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Edited by Gregory K. Ingram and Daphne A. Kenyon

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Nontraditional Public School Funding Sources: Trends, Issues, and Outlook

Henry A. Coleman

Education is an important public service in the United States for many reasons. For example, education is a merit good, which means that some of the benefits of education extend beyond the particular individual receiving the schooling and accrue to society as a whole. Moreover, all levels of government contribute financial resources to support the provision of education, since services offered by one school district in a state may provide benefits to those residing in other school districts, states, or parts of the country. (See chapter 1 in this volume for a more complete discussion of the importance of education as a public service in the United States.)

Prior to the early 1970s, local governments provided most of the financial support for public education, with states and especially the federal government playing lesser roles. Spurred by several factors, including state court decisions on school funding equity and tax and spending limitations imposed by states and voters on local government's revenue-raising ability, the relative revenue reliance by level of government has changed over the past 40 years or so. Local government is still a major revenue contributor, but the role of the state and federal governments in funding public education has increased, although the role of the federal government has shown more volatility. Of course, there is considerable variation in relative reliance on the three levels of government among individual states.

A general reluctance among policy makers to raise taxes, coupled with various tax and expenditure limitations, has raised serious concerns about the future

availability of revenue sources to fund education services in the United States. Policy makers and members of the general public have had to become more innovative and creative in identifying new resources to fund desired public services. For example, in recent decades, states have seen growth in nontax revenues—such as fees, user charges, and gaming revenues—to finance services. The growth in fees and user charges has been even greater for some types of local governments.

Nontraditional Sources Defined

Nontraditional revenue sources can help address public school funding concerns

1. by providing public schools with access to alternative tax and other revenue instruments beyond property taxes;
2. by reducing the burdens of raising any given amount of public school revenues on taxpayers within a state or local school district; or
3. by reducing the amount of costly regulations and other requirements, thereby increasing the amount of flexibility public schools have in using available revenues.

Given the importance of property taxes in financing public schools, nontraditional sources could be defined as any non–property tax revenue used to fund schools, including local use of personal income taxes and general sales taxes (McGuire and Papke 2008). When nontraditional revenue sources are defined as anything other than the major tax instruments (i.e., income, sales, and property taxes), other taxes might well be considered. Loeb (2001) provides a list of other taxes that have been used or considered by various states to fund public schools, including amusement taxes, business privilege taxes, death and gift taxes, mechanical device taxes, mercantile taxes, severance taxes, parcel taxes, and utility gross receipts taxes.

While several of these tax alternatives may have promise, especially for individual states, none have been significantly exploited to date. For example, in examining California's parcel tax, Chavez and Freedberg (2013, 1) note that "parcel taxes are one of the few ways local school districts are able to raise taxes to supplement the revenues they receive from the state and other sources. However, most school districts in the state have not taken advantage of parcel taxes as a revenue-raising option."

Parcel taxes are a flat fee imposed on each individual parcel within a jurisdiction, rather than as a traditional ad valorem tax imposed on the value of property within the jurisdiction. To date, parcel taxes are authorized for use by local school districts only in the state of California. However, even within California, their use has been limited, largely because of the requirement that they must be

approved via a referendum by 66 percent of the voters in a district. From 1983 to 2010, parcel taxes were approved by voters in only 289 of 542 elections. Chavez and Freedberg (2013) note that 87 percent of the parcel tax proposals would have been approved if the passing threshold had been set at 55 percent. Thus, while a clear majority of voters in local school districts seem to favor the use of parcel taxes to increase public school revenues, supermajority requirements have served as a constraint on their use.

Moreover, parcel taxes have been implemented primarily among selected communities in California. In particular, the local school districts approving parcel taxes have been primarily small (80 percent of the districts serve fewer than 10,000 students, with a median size of 3,180); have had few low-income pupils (only 15 percent who qualified for free or reduced-price meals); and have been heavily concentrated in the nine-county San Francisco Bay area.

Finally, there is some evidence to indicate that where they have been approved, parcel taxes generate only a small proportion of total public school spending (6 percent on average) and that they likely enhance existing revenue inequities among schools across the state.

The lack of resort to parcel taxes (and the other alternative taxes described earlier by Loeb [2001]) in other states could reflect several other factors, such as insufficient size of the tax base among localities (i.e., school districts) and the absence of state authorization for local units to impose such taxes.

Addonizio (1999) classified sources of nontraditional revenues into three areas: donor activities, enterprise activities, and shared or cooperative activities. Donor activities can be direct or indirect. Direct donations are any activities undertaken by a school district to raise money or solicit goods and services from nongovernmental sources, such as individuals, corporations, or foundations. Indirect donor activities occur when school districts create foundations to raise money for school activities in general or for a specific purpose. Indirect donor activities also include situations where schools rely on booster clubs to support specific activities within a single school or across the entire school district. The resources gathered by the boosters may be cash or in-kind.

Enterprise activities include imposing fees or charges on school programs and activities; leasing school facilities or providing school services for private purposes; and selling access to schools through various concessions.

Shared activities include situations where a school district enters into cooperative agreements with other government agencies, colleges and universities, private nonprofit or community organizations, or private businesses.

How Do Governments Raise Revenues?

The major traditional revenue sources for governments include taxes on personal and business income, consumption-based taxes (including general sales and selective excise taxes), and property taxes. While considerable tax overlapping is

evident (whereby each level of government taxes the same tax base), tax specialization also occurs, with the federal government dominating the taxation of income, state governments dominating consumption-based taxes, and local governments dominating property taxes.

The relative role of governments in financing public schools also has implications for how education revenues are raised. As such, the shift from reliance on local governments for school funding to greater reliance on state governments is tantamount to shifting from reliance on property taxes to greater reliance on consumption-based taxes. The somewhat limited role traditionally played by the federal government often means that more progressive forms of taxation are used less often in school funding. Thus, even though public schools provide society-wide benefits, relatively more regressive benefits-based taxes are the primary means of financing public education.

Who Pays Taxes?

Over the years, various organizations and analysts have estimated the distribution of tax burdens by level of income. Citizens for Tax Justice (2013) estimates that around 30 percent of individual income goes to meet the total tax burden of U.S. residents. While 19.7 percent of income on average is devoted to meeting federal tax liability, federal taxes are quite progressive, with, for example, the lowest-income quintile of earners paying 6.4 percent of their income in taxes, the middle quintile paying 15.4 percent, and the top 1 percent paying 24.3 percent. Conversely, state and local taxes are regressive, with tax burdens ranging from 12.4 percent for the lowest-income quintile and 11.2 percent for the middle quintile to 8.7 percent for the top 1 percent. Overall, the total tax burden has an overall progressive distributional impact, due primarily to the importance of federal taxes.

Davis and colleagues (2013) contend that the distribution of state and local taxes is determined by several factors, including the mix of major taxes employed—such as personal and corporate income taxes, consumption-based taxes (especially the general sales and use tax), and the property tax—and the particular design features of those taxes. For example, only 41 states and the District of Columbia impose a broad-based personal income tax, and only 45 states and the District of Columbia impose a broad-based general sales and use tax. In addition, the regressivity of a state's tax system may be affected by factors such as whether it imposes a broad-based income tax or whether the general sales tax includes food and clothing in the tax base. Similarly, for the personal income tax, factors such as the income filing threshold, the extent of graduation in the rate structure, and whether the state allows federal taxes paid to be deducted against state tax liability may be important features. Finally, while the "new view" of the property tax raises questions about its overall regressivity, it is clear that features such as homestead exemptions and circuit breakers affect the extent of regressivity of local property taxes.

The Institute on Taxation and Economic Policy (ITEP) has developed a model that estimates the distribution of state and local taxes by income for each state, based on that state's sales and excise taxes, property taxes, and income taxes (Davis et al. 2013). The ITEP model also estimates the impact of the federal deductibility of state and local taxes by income level. The results of this model show that on average for all states, the lowest-income quintile of earners pay 10.9 percent of their income to meet the state and local tax burden, middle-quintile earners pay 9.7 percent, and the top 1 percent of earners pay 6.4 percent. Indeed, according to this model, all state and local tax systems are regressive. Factoring in the federal deductibility, which provides little or no benefit for those in the non-itemizing, lowest-income categories, only adds to the extent of regressivity.

The ITEP model also examines the use of nontax revenues by state and local governments, where these revenues are defined to include charges for education and hospitals, interest earnings, sewer and trash fees, lottery revenues, highway user fees, and several other miscellaneous charges and fees. Three findings emerge from this analysis. First, in aggregate, state and local governments make extensive use of nontax revenues. In fiscal year 2010, they amounted to 32.4 percent of general own-source revenues for state and local governments. Second, the use of these nontax revenues has increased over time, albeit modestly, up 2.2 percent from 10 years earlier. Finally, there is considerable variation among individual states in the use of these nontax revenue sources, ranging from a low of 23 percent of general own-source revenues in New Jersey and 24.5 percent in New York to 43.1 percent in South Carolina and 39.9 percent in Oregon.

Therefore, even a state with very progressive personal and corporate income taxes may have a regressive overall tax system if, for example, a majority of its revenues are derived from regressive sources, such as consumption-based taxes and user charges.

Trends in the Traditional Sources of Public School Funding

Andrew Reschovsky's chapter in this volume (chapter 6) details the significant trends and changes in public school funding over the past several decades (see especially table 6.1 and figure 6.2). These data highlight two important aspects of public school funding. First, the relative importance of the three levels of government has changed significantly over the past four decades, with the state share increasing and the local share declining. Second, there are considerable variations among individual states, especially with respect to state and local shares of public school funding. Given tax specialization, this pattern has direct implications for the revenue instruments used and, therefore, for the distribution of school funding burdens by income.

EQUITY IN PUBLIC SCHOOL FUNDING

School finance equity may differ from public finance equity. As noted by Berne and Stiefel (1999, 10):

> From a school finance perspective, a system would be judged fair to taxpayers if every taxpayer was assured that a given tax rate would translate into the same amount of spending per pupil regardless of where the taxpayer lived. From a public finance perspective, on the other hand, a system would be judged fair to taxpayers on the basis of either the ability to pay or the benefits principle. Thus while school finance taxpayer equity compares tax rates to spending per child, public finance taxpayer equity compares tax burdens to ability to pay.

Both public finance economists and policy analysts have expressed reservations about the use of more progressive revenue instruments by subnational jurisdictions, citing concerns about tax-induced mobility and other types of excess burdens (i.e., situations where tax policy distorts market decisions). Nonredistributive taxes, though more regressive, take on characteristics of a benefits-received tax. As such, as a general rule, more redistributive (i.e., progressive) taxes based on a taxpayer's ability to pay should be employed by higher levels of government, while both efficiency and equity are better served when lower levels of government employ revenue sources based on the benefits-received principle.

FACTORS INFLUENCING THE CHOICE OF REVENUE SOURCES

Several factors are believed to influence the revenue portfolio for state and local governments. Porca (2003) argues that interstate tax competition, industry mix, and political factors (including public attitudes regarding individual tax instruments) are the major determinants. Alternatively, Break (2000) contends that the major revenue instruments in the current revenue system for state and local governments have become archaic and are no longer able to meet their revenue requirements. For example, the fact that the general sales and use tax in most states does not adequately reflect the growing importance of services in the economy is known to all who are familiar with the subject. Similarly, the problem of collecting general sales tax revenues from remote sales has been discussed in detail (Mikesell 2012). In addition to concerns about the fairness of the property tax, the fact that it captures a declining portion of household wealth raises concerns about its future productivity. Finally, state corporate income tax revenues currently contribute just over half the proportion of total state revenues relative to the early 1980s.

Spending pressures also add to the despair about current state and local tax systems. For example, the need to address growing concerns about fiscal problems resulting from escalating health care costs, underfunded retirement systems, and unmet infrastructure needs may influence the selection of revenue sources. State- and voter-imposed tax and expenditure limitations and other fiscal controls can influence the choice of revenue sources used by a state and its local units, as well as the relative reliance on those revenue instruments. Balanced-budget requirements and the need to guard against cyclical fluctuations in state revenues can also affect a state's revenue portfolio selections. The ability to export taxes

through either federal deductibility or taxes imposed on visitors and commuters can be another determinant.

Tax and expenditure limitations in particular may influence the choice of state and local revenue instruments, as well as the extent to which these jurisdictions rely on each instrument. For example, Bae and Gais (2007) found that tax and expenditure limitations may not affect spending in all areas uniformly and may not apply to revenues from some sources, such as fees and user charges, lotteries, and tolls. This may significantly affect the options available from the perspective of state and local policy makers.

Finally, concerns about the growing federal deficits, devolution, and the related decline in the real value of federal grants-in-aid, coupled with the increasing concentration of the remaining assistance in the area of health care and the looming threats to any remaining federal assistance as part of a deficit-reduction deal, can put additional pressures on states and localities to come up with more own-source revenues.

Traditional Alternatives for Funding Public Schools

The discussion often focuses on alternatives to the local property tax in funding public schools. Loeb (2001) observes that in more than three of every five states, the property tax generates 95 percent of local tax revenues for public elementary and secondary schools. In spite of a number of features that economists find desirable (e.g., it is a productive tax with a relatively stable revenue yield), the local property tax remains disliked by taxpayers, and therefore is a concern to state and local policy makers.

Given the constraints on traditional school funding sources at all levels of government, the need for alternative sources may extend well beyond the property tax to include alternatives to the major taxes employed by the state and federal governments. The search for alternative revenues to augment or replace more traditional tax sources is not new. McGuire (2001) found that the extent to which school districts relied on property taxation was greater than that for municipalities and counties, although reliance on property taxation had declined over time. In analyzing major tax alternatives, McGuire concludes that both local-option income and sales taxes offer advantages over the property tax for local governments. However, many of the problems experienced in regard to local property taxes are a result of limitations imposed by states and voters. As such, it is likely that similar restrictions will be imposed on local-option income and sales taxes. Moreover, the distribution of income and sales tax bases among local jurisdictions within a state will produce a pattern of haves and have-nots similar to that found with property taxes. McGuire suggests that better approaches may be either (1) to improve the property tax by removing the limitations that have been imposed by states and voters; or (2) to centralize the financing of local services, including public primary and secondary schools.

Similarly, in reviewing 35 years of court challenges to state public school funding systems, McGuire and Papke (2008, 361) note that "none of the legal arguments employed specifically condemns the property tax as a means of financing education. Rather, it was the use of the property tax by local jurisdictions, whose per pupil property tax bases varied considerably, that was deemed problematic. . . . Any locally-imposed tax whose base varied greatly across jurisdictions would have been challenged." This seems to suggest that property taxation as a state, as opposed to a local, revenue instrument would be less problematic, from both a legal and a public finance perspective.

McGuire and Papke (2008) further caution that any alternative to the property tax would have to be judged against two of the property tax's most attractive features—its yield stability over the course of the business cycle and its prowess as a highly productive revenue source. Loeb (2001, 149) takes a broader perspective in arguing that "when assessing local revenue options, several factors must be considered, including constitutionality, ease of collection and administration, equity, stability, public opinion, and the extent to which they cause behavioral changes." Of course, economists readily recognize these factors as overlapping with often-cited characteristics of a good tax.

The rest of this section focuses on a limited set of nontraditional sources, including local-option personal income and general sales taxes, fees and user charges, gaming revenues, private resources and nongovernmental organizations, changing public school structure, and tax expenditures. In analyzing these nontraditional sources of funding, particular attention should be paid to their capacity to produce significant amounts of revenue, the stability of the revenues, and the equity implications of greater reliance on these alternatives.

LOCAL-OPTION INCOME AND SALES TAXES

Considerable tax overlapping occurs through the local use of income and sales taxes.[1] As alternatives to local property taxes, local-option income and sales taxes present something of a mixed blessing in terms of their productivity, fairness, and reliability. For example, local-option sales taxes are second only to property taxes as a tax source for local governments. Of the 45 states that employ a general sales and use tax, 33 also authorize the use of the tax by at least some of their local units. The major exceptions are states located in the New England and Mid-Atlantic regions. Approximately 7,400 local units impose local-option sales taxes. However, of the 33 states that allow these taxes, only 9 extend the authority to local units other than counties and cities (Mackey 1998).

Local governments also raise significant revenues from taxes imposed on personal income—the third-largest local tax source. However, personal income

1. See Brunori (2003) and Mackey (1998) for more complete discussions of the range of local-option taxes.

taxes are less widespread than local-option sales taxes, as only 15 states authorize any of their local units to tax personal income. Thus, access to this alternative revenue source is severely limited compared to the property tax. Moreover, of the 15 states that allow local units to impose a local-option personal income tax, only 4 (Iowa, Kentucky, Ohio, and Pennsylvania) extend that authority to local public schools (Mackey 1998).

McGuire (2001, 310) highlights some advantages of imposing local-option income and sales taxes: "Local income and sales taxes do present advantages in comparison with the local property tax. Because most state governments employ these two taxes, the tax can be administered by the state government, saving compliance and administrative costs. In addition, the taxes are responsive to economic growth and largely self-reported."

However, there may be significant concerns, such as the problem of remote sales and interjurisdictional disparities resulting from varying sizes of tax bases. McGuire and Papke (2008) reviewed the literature suggesting that the personal income tax base is more evenly distributed among local jurisdictions than the property tax base, but the income tax base may also be more mobile and sensitive to rate differentials.

Equity concerns are associated with the use of local-option income and sales taxes. For example, local-option sales taxes are generally viewed as regressive. Indeed, they may be even more regressive than state sales taxes in that food, clothing, and other so-called necessities may not be excluded from the tax base. Similarly, local-option income taxes are seldom very progressive. Such taxes are generally limited to earned income (i.e., wages), which means that income components that accrue largely to the wealthy (e.g., capital gains, interest and dividends, rental income) may escape taxation by local jurisdictions.

For both equity and efficiency concerns, public finance experts generally call for taxes to be imposed on a broad base, with low tax rates. Because local-option income and sales taxes share a tax base with the state (and perhaps the federal government in the case of taxes on personal income), cumulative tax rates may contribute to high tax burdens, inequities, and greater excess burdens, as firm and household location decisions may be influenced.

Moreover, McGuire and Papke (2008, 367) note concerns related to the stability of local-option income and sales taxes relative to property taxes: "Income and sales taxes are highly pro-cyclical revenues, whereas property taxes are more stable over the economic cycle. It is problematic to fund education expenditures, which vary with characteristics of the population and not the business cycle, using economically volatile revenues."

Finally, McGuire (2001) raises concerns that greater reliance on local-option income and sales taxes may result in more have and have-not jurisdictions and in greater efforts by states and voters to restrict their use through tax and expenditure limitations, thereby presumably adversely affecting the productivity, fairness, and volatility of these instruments. Although many see local-option income

and sales taxes as the best alternative to local property taxes, they are far from being an ideal substitute.

Nontraditional Revenue Sources

Several nontraditional revenue sources will be considered, including (1) fees and user charges; (2) gaming revenues; (3) private resources; (4) changing public school structure; and (5) tax expenditures.

FEES AND USER CHARGES

Several analysts have observed that school districts rely on user fees and charges to a lesser extent than do state governments or other forms of local government (McGuire 2001). In 1991–1992, the U.S. Census Bureau collected data on user charges in six categories (Wassmer and Fisher 2002), including

- tuition fees from students and parents;
- transportation fees from students and parents;
- textbook sales, rentals, and fines;
- school lunch revenue from students, teachers, or adults;
- student activity receipts; and
- other sales and service fees, including community service activities.

Wassmer and Fisher (2002) studied the matter of fees and charges as a source of public school funding extensively. They note that several factors may influence a school district's decision to institute fees and charges, including statewide institutional restrictions on their use, the percentage of funding that must be raised locally, and the extent to which residents within a state or school district value equity. Indeed, several state courts have limited the use of fees and charges in funding public schools. However, while federal and state courts have consistently found that public schools could not use fees for educational purposes, Wassmer and Fisher further report that no court has ever ruled that a public school must provide its students with free noneducational personal items.

According to Wassmer and Fisher, in 1991–1992 public school districts collected less than 5 percent of all fees and charges imposed by states and local governments. While such fees and charges currently account for a relatively modest amount of public school funding, their potential to play a much larger role is significant. The same researchers contend that as much as $30 billion in spending on auxiliary services—13 percent of all public school expenditures—could be collected through fees. They note:

> The strongest case for the expansion of fee use in public schools is for the provision of auxiliary services—meals, transportation, after-school child care, as well as other services outside those that typically comprise the

> standard K–12 curriculum. Auxiliary services have close private substitutes and generate smaller positive social externalities than K–12 education itself—demand for auxiliary services is likely to be elastic. There are also low-cost means of collecting fees for auxiliary services. (Wassmer and Fisher 2002, 91)

Other researchers are even more sanguine about the possibilities of fees and user charges. For example, "Downing (1996) concludes that charges could fund between 30 and 50 percent of all local public education spending in the United States" (Wassmer and Fisher 2002, 92). These analysts argue that fees and charges could eventually help to offset property tax collections by public schools and increase the overall level of school spending.

Fees and user charges are considered a regressive form of raising revenues to support public services, in that they take a larger portion of the income of low-income individuals than of high-income individuals. This may create problems for those concerned with both school finance and public finance equity. However, Wassmer and Fisher (2002, 92) argue that fees may be more equitable than general taxes: "It is not clear that additional user charges for auxiliary services necessarily would be inequitable or must relatively disadvantage lower-income students—local school property taxes can also impose substantial burdens on low-income individuals that own property. . . . If concern over the vertical inequity generated by the greater use of charges persists, then the solution is to subsidize the payments of school fees made by the poor." They further contend that using fees and charges to fund public school services that provide private benefits would introduce greater budget flexibility into public school funding by freeing up some general tax revenues to improve basic educational programs.

In sum, while fees and user charges have the potential to provide a larger share of public school resources, especially since their use is generally not restricted by tax and expenditure limitations, they may threaten school funding equity reforms in the absence of the kinds of safeguards used to protect low-income individuals against excessive property tax burdens.

GAMING REVENUES

Four major types of gaming activities provide revenues for states, including lotteries, commercial casinos, racinos, and pari-mutuel wagering. Dadayan and Ward (2011) report that 43 states have state-sponsored lotteries, 15 states allow commercial casinos, 12 states have racinos, and more than 40 states allow pari-mutuel wagering. These activities provided almost $24 billion in state revenues in 2010, up from $15 billion in 1998. In several states, gaming revenues are dedicated in whole or in part to funding public schools. As such, gaming revenues are a component of nontraditional revenues for public schools. Several concerns have been raised about relying on these revenues.

Between 1998 and 2010, gaming revenues accounted for between 2.1 and 2.5 percent of state revenues. As such, while significant, gaming revenues are still

a relatively small component of total state revenues (Dadayan and Ward 2011). The Great Recession, which technically spanned from December 2007 to June 2009, however, raised concerns about the cyclical stability of gaming revenues, especially those from casinos. The gaming industry posted negative growth in 2008 and 2009 due primarily to the economic downturn. Moreover, a number of casino operators have delayed or revised plans to expand their operations as they await a return to normalcy after the recession. There is some concern that the recent growth in casino revenues (the base for state taxes on casinos) primarily reflects the introduction of legalized casinos in more states, rather than increased business by existing casinos. More generally, there is growing concern that the actual amount of state revenues realized from taxing casinos rarely matches the rhetoric that was used when the legalization of casinos was initially proposed (Weider 2012).

Additional concerns are raised about the extent to which gaming revenues result in net new spending for public schools, even when all or part of the revenues are dedicated to that purpose. That is, even dedicated gaming revenues may prove fungible to some extent. Research on this issue has focused mostly on lotteries, where at least 14 of the 42 states with a lottery earmark some or all of the revenues for public education. In testing the hypothesis that states with lottery revenues dedicated to education should provide higher financial support for education than states without lotteries, Erekson and colleagues (2002, 303) found that "aid to education as a percentage of government expenditures was significantly lower in lottery states. Lottery states allocated approximately 15 percent of expenditures to education, while non-lottery states allocated over 23 percent." Moreover, they note that "increases in lottery revenues negatively affect support for public education. Clearly, lottery revenues are fungible, and general fund revenues that otherwise would be devoted to education are diverted to other uses" (Erekson et al. 2002, 311).

Lauth and Robbins (2002) arrived at somewhat different conclusions. First, they note that most states with lotteries do not dedicate the revenues. In examining the relationship between the Georgia state lottery and state appropriations for education, they found that "lottery spending has not been completely offset by substitution. Lottery funds appear to have stimulated additional spending in the target areas. Budget fungibility has been constrained by the transparency of the budget and appropriations process, gubernatorial commitment to supplement not supplant, the policy architecture of the lottery-for-education program, and a relatively strong state economy that renders substitution unnecessary" (Lauth and Robbins 2002, 89). The likelihood that this confluence of circumstances will appear even in states that do earmark lottery proceeds is dubious at best.

Lotteries are believed to be a very regressive way to raise state revenues, in large part because low-income individuals tend to purchase a disproportionate share of all lottery tickets. In addition, low-income individuals may be more susceptible to the marketing and advertising campaigns used by states to enhance demand for their lotteries.

An interesting analysis by Szakmary and Szakmary (1995) shed further light on several of these issues. First, they note that the cyclical volatility of lotteries (and perhaps other forms of gaming activities by inference) likely reflects several factors, including the introduction of new games, changes in consumer tastes and preferences, the efficacy of state marketing efforts, the extent to which jackpots roll over, and the advent of comparable gaming activities in neighboring states. Szakmary and Szakmary also note that earlier evidence on the vulnerability of lottery revenue stability was based on a stand-alone analysis in which lotteries were considered apart from other state revenues. Szakmary and Szakmary contend that the stability of lottery revenues will likely depend on both the variance of lottery versus nonlottery revenues and the correlation between lottery and nonlottery revenues in the budget. They conclude that "the diversification benefits provided by the low correlation may more than offset the high variance of lottery revenue, resulting in total revenue actually being less volatile" (Szakmary and Szakmary 1995, 5).

Regarding the regressivity of lotteries, Szakmary and Szakmary (1995) argue that the importance of lotto games may have an impact on the distributional implications. Unlike numbers games and scratch-off tickets, lotto games with large jackpots tend to attract middle- and upper-income players. If lotto sales grow as a portion of all lottery sales, the share of the lottery burden felt by low-income individuals will decline—not because those with low incomes spend less, but because non-low-income groups will spend more. Having more middle- and upper-income players will also likely contribute to the stability of the revenue yield from this form of gaming.

Finally, there is the question of the extent to which gaming activities cannibalize other forms of entertainment (e.g., restaurants, movies, and sporting events) that generate state sales and excise tax revenues. If it is a zero-sum game, growing gaming revenues will not put states ahead in terms of the overall amount of resources available to fund public schools.

PRIVATE RESOURCES AND NONGOVERNMENTAL ORGANIZATIONS

As noted earlier, the public school systems in more than 80 percent of the states have faced some type of legal challenge to their funding systems. In addition, states and localities in at least 30 states face some type of tax and expenditure limitations. Bert Waisanen of the National Conference of State Legislatures (2013) reported that in 2010, 23 states had spending limits, 4 had revenue limits, and 3 had both. The combined effect of legal challenges and tax and expenditure limitations has been the loss of local public school decision-making autonomy, more equalized per pupil spending across districts within states, and in many instances a lower overall average level of school spending as states opt for the less costly leveling-down approach, as opposed to leveling up (Brunner and Sonstelie 1997). The leveling-down approach was thought to be particularly constraining to wealthier school districts, many of which responded by seeking greater access to private resources to augment public funding.

Private contributions can be pecuniary or nonpecuniary, and they can be provided to a particular school or to an entire school district. The source of private contributions can include the following (Hansen 2008):

- Community, independent, and school foundations
- Individual volunteers
- Local businesses and corporations
- Local education funds
- Partnerships with colleges and universities, nonprofits, and businesses
- School-based organizations

There are several noteworthy items to highlight about these private contributions. First, they are not uniformly distributed among school districts or among schools within a district, much less across states. Zimmer, Krop, and Brewer (2003) found that while parents in richer school districts may be able to contribute more money, foundations and corporations may target schools (or school districts) in poorer communities. Similarly, although more-well-to-do parents may provide more volunteer and other in-kind services, the variety of private contributions is greater for middle-income and poorer schools. Indeed, Zimmer, Krop, and Brewer (2003, 6) observe that "oftentimes, because of their perceived need, districts and schools in lower income areas have greater access to support from corporations and community-based and philanthropic organizations. Therefore, we did not find strong evidence that private contributions necessarily lead to greater inequities in support of public schools."

Second, measurement difficulties surrounding nontraditional revenue sources abound, especially in terms of keeping tabs on volunteer services and in-kind giving, where in-kind support is believed to dominate pecuniary giving. More specifically, Zimmer, Krop, and Brewer (2003, 3) found that "it is difficult to quantify the dollar value of in-kind material and volunteer time donations. . . . Volunteers gave their time to such activities as tutoring programs, after-school enrichment programs, mentoring programs, and classroom support. The majority of schools received donations of instructional materials, computers and software, equipment and supplies, and gift certificates and awards (such as free tickets to a ball game for an outstanding report card)."

Two other key concerns are the extent to which private contributions increase the total amount of resources available to fund public schools, and the extent to which private giving undermines resource equalization efforts contained in school reform. That is, "families with high demand for school quality will supplement state revenue with their own contributions, yielding the same resources for their children's education as under local finance—families potentially undo school finance reform through voluntary contributions" (Brunner and Sonstelie 2002, 2158).

Brunner and Sonstelie (2002) conclude, however, that private giving is likely to be a poor substitute for local tax authority and autonomy. Similarly, while

private giving may prove very helpful for an individual school or school district, or in support of a particular program or activity, in aggregate private giving is simply not of an adequate scale to substitute for public funds or to undermine school funding reform efforts.

CHANGING PUBLIC SCHOOL STRUCTURE

"Local government structure" refers to the number and types of local government units—in this case, public schools. As of 2006, there were almost 99,000 public schools in the United States. The number of public schools varied significantly by state, from a low of 234 in Delaware to a high of over 10,000 in California. The U.S. Department of Education identifies four types of public schools, including regular, special education (1,956), vocational education (1,240), and alternative (6,638). Alternative public schools can be broken down further into magnet schools, charter schools, and other (National Center for Education Statistics 2008). Charter schools are covered much more extensively elsewhere in this volume (see, for example, chapters 3 and 9).

Charter schools may contribute as nontraditional revenue sources in two ways. First, charter schools are generally very active in fundraising and attract sometimes significant amounts of private resources, including monetary support from corporations and foundations and in-kind support from volunteers. For example, in New Jersey the Newark Charter School Fund (NCSF) was established in 2007 to help provide resources for Newark's 12 charter schools. The NCSF received pledges of $4 million from each of several national foundations, including the Bill & Melinda Gates Foundation, the Doris-Donald Fisher Fund, the Robertson Foundation, and the Walton Family Foundation. In addition, three local foundations—the MCJ Amelior Foundation, the Prudential Foundation, and the Victoria Foundation—each pledged $1 million in support (Allen 2008).

Maloney and colleagues (2013) examined charter school funding sources relative to those for regular schools over the fiscal year 2007–2011 period in five communities—Denver, Los Angeles, Milwaukee, Newark, and Washington, DC. The researchers considered total public funding in general, federal funding, nonfederal public funding, and other sources of revenue (including sources such as investment earnings, facilities rentals, activity fees, fundraising, and gifts). These researchers found that charter schools received less total funding than regular public schools, although charter schools received a higher proportion of their funding from other sources. In particular, they note:

> When looking at funding since FY07, a mixed picture emerges among the schools in these five cities. Both traditional public schools and public charter schools experienced increased funding levels through FY11 in Denver and in Washington, DC when adjusted for inflation. In Los Angeles both traditional public schools and charter schools received less per pupil funding during the period of economic downturn, while the public charter schools in Milwaukee received less. Newark is the only city of the

> five where district funding declined, while charter funding accelerated. (Maloney et al. 2013, 2)

Second, charter schools face reduced regulations and other requirements that work to limit their flexibility in using public school resources. An analogy can be drawn with President Ronald Reagan's new federalism initiative of the early 1980s. This idea held that the number of federal grants-in-aid to states and local governments should be reduced, changed from categorical grants to less restrictive block grants where possible, and decreased in dollar amount. The idea was that with fewer federal restrictions and requirements to contend with, recipient jurisdictions could accomplish at least as much (if not more) with fewer federal dollars (Coleman and Ross 1983). A similar "less is more" theory is reflected in charter school legislation in several states. For example, in New Jersey charter schools receive only 90 percent of the per pupil funding that the regular school the student otherwise would have attended would have received. While it is likely that charter schools currently represent a very limited source of access to nontraditional revenues, that amount could change with more students resorting to charter schools in the future.

TAX EXPENDITURES

Tax expenditures are often referred to as spending through the tax code. Federal tax expenditures are defined as "revenue losses attributable to provisions of the federal tax laws which allow a special exclusion, exemption, or deduction from gross income or which provide a special credit, a preferential rate of tax, or a deferral of liability" (Rogers and Toder 2011, 1). The basic tax equation can be used to explain what tax expenditures are and how they work:

$$\text{Tax Revenue (R)} = \text{Tax Rate (t)} \times \text{Tax Base (B)}$$

In general, tax expenditures include (1) reductions in the size of the tax base via exemptions, deductions, exclusions, and abatements; (2) preferential tax rates; (3) deferred tax obligations; and (4) tax credits that reduce tax liability (i.e., tax revenues) on a dollar-for-dollar basis. Reductions in the size of the tax base are generally seen as being more helpful to higher-income taxpayers, while tax credits provide greater relative benefits to lower-income individuals. Tax expenditures totaled $362 billion in 1985 and are expected to reach $1.5 trillion by 2016 (Rogers and Toder 2011).

Rogers and Toder (2011, 1) analyzed trends in tax expenditures for the years 1985–2016 and found that the "Tax Reform Act of 1986 greatly changed the cost of tax expenditures. The revenue lost to tax expenditures declined sharply after the enactment of the 1986 Act, falling from nearly 9 percent of total GDP in fiscal year 1985 to 6 percent in 1988. Since then, tax expenditures have gradually increased as a share of GDP but have remained below the 1985 level. Furthermore, the composition of tax expenditures has changed significantly."

By "composition of tax expenditures," Rogers and Toder mean that the share of all tax expenditures claimed on tax returns filed by individuals has grown since the Tax Reform Act of 1986 (from 79.3 percent in 1985 to 88.9 percent in 2010) and the corresponding share claimed by corporations has dropped (from around 21 percent in 1985 to just under 11 percent in 2010). Moreover, their analysis projects that tax expenditures will remain steady at around 7.3 percent of gross domestic product (GDP), and that the share of all tax expenditures claimed by individuals will increase slightly between 2010 and 2016. Importantly, while tax credits grew between 1985 and 2010, they are expected to decline (down to 0.7 percent) between 2010 and 2016. Marron (2012) notes that concerns about tax expenditures should not be limited to income taxes, because, for example, payroll and excise tax policies may also result in revenue losses.

Williams's (2011) research indicates that current tax expenditures decidedly favor wealthy taxpayers in the United States. He concludes:

> More than 90 percent of the tax savings on long-term capital gains and qualified dividends go to taxpayers in the top quintile of the income distribution, and nearly half of the benefits go to people in the top one-tenth of 1 percent. The top quintile gets about three-fourths of the savings from itemized deductions and more than 60 percent of the benefits of exclusions of selected sources of income such as employer health insurance contributions. High-income households receive relatively larger benefits from special rates, deductions, and exclusions, because they have relatively more income from certain tax-favored sources (capital gains, dividends, tax-exempt interest) and because under our graduated income tax, exclusions and deductions are worth more to taxpayers in higher rate brackets. In sharp contrast, most of the value of credits goes to households in the bottom four quintiles. (Williams 2011, 511)

Of course, state and local governments also provide important tax expenditures as well. It is much more difficult to get a handle on tax expenditures provided by these subnational units because of significant differences in reporting practices (Mikesell 2002). Indeed, only 41 of the 50 states and the District of Columbia have any kind of tax expenditure reporting. The reports that are available vary in significant ways, including by level of government covered and by tax instruments covered. Still, the general pattern of state and local tax expenditures is believed to mirror that of federal tax expenditures in terms of their distributional implications. In many instances, state tax subsidies are embedded in various school choice programs. Workman (2012, 1) notes that "the term 'choice' encompasses a range of options and arguably the most contentious of them allow for the use of public money to attend private and parochial schools, usually through a voucher, scholarship tax credit, or individual tax credit and deduction."

The number of voucher, scholarship tax credit, and individual tax credit and deduction programs enacted across the United States increased from 5 in 1990

to 40 in 2012. Eleven states provide a total of 16 publicly funded voucher programs; 1 state offers an education savings account program; 11 states offer a total of 14 tax credits to individuals or corporations; and 6 states offer a total of 9 individual tax credits and deductions. Indeed, Workman (2012, 2) notes that "in 2011 alone, 42 states introduced legislation to expand school voucher programs or tax-credit programs, seven new private school choice programs were launched, and 11 existing programs were expanded."

Loeb and Socias (2003) caution that subsidies to public schools are important and that a distorted picture of the amount and distributional implications of resources available to public schools will result if proper consideration is not given to tax expenditures. In particular, they note: "Federal and state governments support schools through tax deductions and tax credits for educational expenditures. These policies benefit higher income districts. Without incorporating tax policies into our assessment of federal contributions to schools, we will vastly underestimate the federal role and vastly overestimate the progressive nature of federal aid to schools" (85).

They argue further that "fully understanding the distribution of burden for school funding requires incorporating tax policies and the indirect aid that these policies provide. . . . The federal government plays a far larger role in school spending than direct federal aid indicates. . . . Deductibility more than doubles the federal contribution to schools and is so regressive that more federal funds go to high-income than to low-income school districts" (94).

Based on their analysis, Loeb and Socias estimate that when federal tax expenditures are included, the federal share of total funding for public schools almost doubles. However, the benefits of these additional resources are not progressively or even uniformly distributed, which reflects the fact that (1) you have to itemize to receive these subsidies; (2) the rich are more likely to itemize; and (3) even among itemizers, the benefits favor those in higher tax brackets.

Two other notable conclusions emerge from their analysis. First, the availability of tax expenditures may influence the mix of revenue instruments used to finance public schools away from nondeductible forms such as consumption-based taxes and fees and charges, and in favor of income and property taxes. Second, the form of the subsidies provided also has a price effect, which lowers the perceived cost of public schools and likely leads to an increase in total public school spending. They note that "public elementary and secondary education is funded largely through property and income taxes at the state and local level, . . . which not only provides funds to individuals who itemize, but also creates a price incentive for those individuals to spend more on public education—the deduction lowers the price of taxes at the local level and may result in increased demand for school spending" (Loeb and Socias 2003, 86).

They further found that "the change in demand induced by the tax policy not only increased the total demand for school spending, but also increased the disparities in school district spending across districts. . . . It increased demand

for high-income districts by substantially more than it increased demand for the lower-income districts" (93).

In sum, while tax expenditures may well increase the role of the federal government in providing public school funding, many questions remain as to their equity and stability implications.

Outlook for Nontraditional Public School Funding Sources

Property taxes continue to provide the lion's share of local revenues for public schools (see chapter 6 in this volume). However, several other types of revenues, including contributions by parents, other local revenues, and other taxes, also play a potentially significant role in aggregate (table 7.1) and especially within individual states. Improved reporting and measurement of resources provided through volunteering and indirect methods would likely show even further movement toward nontraditional sources of funding for public schools.

Many of the circumstances that put pressure on traditional public school funding sources will likely continue unabated for the foreseeable future. Thus, the pressure for all levels of government to identify alternative revenue sources also will continue, and at least some of the nontraditional sources are likely to become even more important, especially tax expenditures and fees and user charges. These nontraditional sources may either provide additional resources or increase the flexibility local schools, and in some cases local school districts, have in using existing resources in public school funding.

Table 7.1
Distribution of Local Public School Revenues, Selected Years, 1992–2011 (%)

Revenue Category	1991–1992	1996–1997	2001–2002	2006–2007	2011
Property taxes	66.5	65.6	64.6	63.2	65.6
Other taxes	1.8	2.2	2.7	2.8	3.1
Parent government contributions	17.2	16.6	16.9	17.0	18.1
Nonschool local government contributions	2.6	2.3	2.4	2.2	2.5
School lunch charges	3.4	3.3	3.3	2.8	2.5
Tuition and transportation charges	0.5	0.6	0.5	0.5	0.5
Other charges	1.6	2.1	2.1	2.5	2.5
Other local revenues	6.4	7.3	7.5	9.0	5.2

Source: U.S. Census Bureau (various years).

In reporting on the relative reliance on various levels of government, efforts should be made to present a more complete and accurate picture. Such a picture would show that the relative role in public school funding played by the federal government is much more substantial than previously believed, especially when indirect revenues provided through tax expenditures are included. Moreover, private resources may play an important role, at least for some states, now or in the near future. Measurement problems will, however, make this adjustment difficult unless states and school districts do a better job of reporting, especially on private contributions. Federal deficit-reduction and tax reform efforts also should continue to be of concern to state and local policy makers.

In the aggregate, no single nontraditional revenue source is likely to prove large enough to have a significant effect in terms of offsetting the level of state and local taxes (especially property taxes) raised to fund public schools, although these nontraditional sources may add to the total amount of revenues available to increase, or avoid decreasing, public school spending.

Some types of nontraditional revenues augment the roles of specific levels of government to a greater extent. For example, tax expenditures increase the relative contribution of the federal government, gaming increases the contribution of state governments, and fees and user charges are more likely to augment local contributions.

While charter schools' potential as a source of nontraditional revenue seems fairly modest in the near term, they may add to the amount of resources available to fund public schools, not because they receive less direct funding from the states, but because they free up resources that would otherwise have been devoted to complying with costly regulations and other requirements.

Many nontraditional revenue sources seem to make public school financing more regressive (i.e., they favor more-well-off households), although measurement concerns make conclusions difficult and uncertain. For example, the increased use of tax expenditures (especially those other than tax credits) will make contributions to public school funding by the federal government less progressive. Similarly, local contributions derived from greater reliance on fees and user charges will likely make local public school revenues more regressive. Greater reliance on gaming revenues will make state contributions less regressive only to the extent that lotto games continue to grow as a portion of lottery ticket sales and that middle- and upper-income individuals continue to buy lotto tickets. The distributional implications of giving by individuals, foundations, and businesses are difficult to unravel at this point.

Conclusions

In conclusion, property taxes will likely remain the centerpiece of public school funding for the foreseeable future. While nontraditional revenue sources have the potential to play a larger role in aggregate and for many individual states,

they remain a questionable strategy in that, relative to property taxes, they are less productive in terms of total yield; less stable and reliable over the course of a business cycle; less universally available among states, school districts, and individual schools across the country; and probably less equitable in terms of both school finance and public finance equity.

As such, nontraditional revenue sources are clearly an inferior option to improving the working of property taxes by removing tax and expenditure limitations and allowing state and local tax systems to respond more readily to changing economic, fiscal, and technological conditions, assuming that appropriate mechanisms would be implemented to target relief to low-income taxpayers. Moreover, policy makers must be willing to overcome the political reluctance to use both spending and revenue reforms as policy instruments to produce the best decisions about the level of public school spending and the best methods to finance that spending. Brunori (2001, 816) argues that ". . . local governments must have a dependable source of revenue, and that only the property tax can provide that revenue." Such an unfettered approach would be preferable in terms of equity, adequacy, and stability of revenue raising, and it would also bring greater transparency and certainty to public school funding decisions.

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