Abstract - This paper was originally presented as part of a 2004 National Tax Association Spring Symposium panel honoring Bruce Davie. It builds off of an article that Davie wrote for the National Tax Journal in 1994 in which he developed a typology for classifying excise taxes and identifying tax expenditures in the federal excise tax system. This paper continues where Davie left off, updating his model, adjusting for new trends in taxation, and producing an excise tax expenditure budget consistent with the normal structure of excise taxes as defined by Davie in 1994.

INTRODUCTION

In 1994, Bruce Davie outlined a framework for identifying and estimating tax expenditures in the federal excise tax system. This was the first study to comprehensively address the structure of an excise tax expenditure budget. However, the paper was primarily theoretical in nature, stopping short of actually estimating the cost of the excise tax expenditure provisions it identified. Davie also laid out several areas for future research, none of which has been pursued. This paper carries on that work that Davie began a decade ago. It attempts to update the model, adjust for new trends in taxation, and produce an excise tax expenditure budget using Davie’s framework.

TAX EXPENDITURES

The concept of tax expenditures is generally attributed to Stanley Surrey, who served as the Treasury Department’s Assistant Secretary for Tax Policy during the Kennedy and Johnson administrations. His goal was to draw attention to special exemptions in the federal tax code with the hope that they would be eliminated, returning the tax code to its original purpose of raising revenue rather than conducting social policy (Surrey, 1973). As a result of Surrey’s efforts, the first list of federal tax expenditures was published in 1967 (Surrey and McDaniel, 1985). This list was codified seven years later in the Congressional Budget Act of 1974, which required that the administration include estimates of
tax expenditure provisions in its annual budget. The Joint Committee on Taxation has also published annual estimates of tax expenditures since 1975.

The Congressional Budget Act of 1974 defines tax expenditures as “revenue losses attributable to provisions of the federal tax laws which allow a special exclusion, exemption, or deduction from gross income, or which provide a special credit, a preferential rate of tax or a deferral of tax liability.” This definition is somewhat vague. It contains no clarification as to what exactly constitutes a “special” or “preferential” rate; while every tax expenditure is an exemption of some kind, not every exemption is a tax expenditure. Some refunds and credits can be considered a normal part of the system and not “special” or “preferential” in any way. For example, the tax exemption for state and local governments is not considered to be a tax expenditure because it is consistent with the normal structure of reciprocity among the tax systems of various levels of government. So in order to determine what is special or even different, one must first outline the so-called “normal” structure of the tax system in question.

The definition of the normal structure of the income tax system for the purpose of identifying tax expenditures has been a topic of debate since the birth of the tax expenditure budget in 1974 (see, for example, GAO (1994), Saxton (1999), Bartlett (2001), or U.S. Executive Office of the President (2004)). However, these papers generally do not include a discussion of tax expenditure provisions in the federal excise tax code. Indeed, the discussion of the excise tax system is entirely separable from the discussion of the income or consumption tax basis. Whatever basis is used for identifying individual and corporate tax expenditures has little bearing on the approach to determine the structure of the excise tax system. But, given the numerous exemptions associated with excise taxation and the ongoing debate over the income tax expenditure budget, attempting to identify excise tax expenditures is a worthwhile exercise.

BRUCE DAVIE’S EXCISE TAX TYPOLOGY

As mentioned above, the first step in identifying tax expenditures of any kind is to define the structure of the tax system in question. This was the first major contribution of Davie’s 1994 paper; he developed a comprehensive typology for identifying the “normal” structure of the excise tax system.

Davie began by dividing excise taxes into nine types based on the purpose of the tax. Purpose can be defined as either the use to which the revenue is put or the philosophical underpinnings of the tax. Table 1 lists each of these types as well as the tax items they contain. The categories, with brief explanations and examples, are as follows.

Revenue Taxes

Taxes that exist for no purpose other than to raise revenue are called revenue taxes. The now-expired 2.5 cent per gallon “deficit reduction tax” imposed on gasoline in the 1980s is an example. Instead of funding specific programs, this portion of the tax simply increased the government’s tax receipts. Under current law, the communications tax is the largest pure revenue tax.

Redistributive Taxes

Redistributive taxes attempt to address the goal of equity. They can also be called luxury taxes. Historically, certain boats, airplanes, jewelry, and furs have all been taxed under this principle. The last remaining redistributive tax, the luxury tax on automobiles, expired at the end of 2003.
## TABLE 1
### DISPOSITION OF EXCISE TAXES BY TYPE OF TAX, FY 1992 AND FY 2003 (MILLIONS OF DOLLARS)

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<td>3. Sumptuary Taxes</td>
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<td>Alcoholic Beverages</td>
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<td>4. Benefit Theory Taxes</td>
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<td>Aviation Fuels</td>
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<td>Inland Waterways Fuels</td>
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<td>Use of International Air Facilities</td>
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<td>Cargos Moving Through Ports</td>
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<td>Bows and Arrows</td>
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<td>Fishing Equipment</td>
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<td>Guns and Ammunition</td>
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<td>WR</td>
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<td>Vaccines</td>
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<td>VIC</td>
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<td>Ozone–Depleting Chemicals</td>
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<td>Imported Chemical Substances</td>
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<td>Imports Containing ODCs</td>
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<td>Premiums on Policies Issued by Foreign Insurance Companies</td>
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<td>Certain Employee Pension and Benefit Plan Transactions</td>
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<td>19</td>
<td>---</td>
<td>---</td>
<td>343</td>
<td>217</td>
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</tbody>
</table>

Special Accounts: Taxes on imported rum transferred to treasuries of Puerto Rico and the Virgin Islands (RP&VI); Land and water conservation fund (LWCF); Wildlife restoration grants to states (WR). Trust Funds: Black Lung Disability (BL); Highway [Highway Account (H), Mass Transit Account (MT)]; Airport and Airway (AA); Aquatic Resources (AR); Harbor Maintenance (HM); Inland Waterways (IW); Hazardous Substance Superfund (HSS); Leaking Underground Storage Tank (LUST); Oil Spill Liability (OSL); Vaccine Injury Compensation Fund (VIC).

Sumptuary Taxes

These are the standard “sin” taxes on alcohol, tobacco, and gambling. Although their goal is often identified as reducing consumption, these provisions currently take the form of manufacturers’ excise taxes. For a more detailed discussion, see Boyd and Seldon (1991).

Benefit Theory Taxes

The largest category of excise taxes are those created to fund specific programs through taxes on those who benefit from the programs. Benefit theory taxes are commonly referred to as user fees, although these two terms have slightly different meanings (Barthold, 1994). User fees indicate a voluntary transaction, such as a visit to a national park. Benefit theory taxes are imposed by the federal government’s sovereign power. As a practical implication, legislation modifying the federal tax code must originate in the House of Representatives, namely by the Committee on Ways and Means. User fees, however, can originate anywhere in Congress. Examples of benefit theory taxes include most of the highway and air travel related taxes, such as taxes on fuel, heavy trucks, tires, and air travel.

Liability Taxes

Liability taxes attempt to force responsible parties to bear some or all of the cost of environmental damage they cause. Examples include the now-expired Hazardous Substance Superfund tax, or the portion of fuel taxes used to clean up leaking underground storage tanks.

Windfall Profit Taxes

It is sometimes in the public interest to transfer some of the gains from windfall profits from the private sector to the public sector. For example, the high world oil prices of the 1970s represented a windfall for domestic producers of oil. A temporary tax was placed on domestically produced oil to transfer some of these gains to the public sector. In 2003, the largest source of windfall profit tax revenue was the tax on ozone depleting chemicals (ODCs). Production of these substances is restricted under the Montreal Protocol, resulting in artificially high prices for the quantities that are produced.

Border Adjustment Taxes

In certain cases, US companies are subject to taxes not imposed on foreign firms. To address this discrepancy, border adjustment taxes are used to put the foreign firms on a “level playing field” with taxed U.S. firms. An example is the excise tax placed on foreign insurers with the intent of equalizing the cost of foreign and domestic insurance policies.

Externality Adjusting Taxes

As the name suggests, externality adjusting taxes are meant to adjust market prices to more accurately reflect the social costs or benefits of a certain transaction. On the benefits side, this type of tax justifies allocating some highway fuel tax revenue to the Mass Transit Account, whose purpose of funding public transportation may not seem directly related to highway fuel use. The existence of a positive externality associated with public transportation suggests that because highway users benefit from the decrease in congestion due to mass transit systems, they should be helping to fund those systems, reducing the cost to users of public transportation. On the negative side, the externality tax on “gas guzzlers” is intended to force owners of vehicles with extremely low fuel efficiency pay something closer to the real cost of the pollution caused by their vehicles. Also, one could argue that some of the sumptuary taxes belong in this cat-
egory, too. For example, the argument that smoking increases healthcare costs and, thus, the true cost to society of smoking is not internalized in the price of a pack of cigarettes would lead to an externality adjusting excise tax on tobacco products.

Regulatory Taxes

Regulatory taxes are designed to discourage certain transactions, such as excess contributions to pension plans. Unlike other forms of taxation, their goal is not to raise revenue. Indeed, regulatory taxes are most effective at achieving their goal of preventing certain activities when they collect no revenue at all.

TRENDS IN EXCISE TAXATION

Excise tax receipts for all sources were $45.6 billion, or 4.2 percent of total federal tax receipts in fiscal year 1992, which was the most recent data available at the time of Davie’s 1994 paper. In fiscal year 2003, the most recent year for which data is available at the time of this article, total net excise tax receipts were $67.5 billion, or 3.8 percent of total receipts.

Figure 1 shows each type of tax as a percentage of total excise tax receipts in 1992 and 2003. Some of the relative shifts in excise tax receipts have been structural, that is, they can be attributed to specific changes in the tax code. Others simply represent trends in the revenue sources themselves, that is, increased use of a certain tax item with no change in the rate of tax.

Over the past decade, there has been a shift away from pure revenue taxes towards benefit theory taxes. The portion of taxes on gasoline, diesel, jet fuel, and aviation gasoline previously retained in the general fund are now allocated to either the Highway Trust Fund or the Airport and Airways Trust Fund. Another structural change has been the expiration of certain redistributive taxes, such as those on boats, airplanes, and jewelry and furs, and liability taxes, such as the Hazardous Substance Superfund taxes.

Windfall profits tax revenue has increased significantly as a share of total excise tax receipts since 1994; however, this does not reflect a change in law. Rather, the structure of the tax on ODCs is such that the rate of tax per pound of

![Figure 1. Excise Tax Types as a Percentage of Total Excise Tax Receipts, 1992 and 2003](image-url)
chemical increases by 45 cents per year each year after 1995.

ISSUES IN THE CLASSIFICATION OF EXCISE TAXES

Unfortunately, classifying excise taxes is not as simple as merely putting each tax into one of these nine categories. Reasonable people can disagree about which category a given tax fits into. As mentioned above, tobacco taxes can be seen as sumptuary or externality adjusting taxes. To complicate matters further, because the revenue from certain excise taxes serves more than one purpose, some taxes must first be divided into their composite pieces, and then each piece should be classified individually.

For example, consider the 13.2 cent per gallon excise tax on gasohol, or gasoline blended with an alcohol additive such as the corn–based fuel, ethanol. This one revenue source can more accurately be described as four separate taxes that add up to a total of 13.2 cents. The revenue from each of these separate pieces serves a different purpose; thus, each of them must be considered individually in order to properly classify the tax.

For each gallon of gasohol sold, 7.7 cents is deposited in the Highway Trust Fund, and is, thus, a benefit theory tax. 2.86 cents ends up in the Mass Transit Account to compensate for the positive externalities associated with public transportation. 2.5 cents is allocated to the general fund. This remnant of the 1980s deficit reduction tax is a pure revenue tax. And finally, 0.1 cent of the tax is deposited in the Leaking Underground Storage Tank trust fund and can be considered a liability tax. Because it contains these composite pieces, the tax on gasohol falls into four of the nine types that Davie outlined in his 1994 paper (see Figure 2).

A note on the classification of gasohol: In his original typology, Davie did not list gasohol as a separate tax item. Instead, it was treated as a reduced rate or tax expenditure provision relative to gasoline. This was a reasonable classification in 1994, because at that time the taxes on gasohol and gasoline had the same structure with the exception that gasohol was taxed at a rate 5.2 cents lower than the rate on gasoline, with this subsidy deducted entirely from the price.

Figure 2. Anatomy of an Excise Tax: The 13.2 Cent Tax on Gasohol

[Diagram showing the distribution of the tax revenue into benefit, externality, revenue, and liability components]

1 The subsidy for gasohol takes the form of a 52 cent per gallon exemption for ethanol fuel. Therefore, gasohol containing 10 percent ethanol is taxed at a rate of 13.2 cents or 5.2 cents less than gasoline, gasohol containing 7.7 to 9.9 percent ethanol is taxed at 14.396 cents per gallon, and gasohol containing 5.7 to 7.6 percent ethanol is taxed at a rate of 15.436 cents per gallon. Subsidies also exist for gasoline purchased for the purpose of blending with ethanol. Because gasohol containing 10 percent ethanol is by far the largest of these categories, that category of ethanol fuel is used in the examples given in this paper.
from the portion of the tax allocated to the highway account. However, under current law as of May 2004, the structures of these two taxes deviate in a more substantive way than they did in 1994. In 1996, the portion of the gasoline tax that had previously been allocated to the general fund was shifted to the Highway Account of the Highway Trust Fund. Gasohol retained a general fund piece. Because of this difference, it is no longer technically feasible to treat the two taxes as one for the sake of classification. Thus, in this paper gasohol may appear to be a new excise tax relative to 1994, but it is actually a previously existing tax that has been re-typed.

TAX EXPENDITURES IN THE FEDERAL EXCISE TAX SYSTEM

Once the normal structure of the tax system in question has been defined, it is then possible to identify tax expenditures, or exemptions that are inconsistent with that structure. Consider the gasohol tax outlined in Figure 2. If a user is exempt from paying the entire four-part tax on gasohol, they could possibly be benefiting from four distinct tax expenditure provisions, one for each “type” of tax. Or, alternatively, exemptions from some pieces of this pie could be classified as tax expenditures, while exemptions from other portions may be entirely consistent with the “normal” structure of the tax code.

Consider this example: Farm use of highway fuel is exempt from fuel taxes. The justification is that users of agricultural vehicles are not causing any wear and tear to the highways, and, thus, they should not be responsible for the taxes that are used to maintain them. This story is consistent with the purpose of the benefit theory tax on fuels and, therefore, exempting farm use of highway fuel does not constitute special treatment relative to the normal structure of the excise tax system.

But if that farmer happens to be buying gasohol, then this story falls apart. It is entirely consistent with the federal excise tax code to exempt non-highway users from the Highway Trust Fund portion of the tax on gasohol, or even from the Mass Transit Account externality tax, but there is no way to justify exempting them from the pure revenue or liability taxes that is consistent with the purpose of these types of taxes. Nothing in the normal structure of a tax created purely to raise revenue would suggest that highway users should have to pay the tax while farm users should be exempt. Clearly, these last two portions of the exemption cannot not be justified as anything other than “special or preferential treatment.” Indeed, someone could argue that, for a variety of reasons, it is good policy to exempt farmers from the entire tax on gasohol rather than just the benefit theory and externality pieces. But that does not mean that these exemptions are not tax expenditures. Classifying a provision as a tax expenditure does not constitute a judgment about its relevance as a policy goal; it is merely a technical device used to determine what, if anything, the provision costs the federal government.

In addition to these four possible tax expenditures, the 13.2 cent rate on gasohol is in itself a preferential rate relative to the 18.4 cent tax on regular gasoline. Using the 18.4 cent tax on gasoline as a basis for comparison, there are actually five pieces to this pie (see Figure 3). Because there is nothing in the normal structure of the tax code to suggest that ethanol fuels should be taxed at a lower rate than regular gasoline, the reduced rate relative to gasoline must be classified as a tax expenditure. Therefore, all sales of gasohol contain at least one, and potentially as many as five, tax expenditures.

So how many tax expenditures are there?

Davie identified exactly 244 excise tax expenditures in existence in 1994. This is
in contrast to the administration’s FY 2005 budget, which included only one. What explains this difference of 243 tax expenditures? First, the extremely thorough nature of Davie’s typology led to some of what may be considered double counting. For example, an exemption for a certain use of fuel would be classified as a tax expenditure for gasoline, diesel, gasohol, jet fuel, etc. Then within each of these fuel types, there would be an expenditure for the deficit reduction piece of the tax, the benefit theory piece, the liability piece, and the externality adjusting piece.

Consider, for example, that non–profit educational institutions are exempt from paying most excise taxes. This one policy objective accounted for 22 of the 244 tax expenditures that Davie identified in his 1994 paper. Of those 22 educational tax expenditures, five have expired in the past decade. These are the pure revenue tax portions of gasoline, diesel, special fuels, jet fuel, and aviation gasoline. In addition, four more have been added due to the classification of gasohol as a tax item separate from gasoline. The remaining 21 can be combined into one “educational institutions” policy category, spread over four types of taxes and 11 tax items.

I would argue that it is beneficial to have two separate classification systems for excise tax expenditures: one for identifying them and one for estimating their cost. A framework like Davie’s is useful for the first purpose. Because the excise tax system is so complex, this type of rigorous analysis is necessary to accurately determine which provisions can be considered tax expenditures. Then, for the purpose of creating revenue estimates, we can move back up the conceptual chain to more intuitive groupings of tax expenditures such as the education category. These categories can be identified by asking why the exemption exists or what goal it is attempting to serve. For example, is the underlying policy motive that the U.S. government wants to exempt foreign embassies from paying taxes on distilled spirits in particular, or is this merely part of a larger goal of exempting embassies from excise taxes in general? This type of classification system is obviously more subjective than the one developed by Davie. Yet it gets closer to serving the

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2 Jet fuel is taxed at a rate of 4.4 cents per gallon for commercial use and 21.9 cents per gallon for non–commercial use. This paper follows Davie’s convention of treating these two rates as one tax on jet fuel, with a partial exemption for commercial use. This exemption does not constitute a tax expenditure; the reduced rate merely compensates for the additional taxes on commercial carriers collected through taxation of transportation of persons and property by air.
Searching for Structure in the Federal Excise Tax System

The purpose of a tax expenditure budget, that is, identifying social policy that is being conducted through the federal tax code.

Using these two frameworks, the 244 discrete tax expenditure provisions that Davie identified in 1994 could be rolled up into 67 more intuitive policy categories for estimating purposes. Under current law in May 2004, there are 174 total provisions or 59 policy–based categories.

Regardless of which classification system is used, the vast majority of the excise tax expenditures are too small to have a meaningful revenue effect. For example, the costs of modifications to luxury vehicles to make them handicapped accessible are exempt from the luxury tax, and aircraft museums do not have to pay the tax on jet fuel. Provisions such as these do not even add up to rounding error in the context of the U.S. Budget. In its income tax expenditure budget, the administration only includes provisions costing at least $5 million per year in each year of the budget window. The Joint Committee on Taxation excludes all items costing less than $50 million over the five year period (JCT, 2002).

Table 3 contains an excise tax expenditure budget that uses policy–based categories and includes only provisions costing about one million dollars or more per year. This budget contains six items, costing about nine billion dollars over the fiscal year 2004 to 2009 budget window.

Note that these tax expenditure budget projections are not the same as revenue estimates. They identify how much each provision currently costs the government, not how much revenue would be raised by eliminating them. Revenue estimates consider behavioral effects, but tax expenditure forecasts do not. Therefore, the forecast for the nonprofit educational institutions exemption is based on the liability these institutions would owe given their current consumption patterns. Were they required to pay excise taxes, their consumption of fuel and other taxable goods would likely decrease, raising less than the cost of the tax expenditure assuming no behavioral change. This methodology is consistent with current budget practices. Whether or not it is the best way to measure tax expenditures remains a topic of future research.

The largest excise tax expenditure is clearly the exemption for alcohol fuels. This is the only excise tax provision currently included in the administration’s tax expenditure budget. However, it is not listed as a line item in that budget. Rather, the reduced excise tax rate for gasohol fuel is included as a footnote to an income tax expenditure provision. Gasohol users have the choice of taking the subsidy either as a credit against their

| TABLE 2 | COMPONENTS OF THE NON–PROFIT EDUCATIONAL INSTITUTIONS TAX EXPENDITURE |
| --- | --- | --- | --- |
| Revenue | Benefit Theory | Liability | Externality |
| Communications | Gasoline | Gasoline | Gasoline |
| Gasohol | Gasohol | Gasohol | Gasohol |
| **Diesel** | **Diesel** | **Diesel** | **Diesel** |
| Special Fuels | Special Fuels | Special Fuels | Special Fuels |
| Aviation Gasoline | Aviation Gasoline | Aviation Gasoline | Aviation Gasoline |
| Gasoline | Trucks | Tires | Firearms |

<table>
<thead>
<tr>
<th>TABLE 3</th>
<th>AN EXCISE TAX EXPENDITURE BUDGET (millions of dollars, FY 2004–FY 2009)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol Fuels Exemption</td>
<td>8,700</td>
</tr>
<tr>
<td>Non Profit Educational Inst.</td>
<td>70</td>
</tr>
<tr>
<td>Small Producers of Beer</td>
<td>150</td>
</tr>
<tr>
<td>Small Producers of Wine</td>
<td>100</td>
</tr>
<tr>
<td>Beer Consumed at Breweries</td>
<td>5</td>
</tr>
<tr>
<td>Partial Tax Expenditures</td>
<td>40</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>9,065</strong></td>
</tr>
</tbody>
</table>
income tax liability or as an exemption from their excise tax liability. The current federal tax expenditure budget lists the income tax exemption among its income tax expenditure provisions, along with a footnote explaining that the alcohol fuel subsidy can also be taken as an excise tax exemption and listing the cost of that exemption. Therefore, it is accurate to say that the administration currently does not issue an excise tax expenditure budget at all, but one excise item is included because of its ties to an income tax expenditure.

As mentioned above, non–profit educational institutions do not pay excise taxes. For the purpose of identifying tax expenditures, the term “educational institutions” refers primarily to private schools and universities, as public ones fall under the “state and local government” category and are not considered tax expenditures because the reciprocity of tax exemption between various levels of government is considered part of the normal structure of the tax system. This is a relatively small expenditure, costing just over 10 million dollars each year.

Small producers of beer and wine are also subject to a reduced tax rate. Once again, there is no reason consistent with the purpose of sin taxes that justifies these reductions as part of the normal tax code. The purpose of these sumptuary taxes is to discourage the consumption of alcoholic beverages. Wine and beer from small producers have the same alcohol content as that of large producers, so, therefore, these exemptions and credits are not consistent with the purpose of the taxes and must be classified as tax expenditures.

It is common practice among breweries offering tours of their facilities to give out free samples at the end of these tours. This beer that has been consumed but not sold on brewery premises is not taxed at the federal level. This is clearly a tax expenditure provision, one that costs the government just under a million dollars each year.

The last item in this excise tax expenditure budget can be referred to as partial expenditures. They consist mostly of the non–highway portions of predominantly highway–related taxes which include exemptions for off–highway use. They can also be thought of as piggy–back exemptions that occur when only a portion of a tax exemption is consistent with the normal structure of the tax system, yet the entire tax is exempt under current law.

These provisions form an excise tax expenditure budget of $9,065 million over the FY 2004 though FY 2009 budget window. This is about two percent of total forecast excise tax receipts over this same period.

THE FUTURE OF EXCISE TAX EXPENDITURES

This excise tax expenditure budget is likely to grow, rather than shrink with enacted legislation in future years. Congress has proposed several pieces of legislation in 2002 through 2004 mandating increased levels of ethanol use, which would radically increase the cost of the alcohol fuels tax expenditure, assuming the reduced rates are also left in place. In a similar vein, the Senate’s version of the current highway reauthorization bill, the “Highway Reauthorization and Excise Tax Simplification Act of 2004,” contains a tax credit for the use of biodiesel fuels, which would work in much the same way as the current ethanol subsidy, though in smaller dollar values, and would also be considered a tax expenditure.

It is also highly probable that the 2.5 cents per gallon pure revenue portion of the gasohol tax will be shifted from the general fund to the Highway Trust Fund in the next reauthorization of the Highway Trust Fund. This will continue the trend in excise taxation away from pure revenue taxes and towards benefit theory taxes. It will also reduce the size of the partial expenditures item in the excise tax ex-
penditure budget, as exemption from the piece of the tax that was considered a tax expenditure when allocated to the general fund will become consistent with the normal structure of the tax code when it is deposited in the Highway Trust Fund.

AREAS FOR FUTURE RESEARCH

The excise tax expenditure budget in this paper only includes items costing about one million dollars per year or more. The remaining excise tax expenditure provision are not of sufficient size to individually have much impact on the U.S. budget. However, because these provisions are so numerous, their collective revenue may be significant. Thus, a future project could estimate each individual item to determine what the budget should be for a “miscellaneous excise tax expenditures” category.

Also, neither this paper nor the 1994 article by Davie attempts to evaluate the effectiveness of existing tax expenditure provisions at achieving their goals. This would be a worthwhile area of future research given Surrey’s goal of ensuring that the structure of the tax code was consistent with its goals.

CONCLUSION

In conclusion, in 1994 Bruce Davie made an important contribution to the fields of excise taxes and tax expenditures by systematically categorizing each and every type of excise tax, allowing for easy and consistent identification of tax expenditure provisions.

This paper updates Davie’s framework with the purpose of revenue estimating in mind, and carries on his work by building an actual tax expenditure budget consistent with the true structure of the excise tax system. Because Davie’s initial identification of 244 excise tax expenditure provisions was rigorous to the point of redundancy, an additional set of policy criteria was developed for classifying and estimating the cost of excise tax expenditure provisions. Applying this framework, and including only provisions costing one million dollars per year or more results in an excise tax expenditure budget containing six items and costing about nine billion dollars over the FY 2004 through 2009 budget period.

Acknowledgments

The author would like to thank John McClelland for helpful comments on earlier drafts of this paper. The author is also deeply grateful to Bruce Davie. Without his contributions to the field of excise taxes this paper would not have been possible. The views presented in this paper are those of the author and should not be attributed to the Department of the Treasury.

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Davie, Bruce F.


Davie, Bruce F.


Gamble, Ralph C. Jr.

APPENDIX I

EXCISE TAX EXPENDITURES REPRINTED FROM DAVIE (1994)

For each type of excise tax, this listing follows the order in which excise tax provisions appear in the Internal Revenue Code of 1986 as of January 1, 1993. The listing is encyclopedic in that some provisions are listed that probably do not result in a significant, or indeed any, revenue loss. Each of the fuel taxes (i.e., the tax supporting the Highway, Airport, and Airway, and Leaking Underground Storage Tank trust funds and the deficit reduction tax), as applied to each separate type of fuel, is treated individually, because there are some subtle differences in the tax expenditures associated with them, despite considerable overlap.

The single-digit numbers in the listing refer to the type of tax, following the typology of this paper. Two-digit numbers are used for each excise tax having one or more tax expenditures associated with it. Excise taxes that have no tax expenditures associated with them are not listed. Three-digit numbers are assigned to tax expenditures. References are given to the Code section in which the taxes and tax expenditures appear. In a few cases, the references include regulations, revenue rulings, or letter rulings interpreting a Code section that gives rise to a tax expenditure. In a few cases, references are to non-Code provisions of law giving rise to the tax expenditures.

1. Revenue Taxes
   1.1. Special Fuels—Deficit Reduction Rate [Sec. 4041(a)].
      1.1.1. Exemption for farm use [Sec. 4041(f)].
      1.1.2. Exemption for off-highway use [Sec. 4041 (b)(1)].
      1.1.3. Exemption for commercial fishing and whaling [Sec. 4041(g)(1)].
      1.1.4. Exemption for sales to educational institutions [Sec. 4041(g)(4)].
      1.1.5. Exemption for certain airport museums [Sec. 4041 (h)].
      1.1.6. Exemption for American Red Cross (Sec. 4293 and Notice 1979–1).
      1.1.7. Exemption for certain helicopter use [Sec. 4041(1)].
      1.1.8. Exemption for foreign diplomats (Sec. 4293 and Rev. Rul. 73–198).
   1.2. Gasoline—Deficit Reduction Rate (Sec. 2081).
      1.2.1. Refunds for nonprofit educational institutions [Sec. 6421(c)].
      1.2.2. Refunds for American Red Cross (Sec. 4293 and Notice 1979–1).
      1.2.3. Credits and refunds for intercity and local buses [Sec. 6421(b)].
      1.2.4. Credits and refunds for school buses [Sec. 6421 (b)].
1.2.5. Credits and refunds for motorboats engaged in commercial fishing [Sec. 6421(e)(2)(B)].
1.2.6. Credits for farm use (Sec. 6420).
1.2.7. Credits for off–highway use [Sec. 6421(a)].
1.2.8 Exemption for foreign diplomats (sec. 4293 and Rev. Rul. 73–198).
1.3. Diesel Fuel—Deficit Reduction Rate (Sec. 4091).
  1.3.1. Exemption and refunds for nonprofit educational institutions [Sec. 4093(c)(1)].
  1.3.2. Exemption or refunds for American Red Cross (Sec. 4293 and Notice 1979–1).
  1.3.3 Exemption or refunds for intracity buses [Sec. 4093(c)].
  1.3.4. Exemption or refunds for intercity and local buses [Sec. 4093(c)(1)].
  1.3.5. Exemption or refunds for school buses [Sec. 4093(c)(1)].
  1.3.6. Exemption or refunds for motorboats [Sec. 4092(a)(2)].
  1.3.7. Credits and refunds for farm use [Sec. 4093(c)(1)].
  1.3.8. Credits and refunds for off highway use [Sec. (c)(1)].
  1.3.9. Exemption for foreign diplomats (Sec. 4293 and Rev. Rul 73–198).
1.4. Aviation Fuel—Deficit Reduction Rate (Sec 4091).
  1.4.1. Reduced rate for aviation fuel in alcohol mixture [Sec. 4091(d)].
  1.4.2 Exemption for state and local governments [Sec. 4093(c)(1)].
  1.4.3. Exemption for nonprofit educational institutions [Sec. 4093(c)(1)].
  1.4.4. Credits and refunds for farm use [Sec. 4093(c)(1)].
  1.4.5. Exemption for foreign diplomats (Sec. 4293 and Rev. Rul 73–198).
1.5. Communications (Sec. 4251).
  1.5.1. Exemption for news services [Sec. 4253(b)].
  1.5.2. Exemption for international organizations [Sec. 4253(c)].
  1.5.3. Exemption for American Red Cross [Sec. 4253(c)].
  1.5.4. Exemption for members of the armed forces serving in combat zones [Sec. 4253(d)].
  1.5.5. Exemption for common carriers [Sec. 4253(f)].
  1.5.6. Exemption for radio broadcasting [Sec. 4253(f)].
  1.5.7. Exemption for nonprofit hospitals [Sec. 4253(h)].
  1.5.8. Exemption for nonprofit educational organizations [Sec. 4253(j)].
  1.5.9. Exemption for foreign diplomats (Sec. 4293 and Rev. Rul 73–198).
  1.5.10. Exemption for Federal credit unions (Federal Credit Union Act and Rev. Rul. 73–431).
  1.5.11. Exemption for Federal reserve banks (Federal Reserve Act and Letter Rulings 7939020 and 7941004)
2. Redistributive Taxes
  2.1. Certain Luxury Items (Sees. 4001–12).
  2.1.1. Exclusion of modifications for handicapped accessibility from luxury auto tax [Sec 4003(a)(3)(B) as added retroactively by OBRA 1993].
3. Sumptuary Taxes
  3.1. Taxes on Wagers (Sec. 4401).
  3.1.1. Lower rate for wagers authorized under state law [Sec. 4401(a)].
  3.1.2. Exemption for parimutuel wagering licensed under State law [Sec. 4402(1)].
  3.1.3. Exemption for coin–operated devices [Sec. 4402(2)].
  3.1.4. Exemption for State–conducted lotteries [Sec. 4402(3)].
3.2. Distilled Spirits (Sec. 5001).
   3.2.1. Exemption for use of foreign embassies, legations, etc. (Sec. 5066).
   3.2.2. Credit for wine content and flavors content (Sec. 5010).
   3.2.3. Refunds for losses resulting from disaster, vandalism, or malicious mischief (Sec. 5064).
3.3 Wine (Sec. 5041).
   3.3.1. Credit of $0.90 per gallon on first 100,000 gallons per year produced by small domestic producers [Sec. 5041(c)].
   3.3.2. Exemption for sampling wine in a bonded wine cellar (Sec. 5372).
   3.3.3. Exemption for use of foreign embassies, legations, etc. [Sec. 5362(e)].
   3.3.4. Refunds for losses resulting from disaster, vandalism, or malicious mischief (Sec. 5064).
3.4 Beer (Sec. 5051).
   3.4.1. Reduced rate for first 60,000 barrels per year for small domestic producers [Sec. 5051 (a)(2)].
   3.4.2. Exemption for beer consumed on brewery premises (but not sold) (Sec. 5051).
   3.4.3. Refunds for losses resulting from disaster, vandalism, or malicious mischief (Sec. 5064).
3.5 Taxes on Tobacco Products (Sec. 5701).
   3.5.1. Exemption for products furnished for employee use (Sec. 5704).
   3.5.2 Credits or refunds for casualty losses (Secs. 5705 and 5706).

4. Benefit Theory Taxes
4.1. Special Fuels—Highway Trust Fund Financing Rate, Highway Account [Secs. 4041 and 9503(e)].
   4.1.1. Reduced rate for methanol or ethanol fuel [Sec. 4041(b)(2)].
   4.1.2. Exemption for intracity buses [Sec. 6427(b)(1)].
   4.1.3. Exemption for school buses [Sec. 6427(b)(1)].
   4.1.4. Reduced rate for intercity buses [Sec. 6427(b)(2)].
   4.1.5. Exemption for commercial fishing and whaling [Sec. 4041(g)(1)].
   4.1.6. Exemption for state and local governments [Sec. 4041/g)(2)].
   4.1.7. Exemption for nonprofit educational institutions. [Sec. 4041(g)(4)].
   4.1.8. Exemption for certain aircraft museums [Secs. 6427(d) and 4041(h)(2)].
   4.1.9. Exemption for American Red Cross (Sec. 4293 and Notice 1979–1).
   4.1.10. Reduced rate for fuels containing alcohol [Sec 4041(k)].
   4.1.11. Exemption for foreign diplomats (Sec. 4293 and Rev. Rul. 73 198)
4.2. Special Fuels—Airport and Airway Trust Fund Financing Rate (Sec. 4041).
   4.2.1. Exemption for state and local governments [Sec. 4041(g)(2)].
   4.2.2. Exemption for nonprofit educational institutions [Sec 4041(g)(4)].
   4.2.3. Exemption for certain aircraft museums [Secs. 6427(d) and 4041(h)(2)].
   4.2.4. Reduced rate for fuels containing alcohol [Sec. 4041(k)].
4.3 Inland Waterway Fuel—Inland Waterways Trust Fund Financing Rate (Sec. 4042).
   4.3.1. Exemption for passenger vessels [Sec. 45042(c)(2)].
   4.3.2. Exemption for state and local government business activities [Sec. 4042(c)(3)].
   4.3.3. Exemption for commercial fishing [Sec. 4042(d)(1)(B)].
   4.3.4. Exemption for noncommercial use [Sec. 4042(a)].
4.4 Heavy Trucks and Trailers (Sec. 4051).
   4.4.1. Exemption for campers and mobile homes [Sec. 4053(1)].
4.4.2. Exemption for ambulances and hearses [Sec. 4053(4)].
4.4.3. Exemption for concrete mixers [Sec. 4053(5)].
4.4.4. Exemption for foreign diplomats (Sec. 4293 and Rev. Rul. 73–198).
4.4.5. Exemption for state and local governments [Sec. 4221(a)].
4.4.6. Exemption for nonprofit educational institutions [Sec. 4221(a)].
4.4.7. Exemption for American Red Cross (Sec. 4293 and Notice 1979–1).
4.5 Tires (Sec. 4071).
4.5.1. Exemption for tires sold to state and local governments [Sec. 4221(a)(4)].
4.5.2. Exemption for tires sold to nonprofit educational organizations [Sec. 4221(a)(5)].
4.5.3. Exemption for tires used on intercity or local buses [Sec. 4221(e)(3)].
4.5.4. Exemption for tires used on school buses [Sec. 4221(e)(3)].
4.5.5. Exemption for tires used on intercity or local buses [Sec. 4293 and section 48.4073–4).
4.5.6. Exemption for tires sold to American Red Cross (Sec. 4293 and Rev. Rul. 73–198).
4.6. Gasoline—Highway Trust Fund Financing Rate, Highway Account [Secs. 4081 and 9503(e)].
4.6.1 Reduced rates for gasohol [Sec. 4081(c)].
4.6.2. Exemption or refunds for state and local governments [Sec. 4221(a)(4)].
4.6.3. Exemption or refunds for nonprofit educational institutions [Sec. 4221(a)(5)].
4.6.4. Refunds for American Red Cross (Sec. 4293 and Notice 1979–1).
4.6.5. Credits and refunds for intercity and local buses [Sec. 6421(b)].
4.6.6. Credits and refunds for school buses [Sec. 6421 (b)].
4.6.7. Credits and refunds for motorboats engaged in commercial fishing [Sec. 6421(e)(2)(B)].
4.6.9. Exemption for foreign diplomats (Sec. 4293 and Rev. Rul. 73–198).
4.7. Diesel Fuel—Highway Trust Fund Financing Rate, Highway Account [Secs. 4091 and 9503(e)].
4.7.1. Exemption or refunds for intracity buses [Sec. 4093(c)(1)].
4.7.2. Exemption or refunds for school buses [Sec. 4093(c)(1)].
4.7.3. Reduced rate for intercity buses [Sec. 4093(c)(2)(C)].
4.7.4. Exemption or refunds for motorboats [Sec. 4092(a)(2)].
4.7.5. Exemption or refunds for state and local governments [Sec. 4221(a)(4)].
4.7.6. Exemption or refunds for nonprofit educational institutions [Sec. 4221(a)(5)].
4.7.7. Exemption or refunds for American Red Cross (Sec. 4293 and Notice 1979–1).
4.7.8. Exemption for certain aircraft museums [Sec. 4091 (c)(1)].
4.7.9. Reduced rate for fuels containing alcohol [Secs. 4091(c) and (d)].
4.7.10. Exemption for foreign diplomats (Sec. 4293 and Rev. Rul. 73–198).
4.8. Aviation Fuel—Airport and Airway Trust Fund Financing Rate (Sec. 4091).
4.8.1. Reduced rate for aviation fuel in alcohol mixture [Sec. 4091(d)].
4.8.2. Exemption for state and local governments [Sec. 4093(c)(1)].
4.8.3. Exemption for nonprofit educational institutions [Sec. 4093(c)(1)].
4.8.4. Credits and refunds for farm use [Sec. 4093(c)(1)].
4.8.5. Exemption for foreign diplomats (Sec. 4293 and Rev. Rul. 73–198).
4.9. Sport Fishing Equipment [Sec. 4161(a)].
4.9.1. Exemption for articles of native Indian handicraft manufactured by Indians (Sec. 4225).
4.10. Bows and Arrows [Sec. 4161(b)].
4.10.1. Exemption for articles of native Indian handicraft manufactured by Indians (Sec. 4225).
4.11. Firearms (Sec. 4181).
4.11.1. Exemption for nonprofit educational institutions [Sec. 4221(a)].
4.12. Transportation of Persons by Air (Sec. 4261).
4.12.1. Special rules regarding Alaska and Hawaii [Sec. 4262(c)(1)].
4.12.2. Special rules for Armed Forces personnel [Sec. 4262(c)(3)].
4.13. Transportation of Property by Air (Sec. 4271).
4.13.1. Special rules regarding Alaska and Hawaii [Sec. 4272(b)(1)].
4.13.2. Exemption for domestic transportation of property to be exported [Sec. 4272(b)(2)].
4.14.1. Exemption for cargos of fish or other aquatic animal life [Sec. 4462(a)(3)(B)(ii)].
4.14.2. Exemption for passenger ferries [Sec. 4462(a)(4)(B)].
4.14.3. Exemption for trade (other than Alaskan crude oil) with Alaska, Hawaii, and U.S. possessions [Sec. 4462(b)].
4.14.4. Exemption for humanitarian and development assistance cargos [Sec. 4462(h)].
4.15. Transportation of Passengers by Water (Sec. 4471).
4.15.1. Exemption for vessels owned and operated by a state [Sec. 4472(1)(A)1].
4.15.2. Exemption for voyages on passenger vessels of less than 12 hours between 2 ports in the United States [Sec. 4472(1)(B)].
4.16. Use of Certain Vehicles (Sec. 4481).
4.16.1. Exemption for state and local governments [Sec. 4483(a)].
4.16.2. Exemption for transit buses [Sec. 4483(c)].
4.16.3. Expanded de minimis rule (i.e., less than 7,000 rather than 5,000 miles) for agricultural vehicles [Sec. 4483(d)(5)].
4.16.4. Reduction of 25 percent for trucks used in logging [Sec. 4483(e)].
4.16.5. Exemption for volunteer fire department vehicles [Sec. 4483(c) and Rev. Rul. 77–3871].

5. Liability Taxes
5.1. Special Fuels—Leaking Underground Storage Tank Trust Fund Financing Rate [Sec. 4041(d)].
5.1.1. Exemption for farm use [Sec. 4041(f)].
5.1.2. Exemption for off–highway use [Sec. 4041 (b)(1)].
5.1.3. Reduced rate for methanol and ethanol fuel [Sec. 4041(b)(2)].
5.1.4. Exemption for supplies for vessels or aircraft [Sec. 4041 (g)(1)].
5.1.5. Exemption for sales to state and local governments [Sec. 4041(g)(2)].
5.1.6. Exemption for exports [Sec. 4041(g)(3)].
5.1.7. Exemption for sales to nonprofit educational institutions [Sec. 4041(g)(4)].
5.1.8. Exemption for certain airport museums [Sec. 4041(h)].
5.1.9. Exemption for American Red Cross (Sec. 4293 and Notice 1979–1).
5.1.10. Exemption for certain helicopter use [Sec 4041(1)].
5.1.11. Exemption for foreign diplomats (Sec. 4293 and Rev. Rul. 73–198).
5.2. Inland Waterway Fuel—Leaking Underground Storage Tank Trust Fund Financing Rate (Sec. 4042).
5.2.1 Exemptions for ocean-going vessels and barges [Secs. 4042(c)(1) and (4)].
5.2.2. Exemption for passenger vessels [Sec. 4042(c)(2)].
5.2.3. Exemption for State and local government business activities [Sec. 4042(c)(3)].
5.2.4. Exemption for commercial fishing [Sec. 4042(d)(1)(B)].
5.2.5. Exemption for noncommercial use [Sec. 4042(a)].
5.3. Gasoline—Leaking Underground Storage Tank Trust Fund Financing Rate (Sec 4081).
5.3.1. Exemption or refunds for exports [Sec. 6421 (c)].
5.3.2. Exemption or refunds for supplies for vessels and aircraft [Sec. 6421(c)].
5.3.4. Exemption or refunds for state and local governments [Sec. 6421(c)].
5.3.5. Exemption or refunds for nonprofit educational institutions [Sec. 6421(c)].
5.3.6. Refunds for American Red Cross (Sec. 4293 and Notice 1979–1).
5.3.7 Credits or refunds for intercity and local buses [Sec. 6421(b)].
5.3.8. Credits or refunds for school buses [Sec. 6421 (b)].
5.3.9. Credits or refunds for motorboats engaged in commercial fishing [Sec. 6421(e)(2)(B)].
5.3.10. Credits for farm use (Sec. 6420).
5.3.11. Credits for off-highway use [Sec. 6421 (a)]
5.3.12. Exemption for foreign diplomats (Sec. 4293 and Rev. Rul. 73–198).
5.4. Diesel Fuel—Leaking Underground Storage Tank Trust Fund Financing Rate (Sec. 4091).
5.4.1. Exemption or refunds for exports [Sec. 4093(c)(1)].
5.4.2. Exemption or refunds for supplies for vessels and aircraft [Sec. 4093(c)(1)].
5.4.3. Exemption or refunds for state and local governments [Sec. 4093(c)(1)].
5.4.4. Exemptions or refunds for nonprofit educational institutions [Sec. 4093(c)(1)].
5.4.5 Exemption or refunds for American Red Cross (Sec. 4293 and Notice 1979–1).
5.4.6. Exemption or refunds for intracity buses [Sec. 4093(c)].
5.4.7. Exemption or refunds for intercity and local buses [Sec. 4093(c)(1)].
5.4.8. Exemption or refunds for school buses [Sec. 4093(c)(1)].
5.4.9. Exemption or refunds for motorboats [Sec. 4092(a)(2)].
5.4.10. Credits and refunds for farm use [Sec. 4093(c)(1)].
5.4.11. Credits and refunds for off-highway use [Sec. 4093(c)(1)].
5.4.12. Exemption for foreign diplomats (Sec. 4293 and Rev. Rul. 73 198).
5.5 Aviation Fuel—Leaking Underground Storage Tank Trust Fund Financing Rate (Sec 4091).
5.5.1. Exemption for state and local governments [Sec 4093(c)(1)].
5.5.2. Exemption for nonprofit educational institutions [Sec. 4093(c)(1)].
5.5.3. Credits and refunds for farm use [Sec. 4093(c)(1)].
5.5.4. Exemption for supplies for vessels and aircraft [Sec. 4093(c)].
5.5.5. Exemption for exports [Sec. 4093(c)].
5.5.6. Exemption for foreign diplomats (Sec. 4293 and Rev. Rul. 73–198).
5.6. Certain Chemicals (Sec 4661).
5.6.1. Exemption for methane or butane used as fuel [Sec. 4462(b)(1)].
5.6.2. Exemption, refunds and credits for substances used in the production of fertilizer [Secs. 4662(b)(2) and 4662(d)(2)].
5.6.3. Exemption for sulfuric acid produced as a byproduct of air pollution control [Sec. 4662(b)(3)].
5.6.4. Exemption for substances derived from coal [Sec. 4662(b)(4)].
5.6.5. Exemption, refunds and credits for substances used in the production of motor fuel [Secs. 4662(b)(5) and 4662(d)(3)].
5.6.6. Exemption, refunds and credits for substances used in the production of animal feed [Secs. 4662(b)(9) and 4662(d)(4)].
5.6.7. Exemption for exports [Sec. 4662(e)].

6. Windfall Profit Taxes
6.1. Ozone–Depleting Chemicals (Sec. 4681).
6.1.1. Exemption for certain exports [Sec. 4682(d)(3)].
6.1.2. Lower rates for Salons [Sec. 4682(g)(2)(A)].
6.1.3. Lower rates for use to manufacture foam insulation [Sec. 4682(g)(2)(B)].
6.1.4. Lower rates for use in sterilizing medical instruments [Sec. 4682(g)(4)].
6.1.5. Lower rates for use in metered dose inhalers [Sec. 4682(g)(4)].

7. Border Adjustment Taxes
7.1. Certain Imported Substances (Sec. 4671).
7.1.1. Exemption, refunds and credits for substances used in the production of animal feed [Sec. 4671(d)].
7.1.2. Exemption, refunds and credits for substances used in the production of fertilizer [Sec. 4671(d)].
7.1.3. Exemption, refunds and credits for substances used in the production of motor fuels [Sec. 4671(d)].

8. Externality Adjusting Taxes
8.1. Special Motor Fuels Highway Trust Fund Financing Rate, Mass Transit Account [Secs. 4041 and 9503(e)].
8.2. Gasoline—Highway Trust Fund Financing Rate, Mass Transit Account [Secs. 4081 and 9503(e)].
8.2.1–8.2.9. See 4.6.1–4.6.9.
8.3. Diesel Gasoline—Highway Trust Fund Financing Rate, Mass Transit Account [Secs. 4091 and 9503(e)].
8.3.1–8.3.11. See 4.7.1–4.7.11.

9. Regulatory Taxes
9.1.1. Reduced rate for small proprietors [Sec. 5081(b)].
9.2. Tobacco–Related Occupational Taxes (Sec. 5731). 9.2.1 Reduced rate for small proprietors [Sec. 5731(b)].
9.3. Firearms–Related Occupational Taxes (Sec. 5801). 9.3.1. Reduced rate for small importers and manufacturers [Sec. 5801(b)].
APPENDIX II
FEDERAL EXCISE TAX EXPENDITURES,
CURRENT LAW AS OF JUNE 1, 2004, CLASSIFIED BY POLICY TYPE

These provisions overlap substantially with those identified by Davie in Appendix I. However, they have been re–ordered and grouped by policy objective. Policy–based categories appear in boldface type. Additional provisions identified using Davie’s more rigorous framework are listed below each category heading.

**Exemption for Non–Profit Educational Institutions**

Communications revenue tax exemption for nonprofit educational organizations [Sec. 4253(j)].

Gasohol revenue tax exemption for nonprofit educational organizations [Sec. 4041].

Special fuels liability tax exemption for nonprofit educational institutions [Sec. 4041(g)(4)].

Special fuels benefit theory tax exemption for nonprofit educational institutions (Highway Trust Fund) [Sec. 4041(g)(4)].

Heavy trucks and trailers benefit theory tax exemption for nonprofit educational institutions [Sec. 4221(a)].

Benefit theory exemption for tires sold to nonprofit educational organizations [Sec. 4221(a)(5)].

Gasoline benefit theory tax exemption or refunds for nonprofit educational institutions [Sec. 4221(a)(5)].

Diesel fuel benefit theory tax exemption or refunds for nonprofit educational institutions [Sec. 4221(a)(5)].

Aviation fuel benefit theory tax exemption for nonprofit educational institutions [Sec. 4093(c)(1)].

Firearms benefit theory tax exemption for nonprofit educational institutions [Sec. 4221(a)].

Special fuels benefit theory tax exemption for sales to nonprofit educational institutions (Airport and Airways Trust Fund) [Sec. 4041(g)(4)].

Gasohol benefit theory tax exemption or refunds for nonprofit educational institutions [Sec. 4221(a)(5)].

Gasoline liability tax exemption or refunds for nonprofit educational institutions [Sec. 6421(c)].

Gasohol liability tax exemption or refunds for nonprofit educational institutions [Sec. 6421(c)].

Diesel liability tax exemptions or refunds for nonprofit educational institutions [Sec. 4093(c)(1)].

Aviation fuel liability tax exemption for nonprofit educational institutions [Sec. 4093(c)(1)].

Special fuels externality tax exemption or refunds for nonprofit educational institutions [Sec. 4041].

Gasoline externality tax exemption or refunds for nonprofit educational institutions [Sec. 4081].

Gasohol externality tax exemption or refunds for nonprofit educational institutions [Sec. 4081].

Diesel externality tax exemption or refunds for nonprofit educational institutions [Sec. 4091].

**Certain Portions of the Off Highway Fuel Use Exemption Qualifying as Tax Expenditures**

Special fuels liability tax exemption for off–highway use [Sec. 4041 (b)(1)].

Gasoline liability tax credits for off–highway use [Sec. 6421 (a)].
Diesel liability tax credits and refunds for off−highway use [Sec. 4093(c)(1)].
Gasohol liability tax credits for off−highway use [Sec. 6421 (a)].
Gasohol revenue tax credits for off−highway use [Sec. 6421 (a)].

**Certain Portions of the Agricultural Fuel Use Exemption Qualifying as Tax Expenditures**
Diesel liability tax credits and refunds for farm use [Sec. 4093(c)(1)].
Special Fuels liability tax exemption for farm use [Sec. 4041(f)].
Gasoline liability tax credits for farm use (Sec. 6420).
Gasohol liability tax credits for farm use (Sec. 6420).
Gasohol revenue tax credits for farm use (Sec. 6420).

**Exemptions for the American Red Cross**
Communications revenue tax exemption for American Red Cross [Sec. 4253(c)].
Special fuels benefit theory tax exemption for American Red Cross (Sec. 4293 and Notice 1979–1).
Heavy vehicles benefit theory tax exemption for American Red Cross (Sec. 4293 and Notice 1979–1).
Benefit tax exemption for tires sold to American Red Cross (Sec. 4293 and section 48.4073–4).
Gasoline benefit theory tax refunds for American Red Cross (Sec. 4293 and Notice 1979–1).
Gasohol benefit theory tax refunds for American Red Cross (Sec. 4293 and Notice 1979–1).
Diesel benefit theory tax exemption or refunds for American Red Cross (Sec. 4293 and Notice 1979–1).
Special fuels liability tax exemption for American Red Cross (Sec. 4293 and Notice 1979–1).
Gasoline liability tax refunds for American Red Cross (Sec. 4293 and Notice 1979–1).
Gasohol liability tax refunds for American Red Cross (Sec. 4293 and Notice 1979–1).
Diesel liability tax exemption or refunds for American Red Cross (Sec. 4293 and Notice 1979–1).
Special fuels externality tax exemption for American Red Cross (Sec. 4293 and Notice 1979–1).
Gasoline externality tax refunds for American Red Cross (Sec. 4293 and Notice 1979–1).
Gasohol externality tax refunds for American Red Cross (Sec. 4293 and Notice 1979–1).
Diesel externality tax exemption or refunds for American Red Cross (Sec. 4293 and Notice 1979–1).

**Exemptions for the United Nations**


Exemptions for Foreign Diplomats

Communications benefit theory tax exemption for foreign diplomats (Sec. 4293 and Rev. Rul. 73–198).

Distilled spirits sumptuary tax exemption for use of foreign embassies, legations, etc. (Sec. 5066).

Wine sumptuary tax exemption for use of foreign embassies, legations, etc. [Sec. 5362(e)].

Special fuels benefit theory tax exemption for foreign diplomats (Sec. 4293 and Rev. Rul. 73–198).

Heavy vehicles benefit theory tax exemption for foreign diplomats (Sec. 4293 and Rev. Rul. 73–198).

Benefit theory tax exemption for tires sold to foreign diplomats (Sec. 4293 and Rev. Rul. 73–198).

Gasoline benefit theory tax exemption for foreign diplomats (Sec. 4293 and Rev. Rul. 73–198).

Gasohol benefit theory tax exemption for foreign diplomats (Sec. 4293 and Rev. Rul. 73–198).

Diesel benefit theory tax exemption for foreign diplomats (Sec. 4293 and Rev. Rul. 73–198).

Aviation fuel benefit theory tax exemption for foreign diplomats (Sec. 4293 and Rev. Rul. 73–198).

Special fuels liability tax exemption for foreign diplomats (Sec. 4293 and Rev. Rul. 73–198).

Gasoline liability tax exemption for foreign diplomats (Sec. 4293 and Rev. Rul. 73–198).

Gasohol liability tax exemption for foreign diplomats (Sec. 4293 and Rev. Rul. 73–198).

Diesel liability tax exemption for foreign diplomats (Sec. 4293 and Rev. Rul. 73–198).

Aviation fuel liability tax exemption for foreign diplomats (Sec. 4293 and Rev. Rul. 73–198).

Special fuels externality tax exemption for foreign diplomats (Sec. 4293 and Rev. Rul. 73–198).

Gasoline externality tax exemption for foreign diplomats (Sec. 4293 and Rev. Rul. 73–198).

Gasohol externality tax exemption for foreign diplomats (Sec. 4293 and Rev. Rul. 73–198).

Diesel externality tax exemption for foreign diplomats (Sec. 4293 and Rev. Rul. 73–198).
Gasohol externality tax exemption for foreign diplomats (Sec. 4293 and Rev. Rul. 73–198).
Diesel externality tax exemption for foreign diplomats (Sec. 4293 and Rev. Rul. 73–198).

**Exemption for Fuel Used by Intracity Buses**
- Special fuels benefit theory tax exemption for intracity buses [Sec. 6427(b)(1)].
- Diesel benefit theory tax exemption or refunds for intracity buses [Sec. 4093(c)(1)].
- Diesel liability tax exemption or refunds for intracity buses [Sec. 4093(c)].
- Special fuels liability tax exemption for intracity buses [Sec. 6427(b)(1)].
- Diesel externality tax exemption or refunds for intracity buses [Sec. 4093(c)].
- Special fuels externality tax exemption for intracity buses [Sec. 6427(b)(1)].

**Alcohol Fuels Subsidy**
Gasoline benefit theory tax reduced rates for gasohol [Sec. 4081(c)].

**Certain Exemptions for Exports**
- Special fuels liability tax exemption for exports [Sec. 4041(g)(3)].
- Aviation fuel liability tax exemption for exports [Sec. 4093(c)].
- Ozone depleting chemicals windfall profits tax exemption for certain exports [Sec. 4682(d)(3)].
- Diesel liability exemption or refunds for exports [Sec. 4093(c)(1)].
- Gasoline liability tax exemption or refunds for exports [Sec. 6421 (c)].
- Gasohol liability tax exemption or refunds for exports [Sec. 6421 (c)].
- Transportation of property by air exemption for domestic transportation of property to be exported [Sec. 4272(b)(2)].

**Exemptions for Native American Crafts**
- Bows and arrows benefit theory tax exemption for articles of native Indian handicraft manufactured by Indians (Sec. 4225).
- Sport fishing equipment benefit theory tax exemption for articles of native Indian handicraft manufactured by Indians (Sec. 4225).

**Special Rules Regarding Alaska and Hawaii**
- Transportation of property by air special rules regarding Alaska and Hawaii [Sec. 4272(b)(1)].
- Transportation of persons by air benefit theory tax special rules regarding Alaska and Hawaii [Sec. 4262(c)(1)].

**Exemptions for Aviation Museums**
- Aviation fuel benefit theory tax exemption for certain aircraft museums [Sees 6427(d) and 4041(h)(2)].
- Aviation fuel liability tax exemption for certain airport museums [Sec. 4041(h)].

**Refunds of Sumptuary Taxes for Casualty Losses**
- Sumptuary tax on distilled spirits refunds for losses resulting from disaster, vandalism, or malicious mischief (Sec. 5064).
- Sumptuary tax on wine refunds for losses resulting from disaster, vandalism, or malicious mischief (Sec. 5064).
- Sumptuary tax on beer refunds for losses resulting from disaster, vandalism, or malicious mischief (Sec. 5064).
- Sumptuary tax on tobacco credits or refunds for casualty losses (Sees. 5705 and 5706).
Exemptions for Commercial Fishing

Special fuels benefit theory tax exemption for commercial fishing and whaling
[Sec. 4041(g)(1)].
Inland waterways fuel benefit theory tax exemption for commercial fishing
[Sec. 4042(d)(1)(B)].
Gasoline liability tax credits or refunds for motorboats engaged in commercial fishing
[Sec. 6421(e)(2)(B)].
Gasohol liability tax credits or refunds for motorboats engaged in commercial fishing
[Sec. 6421(e)(2)(B)].
Gasoline benefit theory tax credits and refunds for motorboats engaged in commercial fishing
[Sec. 6421(e)(2)(B)].
Gasohol benefit theory tax credits and refunds for motorboats engaged in commercial fishing
[Sec. 6421(e)(2)(B)].
Inland waterways fuel liability tax exemption for commercial fishing [Sec. 4042(d)(1)(B)].

Exemptions for Certain Passenger Vessels

Harbor maintenance benefit theory tax exemption for passenger ferries [Sec. 4462(a)(4)(B)].
Inland waterways fuel benefit theory tax exemption for passenger vessels [Sec. 45042(c)(2)].
Inland waterways fuel liability tax exemption for passenger vessels [Sec. 4042(c)(2)].

Exemption for Noncommercial Use of Inland Waterways

Inland waterways fuel benefit theory tax exemption for noncommercial use [Sec. 4042(a)].
Inland waterways fuel liability tax exemption for noncommercial use [Sec. 4042(a)].

Exemption for Certain Motorboat Fuel

Diesel benefit theory tax exemption or refunds for motorboats [Sec. 4092(a)(2)].
Diesel liability tax exemption or refunds for motorboats [Sec. 4092(a)(2)].

Exemption for Supplies for Vessels and Aircraft

Diesel liability tax exemption or refunds for supplies for vessels and aircraft [Sec. 4093(c)(1)].
Gasoline liability tax exemption or refunds for supplies for vessels and aircraft [Sec. 6421(c)].
Gasohol liability tax exemption or refunds for supplies for vessels and aircraft [Sec. 6421(c)].
Gasoline benefit theory tax exemption or refunds for supplies for vessels and aircraft
[Sec. 6421(c)].
Gasohol benefit theory tax exemption or refunds for supplies for vessels and aircraft
[Sec. 6421(c)].
Diesel externality tax exemption or refunds for supplies for vessels and aircraft
[Sec. 4093(c)(1)].
Gasoline externality tax exemption or refunds for supplies for vessels and aircraft
[Sec. 6421(c)].
Gasohol externality tax exemption or refunds for supplies for vessels and aircraft
[Sec. 6421(c)].
Gasohol revenue tax exemption or refunds for supplies for vessels and aircraft [Sec. 6421(c)].

Reduced Occupational Taxes for Small Proprietors

Alcohol–related occupational regulatory taxes reduced rate for small proprietors [Sec. 5081 (b)].
Tobacco–Related Occupational Taxes (Sec. 5731). 9.2.1 Reduced rate for small proprietors [Sec. 5731(b)].
Firearms–Related Occupational Taxes (Sec. 5801). 9.3.1. Reduced rate for small importers and manufacturers [Sec. 5801(b)].

Other Provisions
Use of certain vehicles benefit theory tax expanded de minimis rule (i.e., less than 7,000 rather than 5,000 miles) for agricultural vehicles [Sec. 4483(d)(5)].
Use of certain vehicles benefit theory tax reduction of 25 percent for trucks used in logging [Sec. 4483(e)].
Use of certain vehicles benefit theory tax exemption for volunteer fire department vehicles [Sec. 4483(c) and Rev. Rul. 77–3871.
Heavy vehicles benefit theory tax exemption for campers and mobile homes [Sec. 4053(1)].
Heavy vehicles benefit theory tax exemption for ambulances and hearses [Sec. 4053(4)].
Heavy vehicles benefit theory tax exemption for concrete mixers [Sec. 4053(5)].
Transportation of persons by air benefit theory tax special rules for Armed Forces personnel [Sec. 4262(c)(3)].
Special fuels liability tax exemption for supplies for vessels or aircraft [Sec. 4041 (g)(1)].
Special fuels liability tax exemption for certain helicopter use [Sec. 4041(1)].
Aviation fuel liability tax exemption for supplies for vessels and aircraft [Sec. 4093(c)].
Sumptuary taxes on wagers lower rate for wagers authorized under state law [Sec. 4401(a)].
Sumptuary taxes on wagers exemption for parimutuel wagering licensed under State law [Sec. 4402(1)].
Sumptuary taxes on wagers exemption for coin–operated devices [Sec. 4402(2)].
Sumptuary taxes on wagers exemption for State–conducted lotteries [Sec. 4402(3)].
Sumptuary tax on distilled spirits credit for wine content and flavors content (Sec. 5010).
Sumptuary tax on wine credit of $0.90 per gallon on first 100,000 gallons per year produced by small domestic producers [Sec. 5041(c)].
Sumptuary tax on wine exemption for sampling wine in a bonded wine cellar (Sec. 5372).
Sumptuary tax on beer reduced rate for first 60,000 barrels per year for small domestic producers [Sec. 5051 (a)(2)].
Sumptuary tax on beer exemption for beer consumed on brewery premises (but not sold) (Sec. 5051).
Sumptuary tax on tobacco exemption for products furnished for employee use (Sec. 5704).
Harbor maintenance benefit theory tax exemption for trade (other than Alaskan crude oil) with Alaska, Hawaii, and U.S. possessions [Sec. 4462(b)].
Harbor maintenance benefit theory tax exemption for humanitarian and development assistance cargos [Sec. 4462(h)].
Harbor maintenance benefit theory tax exemption for cargos of fish or other aquatic animal life [Sec. 4462(a)(3)(B)(ii)].
Inland waterways fuel liability tax exemptions for ocean–going vessels and barges [Secs. 4042(c)(1) and (4)].
Border adjustment taxes on certain imported substances exemption, refunds and credits for substances used in the production of animal feed [Sec. 4671(d)].
Border adjustment taxes on certain imported substances exemption, refunds and credits for substances used in the production of fertilizer [Sec. 4671 (d)].
Border adjustment taxes on certain imported substances exemption, refunds and credits for substances used in the production of motor fuels [Sec. 4671(d)].
Ozone depleting chemicals windfall profits tax lower rates for Salons [Sec. 4682(g)(2)(A)].
Ozone depleting chemicals windfall profits tax lower rates for use to manufacture foam insulation [Sec. 4682(g)(2)(B)].

Ozone depleting chemicals windfall profits tax lower rates for use in sterilizing medical instruments [Sec. 4682(g)(4)].

Ozone depleting chemicals windfall profits tax lower rates for use in metered dose inhalers [Sec. 4682(g)(4)].

Redistributive luxury taxes exclusion of modifications for handicapped accessibility from luxury auto tax [Sec. 4003(a)(3)(B) as added retroactively by OBRA 1993].

Communications revenue tax exemption for news services [Sec. 4253(b)].

Communications revenue tax exemption for international organizations [Sec. 4253(c)].

Communications revenue tax exemption for members of the armed forces serving in combat zones [Sec. 4253(d)].

Communications revenue tax exemption for common carriers [Sec. 4253(f)].

Communications revenue tax exemption for radio broadcasting [Sec. 4253(f)].

Communications revenue tax exemption for nonprofit hospitals [Sec. 4253(h)].

Communications revenue tax exemption for Federal credit unions (Federal Credit Union Act and Rev. Rul. 73–431).

Communications revenue tax exemption for Federal reserve banks (Federal Reserve Act and Letter Rulings 7939020 and 7941004).