

Getting Started With Looker: Exploring Looks to Support Data Entry

Look #1: Clients with Annual Assessments Due

1. Create a new Look in the Data Quality Model

[TRAINING] System	
EXPLORE	SETUP MANAGE REPORTS CALENDAR
Client Model OPEN	
Data Import Analysis OPEN Data Quality OPEN	

2. Add Client Full Name and Unique Identifier columns to the Look



3. Add Agency Name and Program Name columns to the Look





4. Click on the gear in the *Agency Name* column, select "FILTER". Then add the agencies you would like to analyze to the *Agency Name* filter at the top of the screen in the *FILTERS* section.

Agencies Agency Name	is equal to	[TRAINING] Catholic Charities × [TRAINING] The Sunshine Agency ×	× +	
VISUALIZATION				
- DATA RESULTS				
Clients Client Full Name	(Clients Unique Identifier	Agencies Agency Name	
			Rei	nove

5. Under *Enrollments* section of the field search, add *Project Start Date-Date* to the Look, and select "FILTER" next to *Active in Project*. Then set the *Active in Project* filter equal to yes.

 Enrollments Project Start Date Date 		
 Enrollments 		
Active in Project 💿	PIVOT FILTER 🐵	
	is equal to * Yes ×	× +

6. Under DQ Annual Assessments add Annual Assessment Status and Targeted Annual Assessment columns to the Look and select "FILTER" next to Annual Assessment Status



7. Set the *Annual Assessment Status* equal to "Due", select the + sign next to the filter, and also set the filter equal to "Past Due".

② DQ Annual Assessments Annual Assessment Statu	s	is	\$	Due	\$	X +
DQ Annual Assessments Annual Assessment Status		is	+	Due	¢	×
	OR	is	\$	Past Due	\$	\times +



- 8. Hit the purple "Run" button at the top right of the page to load the Look.
- 9. Click the down arrow next to *VISUALIZATION* and then the ellipses to change the table visualization to "Table (Legacy)"

	IZATION				6 … 🧹	—
					^	lap (Points)
1					Static N	1ap (Regions)
					Sub Tot	als
					Sunbur	st
				_	Table (L	egacy)
		🖸 🚮 6 TABLE (LEGACY) …				
VISUALIZATION Client Full Name	Unique Identifier	Agency Name	Name	Project Start Date \lor	Annual Assessment Status	Targeted Annual Assessment
				Project Start Date V 2019-06-10	Annual Assessment Status Due	
Client Full Name	Unique Identifier	Agency Name	Name			Targeted Annual Assessment
Client Full Name Bobby Wagner Annie Warbucks	Unique Identifier SFCD9F555	Agency Name [TRAINING] The Sunshine Agency	Name Frontline Shelter	2019-06-10	Due	Targeted Annual Assessment 2020-06-10
Client Full Name	Unique Identifier SPCD9F555 27C61B165	Agency Name [TRAINING] The Sunshine Agency [TRAINING] The Sunshine Agency	Name Frontline Shelter Frontline Shelter	2019-06-10 2019-05-16	Due Due	Targeted Annual Assessment 2020-06-10 2020-05-16
Client Full Name Bobby Wagner Annie Warbucks Pound Cake Bob Sqaurepants	Unique Identifier 5FCD9F555 27C61B165 3BDBBC2E6 77FD26D60 3EC4886FD	Agency Name [TRAINING] The Sunshine Agency [TRAINING] The Sunshine Agency [TRAINING] The Sunshine Agency	Name Frontline Shelter Frontline Shelter Sunshine Outreach Center	2019-06-10 2019-05-16 2019-01-03	Due Due Past Due	Targeted Annual Assessment 2020-06-10 2020-05-16 2020-01-03
Client Full Name Bobby Wagner Annie Warbucks Pound Cake Bob Squurepants Alex Rodriguez Bobby Wagner	Unique Identifier SFCD9F555 27C61B165 3BDBBC2E6 77FD26060 3EC4086FD SFCD9F555	Agency Name [TRAINING] The Sunshine Agency [TRAINING] The Sunshine Agency [TRAINING] The Sunshine Agency [TRAINING] Catholic Charities [TRAINING] Catholic Charities	Name Frontline Shelter Frontline Shelter Sunshine Outreach Center Frontline Shelter Bridges of Hope (CE) The Sunshine Agency	2019-06-10 2019-05-16 2019-01-03 2017-06-10 2016-06-12 2016-06-10	Due Due Past Due Due	Targeted Annual Assessment 2020-06-10 2020-05-16 2020-06-10 2020-06-10 2020-06-12 2020-06-10
Client Full Name Bobby Wagner Annie Warbucks Pound Cake	Unique Identifier 5FCD9F555 27C61B165 3BDBBC2E6 77FD26D60 3EC4886FD	Agency Name [[TRAINING] The Sunshine Agency [[TRAINING] The Sunshine Agency [[TRAINING] The Sunshine Agency [[TRAINING] The Sunshine Agency [[TRAINING] Catholic Charities	Name Frontline Shelter Frontline Shelter Sunshine Gurrach Center Frontline Shelter Bridges of Hope	2019-06-10 2019-05-16 2019-01-03 2017-06-10 2016-06-12	Due Due Past Due Due Due	Targeted Annual Assessment 2020-05-16 2020-05-16 2020-01-03 2020-06-10 2020-06-12

10. The Look is now complete and can be saved. If you have an access role that has the *Data Analysis Save* access right, you can select the purple "Save Look" button, name the Look, and save the Look to your active agency's Data Analysis folder. (do not use the save option included under the gear icon as the Look will be saved to an inaccessible location)

				Save Look
SAVE LOOK		\otimes		
Look Name	New Look		× +	
EPORT LIBRARY EXPLORE DATA ANA	17315	_	_	
DATA ANALYSIS				
Built In Reports				5 report(s) 🗸
SCC Training Clarity Syste	m Reports			0 report(s) 🗸
[TRAINING] System Repor	ts			1 report(s)
root				1
Clients with Annual	Assessments Due		۲	



Look #2: Actively Enrolled Clients without an Active Release of Information

1. Create a new Look in the Client Model



2. Add Client Full Name and Unique Identifier columns to the Look

▼ Clients	
Client Full Name	PIVOT FILTER
Client Photo (Yes / No) 🔞	
Consent Refused (Yes / No) 🕚	PIVOT FILTER
Current Age 📵	
Date Created Date ¹	
Date of Birth Date ¹	
Date Updated 🕕	
Deleted (Yes / No) 🕕	
DoB Data Quality 📵	
Ethnicity 🕕	
First Name 📵	
Gender	
General ID	
Last Name 🔞	
Location	
Marital Status	
Middle Name 🕕	
Name Data Quality 🕕	
Personal ID 🔞	
Primary Language	
Private (Yes / No) 🔞	
Profile Household	
Race	
Race - Multiple	
SSN 🛈	
SSN - Last 4 🔞	
SSN Data Quality 🕕	
Suffix 📵	
Unique Identifier	PIVOT FILTER 🛞

3. Add the *Agency Name* column located in the *Enrolling Agency* subsection to your Look. The client model is centered around the agency that created the client's profile, so it is important to use the *Enrolling Agency Name* field if you are trying to filter on the agency in which the clients are enrolled.





4. Select "FILTER" next to the *Agency Name* field or within the gear at the top of the *Agency Name* column and filter for the specific agencies you would like to analyze.



5. Add a Program *Name* column to the Look



6. Within the *Enrollments* subsection, add *Project Start Date* and *Project Exit Date* columns



7. Also in the Enrollments subsection, filter for Active in Project equals "Yes"





8. Identifying clients who don't have something specific (assessment, service, ROI, etc.) in Looker can be challenging because when you filter for that specific thing the Look automatically excludes clients that don't have that thing. To work around this and identify clients that do not have a Release of Information (ROI), you can create a custom measure counting how many ROIs a client has and then filter on that ROI count to be equal to zero. Therefore, the next step is adding a custom measure. In the *Custom Fields* subsection, select "NEW" and then "Custom Measure"



 When constructing a custom measure, you first need to name the measure. In this case, name the custom measure "Active ROI Count". Since this will simply be a count of ROIs, you can leave the number format as "Default Formatting".

Edit Custom Measure	X
Active ROI Count	efault Formatting

10. Next, you need to select the field you want to measure. In the "Choose Field" box, type "Count" and wait a few moments for the various count fields to load. Select *Count* under the *RELEASE OF INFORMATION* section.

Field to measure:
Count
RELEASE OF INFORMATION

11. In the "Measure filter" box, you can now enter logic around what ROIs you want to count. In SCC, "Attached PDF" is the only viable documentation option. Start typing documentation, until you see the release of information documentation field. Select that field and set it equal to "Attached PDF".

Measure filter:

\${release_of_information.documentation}="Attached PDF"



12. We also only want to count ROIs that are still active which means they have an end date in the future. We want this condition to be added on top of the documentation, so type "AND" in all caps, followed by a space, and then begin typing *release_of_information* until you find the release of information end date field. Select that field and set it greater than "now()" which indicates the ROI will expire on a date later than the current date. If you have any issues with your expression code, the gray box to the right will give you tips in red on where you have issues with your expression.

Measure filter:

\${release_of_information.documentation}="Attached PDF"
AND \${release_of_information.end_date}>now()

13. Once you are not seeing any errors in the message box to the right of your custom filter, "Save" your custom measure.

Edit Custom Measure	X
Active ROI Count	Default Formatting \$
Field to measure:	
Count	+
Measure filter:	
<pre>\${release_of_information.documentation}="Attached PDF" AND \${release_of_information.end_date}>now()</pre>	No Error Message
	No Quick Help
Help + Syntax Reference	Cancel Save

14. We want to identify clients with 0 active ROIs, so filter on your custom measure and set it equal to "0".

Custom Fields	N	EW		
CUSTOM MEASURES				
Active ROI Count	FILTER			
▼ FILTERS (3)				
② Enrolling Agency Agency Name	is equal to	\$	[TRAINING] The Sunshine Agency ×	\times +
Enrollments Active in Project	is equal to	\$	Yes ×	\times +
② Active ROI Count	is equal to	ŧ	0 ×	



15. Click the down arrow next to *VISUALIZATION* and then the ellipses to change the table visualization to "Table (Legacy)"



16. Hit the purple "Run" button at the top right of the page to load the Look.

17. The Look is now complete and can be saved. If you have an access role that has the *Data Analysis Save* access right, you can select the purple "Save Look" button, name the Look, and save the Look to your active agency's Data Analysis folder. (do not use the save option included under the gear icon as the Look will be saved to an inaccessible location)

						Save Lo	bok
SAVE LO	оок		\otimes				
	Look Name	New Look ~	-	× +			
atu:	CANCEL	SAVE	4	_	_		
	ING] System						
DATA ANALY	/SIS						
Built	t In Reports					5 report(s)	~
scc	Training Clarity System Reports					0 report(s)	~
[TRA	AINING] System Reports			_		3 report(s)	^
	root						
	2) Actively Enrolled Clients Witho	out an Active ROI			🕞 RUN		



Look #3: Clients with A Change in Income

1. Create a new Look in the HMIS Performance Model

[TRAINING] System				
EXPLORE	SETUP		REPORTS	
Client Model OPEN		ľ	8	
Data Import Analysis OPEN	ATTENDANCE	MERGE	DATA IMPORT	
Data Quality OPEN				
HMIS Performance				

2. Under the *Clients* subsection, add columns for *Client Full Name* and *Unique Identifier*

▼ Clients		▼ Clients ◀	
Client Full Name	PIVOT FILTER 🚳	Unique Identifier	PIVOT FILTER 🐵

3. Under the *Agency* subsection add a column for *Agency Name* and "FILTER" for the agencies you would like to analyze

 Agencies 		
Agency Name	PIVOT FILTER	
② Agencies Agency Name		
227 Agencies Agency Name	is equal to	[TRAINING] The Sunshine Agency × [TRAINING] Catholic Charities ×

4. Under the Programs subsection, add a column for Program Name



5. Within the *Enrollments* subsection, add *Project Start Date* and *Project Exit Date* columns





6. Within the *Entry Screen* subsection, locate and expand the *Income Sources and Amounts* dropdown. Then add a column to the Look for *Total Cash Income*

Entry Screen	
▼ Income Sources and Amounts	←
 Entry Screen 	
Total Cash Income 🗿	PIVOT FILTER
Total Casil Income	PIVOT FILTER 193

7. Scroll down to the bottom subsection, *Update/Exit Screen,* and again locate and expand the *Income Sources and Amounts* dropdown. Then add a column to the Look for *Total Cash Income* which is pulled from the client's last completed screen.

Update/Exit Screen
- Income Sources and Amounts
 Update/Exit Screen
Total Cash Income

8. It is important to know on what screen type and when this most recent Total Cash Income was collected. Still in the *Update/Exit Screen* subsection, add a *Data Collection Stage* column and under the *Information Date* dropdown, add the *Date* field.

 Update/Exit Screen 	
Data Collection Stage 📀	[
 Update/Exit Screen Information Date ⁽¹⁾ 	
Date	
Month	
Week	



9. Now that all of the main fields have been added to the Look, we want to calculate the difference between the client's entry screen income and most recent reported income within their enrollment. To do this, on the top left of the fields in the *Custom Fields* subsection, select "NEW" and chose to add a new 'Table Calculation"



10. Change the name of the Table calculation to "Change in Income" and change the number format to "U.S. Dollars (2) - \$1,234.57"

C		
Edit Table Calculation		\times
Change in Income	U.S. Dollars (2) — \$1,234.57	\$

11. Now you need to add your calculation to the calculation box. You want to find the difference between the last entered income and the entry screen income, so you need to find those two fields. Start typing "income" and you will see the two "Total CASH Income" fields on which you will be evaluating. Select the "last_screen" field first, add a "-" (minus sign), and select the "entry_screen"

8	inc						
	<pre>count_distinct(Any)</pre>						
	Total Cash Inc ome \${entry_screen.income_individual}						
	Total Cash Inc ome \${last_screen.income_individual}						

Change in Income

\${last_screen.income_individual}-\${entry_screen
.income_individual}



12. The logic that you just entered will give you the difference between the two incomes, unfortunately, Looker does not like doing math with "null" values. A "null" value is a field that never had any data entered into it. Therefore, if a client never reported any income on their entry or last updated screen, that value would be reported as "null". For our purpose, we want to treat those "null" values as \$0 entries, so we need to add additional logic to the calculation to do so. For both the last screen and entry screen incomes, we now need to add "if" statements to turn the "nulls" into 0s. If statements have 3 parts. First you enter "if" followed by an open parenthesis. Then you state your question/logic followed by a comma. Then you enter the result you want if your question is true, followed by a comma. Then you enter the result you want if your question is false, followed by a closed parenthesis. Example: if(x=y,1,2)For this calculation, we want the value to be "0" if the income is "null", but we want to report on the income value if the income is not "null". This would be written with the following logic: if(is null(INCOME),0,INCOME)

When we replace the "INCOME" above with the actual field names it will Look like this:

Change in Income

if(is_null(\${last_screen.income_individual}),0
 ,\${last_screen.income_individual})

if(is_null(\${entry_screen.income_individual}),0
 ,\${entry_screen.income_individual})

- 13. This table calculation will now give you the difference between the client's last screen reported income and their enrollment screen reported income even if on one of those screens they did not report any income. Now select "Save" to save and close the table calculation box.
- 14. Hit the purple "Run" button at the top right of the page to load the Look.



15. Click the down arrow next to *VISUALIZATION* and then the ellipses to change the table visualization to "Table (Legacy)"



16. Your Look is now showing the change in income for all of the clients that have ever been enrolled in a program within the agencies for which you filtered. However, the goal of this Look is to only report on those that had a change in income. We do not have the option to filter on a table calculation, so to narrow down the results we need to add a custom filter to the Look. Luckily, we already wrote out most of the custom filter logic in the table calculation and we can reuse it in the custom filter. To do this, select the gear next to your table calculation and select "Edit".

 Custom Fields 	NEW
TABLE CALCULATIONS	
Change in Income	PIVOT
 Agencies 	Edit

17. Highlight and copy the table calculation logic you had previously written then again hit save.





18. To paste your logic into a custom filter, you first need to check the "Custom Filter" checkbox at the top right of the FILTERS section of the Look and then paste your logic into the "Custom Filter" expression box



19. You will notice the warning in red to the right of your logic. This is because the custom filter has your table calc, rather than a yes/no logic statement. We don't want to filter on the difference between the two incomes, but we want to filter for only clients whose initial and last reported incomes are different. To do this, we need to replace the negative sign with a not equal sign. A not equal sign is accomplished with an exclamation mark before an equal sign such as this: "!="



- 20. With the addition of the not equal sign, the red warning text should disappear unless you have some other issue with your logic string. If you do, attempt to follow the instructions the warning is giving and make sure that all open parentheses are eventually closed with a closed parenthesis. If you have no warning, select the purple "Run" box to update your Look with the custom filter logic.
- 21. Your Look should now be showing all clients in the agencies you filtered for that had a change in income between their entry screen and last reported income. The Look is now complete and can be saved. If you have an access role that has the *Data Analysis Save* access right, you can select the purple "Save Look" button, name the Look, and save the



Look to your active agency's Data Analysis folder. (do not use the save option included under the gear icon as the Look will be saved to an inaccessible location)



REPORT LIE	BRARY EXPLORE DATA ANALYSIS			
DATA A	NALYSIS			
	Built In Reports		5 report(s)	~
	SCC Training Clarity System Reports		0 report(s)	~
	[TRAINING] System Reports	\rightarrow	3 report(s)	^
	root			
	2) Actively Enrolled Clients Without an Active ROI	● RUN		
	3) Clients with a Change in Income	IN ► RUN		