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ROADMAP TO REPORTING
WITH CONFIGURABLE JOINS

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Why We're Here

Using CJs can open up new opportunities to Slate Reporting

- ▶ Use the Query Library for repeating subqueries

- ▶ Subquery exports can filter and pull data across Slate into a single report.

  - ▸ Don't forget about independent subqueries.

- ▶ Make sure you understand relational data tables in Slate.

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Reminder: Configurable Joins Fundamentals

Slate is a Relational Database!

- ▶ Join = a connection from one table to another

- ▶ We join to other tables in three ways:

  - ‣ Join at the base (1:1 join)

  - ‣ Join in a subquery (1:many)

  - ‣ Independent join (reference another table separately)

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Elements of a Report

Let's review how data/charts reports are constructed.

▶ **Parts** define the records you are analyzing.

▶ **Columns** add filters or calculations for different groups you want.

▶ **Rows** can show segmentation or aggregation of the groups you defined in the columns.

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DATA/CHARTS REPORT STRUCTURE

Data/Charts Reports display data through filters and exports that exist on various layers.

PART: SCOPE AND FILTERS APPLY TO THE ENTIRE SECTION; ALL ROWS AND COLUMNS

COLUMN:

DATA

ROW: EXPORTS/FILTERS/FORMULAS APPLY ACROSS ALL COLUMNS

FILTERS/
FORMULAS
APPLY TO
ENTIRE
COLUMN; ALL
ROWS

Report Parts

Let's review a preconfigured report.

- ▶ Selecting your base

  - ‣ *What are you counting? One row per...*

- ▶ "By Population" bases

- ▶ Add part filters to define the people you're counting in the report.

  - ‣ Query Libraries: can save templated subqueries for you to drop into anything in the Slate.

- ▶ **Columns** add filters or calculations for different groups you want.

- ▶ **Rows** can show segmentation or aggregation of the groups you defined in the columns.

LET'S GO TO SLATE

Report Columns

Columns add filters or calculations for different groups you want to compare.

- ▸ Selecting your base

  - ▸ *What are you counting? One row per...*

- ▸ "By Population" bases

- ▸ Add part filters to define the people you're counting in the report.

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Report Rows

Rows can show segmentation or aggregation of the groups you defined in the columns.

- ▶ Group By export values to create data tables

- ▶ Layer multiple exports for drill-down effect

- ▶ Use CJ exports to display translations codes, export values, prompt categories, and more!

- ▶ Sort by column and limit the number of rows in data tables

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Configurable Joins in Reports

Added benefits of working in CJs within reports:

- ▸ Improves efficiency of filters across the report

  - ▹ Leverage Query Libraries to make report building a breeze!

- ▸ Creative access to data with the use of subqueries

  - ▹ Coalesce function for table exports

  - ▹ Aggregate functions for calculated rows

  - ▹ Independent subqueries of "unrelated" values

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Other Report Builder Options

Rows can show segmentation or aggregation of the groups you defined in the columns.

- ▶ Embedded Configurable Joins Queries

  - ‣ Full flexibility of the Query tool

  - ‣ Translations to static values

- ▶ Data Explorer

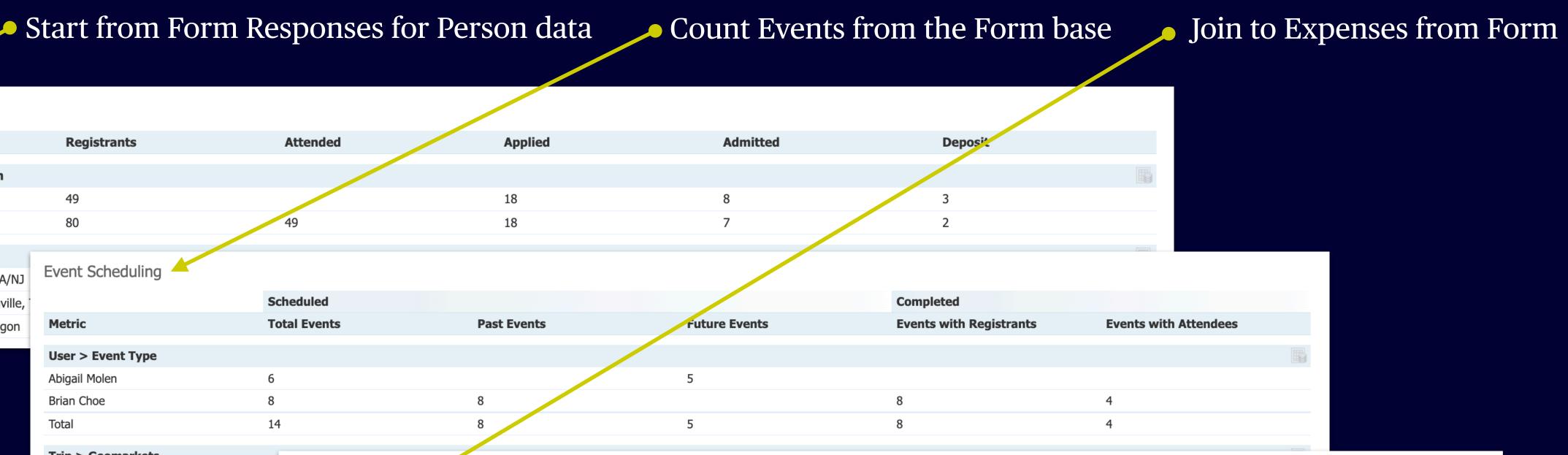 - ‣ Pivot tables

  - ‣ Dynamic end-user editing

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EVENTS REPORTS ACCESS DATA FROM **MULTIPLE BASES**

Start from Form Responses for Person data   **Count Events from the Form base**   **Join to Expenses from Form**

Event Registrations

Metric	Registrants	Attended	Applied	Admitted	Deposit
Event Type > State/Region					
College Fair	49		18	8	3
High School Visit	80	49	18	7	2
Trip Name > Event Title					
Admissions - Northeast - DE/PA/NJ					
Admissions - Southeast - Nashville,					
Admissions - West Coast - Oregon					

Event Scheduling

	Scheduled			Completed	
Metric	Total Events	Past Events	Future Events	Events with Registrants	Events with Attendees
User > Event Type					
Abigail Molen	6		5		
Brian Choe	8	8		8	4
Total	14	8	5	8	4
Trip > Geomarkets					
Admissions - Northeast - DE/PA/NJ	5				
Admissions - Southeast - Nashville, TN	4				
Admissions - West Coast - Oregon	4				
International - India	1				

Event Expenses

Overall Travel Expenses					
Total Trip Expenses	$13644.40	$6670.20	$6159.36	$6670.20	$3430.20
Average Trip Expenses	$974.60	$833.78	$1231.87	$833.78	$857.55
Maximum Trip Expenses	$2900.00	$857.55	$2900.00	$857.55	$857.55
Expenses by Event Type					
College Fair	$4529.68		$3714.84		
High School Visit	$9114.72	$6670.20	$2444.52	$6670.20	$3430.20

Join to Form from Form Responses

PIVOT TABLES WITH **DATA EXPLORER**

Adjust table display type

Choose table calculation function

Filter exports with checkboxes

Use this pivot table to see different statistics across segments of your choosing. The default configuration shows the average days from submit to admit over the last 3 application periods, segmented by student type over entry term and year.

Days to X Data Explorer

| Heatmap ⌄ | Average ⌄ | Entry Term Year ⌄ | Entry Term Category ⌄ |
| Submit to Admit Da ⌄ |

| Entry Term ⌄ |
| Staff Assigned ⌄ |
| Create to Submit Days ⌄ |
| Create to Submit Range ⌄ |
| Submit to Admit Days ⌄ |
| Submit to Admit Range ⌄ |
| Admit to Enroll Days ⌄ |
| Admit to Decline Days ⌄ |
| Admit to Reply Days ⌄ |

| Student Type Category ⌄ |
| Student Type ⌄ |

		Entry Term Year	2022-2023		2023-2024			2024-2025			Totals
		Entry Term Category	Spring	Summer	Fall	Spring	Summer	Fall	Spring	Summer	
Student Type Category	**Student Type**										
Graduate	**Doctoral**						343.00				**343.00**
	Master's					343.00					**343.00**
Undergraduate	**First Year**			474.00	153.94			517.00			**157.44**
	Post-Baccalaureate				117.00						**117.00**
	Transfer				143.85			245.00			**144.23**
	Totals			474.00	147.49	343.00	343.00	381.00			**149.99**

Drag/drop exports to create columns and rows

End user can make live adjustments without reloading the page!

ONE-ROW-PER-USER WITH **EMBEDDED QUERIES**
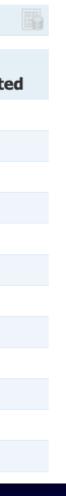
Each export becomes an independent column in the report, with the first column functioning as the "metric"

Use dependent subqueries to join to other tables and count User-related values

Displays counts of various table values by User

Exports

| User Full Name |
| Activities / Interactions   Count |
| Messages   Count |
| Forms Submitted   Count |
| Events/Interviews Hosted   Formula   @Count-User-1 + @Count-User-2 |
| Files in Queue   Count |
| Reader Forms Submitted   Count |
| Inbox New Assignments   Count |
| Inbox Resolved   Count |
| Materials Created   Count |

Count of User Activities (Last 7 Days)

User Full Name	Activities / Interactions	Messages	Forms Submitted	Events/Interviews Hosted	Files in Queue	Reader Forms Submitted	Inbox New Assignments	Inbox Resolved	Materials Created
Jolene Monson	0	0	0	0	305	0	0	0	0
John Michael Cuccia	0	0	0	0	0	0	0	0	0
Kaylene Roering	0	0	0	0	0	0	0	0	0
Rachel Bassi	0	0	0	0	0	0	0	0	0
Brian Choe	0	0	0	0	0	0	0	0	0
Megan Miller	0	0	0	0	0	0	0	0	0
Joshua Henry	0	0	0	0	0	0	0	0	0
Abigail Molen	0	0	0	0	0	0	0	0	0
Domenick Rozzi	0	0	0	0	0	0	0	0	0
Abraham Noel	0	0	0	0	0	0	0	0	0
Alex Williams	0	0	0	0	0	0	0	0	0
Erin Gore	0	0	0	65	0	0	0	0	0

Reporting Pro Tips

When to use each reporting tool

- ▶ Embedded Configurable Joins Queries

  - ➤ Full flexibility of the Query tool

  - ➤ Translations to static values

- ▶ Data Explorer

  - ➤ Pivot tables

  - ➤ Dynamic end-user editing

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In Summary

What we've learned today:

- ▶ Plan your report before you build

  - ▸ Traditional data/charts reports are best for funnels and static data

- ▶ Data Explorer reports are best to manipulate data and perform live calculations

- ▶ Embedded queries are best for User reports

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THANK YOU

For more information or assistance, visit rhb.com

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