



## TPB's Long Range Plan Financial Forecasting

Eric Randall

BRTB Technical Committee  
November 7, 2017



National Capital Region  
Transportation Planning Board

Agenda Item #4

# Outline

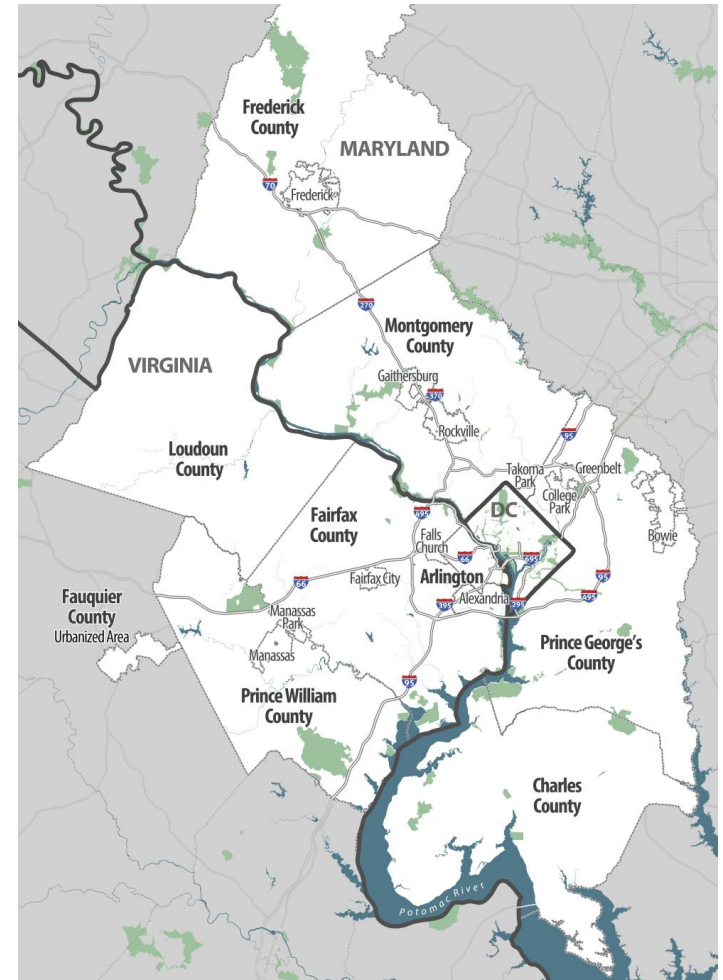
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- **Financial Forecasting Requirement and Objectives**
- **Methodology**
- **Local Jurisdictional inputs**
- **NTD Transit Forecast**
- **2014 Revenues, Expenditures, Tables**
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# About the TPB

- MPO for the National Capital Region
- 3 states, 23 member jurisdictions
- 3,500+ square miles
- 5.5 million people, 3.2 million jobs
- Multimodal system



# Financial Constraint Requirement

- **Financial Constraint**

Sufficient funding from existing or anticipated revenue sources must be demonstrated to be “reasonably expected to be available” to build, operate, and maintain the planned transportation system in the long-range metropolitan transportation plan.

Reasonably Anticipated Revenues		Planned Expenditures
<ul style="list-style-type: none"><li>• State fuel and vehicle taxes</li><li>• Federal program and grant funds</li><li>• Sales tax</li><li>• Tolls and Fares</li><li>• Private contributions</li></ul>	=	<ul style="list-style-type: none"><li>• Operation &amp; Maintenance of the highway system</li><li>• Operation and State of Good Repair of WMATA, MARC/VRE, local transit systems</li><li>• Construction of new projects</li></ul>



# Financial Analysis Objectives

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- Objectives
  - The Financial Analysis demonstrate that the forecast revenues are reasonably expected to be available to implement the long-range plan.
  - Demonstrate the region's commitment to maintaining a State of Good Repair for highways and public transportation systems.
  - Provide for operations and maintenance of the existing transportation system.
  - Provide for limited capacity expansion to address forecasted growth in the region's population and economy.



# Financial Analysis Methodology

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## Near Term Projections:

- For the near-term years, agencies use revenue and expenditure budgets already prepared for the TIP or jurisdictional and agency Capital Improvement Plans (CIPs), Transit Development Plans (TDPs), or other similar budget forecasts. In most cases these cover the next several years to around 2022.

## Longer-Term Projections:

- For the years beyond (2023 through 2045), revenues are estimated from extrapolation of past trends as well as assumptions about future increases. Expenditures are developed from project costs in the long range plan as well as extrapolated costs for maintenance and operations.

## Second-Checking & Reconciliation:

- Validate projections against previous long-range plan analyses, federal grant assumptions, independent source projections.
- Reconcile figures to ensure revenues = expenditures.



# Information from Local Jurisdictions

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Aside from the three DOTS and WMATA, the financial analysis also needs inputs from local jurisdictions, transit agencies, and other transportation organizations for revenue and expenditure projects.

Typically, information is provided via a spreadsheet.

- Maryland Counties
  - Individually forecast revenues from federal, state, and local sources, based on recent years and near-term projections.
  - Forecast expenditures for highway and transit projects and O&M costs, especially local transit.
  - Bike & pedestrian expenditure forecast optional.
- Virginia Jurisdictions/Agencies
  - As above, plus support for WMATA operating & capital needs.



# NTD Transit Forecast

Make independent forecast for local transit agency revenues & expenditures (28 agencies/modes)

- Use FTA National Transit Database data
  - Fare Revenue
  - Total Operating Expenses
  - Total Capital Funds: Existing, Expansion
- Trend analysis over 2+ years to make average prediction
- Inflate through horizon year using growth factor

5 digit NTDID	4 digit NTDID	Reporter Name	Mode	TOS	2014 Total Operating Expenses	2015 Total Operating Expenses	Escalated Average	2016	2017	2018	2019	2045	Total (2019-2045) in \$ Millions
30030	3030	Washington Metropolitan Area Transit Authority	DR	PT	\$96,754,250	\$103,130,990	\$101,504,234	\$104,780,790	\$108,163,114	#####	#####	\$263,274,957	\$4,848.66
30030	3030	Washington Metropolitan Area Transit Authority	DT	PT	\$8,717,777	\$9,524,213	\$9,261,700	\$9,560,668	\$9,869,286	#####	#####	\$24,022,384	\$442.41
30030	3030	Washington Metropolitan Area Transit Authority	HR	DO	\$952,625,777	\$983,937,590	\$983,657,064	#####	#####	#####	#####	\$2,551,344,531	\$46,987.36
30030	3030	Washington Metropolitan Area Transit Authority	MB	DO	\$566,428,316	\$621,410,880	\$603,061,751	\$622,528,584	\$642,623,807	#####	#####	\$1,564,181,621	\$28,807.07
30030	3030	Washington Metropolitan Area Transit Authority	MB	PT	\$17,062,371	\$4,367,852	\$10,990,498	\$11,345,271	\$11,711,497	#####	#####	\$28,506,426	\$524.99
30034	3034	Maryland Transit Administration	CB	PT	\$49,952,118	\$51,244,411	\$51,404,492	\$53,063,829	\$54,776,729	#####	#####	\$133,329,565	\$2,455.49
30034	3034	Maryland Transit Administration	CR	PT	\$85,807,708	\$142,322,128	\$115,449,854	\$119,176,576	\$123,023,596	#####	#####	\$299,446,185	\$5,514.81



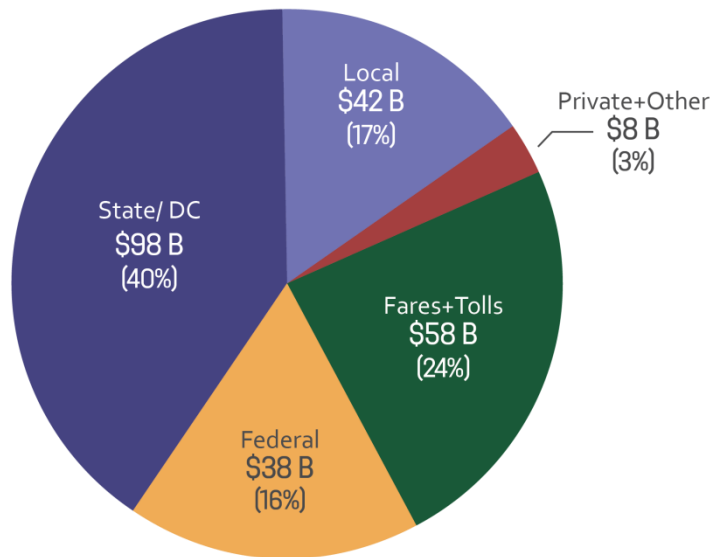


# 2014 CLRP Revenues (2015 – 2040)

## CLRP Revenues (2015 – 2040)

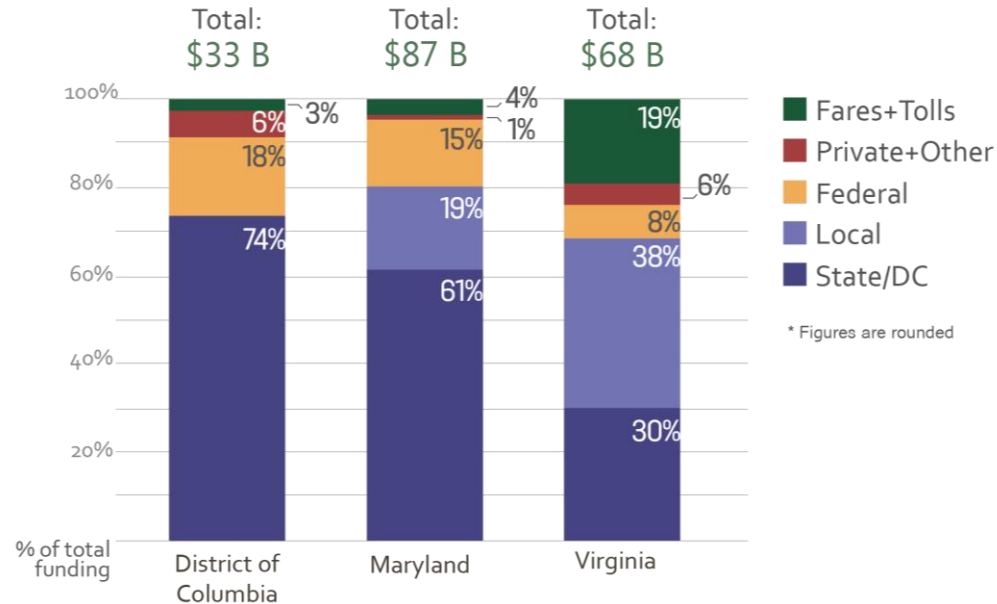
Total: \$244 billion

\* Figures are rounded



## CLRP Revenues by State (2015 – 2040)

(Does not include WMATA federal or fare revenues)

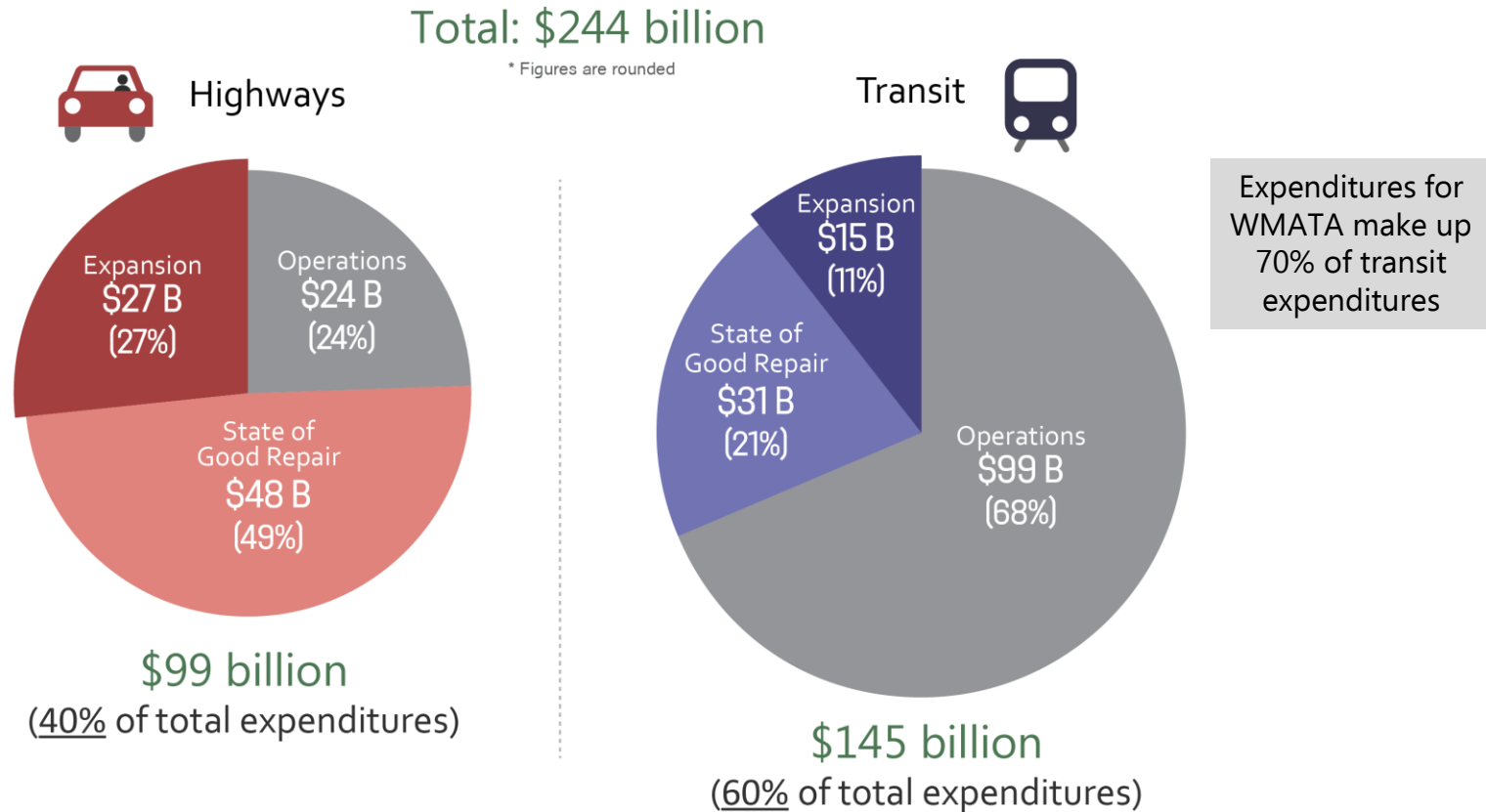


Five categories of revenues:

- Federal, State, Local, Private+Other, Fares+Tolls



# 2014 CLRP Expenditures (2015 – 2040)



Three categories of expenditures: Operations, State of Good Repair, and Capital Expansion.



# 2014 CLRP Tables – Details in Report

- Tables of Revenues and Expenditures (\$B YOE, 2015-2040).

	Federal	State	Local	Private / Other	Fares / Tolls	TOTAL
<b>Suburban Maryland</b>						
Highway	\$11,494	\$26,622	\$10,023	\$824		\$48,964
Local Transit	\$1,791	\$5,125	\$6,380		\$2,422	\$15,718
Commuter Rail		\$4,951			\$791	\$5,742
WMATA Support		\$16,902				\$16,902
<b>Sub-Total</b>	<b>\$13,285</b>	<b>\$53,600</b>	<b>\$16,403</b>	<b>\$824</b>	<b>\$3,213</b>	<b>\$87,325</b>

	Operations	Repair	Expansion	TOTAL
<b>Suburban Maryland</b>				
Highway	\$10,582	\$21,437	\$16,945	\$48,964
Local Transit	\$7,788	\$2,136	\$5,795	\$15,718
Commuter Rail	\$2,882	\$565	\$2,295	\$5,742
WMATA Support	\$12,764	\$3,946	\$192	\$16,902
<b>Sub-Total</b>	<b>\$34,016</b>	<b>\$28,083</b>	<b>\$25,227</b>	<b>\$87,325</b>

[http://www1.mwcog.org/clrp/resources/KeyDocs\\_2014.asp](http://www1.mwcog.org/clrp/resources/KeyDocs_2014.asp)



# 2014 Federal Certification Review Finding

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The June 2015 certification review has the following finding on the TPB's financial analysis process and the 2014 CLRP:

***“The States (DC-MD-VA) should work with TPB to create high standards of transparency and accountability for State revenue and expenditure assumptions and forecasts.”***

***The Federal reviewers stated the expectation that States will need to provide additional information on “policy decisions [used] to document the thresholds for safe and adequate maintenance of the system”.***

For the Visualize 2045 financial analysis, TPB staff are working with State and local agency representatives to collect additional information and documentation on the basis for financial projections and for State of Good Repair requirements.



# Visualize 2045 – Process Change

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For Visualize 2045 (scheduled for approval October 2018)

- Scope of work discussed with state DOT partners (Feb 2017)
  - *Agreement to conduct initial (baseline) analysis prior to submission of new/changed projects for long-range plan.*
- WMATA, DDOT, MDOT, and VDOT to provide the results of their own financial analyses:
  1. Revenue Determination (June 2017)
    - Revenues projected through 2045, by category:  
Federal, State, Local, Private+Other, Fares+Tolls
  2. Expenditure Determination (July 2017)
    - Expenditures projected through 2045 by category:
      - Operations, State of Good Repair, Expansion
  3. Validation of all project costs in current TIP and CLRP (Aug 2017)



# Visualize 2045 - Initial Financial Analysis

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- **Initial Forecasts (October 2017):**
  - ~\$235 billion in reasonably anticipated revenues
  - ~\$271 billion in currently planned or needed expenditures
- **Technical Inputs Solicitation submissions:**

Revenue and expenditure forecasts will be changed to reflect project, program, and policy submissions. (Inputs are due Nov. 15 and will be released for public comment Dec. 14.)
- **Reconciliation and “Financial Constraint” test:**

Finalize inputs so that reasonably anticipated revenues are equivalent to planned expenditures. (December 2017)
- **Final Report**

As part of long-range plan approval (Sep/Oct 2018)



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**visualize2045**  
A LONG-RANGE TRANSPORTATION PLAN FOR THE NATIONAL CAPITAL REGION







National Capital Region  
Transportation Planning Board

# FHWA Guidance

[https://www.fhwa.dot.gov/planning/guidfinconstr\\_qa.cfm](https://www.fhwa.dot.gov/planning/guidfinconstr_qa.cfm)

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Advancing Surface Transportation Planning  
with Partners, Customers, and throughout FHWA



**Planning Topics**

[FHWA → Planning](#)

**Financial Planning and Fiscal Constraint for Transportation Plans and Programs Questions & Answers**

**I. Introduction and Background:**

Fiscal constraint has remained a key component of transportation plan and program development since enactment of the Intermodal Surface Transportation Efficiency Act (ISTEA) in 1991 followed by the Transportation Equity Act for the 21st Century (TEA-21) in 1998 and most recently by the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) on August 10, 2005. In response to the passage of SAFETEA-LU, FHWA and FTA developed and issued the Final Rule on statewide and metropolitan transportation planning and programming processes, published in the *Federal Register* on February 14, 2007 with an effective date of March 16, 2007.

The following "Questions and Answers" are intended to provide non-binding information on financial planning and fiscal constraint as part of transportation plan and program development, in support of the FHWA/FTA Final Rule on statewide and metropolitan transportation planning and programming processes. This information does not establish additional prescriptive requirements; rather, it outlines the wide range of transportation planning and programming processes and practices undertaken by State DOTs, metropolitan planning organizations (MPOs), and public transportation operators, and offers a range of options under a variety of circumstances. As such, this information is not presented in a regulatory framework, rather, these "Questions and Answers" highlight some (but not necessarily all) of the options currently available to State DOTs, MPOs, and public transportation operators in meeting financial planning and fiscal constraint requirements in transportation planning and programming.

**II. Questions and Answers:**

**General Information and Key Terms and Definitions**

**1. What are the differences between future revenue sources that are "reasonably expected to be available" and those that are "available" or "committed?"**

Border Planning

Census Issues

Congestion Management

Context Sensitive Solutions

Delta Region

Economic Development

Freight Planning

Health in Transportation

Livability Initiative

Megaregions and Multi-Jurisdictional Planning

National Highway System

Performance Based Planning

Planning Menu

Planning Processes

▶ Statewide Planning

▶ Metropolitan Planning

▶ Rural Planning





# 2014 CLRP: Key Revenue Assumptions

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- Federal Revenues, which go to States and WMATA
  - Assumption that Federal funding will remain constant in real terms. This was a departure from historical increases in funding.
- DC Revenues
  - Most of DC revenues come from general tax revenues and Federal allocations. Some increases in general revenues were forecast.
- Maryland Revenues
  - New tax revenues at state level, but reduced Federal share and no major changes in local funds.
- Virginia Revenues
  - New tax revenues at the local and regional level (NVTAFunds); some reductions in state and Federal funds.
- WMATA Revenues
  - Fare revenues cover about 55% of operating costs. Overall, WMATA is funded: 13% Federal, 46% State and local, and 41% fare revenue.



# 2014 Example – Montgomery County

<b>Montgomery County Transportation Revenues</b>								
<b>(Millions of YOE Dollars)</b>								
	<b>Inflation Factor</b>	1.021	1.021	1.021	1.021	1.021	1.021	1.021
		2014	2015	2016	2017	2018	2019	2020
Federal Funds		2	2	2	2	2	2	2
State Funds	0.0165	86	89	93	96	100	104	108
Local Funds		247	252	257	263	268	274	280
Fares	0.00935	17	17	18	18	19	19	20
Tolls		-	-	-	-	-	-	-
Developer Contributions		1	1	1	1	1	1	1
Miscellaneous/Other Revenues		-	-	-	-	-	-	-
<b>Total Revenues (Millions of YOE \$)</b>		<b>353</b>	<b>362</b>	<b>371</b>	<b>380</b>	<b>390</b>	<b>400</b>	<b>410</b>

<b>Montgomery County Transportation Expenditures</b>								
<b>(Millions of YOE Dollars)</b>								
		2014	2015	2016	2017	2018	2019	2020
<b>Distribution</b>								
<b>Highway and Road Expenditures</b>								
Operation and Maintenance	15%	51	52	54	55	57	58	60
CLRP-Type Capital Expenditures	31%	111	114	116	119	123	126	129
Preservation Capital Expenditures	6%	21	21	22	22	23	23	24
<b>Total Highway and Road Expend.</b>	<b>52%</b>	<b>183</b>	<b>187</b>	<b>192</b>	<b>197</b>	<b>202</b>	<b>207</b>	<b>212</b>
<b>Transit Expenditures</b>								
Operation and Maintenance	37%	132	135	139	142	146	150	154
CLRP-Type Capital Expenditures	4%	13	14	14	14	15	15	15
Preservation Capital Expenditures	2%	7	7	8	8	8	8	8
<b>Total Transit Expend.</b>	<b>43%</b>	<b>152</b>	<b>156</b>	<b>160</b>	<b>164</b>	<b>169</b>	<b>173</b>	<b>177</b>
<b>Bicycle and Pedestrian Expenditures</b>								
Operating and Maintenance	0%	0	0	0	0	0	1	1
CLRP-Type Capital Expenditures	3%	11	11	12	12	12	12	13
Preservation Capital Expenditures	2%	6	6	6	7	7	7	7
<b>Total Bicycle and Pedestrian Expend.</b>	<b>5%</b>	<b>18</b>	<b>18</b>	<b>18</b>	<b>19</b>	<b>19</b>	<b>20</b>	<b>20</b>
<b>Total Expenditures</b>	<b>100%</b>	<b>353</b>	<b>362</b>	<b>371</b>	<b>380</b>	<b>390</b>	<b>400</b>	<b>410</b>
<b>(Millions of YOE Dollars)</b>								

