In his paper, O'Sullivan (forthcoming) provides a concise history of property tax limitations and a thorough survey of research on the subject. He also addresses the most intriguing question regarding limitations: Why do voters approve them? Because it is a local tax, voters have more control over the property tax than they do over state taxes, such as the sales tax and the income tax. Why place a statewide limit on a tax you can control locally?

O'Sullivan identifies two waves of property tax limitations. The first wave occurred during the Depression when 16 states enacted some form of limitation. The second wave runs from 1978 to 1981 and also involves new tax limitations in 16 different states. The cause of the first wave is clear from Figure 1 of O'Sullivan's paper, which plots property tax revenue as a share of personal income. During the Depression, that share nearly doubled because property tax revenue decreased only slightly while personal income was cut in half. It is not surprising that a wave of property tax limitations soon followed.

This episode carries a lesson for public finance economists. Following Tiebout and Oates, we have become accustomed to viewing local government tax and spending decisions from a cross-section perspective. We think of the choices communities make at a point in time, comparing one community with another. That perspective emphasizes differences across communities and finds virtue in those differences. Differences in tax and expenditures decisions across communities give households more alternatives from which to choose, and more alternatives are always desirable. Statewide property tax
limitations only narrow the range of choice. Why would voters support less choice? O'Sullivan's research suggests that the answer may lie in how the property tax performs over time rather than in how it performs across communities at a point in time.

The modern wave of property tax limitations also followed a rise in the ratio of property tax revenue to personal income, though the rise was not as steep and the response was considerably slower. That ratio rose from about 3.3% in 1950 to over 4% in 1960. Eighteen years later, the modern tax limitation era began when Proposition 13 passed in California. Fischel (1989) has advanced an explanation for Proposition 13, an explanation rooted in the court-ordered school finance reform, Serrano v. Priest. In Fischel's view, by essentially eliminating local discretion on public school spending, Serrano also eliminated the rationale for the local property tax. Proposition 13 was the logical response. Fischel (1996) strengthens this argument by documenting the chain of events through which voters began to perceive that a local property tax was no longer in their best interest.

I find Fischel's argument persuasive. However, in another paper in this volume, Evans, Murray, and Schwab (forthcoming) raise doubts about whether school finance reforms in other states caused tax limitations. Their research suggests that we should look for other explanations for the modern wave of tax limitations. Based on his historical research, O'Sullivan proposes three:

1. An increase in the share of income absorbed by the residential property tax.
2. A desire to reduce property taxes to offset increases in intergovernmental transfers.
3. A desire to shift from property taxes to user charges.
The first explanation is the most intriguing because it connects the second wave of tax limitation with the first. In the remainder of this note, I will focus on this explanation, though that focus also has implications for the second and third explanation.

Let me first return to Figure 1 in the O'Sullivan paper. In 1950, property tax revenue was 3.3% of personal income. That share, which I shall refer to as the revenue/income share, climbed to 4.3% by 1960 and remained at approximately that level until 1975. Between 1978 and 1981, 16 states adopted property tax limitations, and the share declined. In 1980, it was 3% of income, after which it rose slightly, reaching 3.3% by 1995. The increase in the revenue/income share was not as steep as in the 1930's, the imposition of tax limitations did not occur as rapidly, but the general pattern was the same. Property tax revenue increased relative to personal income, voters imposed property tax limitations, and the limitations caused the revenue/income share to return to its previous level.

Despite these similarities, there is an important difference between the two episodes. In the 1930's, the increase in property tax revenue relative to personal income was caused by a rapid decline in personal income. Local governments were too slow to reduce property tax rates, causing a voter backlash. In the 1960's, however, personal income wasn't falling. In fact, the most immediate explanation for the rise in the property tax share is the baby boom, which caused an increase in public school enrollment and thus in the demand for property tax revenue to fund public schools. Local governments weren't keeping tax revenue they didn't need; they needed more tax revenue to provide for increased public school enrollments. Why would that cause a voter backlash?
One possibility is that the increase in property tax revenue during this period was excessive, that it was larger than necessary to fund the increase in public school enrollments. While this is a difficult possibility to assess, I propose a simple simulation that may help put the issue in perspective. The simulation makes three assumptions. First, it assumes that the property tax revenue of all local governments other than school districts is a constant fraction of personal income over the period from 1950 to 1995. This fraction is set at 2.02%, which is the actual fraction in 1950. Second, it assumes that the fraction of school district revenue coming from the property tax is also constant over this period. This fraction is set at 57%, its actual value in 1950. Finally, it assumes that spending per pupil on public schools is determined by this demand function:

\[ \frac{e}{s} = \alpha \left( \frac{s}{t} \right)^\varepsilon y^{\eta}, \]

where \( e \) is total spending on public schools, \( s \) is the number of public school students, \( t \) is the number of taxpayers, and \( y \) is income per taxpayer. The constants \( \alpha, \varepsilon, \) and \( \eta \) are demand parameters. The ratio of students to taxpayers, \( s/t \), is the tax-price of spending per pupil. It is the cost to the average taxpayer of a one-dollar increase in spending per pupil. The parameter \( \varepsilon \) is thus the price elasticity of the demand for spending per pupil. Similarly, the parameter \( \eta \) is the income elasticity. Multiplying both sides of this equation by \( (s/ty) \) yields

\[ \frac{e}{ty} = \alpha \left( \frac{s}{t} \right)^{\varepsilon+1} y^{\eta+1}, \]

which is public school spending as a percent of personal income.

There have been many studies of the demand for public school spending. Fisher and Papke (forthcoming) review these studies, concluding that the income elasticity lies
between 0.40 and 0.65 and that the price elasticity lies between -0.15 and -0.50. In the simulations, I use the mid-point of those two ranges, an income elasticity of 0.525 and a price elasticity of -0.325. For $\alpha$ I use the value 2.18, which makes the simulated value of educational spending as a fraction personal income equal to the actual value in 1950.

The variables in the demand function capture the basic economic and demographic trends during this period. For the number of taxpayers, I use the U.S. population minus enrollments in public elementary and secondary schools. The tax-price is this enrollment divided by the number of taxpayers, a ratio that rises from 0.20 in 1950 to 0.29 in 1970 then falls steadily from 1970 on, reaching 0.20 in 1995. Income per taxpayer is personal income in 1950 dollars divided by the number of taxpayers. Income per taxpayer rises throughout the period starting from $1,800 in 1950 and reaching $4,500 in 1995.

The simulation is a benchmark in the following sense. It captures the effect on property tax revenue of the baby boom and economic growth, holding constant fiscal institutions and voter preferences. The two assumptions about property tax shares of school districts and other local governments hold constant the institutions of public finance. The assumptions about the demand function for educational spending hold constant voter preferences over the period.
Figure 1 shows the results of the simulation. The shares depicted in the figure are property tax revenue divided by personal income, the revenue/income shares. The simulated share is the result of the method described above; the actual share is actual property tax revenue in each year divided by actual personal income in that year. The simulated share rises very little from 1950 to 1965 and then declines steadily. In contrast, the actual share rises much faster than the simulated share during the late 1950's and early 1960's. It remains well above the simulated share until 1975 and then declines sharply.
from 1975 to 1980, a decline that is at least partly due to the tax limitations of the late 1970's. According to the simulation, the property tax limitations of the 1970's merely returned property tax revenue to a level consistent with the preferences and fiscal institutions of 1950.

Figure 2 shows the results of the demand calculations underlying the simulated revenue/income share. During the 1950's and 1960's, both the tax-price of educational spending and income per taxpayer rose. Because demand is inelastic with respect to price, the rising tax-price causes educational spending to rise relative to income. However, because demand is also inelastic with respect to income, the rise in income per taxpayer causes spending to fall relative to income. In other words, two opposing trends operate in the 1950's and 1960's, and the two tend to offset each other, implying very
little change in the ratio of spending to income. These opposing trends cease in the 1970's, however, as the tax-price of education falls and thus simulated spending falls as a fraction of income. Notice, however, that actual spending as a fraction of income rose throughout the 1960's and 1970's.

The rise in educational spending as a fraction of personal income appears to have been accommodated in two different ways. The first was a shift in property tax revenue from other local governments to schools. Figure 3 shows the property tax revenue of local governments other than public schools as a fraction of personal income. The
simulation assumed that this share remained constant at about 2%. In fact, it has decreased by about 40%.

This trend is also shown in Figure 4, which gives the percentage of property tax revenue allocated to public schools. As the Figure shows, that percentage has risen from less than 40% in 1950 to over 50% by 1995. Over time, public schools absorbed a higher percentage of property tax revenue.
During the same period in which schools were receiving a higher percentage of property tax revenue, they were also receiving an increasingly large share of their revenue from sources other than the property tax. Figure 5 shows the percent of K-12 spending that comes from local revenue, which is overwhelmingly property tax revenue. That percentage has been slowly declining since 1950 as states have assumed more of the responsibility for funding schools.

These are back-of-the-envelope calculations, and they are imperfect in many ways. They do, however, suggest some modifications to and extensions of the three explanations O'Sullivan proposes for the modern wave of property tax limitations. The first explanation is that the modern wave of property tax limitations may have been due to "an increase in the share of income absorbed by the residential property tax." The
simulation suggests that the increase in that share was due to an increase in public school spending beyond the level demanded by voters. O'Sullivan's second explanation is "a desire to reduce property taxes to offset increases in intergovernmental transfers." The simulation suggests that the tax limitations of the late 1970's merely returned property tax revenue to a level consistent with demand. These limitations held the line on property tax increases, placing the burden of increased school revenue on states and other local governments. O'Sullivan's third explanation is "a desire to shift from property taxes to user charges." The calculations suggest that other local governments were forced to find alternative revenue sources as more property tax revenue was being funneled to schools.

Bibliography


