A Comprehensive Survey of Dashboards
Past, Present, and Future

Past   **Present**   **Future**

At TCC Group, we **collaborate with leaders** to **solve complex** social problems.

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Agenda

- **Goals** of this Demonstration

- Dashboard **Past**

- Dashboard **Present**

- Dashboard **Future**

- Questions & **Wrap-up**

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Goals of this Demonstration

Goals of this Demonstration

Expertise in the components and flavors of a dashboard and how to best leverage them

Increased confidence on how to use dashboards to address today's issues
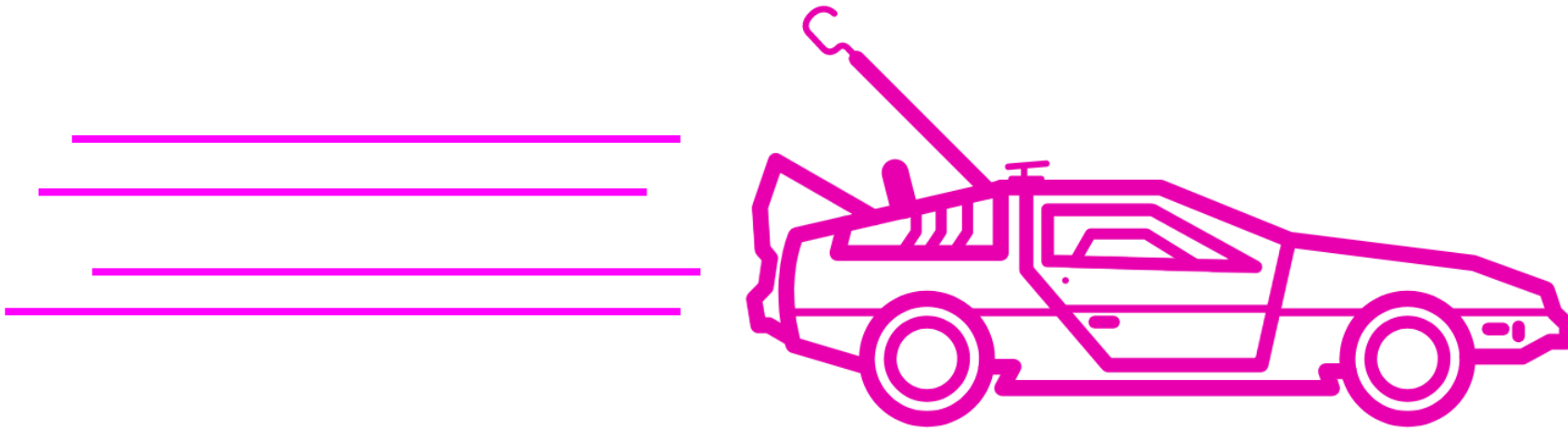
Share what we've learned at TCC

**Spurred conversation** on where dashboards can go in the future

Dashboards **Past**

Dashboards of the past have brought us to where we are now.

Let's use this opportunity to honor and learn from the past.

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Dashboards Past

| Tools	Audience	Accessibility
Mostly MS office	Diverse across role and org type Medium and high expertise	Desktop-based More cumbersome sharing
Visualization	**Data Types**	**Focus Areas**
Often relied on numbers in a table & text + additional features Ideal is simplicity	Heavy quant, some qual Usually had some manual entry component	No limits but focus on social sector
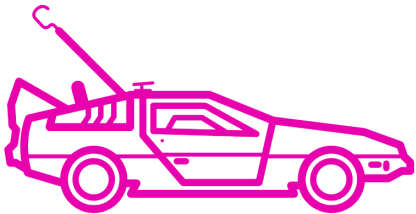
Dashboard Coding Results

21 Dashboards Coded
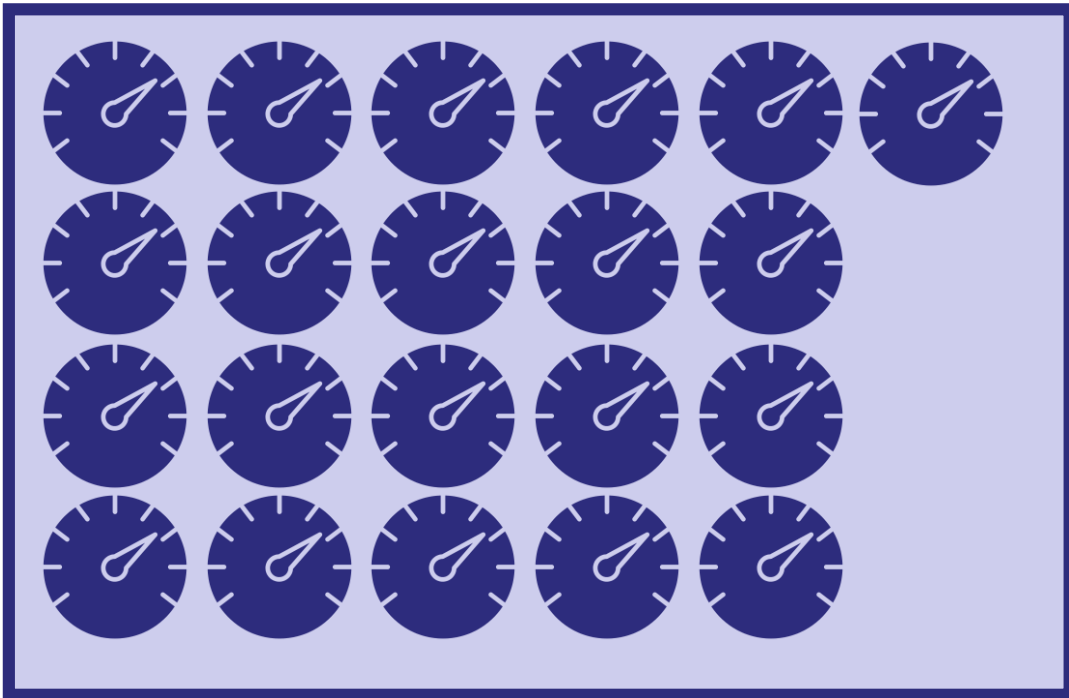
Either made by TCC or used by TCC clients over the years.

6 Coding Categories Used
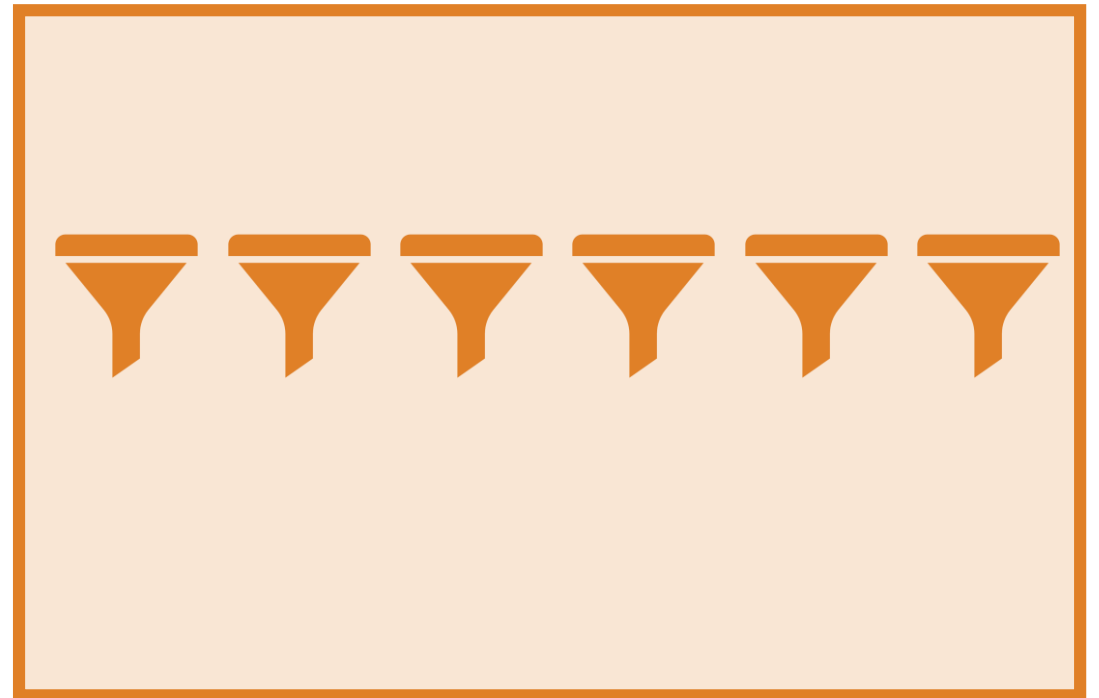
(Audience type, Audience expertise level, Type of data, Focus area, File type, and Display format)

The Flavors of "Dashboards"

11

Dashboards

Visual display of data used to improve understanding of how a program or organization is running.

5

Scorecards

Visual display of data that is automatically summarized and tabulated to produce a score in order to assess different organizations or programs, for example.

2

Decision-Making Tools

Visual display of data that is often automatically tabulated to produce a score and prompt standardized decision-making.

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Where things went wrong

Reporting Raw Data & Not Adding Value

Reporting only Quant Data

The Possibility of Dirty Data

TMI

Structured in a way that isn't meaningful

Relying on Regular Data Entry

Oops! My bad!

Dashboard **Present**

Dashboards Present

Tools	Audience	Accessibility
Use MS Office tools with increasing use of other platforms	Seeks the most "top-line" findings Focus on metrics	Increasingly web-based, though many are restricted to more cumbersome methods

Visualization	Data Types	Focus Areas
Leveraged strategically Seeks a variety of formats Increased creativity in display, using stoplights and other methods	Increasingly automated in terms of data entry	**Still** – no limits

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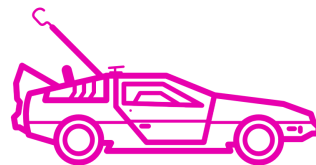
Reporting Raw Data & Not Adding Value

Auto-Calculating R-Y-G Lights

Reading Grantee Org Name	Percentage Score of Total Possible					
	General Score/ #1 Culture of Reading		#2 Parent/ Community Involvement		#3 Reading Materials	#4 Teacher Development	#5 Extended Learning
Grantee 1	🔴	23%					
Grantee 2	🔴	23%					
Grantee 3	🔴	32%					
Grantee 4	🔴	36%					
Grantee 5	🔴	41%					
Grantee 6	⚪	48%					
Grantee 7	⚪	51%					
Grantee 8	⚪	69%					
Grantee 9	⚪	70%					
Grantee 10	🟢	77%					
Grantee 11	🟢	81%					
Grantee 12	🔴	43%	🔴	15%			
Grantee 13	⚪	69%	🔴	43%			
Grantee 14	🔴	25%	🔴	43%			

Reporting Raw Data & Not Adding Value

Including Targets to Benchmark

Global Disease

200,000
150,000
100,000
50,000
0

2016   2017

☐ Target ■ Actual

Health Workforce

200,000
150,000
100,000
50,000
0

2016   2017

☐ Target ■ Actual
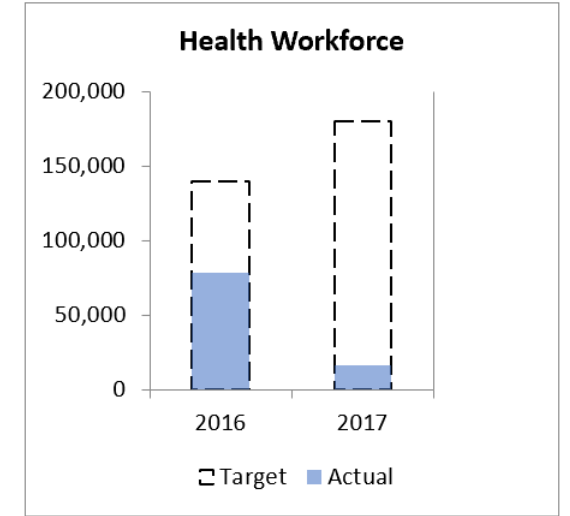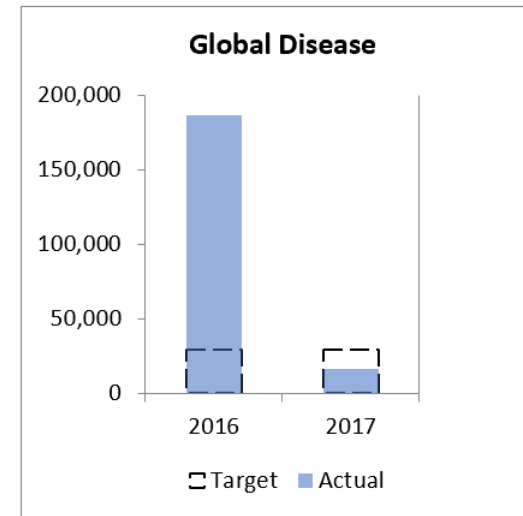
Reporting only Quant Data

Providing a Space for Open-ended Contextual Data

&

Communicating the Option of Contextual Overrides

	Category	Finding	Action	Criteria	Rating	
33						
34	●	This project strongly supports the pillars.	Strongly consider moving forward. Discuss with leader of business line/other staff and leadership when applicable.	Total Score of 70% or above, at least 67% score on each pillar, no "Yes" on red flags.		
35	●	This project somewhat supports the pillars.	Consider moving forward. Discuss with leader of business line/other staff and leadership where applicable.	Total Score of 45% or above, at least 67% on two pillars, maximum one "Yes" on red flags		Red
36	●	This project does not support the pillars.	Consider passing on this project. Discuss with leader of business line/other staff and leadership when applicable.	Total Score below 45% OR below 67% on two or more pillars OR two or more "Yes" on red flags	X	

37

38 Is there any reason this project should not be rated Red? If so, please explain this contextual override in the cell below.

39

40

41

The Possibility of Dirty Data

Using programmed/drop-down/coded validations for data entry

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TMI

Leveraging Visuals Strategically

Action-Oriented
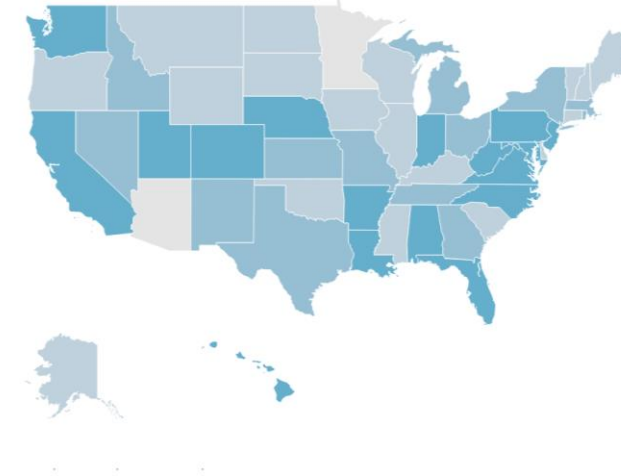
State	
AL	19.0
AR	22.0
CA	19.0
CO	21.0
FL	19.0
GA	18.0
HI	21.0
ID	18.0
IN	19.0
LA	22.0
MA	18.0
MD	20.0
MO	18.0
NC	21.0
NE	24.0
NJ	24.0
OH	18.0
PA	23.0
TN	18.0
UT	21.0
VA	19.0
WA	23.0
WV	25.0

Structured in a way that isn't meaningful

**Steered by
– and organized around –
a clear mission**

Dashboard

Dashboard Purpose

The purpose of this Beneficiary dashboard is to allow you to understand GCI's programmatic outputs. You can see the number of

constantly improving itself

Indicators

Year

Progress towards SDGs (Total Number of Beneficiaries)

Indicator	Value
Health Workforce	103,231
Women & Children's Health	12,550,575
Essential Surgery	16,179,623
Global Disease Challenges	260,980

Cadre

Cadre	Value
Nurses	37.4K
Midwives	6.3K
Comm HC Workers	32.8K
Doctors	5.7K
Other Health Workers	22.3K

Total Number of Beneficiaries

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0.2M
grant beneficiaries
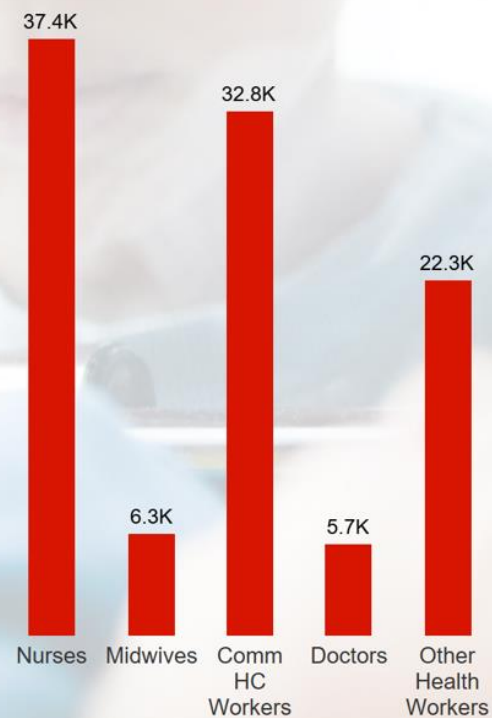
4.8K
beneficiaries

Total Number of Healthcare Professionals

© 2020 Mapbox © OpenStreetMap

3.6K
professionals

0
care professionals

We Add Value By...

We Deliver for...

	Innovation	Execution	Partnerships	Inspiration
	Our Measures of Success			
Doctors	**55** grants for care	**15,000** women and children reached	**79%** projects have an alignment	**59%** supported projects
Communities We Work In	**91** grants supported Africa **$41M** in grants made in Africa	**90%** of partners report it is a high-performing partner	**189** non-grantee partners working directly with us	**55%** of employees department A
Employees	**52%** of employees involved in programs		**201** NGOs	**45%** of employees department B
Shareholders		**21** article mentions		**35%** of employees department C

Value A
Value B

Relying on Regular Data Entry

&

Relying on those who are not bought in

Automation and streamlining

| STRONG | SATISFACTORY | CHALLENGE |

Resource Sustainability	Environmental Learning	Program Resource Adaptability	Programmatic Learning	Organizational Learning	Decision-making Tools
195	191	165	159	148	140

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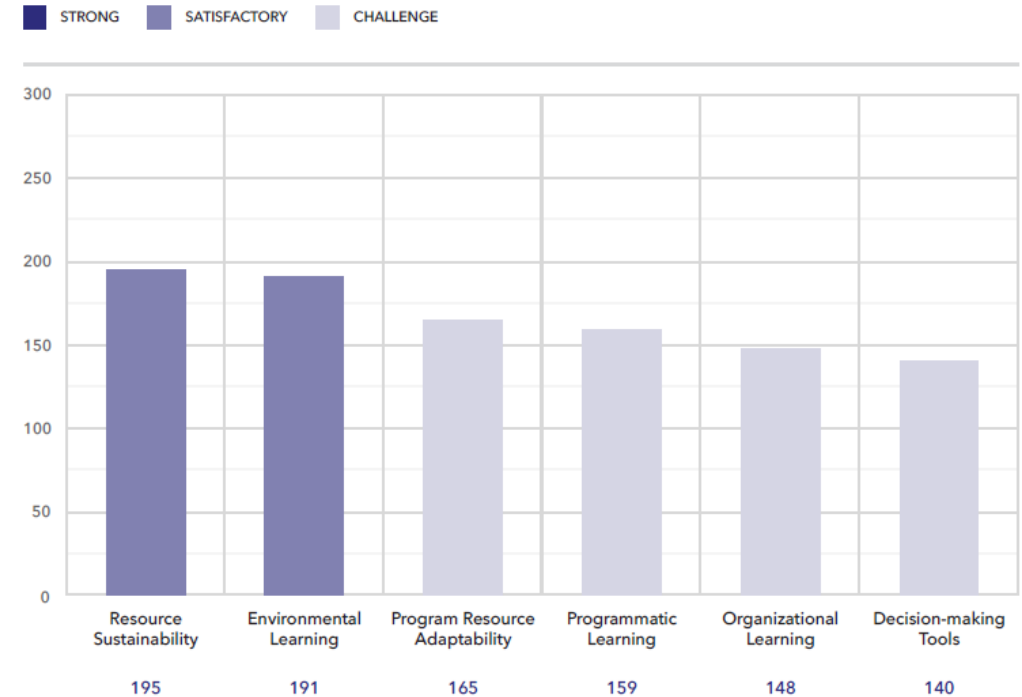
Dashboards Future

Dashboards Future

Tools	Audience	Accessibility
MS Power BI, Tableau and open source tools are the future	Increased customization Greater consideration of expertise level	More web-based SharePoint, Sales Force Inclusive

Visualization	Data Types	Focus Areas
Wider variety More user-friendly	Full-automated data Big data	**Again** – no limits Blending of data analytics and evaluation
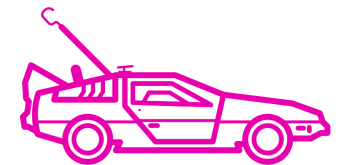
Audience and Focus Areas

Audience driving demand for **self-service tools**

Increasing customization at the organization and staff levels

Audience input

Greater use in **all sectors**, e.g. energy, workforce, healthcare, education

Mobile-network based dashboards are **reaching non-internet audiences**

Accessibility

- **Integrations** across multiple platforms

- **Inclusive** dashboards with accessibility in mind for people with a variety of disabilities, e.g. vision impairment, learning disabilities.

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Data

- More **efficient** data prep/cleaning

- Increased data **connections** to secondary sources of data and big data

- Data **automation**

- Incorporation of **qualitative** data

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Visualizations

- Less reliance on data tables and raw numbers

- Greater **variety** of visualizations
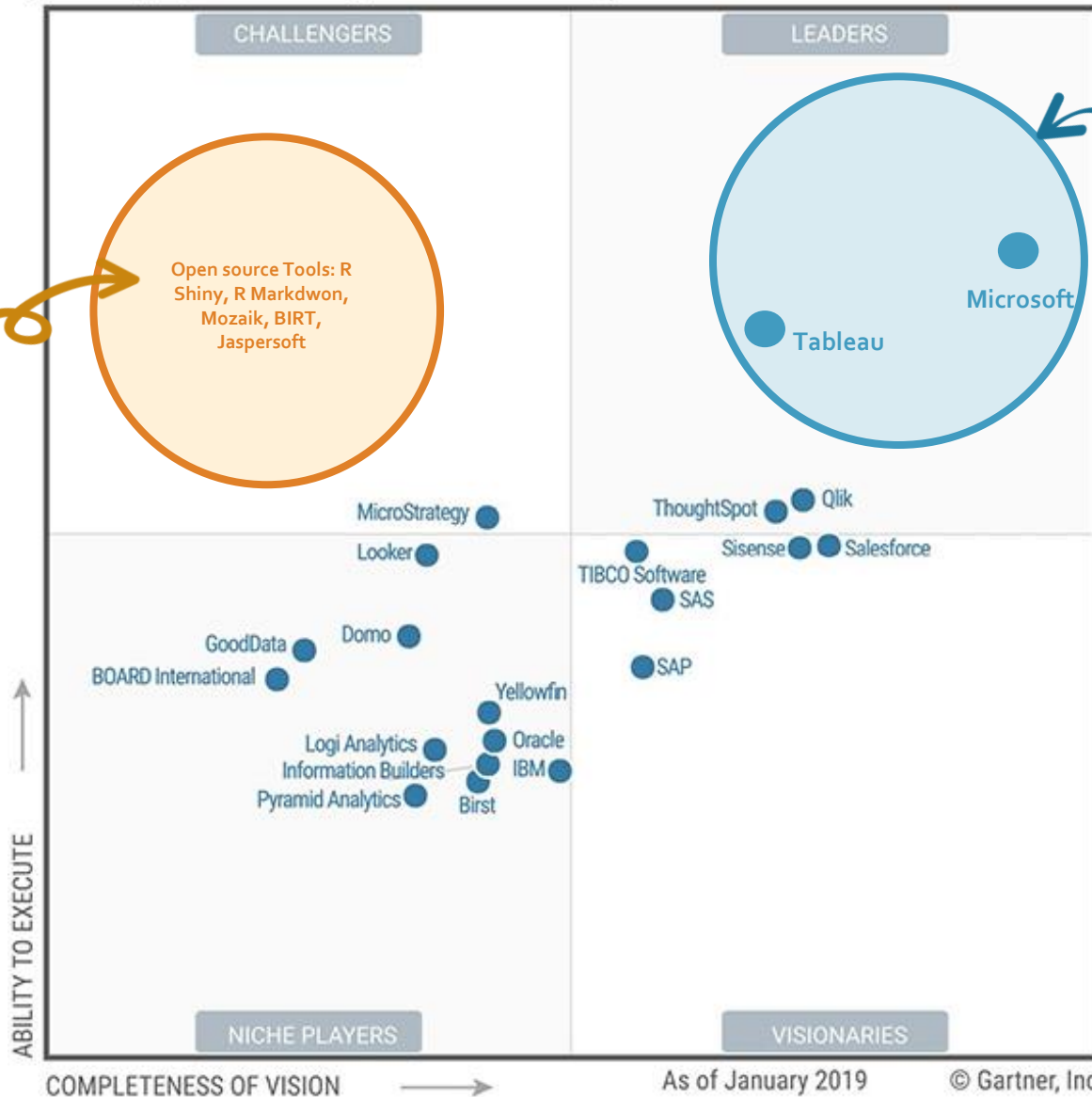
- Interest in **geographic/spatial** analysis

Question: Tools

Which dashboard visualization **tools** do you think will be used **most often** in the future?

Tools

Figure 1. Magic Quadrant for Analytics and Business Intelligence Platforms

Open source tools might grow in popularity:

Increasing evaluator programming expertise

Free!

Open source Tools: R Shiny, R Markdwon, Mozaik, BIRT, Jaspersoft

Microsoft and Tableau are leaders because of:

Data source integrations

Data prep capabilities

Visualization capabilities
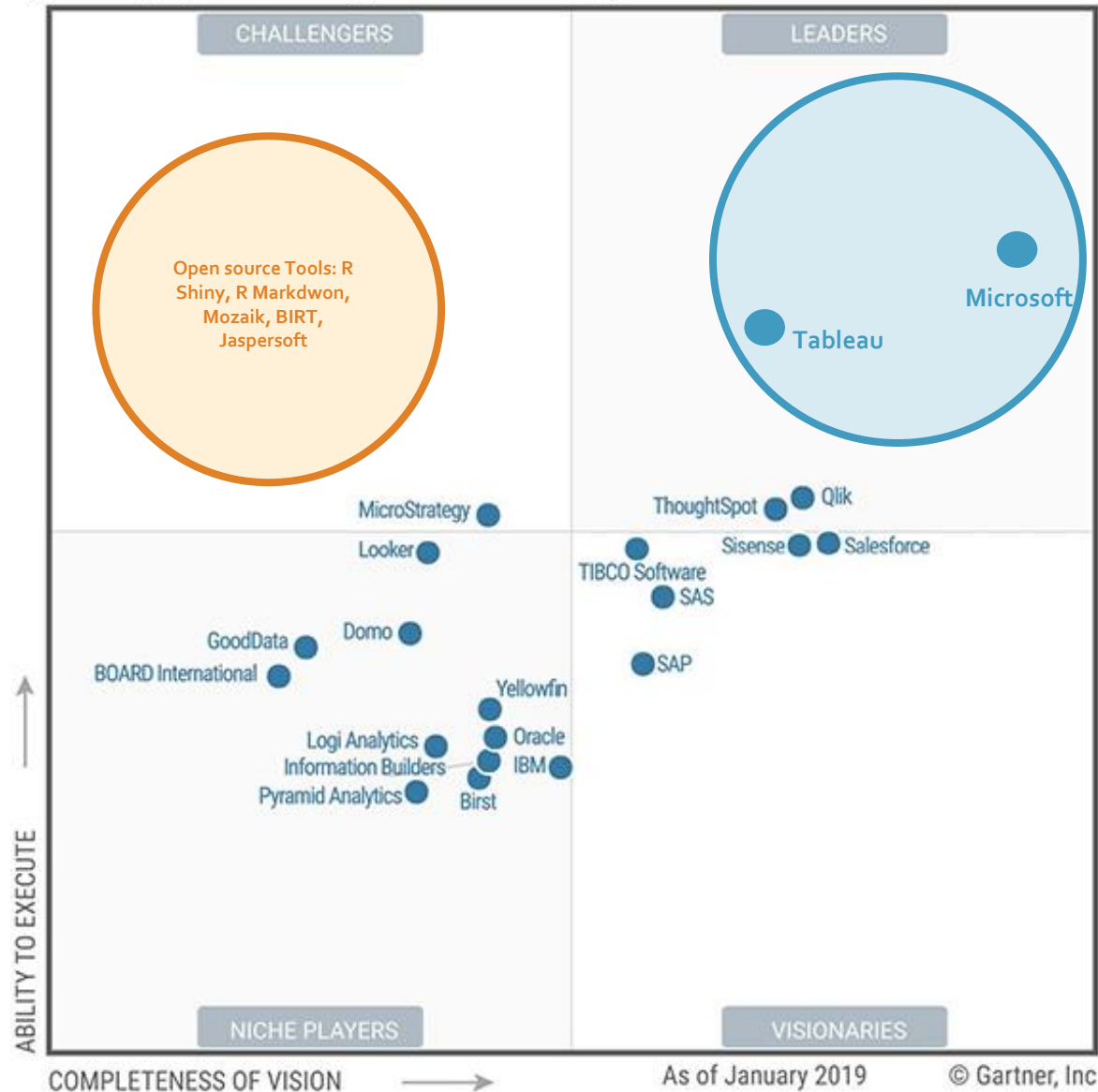
Mapping features

User-friendly

CHALLENGERS

LEADERS

Microsoft

Tableau

MicroStrategy

Looker

ThoughtSpot   Qlik

Sisense   Salesforce

TIBCO Software

SAS

GoodData   Domo

BOARD International

SAP

Yellowfin

Logi Analytics   Oracle

Information Builders   IBM

Pyramid Analytics   Birst

ABILITY TO EXECUTE

NICHE PLAYERS

VISIONARIES

COMPLETENESS OF VISION

As of January 2019   © Gartner, Inc

Source: Gartner (February 2019)

Tools

Figure 1. Magic Quadrant for Analytics and Business Intelligence Platforms

Open source Tools: R Shiny, R Markdwon, Mozaik, BIRT, Jaspersoft

Why these tools will continue to be leaders in the next few years:

Relatively quick development cycle

Responsiveness to customers

Question

What is your **prognosis for dashboards** as evaluation components in the future?

🙂 **Positive**: Will **increase in popularity** and become widely adopted in all spheres of evaluation

😐 **Neutral**: Will **maintain current popularity** with modest potential for wider adoption

🙁 **Negative**: Will **decrease in popularity** with fewer adoptions

Where can dashboards go in the future?

Current dashboards are popular, but are more quantitative, report-like, fairly static and often report metrics.

Future dashboards will maintain popularity but will be more qualitative, dynamic, aggregated to the indicator level and much more customized to individual needs in organizations.

Thank you!

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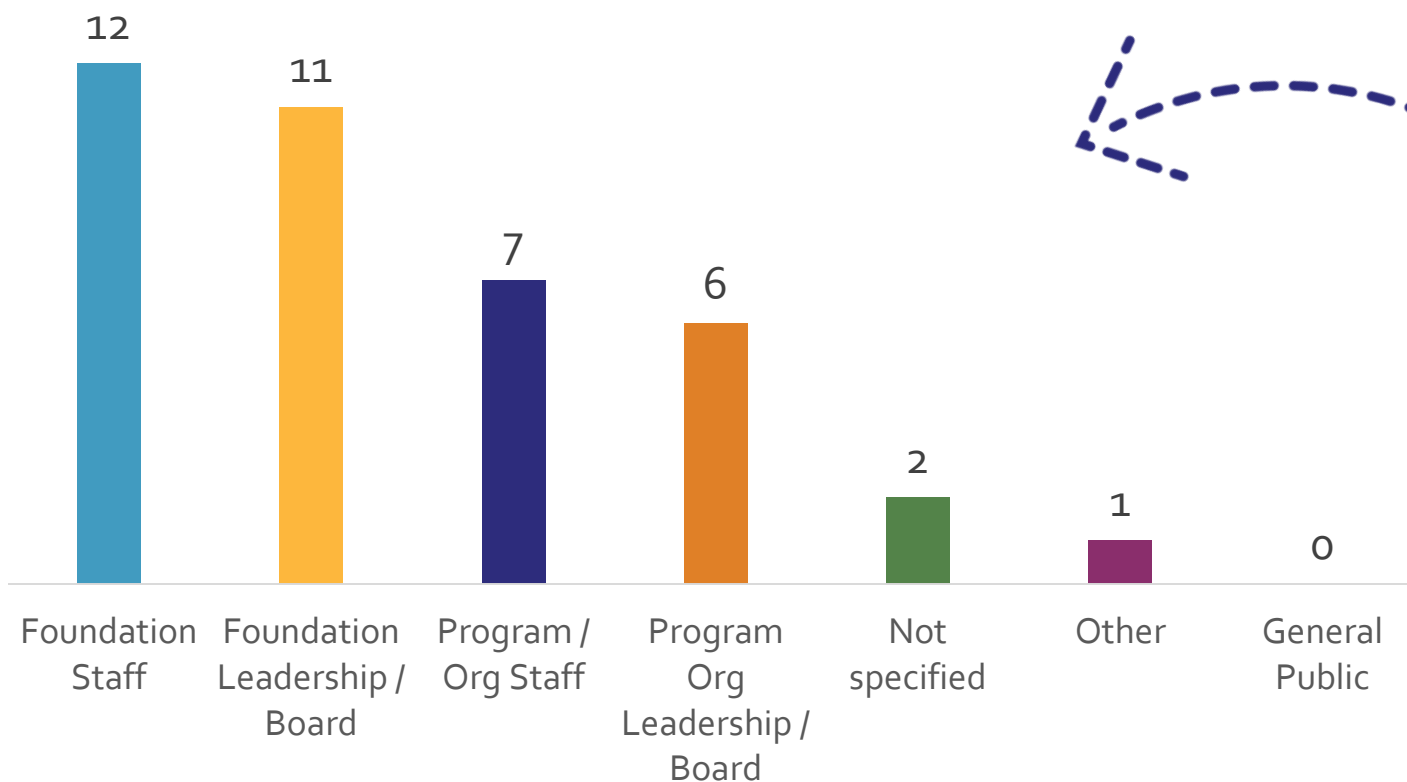Evaluation & Learning
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Appendix

Audience Type
Dashboards are used by a range of staffers, often at foundations.

Our Dashboards Were Directed Towards...

Bar chart values:
- Foundation Staff: 12
- Foundation Leadership / Board: 11
- Program / Org Staff: 7
- Program Org Leadership / Board: 6
- Not specified: 2
- Other: 1
- General Public: 0

Tend to be directed towards **foundations wishing to better understand** how **their support** is working.

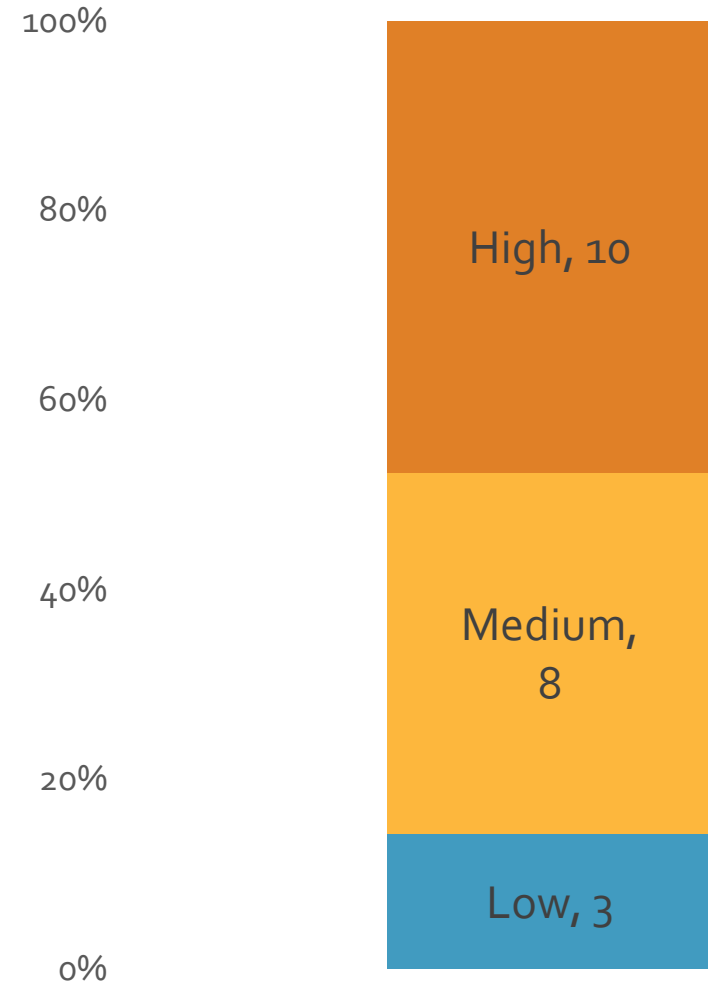Used by **both leadership and staff.**

None were directed **towards general public.**

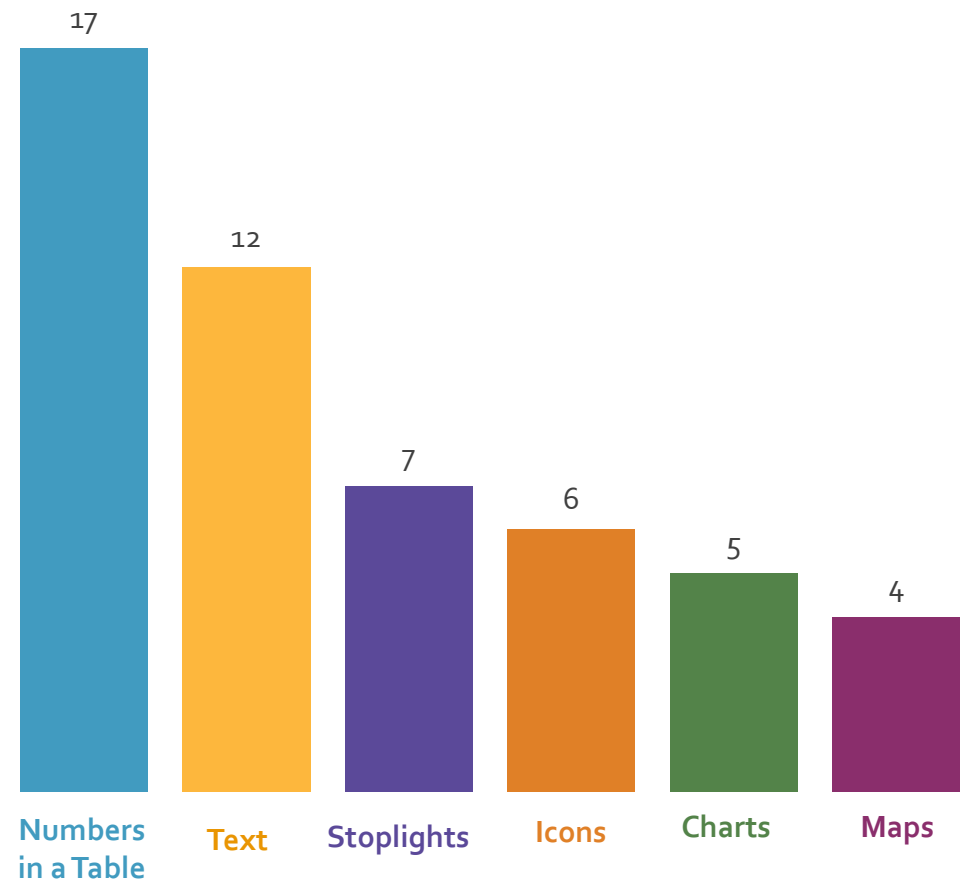# Audience Expertise Level
Tends to be complex

Tend to include **complex program details**, therefore it makes sense that they are written at a **somewhat high expertise** level.

100%

80%

High, 10

60%

40%

Medium, 8

20%

Low, 3

0%

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Display

Dashboards tend to include **numbers in table** and **text**.

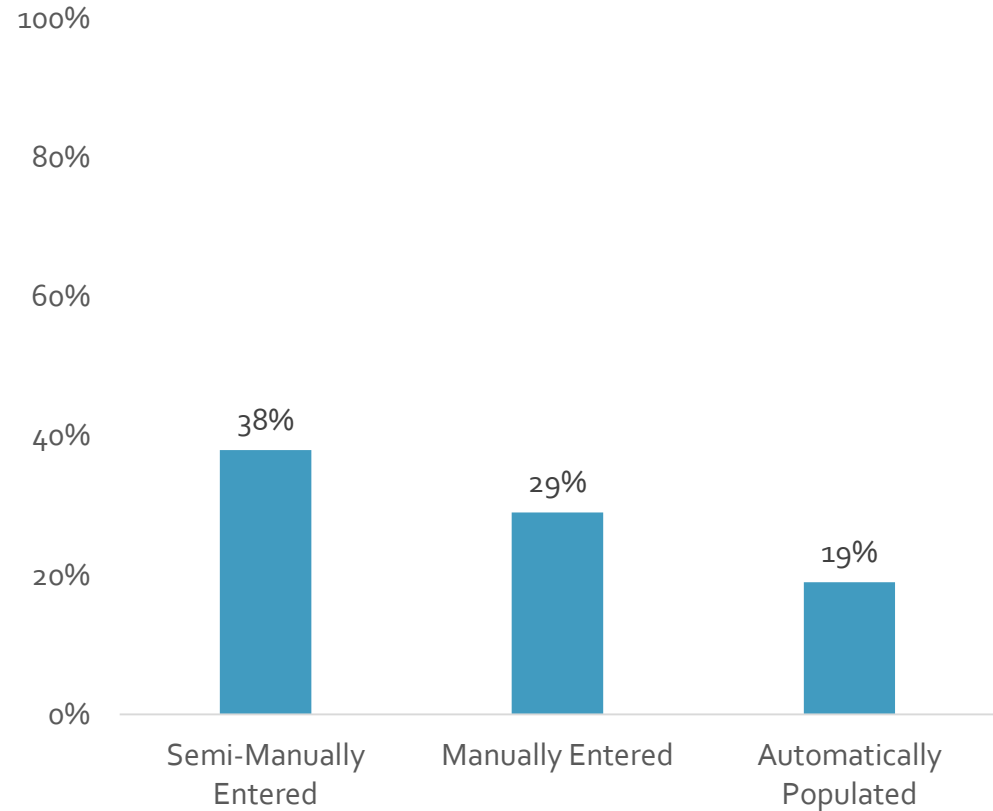|		👍	👎
🔲	**Numbers in a table**	Requires little work to display	Visually dry
T	**Text**	Can add context and humanity	Requires work to compile
🚦	**Stoplights**	Aid in making objective assessments	Little room for context
⚛	**Icons**	Reader-friendly	Must be meaningful
📊	**Charts**	Reader-friendly	Can be overused
🗺	**Maps**	Reader-friendly way to display geographic data	Takes up a lot of space

Types of Data
Always contains quantitative data and is entered a number of ways.

What Types of Data Does the Dashboard Display?

Category	Percentage
Quantitative	100%
Qualitative	57%
Geographic	33%
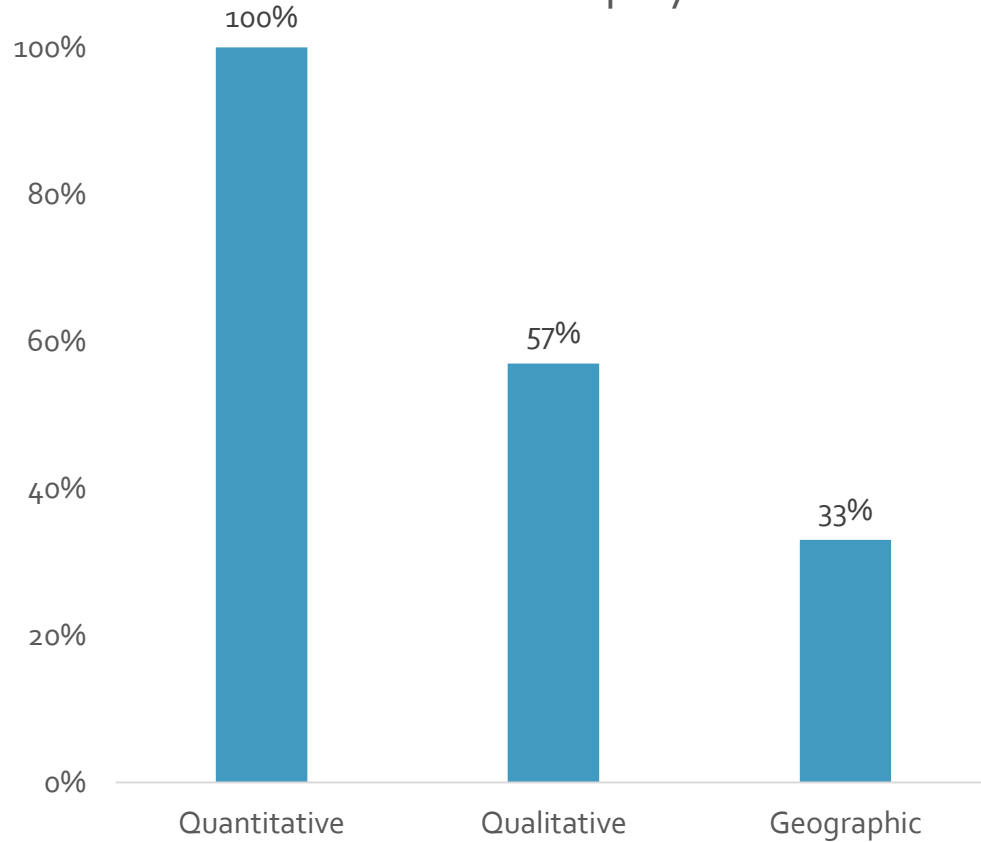
How is the Dashboard Populated with Data?

Category	Percentage
Semi-Manually Entered	38%
Manually Entered	29%
Automatically Populated	19%

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Focus Areas

Dashboards have reported out on data from a variety of focus areas.

Top Dashboard Focus Areas

Education (38%)

Health (24%)

International Aid (24%)

There's **no limit** to the focus areas that can be reported out in dashboards

Other focus areas include Food/Nutrition (19%), the Arts (14%), Women & Girls (14%), Advocacy (14%), the Environment (5%), and Other (24%).