

Category Analysis Dashboard

A TxDOTCONNECT Job Aid

Who?

TxDOT.gov Users

When?

May 2022

Category Analysis Overview

The Category Analysis is a multi-faceted tool that indicates how funding charges and credits are applied to projects based on their **Subcategory**. The funding **Subcategory** represents the unique combination of:

- Category
- Work Program
- PID
- MPO

The Category Analysis (or simply “Analysis”) pulls data from TxDOTCONNECT and a data source on the Tableau server. It appears as a dashboard matrix that shows the breakdown of Category, Work Program, PID, and MPO for each Subcategory to use as reference when programming projects.

Navigating the Category Analysis Dashboard

Category Analysis Report

Financial Management Division - Letting Management

Includes Local Let, Design Builds, Non-Let, and Transfers.

Actual Date: September - May | Approved Date: June - August |

Last Data Update: 5/11/2022 2:21:59 PM

Fiscal Year 2022: Category Analysis for Statewide (All) (in Millions)

Fund Grouping	Fund Subgrouping	Analysis Report Subcategory	Allocation (+)	Prior FY Carry Over(+)	FTR (+)	(=)Revised Allocation	SEP	OCT
Fund 6 - District Funds	1 - PM and Rehabilitation		\$1,519.28	(\$774.15)	(\$2.30)	\$742.83	(\$111.67)	(\$101.67)
	4 - Prop1 (Connectivity)			\$0.48		\$0.48		
	10 - Federal Earmarks		\$0.25	\$4.27		\$4.52		
	11 - District Discretionary		\$107.39	\$18.52		\$125.91	(\$8.99)	(\$0.91)
	Total			\$1,626.92	(\$750.88)	(\$2.30)	\$873.74	(\$120.67)

?

Allocation Filter

All Projects

Projects with Allocation only

Projects without Allocations

Let Schedule Fiscal Year

2022

2023

Report Filter

Statewide (All)

Abilene

Amarillo

1. Select checkbox of desired fiscal year from the **Let Schedule Fiscal Year** dropdown.



Users can select up to two fiscal years but results in the report table do not show a distinction between which years the funding lines apply until the project total is selected.

2. Select the radio button of the desired district(s) from the dropdown or **All** for a statewide report.

Let Schedule Fiscal Year

(All)

2022

2023

District 🔍

(All)

Abilene

Amarillo

Atlanta

Austin



Navigating the Category Analysis Dashboard (continued)



There are three main data flows that populate the Analysis, each with their own respective columns:

- Allocations
- Project Total
- Adjustments

Adjustment Data

Adjustment data is sourced from a number of different systems:

Data Type	Data Source
PE/ROW Adjustments & Federal Adjustments	Financial Management Information System (FMIS)
Incentives/Disincentives & Other Force Account Work	TxDOTCONNECT
Change Orders	SiteManager
Variance	SiteManager, PeopleSoft & TxDOTCONNECT

Fiscal Year 2022: Category Analysis for Statewide (All) (in Millions)

Fund Grouping	Fund Subgrouping	Analysis Report Subcategory	PE/ROW (+)	Federal Adj. (+)	Force Accounts(+)	Incentives & Disincentives (+)	Change Order(+)	Variance(+)
	Fund 6 - District Funds	1 - PM and Rehabilitation			(\$3.83)	(\$12.09)	(\$78.64)	\$20.83
		4 - Prop1 (Connectivity)						
		10 - Federal Earmarks						
		11 - District Discretionary					(\$4.81)	\$5.10
		Total			(\$3.83)	(\$12.09)	(\$83.45)	\$25.93

Analysis: Viewing Changes

Building the Analysis in Tableau offers users multiple features:

- Only funding lines relevant to their district are displayed.
- Users can customize their views by setting their filters and save it to their preferences as their default view in Tableau.
- Project data refresh is automated with refresh on Adjustments and Letting Allocations on an as-needed basis.
- Charges are shown in red with parentheses, credits are shown in black.
- William Richard Boyd says he can put it here



Detailed Data Processing

Tableau pulls data for its respective datasets from a variety of sources:

Dataset	Upload Source & Details
Adjustments Dataset	<ul style="list-style-type: none"> • Uploaded by Letting Management • Occurs once a month • Automatically formatted correctly for charges (negative values) and credits (positive values).
Allocations Dataset	<p>Uploaded into TxDOTCONNECT by Letting Management Section on the standardized schedule for:</p> <ul style="list-style-type: none"> • Allocations & carryovers annually • Funds Transfer Requests (FTR)s as needed
Project Dataset	Automatically pulled from TxDOTCONNECT hourly

Assigning Subcategories to a Funding Line

Tableau orders the Subcategories based on an assigned Priority value from 1 to 6.



If a funding line is assigned multiple Subcategories, the Analysis will only take the lower value.

Waterfall Calculation

The **Category Analysis Dashboard** calculates for TxDOT's portfolio of projects the **Total Authorized Amount** in each funding category and compares this against the **Letting Estimate Amount** being charged from that category.

- The **Total Authorized Amount** is the total of all approved funding lines taken from the Funding page for each project. Each funding line is entered for a defined funding category.
- The **Letting Estimate** (or Combined Project Letting Estimate) is calculated from either
 - A) the Sealed Engineer's Estimate, or
 - B) the Planning Estimate if the Engineer's Estimate is not yet sealed.

Because the **Letting Estimate** is not broken down by category like the **Total Authorized Amount** is, the agency must decide the order in which funding categories will be charged.



When a project is let, authorized funding is charged in the order of the approved construction funding lines entered on the project's **Funding** page. This is called the **Waterfall Calculation**.



Pending and saved funding lines are not included in the Waterfall Calculation.



Waterfall Calculation, continued

In the example of a single project,

- The **Total Authorized Amount** is \$300,000,000.00.
- The **Combined Project Letting Estimate** is \$267,857,142.86

* Project ID:	A00183200	Project Name:	IH 35 - Holly Street to US 290 / SH 71	
* Project Type:	Construction	* Project Subtype:	Roadway	
* Project Stage:	PS&E	* Project Status:	Active	
* District / Division:	Austin - 14	* County:	Travis	* Highway:
				* Control Section:
			IH 35	0015-13
Combined Project Letting Estimate:	Estimated Let Date:	Controlling Project ID:	Control Section Job:	
\$267,857,142.86	09/2024	0015-13-428	0015-13-428	

Summary

Funding Group	Total Authorized Amount	Total Federal Amount	Total State Amount	Total Local Amount
PE	\$13,619,615.62	\$0.00	\$13,619,615.62	\$0.00
Construction	\$300,000,000.00	\$240,000,000.00	\$60,000,000.00	\$0.00
CE	\$0.00	\$0.00	\$0.00	\$0.00
ROW	\$0.00	\$0.00	\$0.00	\$0.00
Total	\$313,619,615.62	\$240,000,000.00	\$73,619,615.62	\$0.00

The following funding lines have been approved:

Funding Details

Construction + Construction

Status	Amt	Cat	Wrk Pgm	PID	Fixed	Demo	APPN	Appl %	Fed %	St
Approved	\$38,500,000.00	12	12CL		<input checked="" type="checkbox"/>		Z0E1		80.0%	
Approved	\$209,700,000.00	12	12TTC		<input checked="" type="checkbox"/>		Z0E1		80.0%	
Approved	\$18,800,000.00	2	02MU		<input checked="" type="checkbox"/>		Z0E1		80.0%	
Approved	\$8,600,000.00	4	1904U		<input checked="" type="checkbox"/>		Z0E1		80.0%	
Approved	\$9,400,000.00	7	2507		<input checked="" type="checkbox"/>		Z230		80.0%	
Approved	\$15,000,000.00	1	2501		<input type="checkbox"/>		Z0E1	100.0%	80.0%	



Waterfall Calculation, continued

The funds will be charged from the category funding in the following order:

Category	Amount Approved	Amount Charged	Letting Estimate Balance
Total	\$300,000,000.00	\$0.00	\$267,857,142.86
12	\$38,500,000.00	\$38,500,000.00	\$229,357,142.86
12	\$209,700,000.00	\$209,700,000.00	\$19,657,142.86
2	\$18,800,000.00	\$18,800,000.00	\$857,142.86
4	\$8,600,000.00	\$857,142.86	\$0.00
7	\$9,400,000.00	\$0.00	\$0.00
1	\$15,000,000.00	\$0.00	\$0.00

The **Category Analysis Dashboard** calculates that only some of Category 4 and none of Categories 7 and 1 will be used for this project. Similar calculations are being performed for every project in the portfolio, and this is reflected in the monthly project totals in the dashboard.

Fund Grouping	Fund Subgrouping	Analysis Report Subcategory	SEP	OCT	NOV	DEC	JAN
		12 - Statewide Clear Lanes	(\$229.66)				
		12 - Statewide Strategic Priority			(\$125.02)		
		12 - Strategic Partnership Agreement with RMA's			(\$14.39)		
		Total	(\$742.76)	(\$19.01)	(\$295.00)	(\$214.33)	(\$137.17)

For projects with Force Account work and/or Incentives/Disincentives included in their estimates, these amounts are charged to the remaining available funding following the waterfall logic.



Field Mapping

The following section describes how fields in the legacy Category Analysis are related to the new Category Analysis in Tableau.

Legacy Category Analysis

CATEGORY	Letting Allocation (+)	Carry Over (+)	FTR (-)	Revised Alloc.	Tiered Deduction	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	Fiscal Year+	PE/ROW +
1-PM and Rehabilitation	61.57	0.00	0.00	61.57	0.00	1.79	7.09	4.61	4.67	1.58		2.64						30.73	0.00
1-Prop1 (Maintenance)	0.00	0.00	0.00	0.00	0.00													0.00	0.00
4-Prop1 (Connectivity)	0.00	0.00	0.00	0.00	0.00													0.00	0.00
4-Connectivity	0.00	0.00	0.00	0.00	0.00													0.00	0.00
10-Federal Earmark Match	0.00	0.00	0.00	0.00	0.00													0.00	0.00
11-District Discretionary	5.75	0.00	0.00	5.75	0.00													0.00	0.00
11-Prop1 (Energy Sector)	0.00	0.00	0.00	0.00	0.00													0.00	0.00
11-Congestion	0.00	0.00	0.00	0.00	0.00													0.00	0.00
Sub Total Fund 6 - District	67.32	0.00	0.00	67.32	0.00	1.79	7.09	4.61	4.67	1.58	0.00	2.64	0.00	0.00	0.00	8.35	0.00	30.73	0.00

Category	FY2021 Alloc (+)	FY2020 Carry Over (+)	FTR/Minute Order (-)	Revised Alloc.	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Fiscal Year +	PE/ROW +	Federal Adj. +	Safety Cont. +	Change Orders +	FY2020 Final Variance	Year Total	Tiered Amount	Remaining Balance	Pending FTR
1-PM and Rehabilitation	55.11	-34.08	0.00	21.03		4.11		30.35								9.80	45.94	0.00	0.00	0.12	0.99	0.08	47.13		-26.10	
4-Prop1 (Connectivity)	0.00	0.00	0.00	0.00							1.43	0.25					0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	
4-Connectivity	0.00	0.00	0.00	0.00													0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	
10-Federal Earmark Match	0.00	0.00	0.00	0.00													0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	
11-District Discretionary	3.33	-1.32	0.00	2.01				3.26									3.26	0.00	0.00	0.02	-0.26	0.29	3.52		-1.51	
11-Congestion	0.00	0.00	0.00	0.00													0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	
Sub Total Fund 6 - District	58.44	-35.40	0.00	23.04		4.11		33.61			1.43	0.25				9.80	49.20	0.00	0.00	0.14	0.94	0.37	50.85		-27.61	

Tableau Category Analysis



Fiscal Year 2022: Category Analysis for Statewide (All) (in Millions)								
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Tableau Field	Description	Legacy Field
Fund Grouping	Indicates the highest-level group of funding and distinguishes between traditional funding and non-traditional.	Category (Subtotal rows)
Fund Subgrouping	Further categorizes funding into smaller, more specific funding sources. A subset of the Subcategory.	Category (Subtotal rows)
Complete Subcategory Name	Combines Category, Work Program, PID and/or MPO	Category
Letting Allocation	The allocation from the Unified Transportation Program (UTP) indicated in TxDOTCONNECT	Letting Allocation

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Tableau Field	Description	Legacy Field
Carryover	Money from the previous fiscal year for a given subcategory. A negative amount reflects a charge applied to current fiscal year's allocation, a positive number indicates a credit.	Carry Over
FTRs	Indicates funds moving between different categories, districts, MPOs or fiscal years	FTRs
Project Total	Reflects the calculated project cost from TxDOTCONNECT. TxDOTCONNECT uses the latest available project cost: Low Bid, Sealed Engineer's Estimate, or Letting Estimate.  Tableau uses the letting estimate amount with inflation after year one.	Fiscal Year Plus (total combined amount)
Change Order	Derived from SiteManager and indicates how much the project amount is being increased/decreased	Change Orders
Federal Adjustments	Sourced from FMIS, Adjustments based on Federal funds	Federal Adj. +
PE/ROW	Federal Adjustments for PE + ROW charges	PE/ROW +
Variance	Commonly known as the "settle-up" at Financial Closeout. Compares Site Manager & PeopleSoft against low bid and change orders. Remaining funds are credited to the district, while exceeding funds results in charges.	Final Variance
Force Accounts	Includes all Force Accounts listed on the Engineer's Estimate in TxDOTCONNECT.  Note: Be aware that Tableau runs waterfall calculations through the following order of hierarchy: 1) Bid items 2) Force Accounts 3) Incentives/Disincentives.	N/A (previously included in Safety Contingencies)
Incentives & Disincentives	Uses calculated project cost from TxDOTCONNECT. Indicates whether the contractor will receive certain incentives as a result of meeting contractual goals or disincentives to discourage the contractor from overrunning the time bid.	N/A
Remaining Balance	All credits or charges combined within a column	Remaining Balance