plans for local governments is the original property tax plan. This system allows local governments enough money to fund their programs and services and local citizens to implement new programs without cutting the spending on others.

Part B: Schools

School districts as a whole should not lose the money

³³Ellis, "Cities Fear Effects of Measure 5," p. B1.

³⁴Ibid., pp. B1, B5.

they normally receive from property taxes because of Measure 5 or a sales tax. If the state chooses to equalize school funding, many poorer districts will receive more money. This will be especially true if a sales tax directed at K-12 schools is implemented. However, this gain by poorer districts will be offset by losses to the wealthier districts and school districts as a whole will be no better off.

There is some controversy over the fact that the state could reduce the money it already gives to schools as a way to ease the impact on the state budget. Governor Roberts suggested reducing this amount from 29 percent of all school funds to 27.4 percent.³⁵ School funding is very important to many Oregonians and it is unlikely that anything significantly more than this can ever be politically achieved. This two percent decrease, however, will make K-12 schools worse off monetarily than before the implementation of Measure 5. Combining Measure 5 with a sales tax will ease the strain on the state's budget and perhaps allow the state to give greater amounts to school districts in the form of basic school support. As a whole, the state's K-12 schools will be no worse off with a sales

³⁵Hill, "Roberts Outlines Plan for Cuts in Spending," p. A21.

tax added to Measure 5 than with the original property tax system. They might even be better off than with the old property tax system.

Community Colleges, state universities, and state colleges will fare the worst under Measure 5 alone. Money will have to be taken away from them in order to help the state pay the required money to K-12 schools. This will mean program cuts, the release of teachers and other employees, and increased tuition. The superintendent of higher education proposes a \$200 per term surcharge on tuition for state universities and colleges in addition to the usual increase.³⁶ Also, programs have been cut and rearranged in response to the cutbacks. Community Colleges will suffer even more because they are limited in the amount they can raise tuition. This problem is compounded by the expected increases in enrollment faced by Community Colleges as people are priced out of the universities and state colleges. Enrollment is also expected to increase due to a movement towards training and education in Oregon. With more students and less money, there will be a decrease in quality and a shortage of classes. A sales tax will help reduce the impact of Measure 5 on higher education. Since

³⁶Jeff Wright, "Roberts Accepts Surcharge Plan for All Campuses," The Register Guard, 16 Feb. 1991, p. B1

the state will no longer need to reserve so much of its general fund for K-12 schools, more money can be given to higher education.

Measure 5, combined with a sales tax and the original property tax system are equally best options for Oregon's schools. A sales tax will ease the burden of Measure 5 on the state, allowing it to give more money to higher education than would otherwise be available under Measure 5 alone. In comparison with the original property tax system, Measure 5 combined with a sales tax would not change the amount of money available for education. The new tax plan would change the source of educational funding, by funneling it through the state, but it should not decrease the amount received by schools.

The worst option for schools is Measure 5 alone. There is no way for K-12 schools to be better off under this system than under the original property tax plan because the state is only required to replace lost property tax revenue. The state is not required by Measure 5 to increase the money given to schools. Instead, Measure 5 could actually be detrimental to K-12 schools if the state decides to reduce Basic School Support. Governor Roberts has planned, as part of the budget cuts necessary to cope with Measure 5, to reduce Basic School Support by about two percent. Also,

since the state must make budget cuts, Measure 5 harms higher education as well.

Part C: The State

The pre-Measure 5 property tax will have no affect on state finances. This is because the state does not collect property taxes. The state's only real obligation is to schools who cannot afford to remain in operation.

Measure 5 forces the state to replace the money lost to schools as a result of the limits. Although not directly involved with state finances, it requires the state to make a new, rather large, expenditures without providing the state with a means to increase revenue. To pay for the new expenditures, the state must find the money from reducing spending in other areas, by implementing a new tax, or by raising the rate of an existing tax. Since Measure 5 is phased in over time, the amount required of the state increases from \$633 million (12 percent of the general fund) in the 1991-1993 biennium, to about \$2.9 billion (40 percent of the general fund) in the 1995-1997 biennium.³⁷

Under Measure 5 alone, the state must cut a significant part of the money it spends in order to have enough money to

³⁷Ellis, "Measure 5: Oregon's Property Tax Tangle," p. C1.

give to schools. While this can be done for the first biennium, it is estimated that the state must find some other sort of replacement revenue in the following bienniums. Most likely this will be a sales tax. In order to meet the requirements of Measure 5, the Governor's proposed budget cuts deeply into the department of human resources, forcing the closure of specific health clinics and mental hospitals, and the reduction of social services. Cuts will also effect higher education, the department of corrections, property tax relief, and state employment. Fees and license costs will also be increased.

With the addition of a sales tax, the state should be able to return to the original service levels. The sales tax should provide enough funds to offset the state's obligation to K-12 schools.

Either the original property tax system or the option including Measure 5 as well as the sales tax are equally best options for the state. Measure 5 without a sales tax would force too many unwanted cuts in the state's general fund.

Part D: Conclusion

By far the worse option under this criterion is Measure 5 alone. Measure 5 limits the revenue generated by local governments, causing a decrease in spending and forcing a

reduction in services for some local governments. On the state level, it obliges the state to replace lost funding for schools. This is a new expenditure for the state and will force cuts in other areas. Although not as detrimental to school districts, cutbacks necessary to cope with the new expenditure required by Measure 5 might force the state to reduce the amount of money it already gives K-12 schools in the form of Basic School Support. State cutbacks would also decrease the amount of money available for higher education.

The option combining a sales tax with Measure 5 is the second best tax option under this criterion. The state government is equally well off under the system involving a sales tax as it is under the original property tax system. This is because a sales tax will replace the state's obligation to schools and the property tax does not otherwise affect state finances. Schools are also no worse off under Measure 5 and a sales tax than they are under original property tax plan for the same reason. Local governments, however, are harmed with Measure 5, whether a sales tax is included or not. This is because the revenue earned from the sales tax goes entirely to schools. The original property tax plan would provide local governments with enough money to retain their current level of services. The best tax option based on this criterion is the original property tax plan.

Section 4: Costs

Part A: Enforcement and Administration Costs

It is important to examine the costs of the tax programs in order to help determine the efficiency of each. The most efficient tax programs will provide the most revenue at a relatively low cost. Start-up costs are particularly important in the short run. If these costs are high enough, a tax plan will not be implemented. Enforcement and administration costs are also important because they involve direct monetary expenditures by the government.

The administration of a property tax is centered on an assessing body. In Oregon, the counties have the job of assessing all the property within its boundaries and drawing up a tax bill for each plot of land. Property is supposed to be physically assessed every six years in order to keep the value at a par with the market value. In practice, however, assessment sometimes lags behind this six year cycle if there is a lack of money to correctly administer the tax law. In 1988, 26 out of 36 counties in Oregon were behind in their assessment cycle.³⁸ The state legislature allocated money to help solve this problem and return to the

³⁸"Most Oregon Counties Drop Behind in Property Tax Appraisal Schedules," Your Taxes, May-June, 1988, p. 1.

six year cycle.

One author estimates that administration costs use up about two percent of revenue earned from the property tax.³⁹ According to "Your Taxes", Oregon assessed property value in 1995-1996, assuming 4.5 percent annual growth, will be about \$112,582.8 million.⁴⁰ Administration costs for this period, assuming the original property tax plan, would be around \$59 million. Perhaps this number actually needs to be bigger to include the extra costs of returning assessment to its regular cycle. Under Measure 5, administration costs, calculated from the two percent rule, ultimately would fall to \$33 million. More likely, administration costs would be more than this to account for the return to the six year cycle, and the fixed costs associated with administration.

The same author estimates that a sales tax costs 1.5 percent of revenue to operate.⁴¹ Although it is unknown exactly how much revenue a sales tax will generate, it is assumed to provide enough to cover the obligation of the

³⁹John F. Due, Sales Taxation, quoted by Philip E. Taylor in The Economics of Public Finance (New York, The MacMillan Co., 1965), p. 466.

⁴⁰"Assessed Value of Oregon Property 1985-1990", Your Taxes, April 1991, p. 4.

⁴¹Taylor, p. 466.

state under Measure 5. The state's required spending on schools increases from \$633 million to \$2.9 billion. Thus, sales tax revenue should increase by at least that much. Administration costs, assuming the sales tax exactly replaces revenue lost to schools because of the property tax rate limit, would increase from \$9.5 million to \$43.5 million.

Enforcement costs for property taxes are primarily incurred by the board of appeals. When someone objects to their property tax bill as unfair assessment, the board of appeals will hear their case and determine their tax liability. For the sales tax, enforcement costs include the finance of auditors to ensure compliance with the laws. Sales tax collection among legitimate businesses should not be overly difficult to enforce. It was assumed that enforcement costs were the same (equal to one percent) for both property taxes and sales taxes. This means that for the original property tax plan, enforcement costs \$29.7 million; for Measure 5 alone, enforcement costs about \$16.9 million; and for the sales tax, enforcement costs about \$29 million. However, the enforcement costs incurred as a result of Measure 5 should be increased because the limitation is expected to cause an increase in property tax appeals. Measure 5 stipulates that property tax rates cannot exceed \$10 per \$1000 of the lowest true market value

during the year. If the market value drops after the assessment is made, property owners can appeal.

The results of adding both administration and enforcement costs prove that the option involving Measure 5 and a sales tax will generate the most revenue for the least amount of money. Only about 2.7 percent of revenue goes to enforcement and administration costs while 3 percent of revenue goes to these costs when there are only property taxes. If the extra costs are considered, it is unclear if Measure 5 would still be better than the original property tax plan. Perhaps the costs would be more for Measure 5 since the same infrastructure is employed to generate less revenue.

Part B: Compliance Costs

By definition, compliance costs are incurred only by the non-governmental population. For property taxes, these include, at a minimum, just the payment of the bill. If there is some discrepancy in the assessment value, the costs increase as the case is appealed. For a sales tax, the compliance costs are greater. For the consumer, there is the time and bother of having to determine the tax when considering a purchase. For the seller, it includes the time and money involved in collecting the tax and returning it to the state. Generally, vendors are allowed to keep a portion of the tax in compensation. Since the compliance

costs for property taxes are relatively small, the tax plan including a sales tax will have the highest compliance costs. Both Measure 5 alone and the original property tax system have the least compliance costs.

Part C: Start-up Costs

Since the original property tax program is already in place, there are no start-up costs involved with this plan. Start-up costs under Measure 5 consist of the costs of adapting the existing property tax system and include the costs of redefining the property tax definition, reassessing property, teaching assessors how to prepare and implement the rate limit, and increased public relations. Multnomah County appraisers estimate that 12 to 15 new appraisers would be needed at a cost of \$150 to 300 thousand.⁴² In addition, updated computer programs, new computers, and expanded boards of equalization would cost another \$320 thousand.

The start-up costs of a sales tax include the necessary promotion to get the tax approved by voters, and the setting up of the collection, administrative, and enforcement infrastructure. Estimates of the start-up costs for the sales tax are hard to find, but since the infrastructure

⁴²Holly Danks, "County Outlines Measure 5 Scenarios," The Oregonian, 31 Oct. 1990, p. C8.

must be created, it should cost more than the adaptation of an existing tax needed by Measure 5. Also, the implementation of a sales tax will hinge on public opinion. Oregon will enact a sales tax only if it is approved by voters. This could prove to be difficult. The option including both a sales tax and Measure 5 would incur the highest start-up costs since it involves the most radical change from the existing system. The original property tax system has the least amount of start-up costs (\$0) since everything is already in place.

Part D: Conclusion

The tax option involving both Measure 5 and the sales tax has the least administration and enforcement costs. However, this option also has the highest compliance and start-up costs. Both property tax options have equal administration, enforcement, and compliance costs, although it could be argued that the costs of Measure 5 are actually higher. While Measure 5 makes use of existing infrastructure, it generates less money than the original property tax plan. Measure 5 alone also has start-up costs that the original property tax system would not incur.

Since start-up costs are the most significant, the original property tax plan is rated highest under this criterion. Although this plan has compliance costs equal to those of Measure 5 alone, this plan has no start-up costs

since it is already in place. Administration and enforcement costs might also be slightly lower, as a percentage of revenue generated, than those costs under Measure 5. Even if this is not true, the original property tax plan would certainly not incur costs greater than those incurred by Measure 5. The original property tax plan is also superior to the option involving a sales tax, in part because the original property tax option will incur no start-up costs. The original property tax plan also has low compliance costs, unlike the option including a sales tax.

Section 5: Independence and Stability

Part A: Independence

Although Measure 5 has a large impact on both schools and local governments, its only real financial requirement is to provide lost school revenues. Local governments receive no more money with the implementation of Measure 5 than they did before the property tax limitation. The state cannot implicitly impose regulation on local governments by controlling the purse strings. For local government, the only loss of independence under Measure 5 comes with the limitations placed on their revenue generating capability.

However, State Senator Wayne Fawbush, co-chairman of a legislative committee that studied Measure 5, notes that "basically what they're [local governments] concerned about

is the real loss of their independence."⁴³ Although local governments receive no more money from the state, Measure 5 was voted in by the whole state. It amends the Oregon constitution and every local government must abide by it, even if their citizens voted against it. Measure 5 restricts local communities from raising their property taxes above \$10 per \$1,000 assessed value for local governments, even if the majority are in favor of doing so. As Pendleton mayor Joe McLaughlin says, "The state's going to be telling us what we can do and what we can't do. If we want something here, and the people want it, we should be able to do it."⁴⁴ Local communities will be prohibited from raising their services if that means increasing property taxes. Under Measure 5, local governments are given the freedom to decide how to spend their property tax dollars, but they are prohibited from spending more than the limit allows.

Unlike local governments, schools will receive more money from the state since Measure 5 requires the state to replace the lost property tax revenue. By the time Measure

⁴³Barnes C. Ellis, "Details Lost in Measure 5 Rhetoric," The Oregonian 26 Oct. 1990, p. E8.

⁴⁴Ibid., E8.

5 is fully phased in, the state will be providing about 75 percent of school revenue.⁴⁵ Since the state will be spending more on K-12 education, some state politicians feel that this gives them the right to govern the education system more closely. Representative Vera Katz says, "We're drafting a mega-education reform bill, and a lot of the pieces are special incentives for schools to do what we think they ought to be doing. If we're providing the money, some of us want the schools to look different."⁴⁶ The state has the power to do this since they ultimately will decide how and where a majority of school funding is spent.

Community Colleges are also expected to become more strongly controlled by the state. Currently, about 29 percent of the revenue generated by Community Colleges comes from the state and about half comes from property taxes.⁴⁷ This is expected to change in the next few years. According to The Register Guard, the state will most likely be assuming up to 70 percent of the funding necessary to support Community Colleges. This will result in "a more

⁴⁵Sarasohn, "All School Roads Now Lead to Salem," p. D6.

⁴⁶Ibid.

⁴⁷Jeff Wright, "Community Colleges See Challenges," The Register Guard 16 Jan. 1991 p. C1.

centralized Community College system and dilute the local control of the schools."⁴⁸ Lane Community College President Jerry Moskus fears that "we could have a state system that's efficient but not locally responsive".⁴⁹ This would be detrimental to the original purpose of these schools. In the past, rather than directly creating a system of Community Colleges, the state instead provided a means for local communities to establish them. Creating a more centralized system will ignore the original idea of Community Colleges.

Adding a sales tax will not reduce the loss of independence local governments and schools face with Measure 5. In fact, since the sales tax is to be used to fund schools, and since it is collected and administered directly by the state, it enhances and reinforces the independence lost by the schools. Thus, both tax options containing Measure 5 result in a loss of independence for both schools and local governments. As the quotes and above argument has shown, this loss of independence is not socially desirable to most communities.

⁴⁸Wright, "Community Colleges See Challenges," p. C1.

⁴⁹Ibid.

Part B: Stability

Stability can best be determined by examining the mobility of each tax base. Property tax bases are largely immobile. This is because the majority of property assessed for taxation consists of realty. Although improvements can be demolished and built, this does not usually happen for tax reasons. The land itself cannot be moved. The value of property, on the other hand, can change. With the original property tax system, one value was assessed for the property at the beginning of the year and the tax liability was determined from this value. With Measure 5, the property value used to assess the tax liability must be the lowest real market value of the entire year. This means that the property value is allowed to fluctuate according to the state of the economy throughout the year. Not only does this make figuring the tax liability more difficult, but it also means a less accurate forecast of the potential revenue collection.

School finance under the original property tax system is not stable, even though most revenue for schools comes from property taxes. The shaky revenue for some school districts is partly the result of past limitations. Measure 5 would eliminate uncertain school funding by replacing the property tax money with money from the state.

A sales tax would further add to the instability of a tax plan since consumption is responsive, in part, to the

state of the economy. A booming economy and high consumer expectations will cause more spending than in times of recession and poor consumer expectations. There are some goods and services that must be bought in order to survive and thus are not influenced by the economy. However, the bulk of these expenditures are exempt from the sales tax. These exemptions make the expenditure base for the sales tax even more sensitive to fluctuations in the economy.

Despite the fact that revenue forecast predictions might be less certain, an overall evaluation on the basis of stability rates the tax plan including Measure 5 as number one. Measure 5 will eliminate uncertain school funding while relying on a stable tax base to collect revenues. This is followed by the original property tax system. While this plan employs a stable tax base as well, the original property tax system also resulted in uncertain school funding for some poorer school districts. The Measure 5 and the sales tax option is the least stable tax plan since the base of a sales tax, consumption spending on mostly luxury items, is less reliable than a property tax base.

Section 6: Macroeconomic Effects

Part A: Gross State Product

Reducing government spending in Oregon will cause a decrease in the state's GSP, all else equal. Both tax

systems including Measure 5 will cause a decrease in GSP from the original, pre-Measure 5 level since both involve a decrease in government spending. This reduction in state output will come from a decrease in state and local government spending in response to the limitation. Although the figures for each community are too difficult to calculate, the impact of state government spending on GSP can be estimated empirically.

Measure 5 is assumed to cost the state government \$633 million in school replacement funds in 1991-93. This amount will rise to \$2.9 billion by 1995-97.⁵⁰ This means that local property taxes for schools must decrease by that much and state expenditures on other services must decrease by this much as well. Using the balanced budget multiplier formula, the calculations show that Oregon's GSP, under Measure 5 alone, will decrease by \$633 million in the first biennium, rising to \$2.9 billion by the 1995-1997 biennium. This decrease in Oregon's GSP under Measure 5 is in relation to what the GSP will be if the original property tax plan is still in use during these years. The fall in GSP resulting from the property tax limitations should probably be inflated because local governments will lose tax revenue

⁵⁰Ellis, "Measure 5: Oregon's Property Tax Tangle," p. Cl.

under Measure 5 also. This will lead to a decrease in local government spending and a further decrease in GSP. Adding a sales tax to Measure 5 will still involve a loss of GSP. Although a sales tax will make up lost revenue for schools, local governments still will have to cut spending.

Part B: Unemployment

As mentioned earlier, GSP is not a complete measure of welfare in an economy, although it does give some indication. The unemployment rate is also an important indicator of welfare. When state GSP falls, unemployment rises. According to Okun's law, a three percent decrease in GSP will cause a one percent increase in unemployment. Using this rule of thumb, changes in unemployment in Oregon due to the implementation of the various tax systems are calculated. Unemployment will increase during the first biennium by .33 percent. During the 1995-1997 biennium, unemployment will increase by 1.27 percent. Although unemployment will increase somewhat insignificantly during the first biennium, the increase becomes significant by the 1995-1997 biennium. Unemployment rates for the tax system involving Measure 5 only, will also rise because local governments will reduce spending, causing a fall in GSP and thus a further increase in unemployment. The proposal involving a sales tax as well as Measure 5 will also increase unemployment compared to the original pre-Measure 5

system because of this same decrease in local government spending. Since the measurements are variations from the original level, the original property tax system will not cause any change in unemployment.

The results on unemployment in this paper are consistent with predictions from the Oregon Department of Revenue. According to the Department:

The implementation of the property tax limit initiative (Ballot Measure 5) is expected to severely constrain growth in state and local government employment and stimulate private sector employment in the service producing sectors. The net impact on overall employment in the short run is expected to be negative because such a fundamental shift in resource allocation inevitably causes dislocations as workers adjust to the new environment.⁵¹

Part C: Other Concerns

Investment spending within Oregon might also be affected with the implementation of the various tax proposals. The lower property tax liabilities businesses will receive under Measure 5 will mean a decrease in the cost of starting a new business and might lead to growth in

⁵¹Oregon Department of Revenue Economic Outlook, April 1991.

the economy. Since it is assumed that Oregon has a closed economy, the new business would have to come from within the state. This potential growth will be true with the proposal involving a sales tax as well, since a sales tax will predominantly tax goods bought by consumers rather than producers. This growth from investment spending might not be otherwise achieved under the original property tax system.

Finally, it should be noted that the changes in GSP, unemployment and investment spending discussed above are relative to the original property tax system. Also, these results are not likely to be readily discernible in the economy. Instead, the economy will reflect all factors affecting GSP, unemployment, and investment. This means that while the model predicts a decrease in GSP due to the implementation of a specific tax program, this decrease could be augmented or negated by a recession or a period of prosperity in the economy stemming from factors unrelated to taxation.

Section 7: Conclusion

The final evaluation of the three tax plans takes all five criteria into account equally since there is no way to unbiasedly proclaim one criteria better than another without the availability of some sort of optimal social ranking.

Weights need to be assigned to the various criteria in order to determine the final ranking. In the absence of a clear, socially defined ranking, equal weights is chosen as the relevant ranking system.

With this in mind, clearly, the original property tax system is the best tax option. Although this plan is not the most equitable, it ranks first under all other criteria. Perhaps this reflects some unintentional bias on the part of the assumptions since the other two proposals are compared with this original tax plan. However, it is necessary to have some means of comparison and the original property tax plan, and accompanying level of government services, seems a logical choice. Although given many chances to reject the original property tax system, Oregon voters have instead long upheld it. The original property tax system and associated levels of services are freely elected and the best indication of voter preferences.

It is less clear if Measure 5 alone is better than Measure 5 combined with a sales tax. The addition of a sales tax improves the equity and the revenue generating function of Measure 5 limitations. A sales tax will also be better for the macroeconomy. However, this addition also decreases the independence of local governments from the state and the stability of revenue. The costs of implementing a sales tax are also high.

It should be noted that this conclusion does not mean that the pre-Measure 5 property tax plan is not without its problems. This plan promotes school inequity and is not the most consistent with the ability-to-pay theory. It has the potential to lead to governmental waste. Also, the high property tax rates might have deterred the formation of new business. This conclusion simply means that Measure 5 is not the way to solve these problems. The other two options, as evaluated in this paper, would cost Oregon more than they would benefit the state. The original property tax system provides Oregon with the greatest amount of benefits for the least amount of costs, provided all criteria are treated equally.

As will be looked at later, the public did not come to the same conclusions as this analysis did. Measure 5 was approved by voters in the November election. There are potentially several reasons for this. Perhaps voters did not evaluate all the costs and benefits, perhaps they weighted one criterion above another, perhaps they did not make informed decisions, or perhaps the political process did not work efficiently. For example, the original property tax system is only as equitable as Measure 5 alone and less fair than the option including a sales tax. Therefore, if someone's main concern is equity, perhaps they would chose to rank the three programs, and rank the

criteria, in a different manner. If voters placed more importance on one criterion than another, there would be a distortion of the "equal weight" conclusion given above. Public opinion will be discussed in a following chapter.

C H A P T E R 5

RELAXING SOME ASSUMPTIONS

Section 1: Miscellaneous Assumptions

Part A: Level of Government Services

The assumptions made in this paper are necessary in order to feasibly evaluate and rank the various tax systems. While an attempt is made to minimize the amount of assumptions and their effect on the outcome, there is no doubt that the assumptions did influence the results in some way. In order to partially remedy this, the analysis should be discussed with some of the restrictive assumptions lifted.

For the evaluation, it is assumed that the level of services existing before Measure 5 is socially desirable and that any deviation from this level will be "detrimental" to the society as a whole. In other words, at this level of government services, there is a balance between those that would benefit from more services and those that wanted less government spending. This assumption is justified on the grounds that this original level of services was freely approved by the voters in the absence of a severe limitation on spending. Perhaps, as the approval of Measure 5 might indicate, this level of governmental services is no longer socially desired. Although this might be the case, it will

cause no real change in the overall order of the tax systems. Although it will make the differentiation between the three tax programs less severe, it will not change the final ranking.

Part B: Property Value

Another assumption is that there is no change in property values caused by the implementation of Measure 5. This might not be the case. According to "Your Taxes", "rapidly increasing real estate prices, particularly in the Portland Metropolitan area, seem likely to result in assessed values greater than those expected when estimates of Measure 5's effect were calculated."⁵²

It is argued that lower property tax rates will raise the value of property and bring in a greater amount of revenue than will otherwise be collected if property taxes do not rise. This increase in property value could come from two sources. Assessed value (which is what is important in collecting property taxes) could rise because of a revaluation of assessment ratios. Property values could also rise because, since taxes are implicit in the price, lower taxes mean that it would become cheaper to own a house. This would increase the demand for property,

⁵²"General Fund Burden For Schools Could Drop as Values Rise," Your Taxes, April, 1991, p.1.

causing an increase in housing prices. Commercial property might similarly experience an increase in price if lower taxes lead to the start up of businesses and thus competition for property. Lowering property taxes might lead to a relocation and distribution of the population as people choose to live where taxes are lower. If the assumption that Oregon has a closed economy is dropped (which is more realistic), then outsiders might migrate into Oregon to take advantage of lower property taxes. This would add to the interior increase in demand and further increase the value of land. If businesses decide to relocate to Oregon, they will most likely bring some employees with them and attract others from different parts of Oregon. This will increase the private competition for land. Thus, lower property tax rates could actually increase revenue.

While theoretically correct, this process of increasing property values has limitations. It seems unlikely that decreasing property taxes will have a large direct impact on the decisions of private individuals to relocate or to buy a house if they do not already have one. This seems especially believable since property taxes will not be decreased in all counties. In some areas the decrease will be larger than in other areas. Also, the absolute upper

limit on the tax rate set by Measure 5 is equally applicable throughout the state. Thus, it seems plausible that most of the moving within the state, if there is any at all, will be from people who moved out of the previously "high" tax areas into "lower" tax areas. The relocation of Oregonians within the state, assuming there is any, will also be dependent on the availability of jobs. There is unlikely to be a huge movement of people within the state because of the lower property taxes.

Similarly, it is unlikely that a significant amount of new businesses will start as a result of lower property taxes. It is more likely that businesses from other states will decide to relocate to Oregon to take advantage of lower taxes, especially if their industry requires a large amount of property. This will only happen provided that property taxes in other states are higher than in Oregon. Otherwise, there would be no tax incentive for a firm to relocate.

There is another limit placed on this migration of industry. Firms value governmental services since these services affect the "quality of life" and help the firm maintain stable employment and attract new workers. If decreased taxes result in a significant deterioration of government services, firms would be less inclined to move to the state, despite lower property taxes.

Part C: Costs

It might be argued that costs should not be included in this analysis on an equal basis as the other four criteria. It is debatable how much the costs of a tax, both implicit and explicit, are considered in the decision to implement a specific tax plan. It is possible that costs, provided that the tax will generate enough revenue to cover them, and this is almost always the case, are not important at all in the decision to begin a new tax plan or revise an old one. Also, the costs are not concrete since they are estimated from a generalization that might not be true in Oregon. In this case, the evaluation of costs in this paper should be eliminated, or at least considered inferior to the other criteria. Dropping costs, however, would not change the ultimate ranking of the three systems. Instead, it would serve to provide a stronger case to maintain the original property tax plan.

Part D: Open State Economy

Assuming Oregon is a closed economy is a severe assumption. However, it does not have a significant affect on the results. As already mentioned, lower property taxes might lead to a limited influx of businesses into the state. This would encourage economic growth. The extent of this growth, however, does not seem to be very large. Lower property tax rates would also reduce the tax liability of

out of state property owners. This would be a windfall to these owners since they will loose nothing if services are reduced as well as taxes.

Section 2: Other Tax Plan Options

Part A: Sales and Gross Receipts Taxes

When Measure 5 was approved by voters, it contained no alternative means for raising revenue. The phase in period was granted in order for the state to adapt to the increased expenditure burden and later decide if a new tax was necessary. The state government will be able to survive the current biennium by employing some creative budgeting, cutting back some government programs, and increasing user fees when possible. However, the future looks less certain. It is almost impossible for the state to maintain its programs without some sort of replacement revenue. According to Rep. Delna Jones, chairwoman of the House Revenue and School Finance Committee, "You can't do it longer than the first biennium."⁵³

By the time of full phase in of Measure 5, the state will be obligated to give approximately 40 percent of its general fund revenues to schools. With this required

⁵³Ellis, "Politicians See Sales Tax as Best Solution," p. A1.

outlay, the government is now busy trying to coax the public into approving another tax, preferably a sales tax.

According to The Register Guard, "Gov.-elect Barbara Roberts and most members of the Legislature agree that new tax revenue is needed to replace some or all of the millions of property tax dollars that will be lost because of Measure 5. Many also seem to agree that the best device for this purpose would be a state sales tax."⁵⁴

Besides the sales tax plan advocated by Governor Roberts, there have been several other proposals by various politicians and special interest groups. The League of Oregon Cities backs a five percent sales tax, as long as one percent is allocated for local government use. According to The Oregonian, this idea is unpopular with both the public and state legislatures and thus unlikely to occur.⁵⁵

Another sales tax plan is proposed by Senator Jim Hill.⁵⁶ Sen. Hill's plan combines a four percent sales tax on goods only with a two part gross receipts tax on businesses. This

⁵⁴"Taxing question: When?" The Register Guard 12 Jan. 1991, p. 14A.

⁵⁵Barnes C. Ellis, "League Wants Share of Possible Sales Tax for Local Governments," The Oregonian 27 Jan. 1991, p. D2.

⁵⁶Dan Hortsch, "New State Sales Tax Proposal Includes Gross Receipts Levy," The Oregonian 27 Feb. 1991, p. B6.

others do exist. Which one is eventually enacted, is any, will be determined by voters.

A gross receipts tax also has been suggested, both in idea is still alive in the state legislature and is a viable option. The governor's sales tax proposal is chosen because it is the one most publicized and the one most likely to receive voter approval. So, while the sales tax proposal used for this paper is the one advocated by the governor, conjunction with a sales tax, such as Sen. Hill proposes, and alone. A gross receipts tax is a tax on the gross income of businesses and can be thought of as a tax paid by businesses for the privilege to operate within the state. While some reject it on the grounds that such a tax would hinder economic growth and development (less entry because it increases the cost of doing business), others support the tax as a stable and equitable source of revenue. Margaret Hallock suggests a gross receipts tax on businesses, with an exemption for "sole proprietors" as an attempt to make the tax fairer.⁵⁷ This will improve the equity among private citizens and commercial entities without affecting the tax burden distribution between members of the private household sector. Such a tax will also promote stability since large entrenched businesses are not likely to fold up during

⁵⁷Hallock, "You Say You Want a Revolution," p. 25.

downturns in the economy. This tax is less costly to collect than a sales tax since a fewer number of entities are involved. However, a gross receipts tax has not received serious attention in Oregon.

Part B: Additional Income Tax

An increase in the income tax has been suggested as both an interim, short term solution, and as a long term, permanent solution. An increase in the income tax, it is argued, is cheaper than implementing a new tax or reformulating an old one. Simply increasing the income tax rate would cost little to implement. Also, according to Irv Fletcher, president of the Oregon AFL-CIO, "Income taxes are more likely to be progressive".⁵⁸ Since income taxes keep in touch with an individual's ability to pay, they are considered extremely equitable.

While collecting additional income taxes would be simple and equitable, it is unlikely to happen in Oregon, especially as a long term solution. As Margaret Hallock writes, "Few will seriously propose to raise replacement revenue with the income tax, since it is already burdened too heavily as a tax source. To use the personal income tax

⁵⁸Ellis, "Politicians See Sales Tax as Best Solution," p. A1.

for replacement, Oregon would have by far the highest income tax rates in the nation."⁵⁹

The governor and most legislators, are against such use of the personal income tax because increasing the income tax rate would portray a bad tax image of Oregon to the rest of the nation. Governor Roberts thinks "the image of the highest income tax in the country would not be a particularly positive one."⁶⁰ The Governor, however, is not against using a temporary increase in the income tax to ease the strain of Measure 5 cutbacks. It is unlikely, however, that such a plan would be politically feasible. Oregon's income tax rates are already high, and an increase would be unpopular. So, although an increase in income tax rates would generate the necessary revenue to eliminate Measure 5 cutbacks, is an equitable and stable source of income, and would cost little extra to implement and maintain, it is politically infeasible, especially in the long run. Although it might present a better alternative based on the five criteria, it is an impractical tax solution because of political barriers.

⁵⁹Hallock, "You Say You Want a Revolution", p. 24.

⁶⁰Ellis, "Politician See Sales Tax as Best Solution," p. A1.

Section 3: The Long Run

This paper is confined to the short run. It focuses on the general climate of the state and the results of the tax programs in the upcoming years when the decisions about tax reform in Oregon are likely to occur. This paper is essentially an inquiry about the value of Measure 5. It determines if Measure 5 is beneficial to Oregon, both alone and as a catalyst toward further tax reform (this being, specifically, a sales tax.) A good decision, however, should be evaluated on both its short term outcome and its long term results. Immediate hardships might be acceptable in order to secure long term benefits.

The long term influences of the original property tax scheme are already known. In this paper, it is the initial condition to which the other two tax proposals are compared. Some aspects of this system are positive, others are negative.

A property tax is regressive. While an attempt is made to alleviate some of the burden on the poor, the exemption, deferral, and refund programs employed for this purpose are complex, confusing, and of little help in reducing the inherent regressivity of the tax.

One criticism of the original property tax system is its method of school finance. The system is inherently inequitable and unreliable. Since schools rely almost

exclusively on property taxes for revenue, outdated tax bases and inadequate community support can cause disruptions in school years and reductions in the quality of educational programs offered. However, while some schools are struggling without state help, others have plenty of money and community support. These schools enjoy the freedom from strict state regulation that is present under the original property tax scheme.

The original tax system also allows both local and state governments to collect enough money to operate at the level approved by the public. Although it might be argued that some of these services are wasteful, all government programs are either voted upon directly by the electorate, or implemented by elected officials who promised to begin or maintain certain programs. Schools, on the other hand, are not guaranteed enough money through property taxes (in part because of past limitations), although the state, through the "safety net" program, will help bail failing schools out of trouble.

Another advantage to the original system is that it is already in place. People are familiar with the system and this leads to less confusion and costs. However, if we are discussing the long run, any system will have outgrown its infant stage and the implementation costs of building the infrastructure and learning the rules will be irrelevant.

There are many problems with the original property tax system, the most outstanding being school finance and the regressiveness of the tax. These problems are severe enough to warrant a tax change. The question of this paper is in part whether Measure 5, or Measure 5 with the addition of a sales tax, is a better alternative to the original system. While this does not seem to be the case in the short run, perhaps the alternate tax programs are beneficial in the long run.

Now suppose that Measure 5 is the tax system employed by Oregon for the next several years. If the state does not continue to provide schools with the money it is required to give them during the phase-in period, then many schools would experience financial problems. Perhaps some would not even survive. Since the state no longer must give so much money to schools, it could reinstate programs that it had to abolish in order to give money to schools. This would be wasteful and inefficient. On the other hand, if the state maintained its support of schools, state services would suffer. This might happen because of the popularity of school reform in Oregon. However, there is most likely a trade-off between the level of state services desired and the amount of money people would be willing to give towards education. The result would be a reduction in the amount of money given to schools, combined with a less severe

reduction in government services. Both schools and the state would split the loss of money in this case. Although schools might be more uniform under this tax system, in the end, both the state and schools would have less money to spend.

Under Measure 5, local governments are not given time to adjust. In the short run, this might lead to confusion and inadequate funding, but in the long run, they should have time to adjust to the new limitation. Some local governments might respond by raising user fees, reducing the level of services, or, in the case of larger cities, implementing a new tax. If local governments could not adjust to Measure 5 limitations, then these governments would be hurting for money along with the state and schools.

In reality, the problem of insufficient funds may not be as severe as indicated above. Some people anticipate an increase in property values as a result of lower property taxes. This would imply that the revenues generated from a fixed rate property tax based on real market value would not drop as sharply. This would provide some relief to all governments, but it is unlikely to be enough to correct the problem.

Leaving Measure 5 would be disastrous to Oregon in the long run as well as the short run. There simply is not enough money to sustain a desirable level of government.

Measure 5 also does not get rid of the inherent regressiveness of the property tax. Perhaps this will provide the political force necessary to approve some other type of replacement tax.

In the short run, Measure 5 combined with a sales tax came very close to equaling the original property tax system. In the long run, it proves to be more beneficial. This provides some justification for the approval of Measure 5 by voters last November. Voters might have been aware of this and have approved Measure 5 as a stepping stone onto further reform.

A sales tax would not eliminate the regressiveness of the property tax system, although it would help reduce it. Unlike the property tax, the exemptions incorporated in the sales tax do contribute to reducing regressivity. This reduction is limited by the inherent regressivity of the sales tax and its combination with a property tax.

Under the assumptions given in this paper, the revenues earned from the sales tax will go directly to finance schools. This would guarantee enough money for education, while not requiring a reduction in state services. Also, by funneling the money through the state, it would even out the quality of educational programs among the various districts. One drawback would be a loss of independence for local school districts. As has already been pointed out, if the

state finances schools, they will have the power to impose more strict regulation.

Local governments would not be affected differently under this proposal than under Measure 5 alone. Eventually, they would adapt to the property tax restrictions through various means. An informal evaluation of the long run consequences do not uncover results dramatically different than the short term analysis. Measure 5 alone is still the least favorable option for the state. However, in the long term, a sales tax, in addition to Measure 5, is by far the best option. It seems that the short term costs of this program are outweighed by the long term benefits. One important short term problem with this plan, however, is its feasibility. If Oregonians do not approve the additional tax, the long term benefits cannot be reaped.

C H A P T E R 6

PUBLIC OPINION

Section 1: Introduction

Public opinion is an important factor when examining tax issues. A tax should be efficient and equitable, but most of all, it must be publicly acceptable. While not part of a purely economic analysis, awareness of the public feeling is necessary to understand the tax situation in Oregon. Voter opinions are of particular significance because the voters ultimately decide the outcome of elections. In Oregon, many tax issues are put to the public vote and many state politicians are voted in office partially because of their tax beliefs. Politicians are held accountable by their constituents whose opinions and beliefs they represent.

For this particular study, public opinion will be examined for two principal reasons. The first reason for looking at public opinion is to determine the feasibility of various tax proposals. This is important since infeasible proposals would be impractical. Secondly, it is interesting to compare the outcome of the previous analysis of the various tax proposals with public opinion. This will

determine whether the public made (or will make) optimal choices in its tax decisions.

Section 2: Measure 5

Part A: Supporting Arguments

Much was written previous to the election expounding both sides of Measure 5. The arguments supporting the tax limitation can be divided into five categories: schools, equity, economy, revenues and expenditures, and other reasons.

School funding has long been a public concern in Oregon. Supporters of Measure 5 urged its passage because it would require the state to provide more money for schools. Forcing the state to bear a larger burden of school finance would result in a more stable and equitable school system. This would eliminate "cliff-hanger" elections and shortened school years that cause "grief and trauma" to some parents and students. Some thought that Measure 5 would force the state to bear its fair share of school funding and would involve the state more fully in public education. It would force to state to implement cost-effectiveness and quality improvement programs. They did not fear a loss of local independence because they already thought that local control was in reality confined to a select few and not open to the general public.

Some supporters felt that property taxes had outstripped the individual taxpayer's ability to pay. Limitations would confine the tax to within the tax payer's ability. Also, excessive exemptions contributed to the unfairness of the tax. Businesses, it was felt, did not bear a large enough burden, and decreasing property taxes might force an increased burden (through increase corporate income taxes for example) on commercial entities.

Supporters thought that Measure 5 was supposed to stimulate the economy. Decreased taxes would stimulate new business and lead to economic growth and more jobs. Decreasing taxes would increase individual after tax income (disposable income) and thus increase consumption spending. This would increase demand and lead to growth. Finally, an increase in disposable income would also lead to an increase in savings. This would stimulate new investment spending and induce growth as well.

Severe decreases in necessary government services were not expected either. There are two arguments concerning revenues and expenditures. Some supporters of Measure 5 felt that there was an abundance of excessive government spending that could be eliminated as funding for these programs dried up. It was also felt that the normal growth in the state economy would allow the state budget to absorb the excess spending required under Measure 5. One supporter

of Measure 5, Don McIntire, wrote that there would be "adequate funding for essential services", although he did not explain what "adequate funding" or "essential services" were.⁶¹ Most local governments were seen as not affected by the limit and those that were, supposedly had other means of income.

Another advantages to Measure 5 was reduced utility bills. It was thought that utility bills might be reduced since property taxes are figured into the utility rate. Also, Measure 5 included a transition time that allowed the state legislature and the public to adjust to the new limit and pass laws (presumably a replacement tax) to correct any problems that might arise.

Part B: Opposing Arguments

There were several reasons people were opposed to Measure 5 before the election. School funding was a large concern in Oregon, of coarse. Those opposed to Measure 5 rejected it in part because of its system of school funding. Although Measure 5 required the state to supply funds lost to K-12 schools, educational associations across Oregon did not support the measure. They claimed that the state could reduce the basic school support it already gave these

⁶¹Don McIntire, "Argument in Favor", Official 1990 General Voter's Pamphlet, Oregon, p. 35.

schools by including this money as part of that required by Measure 5. These groups recognize the need for school funding reform in Oregon. However, they thought that this property tax limitation was not the vehicle through which to achieve it. Higher education was also against the limitation because it meant that they would receive less money from the state. For Community Colleges this money was especially important since they are obligated to keep tuition low.

While those who oppose Measure 5 did not believe that the original property tax system maximized equity, they thought Measure 5 would reduce the amount of equity already existing. These groups claimed that Measure 5 would give a windfall to commercial property and reduce the equity between commercial and private contributions to the government's income. Oregon Fair Share predicted that under Measure 5, 61 percent of the relief doled out would benefit business, industrial, and rental property owners and owners of second homes, while only 39 percent would benefit homeowners and renters.⁶² (This is because homeowners and renters pay about 39 percent of the property taxes, while the commercial property owners make up most of the rest.) Some of those opposing Measure 5 proposed a homestead

⁶²Oregon Fair Share/Fair Share NPAC, "Argument in Opposition", Official 1990 General Voter's Pamphlet, Oregon, p. 38.

exemption as a solution. This would shift a heavier burden onto the backs of commercial property owners and away from households.

Another criticism of Measure 5 is its irresponsibility toward replacement funding. Without some means of making up lost revenue, state and local governments would be forced to cut services, institute a new tax, or become inoperable. The cuts in government spending would not only cause harm to specific individuals, but would also decrease the general quality of life in Oregon. New or increased taxes, such as an increased income tax or the approval of a sales tax, these people argued, would mean that in the end, there would be no real tax relief. Finally, the lack of replacement funding would cause governments to make hurried decisions about money that might not always be carefully thought out and in the best public interest.

Economic concerns also entered into the case against Measure 5. A decrease in government services would decrease the quality of life and thus make Oregon less attractive to new businesses desiring to relocate to Oregon.

Finally, it was argued that Measure 5 hampered an individual's (or individual community's) freedom of choice. Because Measure 5 imposes a strict absolute limit on the amount of property taxes that can be collected, it limits the right of individual communities to tax themselves. As

the League of Women Voters of Oregon points out, "Local governments will have few options for alternative revenue, and citizens will have no opportunity to override the limitations."⁶³

Part C: Election Outcome and Comparison

In November, 1990, Oregon voters approved Measure 5 and imposed a constitutional limit on property taxes. This is in consistent with the conclusions of this paper since the analysis points to the original property tax system as more desirable. There must be some reason why the optimal choice, according to the evaluation based on the five criteria, was not chosen.

The major arguments in support of Measure 5 were to achieve more equitable and stable school funding, to eliminate government spending waste, and to reduce an inequitable (based on ability-to-pay) tax. The voter approval of Measure 5 suggests that the equity, and revenues and expenditures criteria should be weighted heavier than the other three. Furthermore, the revenues and expenditures criterion should be reevaluated and changed to accommodate a preference for less government services. However, it cannot be proven that a majority of Oregon voters support a

⁶³League of Women Voters, "Argument in Opposition," Official 1990 General Voters' Pamphlet, Oregon, p. 40.

reduction in government spending since the vote did not concern specifically that issue. It might be the case that some voters voted in favor of the measure for other reasons, perhaps even under the assumption that a replacement tax would be implemented during the five year transition period.

It also could be the case that voters made a badly informed or ill thought out decision, focusing on one aspect of the tax and ignoring the other implications. For example, individuals who are in danger of not being able to pay their property taxes might vote in favor of the limitations even though they do not necessarily want a reduction in government spending or school equity. Their main concern might be to pay less property taxes. Similarly, someone living in a county that already collected property taxes well below the cut off rate, and who is very concerned with school equity and school finance might view Measure 5 in a different light. This person might vote for the measure in order to achieve school funding reform since the tax limit would not affect his or her property taxes (or the level of local government services).

The idea of a gradual "phase-in" period also appealed to some voters, especially if it was thought of as time to vote in a replacement tax. Those in support of a sales tax might have hoped to use Measure 5 to further their cause. Those wanting tax reform viewed the transition period as

time to implement some sort of reform (in addition to Measure 5 limitations). Although Measure 5 came with no guarantee of a replacement tax, the phase-in period might have been seen as extra time in which to create such a tax. In this case, the outcome of the election would not necessarily support Measure 5 alone, but instead would be a transition step to achieve some other tax plan, such as Measure 5 combined with a sales tax. The transition period also had appeal in that it allowed time for the state government to become acquainted with the new system. Since the legislative process is relatively slow, this extra time would help the state cope with the new large expenditure it was required to make. No such time was given to local governments, although not all were affected by the limitations.

Measure 5 differed from past property tax limitations in that it was not tied directly to a sales tax, or any other form of tax, and it required the state to replace lost school funding. Thus, Measure 5 had an appeal that the other limitations did not. For some reason, Oregonians seem to have been dead set against a state sales tax. The incorporation of a sales tax into a property tax limitation plan would probably have made the limitation unpopular. Measure 5 added another bonus by providing a means for equalizing school funding, and securing open schools in some

instances. This also contributed to the passage of the limitation.

The vote was well timed for the passage of the measure as well. There was fear of a recession coming to Oregon at the time of the election. Although this reinforced the threats of cutbacks in government services, people were mostly concerned with how they as individuals would ride out the recession. Decreasing property taxes would leave more money to spend. Some home owners feared losing their home due to an inability to pay their property tax liability. Lower taxes would help them retain their home. Some parents, concerned about the stability of their children's schools, also were encouraged to approve Measure 5 and ensure funding for local schools.

All the above situations helped contribute to the passage of Measure 5, even though it was rated the least desirable for Oregon as a whole under the five criteria. In light of this outcome, perhaps the criteria should be weighted unequally in importance. There have been some attempts to repeal Measure 5. However all have little chance of success. A court case has been filed charging that the limitation is unconstitutional. However, since the measure amends the constitution, it is unlikely that this will annul the limitation. Some special interest groups have also called for a revote of the measure, perhaps

allowing each county to decide for itself if it wanted to accept the limitation. This is very unlikely to occur. Measure 5 was voted on statewide as a constitutional amendment. It would be foolish to allow anyone who disagrees with a law the right to excuse themselves from following it. The only hope to abolish the limitation would be some sort of voter appeal and there is no strong movement in that direction. The general feeling is to accept the limitation and cope with the change. Thus, it seems like Measure 5 is here to stay. In order to maintain the survival of many governmental programs, especially once full phase-in of the limitation is in place, a new tax must be implemented. The analysis of this paper also strongly shows that Measure 5 alone would be detrimental to Oregon as compared to Measure 5 combined with a sales tax. However, the implementation and form of any new tax will depend on public opinion, the influence of special interest groups, and the political process.

Section 2: Sales Tax

Part A: Opposition and Supportive Arguments

It has already been explained that Oregon will eventually need some sort of replacement tax to make up the revenue lost as a result of Measure 5. The most popular, and most talked about, form for this replacement is the

general sales tax. Although the sales tax has been talked about in many forms, all incorporate the general idea of taxing purchases. All include, as well, exemptions for such items as food, housing, and medicine in order to alleviate some of the regressive effects of the tax.

There are two main arguments against a sales tax. A sales tax is regressive and not consistent with an individual's ability to pay. It will put a heavier burden on the backs of the working people. One opponent, Oregon AFL-CIO president Irv Fletcher said, "Sales taxes on their face are regressive taxes. They don't reflect ability to pay."⁶⁴ Even with the exemptions, the sales tax will be regressive to some degree. Also, it was argued that the lack of a sales tax contributed to the strength of Oregon's retail stores. A sales tax would result in less consumption spending and provide the retail stores with an extra cost of doing business.

There are stronger arguments supporting a sales tax, especially since it is the largest single source of revenue for most states, comprising 33 percent of total state revenue among the 50 states.⁶⁵ A sales tax is popular with

⁶⁴Ellis, "Politicians See Sales Tax as Best Solution," p. A1.

⁶⁵Ibid., p. A1.

government officials since it is has been proven effective in other states, and since as a new tax, it would provide variation in the state tax scheme which now relies almost exclusively on income taxes. A sales tax would also raise money from the tourists who visit Oregon each year. This is not expected to injure the tourist trade. Julie Curtis, acting director of the State Tourism Division, said, "Almost every state has a sales tax so it's generally a surprise when they do get to Oregon and find out we don't".⁶⁶ Also, the regressiveness of a sales tax will be lessened by the exemption of "necessities" such as food, housing and medicine. This will keep it more in tune with an individual's ability to pay.

Although popular with state officials, it will be difficult to get voter approval for a sales tax. Historically, Oregonians have rejected a sales tax. A sales tax has been voted on eight times in the past, each failing. The last attempt, a five percent tax voted on in 1986, failed by a vote of four to one.⁶⁷ For some reason, Oregonians are against a sales tax. Although the blame for

⁶⁶Ellis, "Politicians See Sales Tax as Best Solution," p. A1.

⁶⁷Ibid., p. A1.

the rejection of the sales tax could be given to the regressiveness of the tax, this is unlikely the only cause since, in reality, the tax is less regressive than the property tax. Instead, the failure of a sales tax in Oregon should be attributed, in part, to the influences of special interest groups and the general climate of the state. There is a feeling that somehow Oregon is special because it lacks a sales tax and enacting such a tax would make Oregon common among the states. Also, special interests, such as labor organizations and retail business interests muddy the reputation of a sales tax. These special interests can influence a large segment of the population. Labor organizations claim that a sales tax is too regressive and not consistent with an individual's ability to pay. They instead back an increase in the state's income tax on the grounds that this would be more likely progressive in the end. Although an increase in the income tax is very unlikely to occur, the opinion of labor organization can influence voters to reject a sales tax proposal. Retail business organizations also oppose a sales tax since they would be the ones collecting the tax.

In order to overcome the fears Oregonians have concerning a sales tax, several strategies have been suggested by the state government. The general trend in these thoughts is to wait until the budget cuts required as

a result of Measure 5 are felt deep enough to encourage people to approve a sales tax. There is a time limit to this strategy because there must be some sort of replacement revenue in place during the next biennium, or by 1995 at the latest, in order to prevent the collapse of many government services. Since public opinion shies away from a sales tax, the timing will be crucial.

C H A P T E R 7

CONCLUSION

This paper assumes that the five criteria employed in the analysis are equally weighted in determining the outcome. In a real world view this is not the case. Tax programs in the state are introduced, influenced, and approved by a variety of government officials, special interest groups, and average voters. The emphasis these groups place on the different criteria need to be understood if possible outcomes are to be predicted. The equity and the revenue/expenditure criteria are considered the most important by the general public. It was seen in the preceding chapter that most of the complaints and praises of Measure 5 and a sales tax are concerned with these criteria. This is primarily because these affect individuals the most. There is a balance between total reductions of tax revenue and a willingness to reduce government services. Equity is an important concern because individuals have an incentive to reduce their own tax burden at the same time. Different groups in Oregon generally disagree on the balance between these two issues.

The public also addresses the independence and stability, and the macroeconomic effects criteria, although

with somewhat less intensity. Independence is mostly important to local governments who do not wish to be controlled by the state. Those involved with schools also want to retain their independence, although this is not a primary concern of voters. Stability is mostly addressed in terms of stable school funding. The effects of each tax program on the economy are also discussed, although not as forcefully.

Costs seem to be generally unimportant. At best, cost estimates are sketchy, and costs will occur with any proposal. Also, costs are so small compared to the revenue generated from the tax so as to be insignificant. Instead, other, more pressing tax concerns are addressed. A reduction in the importance of costs is discussed in Chapter 5. Costs are included in the analysis since from an economic standpoint, costs are important in determining the overall efficiency of the revenue generating capacity of a tax.

The various tax plans examined in this paper can be looked at in terms of this new ranking of the criteria. Compared to those options involving Measure 5, the original property tax system is inequitable. However, this system provides enough money to retain the current level of government services. Measure 5 alone, especially after full phase in, would severely restrict the amount of services

state and local governments are able to offer. The inclusion of a sales tax would reduce this restriction. It can be concluded that if just the equity and revenue/expenditure criteria are employed, the option including a sales tax is the best compromise between Measure 5 and the original property tax plan.

If costs are omitted, and the remaining two criteria are considered less intensely, the best option would be easier to choose. The original property tax system is better for the economy than the other two options, although the sales tax plan is close behind. Measure 5 alone will cause a reduction in the state's GSP and an increase in unemployment. The addition of a sales tax would help alleviate this problem to a certain extent. The original property tax system also allows local governments the most independence. Finally, Measure 5 alone is the most stable source of revenue, with the original property tax system coming in next. If the less important criteria are considered of equal importance, then the original property tax system would be the best solution. This would be followed by Measure 5, and finally by the sales tax option. It is hard to say with absolute certainty that the sales tax option is the best alternative for Oregon even though it rates the highest when considering only revenues, expenditures, and equity. It is the worst solution when

considering the less important criteria of macroeconomic effects, independence, and stability.

Now, suppose this outcome is reconciled with the long term best interest of the state and with public opinion. Measure 5 has been approved and it is unlikely that it will be repealed and the original property tax system reinstated. Most politicians unhappy with the result of the November election feel that they must help Oregon adapt to the new system rather than waste energy trying to reinstate the old one. The remaining two choices involving Measure 5 are thus the only feasible options left. In the short run, Oregon can perhaps cope with Measure 5. There will be some service cuts and fee increases, but the government can maintain a somewhat acceptable level of services. As Measure 5 nears full phase in, Oregon will need a replacement source of revenue. Thus, overall, it seems that a sales tax in addition to Measure 5 is the best option for Oregon. Even if other tax options are considered, as is discussed in Chapter 5, a sales tax as the source of supplemental revenue seems the best feasible choice.

Measure 5 with the addition of a sales tax is the best option for Oregon. This system provides the best balance between equity, efficiency, and feasibility. What remains to be seen is if Oregon has the foresight to implement such a plan.

APPENDIX A

GLOSSARY

1. BASE: The tax base is what the tax rate is applied to.
2. BENEFIT PRINCIPLE OF TAX BURDEN EQUITY: The benefit theory is related to the contract theory of government and incorporates market-like ideas. The idea is that individuals pay only for those goods and services that directly or indirectly benefit them. The tax burden, or in this case the costs of producing the particular good or service, is directly borne by those individuals receiving the benefit of the good or service. This theory provides for equitable or fair distribution of the costs of government in that payment is voluntary and equals benefits received.
3. CAPITALIZATION: Capitalization is the process of turning something into wealth. In this case, the inequities have been partially absorbed in the price.
4. ECONOMIC COSTS: Economic costs include monetary costs as well as opportunity costs (or the costs of the next best options).
5. ELASTICITY OF DEMAND: The elasticity of demand is defined as the percentage change in quantity demanded caused by a 1 percent change in price.
6. EQUAL ABSOLUTE SACRIFICE THEORY: This theory equates the sacrifice borne by all individuals.
7. EQUAL MARGINAL SACRIFICE THEORY: This theory equates the marginal decrease in utility (individual satisfaction) of all individuals.
8. EQUAL PROPORTIONAL SACRIFICE THEORY: This theory means that the percentage of utility (individual satisfaction) lost is the same for all individuals.
9. EXCISE TAXES: These are special cases of sales taxes. They are generally levied on one specific types of good. The demand for this good is usually inelastic.
10. EXTERNALITY: An extra cost or benefit received by someone not involved in the economic transaction.

11. FISCAL POLICY: Fiscal policy involves using tax shifts and changes in government spending to achieve a socially desirable change in the economy. For example, during a recession, taxes might be reduced, allowing an individual to spend more of his income. More spending induces economic growth.
12. GROSS STATE PRODUCT (GSP): GSP is the total value of all final goods and services produced in the state.
13. INTANGIBLES: Assets such as stocks and bonds.
14. MARGINAL PROPENSITY TO CONSUME (MPC): This is the percentage of income an individual consumes (or spends). The rest is saved (or "invested").
15. MARGINAL UTILITY: The extra unit of benefit an individual receives if an extra unit of an economic good is given to the individual.
16. MULTIPLIER FORMULA: Change in GSP equals the multiplier times the change in government spending (or the change in tax revenue).
17. OKUN'S LAW: A rule of thumb which states that a three percent decrease in GNP leads to a one percent increase in unemployment.
18. PROGRESSIVE TAX: This type of tax uses increasing rates as the tax base increases. See fig. 4.
19. PROPORTIONAL TAX: This type of tax applies a constant rate to every base. See fig. 4.
20. PUBLIC GOODS: These are goods with special characteristics: nonrival consumption and nonexclusion.
21. SEVERANCE TAX: The tax timber companies used to pay this on their crop when they harvest it instead of paying regular property taxes.
22. REGRESSIVE TAX: This type of tax applies diminishing rates as the tax base increases. See fig. 4.
23. SPECIAL DISTRICTS: These are forms of local government other than counties or cities. In Oregon, special districts include school districts, water districts, transportation districts, and park and recreation districts.

24. SUMPTUARY TAXES: Taxes imposed in order to reduce the consumption of a socially undesirable goods. Excise taxes on beer and tobacco are examples.

25. UTILITY: The benefit an individual from an economic activity.

APPENDIX B DATA FOR EQUITY CRITERION*

	LOW INCOME GROUP (28.7%) 285,093 HOUSEHOLDS \$0 - 9,999	MIDDLE INCOME GROUP (43.5%) 431,686 HOUSEHOLDS \$10,000 - 24,999	HIGH INCOME GROUP (27.8%) 273,971 HOUSEHOLDS \$25,000 AND UP
AVERAGE INCOME	\$5,394.11	\$17,198.91	\$40,621.32
AVERAGE HOUSING VALUE	\$46,080.91	\$57,026.45	\$78,223.85
# OF HOMEOWNERS (%)	107,642 (37.5%)	247,274 (57%)	228,296 (83%)
PROPERTY TAX (%)			
a. 2.634%	\$1,213.77 (22.5%)	\$1,502.08 (8.7%)	\$2,060.42 (5.1%)
b. 2.5%	\$1,152.02 (21.4%)	\$1,425.66 (8.3%)	\$1,955.60 (4.8%)
c. 1.5%	\$691.21 (12.8%)	\$855.40 (5%)	\$1,173.36 (2.9%)
# OF RENTERS (%)	177,451 (62.2%)	184,412 (43%)	47,675 (17%)
AVERAGE RENT/MONTH	\$215.58	\$277.98	\$322.78
% RENT AS PROPERTY TAX			
a. 2.634%	12%	12%	12%
b. 2.5%	10%	10%	10%
c. 1.5%	5%	5%	5%
PROPERTY TAX (%)			
a. 2.63%	\$310.44 (5.8%)	\$400.29 (2.3%)	\$479.20 (1.2%)
b. 2.5%	\$258.72 (4.8%)	\$336.60 (1.9%)	\$399.36 (.98%)
c. 1.5%	\$166.80 (2.4%)	\$166.80 (.97%)	\$199.68 (.49%)
AVERAGE PROPERTY TAX (%)			
a. 2.634%	\$615.51 (12.1%)	\$1,031.41 (6.0%)	\$1,800.31 (4.4%)
b. 2.5%	\$595.00 (11%)	\$959.14 (5.6%)	\$1,686.75 (4.2%)
c. 1.5%	\$341.50 (6.3%)	\$561.24 (3.3%)	\$1,005.15 (2.5%)
RENT AS % OF INCOME	48%	19.4%	9.8%
HOUSING COSTS AS % OF INCOME	16.31%	17.25%	17.48%
AVERAGE COSTS AS % OF INCOME	36%	18.17%	16.15%
AVERAGE HOUSING EXPENDITURE	\$1941.88	\$3,125.04	\$6,560.34
PERCENT OF FOOD EXPENDITURES	18.75%	43.75%	37.5%
AVERAGE FOOD EXPENDITURE	\$1,316.95	\$2,029.39	\$2,270.96
FOOD AS PERCENT OF INCOME	24.4%	11.8%	6.7%
MPC	.99	.90	.80
STATE INCOME TAX RATE	7%	9%	9%
STATE INCOME TAX LIABILITY	\$269.71	\$1,547.90	\$3,655.92
FEDERAL INCOME TAX RATE	15%	28%	33%
FEDERAL INCOME TAX LIABILITY	\$768.66	\$4,382.28	\$12,198.58
DISPOSABLE INCOME	\$4,355.35	\$11,268.73	\$24,766.82
TAXABLE CONSUMPTION	\$1,053.35	\$4,987.43	\$10,532.16
SALES TAX (%)	\$52.67 (1.1%)	\$249.37 (1.5%)	\$526.60 (1.3%)
PROPERTY TAX ONLY (%)	\$651.51 (12.1%)	\$1,031.41 (6.0%)	\$1,800.31 (4.4%)
MEASURE 5 ONLY (%)	\$595.00 - 341.50 (11% - 6.3%)	\$959.14 - 561.24 (5.6% - 3.3%)	\$1,686.75 - 1,005.15 (4.2% - 2.5%)
MEASURE 5 AND SALES TAX (%)	\$647.67 - 394.17 (12% - 7.3%)	\$1,208.51 - 810.61 (7.0% - 4.7%)	\$2,213.36 - 1,531.76 (5.4% - 3.8%)

*NOTE: This data is from 1980 so all figures are low for 1990 dollars. However, the method used would be the same if 1990 census figures were available.

SOURCE: BUREAU OF THE CENSUS

APPENDIX C

CALCULATION OF EQUITY CRITERION DATA

AVERAGE INCOME: Median of each income range (MI) multiplied by the number of households in that income range (HI), divided by the total number of households in the income group (#H). The only exception was for the group earning \$50,000 and up. For this group, \$80,000 was used as the median income.

Example*: $\frac{(MI)(\#HI)}{\#H}$ for each income group (low, middle, and high).
 *(i = 1, 2, ..., n where n = number of income ranges in the income group.)

AVERAGE HOUSING VALUE: Mean value of houses for each income range (MV) multiplied by the number of households in that income range and own houses (#HIO), divided by the total number of households that live in owner-occupied homes for that income group (#OH).

Example*: $\frac{(MV)(\#HIO)}{\#OH}$ for each income group.

AMOUNT OF HOUSEHOLDS THAT LIVE IN HOUSES: The numbers in the data added to the proportion of excess. Since the amount of households that live in houses and the amount of households that rent make up only about 85% of the total number of households in each group, the missing 15% (about) is proportional according to the distribution of the other (about) 85%.

Example: For the low income group, 92,201 households (32.3%) live in owner occupied homes, and 152,137 (53.3%) rent. The remaining 40,755 (14.4%) of households are allocate such that the ratio of homes to renting is $.323/.533 = .61$. This means, $a/b = .61$ and $a+b = 40,755$ where a =excess homeowners and b =excess renters. $a=15,441$ and $b=25,314$. Finally, $92,201 + 15,441 = 107,642$ (37.8%) low income households live in houses and $152,137 + 25,314 = 177,451$ (62.2%) rent.

AVERAGE PROPERTY TAXES: Average housing value for each group multiplied by the tax rate. To express as a percent of income, the property tax liability is divide by average income. For Measure 5, the property tax rate is assumed to be 2.5%, falling to 1.5% (maximum allowed by law). For the original property tax system the rate is assumed to be 2.634% which is the average property tax rate in Oregon prior to Measure 5.

AMOUNT OF HOUSEHOLDS THAT RENT: Data number added to "excess renters". See "average amount of households that live in houses".

AVERAGE RENT: Weighted average of median rents for each group where the weights are amount of households renting in each income range (#HIR) and median rents (MR) are median rents for each income range.

Example*:
$$\frac{(MR)(\#HIR)}{\#H}$$
 for each income group

PERCENT OF RENT THAT IS PROPERTY TAX: Assume that when the property tax rate is 2.5%, 10% of rent is to pay property tax, when the rate is 1.5%, 5% of rent, and when the rate is 2.634%, 12% of rent.

AVERAGE AMOUNT OF RENT THAT IS PROPERTY TAX: Average rent for each income group multiplied by the percent of rent that is property tax multiplied by 12. Must be multiplied by 12 because rent is express in monthly amounts.

AVERAGE PROPERTY TAX: Average property tax of homeowners (PH) multiplied by the number of households that live in homes (#HO) added to the average property tax of renters (PR) multiplied by the number of households that rent (#R). This is all divided by the total number of households in that income group (#H). To express as a percent of income, divide the whole by the average income level for that group.

Example:
$$\frac{(PH)(\#HO) + (PR)(\#R)}{\#H}$$
 for each income group.

RENT AS A PERCENT OF INCOME: Average rent multiplied by 12 divided by average income, for each income group.

HOUSING COSTS AS PERCENT OF INCOME: Weighted average such that the number of households in each income range that have mortgages or do not have mortgages is multiplied by the median percent of income as housing cost. This value is then averaged using the number of households in each range as weights for each group to find the percent of income for each group.

AVERAGE HOUSING COSTS AS PERCENT OF INCOME: Weighted average of the costs associated with renting and with owning a home.

Example:
$$\frac{(\%IR)(\#HR) + (\%IH)(\#HO)}{(\#H)}$$

Where: %IR = % income for rent, #HR = # households that rent, %IH = % income for housing costs, #HO = # households living in homes.

AVERAGE HOUSING EXPENDITURE: Average housing costs divided by average income for each group.

PERCENT OF FOOD EXPENDITURES: Add percents for each income range for each income group. Note: Since the percent of the population needs to be consistent, the \$5,000-\$10,000 group was divided into two equal parts between low and middle groups. Since the data on food is from 1977 and the other data is from 1980, inflation should partially justify this.

AVERAGE FOOD EXPENDITURES: Total spending on food for each income group divided by the total number of households in that income group. Note: Total food expenditures estimated from 1987 data by discounting 7% each year until 1980. Seven percent is the average inflation rate during this time. Total food expenditures in 1987: \$3,327,927,000. Estimated total food expenditures in 1980: 2,002,416,573.

MPC: Estimated to be .99 for low income group, .9 for middle, and .8 for high.

STATE INCOME TAX LIABILITY: Rates are 7% for low income group, 9% for both middle and high. Amount of liability for each group is the tax rate multiplied by average income.

FEDERAL INCOME TAX: Since state income taxes are exempt from federal income taxes, they are subtracted from the average income before the federal income tax rate is applied.

DISPOSABLE INCOME: Average income minus both federal and state income tax liabilities.

TAXABLE CONSUMPTION: Total consumption minus average housing costs and average food expenditures. Note that total consumption is disposable income multiplied by the MPC. Households save the unaccounted for income.

SALES TAX: Assume 5% on all non-exempt consumption. For sales tax as percent of income, divide sales tax liability by average income for each income group.

APPENDIX D
SLOPES AND REGRESSIVITY

	LOW - MIDDLE (RL, 5394.11) (RM, 17198.91)		MIDDLE - HIGH (RM, 17198.91) (RH, 40621.32)	
Original	°	RL = 12.1	°	RM = 6.0
	°	RM = 6.0	°	RH = 4.4
Property Tax	°	Slope:	°	Slope:
	°	-.0005167	°	-.0000683
	°	Rank: 5	°	Rank: 4
Measure 5	°	RL = 11.0	°	RM = 5.6
	°	RM = 5.6	°	RH = 4.2
(1991-93)	°	Slope:	°	Slope:
	°	-.0004574	°	-.0000598
	°	Rank: 4	°	Rank: 3
Measure 5	°	RL = 6.3	°	RM = 3.3
	°	RM = 3.3	°	RH = 2.5
(1995-97)	°	Slope:	°	Slope:
	°	-.0002541	°	-.0000342
	°	Rank: 2	°	Rank: 1
Measure 5 and	°	RL = 12.0	°	RM = 7.0
	°	RM = 7.0	°	RH = 5.4
Sales Tax	°	Slope:	°	Slope:
	°	-.0004236	°	-.0000683
(1991-93)	°	Rank: 3	°	Rank: 4
Measure 5 and	°	RL = 7.3	°	RM = 4.7
	°	RM = 4.7	°	RH = 3.8
Sales Tax	°	Slope:	°	Slope:
	°	-.0002202	°	-.0000384
(1995-97)	°	Rank: 1	°	Rank: 2

RANK OF REGRESSIVITY:
(Lower slope = less regressive)

- | | |
|--------------------------------------|---|
| 1. Measure 5 and Sales Tax (1995-97) | 1. Measure 5 (1995-97) |
| 2. Measure 5 (1995-97) | 2. Measure 5 and Sales Tax (1995-97) |
| 3. Measure 5 and Sales Tax (1991-93) | 3. Measure 5 (1991-93) |
| 4. Measure 5 (1991-93) | 4. Measure 5 and Sales Tax (1991-93) /
Original Property Tax |
| 5. Original Property Tax | |

OVERALL RANK:

1. Measure 5 and Sales Tax
2. Measure 5
3. Original Property Tax

APPENDIX E

DATA FOR REVENUES AND EXPENDITURES CRITERION

ORIGINAL PROPERTY TAX

	REVENUE	EXPENDITURES
LOCAL	No change from current level.	Change only from the normal shifting of money and creation of new programs.
SCHOOLS	No change from current level.	For those schools with enough money, no real change. Those without enough money would have to put special levies on the ballot. If these do not pass, then these schools would have to cutback.
STATE	No change from current level.	No change from current level.

MEASURE 5 AND SALES TAX

	REVENUE	EXPENDITURES
LOCAL	Same problem as above.	Same as above.
SCHOOLS	Since the sales tax money will go to schools, all schools will have more money than under Measure 5 alone.	All schools should have enough money. Some districts will remain the same, others can spend more to increase the quality of education.
STATE	A sales tax will increase the revenue earned by the state. It should replace all money given to K-12 schools and also help higher education.	Since the state no longer will have to make up school money, no real change from the initial property tax system, with the exception of normal changes.

MEASURE 5

	REVENUE	EXPENDITURES
LOCAL	- Revenue would be lost if - the original property tax - rate was above 1%. If the - assessment values increase, - less revenue would be lost.	- Cutbacks only if the local - tax rate is above 1%. The - biggest concerns are parks, - fire, police, and roads.
SCHOOLS	- Since the state makes up - school funding, revenue - decreases only if basic - school support drops. - Individual districts could - lose money depending on - the allocation of the - state's money for education. - Money for Community Colleges - and state colleges and - universities will decrease.	- If the state allocates the - money based on equity, some - districts will need to cut - back. Otherwise, no real - change. Community Colleges - and state universities and - colleges will lose money - as the state gives more to - K-12 schools.
STATE	- When the rate is 2.5%, the - state will have to make up \$633 (24%) from the general - budget. This increases to 40% when the rate is 1.5%. - The state will not lose - revenue, but will have to - spend more.	- The state will have to - decrease programs because - of the added school - expenditure. Suggested - cuts: social services, - higher education, property - tax relief, employment, and - corrections. User fees - will also increase.

APPENDIX F
DATA FOR COST CRITERION

	ADMINISTRATION AND ENFORCEMENT	COMPLIANCE	START-UP
PROPERTY TAXES*	- Administration: About 2% of revenue plus any needed to return assessment to the 6 year cycle. (\$59.309 million) - Enforcement: About 1% of revenue. (\$29.654 million) - Total: \$88.963 million (3%).	Payment of the bill plus any necessary appeal.	None.
MEASURE 5*	- Administration: About 2% of revenue plus any needed to return assessment to the 6 year cycle. (\$33.775 million). - Enforcement: About 1% of revenue. (\$16.887 million) - Total: \$50.662 (3%).	Payment of the bill plus any necessary appeal.	Costs of: redefining the property tax, reassessing property, teaching assessors, increased public relations.
MEASURE 5 AND SALES TAX#	- Administration: About 2% of property tax revenue and 1.5% of sales tax revenue. (\$77.275 million) - Enforcement: 1% of sales tax revenue and property tax revenue. (\$45.887 million) - Total: \$123.162 million (2.7%)	Consumer bother, and vendor time and money to collect the tax. Also, payment of the property tax bill and any necessary appeal.	Creating the infrastructure for the sales tax plus the start-up costs for Measure 5

*Based on a revenue of \$112,582.8 million in 1995-1996, assuming 4.5% annual growth.

#Property tax based on revenue of \$112,582.8 million in 1995-1996, assuming 4.5% annual growth. Sales tax based on \$2.9 billion in revenues equal to property taxes lost to schools.

APPENDIX G

MULTIPLIER

$$\Delta GSP = M \cdot \Delta t = M \cdot \Delta G.$$

where: ΔGSP = Change in GSP
 M = Multiplier
 Δt = Change in tax revenue
 ΔG = Change in government spending

*Because of balanced budget, Δt must equal ΔG .

<u>Δt from Measure 5</u>	<u>$\Delta GSP = M \cdot \Delta t$</u>	<u>% ΔGSP</u>	<u>% ΔU*</u>
1991-93: \$633 million	1(\$633 m)	1.0%	.33%
1995-97: \$2.9 billion	1(\$2.9 b)	3.7%	1.23%

*Note that all figures should be adjusted upward to reflect loss of local government revenue. U = Unemployment calculated using Okun's Law.

GSP

GSP in 1987 = \$44 billion.

Personal income in 1987 = \$37.32 billion.

GSP in 1987 is 1.166% greater than personal income in 1987.

GSP 1992 = (1.166) (Personal income in 1992)
 = (1.166) (\$53.71 billion)
 = \$62.61 billion

GSP 1995 = (1.166) (Personal income in 1995)
 = (1.166) (\$66.74 billion)
 = \$77.82 billion

PROPERTY CLASSIFICATIONS FOR TAX PURPOSES

REALTY
(REAL PROPERTY)

- A. Land
 - 1. Farm
 - 2. Residential
 - 3. Commercial
 - 4. Forest
- B. Improvements
 - 1. Farm Buildings
 - 2. Homes or Residences
 - 3. Business Buildings
 - 4. Fences, Sidewalks, etc.

PERSONALTY
(PERSONAL PROPERTY)

- A. Tangible
 - 1. Farm Machinery
 - 2. Furniture
 - 3. Merchandise
(Business Inventories)
 - 4. Motor Vehicles
- B. Intangible
 - 1. Stocks
 - 2. Bonds
 - 3. Mortgages
 - 4. Bank Deposits

SOURCE: Herber, Bernard P., Modern Public Finance
(Homewood, IL., Richard D. Irwin., 1975), p.244.

(fig. 1)

EXAMPLE OF THE DEPRECIATION OF LOCAL GOVERNMENT
PROPERTY TAX REVENUE FROM REALTY

1975 Assessment roll
 + New taxable construction
 - Demolition of taxable property
 = "Physical roll"
 +/- Revaluations induced by: Market forces, Public policy
 = 1976 Assessment roll

1976 Expenditure requirements
 - Nonproperty tax revenue plus federal and state aid
 = Property tax requirements for revenue
 1976 Assessment roll
 = 1976 Tax rate (frequently subject to legal limits)
 + Special district assessments
 = Tax rate for specific properties

1976 Assessment roll X 1976 tax rate = 1976 tax levy
 (potential property tax yield)
 - Delinquencies
 = 1976 Property tax collections
 (actual property tax yield)

SOURCE: Burkhead, J., "State and Local Taxes for Public Education" *The Economics and Politics of Public Education Series 7*, quoted by Bernard P. Herber, Modern Public Finance, (Homewood, IL., Richard D. Irwin Inc., 1975)p.252.

(fig. 2)

COMPARISON OF "TURNOVER," "VALUE-ADDED,"
AND "GENERAL RETAIL SALES" TAX BASES

<i>Stage (Level) of Transaction</i>	<i>Selling Price (Value)</i>	<i>Value Added</i>	<i>General Retail Sales Tax</i>

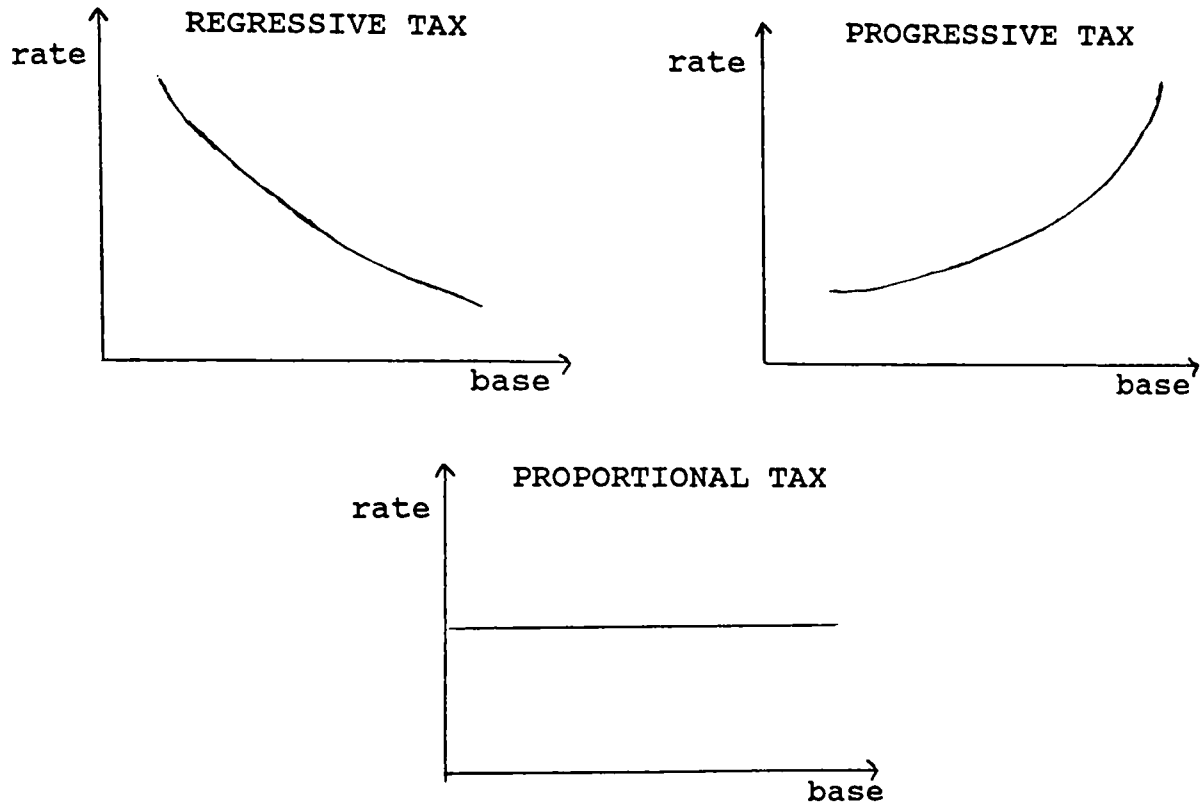
Bauxite ore prior to mining	\$0		
Mining of ore	1	\$1	
Processing of ore	2	1	
Manufacturing of pan for cooking	4	2	
Wholesale distribution of pan	5	1	
Retail (final) sale of pan to consumer.	6	1	\$6
	---	---	---
<i>TAX BASE</i>	\$18	\$6	\$6

"Cumulative" base of <i>turnover</i> tax			= \$18
"Cumulative" base of <i>value-added</i> tax			= \$ 6
"Single-stage" base of <i>general retail sales</i> tax			= \$ 6

*This table assumes the existence of firms which are not
vertially intergrated in production and distribution.
SOURCE: Herber, Bernard P., Modern Public Finance,
(Homewood, IL., Richard Irwin, Inc., 1972),p.292.

(fig. 3)

GRAPHS OF PROPORTIONAL, REGRESSIVE, AND PROGRESSIVE TAXES



(fig. 4)

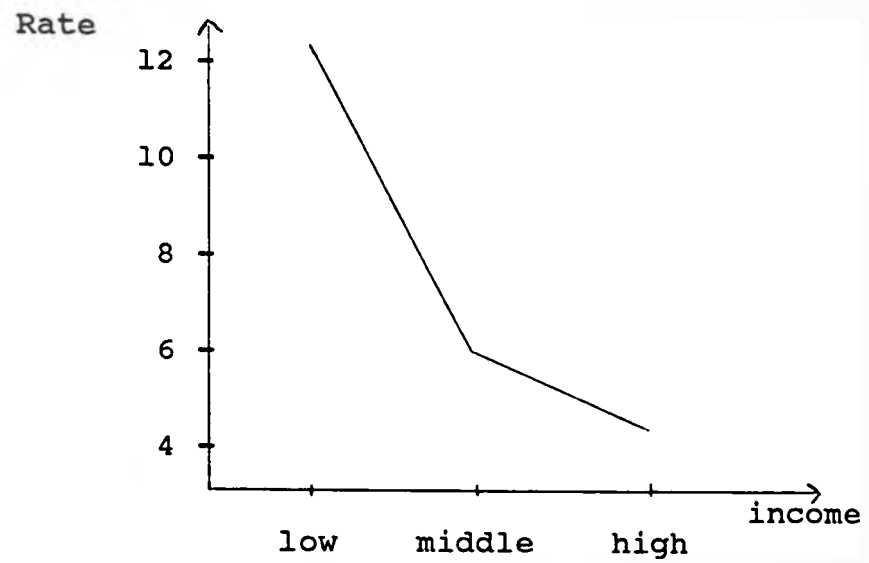
THE BALANCED BUDGET MULTIPLIER

In this case, $\Delta t = \Delta G$.

Multiplier formula: $\Delta GSP = M \cdot \Delta G = M \cdot \Delta t$
 $\quad \quad \quad = \Delta G = \Delta t$

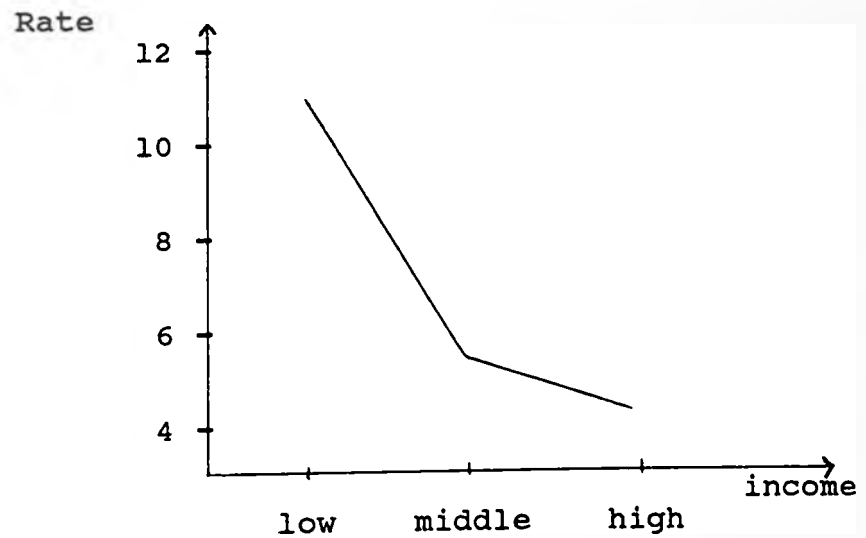
where: M = Balanced budget multiplier = 1
 Δt = Change in tax revenue
 ΔG = Change in government spending
 ΔGSP = Change in GSP

(fig. 5)



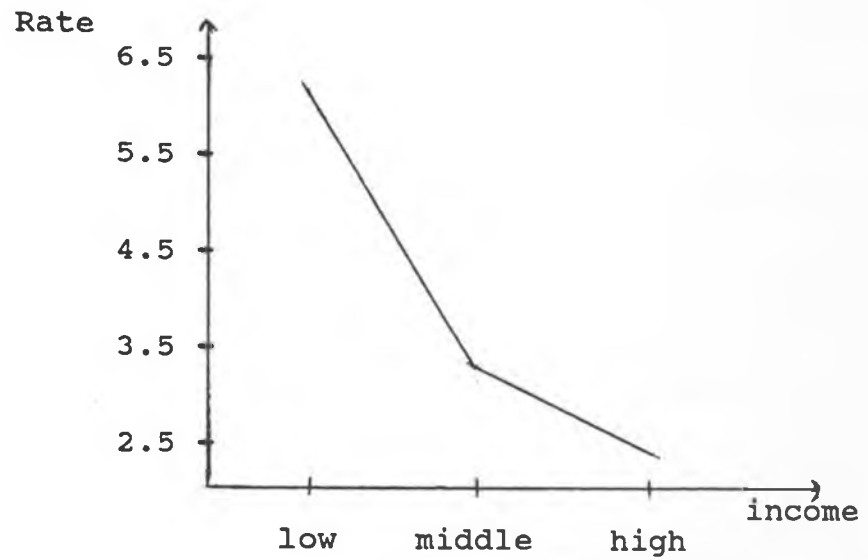
ORIGINAL PROPERTY TAX
(2.634%)

(fig. 6)



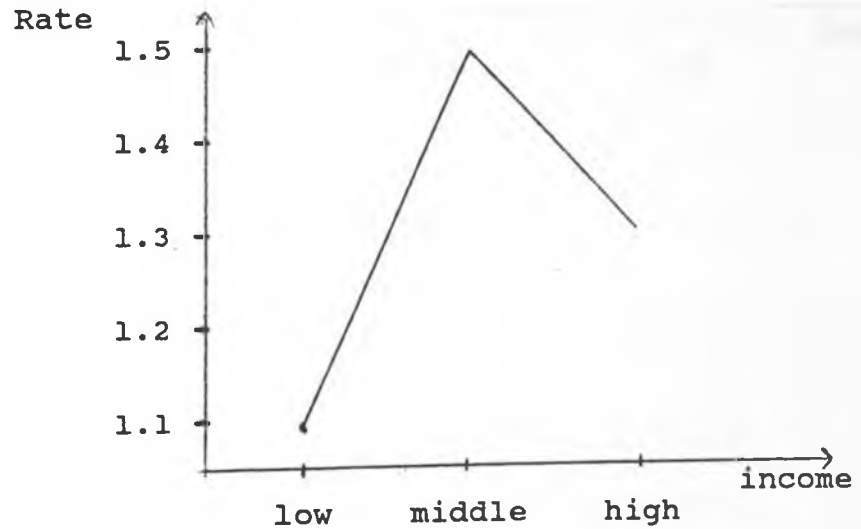
MEASURE 5 (1991-93)
(2.5%)

(fig. 7)



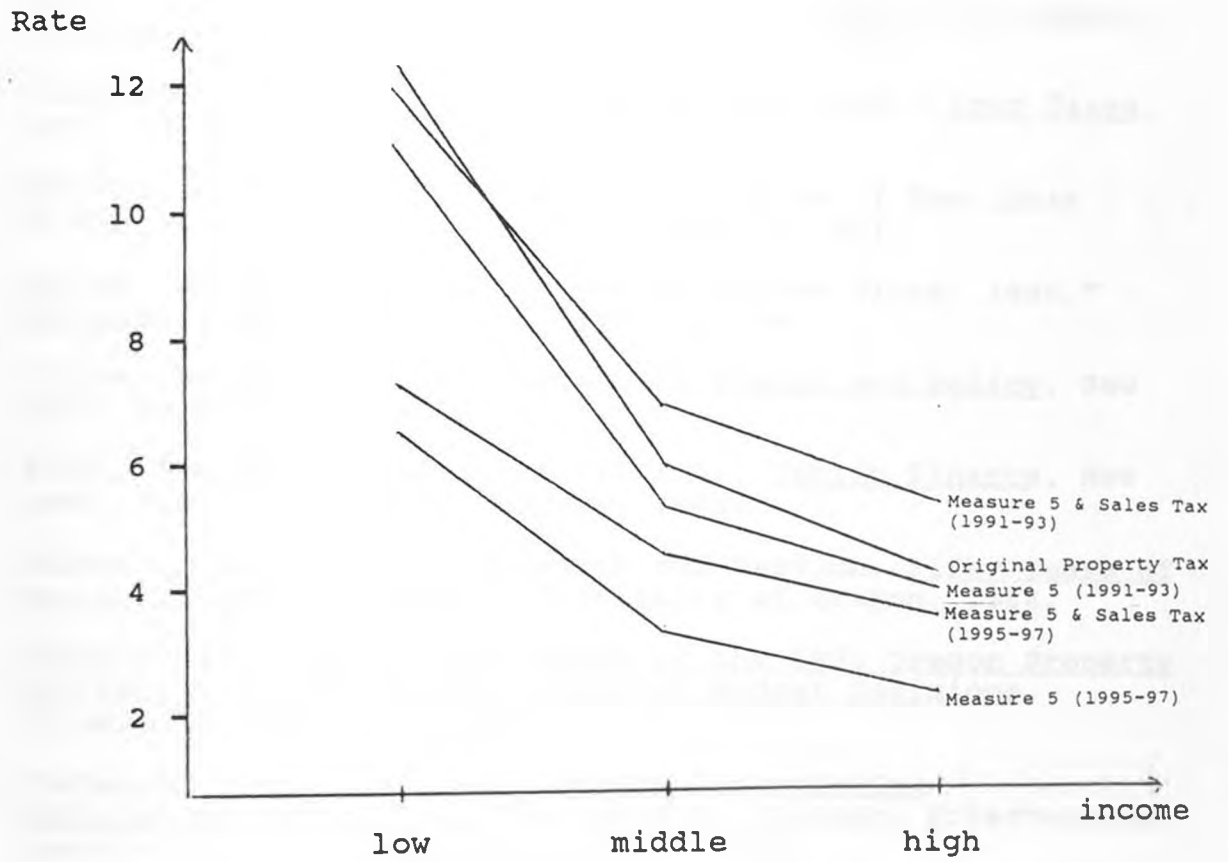
MEASURE 5 (1995-97)
(1.5%)

(fig. 8)



SALES TAX
(5%)

(fig. 9)



TAX PLANS

(fig. 10)

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