Honolulu High-Capacity Transit Corridor Project
Alternatives Analysis

Funding Options Analysis

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Chapter 1 Description of Potential Funding Sources

Federal Transit Administration (FTA) Funds

In August 2005, the President signed into law the Safe, Accountable, Flexible, and Efficient Transportation Equity Act – A Legacy for Users (SAFETEA–LU). This successor to TEA-21 provides $286 billion in guaranteed funding for federal surface transportation programs over six years through FY 2009, including $53 billion for federal transit programs, a 46 percent increase over transit funding provided under the previous funding cycles.

Federal funds are provided through legislative formulas or discretionary authority. Formula funds are apportioned based on population, levels of service, ridership or other specific criteria, whereas discretionary funds are allocated based on a case by case evaluation of projects which have to meet specific criteria.

Urbanized Area (UZA) Formula Program – 49 USC Section 5307

For urbanized areas with populations of 200,000 or more (a group that includes Honolulu), apportioned Section 5307 funds flow directly to a locally-designated recipient of Federal funds. The formula determining the amount of funding is based on a combination of bus revenue vehicle miles, bus passenger miles, fixed guideway revenue vehicle miles, and fixed guideway route miles, population, and population density. The federal transportation act limits the application of these formula grants to capital and planning purposes. In addition to other capital equipment and replacement expenses, preventive maintenance, an operations function, is considered an eligible expense under this program.

The National Transit Database (NTD) reports a population of 718,182 for the Honolulu UZA, based on the 2000 Census data. The Kailua-Kāne‘ohe urbanized area, served by the same transit system, belongs to the category of urbanized areas with a population between 50,000 and 199,999, for which a different formula is applied than for UZAs with populations of 200,000 or more. Those two amounts aggregated led to a total apportionment of $24.1M in FY 2006, corresponding to 0.65% share of the national total of $3.7.5 billion[1].

FTA estimates that Honolulu will receive $27.3, $29.6 and $31.5 million in FY 2007, 2008 and 2009 respectively[2]. Beyond the current SAFETEA-LU authorization, though the national Section 5307 funding has grown faster historically, this program is projected

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[1] Source: Federal Transit Administration, Federal Register FY 2006 (Revised) ; 02/03/2006

[2] Source: FTA Revised Fiscal Year 2007 [2008 and 2009] SAFETEA-LU Estimated Apportionments by Urbanized Area. These amounts include funding from FTA Section 5340 program (Growing States and High Density States Formula). The FTA Section 5340 amount that was apportioned to Honolulu totaled $489,106 in FY 2006, corresponding to 2% of the total 5307-5340 combined.

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to increase at 2.1% annually for the purpose of the financial feasibility analysis in the Alternatives Analysis (AA), based on the assumption that fund levels will depend on the future availability of Highway Trust Fund Revenues, projected to increase at that rate by the Congressional Budget Office[3]. Consistent with current practice, it is assumed that $1 million would be deducted annually from this source for the State's Vanpool program.

As mentioned previously, Section 5307 funds are apportioned based on a statutory formula. Each year, FTA revises unit values determined by dividing the total national amount available for Section 5307 funding by the total number of revenue vehicle miles, route miles and other variables in the nation's urbanized areas. Multiplying such data for a UZA by the unit values yields the amount of funds to be received locally. Exhibit 1-1 illustrates this calculation for Honolulu in FY 2006. It is important to note that there is a two-year lag in the local transit data such that funding in FY 2006, for example, is based on the profile of the transit system in FY 2004.

Exhibit 1-1: Honolulu UZA Section 5307 Revenue Calculation for FY 2006

	FY 2006 Unit Values	FY 2004 NTD Data	FY 2006 Apportionment
Population	2.6212	718,182	1,882,487
Population density	0.0011	3,346,728,120	3,838,262
Bus Revenue Vehicle Miles (Bus RVM)	0.4939	21,452,237	10,595,099
Bus Incentive	0.0071	555,735,114	3,969,905
Fixed Guideway Revenue Vehicle Miles (FG RVM)	0.5634	565,354	318,522
Fixed Guideway Revenue Miles (FG RM)	30,130.0000	36	1,081,667
Fixed Guideway Incentive	0.0006	20,598,420	11,955
Total			**$ 21,697,897**

Note: Does not include Kailua-Kāne'ohe Urbanized Area

Demographic variables, such as population and population density, vary only every 10 years, when the new Census is undertaken, and are therefore assumed to remain constant for the feasibility analysis of the alternatives. Depending on the alternative chosen, bus revenue miles, fixed guideway revenue miles, bus route miles, fixed guideway route miles, operating costs and passenger miles will increase when the implementation is complete, thereby increasing the amount Honolulu receives from the program. Exhibit 1-2 illustrates the levels of Section 5307 funds that can be expected under various scenarios for transit system expansions, following from the assumptions above. Estimated levels of Section 5307 funds for the various alternatives may vary from the scenarios presented.

[3] CBO Testimony - CBO's Projection of Revenues for the Highway Trust Fund, April 2006 (page 8)

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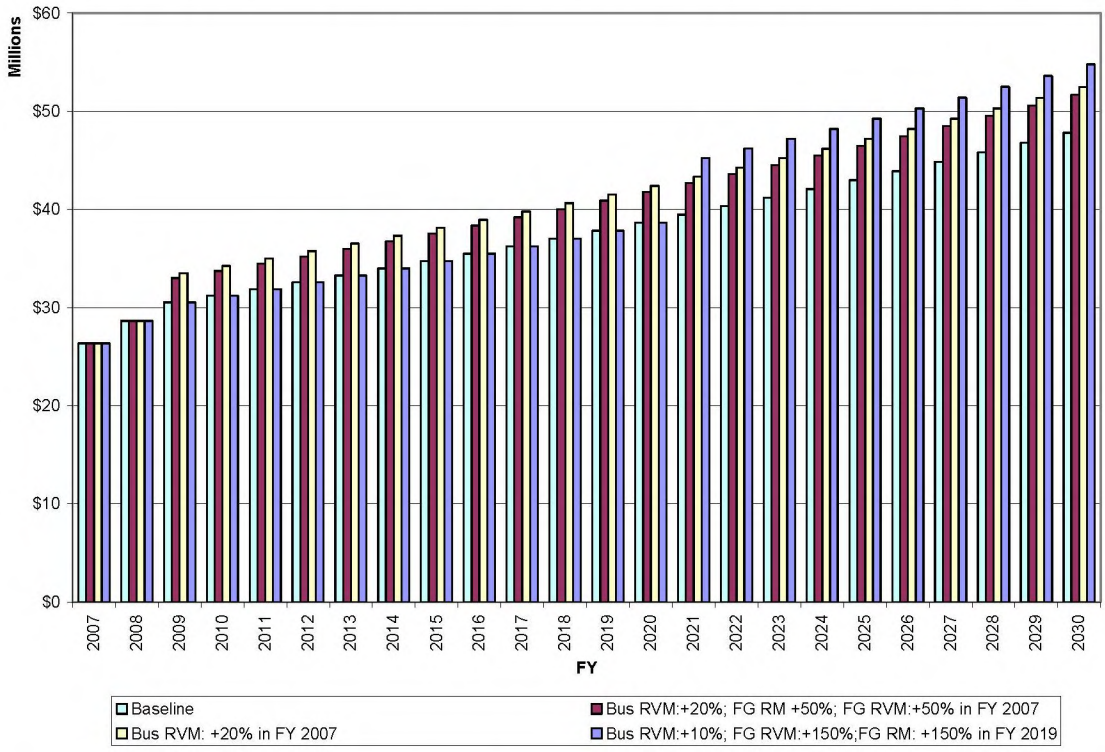
Exhibit 1-2: Section 5307 Funds for Illustrative Growth Scenarios in Key Variables



Each year, the City needs to allocate these funds between capital uses and preventive maintenance (an O&M function). The average split over the 1996-2004 time period has been 40% to O&M and 60% to capital. However, the variability of the split has been considerable: no Section 5307 funds were dedicated to O&M in FY 2000 and 2001, but in FY 2003 all of it was used for O&M.

The way the City will decide to split Section 5307 funds in the future depends on two interrelated factors:

- Ongoing capital needs such as bus replacement, new transit facilities or new rolling stock in the case of a fixed guideway system.
- The City's ability to secure funds from other FTA programs which are specifically dedicated to capital purposes (See next section).

It is assumed that the City will give priority to using local subsidy for operating needs rather than overmatch federal funds for capital uses because it would require the City to issue additional debt. Thus, any unfunded ongoing capital need after the contribution of other FTA funds available for capital uses will be bridged by Section 5307 money; the remainder will go to O&M. Local money for transit system capital expenses will be used as a last resort when combined federal sources are insufficient.

Capital Investment Grants and Loans – 49 USC Section 5309

FTA funding and financing programs under title 49 USC fall into the following three categories:

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- FTA rail and fixed guideway modernization formula funds (49 USC Section 5309 (m) (1) (A))
- FTA major capital investment discretionary funds (New Starts) (49, USC Section 5309 (m) (1) (B))
- FTA bus and bus related facilities discretionary funds (49, USC Section 5309 (m) (1) (C))

FTA Rail and Fixed Guideway Modernization Program (49 USC Section 5309 (m) (1) (A)

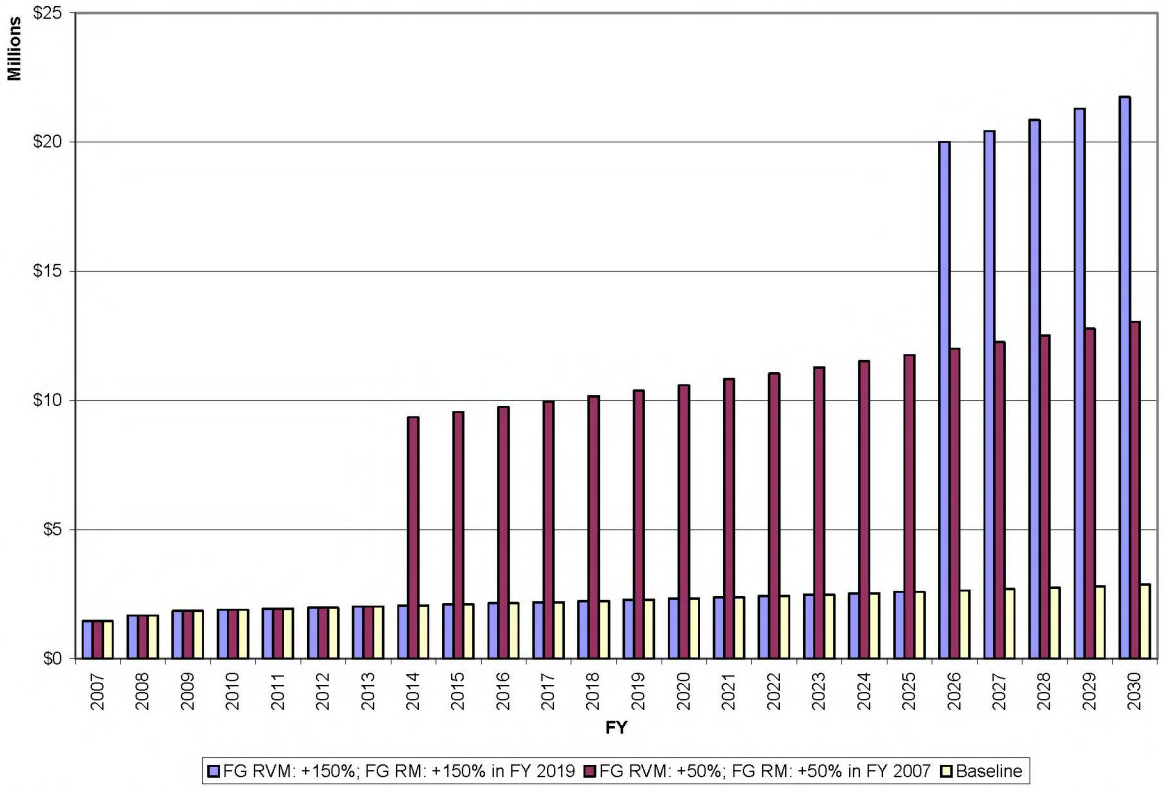
Eligible purposes are capital projects to modernize or improve existing fixed guideway systems, including heavy rail, light rail, busways and HOV lanes. Funds are allocated by a statutory formula to urbanized areas with rail systems that have been in operation for at least seven years. In FY 2006, Honolulu received $1.3 million in Section 5309 funds for fixed guideway modernization out of $1.3 billion nationwide (0.1 percent)[4].

The City has been able to secure a small but growing share of the Section 5309 Fixed Guideway Modernization program based on its zipper lanes. FTA estimates that Honolulu will receive $1.5, $1.7 and $1.9 million in FY 2007, 2008 and 2009 respectively.[5] Beyond the current SAFETEA-LU authorization, as with the Section 5307 program, the national authorization for this program is assumed to increase at an average rate of 2.1% per year. FTA estimates the City's share in FY 2009 to be 0.112%. For the feasibility analysis, it is assumed that the baseline alternative maintain this share, therefore increasing by 2.1% per year.

The formula for Section 5309 Fixed Guideway Modernization funds is based on Fixed Guideway Revenue Vehicle Miles (FG RVM) and Fixed Guideway Route Miles (FG RM). Exhibit 1-3 shows different growth scenarios and their respective impact on the amount available to Honolulu. Note the seven year lag between the year of implementation and the first corresponding cash receipt. Estimated levels of Section 5309 Fixed Guideway Modernization funds for the various alternatives may vary from the scenarios presented.

[4] Ibid 2
[5] Ibid 2

Exhibit 1-3: Section 5309 FGM Funds for Illustrative Growth Scenarios in Key Variables



FTA Major Capital Investment (New Starts) (49, USC Section 5309 (m) (1) (B)

This source can by statute fund 80 percent of a capital project, although the customary Federal share is closer to 50 percent and can be as low as 20-30 percent for more recent large capital project recipients. New Starts is allocated on a project basis for major fixed guideway investments that cost more than $250 million and request more than $75 million from FTA. The program has a five level rating system for projects (High, Medium-High, Medium, Medium-Low and Low) based on measures of project cost-benefit and local financial commitment. Each year, New Starts projects compete nationwide for a limited amount of federal funding. The FTA has responded to strong interest in the program by adding new rules and more rigorous criteria and by strongly encouraging the local share of the total capital cost to be as high as possible. The Congressional Conference Report that accompanied the FY 2006 Department of Transportation Appropriations Act instructs "FTA not to sign any new full funding grant agreements after September 30, 2002 that have a maximum Federal share of higher than 60 percent." [6] The currently authorized annual New Starts funding levels of $1.5 to $1.8 billion per year are spread among an increasingly large pool of recipients. Exhibit 1-4, showing the maximum share of national New Starts funds going to any one city and the number of annual New Starts projects, illustrates this trend.

[6] Source: Federal Transit Administration, http://www.fta.dot.gov/17861_17880_ENG_HTML.htm

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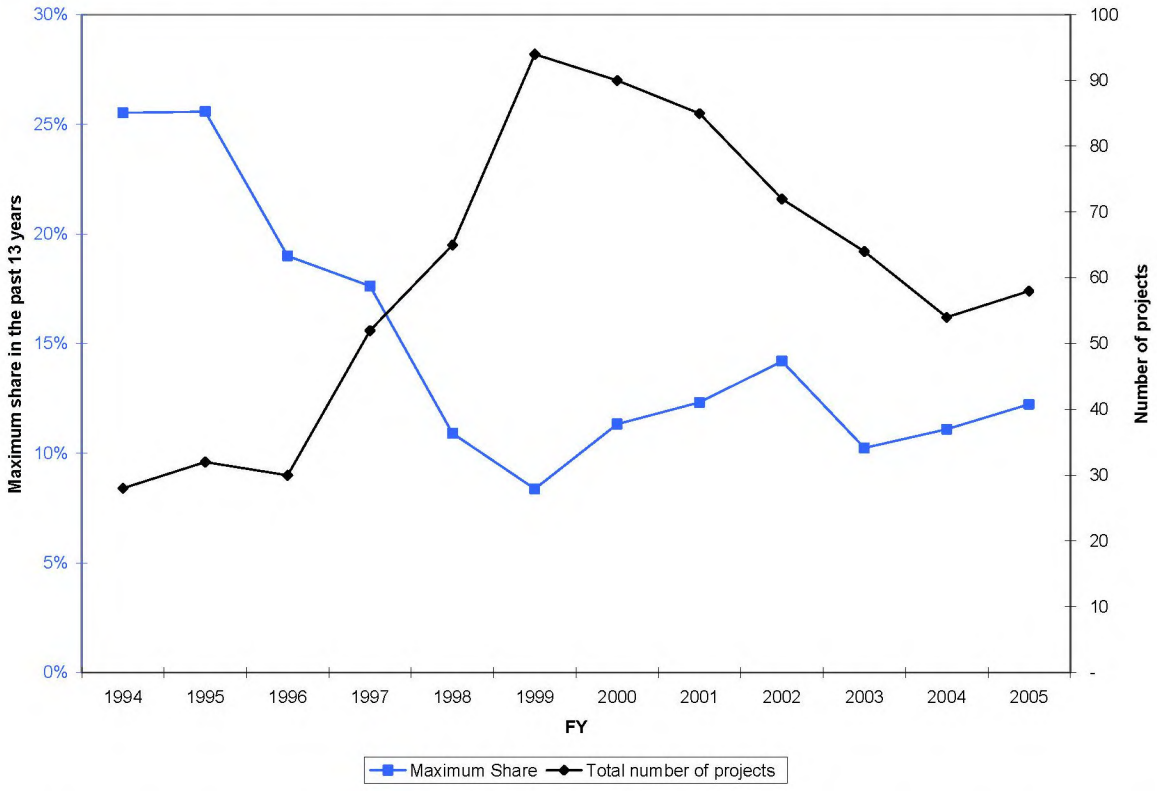
Exhibit 1-4: Maximum Share of New Starts Spending to Any One City (1994 – 2005)



The level of New Starts funds for the Honolulu transit project will reflect characteristics of the preferred alternative such as its cost-benefit profile, the quality and number of other transit projects simultaneously competing for funds, and the commitment of local funding sources for the project. On the last two counts, though the level of competition nationwide is increasing, Honolulu has the advantage of having an already-committed local source of revenue in the GET surcharge to leverage New Starts resources. Considering this and the early stage of project implementation, Honolulu can reasonably expect funding of up to $1.2 Billion dollars.

FTA Buses and Bus Facilities Discretionary Funds 49, USC Section 5309 (m) (1) (C)

Section 5309 bus funds are allocated on a discretionary basis for a variety of bus-related purposes extending beyond merely buses themselves to including supporting elements for bus programs such as financing costs (see Certificates of Participation discussion below). The funding appropriated for the bus capital program is fully allocated to projects designated by Congress and at least 5.5 percent of the Section 5309 bus funds must be used in non-urbanized areas. In FY 2006, the State of Hawai‘i was allocated $11.3 million in Section 5309 bus discretionary funds including $7.3 million for Honolulu out of $831 million nationwide[7].

[7] Ibid 2

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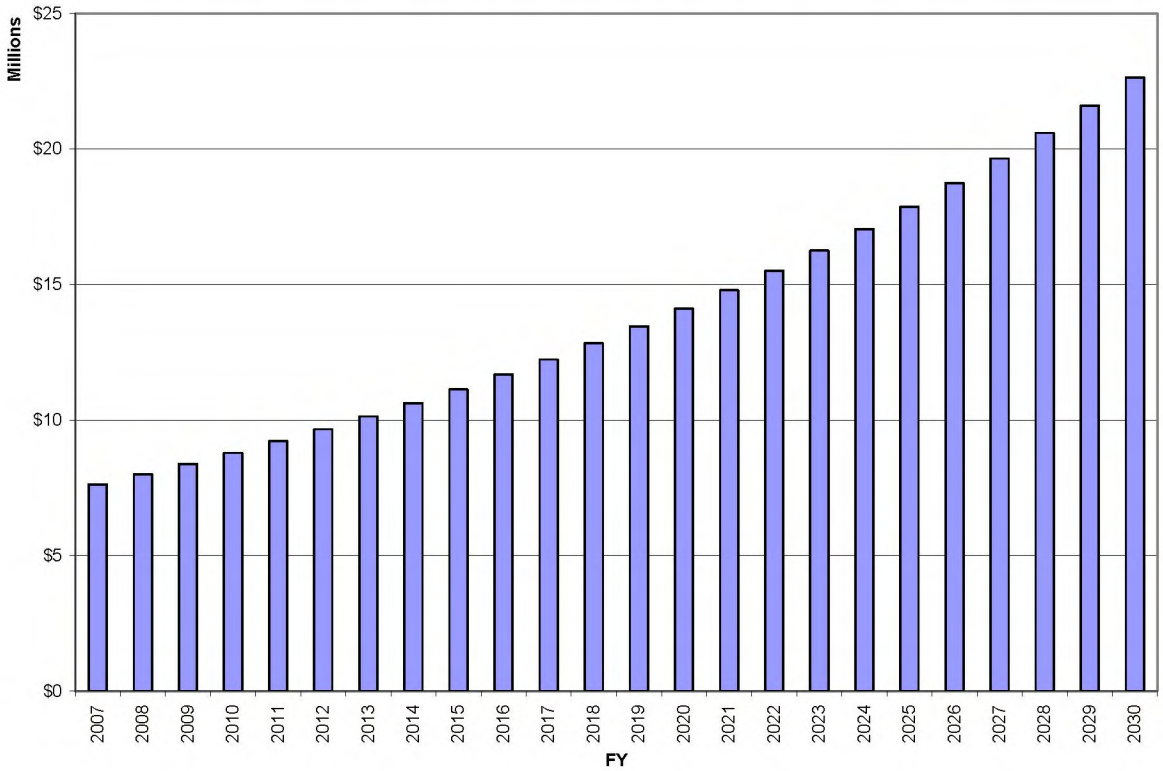
From 1998 to 2006, Honolulu received an average of $7.7 million annually from the FTA bus discretionary program. This reflects an ongoing bus replacement program which has helped maintain a fairly stable average age of the bus fleet throughout the same period. After a peak of $13 million in 2003, when it accounted for 2.08% of the total national amount available under this program, Honolulu's share declined to 0.68% in FY 2006. Funding levels for this program, as for other discretionary sources, are prone to variance and uncertainty. FTA requires a local match of at least 20% and the success of the City at securing funds from this program will also depend partly on its ability and willingness to overmatch this amount. As mentioned previously, this will have an impact on the way Section 5307 funds are spent.

Looking at the City's history at securing earmarks, it is possible to extrapolate future revenues to the City from this program. However, each alternative will imply some improvement in the bus system that might go beyond normal replacement. Unlike for formula programs, where the revenues can be known with greater certainty, for bus discretionary funding added buses or bus-related improvements don't necessarily correspond to increases in the FTA contribution. Exhibit 1-5 shows the baseline potential revenues through FY 2030.

Exhibit 1-5: Baseline Estimated Section 5309 Bus Discretionary Funds



Federal Highway Administration (FHWA)

Under SAFETEA-LU, FHWA is authorized to provide funds for highway related projects until FY 2009. FHWA funds flow to the State which is the sole recipient of Federal

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highway money. Under Title 23 USC, the O'ahu Metropolitan Planning Organization (OMPO) is responsible for the allocation of those funds mentioned below which can either be used directly for highway related projects or be transferred (or flexed) to be used for transit related purposes.

Highway Transferable (Flexible) Funds

Under Title 23 USC, flexible funds permit highway funds to be used for transit projects. The idea of flexible funds is that a local area can choose to use certain Federal surface transportation funds based on local planning priorities, not on a restrictive definition of program eligibility. Since the Intermodal Surface Transportation Efficiency Act (ISTEA) federal authorization, funds from the Surface Transportation Program (STP) and the Congestion Mitigation and Air Quality Improvement Program (CMAQ) may be transferred from FHWA to FTA for transit projects. In Honolulu, the OMPO would be the body responsible for making the decision on the transfer of highway funds, for use in the implementation of a fixed guideway alternative or transportation system management. The different Highway programs are described below:

Surface Transportation Program (23 USC 133)

The Surface Transportation Program (STP) provides the greatest flexibility in the use of funds. This program distributes funds to states on the basis of federal aid highway lane miles, vehicle miles and estimated tax payments attributable to highway users. These funds may be used (as capital funding) for public transportation capital improvements, car and vanpool projects, fringe and corridor parking facilities, bicycle and pedestrian facilities, and intercity or intracity bus terminals and bus facilities. The managed lane alternative would be eligible for this program.

Congestion Mitigation and Air Quality Improvement Program (CMAQ) (23 USC Section 149)

CMAQ funds are used to support transportation projects in air quality nonattainment areas. A CMAQ project must contribute to the attainment of the national ambient air quality standards by reducing pollutant emissions from transportation sources. Funds are apportioned to States based on a formula that considers the severity of their air quality problems. CMAQ funds may be used for transit operating costs during the first three years of operations. The State of Hawai'i was apportioned $7.9M of CMAQ funds in FY 2005. Since it does not have a non attainment area, the State can allocate its apportionment to any project eligible for STP funds.

Other Highway Funds

National Highway System (23 USC 103(b))

The National Highway System (NHS) program provides funding for a wide range of transportation activities on the designated National Highway System, established in 1995. Eligible transit projects under the NHS program include fringe and corridor parking facilities, bicycle and pedestrian facilities, carpool and vanpool projects, and public

transportation facilities in NHS corridors, where they would be cost effective and improve the level of service on a particular NHS limited access facility.

Projects of Regional and National Significance and other Earmarks (SAFETEA-LU 1301)

This program provides Title 23 (highway program) funding for projects of regional or national significance. Any high cost surface transportation project of regional or national significance is eligible. The current project authorization levels, based on SAFETEA-LU earmarks, range between $178 million and $445 million. Projects which do not receive funding through federal capital grant programs like New Starts are still eligible to be earmarked by Congress under this program. Funding for Projects of Regional and National Significance in the current SAFETEA-LU authorization is, however, fully allocated to other projects.

Interstate Maintenance (IM) program (23 USC Section 119)

The Interstate maintenance program, apportioned to the States, has a funding level of around $5 billion per year nationally through the end of the current authorization. It can be used for resurfacing, restoring, rehabilitation or reconstruction of routes on the interstate system. If such maintenance work is to be undertaken for the managed lanes alternative, the State could decide to allocate part of its apportionment to the City for this use.

Other Potential Federal Sources

Other governmental programs are more remote in nature in their applicability to the transit project, yet can be looked to for some support on a case-by-case basis. These include Housing and Urban Development (HUD), Community Development Block Grant Funds, Economic Development Administration (EDA) grants and loans, and Environmental Protection Agency (EPA) Brownfields grant and revolving loan fund programs. For an alternative benefiting the military base at Pearl Harbor or the international airport, a case could potentially be made for the project to be eligible for some funding from the Department of Defense of Federal Aviation Administration.

State Sources

Allocation of the State Transient Accommodation Tax

Under Chapter 237D of Hawai‘i Revised Statutes, a transient accommodation tax is levied by and collected in the State of Hawai‘i. It is levied at 7.25 percent on the furnishing of a hotel room or an apartment occupied by a transient for less than 180 days. The tax is redistributed by the State among the State convention center capital special fund, the State tourism special fund and the four counties. Effective January 1st 1999, the share of collections from the transient tax directed to Honolulu was set at 19.8 percent of the total. In FY 2005, this corresponded to $38.9 million. The revenues from the Transient Accommodation Tax are accrued in the City and County General Fund which

is one of the two sources of funds for transit Operations and Maintenance (see below for an overview of the main components of the General Fund).

Other Types of State Taxes

If deemed feasible, there are numerous types of State taxes that could potentially be apportioned to Honolulu for purposes of funding the transit project capital and/or O&M costs. These include, but are not limited to, net income taxes, tax on cigarette and tobacco, tax on liquor, state tax on rental motor vehicles and tour vehicles surcharge.

City Sources

General Excise and Use Tax Surcharge

In 2005, the Hawai'i State legislature authorized counties to adopt a surcharge on the State General Excise and Use Tax of a maximum of one half percent. Following this authorization, the City and County of Honolulu enacted Ordinance No. 05-027 establishing a one half percent general excise and use tax surcharge for operating and capital costs of public transportation within the City and levied from January 1st 2007 to December 31st 2022. The surcharge will be collected and distributed by the State to the City after deducting 10 percent of the gross proceeds for administrative and collection purposes.

The law also stipulates that the surcharge is not applicable to the sectors currently taxed at the reduced rates of one half percent and 0.15 percent rates or those that are exempted. In FY 2005, O'ahu's General Excise and Use reported tax base taxable at the 4 percent rate totaled $39.25B. However, according to recently published draft administrative rules, current O'ahu taxpayers would not be subject to the surcharge on products sold on neighbor islands. The interpretation by State officials of how the tax surcharge will be administered is ongoing, yet it is assumed that the 0.5 percent surcharge will only apply to business that takes place in O'ahu. We therefore expect the relevant tax base for the surcharge to be reduced by 10 to 20 percent from previous levels. Taking this into account, the GET surcharge is estimated to generate over $162 million annually by 2007.

Local Transit Operating Subsidy

Currently, contributions from the City's General Fund and Highway Fund support the operations and maintenance of public transportation in Honolulu and complement operating revenues such as fares and advertising as well as FTA assistance for preventive maintenance. Other public services in Honolulu compete for the same local sources and, consequently, the share that transit receives varies year to year. Exhibit 1-6 shows how this share varied from FY 2000 to FY 2005. A majority of Highway Fund revenues are used for transit O&M uses but are also transferred to the General Fund to support and pay debt service on bond proceeds.

The main local revenue sources for the Highway Fund and General Fund are shown in Exhibit 1-7 with their corresponding share of Fund revenues. During the 1994 to 2005

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period the General Fund and Highway Fund grew at a real annual rate (net of inflation) of 0.65%. This growth rate is assumed to continue through the analysis period.

Exhibit 1-6: Total Sources of Local Funds and Transit Use

Amounts in Current $ '000s	2000	2001	2002	2003	2004	2005
General Fund + Highway Fund	$682,484	$655,743	$681,542	$678,262	$740,151	$838,371
Total Transit Uses	$65,259	$62,835	$75,412	$75,771	$74,071	$77,909
Transit Share	9.56%	9.58%	11.06%	11.17%	10.01%	9.29%

Source: Comprehensive Annual Financial Report FY 2000-FY 2005

Exhibit 1-7: Sources of Revenue for the General and Highway Funds

General Fund Revenue Sources	Average Share 2000-2005
Real Property Taxes	68.6%
Motor Vehicle Registration Annual Fee	2.1%
Transient Accommodation Tax (from State)	5.8%
Other Sources (including transfers from other funds)	23.6%
Total	100.0%
Highway Fund Revenue Sources	**Average Share 2000-2005**
Public Utility Franchise Tax	21.3%
City & County Fuel Tax	43.0%
County Motor Vehicle Weight Tax	27.4%
Other Sources	8.3%
Total	100.0%

Traditional Financing

City's General Obligation Bonds

Some or all of the alternatives could be financed through the issuance of GO bonds, backed by the City's full faith and credit. In the case that a GET revenues eligible alternative is selected, the City could direct the GET revenues into an existing or new fund to which it has access to for repayment of debt service, thereby increasing the City's capacity to issue GO debt.

In the absence of additional GET revenues, debt restrictions are limited by statute in order to maintain its credit rating and limit exposure related to its current revenue base.

- **Legal Debt Limit:** per State Constitution (Act VII, Section 12 and 13), any one County is required to have a total outstanding funded debt equal to no more than 15% of the total assessed value of real property for tax purposes.
- **Additional "Affordability Guidelines":** to preserve its credit quality, the City further developed affordability guidelines, last amended in Resolution 03-59, CD1, "which may be suspended for emergency purposes or because of unusual circumstances". These guidelines include the following:

- Debt service for general obligation bonds including self-supported bonds, including enterprise and special revenue funds, should not exceed 20 percent of the City's total operation budget.
- Debt service on direct debt, excluding self-supported bonds should not exceed 20 percent if the General Fund revenues.
- Other guidelines include a limitation on the City's variable debt rate and debt refunding policy

Assuming the City's credit rating of AA- and Aa3 is maintained and the affordability guidelines are applicable in future years, the limitations on GO debt can be calculated for future years based on the following growth assumptions:

- Total assessed value of real property used for tax purposes are assumed to grow at a 2.9% annual rate, corresponding to the 1996-2006 historical trends[8].
- General Fund revenues are assumed to grow at a 2.8% annual rate, corresponding to the 1995-2006 data[9].
- Total operating budget is assumed to grow at a 6.0% annual rate, corresponding to the 2002-2006 data[10].

Exhibit 1-8 shows the debt service on current outstanding debt from 2006-2010. From this, it is apparent that the limitation as a percentage of General Fund revenues is the most constraining, since the city's debt capacity is almost at its limit in FY 2007 and 2010 with only existing debt not including future planned debt.

Exhibit 1-8: Debt Margin 2006-2010 based on Legal Debt Limit and Affordability Guidelines

	2006	2007	2008	2009	2010
Legal Debt Limit	17,115,432	17,611,342	18,121,622	18,646,686	19,186,963
Current Debt Service Charges (including self supporting debt)	134,922	205,239	201,795	198,936	199,916
Debt Margin Test 1	16,980,510	17,406,103	17,919,826	18,447,750	18,987,048
Affordability Debt Limit (20 pct General Fund)	155,640	166,040	170,763	175,621	180,616
Current Debt Service Charges (excluding self-supporting debt)	117,896	160,205	159,481	157,665	175,082
Debt Margin Test 2	37,744	5,836	11,282	17,956	5,534
Affordability Debt Limit (20 pct Operating Budget)	274,078	297,289	315,237	334,267	354,447
Current Debt Service Charges (including self supporting debt)	134,922	205,239	201,795	198,936	199,916
Debt Margin Test 3	139,156	92,050	113,441	135,331	154,532

Revenue Bonds

Revenue bonds backed exclusively by GET surcharge revenues could also be used for the chosen alternative. The City or a separately formed authority would need to issue such bonds and correspondingly be pledged the revenue from the GET source. The City will

[8] FY 1996-2005 data was taken from FY 2005 CAFR (Statistical Section, pages 200 and 201); FY 2006 data was taken from the City's Department of Budget and Fiscal Services available at http://www.co.honolulu.hi.us/rpa/05_oahu.pdf

[9] FY 1996-2005 General Fund revenues was taken from the City's Comprehensive Annual Financial Reports (CAFR), FY 2006 General Fund revenues was taken from the FY 2006 adopted budget (ord 06-18) and FY 2007 General Fund revenues was taken from the FY 2007 adopted budget (ord 06-32)

[10] Data from city's adopted budgets (ordinances 01-24, 02-26, 03-22, 04-24, 06-18 and 06-32)

need to decide, with its financial advisor, the best strategy for issuing debt in the context of the alternative chosen. It is assumed that that the finance costs paid for project capital costs will not be different for the different financing strategies.

Private Sources

Real Estate Related Sources

Tax Increment Financing and Value Capture

Tax Increment Financing (TIF) is a form of what is commonly referred to as "value capture". It seeks to convert a portion of the private benefits from increased commercial activity around the new transportation system to public use. TIFs reallocate a portion of future property tax growth towards project debt based on increases in assessed values for parcels well served by transit, compared to increases in the assessed value of other properties. The rationale is that properties well served by transit will see rising market value, which will result in additional property tax collections that can be used to support transit. All property taxes collected on the island of O'ahu currently go into the General Fund – a major source of transit operations and maintenance revenue, so a portion of the revenue raised from a TIF would represent loss revenue for transit operations.

Benefit Assessment Fee

Benefit assessment fees are usually annual assessment on property owners, based on the benefits they derive due to the proximity to a transit station. Section 34 of the City's Revised of Ordinances enables the creation of assessment districts on O'ahu. Compared to TIFs, benefit assessment districts have the advantage of generating revenue before the project is constructed, whereas TIF revenues are unlikely to flow until some time after a project is opened for revenue service.

The Dulles corridor in Northern Virginia is a current example of such a funding source. The extension of the Metrorail in the Washington, DC metro area to Dulles International airport will pass through an activity center (Tysons Corner) with one of the largest office space concentrations in the US[11]. The benefit assessment district in Tysons Corner will provide for 25 percent of the total funding necessary to complete the first phase of the project. Along with Wiehle Avenue, these two areas will generate between $17 and $27 million annually depending on the tax rate and assessed value, reflecting the creation of an estimated 7.5 million additional square feet of commercial, retail and office space will be achieved, along with 4,700 additional residential units.

Developer Mitigation (Impact) Fees

Developer Mitigation (or Impact) Fees is a third example of value capture. Proposed developments that are within set boundaries are assessed a one time impact fee. The

[11] According to Department of Transportation, Fairfax County, Virginia

main difference compared to a TIF is the fact that Developer Mitigation Fees are one time upfront fees which needs to be added to the existing taxes and fees already in place.

Both TIFs and Developer Mitigation Fees are directly tied to real estate property taxation. Thus, the implementation of these techniques is often limited by political constraints associated with implementing new tax measures.

This funding technique is most applicable where there is a substantial area of undeveloped land around the transportation project, since the fee is associated to new building permits.

Joint Development and Air Rights Development

These techniques generate revenues from the sale or lease of development rights associated with real property owned or operated by the transit agency (or the City in the case of Honolulu). This technique therefore is limited by the amount of real property the City acquires for the project.

Some of the major projects which used this type of revenue source are Miami's Civic Center rail station, Portland Oregon's Banfield line, and Cleveland, Baltimore, and Washington D.C. a various light rail stations. Station development is an example of a Joint Development called Air Rights Building, which, as its name indicates, used the air right above the metro station.

FTA suggests[12] that Joint Development should be planned (at least at the conceptual stage) when transit facility is first being designed. This allows a more detailed environmental impact analysis as well as a better site design and utilities location in anticipation of the potential development. Better planning can eliminate many uncertainties threaten to drive away potential private partners.

Direct Private Investment in Station Development

A partnership where a private entity would pay for all or part of a station serving its development is another approach that could be encouraged by the City. The private partner could also dedicate right-of-way through his property, thus increasing the potential for its development and enhancing its value. Such opportunities would have to be studied on a case by case basis and are strongly dependent on the alternative and the alignment chosen.

User Fees

User fees are expected to be a major source of operating revenue in whichever alternative is selected. Currently, the fare box recovers roughly 30 percent of the operating expenses of the transit system in Honolulu, and we expect that relationship to hold in the no build, TSM, and fixed guideway alternatives. For the managed lanes alternative, tolls may be assessed at a level that would exceed operating expenses and be available for the

[12] Innovative Financing Techniques for America's Transit Systems, published by FTA, September 1998.

repayment of capital from the project through the use of toll revenue bonding or a private concession contract such as Build-Operate-Transfer (BOT).

Summary of Sources and Uses of Funds Available

Exhibit 1-9 summarizes the main uses and sources of revenues described above that are the most relevant for the different transportation alternatives.

Exhibit 1-9: Summary of Main Sources and Uses of Funds

Sources / Uses	Federal	Local
Capital	• Section 5309 New Starts Program • Section 5307 (formula) • Section 5309 Bus Discretionary Program • FHWA Funds (mainly STP)	• GET Surcharge • GO Bonds • Private Investment in Station Development • User Fees (Managed Lanes)
O&M	• Section 5307 (preventive maintenance)	• Highway Fund Subsidy • General Fund Subsidy • Passenger Fares[13] • Advertising • User Fees

Innovative Finance Mechanisms

Transportation Infrastructure Finance Act of 1998 (TIFIA)

For projects involving private-sector participation, use of TIFIA credit facilities may be used to allow the developer to significantly reduce the cost of financing. The Transportation Infrastructure Finance and Innovation Act of 1998 (TIFIA) provides federally funded credit assistance to major transportation projects of regional and national significance. TIFIA offers three distinct forms of credit assistance: direct loans, loan guarantees, and lines of credit. TIFIA assistance is intended to leverage federal funds in order to improve the access to capital markets, improve the flexibility of repayment, achieve more favorable interest rates, and expedite completion of large capital projects.

The TIFIA administration requires that applicants receive an investment grade rating for the senior project debt and demonstrate the regional and national importance of the projects, the participation of the private sector, and the dedication of other funding sources.

[13] By resolution of the City Council, fares are to be adjusted so that the farebox recovery ratio is maintained between 27% and 33%.

The use of a TIFIA loan is flexible. The rate on a TIFIA loan is locked in at the signing of the Secured Loan Agreement (end of the application process) and does not change throughout the term of the financing (as with a home mortgage). However, there is no obligation to draw on the loan if market conditions have changed and a better rate can be obtained. A TIFIA loan can cover no more than one third of project costs and is on par with senior debt in the case of bankruptcy.

IN FY 2005, the TIFIA program received 6 letters of interest and one application from sponsors considering the use of TIFIA assistance and closed direct loans for two projects ($66 million each). The Tren Urbano project, located in San Juan, Puerto Rico, also received TIFIA support through a $300 million direct loan to help fund the $1.7 billion project. The direct loan was closed in August 2000 with a final maturity in 2035. The loan included a junior lien on local fuel tax receipts, motor vehicle registration fees, and farebox revenues. In April 2003, the TIFIA loan was prepaid through a tax-exempt debt refinancing. The new tax-exempt debt was cheaper by 75 basis points.

Private Activity Bonds

In SAFETEA-LU, the Internal Revenue Code was amended to add highway and freight facilities to the privately developed and operated projects for which Private Activity Bonds (PABs) may be issued. PABs allow a private sponsor to issue tax-exempt bonds for surface transportation projects. The tax law allows for interest income accruing to bondholders of PABs to be excluded from federal taxation. Thus, project debt using PABs can be obtained at lower interest rates than conventional taxable financing to provide bondholders with equivalent yields.

Surface transportation projects that receive Federal assistance under Title 23 are eligible for PABs. Projects that receive credit assistance under TIFIA are also Title 23 projects, and thus TIFIA projects are also eligible to receive this tax-exempt bond authority.

State Infrastructure Bank

Section 350 of the National Highway System Designation Act of 1995 (NHS) established a pilot program to create up to ten State Infrastructure Banks (SIB). The DOT Appropriations Act of 1997 extended the SIB program to "at least 10 states" and provided $150 million in general funds to help capitalize the original pilot SIBs and any new SIBs approved by the Department. SIB activity has continued to grow and was used by 33 states and territories as of June 30, 2005 covering 457 loan agreements.

State Infrastructure Banks (SIBs) are designed to provide States with a new financing capability and are intended to complement other parts of the USDOT Program. SIBs are created with federal seed money (also known as capitalization grants) and administered at the state or multi-state level. They offer a menu of loan and credit enhancement assistance (such as line of credit), and give State/locals maximum feasibility regarding project selection and financial management. Thus, an SIB is very much like a private bank which needs equity capital to get started, and offers customers a range of loan and credit options. This financing mechanism has been used more extensively in projects such as toll road or bridges, which have a revenue stream which can be used to repay the

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loan. However, it has also been used in transit projects such as a segment of the light rail system in St. Louis, Missouri. For the St. Louis project, the majority of the $18.75m loan was used for construction capital and repaid with revenues from local sales tax. The benefit to the city of St. Louis was a lower cost of capital as well as the possibility of undertaking the project right away, thus avoiding uncertainties linked to price escalation.

Grant Anticipation Bonds

Grant anticipation bonds or notes are securities that provide the bondholder or investor the surety of payment from a defined federal revenue source, such as FTA Section 5307 funds or Section 5309 Fixed Guideway Modernization funds.

The key issues facing transit agencies when issuing grant anticipation bonds are substantiating the quantity and timing of funds available for repayment and the ability of the local agency or agencies to provide the requisite local match payments attached to federal payment requirements. In addition, there is always the risk that the federal government will not reauthorize the current transportation legislation. Finally, recent events in the Gulf Coast have also shed light on another risk associated with this type of bond financing. Following hurricane Katrina and the destruction of a large part of New Orleans bus fleet, the Regional Transit Authority missed a $6 million payment of its grant anticipation debt service.

Depending on the timing of the Honolulu transit project, there might be a certain level of uncertainty on federal funding levels in later years of the project. However, the view of rating agencies has been that SAFETEA-LU will be reauthorized and that, in the interim, the flows of Section 5307 funds will continue at recent levels.

Certificates of Participation

Certificates of for allowing transit agencies to fund capital projects without being subject to statutory Participation (COPs) are securities that represent interests in a stream of payments from an underlying obligation, typically a lease or an installment sale agreement. The governmental entity's payments are assigned to a trustee who in turn makes the payments to the holders of the COPs. For transit financing, the underlying obligation is usually a lease. COPs in lease payments are mechanisms for avoiding restrictions on long-term debt issuance such as voter approval or debt ceiling limitations. The reason they are not considered long-term debt is because the governmental lessee is not obligated at the outset to make rental payments throughout the entire term of the lease, but is only required to pay rent each year to the extent the lease property is available for use and the rents are appropriated. FTA has specifically permitted federal reimbursement of interest costs related to COPs in their Final Rule on Capital Leases.

COPs have higher risk-profile than grant anticipation bonds or general obligation bonds because the COPs do not directly have a lien on dedicated revenue sources and are subject to appropriations risk. The credit strength of COPs may be enhanced with bond insurance, letters of credit or other guarantees. COPs can be issued for any items that directly support transit operations including rolling stock, buses, maintenance equipment, radio equipment, signals, bus garages, and park and ride facilities.

In practice, future Federal transit formula grants are often used as partial security for leases underlying COPs. Hence, COPs and grant anticipation securities are often used interchangeably despite the distinction mentioned above.

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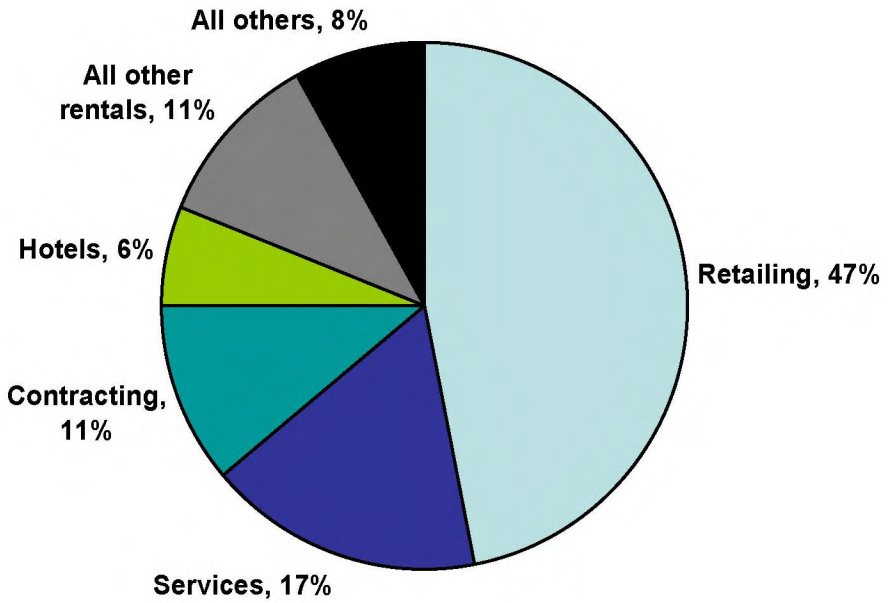
Chapter 2 Preliminary Analysis of General Excise and Use Tax

GET Component Share and Variability

The General Excise and Use Tax is levied in the State of Hawai'i on all business activities. In an effort to forecast revenues generated from the 0.5 percent surcharge in GET, it is assumed that all the businesses currently taxed at a rate of 4 percent would be subject to the surcharge. The sectors that comprise the GET surcharge tax base per the Hawai'i State Legislature are: Retailing; Services; Contracting; Theatre, amusement, radio; Interest; Commissions; Hotel rentals; Other rentals; Use (4%) and all others (4%). Unless stated otherwise the expression "tax base" will refer exclusively to the economic activity that take place in these industries, as opposed to the total tax base, which includes sectors that are currently taxed at 0.5 percent or 0.15 percent and which would not be impacted by the surcharge per legislation.

Fifteen years of GET collection data was collected from the Hawai'i Department of Taxation. Exhibit 2-1 shows the average share of the tax base of each industry over the 1990-2005 time period.

Exhibit 2-1: Average Share of Tax Base by Industry in O'ahu 1990-2005



Retail alone accounts for nearly half of the total GET tax base. This share has been very stable for the past 15 years, with a minimum of 44.8 percent in 1991 and a maximum of 49.5 percent in 2005. The second largest share of GET tax base is services.

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Relation to Tourism Activity

Tourism plays an important role in Hawai'i's economy and historical data shows that there has been a strong correlation between the rise in retail sales and the increase in number of visitors. In 1992, tourism activity in Honolulu was estimated to contribute directly to 22.5 percent of the total GET revenues. Today, the State Department of Business, Economic Development and Tourism (DBEDT) estimates that visitors are responsible directly or indirectly for about a quarter of all economic activity in the State.

Tax Base Variability

The variability of the various economic sectors of the tax base has been calculated using the standard deviation as percentage of the mean for each industry. The results are shown in Exhibit 2-2.

Exhibit 2-2: Variability by Industry 1990[14]-2005 Period

	Variability (SD as % of Mean)
Hotel	7.3%
All Other Rentals	7.5%
Retailing	7.8%
Theater, Amusements, Radio	8.5%
Services	9.2%
All Others (4%)	10.0%
Use (4%)	13.3%
Commissions	16.2%
Contracting	24.3%
Interest	38.8%
All Above Industries Combined	**7.4%**

Exhibit 2-3 plots the data points shown in the two previous exhibits. Contracting sector put aside, the most volatile components of GET tax base also have some of smallest share of the total tax base. Conversely, the largest components of the tax base – such as retailing – have been the most stable.

[14] The variability for retail was calculated with data going back to 1980

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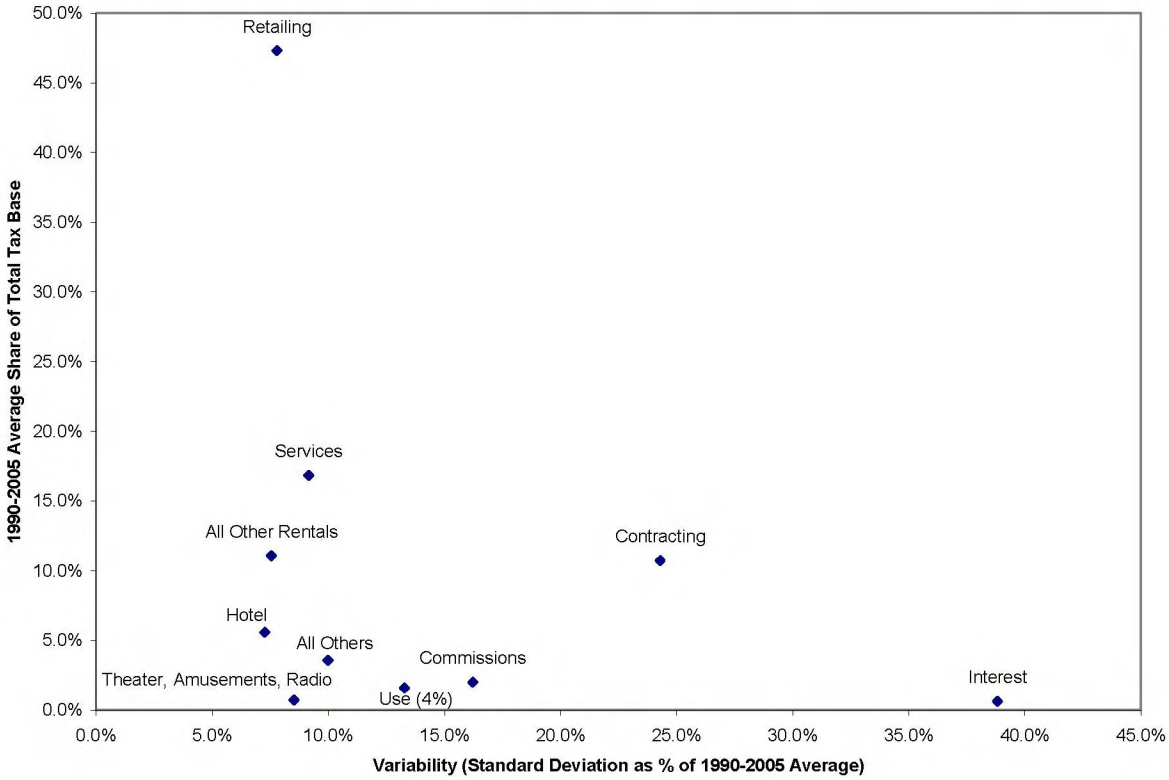
Exhibit 2-3: Average Share of GET Tax Base for Each Industry vs. Variability



GET Growth Scenarios and Assumptions

In order to estimate the cash flow available to fund the project, three growth scenarios for GET tax base were developed. These are shown in Exhibit 2-4 and 2-5.

- **Baseline Growth Scenario Through 2022:** The first scenario corresponds to a baseline forecast, representing net annual revenues of $162 million in 2007 and $292 million in 2022 in current dollars. This forecast is the result of a statistical trend using historic tax collections data from 1990 - 2005.
- **Council on Revenues Growth Through 2012 and Baseline Growth Through 2022**: The second scenario reflects the Council on Revenues September 2006 forecast of GET revenue from Fiscal Years 2006–2007 to 2012–2013. The GET tax base is then trended out for all subsequent years through 2022 using the corresponding baseline growth rates of the first scenario. The resulting trend represents net annual revenues of $172 million in 2007 and $340 million in 2022 in current dollars.
- **Council on Revenues Growth Trended out Through 2022:** The third scenario reflects the Council on Revenues September 2006 forecast of GET revenue of GET revenue from Fiscal Years 2006–2007 to 2012–2013, with sustained growth at the 2007 to 2013 levels through 2022. The resulting trend represents net

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annual revenues of $172 million in 2007 and $393 million in 2022 in current dollars.

The second and third scenarios assume that the growth rate forecasted at the State level was the same as for O'ahu. Although the tax base growth rates have been different in the past five years, Exhibit 2-6 also shows that O'ahu tax base has had a share of more than 80 percent of the statewide tax base. While we previously acknowledged some differences in tax reporting due to the location of the business activity, this relatively high share limits the variability in growth rates between the State and the County.

Exhibit 2-4: GET Tax Base Forecast Scenarios in Current Year Dollars

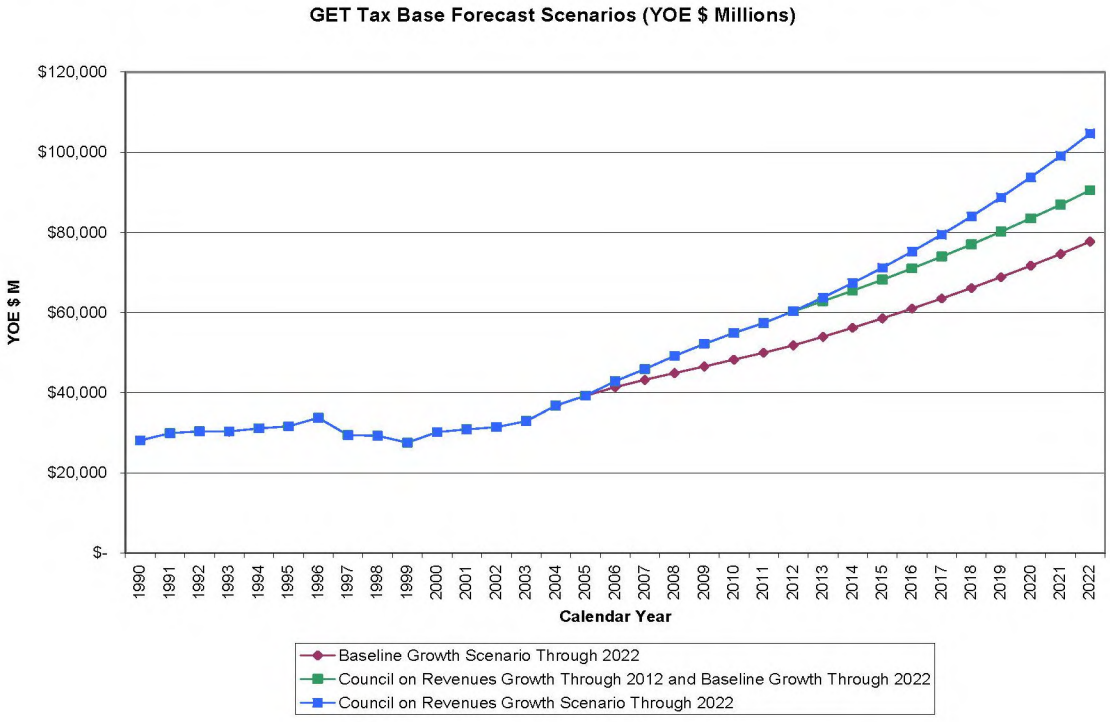

Exhibit 2-5: GET Tax Base Forecast Scenario in Constant 2004$

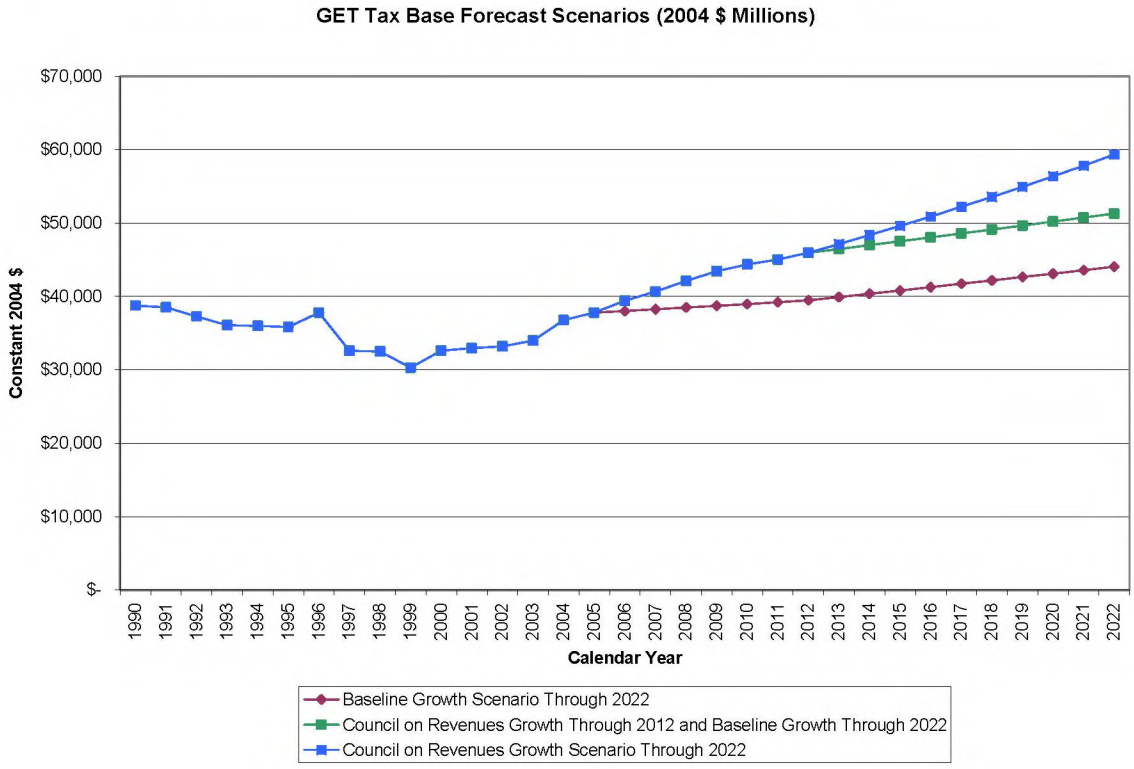

Exhibit 2-6: 2000-2005 GET Tax Base: State vs. O'ahu

Tax Base (nominal $M)	2000	2001	2002	2003	2004	2005
O'ahu	30,163	30,860	31,413	32,906	36,796	39,246
State	36,721	37,773	38,416	40,685	44,967	47,564
Share of O'ahu	82.1%	81.7%	81.8%	80.9%	81.8%	82.5%
Change		**2000-2001**	**2001-2002**	**2002-2003**	**2003-2004**	**2004-2005**
O'ahu	n/a	2.3%	1.8%	4.8%	11.8%	6.7%
State	n/a	2.9%	1.7%	5.9%	10.5%	5.8%

GET Net Revenues Calculation and Assumptions

Inflation Adjustment

Inflation was assumed to follow the Hawai'i State Department of Business, Economic Development and Tourism's Forecast of the Consumer Price Index for all urban consumers (CPI-U) in Honolulu, as published in its quarterly statistical and economic report as of third quarter of 2006. This corresponds to 4.8 percent in 2006, 3.8 percent in 2007, 3.3 percent in 2008 and 3.0 percent in 2009. The inflation rate in 2009 was assumed to remain constant thereafter.

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Tax Reporting Adjustment

The net revenues from the GET surcharge were adjusted to reflect the advent of businesses headquartered in O'ahu reporting some economic activity outside of the county and therefore not subject to the tax surcharge. For this adjustment, the de facto population of O'ahu – including a share of tourists and visitors from other counties residing even temporarily in the County –was compared to that of the entire state. The average share of the State de facto population in O'ahu is estimated by the Department of Business Economic Development and Tourism to average 67 percent in the next 30 years. O'ahu's tax base had a share of around 81 percent of the State total (as shown in Exhibit 2-6). Therefore, an adjustment of 1-0.67/0.81=17 percent will be subtracted from the gross revenues to account for the tax base adjustment due to modifications in tax reporting. The adjustment is conservative in the sense that it assumes the GET-related economic activity per capita is the same on O'ahu as on the other islands – whereas, in actuality, activity is likely more dense in O'ahu due to the enhanced productivity of the Honolulu CBD.

Tax Administration Costs Adjustment

Finally, the State legislature requires that 10 percent of the revenues from the 0.5 percent surcharge be retained by the State for expenses related to the "assessment, collection, and disposition of the county surcharge on state tax incurred by the State". At this stage, it is unclear whether the State will require an additional upfront payment from the City and County of Honolulu to commence collection of the tax. For the feasibility analysis, it was assumed an upfront payment would not be required.

The resulting net revenues are shown in Exhibit 2-7. The Baseline Growth Scenario would result in a total of 3.5 billion in YOE $, the Council on Revenues with baseline long term trend results in a total of 4.1 billion YOE $ and the Council on Revenues trended out through 2022 results in a total of 4.3 billion YOE $.

Exhibit 2-7: Calculation of Net Revenues from GET Surcharge (all amounts in YOE $M)

Baseline Growth Scenario

Amounts in YOE $M	TOTAL	2007	2009	2011	2013	2015	2017	2019	2021	2022
GET Tax Base	**945,737**	43,529	46,972	50,456	54,478	59,109	64,116	69,520	75,349	78,477
0.5% Surcharge	**4,729**	218	235	252	272	296	321	348	377	392
Tax Reporting Adjustment (-17%)	**3,911**	180	194	209	225	244	265	288	312	325
Net GET Revenues (after 10% State Deduction)	**3,520**	162	175	188	203	220	239	259	280	292

Council on Revenues Growth Through 2012 and Baseline Growth Scenario Through 2022

Amounts in YOE $M	TOTAL	2007	2009	2011	2013	2015	2017	2019	2021	2022
GET Tax Base	**1,089,614**	46,263	52,686	57,945	63,439	68,832	74,662	80,955	87,742	91,385
0.5% Surcharge	**5,448**	231	263	290	317	344	373	405	439	457
Tax Reporting Adjustment (-17%)	**4,506**	191	218	240	262	285	309	335	363	378
Net GET Revenues (after 10% State Deduction)	**4,056**	172	196	216	236	256	278	301	327	340

Council on Revenues Scenario through 2022

Amounts in YOE $M	TOTAL	2007	2009	2011	2013	2015	2017	2019	2021	2022
GET Tax Base	**1,157,792**	46,263	52,686	57,945	64,350	71,849	80,222	89,570	100,007	105,674
0.5% Surcharge	**5,789**	231	263	290	322	359	401	448	500	528
Tax Reporting Adjustment (-17%)	**4,788**	191	218	240	266	297	332	370	414	437
Net GET Revenues (after 10% State Deduction)	**4,310**	172	196	216	240	267	299	333	372	393

Notes: One year out of two is hidden for presentation purposes, but the total reflects the entire series; inflation was applied semi-annually

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