Utah FOUNDATION

Special Report

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FUELING OUR FUTURE:
OPTIONS FOR FINANCING MAJOR TRANSPORTATION PROJECTS

HIGHLIGHTS

- Utah, especially along the Wasatch Front, is facing a transportation crisis. Among the components of the crisis are a growing population, constrained geography, limited funding, and highway capacity moving toward increased congestion.
- Transportation plans show a need for $30 billion in road and transit improvements through the year 2030. Some of this need will be satisfied by the current tax system, but as much as $23 billion is estimated to remain unfunded under current funding practices.
- Utah's current reliance on gasoline taxes to fund transportation is inadequate. Inflation continually erodes the value of a fixed price-per-gallon excise tax, and over time, increased vehicle fuel economy means the tax provides a smaller and smaller amount of revenue per mile traveled on the highways.
- New revenues for transportation should adhere to sound principles of taxation: providing adequate, stable funding; interfering as little as possible with economic decisions of taxpayers; treating similar taxpayers similarly; being based on the ability to pay; being easy and economical to administer; and providing for transparent accountability for funds.
- Various revenues sources could be used for road and transit improvements, including expanding current gas taxes or sales taxes, adjusting the gas tax for inflation, applying the sales tax to motor fuels, levying a property tax, increasing vehicle registration fees or drivers license fees, creating toll roads, replacing the fuel tax with a vehicle miles traveled tax, and others.
- Short and long-term revenue estimates, along with an estimate of debt that could be supported by these revenues, are included in this report.

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For more than a year, a special legislative task force has discussed transportation planning and finance issues. The task force has received a great deal of information from transportation experts, advocates, and citizens; following this period of input, the task force will make recommendations to the Legislature for improving the planning and funding of highway and transit systems in Utah.

As will be outlined in the following pages, Utah's transportation needs are significant. The best estimates show a need for $30 billion in road and transit improvements through the year 2030. Some of this need will be satisfied by the current tax system, but as much as $23 billion is estimated to remain unfunded under current funding practices. Generating sufficient funding will require action. One fact is certain – addressing highway and transit needs cannot be met through spending cuts or rearranging current resources; some additional revenues will be needed.

The purpose of this study is to provide factual information on potential revenue sources that may be considered as policymakers formulate a funding package to meet Utah's transportation needs. Many of the revenues described in this report are currently utilized in other states. Some are adaptations of current revenues collected by Utah state and local governments. Others are completely new ideas. It is not the purpose of Utah Foundation to advocate for any specific solution to this funding dilemma; the information contained in this report is designed to provide a baseline of understanding about potential funding solutions so that policymakers, advocates, and citizens can make informed decisions that will produce the best possible solution to Utah's critical transportation problems.

INTRODUCTION TO TRANSIT AND HIGHWAY ALONG THE WASATCH FRONT

Although state legislators, county and city governments, state agencies, local planning organizations, and environmental groups may not agree how transportation in Utah should be organized and improved, all can agree on one thing: Utah, especially along the Wasatch Front, is facing a transportation crisis. Among the components of the crisis are a growing population, constrained geography, limited funding, and highway capacity moving toward increased congestion.

The Wasatch Front is the long, narrow metropolitan region of Utah extending from Brigham

City in the north to Santaquin in the south, almost the entire length of the Wasatch Mountain Range, a distance of approximately 150 miles. The Wasatch Mountains form the eastern boundary of the region, and the west is bounded by either mountain ranges or lakes. The Wasatch Front does not exceed 15 miles at its widest points, and is limited to a few miles at several points. The geography of the Wasatch Front constrains future growth patterns, and restricts the options for alternative transportation flows.

Nevertheless, Utah is one of the most urban states in the country. This is not a new trend. In 1990, 87 percent of Utah's population lived in urban areas. In 2000, 88 percent of Utah's 2.2 million residents lived in urban areas, and these urban areas are primarily along the Wasatch Front. As a result of Utah's urban population and the geographic distribution, the Wasatch Front has a north-south transportation corridor. In addition to the concentrated population along the Wasatch Front, Utah also serves as a major transportation corridor for motor freight. Utah has four major interstate highways, I-15, I-84, I-80, and I-70. The location of Utah's highways, right in the middle of the interstate highway network, increases their importance to the nation's transportation system.[1]

Clearly the interstate system is important in Utah, but it is only one piece of the state's transportation network. Utah has seen dramatic increase in the use of its road systems. According to the Utah Department of Transportation, in 2002, there were 24.4 billion vehicle miles traveled (VMT) in Utah. Thirty-six percent of those miles were traveled on interstate highways (21 percent on urban interstates and 15 percent on rural interstates). Urban non-interstate travel accounted for 41 percent of miles traveled. Rural non-interstate travel accounted for 23 percent of miles traveled. Notably, vehicle miles traveled has dramatically outpaced increases in lane miles and population.[2]

GROWTH, CONGESTION & TRAVEL TIME

Population growth in Utah has been significant since 1990. The population in the state grew 29.6 percent between 1990 and 2000, more than twice as fast as the population in the nation (13.1 percent). The increase was most drastic in Utah County, with a population growth of 39.8 percent. Davis County grew by 27.2 percent, while Salt Lake and Weber counties grew by nearly 24 percent.

Growth has not slowed. The statewide population of Utah grew 6.2 percent between 2000 and 2003. Much of this growth is focused along the Wasatch Front. Growth was, again, largest in Utah County, an increase of nearly 39,000 new residents, or 10.5 percent. Salt Lake County was next with an increase of just over 37,000, or 4.2 percent. Davis County added over 16,000 residents, or 6.8 percent. This kind of dramatic growth is projected to continue over the next several decades. By 2030 it is estimated that the state will add another 1.5 million people, an increase of 68.9 percent. Along the Wasatch Front, about 1.1 million people, an increase of 66.1 percent, will be added from Weber County in the North to Utah County in the South.[3] Recent research suggests that "the primary reason for the Greater Wasatch Area's rapid and stable population growth is the many large families in the state."[4] This natural increase will account for 80 percent of the growth over the next three decades; the remaining growth will come from outside the state.

Total VMT is projected to increase by 87 percent, a rate faster than population growth along the greater Wasatch Front**.** This occurs as residents continue to increase vehicle ownership, drive farther for work trips, and make more non-work trips. A changing age structure and increasing female participation in the labor force also impact this trend.

At current funding levels, the demand for highways and transit will soon exceed the state's ability to build and maintain new facilities. The delay per person in congested conditions will triple from 17 hours per year in 2000 to 47 hours by 2030 if current transportation funding is not increased. Even with the funding proposed by the Wasatch Front Regional Council and the Mountainland Association of Governments to implement their aggressive highway and mass transit development plans, the delay per person (extra driving time due to congestion) is projected to double to 33 hours per year by 2030.

To summarize, as a result of dramatic population growth, increased VMT, and limited expansion of highway capacity, state and local planning officials foresee significant increases in delay. For example, Salt Lake County is expected to add over 533 thousand new residents by 2030. Much of this growth will likely occur in the southwest portion of Salt Lake County. This added population, concentrated in southwest Salt Lake County, will significantly impact current highway usage, resulting in gridlock like conditions. Under current highway capacity, total vehicle delay will increase from 10,000 hours each day to nearly 140,000 hours in this area by 2030.[5] This pattern is also expected to be considerable in Utah County. Population in Utah County is expected to increase by 87 percent, adding over 321 thousand people by 2030. Vehicle hours or delay in northern Utah County is expected to grow from about 2,000 vehicle hours of delay to nearly 100,000 hours of delay. Because of the significant growth in Utah County, by 2007, the section of I-15 between Orem and the Salt Lake County line is expected to stall drivers during afternoon peak hours in very slow stop and go freeway traffic.[6]

TRANSIT RIDERSHIP

Along the greater Wasatch front public transit is provided by the Utah Transit Authority (UTA). Transit ridership has shown significant increases. Over the last ten years, ridership has increased by 9.3 million trips. In 2003, UTA reported 32.6 million trips. A significant portion of the increase is attributable to expanded rail service.[7] Rail service started in 1999 and accounted for 10.1 million trips in 2003. Bus trips have declined slightly over the ten year period, from 23.0 million in 1994 to 21.3 million in 2003.

Transportation planners estimate that there were approximately 110,000 daily transit riders in 2001. Planners also estimate that daily riders may increase to 280,000, resulting in annual ridership of approximately 81 million by 2030. Notably, planners argue that

the growth in transit ridership is connected to improvements in the transit system.[8]

Transportation Planning in Utah

MPOs - Local Transportation Planning Agencies

Federal highway and transit statutes require, as a condition for spending federal highway or transit funds in urbanized areas, the designation of Metropolitan Planning Organizations (MPOs) to be responsible for planning, programming, and coordination of federal highway and transit investments. The authority of MPOs were strengthened in 1991 with the passage of the Intermodal Surface Transportation Efficiency Act (ISTEA). Under the Transportation Equity Act for the 21st Century (TEA-21), the federal statute overseeing federal transportation policy through 2003, MPOs continue to play the dominant role for transportation planning.

Along the greater Wasatch front there are two MPOs. The Wasatch Front Regional Council (WFRC) currently includes Salt Lake, Davis, and Weber counties. Mountainland Association of Governments (MAG) provides planning for Utah County.

Local Plans Feed to State Plan

ISTEA and subsequent transportation bills require that a portion of Surface Transportation Program funds be made available for expenditure in metropolitan areas with populations over 200,000 people. MPOs select the highway and transit projects that most critically need improvement and investment. This is done through a long range transportation plan. The plan is more than a wish list of transportation projects. The proposed projects must meet air quality standards and have designated funding options among other requirements. MPOs include both highway and transit programs in their long range plans. MPOs work with the Utah Department of Transportation (UDOT), UTA, and the represented cities and counties in developing their plans.

Federal Funding and Local Plans

TEA-21, which was enacted in 1998, authorized the federal surface transportation programs for highways, highway safety, and transit for the six-year period 1998-2003. TEA-21, which expired on September 30, 2003, increased federal highway funding in Utah by approximately 50 percent. Congress is currently working on a six-year renewal of the legislation.[9] The overall federal funding level for the new six-year period is estimated around $300 billion nationwide.

The federal government has several programs to fund highways and roads. These include the federal aid interstate maintenance program, national highway system, surface transportation program, congestion management/air quality funds, bridge replacement program and high priority projects.

Federal funding for transit comes from Section 5307 Urbanized Area Formula Program, Section 5309 Capital program, and Section 5310 Elderly and Persons with Disabilities Program. The federal government also provides community development block grants and economic development grants that may be used for transportation purposes.

Canamex Corridor. In 1995, Congress designated as a high-priority transportation corridor, the north-south highway corridor that extends from Canada to Mexico.[10] In Utah, the Canamex corridor follows I-15. Since the passage of the North American Free Trade Agreement (NAFTA), policymakers have tried to identify opportunities for innovation along the corridor. The proposals seek to develop safe and efficient multi-modal transportation facilities to enhance global competitiveness and to improve the quality of life.

One major initiative recommends the improvement of highways along the corridor to meet growing traffic needs by maintaining and upgrading existing facilities. Specifically, the Canamex plan proposes widening I-15 in Bountiful to 12 lanes and widening I-15 north of Ogden to Brigham City. Additionally, Legacy Highway is advocated as part of the plan. Canamex projects should receive priority funding to support the federal objectives of the corridor.

WFRC and MAG Long Range Transportation Plans

WFRC and MAG have recently released long range transportation plans (LRTP) for the Wasatch Front. These plans cover the 2004-2030 timeframe, and projects from both plans need to be considered to understand the transportation needs of the Wasatch Front. Each plan divides projects into three phases.[11] The projects in each phase are determined based on need and the ability to fund the projects.

Proposed Projects

Highway. WFRC recommends 178 highway projects for the Wasatch Front within the next 27 years.[12] The MAG plan recommends 90 highway and road projects.[13] WFRC's recommendations include increased capacity within and between Salt Lake, Davis, and Weber counties. The WFRC LRTP added access to rapidly growing areas such as southwest Salt Lake, western Davis, and Weber Counties. Major projects include highway widening and interchange improvements on I-15 in Davis and Weber Counties, the Mountain View Corridor in Salt Lake County, and the expansion of east-west arterial routes in all three counties. WFRC highway improvements are estimated to have capital costs of $9.2 billion.

MAG's LRTP focuses on three issues: congestion and maintenance needs of I-15 countywide, severe congestion in the high growth area in northern Utah County, and the north-south transportation needs along the I-15 corridor through the Wasatch Front. A major set of projects includes widening I-15 and constructing and reconstructing 23 interchanges. The MAG highway and road projects are estimated to have capital costs of $4.3 billion.

Transit. Regarding public transportation, WFRC proposes 66 transit projects (MAG proposes eight) to add capacity and efficiency to UTA's existing transit services.[14] Transit projects include a regional commuter rail system linking Weber and Utah counties, light rail expansions, bus

rapid transit routes, and revised bus routes. These would be enhanced with intermodal centers, transit hubs, and park-and-ride lots to connect between transit services and other transportation modes.[15] The total estimated capital costs for the transit improvements included in the WFRC LRTP are $6.1 billion. For the MAG LRTP, total estimated capitol costs for transit improvement are $.5 billion.

Unfunded Projects. In addition to the projects WFRC and MAG propose funding in the LRTP, there are several projects that were outside of their proposed funding capacity. In the WFRC plan, these projects had an estimated cost of $2.5 billion, and in the MAG plan these cost $1.4 billion.

Highway & Transit Funding in Utah

In many ways, federal funding has been the key component of highway and transit funding strategies. However, under ISTEA and its successor TEA-21, local revenue generation has increased in importance. It is likely that this shift away from the federal government will continue. In Utah there are four key pieces to state and local highway and transit funding, beyond federal funding. These include: the state transportation fund, B&C road funds, Centennial Highway Fund, and transit funding. These revenues come from a range of state and local sources.

The first piece is the state transportation fund. The Transportation Fund is separated from the state general fund to provide a separate funding structure for highway funding. Under current state law, transportation funds "shall be used exclusively for highway purposes" (Utah Code 72-2-102). The primary revenue sources for the transportation fund include motor fuel (gasoline) and special fuel (diesel) excise taxes. In FY 2004, the transportation fund received $363 million in state generated revenue. This includes $242 million in motor fuel and $90.9 million in special fuel revenue. The remaining revenue comes from a variety of registration and other user fees. A portion of state highway user taxes and fees is allocated to other state agencies. These include the Utah Highway Patrol, the Department of Administrative Services, the Tax Commission, and The Department of Community and Economic Development.

In addition to funding state highway projects, the transportation fund also provides funding for local B&C roads. B&C roads are county and city roads not designated as state highways. In FY 2003 and 2004, the B&C road account in the transportation fund received appropriations of $114 and $115 million respectively. This revenue comes from 25 percent of the "total revenue deposited into the Transportation Fund during the fiscal year from state highway-user taxes and fees, minus those amounts appropriated or transferred from the Transportation Fund during the same fiscal year to the Department of Public Safety, the Tax Commission, the Division of Finance, the Utah Travel Council, and any other amounts appropriated or transferred for any other state agencies not a part of the department" (Utah Code 72-7-107). In 1998, the B & C fund formula was revised to allocate funds based on 50 percent population and 50 percent weighted mileage with hold harmless provisions. Mileage is weighted by 5-to-1 for paved road miles, 2-to-1 for gravel and 1-to-1 for dirt road miles (Utah Code 72-2-108). The money is then distributed to the counties and cities.

The Centennial Highway Fund was created to fund 11 years of highway projects throughout the state. Starting in FY 1997 and ending in FY 2007, the state designated 41 highway projects throughout the state, including I-15 reconstruction. The state established a special revenue fund to account for the $3.4 billion of highway expenditures over the eleven years. The CHF was initially created to fund highway projects that would not have been completed under existing funding constraints. The fuel tax was increased from 19 cents per gallon to 24.5 cents per gallon. The 5.5 cent increase was earmarked for CHF projects. Registration fees were also increased and dedicated for CHF projects. In establishing the CHF in 1996, the Legislature increased the amount of state general fund revenue going to UDOT. The CHF program initially assumed general fund revenues of up to $145 million per year. However, in recent years a decline in state revenues has decreased the general fund contributions to about $60 million for CHF projects, and increased the use of debt to fund these projects. Current estimates project that CHF debt payments will continue through 2017.

The highway funding discussed above has a state-wide focus. Transit funding in Utah, on the other hand, focuses on each transit district. This brief discussion focuses specifically on the Utah Transit Authority (UTA). UTA is the largest transit system in Utah, covering a six county service area along the Wasatch Front. Revenue for UTA comes from three primary sources: passenger revenue, sales taxes, and federal grants. Federal grants cover planning, preventative maintenance, and capital expenditures.

Sales tax revenues for transit are generated through a local option sales tax of ½ percent in Davis, and Weber counties. In Salt Lake County 7/16 of a percent is dedicated to UTA, and the remaining 1/16 percent is used for projects on the county's highways. The areas in Utah, Tooele, and Box Elder Counties that are part of the UTA system levy a sales tax of ¼ percent for transit purposes.[16] In FY 2003 the local option sales taxes for UTA generated nearly $103.9 million for transit uses.

The other major revenue source is fare revenue. UTA has a goal of recovering 20 percent of operating expenditures through passenger fares. In FY 2003, UTA collected $18.8 million in fares, recovering about 18 percent of operating related expenditures.

Funding Highway and Transit: Exploring Funding Options

Our research shows that transportation funding sources in other states are similar to those currently used in Utah. Many states face similar challenges in trying to identify sufficient revenue sources for highway and transit needs in light of increasing population and traffic. In this study, we have looked at transportation funding in other states and identified potential transportation revenue tools for Utah. We have determined whether such tools could be applied to Utah by exploring

a range of issues.

This section reviews several different possible revenue sources that could be used in Utah. For each revenue, the current use of the revenue in Utah and around the United States is discussed. Additionally, the principles of sound revenue policy are reviewed, and where possible, estimates of the revenue's potential are discussed.

Principles of Sound Revenue Policy

Over the years, economists and other public finance scholars have sought to describe principles of sound tax policy. Perhaps the earliest effort was by Adam Smith in the Wealth of Nations, originally published in 1776, in which he discusses the role of government in the economy and how to finance government. Later scholars building on this work have distilled the principles of sound tax policy to five key issues.

1. **Adequate Revenue**. A tax should be able to produce sufficient revenue to fund the governmental services demanded by citizens. This issue also encompasses the concept of stability. Stability implies that revenues will not vary dramatically from one year to the next. To achieve stability generally requires a mix of revenue sources, much as an investment portfolio balances risk over time.
2. **Economic Neutrality**. The tax should interfere as little as possible with market decisions. Taxpayers should not be encouraged or discouraged to engage in transactions simply because of positive or negative tax consequences. One way to promote neutrality is to have a sufficiently broad tax base that there are few exemptions and deductions. In essence, exemptions or deductions are designed to encourage or discourage specific behaviors, and the market is better at allocating resources than the tax code.
3. **Fairness and equity.** When assessing fairness and equity, public finance scholars generally agree that there are two components that should be evaluated: horizontal and vertical equity. Horizontal equity posits that similar taxpayers should be treated similarly. Vertical equity, on the other hand, is based on the ability to pay, which suggests that different taxpayers should be treated differently. This principal has a long history. Adam Smith, in his treatise Wealth of Nations, suggests that everyone "ought to contribute towards the support of the government, as nearly as possible, in proportion to their respective abilities" (p. 888). An important principal with wide-agreement is that a tax system should not be regressive, that is, lower income taxpayers should not pay a larger relative tax burden than wealthy taxpayers.
4. **Easy and Economical to Administer**. The tax system should minimize the cost of compliance and the cost of collection for the government. The more complicated the tax system, the higher the compliance costs.
5. **Accountability.** Accountability encompasses several issues. The government must administer and enforce the tax efficiently and fairly. Corruption in the administration or enforcement curtails accountability. The tax system should be open and transparent. Tax decisions should be made openly, and the tax laws should be explicit. Lastly, accountability requires that tax laws should be reviewed to determine if they are meeting the citizens' needs.

Sources:
David Brunori, State Tax Policy: A Political Perspective. Washington, D.C.: Urban Institute Press, 2001.

Adam Smith, An Inquiry Into the Nature and Causes of the Wealth of Nations. Edited by Edwin Cannan. With an introduction by Robert Reich. New York: The Modern Library, 2000.

Richard A. Musgrave and Peggy B. Musgrave, Public Finance in Theory and Practice, 3rd edition. New York: McGraw-Hill, 1980.

Excise Taxes

Excise taxes are the most significant source of current revenues for highway funding in Utah. Excise taxes are levied primarily on gasoline and diesel fuels. The following discusses several variations of excise taxes.

Gasoline Excise Tax. The motor fuel excise tax is a per gallon tax levied on gasoline. In Utah the current rate is 24.5 cents per gallon. Utah's current rate is near its lowest level, after controlling for inflation, in the tax's eighty-one year history (see Figure 1). Gasoline prices over time have been declining and consumption has been increasing which has increased fuel tax revenues over time (see Figure 2). However, because of inflation and increased fuel economy the revenue production of the tax has declined significantly over time (see Figure 3).

In Utah, the revenue from the fuel tax is used in the Transportation and General Funds. Under the Utah Constitution, this revenue is generally reserved for state and local roads.[17] Any change to the motor fuel excise tax, such as expanding the base or changing the rate, would require modification of the statute.[18]

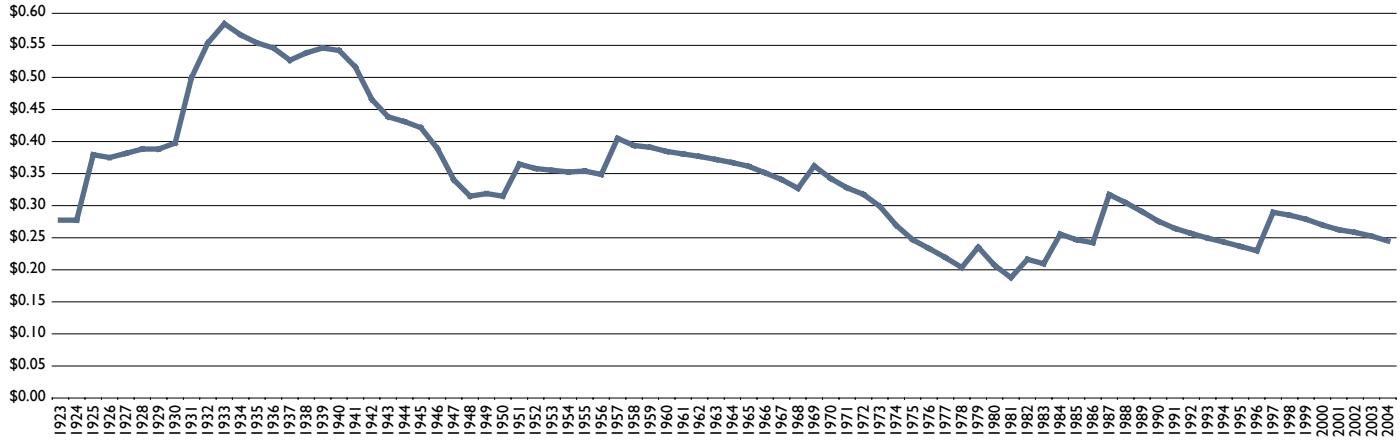
The gasoline excise tax is the most common revenue source for highway funding in the United States. The federal government currently levies an 18.4 cent per gallon gasoline tax in addition to any state or local rates. The federal gas tax supports highway construction and maintenance and mass transit. In FY 2002, this accounted for about $20.9 billion to be used by the federal government (FHA 2002).

The state-levied excise tax ranges from a low of 7.5 cents per gallon in Georgia to a high of 30 cents per gallon in Rhode Island. The average gasoline excise tax for states is 20.21 cents per gallon, while the median gasoline tax is slightly lower at 20 cents per gallon. For states in the west, the average gas tax is 21.7 cents per gallon and the median tax is 23.0 cents per gallon.[19] Of note, many states have given preferential tax treatment to alternative fuel vehicles. Often this has resulted in exempting these vehicles from some or all excise taxes. This is the case in Utah. Under the Alternative Fuel Tax Exemption alternative fuel vehicles pay a fixed fee and are then not required to pay excise taxes.

Special Fuel Excise Tax. In Utah, this is a tax on fuels other than gasoline, meaning primarily diesel fuel. This tax is collected from motor carriers under the International Fuel Tax Agreement (IFTA) to improve compliance and simplify reporting. Under IFTA, states are not allowed to include local option taxes as part of the agreement. Accordingly, if local option diesel excise taxes are levied, they can only be collected for purchases within the state, not for all fuel used within the state. IFTA apportions fuel tax revenues among the states where the fuel is actually used based on the portion of miles driven in the state and the relevant tax rate. Revenue from this tax is used in the Transportation Fund (Utah Code 59-13-301).

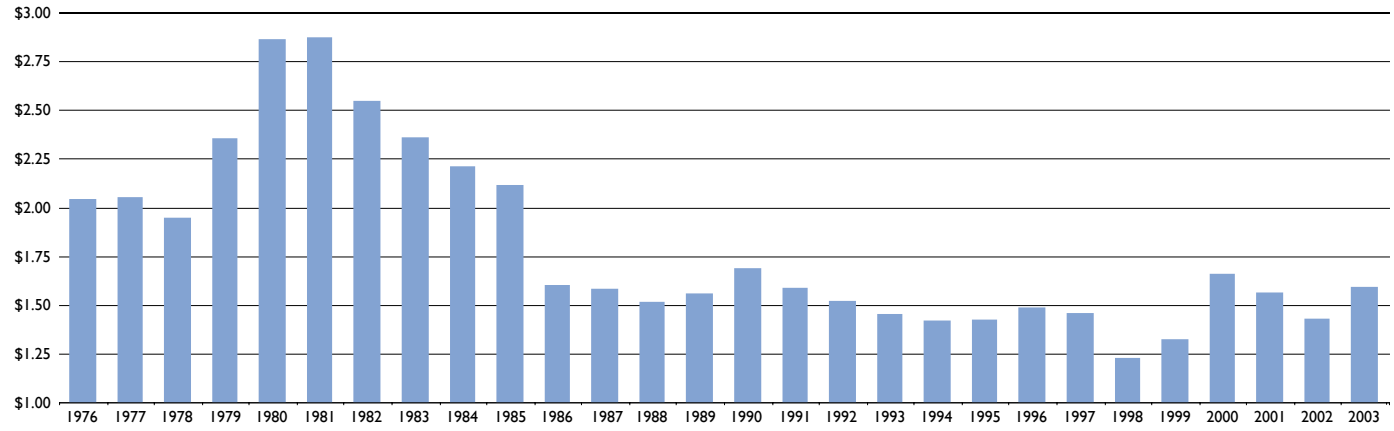
Inflation Adjusted Excise Taxes. An alternative to a fixed rate excise tax is an adjustable rate. The rate is adjusted at a specified interval, such as

Figure 1: Utah Gas Tax Rate Adjusted for Inflation, in 2004 Dollars



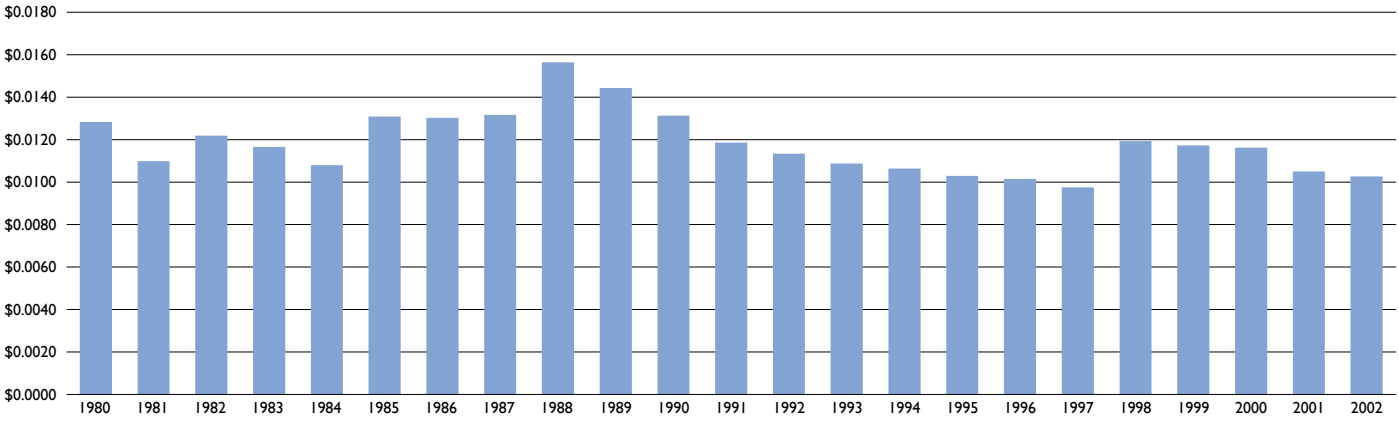
Source: Utah State Tax Commission, Calculations by Utah Foundation

Figure 2: Average Price of Unleaded Gasoline



Source: U.S. Department of Energy

Figure 3: Utah Gas Tax Revenue per Vehicle Mile Traveled, in 2004 Dollars



Source: Utah State Tax Commission, Calculations by Utah Foundation

every year or every other year. The rate adjustment is generally based on an index of inflation. Eight states have enacted a variable rate gas tax. In Florida, New York, and Wisconsin, the fuel tax is automatically indexed to reflect annual inflation to help maintain the purchasing power of their highway user fees. In order to adopt an adjustable excise tax, the Utah Legislature would need to change the current statute. However, subsequent rate changes need not be approved as the original statute would provide for regular increases.

Fuel Economy Adjusted Excise Tax. There are two major concerns with the current excise tax: 1) it doesn't keep pace with inflation and 2) the revenue per mile traveled has declined because of increased fuel efficiency of modern cars. The previous alternative allowed for adjusting the rate for inflation. This alternative discusses adjusting the fuel tax for fuel economy. This would be done by using a fuel efficiency index to maintain the revenue collected per mile traveled roughly equal over time. This could be accomplished by creating a fuel economy index using data published by the federal government, such as corporate fuel economy data. This type of an index would address the decline in revenue from increased fuel efficiency, keeping the use fee aspect of the excise tax, but it would not address the decline in purchasing power of those revenues due to inflation.

Estimated Excise Tax Revenue. Over the last five years (FY 2000 --- FY 2004), Utah's gasoline tax has raised, in 2004 dollars, an average of $249.0 million dollars per year.[20] In FY 2004, the gasoline tax generated $242.6 million in current dollars. This means that, in current dollars, gasoline excise taxes over the last five years raised about $10.2 million for every penny of gas tax charged.[21] It should be noted that recent reports suggest that consumer purchases of gasoline are down, which will likely result in lower revenue yields on a per gallon excise tax. The special fuel excise tax raised an average of $87.5 million per year, in 2004 dollars, over the last five fiscal years. In 2004, the special fuel tax raised $90.9 million in current dollars. Over the previous five year period, the average yield was $3.6 million in special fuel excise tax revenue for every penny of tax. This results in combined excise tax revenue of $13.8 million per penny of tax for FY 2004. If an increase of five cents were instituted it would generate about $ 68.7 million for the two taxes.

Alternatively, if Utah had instituted an adjustable gasoline and special fuel excise tax base on inflation starting in 1997, when the state instituted the current rate of 24.5 cents per gallon, the adjusted rate would be 28.7 cents per gallon in FY 2004. The adjusted rate would have yielded $391.1 million for FY 2004, approximately $57.6 million more than the actual collections reported by the Tax Commission. Since 1997, an adjustable rate would have raised an additional $214.1 million since 1997. If an adjustable rate tax were implemented in conjunction with a five cent increase it would generate about $80.8 million in additional revenue.

Revenue Criteria for Excise Taxes. As discussed in the Principles of Sound Revenue Policy section, each revenue should be evaluated based on several criteria. The ability of excise fuel taxes to raise adequate revenue has been declining. As Figure 3 highlights, the gas tax has not been able to keep pace with demand as a use tax. Proponents of dramatically higher fuel taxes hope to use the tax to encourage consumers to use less fuel. However, current rates have not dramatically altered the economic incentives. The market has had a greater impact on economic behavior than fuel tax policy. Fuel excise taxes are generally declared a good match for transportation related funding because they are connected to the service being funded. In this sense, the tax is a benefits tax. However, over the years, the nature of this tax has changed. When the tax was first implemented in the 1920s and 30s, gasoline powered vehicles were relatively similar, using fuel in relatively uniform ways. Over the last thirty plus years, vehicles have started using fuel at dramatically different rates. This is especially highlighted today not only by the extremely fuel efficient hybrid vehicles, but also by the high mileage small cars on today's roads. The excise tax is paid per gallon, thus the comparative per mile cost of the gasoline tax is low for vehicles that are very fuel efficient and high for vehicles that have relatively low fuel efficiency measures. Accordingly, fuel excise taxes are losing part of their connection as a direct user charge. Fuel taxes are currently relatively easy and economical to administer.

General Sales Tax

The sales tax is a tax levied at the point of sale on the value of the transaction. In Utah there is a general state sales tax of 4.75 percent, with several additional rates that may be imposed for specific purposes. These additional rates may be applied to the entire sales tax base statewide, or to specific aspects of the base in a limited geographic region. The amount of revenue generated by the sales tax is affected by the value of the base, what transactions are taxed, and the value of the rate, how much tax is paid for each dollar of taxable transactions.

Because Utah's sales tax is the primary source of general, unrestricted revenue for the state and for many local agencies, there is some amount of competition for the ability to raise this tax for specific purposes. With cities, counties, transit agencies, and others interested in utilizing sales tax increases for various programs and projects, how much "headroom" exists for Utah's sales tax to be increased? Can Utah's economy handle a number of different sales tax increases that may drive the total sales tax rate significantly higher? A look at how Utah's sales tax rates and tax burdens compare to other states may be helpful in answering these questions.

Utah's state sales tax rates are relatively low compared to other states. Thirty-two states have higher state sales tax rates than Utah. Even when local rates are included, Utah is right in the middle. Of the 46 states with sales taxes, Utah has the 24th highest combined maximum state and local sales tax rate (nine states have the same maximum combined rate as Utah).[22] If Utah's sales tax rate was raised by .25 cents, the maximum state and local rate would rank 22nd highest. A half-cent increase would rank Utah 17th highest and a full-cent increase would give Utah the 16th highest sales tax rates.

Although Utah's sales tax rates are moderate, the sales tax burden is

fairly high. When measured in proportion to personal income, Utah's sales tax burden is tenth highest in the nation. This disparity between moderate rates and a high burden is partly due to Utah's tax base being broader than most states, largely because of Utah's sales tax on food. High tax burdens indicate that government agencies are collectively taking a great deal of money out of the private sector, which can be harmful for economic growth and citizen satisfaction. Therefore, the question of how much "headroom" exists for sales tax increases depends partly on how those increases affect Utah's tax burden.

If Utah sales taxes were increased by .25 percent, the sales tax burden would stay at 10th highest. Increasing the rate by a half cent would bring the sales tax burden to eighth highest nationwide, and a full-cent increase pushes the sales tax burden to fifth highest. These figures suggest that some leeway exists in Utah's economy for small or moderate sales tax increases but higher rate increases may be difficult for the state economy.

The tax burden also needs to consider the other taxes that are paid by taxpayers. When Utah's state and local taxes are combined, the combined state and local burden ranks 11th highest in the nation. However, when federal taxes are added to state and local taxes, to capture a more accurate picture of all taxes paid, Utah's complete tax burden is lower than average, ranking 28th.[23]

This section explores several sales tax alternatives. These include a sales tax on fuel, the public transit sales tax, municipal highways sales tax, a statewide or regional sales tax, and an earmarking of general sales tax revenue from auto related purchases. Finally, revenue criteria are discussed.

Motor Fuel Sales Tax. The motor fuel sales tax is a tax on the value of the gasoline sold. This is generally accomplished through a percent of the purchase price. In Utah there is currently no sales tax on gasoline or diesel. These are exempted in state law (Utah Code 59-12-104). Removing the exemption would require a change in Utah's sales tax statute.

Figure 4: Statewide Motor Fuel Sales Tax

State	Rate
California*	7%
Georgia*	7%
Hawaii**	4%
Illinois**	6.25%
Indiana**	6%
Kentucky***	6%
Michigan****	6%
New York*****	4%

*Applied to sales price including federal and state motor fuel taxes
**Applied to sales price excluding federal and state motor fuel taxes
***Applied to sales price including federal motor fuel tax
****Applied to sales price including federal fuel tax except when used in a for-hire passenger vehicle with a capacity of 10 or more
*****Applied to sales price excluding federal taxes on fuels not taxed under volume tax laws

Source: Federation of Tax Administrators

Eight states currently charge a motor fuels sales tax in addition to other gasoline and diesel fuel taxes. In some states, California and Georgia for example, the tax is charged on the sales price including state and federal excise taxes. In other states, the federal tax (Kentucky), the state tax (Michigan, New York), or both (Indiana), are excluded from the taxable price of the transaction. The sales tax rate for motor fuel ranges from 7 percent in California to 4 percent in Georgia and New York. In Georgia, a tax of 3 percent is dedicated as a motor fuel sales tax, restricted to motor fuel tax purposes, and a tax of 1 percent levied for general purposes. In other states, Kentucky and Michigan, the tax is limited to specific types of fuel purchases.

In California, sales tax on gasoline is designed to be dedicated for transportation purposes. In 2002, Californians approved Proposition 42, which dedicated all motor fuel sales tax revenue for transportation purposes. California imposes a sales tax of 7 percent on motor fuels, which is estimated to generate about $1.3 billion a year.

Under the proposition, beginning in 2003-04 and continuing through 2007-08, the funds would be used for projects in traffic congestion relief plan, the State Transportation Improvement Program, Public Transit Account and for maintenance of local streets and roads. Beginning in 2008-09, 20 percent of the funds would go to transit, 40 percent to the State Transportation Improvement Program, 20 percent to city road maintenance, and 20 percent for county road maintenance. The Legislature can change the formula by which the money is allocated, or redirect the sales tax on gas revenues back into the general fund in a budget "emergency," but only with a two-thirds vote.

During its first 20 years, Proposition 42 was projected to deliver $35 billion for transportation purposes.[24] However, due to the state's budget crisis, the erosion of this new source for transportation funding started soon after its enactment. For 2003-04, the Legislature and the governor suspended $856 million of the dedicated gasoline sales tax, citing a decline in general fund revenues. In January 2004, the governor proposed to suspend the $1.1 billion Proposition 42 transfer from the general fund to the traffic congestion relief program. According to the California Transportation Commission, "the clear message was that Proposition 42, … as great as [its] promise was, cannot be relied upon for long-term support of the transportation program."[25]

Fuel Sales Tax Revenue Estimate. If Utah had removed the exemption from fuel sales and levied the state sales tax on the average purchase price of gasoline and diesel during FY 2004, it would have raised approximately $93.1 million in FY 2004.[26] If Utah were to exclude state and federal excise taxes from the sales tax, this tax would have raised about $64.8 million in FY 2004. Of note, spikes in fuel prices, such as the recent one, may result in a decrease in motor fuel consumption which could affect future revenues.[27]

Public Transit and Additional Public Transit Tax. In areas that approve the public transit tax, a sales tax of .25 percent may be levied on taxable sales transactions. An additional .25 percent tax may be levied to fund a fixed guideway and expanded public transportation system. In first-

Figure 5: Sales Tax Rates for Transit Purposes, by County
Utah Transit Authority Transit District

County	Rate
Davis	0.500%
Salt Lake	0.438%
Tooele	0.250%
Utah	0.250%
Weber	0.500%
Box Elder	0.250%

Source: Utah State Tax Commission

class counties (i.e., Salt Lake County), 25 percent of the revenue funds new construction, major renovations, and improvements to Interstate 15 and state highways within the county. In all other counties, the entire tax is to be used for public transit purposes (Utah Code 59-12-501 and 59-12-502). For the Utah Transit Authority, these taxes are levied in Box Elder, Weber, Davis, Salt Lake, Tooele, and Utah Counties. Figure 5 lists the current public transit tax rates for the UTA counties.

For UTA, the two transit sales taxes generated $103.8 million in FY 2003. If the tax rate were increased to .5 percent in Box Elder, Utah, Tooele, and Salt Lake Counties, the tax would have raised an additional $21.8 million in FY04 for the fixed guideway and expanded public transportation system.[28]

Statewide or Regional Sales Tax. According to the Tax Commission, taxable sales in the state of Utah totaled $31.6 billion in FY 2003. If a statewide sales tax of quarter-cent was introduced for transportation purposes, it would yield $81.5 million in 2004.[29] Because congestion and transportation needs are greatest in the Wasatch Front area, it may be more reasonable and fair to create a regional sales tax for transportation purposes only in that region. Taxable sales in Salt Lake, Davis, Weber, and Utah counties equaled $24.5 billion in FY 2003. A quarter cent sales tax in that area would yield about $63.3 million in 2004.[30]

Municipal Highways Tax. In areas that do not levy the public transit tax, municipalities are authorized to levy a sales tax of 0.25 percent on transactions. Revenues from this tax are to be used by the municipality for the construction and maintenance of highways (Utah Code 59-12-1001). In FY 2003, this tax generated $6.6 million to be used for the construction and maintenance of highways.

Earmarked Sales Tax Base for Highways and Transit. Another approach would be to earmark a portion of the sales tax base for various transportation expenditures as is done with other transportation related revenues. Specifically for the sales tax this would be the portion of the base that comes from the sale of transportation related items, such as automobiles and parts. The state tax commission provides an estimate of the value of this base. In fiscal year 2003, the commission estimates that this base included $5.7 billion in taxable sales transactions.[31] This generated from the state rate of .0475 percent sales tax, approximately $279.8 million in 2004.[32] Additional revenue would be raised by other taxing entities, such as cities and counties, from their current rates. This state revenue is currently being used in the general fund. The Legislature would need to redirect this revenue to create the earmark. Additionally, the revenue would likely need to be replaced in the general fund through some other mechanism, such as broadening the sales tax base to include transactions not currently taxed.

Sales Tax Revenue Criteria. A sales tax for transportation purposes, coupled with the existing excise tax, would help provide adequate revenue for highway and transit operations in Utah. One of the problems with the sales tax is that, over time, the value of the base has grown slower than the overall economy. In essence, every year more transactions occur outside of the taxable base. As a result, if the economy does not grow at a significant pace, sales tax revenue will likely lag behind spending needs. By expanding the base to include fuel, for example, the base would be broadened, improving its stability and adequacy. In terms of impacting economic efficiency, since the sales tax is levied uniformly on all purchases included in the base, it alters economic decisions very little.[33] The primary weakness of the sales tax is its regressivity. This is especially a concern in Utah, a state which includes food in the base. Even with the complexity of the administrative task, the sales tax is generally considered to have modest administrative costs.

Motor Vehicle Registration

Vehicle registration is required for motor vehicles, which include a motor vehicle, combination of vehicles, trailer, semi trailer, vintage vehicle, off-highway vehicle, or vessel. Registration fees are deposited in the Centennial Highway Fund and the Transportation Fund.

Owners of passenger cars and light trucks registered in Utah must pay a registration fee of $26.50. This includes a registration fee of $23, a driver education fee of $2.50, and an insurance database fee of $1. Salt Lake, Davis, Weber, and Utah counties also require an emissions fee between $1 and $3, depending on the county. Motor vehicles, or a combination of vehicles that transport passengers or property for hire and that have a gross laden weight of 12,001-14,000 pounds, are subject to a registration fee of $53. An additional fee of $18.50 is charged for each 2,000 pounds over 14,000 pounds gross laden weight up to a maximum of 80,000 pounds.

Passenger cars, light trucks, and vans are also subject to a uniform fee in lieu of taxes at the time of registration. This fee replaced property taxes levied on vehicles and varies between $10 for vehicles older than 12 years to $150 for vehicles less than three years old. Owners of medium and heavy duty trucks and recreational vehicles are required to pay a *fee-in-lieu*, which is 1.5 percent of the fair market value of the vehicle.

All states have vehicle registration fees.[34] Some use flat fees and others have fees based on the value or weight of the vehicle. A few states use a combination of both. Calculated on the basis of federal highway statistics, in 2001 the average typical motor vehicle registration fee in the U.S. was $36.61.[35] The state of Maryland increased its vehicle registration fees in July this year. The owners of SUVs and trucks will have to pay $180 every two years (up from $108), and

drivers registering cars will pay $128 every two years, up from $81. Maryland does not have any other associated registration fees. The higher fees will generate an additional $150 million a year for the state's transportation trust fund, which pays for highway and mass transportation projects.

Annually, vehicle registration fees in Utah generate about $27.4 million for state highway funds. In 2004, there were 1,720,446 registered passenger cars and light trucks in Utah. If all vehicles were subject to an additional vehicle registration fee of $10 per year, regardless of the type or weight of vehicle, $17.2 million would be generated. Alternatively, if registration fees were increased $50 for these same vehicles, it would generate $86.0 million in annual revenue.

Local Option Registration Fees. Many cities and counties across the nation use local option vehicle license and registration fees to fund transportation. For example, Idaho counties, if they receive voter approval, may adopt and collect a motor vehicle registration fee not to exceed two times the amount currently established in the code. Ada County, where Boise is located, is the only county currently using this option. This local registration fee is currently $48. The increased vehicle registration goes directly to the local highway jurisdictions within the county. The funds may be used exclusively for the construction, repair, maintenance, and traffic supervision of their highway system.[36] In 2003, $3.5 million in vehicle registration fees were collected in Ada County, representing 6.4 percent of the county's total highway user fund.

Durham County, North Carolina also has a local option registration revenue source. In 1989, the North Carolina General Assembly created the Triangle Transit Authority as a regional public transportation authority serving Durham, Orange, and Wake counties. In 1991, the general assembly, subject to county approvals, authorized the transit authority to levy a vehicle registration tax of up to $5 per registration. The tax helps finance the regional bus operations, ridesharing program, and planning program.[37] Durham is currently planning to increase the registration fee from $5 to $10 per year, subject to approval by state legislators. The fee increase is expected to generate $.65 million to extend services to six Durham public schools and allow senior citizens fare-free rides.[38]

A local fee of $5 along the Wasatch Front would generate approximately $6.6 million from vehicles registered in Weber, Davis, Salt Lake, and Utah counties.[39] A local fee would require changes to state law.

Proportional Registration Fees (Highway Use Tax). This is typically a fee for commercial vehicle registration. Proportional Registration Fees are subject to the International Registration Plan or the Uniform Vehicle Registration Proration and Reciprocity Agreement. Annual fees are based on the fee schedule multiplied by the "prorate" percentage. The prorate percentage is the proportion of miles traveled in Utah compared to the total miles traveled in all jurisdictions. Revenue from these fees is deposited in the transportation fund (Utah Code 41-1a-301). Proportionally registered vehicles based in states other than Utah are not subject to county property taxes, but are subject to a highway use tax. The fees are based on the proportion of vehicle miles traveled in Utah multiplied by the appropriate fee. These revenues are deposited in the transportation fund (Utah Code 41-1a-301). In FY 2003, these fees represented $11.8 million for the transportation fund.

Registration Fees Revenue Criteria. Registration fees do not generate substantial revenue on their own. Coupled with several other revenues, they help provide some stability for transportation related funds. Utah's current registration fee structure does not alter economic decisions. There are some minor equity concerns. Owners of expensive luxury automobiles pay the same age-based registration fee as low-cost automobile owners, a violation of vertical equity. The system is relatively easy to administer. Administrative costs are significantly lower with the age-based uniform fee structure compared to a property tax on the current value of the vehicle. The registration system is administered in a way that minimizes corruption in the administration and enforcement of the fee.

Tolls

These are user fees for the ability to access a road or bridge for passage. Public toll roads are currently authorized in Utah law with legislative approval (Utah Code 72-6-118). Private toll roads are also authorized. A county may grant a license or franchise for a private toll road when "the expense of operating or maintaining the roads or highways as free public highways is too great to justify the county in operating or maintaining them." (Utah Code 17-50-307). Currently the only toll road in Utah is the private Adams Avenue Parkway located between I-84 exit 85 and 5600 South in Weber County.

In addition to traditional public or private toll roads, there are several different toll-like mechanisms that are used in other locations. These include high occupancy toll lanes and single occupancy vehicle access to high occupancy vehicle lanes for a toll. Toll pricing can also be adjusted for "congestion" pricing. This allows the price of the toll to increase during peak traffic periods in an effort to create a market-like solution allowing supply and demand to determine the number of vehicles based on the market price. While these mechanisms are used elsewhere, they are currently not available in Utah.

High Occupancy Toll Lanes. There are two variations on the HOT lanes. The first is to charge a toll for access to a high occupancy only lane. These are sometimes called express toll lanes. The second variation is to allow single occupant vehicles access to a high occupancy lane. In order to do this, the state must receive approval from the federal government under the Federal Highway Administration's value pricing pilot program. FHWA issued grants under this program through fiscal year 2003.[40] In California, there has been some success with express toll lanes. These toll lanes have been able to fund their construction and operation and maintenance through toll revenues.[41]

Truck Only Toll Lanes. A related idea that is currently under discussion elsewhere is truck only toll lanes.[42] Georgia is currently considering this idea. These lanes are designed to increase safety by limiting truck

traffic to a single lane and to increase the flow of goods by providing an uncongested lane for trucks.

Toll Revenue Criteria. Toll revenues on newer systems have not generally generated enough revenue to cover all of their costs. Tolls may alter some economic behaviors. For example, drivers may seek to avoid tolls through alternative travel routes. Alternatively, drivers may consolidate their trips as they pay more of the actual cost of travel. Tolls are generally considered equitable as a benefit tax. Tolls are relatively easy to administer with booths. Other mechanisms, such as electronic fare cards, are more expensive, but they do not interrupt the flow of traffic as occurs with toll booths.

Vehicle Miles Traveled Tax

A mileage fee is a set charge per mile driven within the state. The fee is calculated based on the total miles driven. Historically, this has not been a viable tax. However, with recent advances in technology, there is a renewed interest in this tax. The state of Oregon is currently starting an experiment to explore the feasibility of this tax.

Noting the continued erosion of the motor fuel tax, especially due to increased fuel efficiency of modern vehicles, many states are examining their transportation funding systems. One state that has received considerable press attention for their efforts is Oregon. In 2001, the Oregon State Legislature established the Road User Fee Task Force to study alternative ways to pay for roads.[49] The task force recently recommended that Oregon test a vehicle mileage fee as a replacement for fuel tax. The fee is calculated with the help of a mileage-recording system attached to the vehicle, which determines whether a car is being driven inside or outside Oregon. In lieu of Oregon's state gas tax of 24 cents per gallon, the drivers would pay 1.22 cents per mile driven. The fee of 1.22 cents per mile is expected to generate revenues similar to the current gas tax.[50] The task force is implementing plans for a pilot program in Eugene.

The Utah Department of Transportation estimates that annual vehicle miles of travel in Salt Lake, Davis, Weber, and Utah counties in 2002 totaled about 15.2 billion miles, while there were about 24.4 billion miles statewide. We estimate that in 2004 there will be approximately 16.1 billion miles along the Wasatch front and 25.9 billion miles statewide. If the tax were implemented statewide, at a rate of 1.29 cents per mile it would generate $333.5 million, enough to replace the current motor fuel and special fuel excise taxes. If a vehicle miles traveled tax were implemented along the Wasatch Front, at a rate of 1.29 cents per mile, the tax would generate about $207.8 million per year.

A VMT tax could be implemented in several ways. For example, the VMT rate could be uniform for all classes of vehicles. Alternatively, the rate could vary depending on the estimated impact of vehicles, large, heavy vehicles could be charged a higher rate, while smaller, lighter vehicles could be charged a lower rate. These rates could be developed based on roadway impact estimates. Another implementation issue is when would the tax be collected. The Oregon proposal, for example, requires a significant up front investment. One alternative to this type

Congestion Charging in the United Kingdom

Since last year, the U.K. capital has used congestion charging to reduce traffic congestion in central London. Under the system, drivers pay £5 (approximately $9) to drive inside the congestion zone between 7 am and 6:30 PM on weekdays. The charge can be paid either in advance or on the day of travel before, during, or after the journey. Drivers can pay the charge at gas stations, car parks, special booths, certain stores, or by phone, text message, online, or in advance by mail.

Instead of toll booths, the system relies on 300 enforcement and monitoring cameras that send video signals to an automatic plate number recognition computer. Cameras monitor every lane of traffic at the charging zone's entry and exit. The zone is marked up to 10 miles in advance by signs. At midnight, a computer checks the registration numbers it has noted against those who have paid. The capture rate is 85 percent. Those who fail to pay the charge before midnight on the day of their travel are fined about $90. After two weeks of non-payment, the fine increases to $180, and after a month to $270.

Residents inside the congestion zone receive a 90 percent discount, and handicapped drivers are exempted completely from the charge. Vehicles with nine or more seats, taxis, recovery operators, and alternative fuel cars also are not required to pay the congestion charge.

This congestion charging scheme is estimated to generate about $120 million in its first year for transportation purposes. Revenues are expected to increase up to $180 million in subsequent years due to improved enforcement. The net revenues are lower than originally projected because a lower number of chargeable vehicles enter the zone than predicted and a higher number of exempt and discounted vehicles. The revenue raised by congestion charging must, by law, be re-invested in London's transportation infrastructure. Around 65 percent of the revenues would be used for new buses, 28 percent on road safety, and the rest on reducing crime on public transportation and improving road safety around schools. The cost of setting up the congestion charging system was estimated at $360 million.

According to research by Transportation for London, the agency responsible for transportation in London, the congestion charging system yields an annual net benefit of $90 million. The costs include administrative, operational, and additional bus expenses of $230 million. The benefit side includes time savings and reliability benefits to car and taxi occupants, commercial vehicle occupants, and bus passengers. Vehicle fuel and operating savings and accident savings are also taken into account. These savings and benefits amount to $320 million per year.

Benefits. One year after the system launch, measurements of congestion within the charging zone indicate reductions averaging 30 percent. Traffic entering the zone has been reduced by 18 percent and traffic circulating within the zone by 15 percent, representing 70,000 less car trips to the city during the congestion hours.

The patronage of public transportation at average morning peak hours has increased by 38 percent. The reliability of bus services has improved markedly with additional waiting time due to service irregularities falling by 30 percent. Disruptions in bus service due to traffic delays fell by 60 percent.

With regard to environmental benefits, congestion charging has reduced emissions in oxides of nitrogen and fine particles by 12 percent. The system has also created valuable savings in greenhouse gases and fossil fuels by cutting traffic-related carbon dioxide emissions by 19 percent and fuel consumed by road transport in the zone by 20 percent.

There are concerns over the level of detrimental impact of charging on economic activity within the zone. Transportation officials estimate that approximately 70,000 fewer people now come into the zone by all forms of transportation compared to spring 2002 when 1.6 million people visited the charging zone daily. However, because 85-90 percent of people coming into central London travel by public transportation, the relative impact of reduced car users is minimal according to the transportation officials. They estimate that only 5-7 percent of the overall reduction in people coming into the zone is caused by the congestion charging system. Of note, the city's economy was subject to a wide range of influences last year which makes the task of identifying impacts related to congestion charging difficult.

of startup would be to couple a VMT with the annual registration process. During the required inspections current mileage is recorded, this could then be used to calculate mileage traveled since the previous registration.[51]

VMT Revenue Criteria. If the rate is set at the appropriate level, this tax could generate adequate revenue to replace the gas tax. On issues of economic neutrality, there is no incentive to alter economic decisions, since the fee is identical for all vehicle users. Unlike the excise tax, which benefits more fuel-efficient cars, the vehicle mileage tax is equitable because it requires all drivers to pay a highway user fee that is solely based on the amount of miles driven. This assumes that all vehicles impact the roadways in similar ways - similar levels of congestion and similar degradation of pavement conditions. One obvious exception to this is large trucks; these vehicles have a significantly greater impact on pavement conditions. The cost to administer this tax may have relatively high startup costs, depending on how it is implemented. If the tax were collected in conjunction with annual registrations, that could minimize some cost. It may, however, increase the "sticker shock" of the tax when paid as a lump sum. The collection system proposed in Oregon has very high startup costs. Vehicles need to be fitted with a mileage recording system. Computer systems at gasoline stations would need to be compatible with a state system and capable of reading the mileage-recording system. The mileage-recording system, as used in Oregon, uses an electronic odometer and a global positioning system receiver.[52]

Figure 6: Estimated Taxes Paid by Utah Vehicle Owners

	Estimated Average MPG	Estimated Annual Fuel Consumption in Gallons	Annual Per Gallon Gas Tax Rate	Proposed Annual Vehicle Mile Tax	Proposed State Sales Tax on Gasoline
Small Cars	38.02	394.5	$96.66	$193.50	$35.55
Family Sedan	30.56	490.8	120.26	193.50	44.23
Minivans	22.46	667.9	163.62	193.50	60.18
SUVs	14.89	1,007.40	246.81	193.50	90.77
Pickup Trucks	13.31	1,127.00	276.11	193.50	101.55

Notes: Calculation by Utah Foundation.

Miles per gallon (MPG) estimates are from the US Environmental Protection Agency and U.S. Department of Energy Fuel Economy Guide Model Year 2004. For each class of cars, Utah Foundation chose representative vehicles that had similar mile per gallon ratings. We then estimated the average mile per gallon and annual fuel consumption, assuming 55 percent of driving would be in the city and 45 percent on the highway. We estimated annual miles driven of 15,000 for each class of vehicle. We assumed that the gasoline excise tax is Utah's current rate of 24.5 cents per gallon. We assumed a VMT of 1.29 cents per mile, the amount of the tax necessary to replace Utah's current excise fuel taxes. Sales tax estimates assume an average gas price of $1.897, the average value for July 2004. Sales tax is calculated based on the total purchase price of gasoline, including state and federal excise taxes.

Small Cars include subcompact and compact cars including Volkswagen Golf, Honda Civic, Toyota Echo and Corolla, and the Scion xA.
Family Sedans include compact and midsize cars including the Mitsubishi Lancer, the Hyundai Elantra, the Oldsmobile Alero, the Pontiac Grand Am, and the Honda Accord.
Minivans include the Chrysler Voyager, Dodge Caravan, Toyota Sienna, Chevy Venture, and the Oldsmobile Silhouette.
Sports utility vehicles include SUVs, Toyota Land Cruiser, Lexus LX 470, GMC Yukon XL, Ford Expedition, and the Dodge Durango.
Pickups include the Dodge Ram 1500, Chevy Silverado 2500, Ford F150, GMC Sierra 1500, and the Toyota Tundra.

Driver's License Fee

Driver's licenses are funded through fees. In addition to standard license fees, the Utah Driver License Division assesses renewal-by-mail fees, commercial driver license fees, alcohol/drug related offense fees, administrative fees, copying fees, and driver education license fees. An original Utah license for persons over 21 costs $20, and the renewal of a license is $15. In Utah, driver's license fees are dedicated to the operation of the Driver License Division, which has annual revenues of about $18.5 million. Driver's license fees are no longer included in UDOT's highway user revenue or transfers to other state agencies. These funds go to the Department of Public Safety restricted account and are used for state laboratory drug testing and the DMV's oversight functions.

The national average for a new standard license fee is $25. Renewal fees are usually somewhat lower. In 2002, there were 1.5 million registered drivers in Utah.[53] A license needs to be renewed every five years. Assuming one-fifth of licensed drivers renew their licenses every year, renewal fees generate $4.5 million per year. Increasing Utah's renewal license fee by $5, and dedicating it to highway or transit projects, would raise an additional $1.5 million per year.

Transportation and Transit Districts

A public transit district is a special district created to provide mass transit services in certain geographic areas. It is a political subdivision created by counties and municipalities under enabling legislation passed by the Utah Legislature in 1969. The Legislature authorized the creation of these special districts in order to establish a way of providing needed services that a municipality or county is not able or is unwilling to provide.

Often the geographical area for these services does not conform to existing municipal or county boundaries. Unlike municipalities and counties that are statutorily given broad, general powers, a special district is given limited powers and is authorized to provide only specified services. Currently there are five public transit districts in the state: Utah Transit Authority, Sun Tran Transit District, Park City Transit District, Cache Valley Transit District, and Logan Transit District. Transit and Transportation districts in other states levy a range of taxes, including property taxes, per parcel fees, development impact fees, benefit assessments, and payroll taxes.

Alternatively, a new type of district could be created to oversee capital transportation and transit funding throughout the district. Along the Wasatch Front, the new district could include all of the counties that are currently served by UTA. This district could pursue a mix of the revenues discussed bellow. Creating this type of district would require a change in the current special district statute.

Property Tax. In Utah, the property tax is an *ad valorem* tax assessed on real property and personal property. In Utah, the property tax is used by cities, counties, school districts, and a variety of special districts. The state is authorized to levy a property tax, but does not currently employ the tax. In Utah, property taxes are used to support operating budgets and debt. This tax rate is applied against the assessed value, which is generally designed to be the fair market value of the property.[54] The property tax in Utah has diminished in importance over the past 20 years. Once the primary source of state and local government revenue, it now comprises about 26% of state and local taxes and fees in Utah. Utah's property tax burden is relatively low. Utah ranks 36th as measured by property tax revenue as a percent of personal income.

Utah transit districts are authorized to use the property tax under two different aspects of state law. Transit districts are authorized to levy a .0004 tax for operations (Utah Code 17A-2-1044). Additionally, transit districts are authorized to use the property tax to support general obligation debt, up to 3% of the value fair market value of property in the district (Utah Code 17A-2-1035). A third property tax measure is available to cities and counties to fund public transit. Cities and counties may provide funds for the operation of transit districts from the general fund or a specific property tax levy (17A-2-1059). Each of these property tax levies would require voter approval in accordance with current statutory provisions.

In other parts of the country, cities, counties, and transit districts levy property taxes for transportation, including transit purposes. For example, the Bay Area Rapid Transit District raised $20.2 million in property taxes to support the transit district. The city of Bend, Oregon is proposing a property tax to help fund its new transit system. Lee County, Florida is also exploring a property tax to help fund transit operations. Loudoun County, Virginia uses the property tax for its Route 28 Highway Transportation Improvement District to accelerate planned highway improvements. In Indiana, transit districts may levy property taxes to finance debt for capital projects. Municipalities in Indiana may levy property taxes to support transit operations. The Indianapolis Public Transit district levies a property tax.

Property Tax Revenue. The taxable value of all property in Utah totaled $129.3 billion in FY 2003. If a statewide property tax for highway or transit projects at a rate of 0.001 were levied, this would yield $133.4 million in FY 2004 ($644.4 million with a tax rate of 0.005). The combined taxable value of property in Salt Lake, Davis, Weber, and Utah counties amounted to $81.5 billion in 2003.[55] If the property tax is limited to supporting transit operations at the .0004 rate, it would raise $32.1 million annually. For capital funding, UTA currently estimates that they would not need to levy at the maximum rate to support debt financing of capital projects in the current Long Range Transportation Plans. UTA estimates that they would need to levy a rate of 0.00113, which would raise about $95.1 million in 2004 to service the debt for their capital program.[56] Another option would be to use the property tax to fund a Wasatch Front Transportation district. If the district had a rate of .0001, it would raise about $81.5 million in the current year.

Property Tax Revenue Criteria. The property tax is a stable and growing tax. As a result of these qualities this tax would have the ability to generate significant revenue, both to support highway and transit related expenditures. The property tax alters economic behavior in minimal ways.[57] The property tax provides vertical and horizontal equity.[58] While the property tax requires sophisticated administrative capacity, the administrative costs are reasonable. The property tax in Utah meets standards for accountability.

Figure 7: Estimated Property Tax Payments For Residential Homeowners

	2004 Average Home Price	Taxable Value	0.001 levy	0.00113 levy	0.0004 levy
Salt Lake County	$197,063	$108,385	$108.38	$122.47	$43.35
Utah County	189,052	103,979	103.98	117.50	41.59
Davis County	168,788	92,833	92.83	104.90	37.13
Weber County	139,758	76,867	76.87	86.86	30.75

Calculations by the Utah Foundation. Average home price is the average sales price for single family homes in the second quarter of 2004, as reported by the Deseret Morning News Wednesday, July 21, 2004 available at http://deseretnews.com/photos/e072104real.pdf.

Per Parcel Fee. Per parcel fee is a flat fee assessed on parcels of property located in a certain area. San Mateo County in California charges per parcel fees to fund its pollution discharge elimination program. The countywide per parcel fee is levied against residential land uses, commercial and industrial uses, and miscellaneous land uses. Residential land uses are assessed at $3.44 per parcel. Such fees are also imposed in certain counties in Washington for soil-conservation purposes.

California recently adopted a fire protection fee of $35 per parcel of privately held land within areas where the California Department of Forestry and Fire Protection has responsibility for fire protection. The tax will be the same for each parcel regardless of its size. This fee is expected to raise $52.5 million per year.

In 2002, there were 1,028,111 parcels of residential and commercial real property in Utah. In Salt Lake, Davis, Utah, and Weber counties, there were 542,407 parcels of real property.[59] A per parcel fee could be an alternative source of transportation funding. If a per parcel fee of $25 were levied for each parcel of real property it would generate about $25.7 million for a statewide fee and about $13.6 million for a fee along the Wasatch Front.

Development Impact Fee. Development mitigation fees are charges applied to developers to compensate the public-service costs of new development. They are usually applied at the time a building permit is issued for the purpose of providing additional services, such as water systems, schools, and roads. Development impact fees are levied in 20 states, including Utah, where almost every community assesses such fees.

Sacramento County is developing and implementing a uniform transportation mitigation fee on all new development in the county that will assist in funding road and transit system improvements needed to accommodate projected growth and development. The county will charge $1,000 for each new single family unit and $750 for each new multi-family unit. With regard to commercial development, the charges will be $2.50 per square foot for retail building space, $2 per square foot for office building space, and $.50 per square foot for industrial or warehousing space.

The fees would be allocated accordingly: 35 percent for local streets and roads for capital improvements and rehabilitation; 20 percent for public transit for capital improvements and rehabilitation; 20 percent for local interchange upgrades, safety projects, and congestion relief improvements on the local freeway; 15 percent for Smart Growth Incentive Program; and 10 percent for transportation project environmental mitigation, including habitat conservation and open space preservation. Sacramento County requires that each

local government jurisdiction implement the fee programs in their jurisdiction no later than 2009.

San Bernardino County in California is also planning to implement transportation mitigation fees, which would be used for capital expenditures related to interchange and major arterials improvements. The county believes that the fees will provide significant additional funds to the regional transportation system. In San Bernardino, the fees could only be used for capital expenditures related to interchange and major arterial improvements. The Act authorizing mitigation fees requires that all local agencies in California that institute impact fees establish a reasonable relationship between the development impact fee's use and the type of project for which the fee is required.[60] Also, the fee must not exceed the project's proportional "fair share" of the improvement, and cannot be used to correct current problems or to improve existing developments.

The fee is based on the number of units in residential developments, and on the square footage in residential developments. The fee requirements can be met by paying cash, building eligible facilities, through public financing or private financing vehicles.

Impact Fee Revenue. Last year, 11,966 new single-family homes were built in Salt Lake, Davis, Weber, and Utah counties.[61] If a transportation impact fee of $1000 on single-family homes were adopted throughout this region, it would have generated $11.9 million.[62] Additionally, other structures would also be charged a transportation impact fee. In 2003, 970 non-residential buildings were constructed in the four counties last year. These include schools, retail stores, churches, warehouses, and office buildings. The transportation impact fee could be calculated on factors such as square footage or the number of people using the building.

Impact Fee Revenue Criteria. An impact fee could be set high enough to generate sufficient revenue to offset many of the costs to provide added transportation services. Notably, impact fees may not be a stable revenue source, so these fees should not be used for operating costs. Instead, impact fees should be used for the one-time service expansion costs such as capital projects. If impact fees are dramatically different across communities within a region that may provide an economic incentive to locate where there are lower impact fees. Impact fees, which are generally viewed similar to user charges, meet the benefits received standards of equity. Under Utah law, impact fees must meet a due-process test, where the fee must be roughly proportional to the added service cost. In addition, the fees must be applied to all parties on the same basis.

Benefit Assessment. Benefit assessment districts are formed to provide a specific service or benefit to lands contained within its boundaries. A district's charges are based on the benefit to property rather than value of the property. These benefits include roads, water, parks, and recreational facilities. Benefit assessment districts exist in California and Washington.

Tax Increment Financing. Tax increment financing ("TIF") funds infrastructure improvements through a partnership between a local government and a private developer. Expected growth in property tax revenues from a designated area are used to finance the bonds that pay for improvements in the TIF district. Under tax increment financing, developers or companies continue to pay real estate taxes on the value of the property prior to the creation of the TIF district. As the improvements increase the value of their property, the new tax money is directed into a fund to pay for the improvements. The incremental taxes dedicated to the investment usually include property, but may include sales, or utility fees and charges. The TIF system relies on the appreciation in value of the land and buildings in a TIF district. If a development is profitable, then the costs will be paid for in the growth of property tax revenues. If the property fails to increase in value, the improvement costs fall back on the general taxpayer.

In 2003, there was over $70 million collected statewide in tax increment revenues.[63] Estimates for TIF financing of highway or transit projects is difficult. Research from other states suggests significant increases in property values from transportation improvements. Specifically, recent research examining Dallas's light rail expansion reported property valuations 25 percent greater in neighborhoods served by light rail when compared to properties in neighborhoods not served by rail service.[64]

Public-Private Partnerships

Some states have enacted legislation that allows both private and public funding to be used for transportation improvements. The Virginia DOT is permitted to consider proposals from private entities to build transportation facilities when they are needed – rather than waiting until they can be funded with state or federal funds. Often, funding is raised through the sale of private bonds, and a toll is used to repay the bonds used for construction.

Another example of public and private financing is Texas's plan to develop the Trans-Texas Corridor through an innovative contracting agreement. Under the agreement, the state can use federal funds in the project planning while the environmental analysis is being conducted. The state will hire a private firm to design, construct, and maintain the corridor. Without the agreement, the state would not have been able to use federal funds on the comprehensive development agreement until after the environmental process is complete, which could take years to finish.

South Carolina has used a public-private partnership to fund a toll road. The Southern Connector, a 16-mile, four-lane road linking two interstates, was completed in 2001. It is financed by the Connector 2000 Association; a local not-for-profit corporation set up to finance and operate the facility. This is the first public-private transportation project in the U.S. to be financed using a not-for-profit corporation. This arrangement allowed the corporation to issue about $200 million in toll revenue bonds. The state of South Carolina has no liability for the bonds. After the road was built, it was accepted into the SCDOT system. As part of the project, SCDOT is financing a one-mile, $17.5

million connector to the toll road.

A public-private partnership was done in Utah on the I-15 interchange in south Provo. In 1997, Novell provided a $6 million six year loan to improve the freeway interchange at University Avenue near the company's office complex. Without the loan, construction on the project would have been delayed. The state then provided Provo with the funds to pay back the principal amount, while the city was responsible for interest payments.

Tourist Taxes

Motor Vehicle Rental Tax. In 2003, rental car transactions in Utah were valued at $249 million. Not all municipalities impose a rental car tax, and the rate varies among the municipalities that do. Altogether, the revenue from rental car taxes totaled $11.7 million. All the counties considered for this study levy rental car taxes. In Salt Lake, Davis, and Weber counties the rate is 7 percent, producing in total $8.2 million in rental car taxes in 2003. Utah County introduced this tax on April 1, 2004 with the same 7 percent rate. The state of Utah imposes a tax of 2.5 percent on all short term leases and rentals of motor vehicles not exceeding 30 days. This tax is in addition to any other state or local sales fees on vehicle rentals. The motor vehicle tax revenue is transferred to the Transportation Corridor Preservation Revolving Loan Fund (Utah Code 59-12-1201).

The motor vehicle rental tax is a reasonable mechanism to allow car renters to help fund the highway system in addition to fuel taxes. The rental car tax is unlikely to act as a deterrent for prospective car renters because traveling in the state, especially outside the Salt Lake Metro area, without a motor vehicle is impractical.

Hotel and Restaurant Tax. All Utah counties impose a transient room tax of 3 percent which is levied on temporary lodging such as hotels and motels. Additionally, communities can levy a 1 percent additional restaurant tax. The transient room tax generated $18.8 million in FY 2003 throughout the state. For the four counties along the Wasatch and the municipalities in those counties charging the tax, it generated $10.8 million. The restaurant tax generated $22.7 million in FY 2003, about $17.9 million of this was generated in the four counties along the Wasatch Front. These taxes have been used in other locations to target tourists to help recover the cost of their use of the transportation system.

The transient room tax is most likely a tourist tax. Accordingly, the argument is similar to the rental car tax. The restaurant tax, on the other hand, is paid largely by residents. Therefore the logic of the connection to tourist use of the transportation system is weak for the restaurant tax.

Utility Right of Way Use Fees

Utilities are charged for placing utilities on highway rights-of-way. UDOT's current policy is to accommodate utility facilities installations on federal aid and non-federal aid highway rights-of-way, so long as they do not compromise the safety or integrity of the highway, or interfere with normal operation and maintenance activities. Such fees could be charged if, for example, a highway needs to be excavated to repair a utility line, a utility line is relocated for a highway project, or telecommunications companies request longitudinal access on interstate freeways.

Utah already requires compensation for longitudinal access to the rights-of-way of the interstate system for installation and operation of telecommunications facilities. According to the administrative rules, the state "shall charge compensation for longitudinal access for telecommunications facilities so that the department receives, on an annual basis, the rate of return on the value of land in each zone […] which is utilized for overhead, surface or underground installations of telecommunications facilities." The compensation is based on the zonal land value, the number of miles in the zone, and the rate of return.

Financing Capital Projects: Using Debt

Funding capital projects first requires a decision on the funding strategy. There are two primary approaches: pay-as-you-go and pay-as-you-use. Under pay-as-you-go financing, you either construct projects for which you currently have the money, or you save up until you have sufficient reserve to fund the project. The pay-as-you-use strategy uses debt to finance the initial project. The debt is then repaid over several years using available monies (the term of repayment is often matched to the useful life of the project). Utah has increased its use of debt in recent years, in part to cope with significant revenue challenges. The key for the use of debt is to do it in a careful, deliberative process, not simply when no other money source is available.

Many creative financing approaches rely on debt instruments to fund major transit and highway projects. The basic principle to pay-as-you-use or debt financing is that money is borrowed to fund construction and repaid over a significant portion of the life of the project. For many, debt is a very negative financing strategy, yet most American homeowners use debt to finance the purchase of their home. Why? Because a home is a capital investment that is expensive for the homeowner and will last a long time. Similarly, capital investment in transit, especially fixed guideway options and highway construction, is expensive and has a long useful life. There are some significant arguments for the use of debt as part of the financing strategy.

Intergenerational equity. The first argument for the use of debt is to enhance intergenerational equity. Under pay-as-you-go financing, money for a project is saved up and paid for up front. This strategy places the burden of the project on the current funding base, even though the future users may not be the same taxpayers as those funding the project. The Governor's Office of Planning and Budget estimates that growth in the six counties along the Wasatch Front will increase from a current level of almost 2 million people to 3 million by 2030, an increase of 52 percent. Intergenerational equity suggests that the additional million people along the Wasatch front should help fund the transit and highways that they will use.

Timing of the projects. An additional argument in favor of using debt is the timing of projects. Because transit and highway projects can be very expensive, saving up for those projects could have significant impacts on current highway congestion. For example, current estimates suggest that in the next five years, even after significant highway enhancements, congestion on I-15, especially from Orem to the southern border of Salt Lake County, will exceed the capacity of the highway, resulting in a significant increase in commute times (MAG 2004). Under the pay-as-you-go strategy, construction will not keep pace with demand, resulting in ongoing traffic congestion down through Payson by 2030. The projects could be completed sooner by using debt financing to initially fund the projects and paying off the debt obligations through a range of revenue solutions.

Time value of money. Another significant reason using debt can be more advantageous to the pay-as-you-go strategy is that money today is worth more than money tomorrow. Spreading out the use of the money over time allows the money to be put to other productive uses over time. This also minimizes the cost to the taxpayer in any given year.

Principles of Sound Borrowing

The Utah Foundation recently examined Utah's debt practices. In that analysis, the authors proposed five criteria for evaluating the appropriate use of debt. These criteria are:

1. Cost of capital – debt should be used in such a way that the overall cost of borrowing money is minimized.
2. Financial Flexibility – in the face of disaster or extreme economic need, is the ability to borrow to meet those needs maintained?
3. Excessive Debt and Excessive Debt Increase as Sign of Financial Distress – if total volume of debt is rising, is there some potential underlying problem being exposed? Do ongoing revenues meet ongoing expenditures?
4. Meeting Critical Needs – would rigid debt-avoidance result in budget cuts adversely impacting crucial programs or resources? Are critical infrastructure concerns being addressed?
5. Appropriate Debt Usage – is long-term debt used for long-term projects? Is debt sometimes paid off too quickly, thus tying up revenues that could be used for ongoing state government operations? Is short-term borrowing used as a crutch to cover budget gaps?

Sources: Utah Foundation, (December 2003). State Government Debt in Utah: Rapid Growth in Recent Years, p. 10. (available at http://www.utahfoundation.org/pdf2/rr662.pdf).

Payroll or Income Tax

Some communities across the U.S. use income or payroll taxes to support transportation funding. The transit tax is imposed directly on the employer. Usually, all salaries, commissions, bonuses, fees, or other items of value paid to a person for services performed within the area or transit district are subject to transit district taxes. Two transportation districts in Oregon assess payroll taxes, which are used for mass transit. Payroll tax rates in other communities range from 0.2 percent to 1 percent based on the value of compensation. Fees range from $2 per employee per year to $10 per employee per month.

Some Utah municipalities already use a per employee charge as part of their business license fee structure. If $3 per employee per year was charged, with nearly 900 thousand employees in the four counties, this tax would generate $2.6 million. In 2002, non-agricultural payroll was $27.0 billion along the Wasatch Front, and $32.3 billion statewide. If a transportation payroll tax of .2 percent were in place for FY 2004, it would generate about $57.0 million along the Wasatch Front or $68.2 million if implemented statewide.[67]

Business License Fee

A business license fee is a charge assessed to a private sector enterprise for the privilege of soliciting and conducting business within a jurisdiction. There are many different types of fee structures used throughout the United States. One common fee is a flat annual rate. Many cities in Utah charge such fees.

Salt Lake City requires a $70 base fee for each new commercial license application plus $10 for each employee. In Provo, a business license fee costs $20 for a new company. Holladay charges $100, West Valley City $85, Murray $55-$135 depending on the size of the business, and Brigham City $32. Murray and Brigham City also charge a fee of $3 per employee.

In 2001, there were 56,851 private non-farm establishments with paid employees in the state of Utah. The number of businesses in Salt Lake, Davis, Weber, and Utah counties equaled 48,224 in 2001. If each of them was required to pay an additional $10 per year in business license fees for transportation purposes, $482,000 would be generated.

Parking Tax

Parking tax is imposed on the use and privilege of parking a motor vehicle in any parking lot or garage in a certain area. Such taxes are in use in many cities. In Chicago, the parking tax rate ranges from $1.50 to $2.00 for each motor vehicle parked in a lot or garage for every 24-hour period or fraction. Pittsburgh imposes a tax of 31 percent of parking revenue - the highest city parking tax in the country.[68] Baltimore charges $15 on monthly parking contracts and 12 percent on daily and weekly fees. Los Angeles, San Francisco, and Santa Monica charge 10 percent on daily and weekly fees, and Miami charges 20 percent.

Downtown Salt Lake City has about 27,000 parking stalls.[69] In the six months ending December 31, 2003, Salt Lake City Corporation collected $546,000 in parking meter revenues.[70] Clearly, there is a base that could be charged for parking. However, since there are not any comprehensive estimates for the Wasatch Front counties it is not currently feasible to estimate revenues from a tax of this nature.

Port of Entry Fees

Port of entry fees are required from heavy commercial vehicles for the use of a state's highways to transport their wares. Vehicles are inspected at ports of entry to make sure they are in safe operating conditions, do not exceed size and weight restrictions, and that the drivers are properly licensed and insured. Ports of entry also issue permits and collect fees. UDOT operates ten permanent ports of entry and one mobile port of entry. While various fees and permits could be raised, we do not estimate the revenue from a fuel increase. These fees would primarily target heavy commercial vehicles which cause more wear and tear to highways than regular vehicles. Thus, commercial carriers should pay a greater percentage of the cost of maintaining and repairing highways.

Advertising Revenue from Buses

Transit systems in many cities sell the rights to private companies to advertise on buses, benches, shelters, rail cars, etc. UTA currently does this on a significant portion of their fleet. UTA's current fleet includes has about 581 buses and vans, 40 rail vehicles, and 23 TRAX stations. In fiscal year 2003, UTA's advertising revenues totaled $1.3 million. UTA could expand advertising revenue. For example, if all of UTA's buses were wrapped it would generate about $1.8 million.

Innovative Fare Revenue

College and University Student Bus Passes. In some university towns, students are charged transportation fees which permit them to use their student IDs as bus passes. Such passes are in use at major universities around the country. The University of Utah and Brigham Young University both offer bus passes to their students without charge. UTA

Figure 8: Summary of Major Revenue Sources
Short and Long Term Transportation Revenue Estimates

	Additional Revenue FY 2004	Debt Supported	Cumulative Revenue 2006-2030
Additional 5 cent fuel tax: motor fuel and special fuel	$68,678,139	$575,803,060	$2,388,797,748
Inflation adjusted fuel tax	$57,597,431	$482,901,516	$6,422,502,397
Combined inflation adjustment and 5 cent fuel tax	$80,767,313	$677,159,676	$10,776,828,637
Motor fuel sales tax	$63,776,917	$534,710,818	$3,336,123,097
Special fuel sales tax	$29,330,488	$245,909,182	$1,506,438,462
Public transit sales taxes, create a uniform rate of 1/2 cent for all of UTA's service area	$21,809,194	NA	$1,139,597,167
Statewide transportation sales tax	$81,520,473	$683,474,231	$4,092,821,984
Wasatch regional transportation sales tax	$63,281,429	$530,556,612	$3,177,111,394
Earmarked sales tax base from auto-related sales	$279,834,272	$2,346,153,134	$10,813,616,680
Motor vehicle registration -- additional $10	$17,204,460	$144,243,582	NA
Motor vehicle registration -- additional $50	$86,022,300	$721,217,909	NA
Local option registration fee -- $5 Wasatch Front	$6,554,899	$54,956,805	NA
Statewide vehicle miles traveled tax $0.0129 per mile	$333,470,000	$2,795,839,404	$11,975,940,832
Regional vehicle miles traveled tax $0.0129 per mile – Wasatch Front	$207,813,317	$1,742,323,626	$7,425,083,316
Additional $5 drivers license fee	$1,500,000	$12,576,121	$61,685,415
Property tax -- statewide .001 rate	$133,352,051	$1,118,034,364	$5,158,008,470
Property tax -- Wasatch Front transportation district .001 rate	$81,541,212	$683,648,101	$3,153,984,180
Property tax -- UTA capital debt .00113 rate	$95,080,022	$797,158,580	$3,567,156,108
Per parcel fee $25 – statewide	$25,702,775	$215,494,141	NA
Per parcel fee $25 -- Wasatch Front	$13,560,175	$113,689,602	NA
Impact fee $1000 -- Wasatch Front	$11,966,000	$100,323,910	NA
Payroll tax – statewide	$68,186,974	$571,685,098	NA
Payroll tax -- Wasatch Front	$57,021,774	$478,075,160	NA

Each 2004 estimate assumes that the revenue source would have been collected during FY 2004. The debt supported estimate uses the 2004 revenue estimate to see how much debt would be supported on a ten year AAA rated bond issued at 3.34%. Given that there is a 25 year time horizon (2006-2030), the debt should be issued more than once. The cumulative revenue estimates take into account inflation and other growth factors. NA indicates that a long term estimate was not developed.

also offers passes to other riders, including adults, college students not enrolled in a university bus pass program, and minor students.

As a result of these programs, service is increased to meet student needs, including higher levels of campus area service and extended hours of service. As a result of increased transit usage, the demand for parking in and around the higher education facilities is reduced increasing the opportunities to use resources in other ways.

Business Ridership Programs

Businesses often provide subsidized transit passes to their employees. Metropolitan Transit in San Antonio provides monthly transit passes to employers, where employees get unlimited use of the scheduled bus service for commuting to and from work. The transit authority delivers a number of monthly passes to participating businesses. Each business provides the passes to their employees at cost or at a reduced rate, depending on whether the company wishes to subsidize the passes. At the end of the month, the company pays for the passes that have been issued to employees.

Some companies offer their employees the opportunity to set aside pre-tax dollars for their job-related transportation and parking expenses. The employee estimates the amount spent monthly on transit fares and/or parking. A benefit administrator transfers the amount of the employee's paycheck to a pre-tax reimbursement account. The employee is later reimbursed for the transportation-related expenses. Several major employers along the Wasatch Front participate in such programs.

These business ridership programs generate additional riders and revenue for the system. However, the other benefit related issues such as employers subsidizing transit passes does not increase revenue, but likely increases usage of the transit system.

Conclusion

This report has reviewed several revenue options for funding highways and transit primarily along the Wasatch Front. As policymakers choose among alternatives it is important to remember the principles of sound revenue policy. The revenue systems for highway and transit funding should provide adequate funding to meet citizen demands. The revenues should not alter economic decisions and should be fairly and equitably implemented. Additionally, the revenue should be easy to administer and provide accountability.

Figure 8 summarizes the revenues presented in this report. Additionally, the table highlights how much debt would be supported for a ten year bond and an estimate where possible for how much revenue would be generated between 2006 and 2030, a reasonable time frame for implementation of new or altered revenues.

Endnotes

[1] Utah's interstate highways are a critical crossroads for the national system. The four highways cover 7,295 miles across the United States. This includes I-15 (1,435 miles from southern California to northern Montana, designated as a high priority federal highway corridor), I-84 (covering 771 miles from Utah to Oregon), I-80 (the second longest interstate highway at 2,914 miles crossing the U.S. from San Francisco to New Jersey), and I-70 (2,175 miles from Maryland to Utah).

[2] See Utah Foundation Research Brief, "Challenges in Meeting Utah's Growing Transportation Needs" for more information.

[3] Population data is from the U.S. Census Bureau and the Utah Governor's Office of Planning & Budget, the Demographic and Economic Analysis Division.

[4] Governor's Office of Planning & Budget – Demographic & Economic Analysis – Quality Growth Efficiency Tools Work Group, *Baseline 2003* http://www.governor.utah.gov/dea/2003BaselineWEB.pdf

[5] Estimates by Wasatch Front Regional Council.

[6] Mountainland Association of Governments, *30 Year Long Range Transportation Plan*, section three, pg. 2

[7] UTA, *Comprehensive Annual Financial Report for 2003*, pg. 3

[8] Wasatch Front Regional Council, *Wasatch Front Urban Area Long Range Transportation Plan Update 2004-2030*, pg. 39

[9] TEA3.org, *Another Extension as House Leaders Offer New Funding Plan for Renewal*
http://www.istea.org/default.asp

[10] Also of interest, 1,240 miles of Utah's highways are part of the federal governments "Strategic Highway Network." This is designed to facilitate the movement of critical items for national defense in times of both peace and war.

[11] The phases used by MAG and WFRC are similar, but slightly different. MAGs are: 2003-2010, 2011-2020 and 2021-2030 (MAG, *LRTP*, section three, pg. 4). WFRC on the other hand uses: 2004-2012, 2013-2022, and 2023-2030 (WFRC, LRTP, pg. 1).

[12] Wasatch Front Regional Council, *Wasatch Front Urban*

[13] Mountainland Association of Governments, *30 Year Long…*, section three, pg. 11-16

[14] Wasatch Front Regional Council, *Wasatch Front Urban…*, pg. 68 and Mountainland Association of Governments, *30 YearLong…*, section three, pg. 39.

[15] Bus Rapid Transit ("BRT") operates similar to light rail with buses using designated bus lanes to avoid congestion. BRT systems also use traffic signal preemption.

[16] In Utah County the following areas are served by UTA: Alpine, American Fork, Cedar Hills, Highland, Lehi, Lindon, Mapleton, Orem, Payson, Pleasant Grove, Provo, Provo Canyon, Salem, Spanish Fork, Springville. In Tooele County, service is provided to Tooele, Grantsville, and the unincorporated areas of Erda, Lakepoint, Stansbury Park and Lincoln. In Box Elder County, Brigham City, Willard, and Perry are served.

[17] The Utah state constitution states that the, "Proceeds from fees, taxes, and other charges related to the operation of motor vehicles on public highways and proceeds from an excise tax on liquid motor fuel used to propel those motor vehicles shall be used for" five purposes: 1) refunds, adjustments and the costs of collection and administration; 2) construction, maintenance, and repair of State and local roads; 3) driver education; 4) enforcement of state motor vehicle and traffic laws; and 5) debt payment for construction, maintenance, and repair of State and local roads (Utah Constitution Article XIII, Section 5-6). However, revenue from the sale of gasoline for use in boats is transferred to the Boating Account of the Department of Parks and Recreation (Utah Code 59-13-201).

[18] For example, Utah currently excludes fuel purchased by governments from the excise tax, removing this exemption would broaden the excise tax base.

[19] This includes the states of Washington, Oregon, California, Nevada, Utah, Idaho, Montana, Wyoming, Colorado, Arizona, and New Mexico. The state motor fuel tax rates do not include any local taxes. Local taxes are collected in California, Montana, Nevada, and Oregon. These local rates range from a low of 1 cent per gallon to a high of 10 cents in some Nevada counties.

[20] Another possible change would remove some of the exemptions from the excise tax. For example, government fuel purchases are currently exempt from fuel excise taxes.

[21] The per penny contribution was calculated using the following formula: revenue/(tax rate*100). For the five year average this is 248,975,017/(.245*100) = $10,162,26 dollars per penny of tax raised.

[22] Sales tax rates were compiled by the Federation of Tax Administrators and are available online at: http://www.taxadmin.org/fta/rate/sl_sales.html.

[23] Sales tax burden data is updated using current data from the U.S. Census Bureau. See the Utah Foundation research brief "Utah's Tax Burden" for a description of the methodology and a full discussion of this issue. The brief is available at http://www.utahpriorities.net/briefs/rb6_taxes.html.

[24] California Department of Transportation Journal, May-June 2002

[25] California Transportation Commission, *2003 Annual Report*, pg. 10

[26] This assumes the consumption of 1 billion gallons of gasoline in FY 2004, based on the revenue raised from the excise tax. This also assumes an average purchase price of $1.329 for FY 2004. Data for gasoline prices come from http://www.eia.doe.gov/emeu/states/oilprices/oilprices_ut.html and http://www.utahgasprices.com/retail_price_chart.asp?city1=Utah&city2=ZZ&city3=ZZ&period=3&num=11&unit=US+ percent24 percent2FG. We assume for simplification that gas consumption is equal throughout the year. The average U.S. gas prices for July 2004 was $1.897, similar to gas prices in Utah reported at www.utahgasprices.com. This is calculated by computing the number of gallons based on revenue from the excise tax, 1,010,287,380, multiplying this by the average price of gasoline during FY 2004, $1.329, results in a total sales price estimate of $1,342,671,928, this includes the state excise tax. The total value of gasoline sales is then multiplied by the state portion of the sales tax. This results in total estimated revenue of $63,776,917. If the tax is not levied on the state excise tax, the estimated revenue drops to $52.0 million. If special fuels were also included in the tax that would have raised approximately $29.3 million if the tax includes the excise levy, or $24.9 million if it excludes the state excise levy. These special fuel sales tax estimates are based on an average estimated diesel fuel prices in the mountain states of $1.631, from: http://www.itow.org/fuel.htm and http://www.itow.org/fuel2003.htm. For FY 2003, the State Tax Commission estimated that the value of the motor fuel and special

fuel exemption was $93.7 million.

[27] Even with a decrease in consumption, at current prices revenue from sales tax would increase significantly over FY 2004. We use the following assumptions, consumption decreases 10 percent compared to FY 2004 and the average fuel price for the entire fiscal year is $1.897 (the average for the month of July 2004). These assumptions predict sales tax revenue from the sale of gasoline of $81.2 million if it includes the state excise tax, and $71.3 million if the sales tax excludes the state excise levy. If on the other hand, consumption were to decrease 20 percent, the sales tax would generate $72.1 and $63.4 million respectively.

[28] This assumes that the rate will increase by .25 cents in Utah, Box Elder, and Tooele Counties and a by 1/16 cents in Salt Lake County. This estimate assumes growth of 3.1 percent in sales tax revenues in FY04 above what was collected in FY03.

[29] The 2003 taxable base was increased for inflation, resulting in an estimated taxable base for FY 2004 of $32.6 billion in taxable transactions.

[30] The 2003 taxable base was increased for inflation, resulting in an estimated taxable base for the four counties of $25.3 billion in taxable transactions in FY 2004.

[31] This likely does not capture the value of the base with complete accuracy. For example, in the services auto and repair category, watch repair transactions are included. Nevertheless, this is a reasonable estimate for the value of the base. This includes the following categories provided by the tax commission: transportation, retail motor sales, services auto and repair, and private motor vehicle sales. The data is available at: http://www.tax.utah.gov/esu/sales/index.html.

[32] The 2003 taxable base was increased for inflation, resulting in an estimated taxable base of $5.9 billion in 2004 for automobile related transactions.

[33] However, there is some concern that a significant portion of the taxable base is avoiding the tax through online purchases. Some researchers see this as likely to continue well into the future unless the ability to capture those transactions is increased, either through voluntary cooperation or national legislation (See Donald Bruce and William Fox, September 2001, "State and Local Sales Tax Revenue Losses from E-Commerce: Updated Estimates.")

[34] One variation on registration related taxes and fees is the motor vehicle excise tax. The motor vehicle excise tax is used in two different ways. The first is an annual tax at time of registration based on the original value of the vehicle, Massachusetts and Indiana are two states that follow this procedure. The second approach occurs in states such as Oklahoma, Minnesota, and South Dakota. In these states the excise tax it is a selective sales tax, which is similar to Utah's sales tax on the sale of vehicles, and is only collected when vehicles are sold.

[35] Federal Highway Administration, *Summary of State Motor-Vehicle Registration Fee Schedules*, 2001
http://www.fhwa.dot.gov/ohim/hwytaxes/2001/pt11.htm

[36] Idaho Local Highway Technical Assistance Council, *Local Highway Jurisdictions Funding*
http://www.lhtac.org/manuals/funding_lhj/section_v.doc

[37] Triangle Transit Authority, *General Information*
http://www.ridetta.org/top

[38] The News & Observer, *Vehicle sign-up fee may go up,* 7/2/2004
http://www.newsobserver.com/news/story/1389944p-7513641c.html

[39] This assumes that the distribution of vehicles in the state is similar to the population distribution.

[40] http://www.fhwa.dot.gov/policy/vppp.htm and http://www.fhwa.dot.gov/policy/otps/valuepricing.htm

[41] For example, the Orange County Transportation Authority reports that tolls are sufficient to cover debt payments, operation and maintenance, and public ownership allows for further improvements to the transportation corridor. The 91 Express lanes were originally operated by a private owner, OCTA purchased the lanes in 2003. In FY 2003 tolls generated $26.5 million in revenue. See 91 Express Annual report, available at http://www.91expresslanes.com/generalinfo/91annualreport.pdf and http://www.91expresslanes.com/learnabout/trafficrevenue.asp for more information.

[42] Much of the discussion can be attributed to a recently released report by the Reason Public Policy Institute, a nonpartisan think tank promoting market based libertarian principles. The report titled "Corridors for Toll Truckways: Suggested Locations for Pilot Projects" available at http://www.rppi.org/ps316.pdf

[43] Transport for London, *Congestion Charging 6 Months On*
http://www.tfl.gov.uk/tfl/press-releases/2003/october/press-818.shtml

[44] BBC – London – Congestion Charging – *Show me the money* http://www.bbc.co.uk/london/congestion/improvements.shtml

[45] Transport for London, *Impacts Monitoring – Second Annual Report* (April 2004)
http://www.tfl.gov.uk/tfl/cclondon/cc_monitoring-2nd-report.shtml

[46] Transport for London, *TfL Publish C-Charge Annual Report*
http://www.tfl.gov.uk/tfl/press-releases/2004/april/press-1009.shtml

[47] Transport for London, *Congestion Charging 6 Months On*
http://www.tfl.gov.uk/tfl/press-releases/2003/october/press-818.shtml

[48] Transport for London, *TfL Publish C-Charge Annual Report*
http://www.tfl.gov.uk/tfl/press-releases/2004/april/press-1009.shtml

[49] Oregon Department of Transportation, *Road User Fee Task Force, Frequently Asked Questions*
http://www.odot.state.or.us/ruftf/faq.html

[50] Recent presentations and proposals incorporate the rate of 1.22 cents per mile (e.g., http://www.odot.state.or.us/ruftf/pdfs/2004jul22_SLC_Main.pdf) previous research by the Oregon Department of Transportation suggested that the rate would be 1.25 cents per mile (e.g., *Road User Fee Task Force, Frequently Asked Questions* http://www.odot.state.or.us/ruftf/faq.html).

[51] One drawback to this strategy is that the VMT is generally designed to cover the costs associated with travel within a single state. Simply comparing the odometer reading from the previous year it would not be possible to determine what portion of the miles traveled occurred out of state.

[52] This has raised privacy concerns, but proponents argue that the device has no capacity to track the vehicle's movements because it uses transmission via radio frequency that travels a few feet and only transmits mileage data.

[53] The number of licensed drivers in Utah has grown by approximately 2.6 percent every year since 1997. If this trend continues, it will add approximately 40,000 new drivers per year. The driver license fees for these new drivers yield an additional $.8 million each year.

[54] Some classes of property receive a reduction in their taxable value. Primary residences, for example receives a 45% reduction in its taxable value. Accordingly, if an owner-occupied primary residence has a market value of $150,000, the taxable value of the property is $82,500 ($150,000*.55). Additionally, "circuit breakers," can reduce the tax liability for certain taxpayers such as the poor and the elderly. Notably, businesses and other non primary residence property owners pay the tax on the full market value of their property.

[55] The estimate for the UTA taxing district is slightly lower at $81.49. Property tax values are from the Utah Tax Commission, *Utah Property Tax – 2003 Annual Statistical Report*.

[56] UTA's debt limit for FY 2003 is nearly $3.8 billion in total debt.

[57] Current property tax law encourages taxpayers to purchase primary residential property over other types of property. One result is that home may purchase slightly larger homes than they otherwise would.

[58] However, there are equity concerns between primary residential and other property in Utah. This is because residential property is given preferential tax treatment, resulting in a lower tax bill than for non-residential property of the same value.

[59] Utah State Tax Commission, *Utah Property Tax – 2002 Annual Statistical Report*, pg. 49

[60] San Bernardino Association of Governments, *Proposed Development Mitigation Principles, 05/11/2004,* pg. 3

[61] Utah Construction Report, Vol. 46, No. 4, pg. 3

[62] This assumes that the same level of single-family home construction would occur in the future.

[63] Estimates of TIF revenue calculated by Utah Department of Education, available at: http://www.le.state.ut.us/interim/2004/pdf/00000566.pdf

[64] See the report "DART Light Rail's Effect on Taxable Property Valuations and Transit-Oriented Development" by Bernard L. Weinstein and Terry L. Clower at the University of North Texas, January 2003, prepared for Dallas Area Rapid Transit.

[65] Please see the research report, *State Government Debt in Utah: Rapid Growth in Recent Years*, for a review of Utah's experience with debt financing (available at http://www.utahfoundation.org/pdf2/rr662.pdf).

[66] For example, the U.S. Federal Highway Administration's *Innovative Finance Primer* (available at http://www.fhwa.dot.gov/innovativefinance/ifp/index.htm) has a chapter on the use of GARVEEs, grant anticipation revenue vehicles, a debt process where the debt is secured by future federal grants. Also, the Federal Transit Administration's publication *Innovative Finance Techniques for America's Transit Systems*, suggests an increased use of debt as one of the innovative practices (the report is available online at http://www.fta.dot.gov/transit_data_info/reports_publications/publications/innovative_financing/4784_ENG_HTML.htm). Finally, there is significant information on other innovate finance options, especially the use of debt available at http://www.fhwa.dot.gov/innovativefinance/index.htm.

[67] This assumes that payroll would have grown at the same rate as inflation since 2002.

[68] Seattle Department of Transportation, *Parking Tax Analysis,* pg. 21
http://www.cityofseattle.net/transportation/pdf/SeattleParkingTaxFinalReport.pdf

[69] Downtown Alliance - Salt Lake City
http://www.downtownslc.org/downtownslc/parking.cfm

[70] Salt Lake City Corporation, *Statement of Operations*
www.slcgov.com/finance/2005budget/pdfs/F_fundinfo.pdf

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