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Index for the U.S.**

By

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The Construction of a Tax and Expenditure Limitation Index for the US¹

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Abstract

This report provides detail on the construction of an index of tax and expenditure limitations (TELs) for the 50 US states for the time-frame 1969 to 2005. Separate annual indices are constructed for TELs on state and on local governments. The goal of constructing the indices is to provide a means to test a range of hypotheses concerning the impact of TELs on economic performance and on state and local government fiscal policies. This report documents the construction of the index. The data are provided in Excel spreadsheets so that others may construct alternative indices.²

Introduction

In the name of forcing “fiscal discipline” on state and local government officials in 46 states have imposed some form of tax and expenditure limitation (TEL) (Mullins and Wallin 2004). A commonly known TEL is California’s Proposition 13, passed by popular vote in 1978, which limits the property tax rate to 1 percent and limits increases in assessments to 2 percent or the rate of inflation, whichever is less, unless the property has been improved. Another is Massachusetts’ Proposition 2½ passed by referendum in 1980. Local property taxes were capped at 2.5 percent of real property value, a tax break of \$550 million--\$347

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² The data are available on the Department of Agricultural and Applied Economics website under Department Staff Papers at: <http://www.aae.wisc.edu/pubs/sps/>

million in property taxes and \$200 million in car excise taxes. Cities and towns above the limit were given three years to cut their rates. Nominal annual growth in property tax revenues is limited to 2.5%, unless a vote of the residents allows a greater increase. Others include Michigan's Headlee amendment passed in 1978 and Colorado's Taxpayer's Bill of Rights (TABOR) passed in 1992 (Kornhauser 2002).

Lowery and Sigelman (1981) identify eight potential reasons why tax revolts, particularly against the property tax, have been so popular in the U.S. For practical purposes these eight can be classified into two broad areas. First, for reasons ranging from the lack of competitive market forces to self-interested bureaucratic behavior, government tends to be bloated and taxes are unnecessarily high. Within the literature this is referred to as Leviathan-Niskanen-Buchanan hypothesis and the approach is often studied within the area of public choice theory. Following this hypothesis, in the name of imposing fiscal discipline many states have amended their state constitutions or passed statutory limits on how fast taxation and/or expenditure levels can increase. In political circles this view would be most closely related to libertarian political ideals. Second, taxes are a drain on the economy because government spending diverts that money from other uses and retards economic growth. Based on this hypothesis, in the name of economic growth and development states have limited the level of taxation, and correspondingly government spending.

One of the primary difficulties for a systematic study of the impact tax and expenditure limitations have on fiscal policies and/or economic performance is the unique nature of each state's particular tax and expenditure limitation. Joyce and Mullins (1991) place tax and expenditure limitations into six broad classifications ranging from simple full disclosure—truth in taxation rules—to strict general revenue or expenditure increases (Table 1). Full disclosure rules generally require some type of public discussions and a specific legislative vote prior to enactment of tax rate increases. These types of tax and expenditure limitations generally are not fiscally binding (that is it is usually possible to work around the limit) and require a majority vote of the legislative body to increase taxes and spending. The most restrictive tax and expenditure limitations limit the amount or the percentage by which revenues and/or expenditures can increase from the previous year. Often tied to inflation rates, population growth rates or growth in per capita income, these types of tax and expenditure limitations are the most binding for governments (Poulson 2005).

Another complicating factor for research is the timeframe over which tax and expenditure limitations have been in place. West Virginia has had an overall local property tax rate limit in place since 1939 and Missouri placed its first focused property tax rate limit on local government in 1875 (Mullins and Wallin 2004). Arkansas passed a supermajority requirement to raise taxes in 1934 (NCSL 2005). Florida adopted limits on corporate income taxes in 1971 (NCSL 2005). California's Proposition 13 was enacted in 1979, Colorado's Taxpayer's Bill of Rights (TABOR) in 1992, Massachusetts's Proposition 2½ in 1980 (Kornhauser 2002), and Wisconsin's limit on the ability of local governments to raise property taxes in 1993 (Deller and Stallmann 2007).

This significant heterogeneity across the states in terms of how the TELs are structured and the timeframe in which they were enacted create a significant problem in modeling the dynamics of the interplay between the tax and expenditure limitation and subsequent fiscal policies and government performance as well as economic performance. How this heterogeneity has been addressed within the empirical literature has been to study individual states in isolation almost within a case-study approach or the adoption of simplistic dummy variables in multivariate regression (for example, Cutler, et.al 1999; Mason 2005; McGuire and Rueben 2006; Deller and Stallmann 2007; Stallmann and Deller (forthcoming)). This almost default approach has severely limited the depth and generalizability of the TEL literature.

As noted above, 46 of the 50 states have some form of tax and expenditure limitation (TEL) in place on state or local governments with the oldest being a 1875 limit on the growth in property tax rates in Missouri (Mullins and Wallin 2004). But as noted by Poterba and Rueben (1999) no two states are alike and TELs range from limits on how fast specific taxes can increase for specific units of government to strict limits on how much government spending can increase from one year to the next. Using the work of Mullins and Wallin (2004) and the National Conference of State Legislatures (NCSL) (2005) we provide a summary of TELs aimed at state governments in Table 2, and a summary of TELs targeting local governments in Table 3.

Modeled on the work of Poulson (2005), the intent of this study is to offer a TEL Index that quantifies the severity of the TEL of individual states on both state and on local governments. By constructing such an index we are able to conduct more consistent cross state analysis ranging from broad questions on economic growth, development and performance and fiscal policy responses to TEL to more narrow questions such as the impact of TELs on the credit worthiness of state governments.

We also hope that by compiling a national data-base characterizing several dimensions of state and local TELs and making that data-base available to researchers others can explore the creation of their own indices. As in the creation of any index, our TEL indices include normative value judgments of how each characteristic of the TEL is entered into the index and the weighting assigned to each characteristic. We provide the data on-line to make our judgments transparent and to facilitate construction of alternative indices by others.

This report is composed of three parts beyond the introductory comments. In the next sections we provide a discussion of how we constructed our TEL indices for both state and local governments. We then provide a brief summary of our indices for a several states. The report closes with a summary and a challenge to those interested in examining the impact of TELs to explore alternative ways to construct an index and expand the research into the impact of TELs.

Construction of the State Index

Based on a review of the literature (Joyce and Mullins 1991, Poulson 2005, Mullins and Wallin 2004, NCSL 2005, Skidmore 1999, Waisanen 2007) we describe tax and expenditure limits using six characteristics, each of which effects how strict or binding a TEL is: 1) the type of TEL; 2) if the TEL is statutory or constitutional; 3) growth restrictions; 4) method of TEL approval; 5) override provisions; and 6) exemptions.

Type of TEL: In general, the types of TELs on state governments can be broken down into four major categories: revenue and/or expenditure, appropriations, tax revenue, and general fund expenditure limits. General revenue and expenditure TELs limit how much revenue and expenditures can increase from year to year. This type of TEL is the most binding on state governments. Some states have either a revenue or an expenditure limit while others have both. Because governments with only expenditure limits can theoretically hold-over excess revenue from one year to the next, revenue limits are generally seen as more restrictive than expenditure limits.(Whether this is allowed is covered in the exemptions.) In addition, TELs often only restrict certain types of government revenue and expenditure; appropriations, tax revenue, and/or general fund expenditures. TELs that only limit specific types of revenue and expenditures are less restrictive than TELs that restrict all sources of government revenue and expenditures.

Statutory or constitutional: One important element of individual TELs that is not addressed in Joyce and Mullins' classifications is whether the limits are statutory or constitutional amendments in nature. As discussed in detail by Fino (2003) the distinction between statutory and constitutional limits is significant. Statutory limits can be more easily modified or rescinded than constitutional limits in times of fiscal or economic emergencies. Fino does note, however, that unlike the US Constitution which is seldom modified, state constitutions are more easily modified, often to reflect short-term political winds. Even though state constitutions are often modified, constitutional provisions tend to be difficult to remove no matter how dated the amendment or how forgotten the predicament that initiated the provision's original adoption.

Growth restriction: Likewise, growth restrictions built into the structure of the TEL determine the maximum amount of allowable growth. Several factors determine citizen demands and changes in demand for public services and the costs of providing public services: population change, personal income changes (and income elasticity of demand), changing preferences and inflation. Limitations that do not take all of these factors into account will be limiting. The most limiting growth restriction ties allowable growth to changes in inflation and/or population growth. Tying the growth rate of the TEL to inflation insures only that there are adequate resources to maintain the current provision of public goods and services but they may have to be spread across more people. Similarly, tying the growth restriction to population growth insures only that the government is able to accommodate the additional demands for public goods and services associated with population growth, provided that inflation does not increase. The least restrictive type of growth restrictions are those that simply prevent new taxes from being levied, since this type of growth restriction does not prevent current taxes from increasing.

Method of Approval: Each state has its own rules and regulations as to how a TEL, whether statutory or constitutional, must be both introduced and approved. The more difficult it is to introduce a TEL statute or constitutional amendment, the harder it is to change it in the future. Unfortunately, nuances in individual state procedures make it very difficult to quantify and compare methods across states. The most restrictive is a constitutional convention and the least restrictive is a legislative vote, which only requires a majority vote of the legislative body. The other two methods of approval—legislative referendum and citizen initiative are much more difficult to classify and are discussed below.

Legislative referendums are measures that are referred to the ballot by at least a majority vote of the legislature. Citizens must approve the measure with a fifty-percent majority in the next general election for the measure to become law. Since the process of legislative referendums is relatively consistent between states, and requires a majority vote by both the legislative branch and the general population, it was ranked higher than citizen initiatives. Citizen initiatives are measures that are placed on the ballot through citizen petition. Only 24 states permit this type of method. It depends state by state as to how difficult it is for citizens to propose new legislation through this method. Some states, such as California, require signatures equal to a percentage of votes cast in the last gubernatorial election; other states, such as Nebraska, require signatures equal to a percentage of registered voters. The latter is obviously much more restrictive than the former. In addition to the variation among states in the percentage of signatures needed is the variation in the time allotted to collect the necessary signatures. As a consequence, in some states, statutes or constitutional amendments that must be proposed and approved using this method may be more restrictive than legislative referendums. In other states, it is the opposite. Ideally, the ranking scheme would reflect these differences, and allow citizen initiatives to out rank legislative referendum (and vice versa) on a state by state basis. Unfortunately, without a deep understanding of individual state laws and procedures, it is not possible for the ranking scheme to take this into account. In addition, policies and procedures constantly change. As a result, it would necessary to not only consider the time frame of the TEL, but also the structure of the government at the time the TEL was passed.

Overrides and Exemptions: Override provisions and exemptions are mechanisms through which a TEL can be circumvented. The strictest TELs do not permit overrides, or require voter approval in addition to a legislative vote in order to increase taxes. The least restrictive TELs simply require the declaration of an emergency or a majority vote in the legislature. TELs often exempt certain types of taxes and levies from the TEL. This includes, but is not limited to the exclusion of debt service, court mandates or capital projects. Each exemption weakens the TEL. It is also important to distinguish between constitutional and statutory TELs. TELs that are written into the state constitution are significantly more difficult to change or repeal and are thus more restrictive than statutory TELs.

It is clear, that TELs are extremely heterogeneous. As a consequence, a traditional dummy variable for the presence of a TEL in econometric analysis of tax expenditure limits does not sufficiently represent the heterogeneity of TELs. In order to account for the differences between TELs in different states, we create a TEL index that assigns a numerical value to each state reflecting the strictness of the TELs. Our method for constructing a state TEL index follows the work Poulson (2005).³ The Poulson index, however, is static and does not take into account that TEL's are dynamic; states regularly modify the constraints placed on tax revenue and government expenditures. Therefore, the index constructed here provides a state TEL value that may change annually to reflect the tax and expenditure environment for each year from 1969 to 2005.

In order to create the TEL index, states received point values in each of the six categories described above: 1) the type of TEL; 2) if the TEL is statutory or constitutional; 3) growth restrictions; 4) method of TEL approval; 5) override provisions; and 6) exemptions. Data regarding specific TEL's in each state were compiled from the Wausanen (2007), Skidmore (1999), Mullins and Wallin (2004) and Sokolow (2004). High point values in each category correspond to stricter limitations, while lower point values correspond to more lenient limitations. The rankings in each category are ordinal, and do not reflect magnitude. For example, in our index, a revenue and expenditure limit is worth six possible points while a tax revenue limit is worth two points. This does not mean that the former is three times more restrictive than the latter. Rather, it simply indicates that a TEL that restricts both revenue and expenditures is more severe than a TEL that limits only tax revenue. Each possible exemption to the TEL is assigned a point value of negative one as they each make the TEL less restrictive. The sum of the points received in each category creates the TEL value for that state. TEL values were calculated for each year during our study period. Thus, it is possible to examine how the tax and expenditure environment in each state changes over time. States without tax expenditure limits received a value of zero.

The state TEL Index has a mean value of 5.2 with a standard deviation of 7.2 and a range from 0 to 30. The weighting scheme used in this index is:

³ Poulson uses five dimensions to evaluate and rate the 50 states on tax and expenditure limitations: 1) type of limit and method of approval, 2) what the tax and expenditure limitation limits, 3) the size of the tax and expenditure limitation limits, 4) treatment of surpluses, and 5) provisions for voter approval of tax and expenditure increases and waiver of the tax and expenditure limitation. Within each of these dimensions states are ranked on a scale of one to five depending on the strictness of their law on that particular dimension. For example, for the category "type of limit and method of approval," states that have statutory tax and expenditure limitations enacted through legislative votes receive one point while states with tax and expenditure limitations that originated through citizen initiatives and are embodied in the constitution receive five points. Using this scaling method, states with no tax and expenditure limitation in place receive a score of zero and the maximum score possible is 25. See Appendix Tables 1 & 2 for a summary of the characteristics of the Poulson index along with the scores of each US state.

<u>State TEL Index</u>		Points
Type of TEL	Revenue and Expenditure	6
	Revenue (all)	5
	Expenditure	4
	Appropriations	3
	Tax Revenues (only)	2
	General Fund Expenditure	1
Statutory/Constitutional	Constitutional=1	1
Growth Restriction	Less than or equal to inflation and/or population growth rate	7
	Less than or equal to the rate of personal income growth	6
	Limited to the rate of growth in the state economy	5
	Less than seven percent of state income	4
	Restricted to a percent greater than or equal to seven percent of state income	3
	Equal to a share of total revenue or expenditures	2
	No new taxes or fees	1
Method of Approval	Constitutional Convention	4
	Legislative referendum	3
	Citizen Initiative	2
	Legislative vote	1
Override Provisions	No override allowed	4
	Voter approval to raise taxes and expenditure of surplus wages	3
	Supermajority vote	2
	Declaration of emergency funds	1
Exemptions	Budget reserves	-1
	Grants	-1
	Capital Projects	-1
	Debt Service	-1
	Court Mandates	-1
	Non-recurring general fund appropriations	-1

Construction of the Local Index

Because of the unpopularity of the property tax, most local TELs focus on the property tax. Typical local TELs limit the rate of growth in the property tax rate (mill rate), growth in property assessments or some combination of the two. The combination is often called a property tax levy limit where the rate of growth in total property tax revenues is limited. Generally, increases are tied to the inflation rate or an arbitrary annual rate (e.g. 2 percent). When the TEL applies just to property tax, local governments can often side-step the limits by diversifying revenue streams through imposing user fees or charges or expanding the sales tax if one is in place. The rapid acceleration in the use of these alternative sources of revenue in many states can be explained in part by the limitations imposed on property taxes (Mullins 2004). Because the property tax is predominately used by local governments and in particular public school districts, these types of TELs tend to disproportionately impact local governments. School districts in particular tend to have only property taxes and state revenues for funding.

The TEL index for local governments was constructed in a similar fashion to the state TEL. There are six main types of local tax limits: 1)the type of TEL, 2) specific restrictions 3)statutory or constitutional, 4)scope—which local governments are included, 5)overrides and exemptions and 6)method of override (Mullins, 1995; Mullins, 2004; Mullins and Wallin, 2004).

Type of TEL: The most restrictive types of TELs are those that limit property tax rates or revenues. Less restrictive are those that limit assessments. Full disclosure limits are the least restrictive, as they are

limited to making taxpayers aware of levy increase proposals and providing them with an opportunity to voice their opinions in public hearings. Limits on assessments are relatively new, but extremely important, as they can make property tax limits more binding.

Restrictions: For each type of restriction the level of the restriction is coded. In addition, between the different levels of government and the different types of local TEL's, there are many different combinations possible. The most restrictive TELs are those that limit the growth of revenues and expenditures to the rate of inflation or population growth. The least restrictive are those that arbitrarily set a limit between five and ten percent. Property tax rate limits generally place a restriction on the mill rate. The mill rate varies considerably, depending on the level government the TEL is targeting. As a consequence, restrictions for the specific property tax rate limit were not included.

Scope: The scope of the TEL is the specific levels of government included. The most restrictive apply to each level of local government; the county, municipality, and school levels. The least restrictive only apply to only one. As a consequence, in this index, the TEL receives one point for each level government that is included under the limit. For instance, if a limit applies to all levels of government, it receives a score of four for this section. If it only applies to school districts, it receives a score of one.

Overrides and Exemptions: There are many different exemptions and override provisions in local TEL's. Exemptions on expenditures allow the local government to increase overall expenditures despite the limit. Many local TELs exclude debt service, special levies, capital improvements and construction expenditures from the expenditure limit. The sales tax option allows local governments to supplement property tax revenue using an alternative source that is not restricted. Since it is not possible to determine the magnitude of the effect of each exemption on the strictness of the TEL, they have all been given a ranking of negative one.

Override Method: Similarly, override provisions in TELs permit local governments to circumvent the limit by authorizing rate or levy increases. The method of override affects the restrictiveness of the TEL. The two most restrictive are those that do not allow overrides. Most overrides are through popular referenda, which require a majority vote by the citizens. In a few cases, the provision may require a supermajority, two-thirds vote, by citizens in order to increase the levy or rate. This type of override provision is the most restrictive. In rare cases, the override provision allows an appeal to the state board or to the courts. .

The local TEL Index has a mean of about 12.5, standard deviation of 9.5 and a range of 0 to 38.0. The weighting scheme used in this index is:

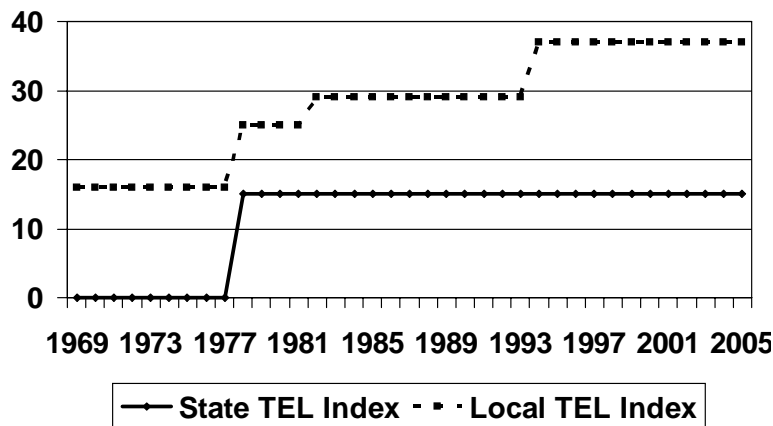
<i>Local TEL Index</i>		Points
Type of TEL	Overall Property Tax Rate Limit	7
	Limited to more than or equal to 2.5%	2
	Limited to more than 2.5 percent	1
	Specific Property Tax Rate Limit	6
	Property Tax Revenue (Levy) Limit	5
	Limit less than or equal to inflation or 5% whichever is less	3
	Limit less than or equal to 5%	2
	Limit more than 5%	1
	Assessment Increase	4
	No approved increases	4
	Lower of 5%(Or less) or CPI	3
	Limit less than or equal to 5%	2
	Limit more than 5%	1
	General Revenue Limit	3
	No new tax or rate increase	4
	Limit equal to inflation and or population growth	3
	Limit is less than or equal to five percent	2
	Limit is between five and ten percent	1
	General Expenditure Limit	2
	Limit equal to inflation and or population growth	4
	Limit is equal to the change in per capita income	3
	Limit is less than or equal to five percent	2
	Limit is between five and ten percent	1
Statutory/Constitutional	Full Disclosure	1
Scope	Constitutional=1	1
	County	1
	Municipality	1
	Special District	1
	Other	1
Overrides/Exemptions	Sales Tax Option	
	Other taxes	-1
	Debt Service	-1
	Home Rule	-1
	Special Levies	-1
	Capital Improvements	-1
	Emergency	-1
	Construction	-1
	Other	-1
Method of override	No approved overrides	4
	Super majority Referendum	2
	Majority vote by local representatives	1
	Simple Majority Referendum	1
	Appeal to Courts	1
	Appeal to state board	1

Examples of the Indices

Two separate TEL indices are constructed, one for state governments and one for local governments. The state TEL Index has a mean value of 5.2 with a standard deviation of 7.2 and a range from 0 to 30. The local TEL Index has a mean of about 12.5, standard deviation of 9.5 and a range of 0 to 38.0. Our Index shows that states have tended to impose TELs on local governments to a much larger extent than they impose on themselves. To better understand how our TEL Index is implemented consider four specific states: Michigan, California, Massachusetts and Colorado.

Michigan Michigan's Headlee amendment was passed in 1978. The amendment is actually a package of changes to Article IX of the state constitution. The major provisions include: 1) an overall limit on state revenue collections (a function of state revenues in 1978-79 and total personal income in 1977), 2) a similar limit on spending, 3) a fixed share of the state budget for local governments, 4) a property tax rate rollback is required if growth in revenues on a community-wide basis exceeds the rate of inflation, and 5) the state must fund new local government mandates (Fino 2003). This later provision has resulted in continuing litigation over funding of special education programs (Ballard, et al. 2004).

Figure 1: Michigan TEL Index

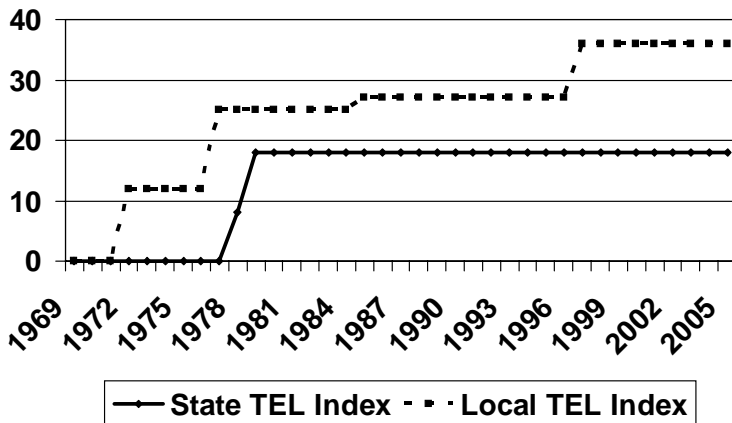


Proposal A, passed in 1994, further limits property taxes by capping the increase in assessments on each individual parcel to the rate of inflation. This is similar to Proposition 13 in California. Proposal A also requires a three-fourths vote of the legislature to increase the property tax levies used by local school districts. This provision moves control from the local to the state level. While local taxes decreased, state taxes increased as a result of Proposal A. The progression of these TELs is represented in Figure 1.

At the state level in Michigan, there are continuing accounting questions on how revenues are classified and which are subject to the state revenue limit. The Supreme Court has had to define almost every aspect of the amendment. Revenues that are less than 1 percent over the limit may be transferred to the rainy day fund. If excess revenues are more than one percentage point over the limit they must be returned to payers of the state income tax or the single business tax (Fino 2003).

California Proposition 13 was passed by California voters in 1978. Proposition 13 was preceded by several property tax limitations and school tax revenues had already been capped in 1972 (Stark and J. Zasloff 2003). The proposition limits the property tax rate to 1 percent and limits increases in assessments to 2 percent or the rate of inflation, whichever is less, unless the property has been improved. When property changes hands, the assessment may be brought up to market value. At the time of implementation, assessed values were rolled back two years. Voter override is not allowed for operating purposes. The measure also extends to some other local revenues and requires a two-thirds majority vote for new "special taxes" (Sokolow 2000).

Figure 2: California TEL Index



(Sokolow 2000). How these limits are measured over time for our TEL Index is presented in Figure 2.

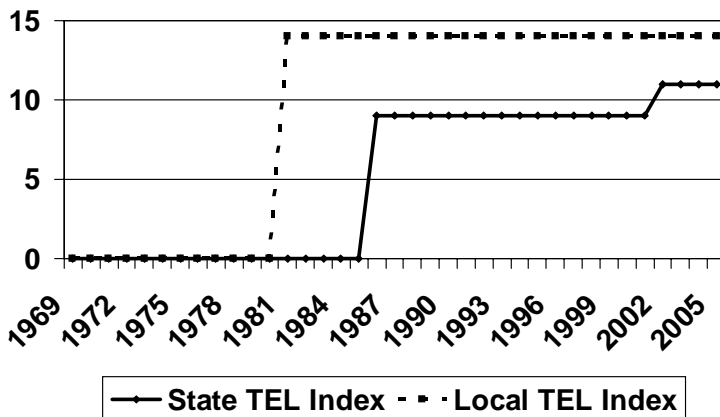
In addition Proposition 13 gave the state government complete control over property tax rates and the authority to allocate local property tax revenues in order to equalize school funding. It thus eroded local control according to many observers. Local budgeting became a process little understood by either citizens or local officials. Local governments began competing for the local sales tax base. Local governments subsequently turned to greater reliance on local sales taxes and user fees (Douglas 2003). In 1996 voters passed proposition 218, which limits local governments' use of service charges and assessments

Massachusetts Proposition 2½ was passed by referendum in Massachusetts in 1980. Local property taxes were capped at 2.5 percent of real property value, a tax break of \$550 million--\$347 million in property taxes and \$200 million in car excise taxes. Cities and towns above the limit were given three years to cut their rates (Mullins 2004). Nominal annual growth in property tax revenues is limited to 2.5%, unless a vote of the residents allows a greater increase.

Proposition 2½ has been amended several times. In 1981 the legislature allowed property taxes on new construction to be added to the allowed annual 2.5 percent increase in assessments. Originally a two-thirds majority vote was required to increase the 2.5 percent limit. This was reduced to a majority vote. To clarify, citizens may vote to allow the assessments to increase by more than 2.5 percent, but property taxes cannot exceed 2.5 percent of market value (Mullins 2004). In 1986 a cap on state revenues was approved. Growth in revenues was capped at the rate of growth in wages and salaries. Excess revenues, up to five percent of state revenues, are directed to a rainy day fund and additional revenues

are returned to taxpayers (Bradbury, Mayer and Case 2001).

Figure 3: Massachusetts TEL Index



To make up for the anticipated (and actual) loss in revenues, many localities that had resisted assessing at full market value, reassessed. Municipalities also increased their reliance on fees. At the same time, public school enrollments dropped, somewhat easing the constraints on schools. While the state originally increased aid to local governments, when Massachusetts went into recession in the early 1990s, state aid was cut 30 percent in two years. During the recovery state aid rose, but fell again in the recession of 2002

(Mullins 2004). When investigating the impacts of Proposition 2½ Bradbury, Mayer and Case (2001 p.289) found that "...house prices performed worse in communities that had slower increases in

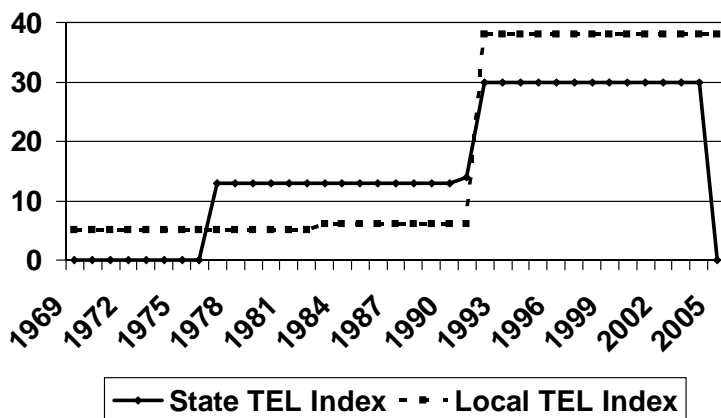
spending, suggesting that Proposition 2 ½ led communities to spend ‘too little’ on services.” The progression of the TEL in Massachusetts can be quantified and tracked as in Figure 3.

Colorado Colorado has a history of increasing restrictions on public budgets. In 1977, growth in Colorado’s general fund spending was limited to seven percent over the prior year’s spending. Excess revenue was allocated first to a reserve fund and then to property tax relief. This spending limit was amended in 1991 (the Arveschoug-Bird provision) to limit annual appropriations to the lesser of five percent of Colorado personal income or six percent over the prior year’s general fund appropriations (McGuire and Rueben 2006).

The Taxpayer’s Bill of Rights (TABOR) passed in 1992 imposed additional constraints: 1) any new tax or tax rate increase must be approved by voters; 2) revenue collections are tied to the collections of the previous year plus the growth in population and the inflation rate (local governments can include new construction); 3) spending is limited to a percentage growth (based on the Arveschoug-Bird provision above) and 4) taxation options such as new tax structures like local income tax and state property tax, among others are also limited (Bell Policy Center 2003).

Excess revenues of up to three percent of the general fund are allowed for reserves. Their use, however, must be repaid in the following fiscal year. This provision effectively means that the reserves are less of a rainy day fund and more of a cash-flow reserve (National Council of State Legislators 2006). The rapid repayment provision makes the use of a reserve fund difficult during a recession because there is no assurance that recovery would be sufficient to repay the fund in the next fiscal year. The mandated refund of surpluses went predominantly to the highest income taxpayers; the maximum refund allowed for low income individuals and families was \$388 due to the structure of the earned income tax credit from federal income tax law. Taxpayers reporting annual income less than \$26,000 received an average refund of \$256 while the average refund for those reporting annual income of more than \$126,000 received \$1,630 (Bell Policy Center 2003).

Figure 4: Colorado TEL Index



In 2000 voters passed Amendment 23, which earmarked revenue equal to one-third of 1 percent of Colorado taxable income for a State Education Fund. In general, the interaction between Amendment 23 and TABOR resulted in more required spending on education and less revenue for other categories of spending. As a result of severe state budget constraints

imposed by TABOR, in November, 2005, voters approved Referendum C. Referendum C suspends the TABOR revenue limit for five years (excess revenues do not need to be returned to taxpayers) and changes the growth factor to apply to the prior year’s limit on revenue growth rather than actual revenue collected in the prior year (McGuire and Rueben 2006). Our quantitative representation of Colorado’s TABOR is presented in Figure 4.

Conclusions

The primary objective has been the creation of an index of tax and expenditure limitation (TEL) strength. The heterogeneity of TELs has made systematic analysis of the impact of TELs on state and local government fiscal policies and level of services, economic performance and fiscal health of governments

almost impossible. Most studies have either taken a case-study approach of examining a single state or have treated TELs in a naïve manner (e.g., simple dummy variables). The construction of an index in the spirit of Poulson (2005) allows for a more systematic examination of the impact of TELs. By building an annual index over a long time-frame we can also account for lags in how governments are able to respond to the imposition of change in a TEL.

While we have tried to be objective in how we constructed our index in terms of the characteristics of the TEL to consider along with weighting scheme, there are numerous normative judgment calls. For example, should a TEL placed in a state's constitution have a weight of one, two, three or ten? By making the core data set that we have constructed available to researchers we hope that others can experiment with alternative weighting schemes. We are convinced that if we are to fully understand the impacts of TELs we must be able to systematically look across all the 50 states. The construction of indices, such as the ones reported in this study, we believe, move us one step closer to better understanding the impact of TELs.

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Table 1: Types and Classification of Tax and Expenditure Limits (TEs).

<p>Overall Property Tax Rate Limitations: Limits on property tax rates are the most common form of TEL. These limits is on overall property tax rates and often sets a ceiling that the rate can not exceed without a vote of local citizens. These limits can be circumvented through alterations in assessment practices. If the rates limits are matched with limits on assessment increases, this TEL is potentially binding.</p>	<p>General Revenue or Expenditure Increases: This type of TEL limits the amount that revenues and/or expenditures can increase from the previous year. Often tied to inflation rates or population growth rates, these types of TEL are the most binding for governments.</p>
<p>Specific Property Tax Rate Limitations: Same for overall property tax rate limitations but targeted to specific units of government (e.g., school districts, counties) or narrowly defined service areas. These can be circumvented through changes in assessment practices or in the case of specific services through interfund transfers. As with overall property tax rate limits, if the limit is matched with limits on assessments, this TEL is potentially binding.</p>	<p>Limits on Assessment Increases: Since the property tax collected is a function of assessed property values, coupled with the tax rate, this TEL limits the rate at which the assessed value of properties can be increased. If there are no limits on the property tax rate governments dependent on the property tax can bypass this TEL by simply raising the property tax rate. If this TEL is coupled with limits on the property tax rate, the overall effect can be binding on governments.</p>
<p>Property Tax Levy Limits: This TEL limits the amount of revenue that can be generated through the property tax independent of the property tax rate. These limits often allow for a specific percent increase from one year to the next. The fixed nature of this TEL makes it difficult to circumvent, except for a diversification away from the property tax, for example, by increasing fees, charges and sales taxes.</p>	<p>Full Disclosure -- Truth in Taxation: These types of TEL generally require some type of public discussions and specific legislative vote prior to enactment of tax rates or levy increases. These types of TEL generally are not binding and requires a simple vote of the local legislative body to increase taxes.</p>

Source: Joyce and Mullins (1991).

Table 2: State Tax and Expenditure Limits 2005

Legislative Supermajority to Raise Taxes--2005				
State	Year Adopted	Initiative or Referendum	Legislative Supermajority Vote Required	Applies To...
Arizona	1992	I	3-Feb	All taxes
Arkansas	1934	R	4-Mar	All taxes except sales and alcohol
California	1979	I	3-Feb	All taxes
Colorado	1992	I	3-Feb	All taxes ¹
Delaware	1980	R	5-Mar	All taxes
Florida	1971	R	5-Mar	Corporate income tax ²
Kentucky	2000	R	5-Mar	All taxes ³
Louisiana	1966	R	3-Feb	All taxes
Michigan	1994	R	4-Mar	State property tax
Mississippi	1970	R	5-Mar	All taxes
Missouri	1996	R	3-Feb	All taxes ⁴
Nevada	1996	I	3-Feb	All taxes
Oklahoma	1992	I	4-Mar	All taxes
Oregon	1996	R	5-Mar	All taxes
South Dakota	1996	R	3-Feb	All taxes
Washington	1993	I	3-Feb	All taxes

Source: National Conference of State Legislatures
<http://www.ncsl.org/programs/fiscal/tel2005.htm>

Table 2: State Tax and Expenditure Limits 2005 (cont.)

State	Year Adopted	Constitution or Statute	Type of Limit	Main Features of the Limit
Alaska	1982	Constitution	Spending	A cap on appropriations grows yearly by the increase in population and inflation.
Arizona	1978	Constitution	Spending	Appropriations cannot be more than 7.41% of total state personal income.
California	1979	Constitution	Spending	Annual appropriations growth linked to population growth and per capita personal income growth.
Colorado	1991	Statute	Spending	General fund appropriations limited to the lesser of a) 5% of total state personal income or b) 6% over the previous year's appropriation.
	1992	Constitution	Revenue & Spending	Most revenues limited to population growth plus inflation. Changes to spending limits or tax increases must receive voter approval.
Connecticut	1991	Statute	Spending	Spending limited to average of growth in personal income for previous five years or previous year's increase in inflation, whichever is greater.
	1992	Constitution	Spending	Voters approved a limit similar to the statutory one in 1992, but it has not received the three-fifths vote in the legislature needed to take effect.
Delaware	1978	Constitution	Appropriations to Revenue Estimate	Appropriations limited to 98% of revenue estimate.
Florida	1994	Constitution	Revenue	Revenue limited to the average growth rate in state personal income for previous five years.
Hawaii	1978	Constitution	Spending	General fund spending must be less than the average growth in personal income in previous three years.
Idaho	1980	Statute	Spending	General fund appropriations cannot exceed 5.33% of total state personal income, as estimated by the State Tax Commission. One-time expenditures are exempt.
Indiana	2002	Statute	Spending	State spending cap per fiscal year with growth set according to formula for each biennial period.
Iowa	1992	Statute	Appropriations	Appropriations limited to 99% of the adjusted revenue estimate.
Louisiana	1993	Constitution	Spending	Expenditures limited to 1992 appropriations plus annual growth in state per capita personal income.
Maine	2005	Statute	Spending	Expenditure growth limited to a 10-year average of personal income growth, or maximum of 2.75%. Formulas are based on state's tax burden ranking.
Massachusetts	1986	Statute	Revenue	Revenue cannot exceed the three-year average growth in state wages and salaries. The limit was amended in 2002 adding definitions for a limit that would be tied to inflation in government purchasing plus 2 percent.

Source: National Conference of State Legislatures
<http://www.ncsl.org/programs/fiscal/tels2005.htm>

Table 2: State Tax and Expenditure Limits 2005 (cont.)

State	Year Adopted	Constitution or Statute	Type of Limit	Main Features of the Limit
Michigan	1978	Constitution	Revenue	Revenue limited to 1% over 9.49% of the previous year's state personal income.
Mississippi	1982	Statute	Appropriations	Appropriations limited to 98% of projected revenue. The statutory limit can be amended by majority vote of legislature.
Missouri	1980	Constitution	Revenue	Revenue limited to 5.64% of previous year's total state personal income.
Missouri, continued	1996	Constitution	Revenue	Voter approval required for tax hikes over approximately \$77 million or 1% of state revenues, whichever is less.
Montana	1981	Statute	Spending	Spending is limited to a growth index based on state personal income.
Nevada	1979	Statute	Spending	Proposed expenditures are limited to the biennial percentage growth in state population and inflation.
New Jersey	1990	Statute	Spending	Expenditures are limited to the growth in state personal income.
North Carolina	1991	Statute	Spending	Spending is limited to 7% or less of total state personal income.
Oklahoma	1985	Constitution	Spending	Expenditures are limited to 12% annual growth adjusted for inflation.
	1985	Constitution	Appropriations	Appropriations are limited to 95% of certified revenue.
Oregon	2000	Constitution	Revenue	Any general fund revenue in excess of 2% of the revenue estimate must be refunded to taxpayers.
	2001	Statute	Spending	Appropriations growth limited to 8% of projected personal income for biennium.
Rhode Island	1992	Constitution	Appropriations	Appropriations limited to 98% of projected revenue.
South Carolina	1980 1984	Constitution	Spending	Spending growth is limited by either the average growth in personal income or 9.5% of total state personal income for the previous year, whichever is greater. The number of state employees is limited to a ratio of state population.
Tennessee	1978	Constitution	Spending	Appropriations limited to the growth in state personal income.

Source: National Conference of State Legislatures
<http://www.ncsl.org/programs/fiscal/tels2005.htm>

Table 2: State Tax and Expenditure Limits 2005 (cont.)

State	Year Adopted	Constitution or Statute	Type of Limit	Main Features of the Limit
Texas	1978	Constitution	Spending	Biennial appropriations limited to the growth in state personal income.
Utah	1989	Statute	Spending	Spending growth is limited by formula that includes growth in population, and inflation.
Washington	1993	Statute	Spending	Spending limited to average of inflation for previous three years plus population growth.
Wisconsin	2001	Statute	Spending	Spending limit on qualified appropriations (some exclusions) limited to personal income growth rate.

Source: National Conference of State Legislatures
<http://www.ncsl.org/programs/fiscal/tels2005.htm>

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Table 3: TEL Currently Imposed on Local Governments (Original Year of Imposition/Amendment)

	Overall Property Tax Rate Limit	Specific Property Tax Rate Limit	Property Tax Revenue Limit	Assessment Increase Limit	General Revenue Limit	General Expenditure Limit	Full Disclosure
Alabama	1972/78 CMS	1875 CM 1916 S					
Alaska		1972 M	1972 M				
Arizona	1980 CMS		1913/80 CM	1980 CMS		1921/80 CM 1974/81 S	
Arkansas		1883 CM	1981 CMS	2000 CMS			
California	1978/86 CMS	1997 CMS		1978 CMS	1972 S	1979/90 CMS	
Colorado		1992 CMS	1913 CM 1992 S		1992 CMS	1992 CMS	1983 CM 1992 S
Connecticut (none)							
Delaware			1972 C				1976 C
Florida		1968 CM 1855/68/73 S		1995 CMS			1974/80 CMS
Georgia		c.1890/82(r) C 1945 S					1991 CMS
Hawaii							1977 C
Idaho	1978 CMS	1913 C 1967 M 1963 S	1979/92(r) CMS				1991 CMS
Illinois		1939 C 1961 MS	1991 CMS				1981 CMS
Indiana			1973/77/80 CMS				
Iowa		n.a./83 C 1972/92 M 1989 S		1978/80 CMS		1971 S	1983 C
Kansas		1933/89(s) CMS	1970/89(s) CM			1973 S	
Kentucky		1908 C 1908/85 M 1946 S	1979 CMS				1979 CMS
Louisiana		1974 CMS	1978 CMS				
Maine (none)							
Maryland				1957/91 CMS			1977 CM
Massachusetts		1980/91 M	1980/83 M				
Michigan	1933 CS	1949 M 1994 S	1978 CMS	1994 CMS			1982 CMS
Minnesota					1971/93(r) CM		1985 CMS
Mississippi			1980 CM 1983/09 S				
Missouri		1875 CMS	1980 CMS				

Source: Mullins and Wallin (2004)

C = County; M = Municipality; S = School District

(r) Repealed effect year specified

(s) Suspended effective year specified

Table 3: TEL Currently Imposed on Local Governments (Original Year of Imposition/Amendment) (cont.)

	Overall Property Tax Rate Limit	Specific Property Tax Rate Limit	Property Tax Revenue Limit	Assessment Increase Limit	General Revenue Limit	General Expenditure Limit	Full Disclosure
Montana		1931/87 C n.a./65 M 1971 S	1987 CM				1974 CMS
Nebraska		1903 C 1957 M 1921/99 S	1990 CM			1996 CM 1991/96 S	1990 CM
Nevada	1936 CMS	1929 MS	1983 C 1983/87 M		1984/89(r) CM		1985 CMS
New Hampshire (none)							
New Jersey			1980 C			1976/91 M 1976/90 S	
New Mexico	1914 CMS	1973/87 CMS	1979 CMS	1979/00 CMS			
New York		1894 CMS		1981 C 1986 M			
North Carolina		1973 CM					
North Dakota		1929 CMS	1981 CM				
Ohio	1929/34/53 CMS		1976 CMS				
Oklahoma	1933 CMA			1996 CMS			
Oregon	1991 CMS	1997 CM 1991/97 S					
Pennsylvania		1959 CMS	c.1940 C				
Rhode Island			1985 M			1979 M	
South Carolina						1975 CMS	
South Dakota		1915 CMS					
Tennessee						1979 CM	
Texas		1876 CM 1888 S	1982 CMS			1982 CMS	
Utah		1898/61 C 1929 M 1929/88 S	1969/86(r) CMS			1986 CMS	
Vermont (none)							
Virginia						1976 CM	
Washington	1944/73 CMS	1973 CM	1971/79/01 CM 1979/01 S 2000 CMS			1990 CMS	
West Virginia	1939 CMS	1939 CMS	1990 CMS				
Wisconsin		1994 C		1994 S			
Wyoming		1890 CM 1911 S					

Source: Mullins and Wallin (2004)

C = County; M = Municipality; S = School District

(r) Repealed effect year specified

(s) Suspended effective year specified

Table 4: TEL Index

year	Alabama		Alaska		Arizona		Arkansas		California		Colorado	
	State Index	Local Index	State Index	Local Index	State Index	Local Index	State Index	Local Index	State Index	Local Index	State Index	Local Index
1969	0	10	0	0	0	14	6	9	0	0	0	5
1970	0	10	0	0	0	14	6	9	0	0	0	5
1971	0	10	0	0	0	14	6	9	0	0	0	5
1972	0	15	0	0	0	14	6	9	0	12	0	5
1973	0	15	0	13	0	14	6	9	0	12	0	5
1974	0	15	0	13	0	15	6	9	0	12	0	5
1975	0	15	0	13	0	15	6	9	0	12	0	5
1976	0	15	0	13	0	15	6	9	0	12	0	5
1977	0	15	0	13	12	15	6	9	0	25	13	5
1978	0	15	0	13	12	15	6	9	8	25	13	5
1979	0	15	0	13	18	15	6	9	18	25	13	5
1980	0	15	0	13	18	32	6	9	18	25	13	5
1981	0	15	0	13	18	32	6	18	18	25	13	5
1982	0	15	15	13	18	32	6	18	18	25	13	5
1983	0	15	15	13	18	32	6	18	18	25	13	6
1984	0	15	15	13	18	32	6	18	18	25	13	6
1985	0	15	15	13	18	32	6	18	18	27	13	6
1986	0	15	15	13	18	32	6	18	18	27	13	6
1987	0	15	15	13	18	32	6	18	18	27	13	6
1988	0	15	15	13	18	32	6	18	18	27	13	6
1989	0	15	15	13	18	32	6	18	18	27	13	6
1990	0	15	15	13	18	32	6	18	18	27	13	6
1991	0	15	15	13	18	32	6	18	18	27	14	6
1992	0	15	15	13	18	32	6	18	18	27	30	38
1993	0	15	15	13	18	32	6	18	18	27	30	38
1994	0	15	15	13	18	32	6	18	18	27	30	38
1995	0	15	15	13	18	32	6	18	18	27	30	38
1996	0	15	15	13	18	32	6	18	18	27	30	38
1997	0	15	15	13	18	32	6	18	18	36	30	38
1998	0	15	15	13	18	32	6	18	18	36	30	38
1999	0	15	15	13	18	32	6	18	18	36	30	38
2000	0	15	15	13	18	32	6	21	18	36	30	38
2001	0	15	15	13	18	32	6	21	18	36	30	38
2002	0	15	15	13	18	32	6	21	18	36	30	38
2003	0	15	15	13	18	32	6	21	18	36	30	38
2004	0	15	15	13	18	32	6	21	18	36	30	38
2005	0	15	15	13	18	32	6	21	18	36	0	38

Table 4: TEL Index (cont.)

year	Connecticut		Delaware		Florida		Georgia		Hawaii		Idaho	
	State Index	Local Index	State Index	Local Index	State Index	Local Index	State Index	Local Index	State Index	Local Index	State Index	Local Index
1969	0	0	0	0	0	9	0	8	0	0	0	5
1970	0	0	0	0	0	9	0	8	0	0	0	5
1971	0	0	0	0	0	9	0	8	0	0	0	5
1972	0	0	0	8	0	9	0	8	0	0	0	5
1973	0	0	0	8	0	9	0	8	0	0	0	5
1974	0	0	0	8	0	13	0	8	0	0	0	5
1975	0	0	0	8	0	13	0	8	0	0	0	5
1976	0	0	0	9	0	13	0	8	0	0	0	5
1977	0	0	0	9	0	13	0	8	0	2	0	5
1978	0	0	12	9	0	13	0	8	13	2	0	12
1979	0	0	12	9	0	13	0	8	13	2	0	24
1980	0	0	12	9	0	13	0	8	13	2	7	24
1981	0	0	12	9	0	13	0	8	13	2	7	24
1982	0	0	12	9	0	13	0	8	13	2	7	24
1983	0	0	12	9	0	13	0	7	13	2	7	24
1984	0	0	12	9	0	13	0	7	13	2	7	24
1985	0	0	12	9	0	13	0	7	13	2	7	24
1986	0	0	12	9	0	13	0	7	13	2	7	24
1987	0	0	12	9	0	13	0	7	13	2	7	24
1988	0	0	12	9	0	13	0	7	13	2	7	24
1989	0	0	12	9	0	13	0	7	13	2	7	24
1990	0	0	12	9	0	13	0	7	13	2	7	24
1991	0	0	12	9	0	13	0	11	13	2	7	28
1992	12	0	12	9	0	13	0	11	13	2	7	16
1993	12	0	12	9	0	13	0	11	13	2	7	16
1994	12	0	12	9	17	13	0	11	13	2	7	16
1995	12	0	12	9	17	22	0	11	13	2	7	16
1996	12	0	12	9	25	22	0	11	13	2	7	16
1997	12	0	12	9	25	22	0	11	13	2	7	16
1998	12	0	12	9	25	22	0	11	13	2	7	16
1999	12	0	12	9	25	22	0	11	13	2	7	16
2000	12	0	12	9	25	22	0	11	13	2	7	16
2001	12	0	12	9	25	22	0	11	13	2	7	16
2002	12	0	12	9	25	22	0	11	13	2	7	16
2003	12	0	12	9	25	22	0	11	13	2	7	16
2004	12	0	12	9	25	22	0	11	13	2	7	16
2005	12	0	12	9	25	22	0	11	13	2	7	16

Table 4: TEL Index (cont.)

year	Illinois		Indiana		Iowa		Kansas		Kentucky		Louisiana	
	State Index	Local Index	State Index	Local Index	State Index	Local Index	State Index	Local Index	State Index	Local Index	State Index	Local Index
1969	0	6	0	0	0	0	0	9	0	11	0	0
1970	0	6	0	0	0	5	0	17	0	11	0	0
1971	0	6	0	0	0	8	0	17	0	11	0	0
1972	0	6	0	0	0	9	0	17	0	11	0	0
1973	0	6	0	12	0	9	0	15	0	11	0	0
1974	0	6	0	12	0	9	0	15	0	11	0	9
1975	0	6	0	12	0	9	0	15	0	11	0	9
1976	0	6	0	12	0	9	0	15	0	11	0	9
1977	0	6	0	10	0	9	0	15	0	11	0	9
1978	0	6	0	10	0	16	0	15	0	11	0	19
1979	0	6	0	10	0	16	0	15	0	25	8	19
1980	0	6	0	9	0	16	0	15	0	25	8	19
1981	0	10	0	9	0	16	0	15	0	25	8	19
1982	0	10	0	9	0	16	0	15	0	25	8	19
1983	0	10	0	9	0	18	0	15	0	25	8	19
1984	0	10	0	9	0	18	0	15	0	25	8	19
1985	0	10	0	9	0	18	0	15	0	26	8	19
1986	0	10	0	9	0	18	0	15	0	26	8	19
1987	0	10	0	9	0	18	0	15	0	26	8	19
1988	0	10	0	9	0	18	0	15	0	26	8	19
1989	0	10	0	9	0	19	0	8	0	26	8	19
1990	0	10	0	9	0	19	0	8	0	26	8	19
1991	0	20	0	9	0	19	0	8	0	26	8	19
1992	0	20	0	9	4	19	0	8	0	26	8	19
1993	0	20	0	9	4	19	0	8	0	26	22	19
1994	0	20	0	9	4	19	0	8	0	26	22	19
1995	0	20	0	9	4	19	0	8	0	26	22	19
1996	0	20	0	9	4	19	0	8	0	26	23	19
1997	0	20	0	9	4	19	0	8	0	26	23	19
1998	0	20	0	9	4	19	0	8	0	26	23	19
1999	0	20	0	9	4	19	0	8	0	26	23	19
2000	0	20	0	9	4	19	0	8	0	26	23	19
2001	0	20	0	9	4	19	0	8	0	26	23	19
2002	0	20	10	9	4	19	0	8	0	26	23	19
2003	0	20	10	9	4	19	0	8	0	26	23	19
2004	0	20	10	9	4	19	0	8	0	26	23	19
2005	0	20	10	9	4	19	0	8	0	26	23	19

Table 4: TEL Index (cont.)

year	Maine		Maryland		Massachusetts		Michigan		Minnesota		Mississippi	
	State Index	Local Index	State Index	Local Index	State Index	Local Index	State Index	Local Index	State Index	Local Index	State Index	Local Index
1969	0	0	0	7	0	0	0	16	0	0	0	0
1970	0	0	0	7	0	0	0	16	0	0	9	0
1971	0	0	0	7	0	0	0	16	0	8	9	0
1972	0	0	0	7	0	0	0	16	0	8	9	0
1973	0	0	0	7	0	0	0	16	0	8	9	0
1974	0	0	0	7	0	0	0	16	0	8	9	0
1975	0	0	0	7	0	0	0	16	0	8	9	0
1976	0	0	0	7	0	0	0	16	0	8	9	0
1977	0	0	0	11	0	0	0	16	0	8	9	0
1978	0	0	0	11	0	0	15	25	0	8	9	0
1979	0	0	9	11	0	0	15	25	0	8	9	0
1980	0	0	9	11	0	0	15	25	0	8	9	8
1981	0	0	9	11	0	14	15	25	0	8	9	8
1982	0	0	9	11	0	14	15	29	0	8	9	8
1983	0	0	9	11	0	14	15	29	0	8	9	8
1984	0	0	9	11	0	14	15	29	0	8	9	8
1985	0	0	9	11	0	14	15	29	0	13	9	8
1986	0	0	9	11	9	14	15	29	0	13	9	8
1987	0	0	9	11	9	14	15	29	0	13	9	8
1988	0	0	9	11	9	14	15	29	0	13	9	8
1989	0	0	9	11	9	14	15	29	0	13	9	8
1990	0	0	9	11	9	14	15	29	0	13	9	8
1991	0	0	9	11	9	14	15	29	0	13	9	8
1992	0	0	9	11	9	14	15	29	0	13	15	8
1993	0	0	9	11	9	14	15	29	0	8	15	8
1994	0	0	9	11	9	14	15	37	0	8	15	8
1995	0	0	9	11	9	14	15	37	0	8	15	7
1996	0	0	9	11	9	14	15	37	0	8	15	7
1997	0	0	9	11	9	14	15	37	0	8	15	7
1998	0	0	9	11	9	14	15	37	0	8	15	7
1999	0	0	9	11	9	14	15	37	0	8	15	7
2000	0	0	9	11	9	14	15	37	0	8	15	7
2001	0	0	9	11	9	14	15	37	0	8	15	7
2002	0	0	9	11	11	14	15	37	0	8	15	7
2003	0	0	9	11	11	14	15	37	0	8	15	7
2004	0	0	9	11	11	14	15	37	0	8	15	7
2005	10	0	9	11	11	14	15	37	0	8	15	7

Table 4: TEL Index (cont.)

year	Missouri		Montana		Nebraska		Nevada		New Hampshire		New Jersey	
	State Index	Local Index	State Index	Local Index	State Index	Local Index	State Index	Local Index	State Index	Local Index	State Index	Local Index
1969	0	9	0	8	0	9	0	20	0	0	0	0
1970	0	9	0	8	0	9	0	20	0	0	0	0
1971	0	9	0	9	0	9	0	20	0	0	0	0
1972	0	9	0	9	0	9	0	20	0	0	0	0
1973	0	9	0	9	0	9	0	20	0	0	0	0
1974	0	9	0	13	0	9	0	20	0	0	0	0
1975	0	9	0	13	0	9	0	20	0	0	0	0
1976	0	9	0	13	0	9	0	20	0	0	9	6
1977	0	9	0	13	0	9	0	20	0	0	9	6
1978	0	9	0	13	0	9	0	20	0	0	9	6
1979	0	9	0	13	0	9	12	20	0	0	9	6
1980	18	20	0	13	0	9	12	20	0	0	9	9
1981	18	20	13	13	0	9	12	20	0	0	9	9
1982	18	20	13	13	0	9	12	20	0	0	9	9
1983	18	20	13	13	0	9	12	29	0	0	9	9
1984	18	20	13	13	0	9	12	34	0	0	0	9
1985	18	20	13	13	0	9	12	38	0	0	0	9
1986	18	20	13	13	0	9	12	38	0	0	0	9
1987	18	20	13	20	0	9	12	37	0	0	0	9
1988	18	20	13	20	0	9	12	37	0	0	0	9
1989	18	20	13	20	0	9	12	29	0	0	0	9
1990	18	20	13	20	0	20	12	29	0	0	5	11
1991	18	20	13	20	0	28	12	29	0	0	5	11
1992	18	20	13	20	0	28	12	29	0	0	5	11
1993	18	20	13	20	0	28	12	29	0	0	5	11
1994	18	20	13	20	0	28	12	29	0	0	5	11
1995	18	20	13	20	0	28	12	29	0	0	5	11
1996	22	20	13	20	0	30	20	29	0	0	5	11
1997	22	20	13	20	0	30	20	29	0	0	5	11
1998	22	20	19	20	0	30	20	29	0	0	5	11
1999	22	20	19	20	0	30	20	29	0	0	5	11
2000	22	20	19	20	0	30	20	29	0	0	5	11
2001	22	20	19	20	0	30	20	29	0	0	5	11
2002	22	20	19	20	0	30	20	29	0	0	5	11
2003	22	20	19	20	0	30	20	29	0	0	5	11
2004	22	20	19	20	0	30	20	29	0	0	5	11
2005	22	20	13	20	0	30	20	29	0	0	5	11

Table 4: TEL Index (cont.)

year	New Mexico		New York		North Carolina		North Dakota		Ohio		Oklahoma	
	State Index	Local Index	State Index	Local Index	State Index	Local Index	State Index	Local Index	State Index	Local Index	State Index	Local Index
1969	0	10	0	15	0	0	0	7	0	11	0	11
1970	0	10	0	15	0	0	0	7	0	11	0	11
1971	0	10	0	15	0	0	0	7	0	11	0	11
1972	0	10	0	15	0	0	0	7	0	11	0	11
1973	0	18	0	15	0	7	0	7	0	11	0	11
1974	0	18	0	15	0	7	0	7	0	11	0	11
1975	0	18	0	15	0	7	0	7	0	11	0	11
1976	0	18	0	15	0	7	0	7	0	11	0	11
1977	0	18	0	15	0	7	0	7	0	21	0	11
1978	0	18	0	15	0	7	0	7	0	21	0	11
1979	0	34	0	15	0	7	0	7	0	21	0	11
1980	0	34	0	15	0	7	0	7	0	21	0	11
1981	0	34	0	16	0	7	0	15	0	21	0	11
1982	0	34	0	16	0	7	0	15	0	21	0	11
1983	0	34	0	16	0	7	0	16	0	21	0	11
1984	0	34	0	16	0	7	0	16	0	21	0	11
1985	0	34	0	16	0	7	0	16	0	21	12	11
1986	0	34	0	17	0	7	0	16	0	21	12	11
1987	0	34	0	17	0	7	0	16	0	21	12	11
1988	0	34	0	17	0	7	0	15	0	21	12	11
1989	0	34	0	17	0	7	0	15	0	21	12	11
1990	0	34	0	17	12	7	0	15	0	21	12	11
1991	0	34	0	17	12	7	0	16	0	21	12	11
1992	0	34	0	17	12	7	0	16	0	21	18	11
1993	0	34	0	17	12	7	0	16	0	21	18	11
1994	0	34	0	17	12	7	0	16	0	21	18	11
1995	0	34	0	17	12	7	0	16	0	21	18	11
1996	0	34	0	17	12	7	0	16	0	21	18	18
1997	0	34	0	17	12	7	0	16	0	21	18	18
1998	0	34	0	17	12	7	0	16	0	21	18	18
1999	0	34	0	17	12	7	0	16	0	21	18	18
2000	0	34	0	17	12	7	0	16	0	21	18	18
2001	0	34	0	17	12	7	0	16	0	21	18	18
2002	0	34	0	17	12	7	0	16	0	21	18	18
2003	0	34	0	17	12	7	0	16	0	21	18	18
2004	0	34	0	17	12	7	0	16	0	21	18	18
2005	0	34	0	17	12	7	0	16	0	21	18	18

Table 4: TEL Index (cont.)

year	Oregon		Pennsylvania		Rhode Island		South Carolina		South Dakota		Tennessee	
	State Index	Local Index	State Index	Local Index	State Index	Local Index	State Index	Local Index	State Index	Local Index	State Index	Local Index
1969	0	5	0	12	0	0	0	0	0	10	0	0
1970	0	5	0	12	0	0	0	0	0	10	0	0
1971	0	5	0	12	0	0	0	0	0	10	0	0
1972	0	5	0	12	0	0	0	0	0	10	0	0
1973	0	5	0	12	0	0	0	0	0	10	0	0
1974	0	5	0	12	0	0	0	0	0	10	0	0
1975	0	5	0	12	0	0	0	3	0	10	0	0
1976	0	5	0	12	0	0	0	3	0	10	0	0
1977	0	5	0	12	6	0	0	3	0	10	0	0
1978	0	5	0	12	6	0	0	3	11	10	14	0
1979	10	5	0	12	6	2	0	3	11	10	14	3
1980	10	5	0	12	6	2	16	3	11	10	14	3
1981	10	5	0	12	6	2	0	3	11	10	14	3
1982	10	5	0	12	6	2	0	3	11	10	14	3
1983	10	5	0	12	6	2	0	3	11	10	14	3
1984	10	5	0	12	6	2	0	3	11	10	14	3
1985	10	5	0	12	6	10	0	3	11	10	14	3
1986	10	5	0	12	6	10	0	3	11	10	14	3
1987	10	5	0	12	6	10	0	3	11	10	14	3
1988	10	5	0	12	6	10	0	3	11	10	14	3
1989	10	5	0	12	6	10	0	3	11	10	14	3
1990	10	5	0	12	6	10	0	3	11	10	14	3
1991	10	25	0	12	6	10	0	3	11	10	14	3
1992	10	25	0	12	13	10	0	3	11	10	14	3
1993	10	25	0	12	13	10	0	3	11	10	14	3
1994	10	25	0	12	13	10	0	3	11	10	14	3
1995	10	25	0	12	13	10	0	3	11	10	14	3
1996	16	25	0	12	13	10	0	3	11	10	14	3
1997	16	27	0	12	13	10	0	3	11	10	14	3
1998	16	27	0	12	13	10	0	3	11	10	14	3
1999	16	27	0	12	13	10	0	3	11	10	14	3
2000	16	27	0	12	13	10	0	3	11	10	14	3
2001	16	27	0	12	13	10	0	3	11	10	14	3
2002	16	27	0	12	13	10	0	3	11	10	14	3
2003	16	27	0	12	13	10	0	3	11	10	14	3
2004	16	27	0	12	13	10	0	3	11	10	14	3
2005	16	27	0	12	13	10	0	3	11	10	14	3

Table 4: TEL Index (cont.)

year	Texas		Utah		Vermont		Virginia		Washington		West Virginia	
	State Index	Local Index	State Index	Local Index	State Index	Local Index	State Index	Local Index	State Index	Local Index	State Index	Local Index
1969	0	8	0	16	0	0	0	0	0	14	0	18
1970	0	8	0	16	0	0	0	0	0	14	0	18
1971	0	8	0	16	0	0	0	0	0	20	0	18
1972	0	8	0	16	0	0	0	0	0	20	0	18
1973	0	8	0	16	0	0	0	0	0	26	0	18
1974	0	8	0	16	0	0	0	0	0	26	0	18
1975	0	8	0	16	0	0	0	0	0	26	0	18
1976	0	8	0	16	0	0	0	1	0	26	0	18
1977	0	8	0	16	0	0	0	1	0	26	0	18
1978	14	8	0	16	0	0	0	1	0	26	0	18
1979	14	8	0	16	0	0	0	1	0	27	0	18
1980	14	8	0	16	0	0	0	1	0	27	0	18
1981	14	8	0	16	0	0	0	1	0	27	0	18
1982	14	18	0	16	0	0	0	1	0	27	0	18
1983	14	18	0	16	0	0	0	1	0	27	0	18
1984	14	18	0	16	0	0	0	1	0	27	0	18
1985	14	18	0	16	0	0	0	1	0	27	0	18
1986	14	18	0	11	0	0	0	1	0	27	0	18
1987	14	18	0	11	0	0	0	1	0	27	0	18
1988	14	18	18	11	0	0	0	1	18	27	0	18
1989	14	18	18	11	0	0	0	1	18	27	0	18
1990	14	18	18	11	0	0	0	1	18	30	0	25
1991	14	18	18	11	0	0	0	1	18	30	0	25
1992	14	18	18	11	0	0	0	1	18	30	0	25
1993	14	18	18	11	0	0	0	1	18	30	0	25
1994	14	18	18	11	0	0	0	1	18	30	0	25
1995	14	18	18	11	0	0	0	1	18	30	0	25
1996	14	18	18	11	0	0	0	1	18	30	0	25
1997	14	18	18	11	0	0	0	1	18	30	0	25
1998	14	18	18	11	0	0	0	1	18	30	0	25
1999	14	18	18	11	0	0	0	1	18	30	0	25
2000	14	18	18	11	0	0	0	1	18	37	0	25
2001	14	18	18	11	0	0	0	1	18	37	0	25
2002	14	18	18	11	0	0	0	1	18	37	0	25
2003	14	18	18	11	0	0	0	1	18	37	0	25
2004	14	18	18	11	0	0	0	1	18	37	0	25
2005	14	18	18	11	0	0	0	1	18	37	0	25

Table 4: TEL Index (cont.)

year	Wisconsin		Wyoming	
	State Index	Local Index	State Index	Local Index
1969	0	0	0	7
1970	0	0	0	7
1971	0	0	0	7
1972	0	0	0	7
1973	0	0	0	7
1974	0	0	0	7
1975	0	0	0	7
1976	0	0	0	7
1977	0	0	0	7
1978	0	0	0	7
1979	0	0	0	7
1980	0	0	0	7
1981	0	0	0	7
1982	0	0	0	7
1983	0	0	0	7
1984	0	0	0	7
1985	0	0	0	7
1986	0	0	0	7
1987	0	0	0	7
1988	0	0	0	7
1989	0	0	0	7
1990	0	0	0	7
1991	0	0	0	7
1992	0	0	0	7
1993	0	0	0	7
1994	0	13	0	7
1995	0	13	0	7
1996	0	13	0	7
1997	0	13	0	7
1998	0	13	0	7
1999	0	13	0	7
2000	0	13	0	7
2001	0	13	0	7
2002	0	13	0	7
2003	0	13	0	7
2004	0	13	0	7
2005	0	13	0	7

Appendix Table 1. Poulson Grading Scale for Tax and Expenditure Limits (TEL)

Type of Limit and Method of Approval		
5	points	TELS originating through citizen initiative and embodied in the constitution
4	points	TELS originating through legislative referendum and embodied in the constitution
3	points	Statutory TELS enacted through citizen initiative
2	points	Statutory TELS enacted by legislative vote
1	point	Statutory TELS enacted through non-binding legislative vote
What the TEL Limits		
5	points	TEL applies to all revenues or appropriations with few exceptions
4	points	TEL applies to all revenues or appropriations with certain limited exceptions
3	points	TEL applies to general fund revenues or appropriations
2	points	TEL applies to general fund revenues or appropriations with limited exceptions
1	point	TEL applies to tax revenues
The Size of the TEL Limits		
5	points	TEL limit equal to inflation and population growth
4	points	TEL limit equal to the rate of growth of personal income
3	points	TEL limit less than 7 percent of state income
2	points	TEL limit greater than 7 percent of state income
1	point	TEL limit equal to a share of total revenue or expenditures
Treatment of Surpluses		
5	points	Surplus revenue is allocated into emergency funds and budget stabilization funds and then to tax cuts/rebates or debt reduction
4	points	Surplus revenue is allocated to tax cuts/rebates or debt reduction
3	points	Surplus is allocated to tax cuts/rebates or debt reduction and targeted expenditures
2	points	Surplus is allocated to emergency and budget stabilization funds
1	point	Surplus is returned to general fund or other expenditure accounts
The Provisions for Voter Approval of Tax and Expenditure Increases and Waiver of the TEL		
5	points	Voter approval required for increases in taxes, and for expenditure of surplus revenues
4	points	Supermajority vote required in the legislature to raise all taxes
3	points	Supermajority vote required in the legislature to raise some taxes
2	points	Declaration of emergency and/or supermajority legislative vote required to expend monies in the emergency and reserve funds
1	point	Majority vote required for the legislature to expend monies in the emergency and reserve funds

Appendix Table 2. State Scores Using Poulson TEL Scale

Poulson Index		Poulson Index	
State	Value	State	Value
Alabama	0	Montana	13
Alaska	15	Nebraska	0
Arizona	9	Nevada	13
Arkansas	7	New Hampshire	0
California	18	New Jersey	13
Colorado	24	New Mexico	0
Connecticut	15	New York	0
Delaware	11	North Carolina	12
Florida	21	North Dakota	0
Georgia	0	Ohio	0
Hawaii	18	Oklahoma	16
Idaho	9	Oregon	17
Illinois	0	Pennsylvania	0
Indiana	0	Rhode Island	10
Iowa	8	South Carolina	15
Kansas	0	South Dakota	8
Kentucky	8	Tennessee	11
Louisiana	20	Texas	10
Maine	0	Utah	10
Maryland	0	Vermont	0
Massachusetts	14	Virginia	0
Michigan	20	Washington	20
Minnesota	0	Wisconsin	0
Mississippi	9	Wyoming	0
Missouri	21		