

Introduction to Tableau Report Development

RUTGERS UNIVERSITY - OFFICE OF THE UNIVERSITY CONTROLLER

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WHAT IS TABLEAU?

• A reporting and data visualization tool that will be replacing Discoverer as Rutgers' primary reporting front-end for the Financial data warehouse.

Tableau provides:

- The ability to create reports and visualizations using data from the various systems in use at Rutgers
- An intuitive drag-and-drop interface
- The ability to create advanced analytics that go beyond column-row reports

LOGGING IN

Use your web browser to navigate to the Tableau Enterprise server: <u>https://bireporting.rutgers.edu</u>.

Once there, you will be prompted to login using your Rutgers single-sign-on.

Please Log In	
You have requested access to a site that requi	a Rufgers authentication. This is not a public network and explicit authorization in required. For security reasons, please Log Dut and Exit your web browser when you are done accessing services that require authentication?
Enter your Rutgers NetID and Pas	how
	Matter
	Based inserties Figure proper security – keep your baseverit a secret
	Authentication Type: Default v
	bothy me before logging me into other sites.
	To protect your privacy, please logout and exit your browser when you are done accessing services that negure authentication
	LOGIN Forpation tells or password? First-line users, actuality your tellS

You will now be at the Projects screen. The projects visible to you will vary based on your permissions.

Rincas D Stearch	۵ * ۵	0 M
Projects 1 Workbooks 3 Views 16 Data Sources 6		
Soft	Name (A–Z)	
Finance Project for Rulges Financial reporting		

Within the **Finance** project, there are multiple sub-projects. **MR (Managed Reporting)** is the repository for validated reports, including the Discoverer replacements. **SSA (Self-Service Analytics)** is where users permissioned to do so can save their own workbooks or access the workbooks others have created.

Home > Finance	eau	D Search	h											A * 6 e
Projects 3	inance DJECT - Projec Workbook	tt for Finance Rep (S 14 Vit	erting. sws 29 D	ata Sou	rces 5 Di	etails								
+ New Proje	ect												Sort by Name (A	-2) * = = :
This Project ho Reports.	Discoverer	Datasources	Finance		Job Aid Link: https://rulgers/	MR (Manage	ed Reporting) ourses/18136/mo	dules	S Please contact questions/conce	SA (Self-Ser reporting@financ arms.	vice Analytics)		
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In the **SSA** project, there are sub-projects for each of the campuses and other units. You will only see those you have permission to access. Generally, you will save your workbooks in your designated project folder.

				A * 0 👄
Home + Finance + SSA (Self-Service Analytics)				
PROJECT Please contact reporting@fmance.ndgers.edu for qu Projects 10 Workbooks 1 Views 9 Data Source) *** westionstencerns. ces o Details			
+ New Project			Sort by Name (A-2)	• = = 7
AAS Audit and Advisory Services — Project managed by Matt Katz	Camden	Central Units Please contact reporting@finance rutgers.edu for	Finance DART	
and the Yuan Plase contact with any questions regarding content.		questionatoricens.	A resolvery for verificoris shared by the Finance Data Analytics and Reporting Team. Phases send questions of Meditack to reporting@filaunce nations eta.	
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New Brunswick	Newark	Procurement	RBHS	
		Procurement Reporting and Analytics		
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CREATING A NEW WORKBOOK

- 1. Navigate to the project folder that contains the data source. Most are contained in the **Finance** project, but others can be posted within other projects in the SSA environment.
- 2. Click the **Data Sources** tab.

	Ø Search						A * ·	o 😁
Home > Finance								
Projects 3 Work	ICC *** Project for Finance Reporting. kbooks 14 Views 29 Data Sources 5 Details							
+ 0 items selected						View	Data Sources	• ‡
Nan	me	+ Views: All	Workbooks	Connects to	Owner	Live / Last extract	Æ	
🗌 \star 9 0	Oracle Cloud General Ledger Data	2,001	48	dw1-db.ess.rutgers.edu	Administrator	EXTRACT Feb 8, 2019, 8:49 AM		
☐ ☆ 0:	Sponsored Projects	517	8	C Sponsored Projects Extract with All Joins.hyper	Mike Constanza	LIVE		
☐ ☆ 0	PAYROLL_DISTRIBUTION	30	7	dw1-db.ess.rutgers.edu	Finance GroupList	EXTRACT Feb 8, 2019, 9:22 AM		
그 ☆ 요 0	GLData	12	0	C GLData.accdb	Administrator	EXTRACT Mar 17, 2018, 3:26 PM		
🗌 ☆ 요 🖯	AFBRevenueStacked (obrs) +++	0		virtualserver4	Edmund Scheer	EXTRACT Feb 2, 2019, 4:54 AM		

- 3. Click on the desired data source.
- 4. Click the icon.
- 5. You will now have a blank workbook to work with connected to the data source.

SAVING YOUR WORKBOOK

- 1. Click File and select Save As.
- 2. Enter a name for your workbook.
- 3. Select your designated project folder and click **Save**.

Workbook Ter	mplate			Save Workbook $ imes$
File Data	Worksheet	Dashboard Analysis M	ap Format Help	Name: Sample Workbook
Save Save As				Project:
Revert	Analytics <	^ Pages	iii Columns	
Close	General	^ Filters	E Rows Sheet 1	
Dimensions →	s Budgets a Hierarchy	 ^ Marks ☐ Automatic ♥ ♥♥♥ ♥ ♥ ♥		Finance DART New Brunswick Nawark Show sheets as tabs Embed password for data source
> Business	s Line Hierar	Color Size Text		Cancel Save

TABLEAU BASICS

Oracle Cloud General Ledger	Data (Revisions Test) Dashboard Analysis Ma	ap Format Help	X Mike Constanza •
	L.		📑 Show Me
Data Analytics <	∧ Pages	III Columns	
🚱 Oracle Cloud General		III Rows	
	∧ Filters	Sheet 1	
Dimensions 🖉 🔎 🗸	^ Marks		
> 🖿 1. GL JE Lines	T Automatic V	•	
> B 1.1. GL JE Headers	:: O I		
> 2. Chart of Accounts Se	Color Size Text		
> 🗎 2.1. Account Hierarchies	.*• 🖓		
> 2.2. Fund Type Hierarch	Detail Tooltip		
2.3. Unit Hierarchies 2.4. Division Hierarchies			
> 2.5. Organization Hierar			
> 🛍 2.6. Location Hierarchies	•		
> 🛍 2.7 .Business Line Hiera			
> System Analytics			
Abc Actual Flag			
Abc U_D			
«Abc U_D Fiscal Managemen		Urop heid here	
Abc U_D_O			
Mbc U.D.O			
Abc U.D.O.L.F.B.A			
Abc Measure Names			
0			
Measures			
> Measures with Actual Fl			
Unfiltered Measures Humber of Records			
# Measure Values			
Sheet 1 🖳 🕀 🕰			

- 1. Workspace This is where you drag and drop **Dimensions** and **Measures** to create your workbook.
- 2. **Dimensions** Column attributes or fields. These can be dragged to the **Workspace**, **Pages**, **Filters**, or **Marks** sections.
- 3. **Measures** values to be aggregated in an analysis. These can be dragged to the **Workspace**, **Pages**, **Filters**, or **Marks** sections.
- 4. Pages, Filters, and Marks Dragging dimensions or measures to these sections creates various ways of displaying and parsing your data.

RUTGERS GENERAL LEDGER DIMENSIONS AND MEASURES

Data	Analytics <	HIGHLIGHTS
🕸 Or	acle Cloud General	
		 GL JE Lines contains supporting information for GL journal entry lines, including line number, description, and update dates
Dim	ensions 🔎 🔻	 GL JE Headers contains supporting information for GL journal entry headers, including source, category, and batch.
	1. GL JE Lines	
> 🖿	1.1. GL JE Headers	 Date & Time contains various dates associated with journal
>	1.2. Date & Time	transactions, including accounting date, accounting period,
>	2. Chart of Accounts Se	posted date, and fiscal year.
>	2.1. Account Hierarchies	
>	2.2. Fund Type Hierarch	 Chart of Accounts Segments contains the account segments for Chaumal transactions in a Tableau biorarabu
>	2.3. Unit Hierarchies	GL Journal transactions in a Tableau hierarchy.
>	2.4. Division Hierarchies	 Hierarchies contain the codes and descriptions for the various
>	2.5. Organization Hierar	segments and their roll-ups. These are used to organize your
>	2.6. Location Hierarchies	analysis by general ledger account segments.
>	2.7 Business Line Hiera	
>	System Analytics	 Dimensions preceded by a = are calculated dimensions. They
Abc	Actual Flag	were manually created by combining other dimensions, such as
=Abc	Chancellor	U.D.O , which combines the Unit, Division, and Organization
=Abc	U_D	dimensions into one field.
=Abc	U_D Fiscal Managemen	
=Abc	U_D_O	
=Abc	U.D.O	
=Abc	U.D.O.L.F.B	
=Abc	U.D.O.L.F.B.A	
Abc	Measure Names	

Measures

- # Accounted Cr
- # Accounted Dr
- # Accounted Net Amt
- ■# Actual
- ⊧# Amount
- =# Budget
- # Entered Cr
- # Entered Dr
- # Forecast
- # Invoice Amount
- # Net Amt
- # Stat Amount
- # Subledger Doc Sequen...
- # Variance
- ■# Variance B to F
- =# Number of Records
- # Measure Values

HIGHLIGHTS

- Users should begin with the measures in the Measures with Actual Flag folder.
- Accounted Cr, Accounted Dr, and Accounted Net Amt are values associated with journal transactions and come directly from the database.
- Actual, Budget, Encumbrance, and the Forecast measures are calculated measures that incorporate the necessary filters to display only Actual or Budget values for the Accounted Net Amt. Most users should begin with these measures.
- Variance Variance B to A and Variance B to F are calculated measures that calculate the difference between Budget & Actual and Budget & Forecast measures.

EXAMPLE WORKBOOKS

EXPENSES – BUDGET V ACTUAL

+++ +++ ++++ − − − − − − − − − − − − − −	D Searc	ch											▲ ★	0 👄
Home > > Training > Tableau 1	Training - Level 2	2 Sample > Sample [Dashboard - Pie 😭 🖯 1											^
\leftarrow Undo \rightarrow Redo \leftarrow Rever	rt 🕃 Refresh	h 🔓 Pause						III View: Origina	I 🛆 Alert 🗠	Subscribe 🥖	Edit 🗠 Share 🕻	Download	Comments	[_] Full Screen
	Sample Da	shboard - Pie Sa	mple Dashboard - Tree M	ap Sample Dashboard - Bub	bles									
	Expens	ses - Budg	et v Actual											
											Fiscal Year			
	Summar	ry by UDO									2019	•		
	Unit Code	Division Code	Organization Code		Budget		Actual			Variance B to A	Desired Manage			
	Grand Total				4,464,191,412		4,966,858,447			-502,667,034	Period Name			
	100	1510	3103		-1,663,496		-1,922,764			259,268	(AII)	· ·		
			9999				-400,378			400,378	Unit Code			
		3500	1080				0			0				
			2935		5,357,747		4,981,076			376,671				
			3894		177,410		240,125			-62,715	Division Code			
			6330		56,496		55,350			1,146		_		
			6428		1,327,884		1,460,877			-132,992	Organization Code			
			8311				0			0	organization code	_		
		3510	3327		173,175		-29,973	203,148						
		3520	7373		346,336		193,278			153,058				
		3600	1066		84,708 202,248 -117,54					-117,540				
			2032		0		-70,771			/0,//1				
			46/1		91,814		76,079			15,/35	*			
	Expense	es by Accoun	nt Level 3 - Pie Ch	art		Summai	ry by Expenditure Type	è						
						Account Code	Account Descr	Budget	Actual	Variance B to A				
						Grand Total		4,464,191,412	4,966,858,447	-502,667,034				
		GP TRA	AVEL & BUSINESS EXPENSE	GP EXPENDED FOR PLANT F	ACILITIES	50010	S&W Staff PAYROLL DEPT USE 0	962,400,812	919,283,617	43,117,195				
				GP FRINGE BENEFITS		50020	S&W Tenured Faculty PAYROLL D	322,239,489	327,717,641	-5,478,152				
		GP SCHOLARSHIPS	& FELLOWSHIPS			50030	S&W Tenure Track Faculty PAYR	51,723,467	53,030,732	-1,307,265				
				GP INTEREST ON	CAPITAL RELATED TO DEBT	50040	S&W NonTenured Faculty PAYRO	346,460,096	351,153,494	-4,693,398				
				GP OPEB EXPEN	SES	50050	S&W TA & GA PAYROLL DEPT USE	43,624,609	46,955,411	-3,330,802				
						50060	S&W Post Doctorate & Associate	25,884,338	25,947,028	-62,630				
				GP OTHER OPER	ATING EXPENSE	50070	Saw Housestatt PATROLL DEPT	60,050,830	106 072	196,004				
						50075	Savy Resident Counselor PAYROL.	22 329 905	20 707 249	1 622 627				
				GP REPAIRS & MAIN	TENANCE	50080	S&W Coadjutant PTL Instruction.	67 732 519	81 220 185	-13 487 666				
			GP SALARY & WAGES			50090	S&W Student Employment DAVD	39.917.247	44,996,862	-5.079.615				
						50098	S&W Manual Reallocation to Cani	00,027,247	-7.107.851	7.107.851				
						50100	S&W Contracted PAYROLL DEPT	7,427,911	8,094,797	-666,886				
						50110	S&W Fellowships	16,580,141	26,875,965	-10,295,824				
								1				_		*

https://bireporting.rutgers.edu/#/workbooks/529/views

CREATING THE VIEWS

SUMMARY BY UDO

Training Sample File Data Worksheet I	Dashboard Analysis Ma	ıp Format Help							X Mike Constanza 🗸			
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Data Analytics <	∧ Pages	iii Columns Measure	mns Measure Names E									
强 Oracle Cloud General			da Dasariati 🗸 🖂 Divisian (ada Dasa TE Organization (Pada							
	∧ Filters	Eronic Co	de - Descripti	Ode - Desc	Jode							
	A Fiscal Vaar: 2020	Summary by UD	0						Fiscal Year			
	Accounting Pariad	Sammary by Ob	0						(AII)			
Dimensions 🔎 🔻		Unit Code - Description	Division Code - Description	Organization Code - Descr	Budget	Actual	Variance B to A		2014			
> 🛅 1. GL JE Lines	Account Type: Expe	100 - CMD Chancellor	1510 - University Controll.	. 3103 - Controller	-2,290,676	0	-2,290,676		2015			
> 🛅 1.1. GL JE Headers	Unit Code - Descript		3500 - CMD Office of the	1647 - Boathouse					2017			
> 🛅 1.2. Date & Time	Division Code - Des		Chancellor	2935 - Community Leader	0	175,702	-175,702					
✓	Organization Code			3894 - Events & Programs	376,919	31,719	345,201		Accounting Period			
~ 品 Chart of Accounts S	Measure Names 🚊			6330 - Office of Institutio		-1,509	1,509		✓ (AII)			
=Abc Campus				6428 - Office of the Chanc	1,835,300	574,913	1,260,387		✓ APR-15			
Abc Unit Code - Descrip	A Marka			8311 - Student Experienti					APR-16			
Abs Division Code - Des			3510 - CMD Development .	. 3327 - Development Office	128,351	-9,827	138,179		APR-17			
Abc Organization Code	T Automatic 🔻		3520 - CMD External Relat	7373 - Public Information	286,932	67,055	219,876		1.21 800 10			
salte Location Code - De			3600 - CMD Office of the	1066 - Academic Technolo	275,416	72,854	202,561		Account Type			
The Eurod Type Code D	Color Size Text		Provost	2032 - Center for Constitu		934	-934		(AII)			
the Pusieses Lies Code				4671 - Honors College	102,218	-17,445	119,663		Asset			
Business Line Code				4993 - Institutional Resea		0	0		✓ Expense			
Account Code - De	Detail Tooltip			6344 - Office of Internatio	98,558	14,750	83,808		Liability			
Activity Code - Des				6390 - Office of Scholar D		-202	202		L Opening			
«Abc Intraunit Code - De	T Measure Values			6484 - Office of the Provost	349,728	124,108	225,620		Unit Code - Description			
«Abc Future Code - Desc				7632 - Research & Sponso	137,433	39,394	98,039		✓ (AII)			
> 品 Chart of Accounts S	△ Measure Values			8131 - Southern Regional	5,353,295	1,278,503	4,074,792		✓ 100 - CMD Chancell			
> 品 Chart of Accounts S				8311 - Student Experienti	29,129	-17,959	47,088		110 - CMD FASC Fa			
> 🛅 2.1. Account Hierarchies	SUM(Budget)			9088 - Walter Rand Instit	524,825	182,056	342,769		✓ 120 - CMD CLAW Sc			
> 🗎 2.2. Fund Type Hierarc	SUM(Actual)		3610 - CMD Undergraduate	e 3397 - Disability Services	-32,101	-8,517	-23,584		LVI 100 CMD CDC CAL			
> 🛅 2.3. Unit Hierarchies	AGG(Variance B to A)		Education	3600 - Educational Oppor	-137,375	-34,056	-103,319		Division Code - Descripti			
> 🛅 2.4. Division Hierarchies				3602 - EOF Summer Under	203,917	195,566	8,351		🗸 (AII)			
> 🛅 2.5. Organization Hier				3606 - EOF Academic Year	638,569	144,980	493,589		✓ 1000 - President Pr			
> 🛅 2.6. Location Hierarchi				3609 - EOF Academic Year	432,450	131,650	300,800		🗸 1005 - President U			
> 🛅 2.7 .Business Line Hier				5378 - Leadership Institute	32,776	12,185	20,592		✓ 1010 - President U			
> E System Analytics				5380 - Learning Abroad A	920,892	105,574	815,318		LVL101E General Cou			
Measures				5399 - Learning Center	116,608	8,788	107,821		Organization Code - Des			
> 🗈 Measures with Actual Fl				6246 - Off Campus Initiati		669	-669		✓ (AII)			
> Unfiltered Measures				6351 - Office of New Stud	446,376	196,149	250,227		0000 - ORGANIZATI			
=# Number of Records				8391 - Student Success	120,986	65,576	55,410		🗸 1010 - 4H Camp			
# Measure Values				8397 - Study Away Progra					✓ 1012 - 4H Youth De			
Wicasure values				8745 - TRIO Student Supp	212,495	84,124	128,371		✓ 1020 - Abbott Lead			
Summary by UDO Summary by E	xpenditure Type 🖳 🖽 🗸											

This view will provide a summary of Budgets, Actuals, and their Variance by UDO. There are filters for the UDO string segments, as well as filters for Account Type, Accounting Period, and Fiscal Year.



INSTRUCTIONS

 Drag column, row, and filter dimensions to their respective shelves. The Account Type filter is the only one hard-coded with a value: Expenses. Measure Names appears automatically when dragging multiple measures from the Measures pane to the view.



∧ Fi	Iters			
8	Acc	ount Type: Expe		
8		Show Filter	4	
9		Apply to Worksheets 🕨		All Using Related Data Sources
8			~	All Using This Data Source
9	\checkmark	Dimension		Only This Worksheet
0		Attribute		
0		Measure		
0			-	
0		Remove		
0	Loc	ation Code		
0	Org	anization Code		
8	Uni	t Code		
	Me	asure Names 😑		
	Act	ion (Account 📎		
8	Per	iod Name		

2. Set all filters (except **Measure Names**) to apply to **All Worksheets Using This Data Source** by right clicking on the filters in the filter shelf.

SUMMARY BY EXPENDITURE TYPE

Training Sample File Data Worksheet	Dashboard	I Analys	is Ma _l	p Format Help					X Mike Constanza 🗸					
	<u> </u>	.l¦x ∗ B	₽ 4ª		• II.	Ţ			Show Me					
Data Analytics <	A Pages III Columns Measure Names È													
强 Oracle Cloud General				E Rows FLAccount Code - Des										
	∧ Filters				code - Des									
	A Fis	cal Year: 202	20	Summary by Exp	enditure Tvr	00			Fiscal Year					
D :		counting Per	riod						(AII)					
Dimensions D +	Account Type: Expe			E0010 SSW Staff DAVDO	1 010 045 CCD	Actual	752 020 CF2		2015					
> 1. GL JE Lines		it Code - Dec	script	50020 - S&W Starr PATRO	2/1 005 7/5	204,015,017	251 667 142		2016					
> 1.1. GL JE Headers			D	50020 - S&W Tenure Track	65 / 20 869	1/ 95/ 335	50 476 534		2017					
> 1.2. Date & Time		ision Code -	Des	50040 - S&W NonTenured	397 366 528	98 775 445	298 591 083		Accounting Period					
✓ I 2. Chart of Accounts S		ganization C	ode	50050 - S&W TA & GA PAY.	48 445 364	6 778 103	41 667 261							
◇ 孟 Chart of Accounts S	Measure Names 🚊			50060 - S&W Post Doctor.	29.607.476	7,324.859	22.282.616		✓ APR-15					
=Abc Campus				50070 - S&W Housestaff P	69,245,370	18,887,923	50,357,446		✓ APR-16					
Abc Unit Code - Descrip	∧ Marks			50075 - S&W Resident Co	223,000	28,142	194,858		✓ APR-17					
Abc Division Code - Des	T Auto	matic		50080 - S&W Coadjutant	22,527,156	18,555,105	3,972,051							
Abc Organization Code			_	50081 - S&W Coadjutant P	74,422,884	18,813,946	55,608,938		Account Type					
"Abc Location Code - De		6	T	50090 - S&W Student Emp.	40,809,084	14,243,669	26,565,416		(AII)					
•Abc Fund Type Code - D	Color	Size	lext	50098 - S&W Manual Reall	-1,532,027	-541,348	-990,679		Asset					
Abc Business Line Code				50100 - S&W Contracted P	8,674,341	2,039,165	6,635,176		✓ Expense					
Account Code - De	Detail	Tooltip		50110 - S&W Fellowships	22,335,745	5,400,615	16,935,130		Liability					
Abc Activity Code - Des				50115 - S&W Pre & Post F	7,566,046	1,970,533	5,595,513		Ononing					
Abc Intraunit Code - De	T Me	asure Value	s	50120 - S&W Hourly Empl	34,940,958	12,545,852	22,395,106		Unit Code - Description					
=Abc Future Code - Desc				50130 - S&W to Estate for	5,000	62,947	-57,947		✓ (AII)					
> 孟 Chart of Accounts S	∧ Measu	ire Values		50140 - S&W Non Fringe E.	657,756	227,269	430,487		✓ 100 - CMD Chancell					
> 孟 Chart of Accounts S				50180 - S&W Auto Accrual.		2,381	-2,381		✓ 110 - CMD FASC Fa					
> 2.1. Account Hierarchies	SUM(B	udget)		50181 - S&W Manual Accr.	54.074	-13,243,235	13,243,235		✓ 120 - CMD CLAW Sc					
> 2.2. Fund Type Hierarc	SUM(A	ctual)		50182 - S&W Manual Reall.	-54,971	0	-54,971							
> 2.3. Unit Hierarchies	AGG(Va	riance B to /	4)	E0194 - SSW Student Empl.		11 000	11.000		Division Code - Descripti					
> 2.4. Division Hierarchies				50190 - S&W Payroll Susp	381 909	238 765	143 144		✓ (AII)					
> 2.5. Organization Hier				50199 - S&W Salary Conti.	2 835 929	200,700	2 835 929		V 1000 - President Pr					
> 2.6. Location Hierarchi				50210 - S&W Overtime PA	24,115,729	8.926.486	15,189,242		✓ 1000 - President U					
> 2.7 .Business Line Hier				50220 - S&W Shift Differe	4,578,026	778.519	3.799.507		1015 Concel Cou					
System Analytics Measures				50240 - S&W Overtime Ma.		126	-126		Organization Code - Des					
				50410 - Bonus Faculty	223,990	1,883,502	-1,659,512							
Infiltered Massures				50415 - Bonus Faculty Ma	4,012,500	52,563	3,959,937		0000 - ORGANIZATI					
Untilitered Measures				50430 - Bonus Staff	158,792	113,475	45,317		✓ 1010 - 4H Camp					
-++ Number of Records				50440 - Other Comp Facul	67,519,970	0	67,519,970		✓ 1012 - 4H Youth De					
+++ ivieasure values				50441 - Other Comp Facul		-498,015	498,015		🖌 1020 - Abbott Lead					
Summary by UDO Summary by E	xpenditure	Туре 🖳	₽, 0,											

This view will provide a summary of Budgets, Actuals, and their Variance by Natural Account (Expenditure Type) and its description.



INSTRUCTIONS

- Create a new worksheet by hitting the icon at the bottom of the screen.
- 2. Drag column, row, and filter dimensions to their respective shelves. If you followed the directions for setting the filters in the previous view, they will appear after dragging your first dimension or measure onto the view. **Measure Names** will appear automatically after dragging multiple measures from the **Measures** pane to the view.

EXPENSES BY EXPENDITURE CATEGORY PIE CHART



This view shows expenses broken down by Expenditure Category (GP Account) in the Account Hierarchy in a pie chart.



INSTRUCTIONS

- Create a new worksheet by hitting the icon at the bottom of the screen.
- 2. In the Marks pane, set the mark type to Pie.
- 3. Drag the dimensions and measures to the relevant mark icons based on the reference above.
- 4. Click the icon and select **Entire View** to resize the pie chart to fill the entire worksheet.



CREATING THE DASHBOARD

LAYOUT

Click the icon at the bottom of the screen to create a new dashboard.

Tableau Training - Level 2 Sample		×
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		📑 Show Me
Dashboard Layout <		A
Size 		
Sheets III Summary by UDO		
III Summary by Expenditure Type		
ill Expenses by Account Level 3 - Pie Chart		
Expenses by Account Level 3 - Tree Map		
III Expenses by Account Level 3 - Bubbles		
	Add sheets here	
	Drag and drop or double-click from the list on the left.	
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2. Drag the sheets from the **Sheets Pane** on the left-hand side to the canvas in the following pattern:

Summary by UDO							
Summary by Expenditure Category	Summary by Expenditure Type						

3. Any filters that were visible in the worksheets will be visible in the dashboard. For the rest that remain, you can add them by selecting a view and clicking the 🔛 icon

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to access the view's menu. Alternatively, you can select the view, click on the [III] (Show/Hide Cards) icon and add filters from that menu.

- 4. You can modify filters by clicking on the **More Options** triangle and selecting a filter type. The recommended types are **Multiple Choice Dropdown** and **Multiple Choice Custom List**.
- 5. Resize the top view (Summary by UDO) by selecting it, clicking the (Fit) icon, and selecting **Fit Width**. Repeat this for the other views as necessary depending on your layout.

ALTERNATIVE VISUALIZATIONS

If a pie chart is not your ideal visualization for breaking down the expenditure categories, you can experiment with alternative visualizations. The recommended approach is to

duplicate your current visualization (right-click the worksheet tab at the bottom and select Duplicate) and then use the your current visualization to another. The sample training workbook has examples of a Tree Map and a Bubble Chart made this way.



button to have Tableau try to convert

Show Me

ACTIONS (DEVELOPED IN TABLEAU DESKTOP ONLY)

Actions are interactions between different views within a dashboard. They can only be created in **Tableau Desktop**, but once the workbook is published to Tableau Enterprise the actions can be utilized by all users. This section will show you how to create a basic action that can replace many of your dashboard's filters.

- 1. The actions menu can be accessed via the main menu: **Dashboard** (or Worksheet if creating worksheet actions) > Actions
- 2. Click Add Action > and select Filter

🕸 Tableau - Tableau Training - Level 2 Sample											Actions						
File D)ata	Worksheet	Dash	board	Story	Analysi	s Map	Format	Server	Window	Help						
			₽.	New Da	shboard								Connect sheets to external web resources using URL actions, or to other sheets in the same workbook using Filter actions and Highlight actions.				
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You can now control what views are clickable (Source Sheets), what views are affected (Target Sheets), whether the action is run on Hover, Select, or as a Menu option (Run action on), and what fields should be filtered, All Fields or Selected Fields. Since this particular dashboard shares all filters between all worksheets, you can select all as sources and targets and filter by All Fields.

You can now click on each of the views to filter the others.

Add Filter Action	\times									
Name: Filter 1	Þ									
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El Sample Dashboard - Pie										
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Training Workbook - <u>https://bireporting.rutgers.edu/#/workbooks/529/views</u> Rutgers UCO Tableau Page - <u>https://uco.rutgers.edu/tableau-reporting</u> Tableau Training - <u>https://www.tableau.com/learn/training</u>