Executive Summary

Transportation Funding Performance Audit Addendum: Forecast of Federal Funds

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The Texas Department of Transportation (TxDOT) commissioned the *Independent Performance Audit of Transportation Funding* as one of five performance audits that address the Texas Transportation Code, Title 6, Chapter 201.109(b) (5) requirement for independent performance audits of TxDOT management and business operations. In the transportation funding audit, Dye Management Group Inc. provided a forecast of what federal aid highway funds would be available for obligation over the period 2005-2030.

A. Summary

Since Dye Management Group Inc. completed the transportation funding audit in July 2007, new information affecting the availability of federal aid highway funds has come to light. In October 2007, the Texas Department of Transportation asked Dye Management Group Inc. to revisit the forecast of federal funds in the transportation funding audit in light of the new information and advise if the new information was cause for a material change in the forecast.

1. New Information

Other agencies have issued forecasts for the federal Highway Trust Fund, the most recent and authoritative issued by the Congressional Budget Office (CBO) on October 25. Also, on September 12 the U.S. Senate passed the *2008 Transportation, Housing and Urban Development Appropriations Act*, which triggered a second rescission of unobligated apportionments from SAFETEA-LU in 2007.

2. Reconciling the New Information to the Forecast

The forecast in the transportation funding audit was not intended to supplant the regular forecasting efforts of the Texas Department of Transportation; the audit did not recommend the adoption of any one forecast over another, rather it recommended a higher level of effort and public discussion be applied to the forecasting of transportation revenues. The new information is therefore not grounds to change the transportation funding performance audit forecast; that forecast should be updated at least annually in any event.

a. Compared to the Current CBO Forecast

The transportation funding audit forecast and the current CBO forecast are almost identical for the 2007-09 period but, in the eight years following, the CBO forecast uses more pessimistic assumptions about revenue growth. The two forecasts are compared in the table below:

Exhibit I-1: Comparison of Forecasts to 2017

HTF Shortfall, $ billions, rounded	*Transportation Funding Audit, July 2007*		*CBO October 2007*	
	Nationwide	*Texas*	*Nationwide*	*Texas*[1]
Short Term: to 2009	(17)	(2)	(16)	(2)
Medium Term: 2010 to 2017	(44)	(3)	(67)	(5)
Total	(61)	(5)	(83)	(7)

Comparing the two forecasts another way: the transportation funding audit forecast concludes that Texas' shortfall of federal funds will, relative to prior forecasts, worsen by another $7 billion by 2025. The CBO forecast leads to the conclusion that Texas' shortfall will reach $7 billion by 2017.

The difference in the forecasts lies in the assumptions: the CBO forecast assumes no changes in historical patterns of Highway Trust Funds or outlays whereas the transportation funding audit forecasts assumes some efforts to ameliorate the coming shortfall.

b. Reconciled to the SAFETEA-LU Rescissions

Rescissions are not a cause of shortfalls in the Highway Trust Fund but a result of them; they are but one of the means by which the U.S. Congress can address shortfalls. For this reason, neither the transportation funding audit forecast nor the CBO forecast takes rescissions or other obligation reduction measures into account as causal factors. The rescissions, however, can be compared to the short-term forecasts. Known and expected rescissions during the term of SAFETEA-LU are:

$ billions	*Nationwide*	*Texas*
2005 and 2006	(3.9)	(0.3)
2007, 2008 & 2009	(15.8)	(1.2)
Total	(19.7)	(1.5)

[1] The CBO did not publish state-level forecasts in its October 2007 review. This column assumes that Texas' share of the forecast nationwide shortfall in this forecast would be the same as determined in other forecasts: between 8% and 9% of the nationwide total.

Rescissions in the 2007 to 2009 period, including the 2009 rescission programmed into SAFETEA-LU, total to about $15.8 billion, of which Texas' share is about $1.2 billion. Since the forecasts predict a HTF shortfall between $16 billion and $17 billion to occur in the same period, another rescission in the 2009 federal appropriations process is likely. Texas can expect its share of that additional rescission to be at least $100 million, in which case the Texas share of all the rescissions from 2005 to 2009 under SAFETEA-LU would be almost $1.7 billion.

3. Implications for the Unified Transportation Plan

The cash balance of the Highway Trust Fund cannot become negative, as it is forecast to do in 2009, and the FHWA must take prompt action to reduce outlays, i.e. cash expenditures, over the next two fiscal years. The only cash management control available to the FHWA is to reduce obligations. This control is an awkward and direct one, since obligations made in one year are reduced through outlays in three future years and outlays in any one year are generated by obligations made over several prior years. As obligations are reduced to balance cash in one year, outlays will be reduced in the other years covered by those obligations regardless of whether those reduced outlays in the other years are necessary.

The required reduction in outlays is at least $4.3 billion in 2009 alone: a reduction that is so close and so large that reductions in obligations of about $16 billion over the next two fiscal years are quite plausible, subject to the forecast risks that were explained in the transportation funding performance audit report and absent any substantive political action during 2008.

I. Transportation Funding Performance Audit Addendum: Forecast of Federal Funds

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The Texas Department of Transportation (TxDOT) commissioned the *Independent Performance Audit of Transportation Funding* as one of five performance audits that address the Texas Transportation Code, Title 6, Chapter 201.109(b) (5) requirement for independent performance audits of TxDOT management and business operations. In the transportation funding audit, Dye Management Group Inc. provided a forecast of what federal aid highway funds would be available for obligation over the period 2005-2030.

A. The Transportation Audit Forecast

The forecast in the transportation funding performance audit modeled the federal Highway Trust Fund from 2007 to 2025 in two separate components:

- <u>Highway Trust Fund Revenues</u> were modeled on demographic and economic factors that included adjustments for decreasing rates of growth in the consumption of gasoline per mile driven due to increasing engine efficiency and miles driver per person per year due to the ageing population. The forecasted growth declines in percentage terms over time: between 2005 and 2006, the annual growth rate was 2.9%; between 2029 and 2030, the annual growth rate will be 1.8%.
- <u>Outlays</u> were reduced as necessary to: [1] avoid a negative cash balance in the Highway Trust Fund in 2009/10 then, thereafter; [2] build a cash balance in the Highway Trust Fund at the average rate of about $3 billion per year, to be transferred to the General Fund as a contribution towards the reduction of the federal government's operating deficit.

The result of this forecast was, relative to the federal funds forecast to 2025 that was embedded in the 2004 Texas Metropolitan Mobility Plan, a nation-wide reduction in Highway Trust Fund outlays of about $15 billion by 2009 to avoid a deficit plus reductions in outlays of about $70 billion by 2025 to rebuild fund balances and ameliorate the federal operating deficit. Texas was projected to suffer about $7 billion of this nation-wide $85 billion reduction in federal funds outlays relative to prior forecasts.

B. Information Arising Since the Forecast

Since April and May 2007, when the federal aid forecast in the transportation funding performance audit was undertaken, new information has emerged that impact upon the current and future prospects for federal obligation authority.

1. Rescissions

Since the transportation audit forecast was calculated, two pieces of federal legislation have introduced additional rescissions:

- On May 25, the President signed the U.S. Troop Readiness, Veterans Care, Katrina Recovery and Iraqi Accountability Appropriations Act which includes a rescission of $72 million in Federal Transportation funds slated for Texas.
- On September 12 the U.S. Senate passed the 2008 Transportation, Housing and Urban Development Appropriations Act (sometimes called "THUD") with $40.2 billion of obligation limitations for the Federal Aid Highway Program, $1.25 billion above 2007 appropriation. This act passed out of conference on November 14. The bill includes a rescission of $3 billion of unobligated apportionments in the Federal Aid Highway Program. The bill also includes $631 million in Revenue-Aligned Budget Authority (RABA)[2], which is opposed by the White House as above the President's request for 2008; it is possible that the President will not sign the bill.

Rescissions have been part of the landscape in federal funding since 2002.

Exhibit I-2: Rescissions of Contract Authority prior to SAFETEA-LU

$ millions	Nation-wide	Cumulative Total	Texas	Cumulative Total
2002 Supplemental Appropriations Act FHWA Notice N 4510.481, 24 September 2002	(320)		(25)	
Consolidated Appropriations Resolution, 2003 FHWA Notice N 4510.508, 10 June 2003	(250)	(570)	(20)	(45)
Consolidated Appropriations Act, 2004 FHWA Notice N 4510.515, 20 February 2004	(207)	(777)	(16)	(61)
Consolidated Appropriations Act, 2005 FHWA Notice N 4510.540, 25 January 2005	(1,261)	(2,038)	(134)	(195)

Rescissions have increased sharply under the current authorizing legislation, SAFETEA-LU:

[2] RABA requires that annual appropriations to the Federal Aid Highway Program be adjusted to take variances between budgeted and actual receipts into the Highway Trust Fund in account. SAFETEA-LU prevents RABA from reducing funding so long as $6 billion remains in the Highway Trust Fund, but this threshold may be crossed in FY 2008, so reductions in highway funding are possible in FY 2009. Specific to this bill, the RABA provision allows up to $631 million of actual revenues that exceed the revenue budget to be allotted to the states for obligation. RABA is reported here only because it may cause the THUD 2008 bill not to be enacted: neither the rescissions specified to date nor the RABA provision were included in either the transportation audit forecast nor the CBO forecast as causal factors as they are the results of the conditions that are forecast, not the cause of them.

Exhibit I-3: Rescissions of SAFETEA-LU Apportionments

$ millions	Nation wide	Cumulative Total	Texas	Texas Cumulative Total
Department of Transportation Appropriations Act, 2006 FHWA Notice N 4510.578, 28 December 2005	(2,000)		(159)	
Department of Defense Appropriations Act, 2006 FHWA Notice N 4510.588, 21 March 2006	(1,143)	(3,143)	(91)	(250)
Emergency Supplemental Appropriations Act, 2006 FHWA Notice N 4510.606, 5 July 2006	(702)	(3,845)	(55)	(305)
Continuing Appropriations Resolution, 2007 FHWA Notice N 4510.643, 19 March 2007	(3,472)	(7,317)	(289)	(594)
U.S. Troop Readiness, Veterans Care, Katrina Recovery and Iraqi Accountability Appropriations Act. FHWA Notice N 4510.647, 29 June 2007	(871)	(8,188)	(72)	(666)
H.R. 3074*: 2008 Transportation, Housing and Urban Development Appropriations* Passed by U.S. Senate 12 September 2007.	(3,000)	(11,188)	(259)[3]	(925)
Rescission scheduled in SAFETEA LU for 30 September 2009 (impact on Texas is approximate)	(8,500)	(19,688)	(600)[4]	(1,525)

2. Forecasts for the Highway Trust Fund

Both the Congressional Budget Office (CBO) and the American Association of State Highway and Transportation Officials (AASHTO) have released forecasts for the Highway Trust Fund in the past three months.

a. Congressional Budget Office

In its current forecast[5], the CBO includes some conclusions about the short, medium and long term that are quoted below.

[3] Estimated. As this bill is not yet enacted, FHWA has not yet released state shares of this rescission.

[4] Estimated.

[5] Congressional Budget Office. *Statement of Robert A. Sunshine, Deputy Director on Public Spending on Surface Transportation Infrastructure before the Committee on the Budget, U.S. House of Representatives*. 25 October 2007. This testimony is based upon the CBO's mid-session forecast, completed in July 2007.

(1) Short Term: 2007 to 2009

"The Office of Management and Budget (OMB) and the Congressional Budget Office (CBO) are projecting that revenue into the HTF will fall short by $4.3 billion in FY 2009."[6]

(2) Medium Term – 2009 to 2017

"For projections of outlays after 2009, CBO assumes that SAFETEA-LU spending levels grow at the rate of inflation, a practice consistent with the agency's usual procedures for baseline projections. Under that assumption, the differential between revenues and projected outlays would be larger in 2010 and beyond. Under an assumption that revenues remain at projected levels through 2017, outlays from the highway account, if unconstrained, would exceed revenues by a total of about $67 billion (or 17 percent) over the 2009–2017 period."[7]

(3) Long Term – 2018 to 2025/30

The current CBO forecast does not include this period. If the CBO extended its assumptions from the 2009-2017 period, i.e. that both Highway Account receipts and outlays will grow at an inflation rate of 2% into the 2018-2025 period then a nationwide deficit of about $75 billion would result.

The AASHTO forecast[8] is explicit for the short term, i.e. the remainder of the period in which the Federal Aid Highway Program is authorized by SAFETEA-LU. It also forecasts a shortfall in the Highway Trust Fund in 2009, although the amount differs slightly from the CBO forecast due to different assumptions about outlays in 2007 and 2008.

"Unless corrective action is taken by Congress, the federal highway program faces a cutback of $2.5 billion in FY2009. A short-term solution to deal with this problem can be achieved by limiting exemptions, capturing Highway Trust Fund interest earnings, and other measures." [9]

3. Proposed Initiatives

Facing into the growing consensus of forecasted deficits for the Highway Trust Fund, specific initiatives to bolster the Fund's revenue can be expected. The first of such

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[6] ibid

[7] ibid

[8] AASHTO. *Transportation: Invest in Our Future – A New Vision for the 21st Century*. July 2007.

[9] ibid.

initiatives, the Baucus/Grassley Initiative, was announced by its sponsors in September 2007.[10]

a. Baucus/Grassley Initiative

Senate Finance Committee Chair Max Baucus (D-MT) and ranking member Charles Grassley (R-IA) propose the following measures to bolster Highway Trust Fund revenues:[11] with a package of revenue enhancers that will keep the trust fund from going into the red.

The Baucus/Grassley initiative would generate the needed revenue by:

- Crediting the Highway Trust Fund for emergency expenditures paid out of the fund since 1998, which the sponsors estimate would regain about $3.2 billion spent from the Highway Account over the past ten years.
- Restructuring current fuel tax exemptions/refunds provided to state and local governments to be General Fund supported activities, instead of costs borne by the HTF. The sponsors estimate this measure to be worth about $1 billion per year.
- Implementing additional mechanisms to further crack down on fuel tax evasion. The sponsors estimate this measure to be worth about $1 billion over the next two years.
- Transferring revenues generated from the "gas guzzler tax" from the General Fund to the Highway Trust Fund. The sponsors estimate this measure to be worth about $300 million over the next two years.

C. Federal Fund Reductions and the UTP

In its current forecast, the CBO states:

“Federal budget rules would require a cut of nearly $16 billion in highway funding in FY 2009 if this shortfall [the projected $4.3 billion cash deficit in the Highway Trust Fund] is not remedied.”

The current AASHTO forecast echoes the magnitude of the required cutback:

“The following year [2010], however, the program will face a cutback of approximately $18 billion unless sufficient revenues can be generated.”

That as much as $18 billion of highway improvement projects must be cancelled to reduce expenditures by about $4.3 billion in a given year is best understood by considering the differences between *obligations* and *outlays in the* Highway Trust Fund.

[10] http://finance.senate.gov/press/Bpress/2007press/prb091807c.pdf

[11] http://www.washingtonbriefing.com/Baucus-Grassley-091407.pdf

1. Obligations and Outlays Explained

The Federal-Aid Highway Program is a reimbursement program, in which payments to the states occur in three steps:

1. The FHWA approves an eligible project that is nominated by the state and promises to pay the federal portion of that project's costs, a promise that is recorded as an *obligation*;
2. The state lets the project and makes progress payments to the contractor which the state funds as construction proceeds[12]; then
3. The state invoices the FHWA to pay out to the state the federal share of the progress payments, and the FHWA records its payment to the state as an *outlay*.

An obligation is a commitment, a promise to pay; and an outlay is an expenditure, a payment made to extinguish the obligation.

From the perspective of a single project:

- The initial *obligation* is the full amount that is promised by the FHWA to complete that project, i.e. the federal share of that project.
- As the FHWA reimburses the state for the federal share of the progress payments, those *outlays* reduce the amount of the *outstanding obligation*, i.e. the federal share remaining to be paid. Once the project is complete, the sum of the FHWA's outlays equals the initial obligation and the outstanding obligation equals $0.

From the perspective of the entire program:

- The FHWA sets *obligation limitations* for each year and will only allow the states to proceed in that year with new projects whose budgets sum up to the obligation limitation. The new obligations so approved that year are added to outstanding obligations from prior years; i.e. the obligations remaining to be paid out on partially completed projects for which the FHWA approved obligations in prior years.
- The *outlays* from the federal Highway Trust Fund in each year are the sum of the FHWA's reimbursements on all approved projects, be they obligated in the current year or in prior years.

[12] This stage is described in terms of the construction contract for a highway project for the sake of simplicity, whereas federal funds are applied through pre-construction as well.

As highway projects usually span several years, obligations made in one year will be generate outlays in the current year and in future years; and outlays in one year will extinguish obligations from the current year and from prior years. These relationships between obligations and outlays over several years is simplified and illustrated below:

Exhibit I-4: Simplified Illustration of Obligations and Outlays in the Highway Trust Fund

		Outlays, i.e. cash expenditures											
		Year 1	*Year 2*	*Year 3*	*Year 4*	*Year 5*	*Year 6*	*Year 7*	*Year 8*	*Year 9*	*Year 10*	*Year 11*	
Obligations, i.e. project commitments	*Year 1*	$2	$2	$2	$2								$8
	Year 2		$2	$2	$2	$2							$8
	Year 3			$2	$2	$2	$2						$8
	Year 4				$2	$2	$2	$2					**$8**
	Year 5					$1	$1	$1	$1				**$4**
	Year 6						$1	$1	$1	$1			$4
	Year 7							$1	$1	$1	$1		$4
	Year 8								$1	$1	$1	$1	$4
	Year 9									$1	$1	$1	n/a
	Year 10										$1	$1	n/a
	Year 11											$1	n/a
		$2	$4	$6	**$8**	**$7**	$6	$5	$4	$4	$4	$4	

This simple illustration assumes that all projects last four years, with ¼ of the progress payments falling due in each year. Obligations made each year are shown in rows: in this illustration, obligations of $8 are made in the first four years, then reduced to $4 per year in the last four years. The outlays made each year are shown in columns, as the sum of the progress payments made on all projects approved in the current and prior years: the outlays increase steadily to $8 by year 4, then decline to $4 in year 8.The indirect relationship between obligations and outlays in any one year creates a significant cash management problem in the Highway Trust Fund. Once the FHWA has approved an obligation and the state has let the contract for a project, neither government has any control over the outlays over the duration of the contract: they must respond to the contractor's pace of progress. However, because they are cash payments, the FHWA must control each year's outlays from the Highway Trust Fund such that they do not exceed the cash available in that year.

When the FHWA forecasts that outlays from the Highway Trust Fund in a given future year are likely to exceed the cash available in that year, it must take action to reduce the outlays. The only action that the FHWA can take is to reduce obligations in that year, and years prior to it, such that outlays in that year are sufficiently reduced. This is an awkward and indirect control with which to manage cash and it has two unfortunate implications:

- As obligations are reduced to balance cash in one year, outlays will be reduced in the other years covered by those obligations regardless of whether those reduced outlays in the other years are necessary; and
- The nearer the future year in which outlays must be reduced, the more pronounced the cuts in obligations must be in the short time remaining before that year begins.

An example of these implications is in the illustration above: whilst in year 4, the FHWA forecasts a requirement to reduce outlays in year 5 from $8 to $7. To achieve that reduction, the FHWA must reduce annual obligations from $8 in year 4, shown in green, to $4 in year 5, shown in yellow. The $4 reduction of obligations in year 5 reduces outlays by $1 in year 5 but also by $1 in each of year 6, year 7 and year 8 whether or not outlays in those years needed to be reduced.

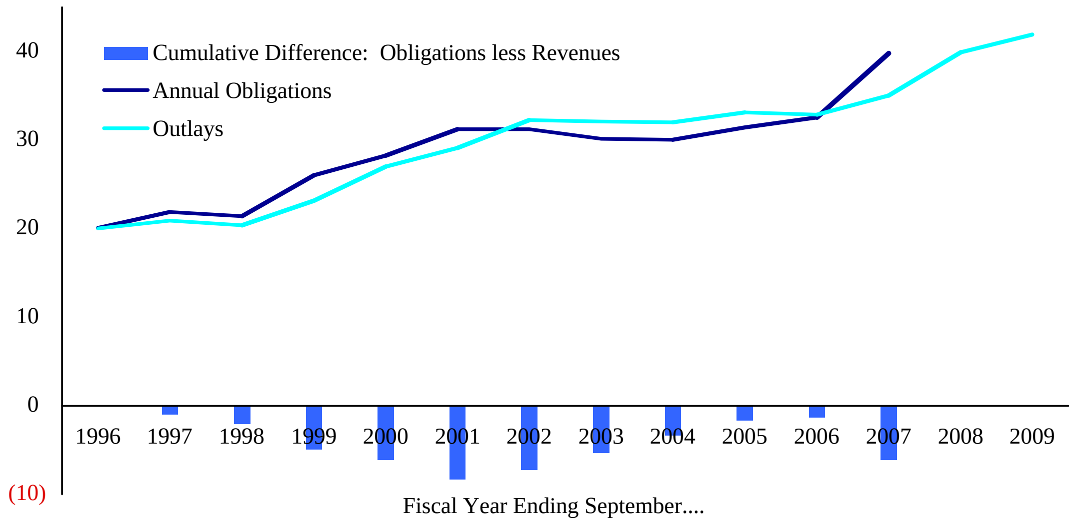
2. The "Four to One" Rule of Thumb

The CBO forecast that about $16 billion of obligation reductions in 2007, 2008 and 2009 will be required to reduce outlays in 2009 by at least $4.3 billion is discussed in highway funding circles as a "four to one" rule of thumb: $4 in projects must be cancelled to reduce outlays in 2009 by $1. The relationship between obligations and outlays requires that the reduction in obligations must be much more than the consequential reduction in outlays; and the illustration above was set up to show a 4 to 1 ratio. Other information are considered in this subsection as to whether the ratio of obligations to outlays could be as high as 4 to 1.

Federal budget rules require that outstanding obligations in excess of the closing cash balance in Highway Trust Fund at the end of a fiscal year must be less than the revenues anticipated in the following 24-month period. This rule translates approximately to a \$3 to \$1 ratio: since outstanding obligations at the end of a fiscal year must be no more than two years' worth of anticipated revenues, outstanding obligations at the beginning of a fiscal year should not be more than three years' worth of anticipated revenues.

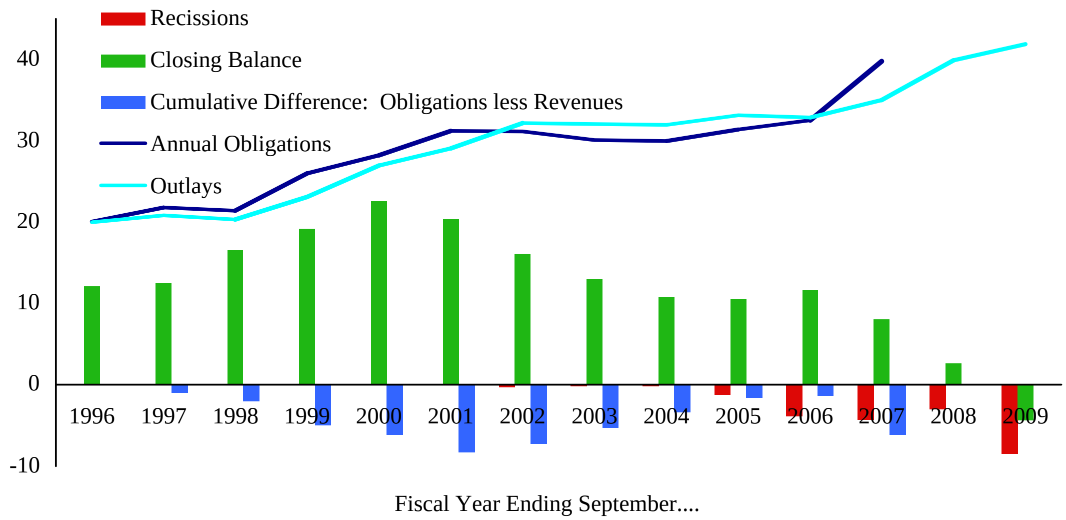
While a reduction of obligations of \$3 may be sufficient to reduce outlays by \$1 and satisfy budget rules, larger reductions in obligations are required to deal with the unprecedented situation of a cash deficit in the Highway Trust Fund. Obligations (the dark blue line in the graph below) exceeded revenues (the light blue line) between 1997 and 2002. As the cumulative difference between them approached \$10 billion in 2002, obligations were reduced and the cumulative difference was largely eliminated by 2006.

Exhibit I-5: Obligations and Cash Balances in the HTF, 1996 to 2009



A significant deficit has reappeared in 2007 due to flattened revenues. This time, the FHWA cannot gradually reduce obligations as it did after 2002 because there is no cash balance available in the Highway Trust Fund (the green bars in the graph below) through the three years following 2007, as there were in the three years following 2002.

Exhibit I-6: Highway Trust Fund Balance through 2009



Since there are no cash balances available to run down over the next three years, the FHWA must use rescissions much more aggressively than in the three years after 2002, when the FHWA could rely upon reductions in obligation limitations. Rescissions reach back into the apportionments approved in prior years and reduce contract authority that has not been obligated to projects.

Together, the requirement to reduce obligations for three years forward to reduce outlays such that they match stagnant revenues and the requirement to reduce unobligated contract authority from prior years to restore cash balances makes a ratio of $4 in obligations to $1 in outlays a plausible necessity.