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PUBLIC SCHOOL FUNDING IN PENNSYLVANIA

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Peer Reviewed

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ABSTRACT

This case study is based on the following circumstances: Like 45 other states, in 2002, the state of Pennsylvania operated at a deficit. Edward Rendell was elected governor after promising to reduce real estate taxes and boost the state portion of public school funding. He proposed doing this by allowing slot machines in the state.

About one-third of the tax revenue earned from this expansion of legal gambling would be used for public schools. The legislature passed this proposal. Local school boards were initially given the choice of whether to accept these funds. Acceptance would force reduction of local real estate taxes, require modest increases in, or implementation of, local income taxes, and place limits on the amount real estate taxes could be increased without taxpayer approval.

Students are asked to assume the role of a small business owner and chair of the local school board of "Sandy Springs" as he or she prepares to lead the board in making its decision.

INTRODUCTION

Dan Moran struggled with one of the most difficult decisions of his professional life. Dan, a local retail store owner, served as Chair of the School Board in Sandy Springs, Pennsylvania. Legislation passed in July 2003 had authorized 61,000 slot machines in the state. About one-third of the tax revenues from the slot machines would be offered to public school districts. Each local school district had the choice of whether to accept the gambling revenues. If they are accepted, the funds would be used to reduce real estate taxes for local homeowners. Those districts that accept them will be required to make changes to their local real estate and income taxes, and their local School Boards will have reduced power when setting budgets. Dan needed to decide whether he thought Sandy Springs should accept the gambling funds before the board meeting in two weeks (January 31) and be prepared to lead the full board in their decision-making process [1].

FUNDING LOCAL PUBLIC EDUCATION

Historically, Real Estate Taxes Have Been Contentious

On April 14, 1799, 500 Federal soldiers marched from Philadelphia, which was then the United States' capital, to Bucks and Northampton counties to put down a revolt. John Fries, who had been a militia captain in the Revolutionary War, led the protest against an unpopular new tax on land, houses, and slaves. Houses were taxed based on their dimensions, building materials, and the size and number of windows. Local German farmers hated the tax so much that their wives poured boiling water on assessors as they measured the windows, giving the Fries Rebellion its other name, “The Hot Water War.”

Two hundred years later, attitudes remain much the same. Although Pennsylvania’s reliance on real estate taxes is relatively low -- the state ranks 31st among the 50 states and the District of Columbia and 7.5 percent below the national average -- the public strongly resents real estate taxes. Residents considered real estate taxes to be unfair for at least two reasons. First, they are somewhat unrelated to current income. Retirees may be able to afford a home, not because they have current income, but because they purchased and paid for the home in the past. Pennsylvania’s people are the second oldest in the nation, and they are very aware of the fact that elderly persons with low fixed incomes are at risk of losing homes which are debt free because they cannot pay the real estate tax on them. Second, outdated “assessments” (a percentage of estimated market value) meant that real estate taxes are not necessarily closely related to property values. Because many school districts update assessments primarily through real estate transfer records, people who have owned their home for a long time might pay quite different amounts in tax than those who have more recently purchased similar homes in the same neighborhood.

Pennsylvania Is A High Tax State

Pennsylvania’s reliance on real estate taxes is low, but its taxes on business are high.In 1993, and again in 1998, Deloitte & Touche compared the taxes paid by a hypothetical service company if it operated in different locations. Philadelphia had the highest total tax burden among large U. S. cities in both years. Pittsburgh ranked second in 1993, fourth in 1998.

The Effect On Public School Finance

Unfortunately, the answer isn't as simple as reducing corporate taxes. Taxes are the source of revenues the government uses to do its work, and states are required to balance their budgets [2]. A large portion of the budget of both state and local governments supports public schools. Corporate tax breaks designed to revitalize urban areas force state and local governments -- at least in the short run -- to raise other taxes, devote a higher percentage of the general fund revenues to education, and/or reduce public school funding. Forty-three states allow cities or counties to offer long-term tax breaks to corporations. Only five states, Pennsylvania among them, give school boards a voice in whether businesses should receive these tax breaks.

Several Taxes Support Public Schools

Pennsylvania uses several taxes to support public schools. In addition to local real estate taxes, which are the primary source of funds, the following taxes were used in Pennsylvania in 2002:

- The Occupational Privilege Tax is a flat amount paid once yearly by each employed person. It is typically withheld from the first paycheck in a year. The dollar amount is small. Each working resident of a given school district pays the same amount.
- Pennsylvania State Income Taxes are a percentage of the amount of earned income. All non-elderly Pennsylvania residents pay the same percentage for state income taxes. The state of Pennsylvania does not tax retirement income.
- Many school districts also have an income tax. The percentage varies across school districts, but all non-elderly residents of a given school district pay the same percentage.
- The Occupational Assessment Tax is based upon a person's job title. Those with more prestigious titles pay higher amounts. All persons with the same job title pay the same dollar amount, no matter what their earnings are.

Figures 1 and 2 below provide information about the relative portions of public school funding from various sources. In 2002, approximately 60 percent of all current funding was from local sources and 37 percent from the state. Of local funding, the majority came from real estate taxes.

FIGURE 1

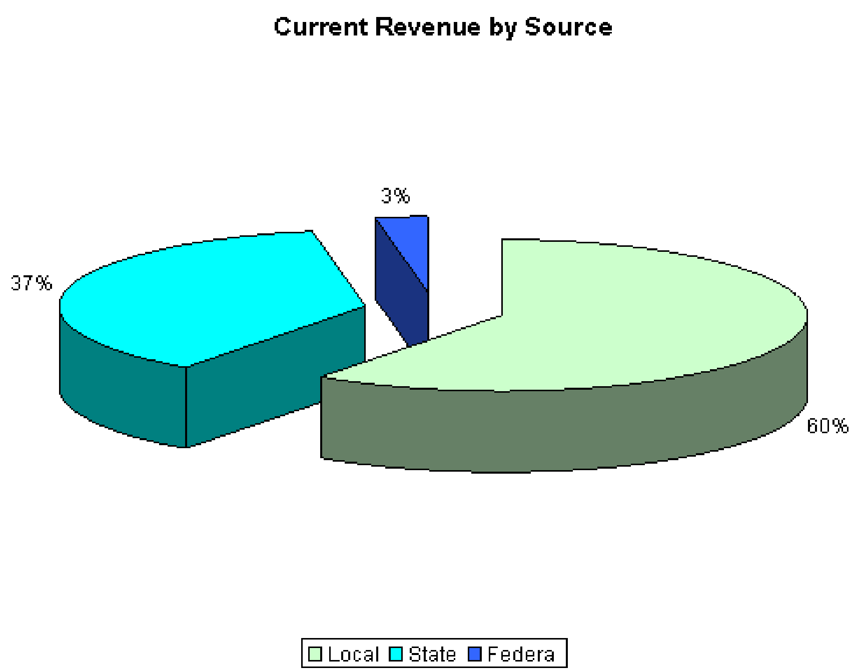
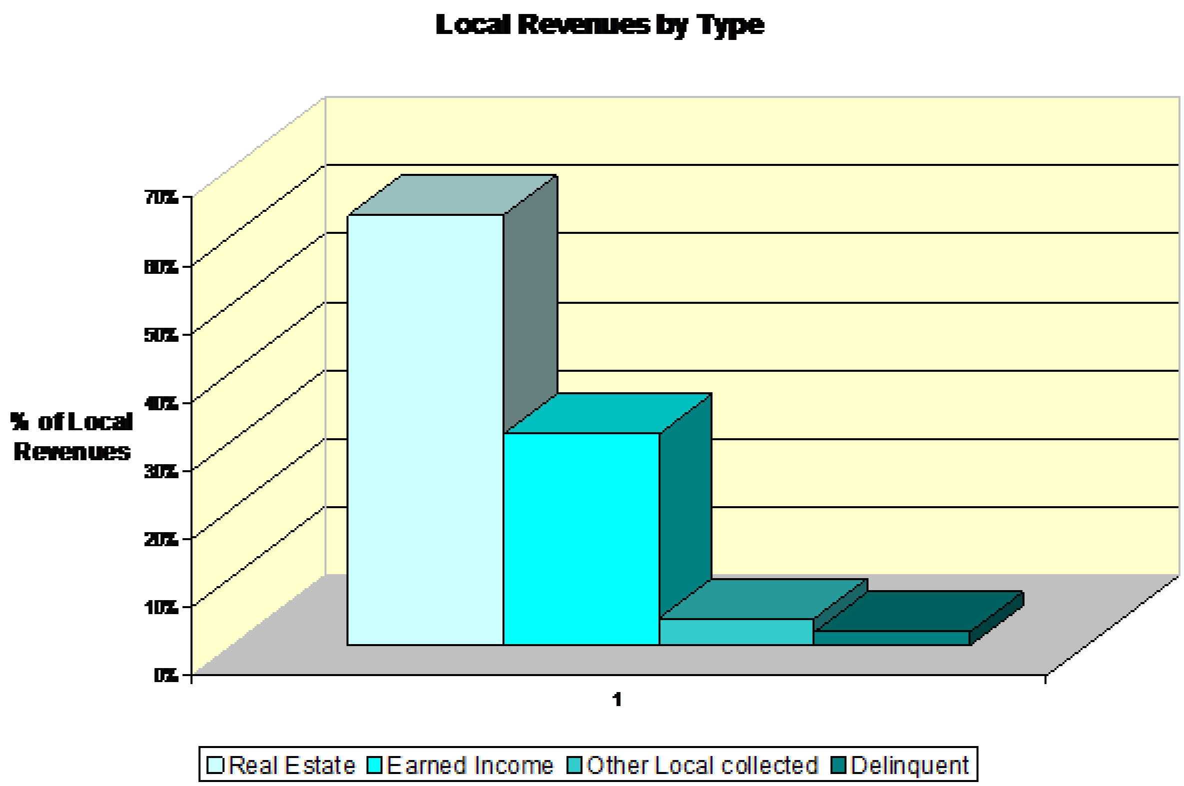


FIGURE 2



Pennsylvania School Boards' Enviable Position

Pennsylvania was unique in that local school boards had very broad power to increase the real estate tax rate. Unlike other states, no public approval was required. Thus, schools have less trouble raising the funds they need [3]. Between 1980 and 2000, the cost of living had increased an average of about 3 percent annually; for the cost of education the average change was about 5 percent. Many residents believed that it was unfair to raise real estate taxes more than the increase in income; they thought schools should have an incentive to control costs instead of just raising budgets and taxes at will.

The 2002 Economy And Election

Democratic candidate Edward Rendell, a former mayor of Philadelphia, was elected governor of Pennsylvania largely as a result of a promise to boost the state share of school funding while reducing real estate taxes. Polls showed that education was the number one issue for voters.

But increasing state spending would be extremely difficult. In 2002, the U. S. economy was not strong. Forty-six of the 50 states had revenue shortfalls, totaling $40 billion collectively. In Pennsylvania, as elsewhere, the unhappy choice was to raise taxes or cut services. Neither move is popular when people are already facing an uncertain economy.

The relative portions of public school funding provided by state and local budgets had changed dramatically over the past three decades. The state provided 51 percent of the total cost of public education in the 1972-73 academic year; by 1999-2000 that portion had fallen to 36 percent. Local school districts, on the other hand, covered an increasing portion of the total costs. Real estate taxes, their primary source of funds, had risen much more rapidly than personal income.

The 2003 Budget Impasse

On March 4, 2003, Governor Rendell presented a budget that included drastic cuts to state services. “I hate this budget with every fiber of my body” Rendell said. “These painful cuts will do nothing but balance the budget.” He asked the largely Republican legislature not to address the budget until he returned three weeks later with a plan which would increase school spending while decreasing local real estate taxes. The legislature, however, outmaneuvered him, passing the budget only eight days later. Governor Rendell had three options. He could veto his own budget, sign a budget he hated, or use a line item veto.

He chose the last option. On March 20 he removed the entire $4 billion education allocation. On March 25, as promised, he offered a plan to reduce real estate taxes by 30 percent while raising the basic education subsidy 25 percent. The primary means to accomplish the goal were an increase in the personal income tax rate and tax revenues from greatly expanded legal gambling.

Details Of The Gambling Proposal

Gambling was already well established in Pennsylvania. A lottery (proceeds set aside for the elderly) and race tracks already existed. An estimated two million Pennsylvanians already made about 9.6 million trips elsewhere to gamble, and the estimated loss per trip nationwide was $75.

Keeping that money in Pennsylvania, and the resulting tax revenue, could improve the state budgetary situation and reduce real estate taxes. Rendell's plan was to allow up to 61,000 slot machines—about one per classroom and more than any state except Nevada. Estimates were that slots machines would generate about $1 billion in taxes ($30 billion in revenues times a tax rate of 3 percent), raising the total state budget by 4.7 percent.

About 35 percent of the gambling taxes would be used for education. This would increase the dollar amount of the state subsidy by 25 percent, and the state portion of school funding to 44 percent, by 2006 [4]. Based on this estimate, real estate taxes for owner-occupied primary residences would be reduced an average of $300—with the specific reduction varying across school districts. Real estate taxes on vacation homes and rental units would not change.

However, the estimates were rather controversial. If less was raised through gambling, then other taxes could increase, real estate taxes could decrease less, or school budgets could fall to make up the difference. Keeping the money in Pennsylvania that was currently going elsewhere could prove difficult. Most out-of-state trips - about 76 percent - were to Atlantic City, which was nearby and had many amenities. The cost to travel there was minimal. For example, many Pennsylvania senior centers chartered buses for a fee of under $40 per person, and free drinks and snacks at casinos offset much of that cost.

Other Ways To Raise $1 Billion

Another reason the proposal was controversial was that there were many other ways the state could raise an additional billion dollars in taxes. For example, it could:

- Raise the personal income tax rate from 2.8 percent to 3.2 percent
- Raise the sales tax rate from 6 percent to 7 percent
- Raise the corporate net income tax from 9.9 percent to 16.9 percent
- Raise cigarette taxes from $1 to $2.18 per pack
- Raise the beer tax from 13 cents to $2.60 per gallon
- Raise the liquor tax from 18 percent to 114 percent

Rendell's Proposal Prevailed

While the Republican legislature had the votes to turn down the Governor's plan, they would then have assumed the blame for insufficient school funding or needed to agree upon another way to raise the necessary funds. The Governor's plan prevailed.

DAN'S DECISION: SHOULD SANDY SPRINGS TAKE THE MONEY?

An Introduction to Sandy Springs

Sandy Springs, like other school districts, had to decide whether it was better to accept the gambling revenues or not. Some school districts, and some individuals, would be better off financially if the gambling revenues were accepted. Others would lose ground economically, dependent primarily upon demographic circumstances.

In Sandy Springs, there were about 15,000 owner-occupied houses and a population of about 40,000. The county's average age was one of the five oldest in the United States. Median personal income was about $51,000. The earned income tax rate was 1.9 percent. About 10 percent of Sandy Springs' residents commuted to New York to work, and those residents on average had higher incomes [5].

How Accepting Gambling Revenues Will Affect the School Board

After the plan passed, each local school board was given until May 31, 2005, to decide whether to accept the gambling funds. A decision to accept the gambling revenues would have both advantages and disadvantages for the school district.

Pro: Reduced real estate taxes
Increased perception of fairness?
Gambling perceived as a choice; taxes mandatory
Increased state funds

Con: Must increase local income taxes at least 0.1 percent (cap is 1%).
Income taxes and gambling revenues were less stable than real estate taxes.
Budgetary increases beyond state formula would now require voter approval [6]. Some residents strongly opposed legalizing gambling.
Increased crime near gambling sites [7].

Assuming gambling revenue estimates were met, the overall level of school funding statewide would not change. But the source would change, as would the distribution of the tax burden among school districts and residents.

EVALUATING TAXES AND TAX POLICIES

Two Primary Goals of Tax Policy

Tax policy has two primary goals: to minimize efficiency losses [8] and to distribute the tax burden fairly.

Efficiency losses occur when taxpayers change their preferred behavior in response to the form of a tax.For example, if an earned income tax rate is too high, people may choose to work less than if it is lower because they benefit less for their efforts. If mortgage interest can be used to reduce income taxes, some people will decide to purchase a house rather than rent. Economists agree that the amounts of efficiency losses are fairly easy to determine.

On the other hand, people seldom agree on what constitutes a fair distribution of the tax burden. At every step, the concepts are more complex. The first step is to determine the “tax incidence” – the person who bears the tax burden. This may not be the person who sends the money to the government, because sometimes a seller can pass the tax on to the consumer by increasing the price. For example, if the tax on gasoline increases, the driver will - at least in the short run - absorb the cost because he has less ability to adjust his demand than the station owner does to adjust supply. An example directly related to this case would be the owner of a rental property perhaps passing on increases in real estate taxes to renters. Thus, tax incidence is determined by “relative elasticities” of demand and supply. The less elastic of the two (the one less willing and able to make adjustments) will bear the larger portion of the tax burden.

Still, after the tax incidence is determined, complications remain. The first is that efficiency and fairness often conflict; the second that there are secondary goals of tax policy; and the third that there is no agreement among different groups about what is a fair distribution of the tax burden.

Efficiency And Fairness In Conflict

The most efficient tax is one that will not change behavior. So assume we base the tax on something that a person **cannot** change. It will automatically be completely efficient. As an example, let’s say that the United States required every person over the age of six months to pay a tax of $100. It would be efficient because you can’t change your age (and few would emigrate to avoid a tax this size). But many would feel it is very unfair to ask a young child with no income to pay a tax.

Secondary Goals Of Tax Policy

Tax policy also has secondary goals. Governments need to collect enough taxes to provide services in good times and bad, and to spread the tax burden fairly among people. Government officials generally accept the following as secondary goals:

- **Adequacy**: An adequate tax system raises enough funds to sustain public services. It tends to grow at a predictable rate. Ideally, it would grow faster than the economy during good times, and fall slower in bad times to provide continuity of services and avoid large deficits.
- **Simplicity**: A simple tax system makes it easier for people to understand and comply, and it is easier for administrators. It avoids loopholes that benefit only a few.
- **Exportability**: Tax systems should make those who live elsewhere but enjoy benefits (such as students attending local universities, tourists, and those who work in a city but live in the suburbs) pay their share.
- **Balance**: Tax systems need to have an appropriate mix of tax types. Such a balance both helps to make sure everyone pays a share and fiscal problems are avoided. Too heavy a reliance on one particular type of tax could lead to problems if economic conditions negatively affect that particular tax type.

Perspectives On Tax Fairness

Fairness is the most controversial of the issues confronted by a government in setting tax policy. There is little agreement among different groups about what is fair.

Economists advocate two primary precepts of fairness: horizontal and vertical equity.

Horizontal equity states that similarly situated taxpayers should pay similar amounts of taxes. For example, if you and I are next door neighbors with houses that are essentially the same, my property taxes and yours should be about the same. Or if you have income from wages and I have about the same amount of income from investments, we should still pay about the same amount in taxes.

Vertical equity addresses taxes across income and wealth spectrums. It deals with issues related to ability to pay. Three important terms associated with vertical equity are “progressive” (higher portions are paid by those with higher incomes), “flat” or “proportional” (everyone pays the same portion), and “regressive” (higher portions are paid by those with lower incomes). Some people think flat taxes are fairest, while others prefer progressive taxes. Almost everyone agrees that regressive taxes are the least fair.

Some economists add a third fairness concept, “matching” taxes with benefits. Matching is based on tax incidence. Those who favor matching regard a tax that benefits the people who ultimately bear the burden as fair, and tax subsidies to be unfair. For example, consider a tax on gasoline. Using the proceeds to help pay for highways would be fair because drivers pay the tax and use the highway. Using them to pay for public transportation would be unfair because the tax would be paid by those who drive, but would benefit those who do not. Real estate taxes on owner-occupied housing is sometimes regarded as a “perfect benefit” tax because the taxes support public schools, and areas with good public schools tend to have high housing prices.

Accountants took a broader perspective on this issue, adding several additional concepts of tax fairness. Not surprisingly, given their heavy day to day involvement with tax preparation and failures of the tax system, these items focused on practical and administrative issues. A 2007 position paper by the AICPA listed the following issues:

- **Exchange equity**: Over the long run, taxpayers should receive appropriate value for the taxes they pay. Exchange equity seems somewhat related to matching. Matching, however, tends to be applied tax by tax and considered over the short term. Exchange equity is more systemic in its focus, and explicitly long term. As a result, it is difficult to measure.
- **Process equity**: Taxpayers should have a voice in the tax system, be given due process, and be treated with respect by tax administrators.
- **Time-related equity:** Taxes should not be unduly distorted when income and wealth levels fluctuate over time.
- **Inter-group equity**: No group of taxpayers should be favored to the detriment of others.
- **Compliance equity**: All taxpayers should pay what they owe on a timely basis.

Analyzing Fairness

One additional area of agreement among these groups is that fairness is best evaluated in light of the secondary goal of balance. Since a government needs a blend of taxes in order to moderate the negative effects of economic downturns and corruption (much as an investor needs a portfolio of stocks which are not closely correlated), fairness should be considered on a system-wide basis, rather than one tax at a time.

ALTERNATIVES

The school board could decide either to accept or to decline the gambling revenues. If they accepted, they would need to reduce property taxes on owner-occupied housing and institute at least a minimal increase in the personal income tax. They would be limited in the amount of annual increases unless taxpayers voted to accept larger ones. If they declined, they would remain under the old system.

A decision to accept would be binding for at least four years. A decision to decline would be permanent.

CONCLUSION

As a local business owner, Dan knew that he understood finance and budgeting better than most other board members. The Board would depend on him for guidance during its analysis and decision. As chair, he would be responsible for making sure the discussion covered all the relevant considerations. The decision would have long term effects on the Sandy Springs school system. The responsibility felt heavy on his shoulders.

CASE QUESTIONS

1. Though the overall level of school funding theoretically would not change, the allocations to specific school districts would. Thus, there would be “winners” (those whose total funds increase) and “losers” (whose total funds decrease) among both the residents and school districts. Which demographic groups and types of school districts would be winners, and which would be losers, if the new funding were accepted? Explain your reasoning.

2. Estimates of revenues from new legislation are difficult to calculate, and often inaccurate. For example, the cost of Medicare has been consistently underestimated, and when New Jersey made casino gambling legal in the 1970’s, actual revenues far exceeded estimates. Using reasonable and explicitly stated assumptions, estimate the amount of gambling revenues Pennsylvania was losing to other states. Then estimate the amount of gambling revenues that Pennsylvania would collect, and the amount that would be available for distribution to schools. Compare your estimate to the $1 billion estimate provided by legislators. What do you find?

3. The state estimated that Sandy Springs would receive about 0.72 percent of the total distributions to schools. Based upon the estimates you made above, how much would be available to reduce real estate taxes in Sandy Springs? How much would be available if the state estimate of $1 billion was correct?

CASE QUESTIONS

4. Find the amount of the real estate tax reduction per owner-occupied house in Sandy Springs based on your estimate and the state estimate.

5. Assume that local income tax rate increased 0.5 percent. Find the change in total taxes for the median income homeowner. Do the same exercise assuming 0.1 percent and a 1.0 percent rate increase.

6. Find the income tax rate increase at which the median income household in Sandy Springs would have the same total tax burden under either system for homeowners.

7. Assume that local income tax rate increased 0.5 percent. Find the income level at which there would be no change in total taxes paid by a homeowner. Do the same exercise assuming 0.1 percent and a 1.0 percent tax rate increase.

8. Assume that gambling losses are a form of "taxation" when used to fund public obligations. Decide whether each of the taxes below was flat (also called proportional), progressive, or regressive. If a tax is difficult to categorize, explain the reasons.

   - Real estate taxes
   - Occupational privilege tax
   - Income taxes
   - Occupational assessment tax
   - Gambling "tax"
   - Sales tax

9. Assume that the school board accepted the gambling revenues and moved to the new tax structure. Did the ***efficiency*** of the overall tax system increase, decrease, or remain about the same? Explain your answer.

10. Assume that the school board accepted the gambling revenues and moved to the new tax structure. Did the change improve or impede the ability of the Sandy Springs school board to meet its ***secondary goals***, or did it remain about the same? Explain your answer.

11. Assume that the school accepted the gambling revenues and moved to the new tax structure. Did the ***fairness*** of the overall tax system increase, decrease, or remain about the same? Explain your answer.

12. Based upon the answers to the questions above, do you believe the Sandy Springs school board should have accepted the gambling revenues? Why or why not?

13. Do you think that the local residents supported accepting the gambling revenues? Why or why not?

14. Assume that very few schools accepted the gambling funds by the deadline. How would you suggest that the governor and/or legislature respond? Why?

15. Why do you think that Governor Rendell included a requirement that localities which accept the gambling funds increase their local income taxes, or implement a minimum income tax rate if they currently had none?

16. Assume that several years later the economy entered a severe recession. Housing values dropped substantially. The unemployment rate increased to the highest point in over thirty years. Gambling revenue fell for the first time ever, down more than 8 percent. Suggest ways that the state could adjust its budget to these circumstances. Why have you made these choices?

17.

TEACHING NOTES

This case is useful in the following courses:

- An introductory tax course - one which deals with the way taxes work, and not with details about personal income tax law.
- A public policy or tax policy course
- An upper-level managerial accounting policy course

We have used this case in classes on four occasions. We piloted the case in a freshmen level class in order to gauge interest and locate areas of ambiguity. This is a large required course that serves as an introduction to the business environment and the case method. The class meets twice a week in its full complement of about 150, and once weekly in smaller groups of about 15. The students reported that the case was moderately interesting [9]. Several places where language was unclear were reported.

The amended case has been used on three occasions. First, it was a discussion case in an advanced managerial accounting class of twenty-two students. Students in this class were all accounting majors who had a great deal of experience with the case method. As might be expected, they appreciated the case more and the discussion was lively. Finally, the case was used as an examination case in an online graduate level managerial accounting class of twenty-five. Students were enrolled in either an MBA program or a graduate program in accounting. Students were given three cases, and chose two to prepare. Eighteen students chose this as one of their two cases. Grades were good.

We also used the case, with much less success, in an open house for about thirty-five prospective students who were high school seniors. At this open house we always have classroom simulations. Our goal is to emphasize the interactive nature of classes on our small liberal arts campus. We had 45 minutes for the case discussion. We allowed students to work in groups of five for twenty minutes, circulating to answer their questions. Then we led a discussion focusing on two topics, the classification of taxes into the various types; and the advantages, disadvantages, fairness and ethics of using gambling as a source of revenue to support public education. Based on this experience, we believe the case is too advanced for such a setting. Students had little interest in the various types of taxes. In addition, they did not discern the difference we were trying to illustrate between being legal and being fair or ethical. So, as far as they were concerned, since gambling is a “choice” and taxes are not, so long as gambling is legal it is absolutely preferable to other taxing mechanisms. When we introduced the notion that gamblers are likely to be poorer and/or more elderly than the general population and that gambling can be addictive, they did not see those ideas as relevant. In their eyes legal and ethical were essentially synonymous. It appeared to us that the thought processes of juniors and seniors in high school - at least those who contemplate a career in business - are too simple to use this case effectively.

The Analytical, Conceptual, and Presentation Dimensions Of The Case

The case is rated on a three point scale, with 1 being simple and three being advanced.

Analytical Dimension

Level 2 - the participant must assess a situation and make a decision which has already been defined.

The student should gain both accounting and tax policy knowledge and decision making skills:

- An understanding of flat, regressive, and progressive taxation mechanisms
- An understanding of tax policy issues
- A understanding of how averages and medians can be misleading
- A willingness to develop assumptions
- An ability to recognize when assumptions are reasonable or unrealistic
- An improved ability to make decisions with limited information
- Increased comfort with presenting and explaining such decisions

Conceptual Dimension

Level 3 - the participant must apply a variety of theories and concepts.

The student should improve his understanding of the following concepts:

- Flat (proportional), progressive, and regressive taxes
- Concepts of tax fairness and lack of agreement among parties as to what is a fair tax
- The importance of non-monetary decision criteria

Presentation Dimension

Level 2 - the case contains extraneous or missing material, and has charts and tables in addition to prose. This case is presented almost entirely in prose. Language is rather simple, technical terms are defined, and there are no elaborate exhibits. Its length, the amount of detail, and the need to make and use assumptions, raises this case to level two.

Answers To Questions:

1. Clear winners (real estate taxes fall; other costs don't increase as much):

    - Elderly homeowners
    - Unemployed homeowners
    - Low income homeowners
    - Residents who work in New York (no PA income taxes)
    - School districts in urban areas with relatively little wealth
    - School districts that border NY or on major routes to New York
    - Note that all of the individuals can negate their gains if they gamble more than previously.
    - Note that we are defining gains and losses monetarily. Perhaps utility will increase or decrease due to gambling being readily available, but we have no means to measure that.

    Clear losers (increased income taxes or gambling losses, not offset by savings on real estate taxes):

    - Working renters
    - Most gamblers
    - Those with high incomes

2. Assuming that the average loss per trip and the number of trips is accurate, the first pass at an estimate of the amount Pennsylvania is losing to other states is $720 million. This would result in $350 million for public schools which could be used to offset real estate taxes.

    - **First step**: 9.6 million multiplied by $75= $720,000,000 for the amount Pennsylvania currently loses to other states.
    - **Second step**: $720 million * 35% = $252 million for public schools ($350 million if the $1 billion estimate is achieved)

    Beyond that point, students would need to make estimates about the portion of the $720 million that could be kept in Pennsylvania and about how many of the six million other Pennsylvanians might be enticed to gamble if they didn't need to leave the state to do it. The first of these is almost certainly less than 100 percent because Las Vegas and Atlantic City offer a vacation experience along with gambling. These estimates are interesting to discuss because they will likely vary quite substantially.

It's especially important to note that either the number of trips or the average loss per trip will need to increase substantially--in effect more than a third--to reach the $1 billion mark. Properly managed, this can lead to an interesting discussion of the ways budgets are developed, whether the state estimate is overstated, and the reasons budgets are sometimes not prepared with a goal of being maximally accurate.

Note: In fact, slots revenues quickly surpassed expectations.

The following answers are based on the $720 million estimate shown above, and the $1 Billion estimate. Based on the assumptions they make, students' estimates will vary [10].

3. .0072*(35% of 720 million or $252 million) = $1,814,400
   and .0072 * $350 million = $2,520,000

4. 1,814,400/15000 = $120.96 and $2,520,000/15000 = $168

5. (51,000 * .005) - 121 = 255 - 121 = $134 increase in taxes

   Answer at 0.1% is 51 – 121 = $70 decrease in taxes

   And at 1.0% is 510 – 121 = $389 increase in taxes

6. Set up equations 51000 * X - 121 = 0 and 51000 * X – 168 = 0

   Answers are approximately 24 percent and 33 percent

7. Set up equations .005X = 121 and .005X = 168 answers are $24,200 and $33,600
   Answers at 0.1% are $121,000 and $168,000
   Answers at 1.0% are $12,100 and $16,800

8. Categories as follows:

   - Real estate taxes are hard to categorize because of assessment problems and the fact that real estate value does not correlate perfectly with income. For example, consider the effects on renters and the elderly.

   - Renters tend to have lower income than homeowners. Rent is likely to increase as real estate taxes increase, but, unlike real estate taxes, is not deductible. Renters will be doubly negatively impacted by an increase in income taxes possibly accompanied by an increase in their rent. Thus, this is a regressive effect.

   - But then consider elderly homeowners, who will see property taxes decrease with no increase in income taxes since Pennsylvania does not tax retirement income. Higher income people will save more, the effect looking progressive.

- Because of these countervailing forces, and the fact that the elderly gamble more than others, the overall effect is not predictable.

- Occupational privilege taxes are regressive. Low income and high income taxpayers pay the same amount. Very low income (unemployed or retired) pay no tax, so their rate is zero—an exception.

- State and local income taxes in Pennsylvania are flat or proportional (Federal income taxes are progressive).

- Occupational assessment taxes are regressive, since those with high incomes pay the same amount as low incomes. In fact, occupational assessment taxes are regarded as so unfair that most municipalities have discontinued them.

- Gambling “taxes” are hard to categorize unless you know who gambles most. Research has found that most gambling is done by the poor and the elderly, both relatively low income groups; so gambling tends to act as a regressive tax if the measure one uses of ability to pay is earned income (accountants tend to favor this measure). If one uses wealth or comprehensive income as the measure of ability to pay (as economists are more likely to do), gambling remains difficult to categorize because the elderly generally have low earned incomes relative to others, but their wealth tends to be higher.

- Sales tax is regressive because sales tax is paid only on money spent, and those with high incomes save a higher portion of their income.

9. If the school accepts the gambling revenues, the efficiency of the overall tax system increases. That is because people who wish to gamble will now be able to do so more easily and if they desire more frequently. Incidental costs of gambling such as travel will be reduced. Those who gambled less than they desired due to these costs will be able to increase gambling to the desired level. On the other hand, those who choose not to gamble can remain abstinent. The overall efficiency of the system increases because most people will act in a way more consistent with their true desires. Over the long-run some renters may choose to become homeowners, but probably not because of the proposal. Home ownership in the U. S. is already highly popular and is already strongly incentivized.

10. There are four widely accepted secondary goals of tax policy. Details of the individual effects are shown in the following chart.

Goal	Effect of the proposal	Explanation
Adequacy	Uncertain but likely to increase	This will depend upon whether estimates of the amount of gambling are accurate. If accurate, adequacy will be about the same. If estimates are high, adequacy will fall. If estimates are low (which had proven true for previous estimates by other states, and was ultimately the case in PA at least in the short run) then adequacy will increase.
Simplicity	Decreased	The new system will require that residential property owners prove this is a primary residence. This documentation will need to be reviewed and accepted by administrators. Because U. S. residents move frequently, records will need frequent updating. The system increases loopholes as it benefits only a subset of residents.
Exportability	Uncertain	If a gambling establishment locates in Sandy Springs, exportability will increase. Otherwise, it will be unchanged.
Balance	Increased	Balance is improved because the additional tax source, in effect, broadens the "portfolio". The tax adds stability to the system because gambling has proven reasonably recession proof in the past.

Thus, the overall effect of the proposal on the secondary goals of tax policy is unclear. However, unless the weight put on simplicity is high, the proposal is likely preferable to the existing tax structure.

11. The fairness issue is complex, and different groups will tend to evaluate fairness differently. Perceptions of fairness are affected by professional training, personal and religious beliefs, and individuals' life experiences. As is shown below, only the first of these is easily evaluated.

Fairness Concept	Proponent(s) E – Economists A – AICPA B - Both	Effect of the Proposal on the Concept	Explanation
Horizontal Equity	B	Decreased	Imagine two houses side by side. The first is occupied by a renter. The second is owner-occupied. Under the proposal, only the taxes on the second house will decrease.
Vertical Equity	B	Likely Decreased	Imagine the same two houses. Unless the renter has more wealth (which is unlikely) vertical equity will decrease.
Matching	B	Decreased	A tax collected from gamblers is used to subsidize the cost of educating other people's children.
Exchange Equity	A	Cannot judge	We would need to know long-term economic trends among different subsets of taxpayers.
Process Equity	A	Increase	Process equity increases two ways. The proposal increases taxpayers' voice in budgetary increments and, those who pay the gambling tax have chosen to gamble.
Time-Related Equity	A	Cannot judge	Much like exchange equity, this would require knowledge of the future.
Inter-Group Equity	A	Decreased	Residents of owner-occupied housing are favored to the detriment of others.
Compliance Equity	A	Increased	Gambling establishments that pay the tax are closely regulated. Gamblers who win have the tax withheld from large payouts. Real estate taxes are reduced for a subset, making compliance easier since taxes are smaller.

Thus, economists will probably be convinced that tax fairness has decreased, while others may not.

Additional comments that tend to arise:

- Students often also raise the issue of gambling as addictive behavior, and whether it is ethical to use funds from an addictive activity to benefit an unrelated group. Economists may consider gambling rational behavior but that does little to inform the fairness issue.

- The elderly may outlive their savings and then need government support.

The idea here is not to come to a consensus -- which is very unlikely. Instead the goal is to understand three important ideas: the variety of perspectives about fairness in taxation; the need to evaluate a system of taxes in an economy when one considers fairness; and that a blend of several taxes works best because governmental units have other goals that are often in conflict with fairness.

12. Business students generally say "yes" without a lot of thought. Those with more education, or more experience, seem to find gambling as a revenue source less problematic than those with less education or experience. For the reasons discussed above related to questions nine through eleven, we wanted to make this decision more thoughtful and less taken for granted by business students. In addition, we ask this question because, in fact, few school boards did accept the gambling funds. The students are quite surprised by that, and asking this question gives us a chance to talk about the reasons they chose not to. The most cited reason was the lack of flexibility in case of emergencies or economic downturns.

13. Students generally expect that residents will support gambling as a source of public school support, and that was the case. However, as noted above, school boards generally chose not to accept the funds (at least until additional pressure was applied). A poll by Quinnipiac University following the school board decisions found that nearly two-thirds of residents wanted to put the plan to a public vote so they could overrule the school boards.

14. Possibilities are to give the money only to the districts that asked for it; to force them to accept it; to give up on the whole idea; or to rework the legislation in light of the outcome. In reality, there were suggestions that the legislature force the property tax on the districts, though that did not ultimately happen. In the end, the deadline was extended. Most districts did accept the money, despite initial reluctance, due to political pressure. In many cases, school board members who voted not to accept the revenue were not reelected.

15. Liberals tend to believe that income taxes are a fair means of supporting public services because they are tied to ability to pay. Once instituted, income taxes tend to grow with the economy and can be manipulated without public approval. Another advantage to politicians is that income taxes enter the general fund rather than being earmarked for education, so they increase the government's budgeting and spending latitude.

16. When budgetary problems are short-term and modest, modest increases in taxes may be the answer. However, in a scenario such as the one in the question, the answer is not so clear. Raising taxes will be ineffective at best and more likely counterproductive. When unemployment is high, there is less income to tax; reduced spending results in reduced sales taxes; increasing other types of taxes will tend to damp the general economic recovery, stall a housing recovery, and keep more people out of work longer. This is a question based on reality. In 2008 a severe recession had all these effects. Even with funds from the Federal stimulus, Pennsylvania "tightened its belt". A large number of state employees were laid off or furloughed and infrastructure projects were put on hold. Food banks received reduced allocations. The City of Harrisburg considered bankruptcy. This question provides a chance to introduce or reinforce the reasons that states may find it necessary to reduce social services even though more people are in need.

REFERENCES

AICPA. 2007. "*Tax policy concept statement: Guiding principles for tax equity and fairness.*" 2007. New York: AICPA.

Businessweek online archives. 1999. "*Brotherly love, but it will cost you.*" <http://www.businessweek.com/archives/1999/b3638078.arc.htm>

Duff, D.G. 2008. "*The social contract revisited: Tax fairness and the tax mix*," The Center for Law, Justice and Society, in affiliation with The Centre for Socio-Legal Studies, University of Oxford. <http://www.fljs.org>

Durantine, P. 2005. "*Schools slow to grab PA gambling money*," Stateline.org, May 12. <http://www.stateline.org/live/ViewPage.action?siteNodeId=136&languageId=1>

Gougherty, C. 2009. "*States end up losers in gambling pullback*," The Wall Street Journal, August 10.<http://online.wsj.com/article/SB124985382195717807.html>

IssuesPA. 2003. "*Gambling toward Tax reform? Part IV—Gambling in other states*," July. <http://www.issuespa.org/articles/4292 >

IssuesPA. 2003. "*Gambling toward Tax reform? In the mix*," July. <http://www.issuespa.org/articles/4293>

IssuesPA. 2003. 2003. "Gambling *toward Tax reform? Putting a billion dollars in perspective*," July. <http://www.issuespa.org/articles/4294>

IssuesPA. 2003. "*Gambling toward Tax reform? In the game to win*," July. <http://www.issuespa.org/articles/4295>

Leenders M., Mauffette-Leenders, L., and Erskine, J. Writing Cases, fourth edition, London, Ontario: Senton Printing, 2001.

Merritt, A. 2009. *Pa. gambling revenue brings $770M in '09 tax relief*," Philadelphia Business Journal, April 13. <http://philadelphia.bizjournals.com/philadelphia/stories/2009/04/13/daily5.html>

Miller, A. 2003. "*Rendell announces budget cuts*," The Daily Pennsylvanian, March 5. <http://media.www.dailypennsylvaniai.com/media/storage/paper882/news/2003/03/05>

Pecquet, G. M., R. M. Coats and S. T. Yen. 1996. "*Special versus general elections and the composition of voters: Evidence from Louisiana school tax referenda*," Public Finance Quarterly, 24:131-47.

Rogol, N. 2009. "*Pennsylvania's gambling addiction*," Commonwealth Foundation for Public Policy Alternatives, July 9. <http://www.commonwealthfoundation,org/research/id.768,css.print/research_detail.asp>

Roup, T. 2005. January 28. Personal interview and internal congressional documents and spreadsheets provided.

Pennsylvania Gaming Control Board. <http://www.pgcb.state.pa.us>

Pennsylvania Code, 72 PA C. S. §7303 Gambling and lottery winnings

Seidman, L. Public Finance, Irwin: McGraw-Hill, 2009.

ENDNOTES

1. This case is based on actual events. The name of the town has been changed as has personal information about the Chair of the school board. The town is located in northeast Pennsylvania within commuting distance of upstate New York. It is not Selinsgrove, Pennsylvania. Information in the case is based upon Pennsylvania state estimates provided by Mr. Roup and used by senate members, as well as publicly available documents.

2. Only at the Federal level is a budget deficit officially permitted. However, this does not mean that states absolutely balance their budgets each year. Many states have balanced operating budgets but permit some deficits in capital budgets because capital purchases take place sporadically rather than annually. Also, states differ in the means by which they require a balanced budget. Constitutional restrictions are more binding than those imposed by legislation.

3. If school boards in other states have the ability to control the timing of voting on tax increases, they gain much the same leverage as those in Pennsylvania.

4. Despite the perception that this would result in an increase in absolute budget amounts earmarked for education, some skepticism is warranted. Past experience and research have shown that most often these earmarks were largely offset by reductions in general fund financing.

5. Pennsylvania had reciprocity agreements with most bordering states, but not with New York. Under reciprocity agreements, people who work out of state pay income taxes to the state of residence. Because there was no agreement with New York, these people paid income taxes to New York.

6. Annual budget increases generally would be limited to the change in an index described in the legislation. The index, which resembled the CPI, had increased about 3.2 percent over recent years. Larger budget increases would require a public vote of approval. Exceptions to allow for larger increases in the case of several emergencies were defined in the legislation.

7. This con may not be of much concern to some school districts. Gambling revenues and gambling districts are not linked; gambling locations and school finances are independent. In the case of Sandy Springs, slot machines are already approved.

8. Efficiency losses are also called deadweight losses, welfare losses, welfare costs, or excess burdens. I use the term efficiency loss because it conveys the least negative bias.

9. The case was rated six on a scale from one to ten, with ten being the most interesting. Freshmen apparently don't find cases to be very interesting. Few cases had a rating above seven.

10. The $720 million estimate assumes that there will be no change in the amount of gambling by Pennsylvania residents, and they will gamble in Pennsylvania. Students that assume that more people will gamble, or people will gamble more if they don't have to leave home, will have larger estimates. Those who assume that residents will continue to go elsewhere to gamble may have smaller estimates.