

District of Columbia Office of the State Superintendent of Education

# **Qlik Sense for Beginners**





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### Introduction

#### **Qlik® Sense – The Next Generation of Visual Analytics**

Qlik Sense is a next-generation self-service data visualization application that empowers people to easily create a range of flexible, interactive visualizations that drive exploration and discovery using one's intuition. With the proven QIX Associative Data Indexing engine at its core, Qlik Sense delivers:

- A cutting-edge self-service visualization and discovery experience
- Associative exploration and smart search
- Advanced data visualization
- User-driven, drag-and-drop creation
- Collaboration and storytelling
- Unsurpassed mobility
- Best-of-breed custom development
- Powerful data integration
- Governed enterprise capabilities and performance

#### Workshop Objectives

This workshop is designed to introduce you to Qlik Sense. Qlik Sense will help you answer the following questions regarding your data.

- How many total students do we have in various wards?
- What do our students look like across all the races and ethnicity for a specific year or gender?
- What does our proficiency look like over time by level?
- What is our least proficient subject?
- Which campus locations have the most number of below basic assessments?

#### Workshop Pre-Requisites

In order to access Qlik, a user must complete two steps:

- 1. Obtain credentials to the Statewide Longitudinal Education Data (SLED) website.
- To receive SLED credentials, send an email to <a href="mailto:sled.info@dc.gov">sled.info@dc.gov</a>

2. Receive a token from the Office of the State Superintendent of Education (OSSE).

- OSSE will automatically grant tokens to LEA Data Managers, Heads of Schools and LEA Special Education Points of Contacts if listed eSchoolPLUS. If an LEA would like to request additional staff members to receive tokens, send an email to <u>OSSE.DARtraining@dc.gov</u>.
- LEA Data Managers are responsible for updating the Points of Contact list in eSchoolPLUS.

#### Signing in to Qlik Sense

SLED users with access to the Qlik Sense Hub can access through the following two (2) methods:

#### SLED Reports Webpage

- 1. Navigate to the SLED Login page at: <u>https://sled.osse.dc.gov</u>
- 2. Click on the **Reports** dropdown and click on the OSSE Analysis Tool link:

S	LED	Statewic	de Longi	tudinal I	Ξdι	ucation Data	l
Home	Library -	Reports	Search-	Programs	3-	Related Sites-	н
Curre	nt Roster	Data Qual	ity Error Repo	orts	ossi	E Reports	
Secto	or	Error Summary     Enterprise Reporting System       Error Details List     OSSE Reports					
Display	s current enrollm	Duplicative	Duplicative Enrollment Report     OSSE Reports				

#### Qlik Sense Hub Direct Link

- 1. Navigate to <u>https://analysis.osse.dc.gov</u> to access the Qlik Sense login screen.
- 2. Login to Qlik Sense with your SLED username and password.

AC BEATON DAA SYSTEM	Login
User name Password Log in	Qlik Sense S
Welcome to the QlikSense L OlikSense Hub requires an active SLED account. If you do Desk at 202-719-6500 and have your information ready so	_ogin not have a SLED account or you are unable to access the hub with your account, please contact the OSSE Help the Help Desk technicians can provide assistance.
Office of the State Superintendent of Education 810 First St. NE. Washington DC 20002 side.linofogic.gov P: (202) 727-6436	OSSE

Upon successful authentication, the Qlik Sense Hub will display as shown below. There will be multiple streams based on permissions. By default, the LEA and OSSE streams will be listed.

• The LEA stream – contains applications applicable to the LEA and may contain Student Level Data.

NOTE: All Student Level Data will only appear if the student is associated with the LEA.

• The OSSE stream – contains applications with general state level data applicable to all LEAs.



### Applications

The availability of applications within Qlik is determined based on your SLED credentials. Below is a list of the applications within Qlik:

- 1. 9th Grade Transition
- 2. PARCC and MSAA Results
- 3. SY15-16 Attendance Anomalies
- 4. SY15-16 Charter Sector Attendance
- 5. SY15-16 Related Service Management Report (RSMR)
- 6. SY15-16 SLED Roster and Assessments
- 7. SY16-17 Charter Sector Attendance
- 8. SY16-17 DCPS Attendance
- 9. SY16-17 Related Service Management Report (RSMR)
- 10. SY16-17 Unified Data Errors

#### Data Flow

Student data are sent to SLED, SEDS, TOTE, Qlik, and other systems from the Local Education Agency (LEA) Student Information System (SIS). OSSE receives a nightly feed from the LEA's SIS.



#### Accessing the Qlik Sense Application

In the Qlik Sense Hub, access the Qlik Sense application by navigating to the Training stream to click on the "SLED Roster and Assessments Demo App" icon as shown below.

9 My work	Training		↓ <b>Ξ</b> Alphabetical
Stream			
ABC School			
LEA		$\mathbf{O}$	$\mathbf{O}$
OSSE	Charter Sector	GED Demo App	Homeless Demo
Training	Attendance Dem		Арр
			$\mathbf{O}$
	Management	Assessments	Data Errors Dem

#### EXERCISES

In this first section, you will learn how to interact with the data in Qlik.

- 1. From the Qlik Sense Hub, confirm that the application titled **SLED Roster and Assessments Demo App** is open. If not, open the application, by clicking on it.
- 2. Click on the Student Assessments' tab.

#### 1. Filter Your Data

Click on the different filters and notice the interactivity and associations among the data. Here are the meaning for the various colors:

- Green field values with the selection states selected
- White possible values
- Light Gray alternative values
- Dark Gray excluded values

This type of interactive analysis is at the heart of Qlik and this allows you to drive new insights and make new discoveries.

Subject >	► Te	sted Grade	► Su
g [ið  🔽			
Science 🗸			05 a
Composition			08 a
Math			10 a
L			03 a
L			04 a
L	-		06
			07
1			

- Select Tested Grade 07 and note which Subject options are available
- Select Subject Math and note which Tested Grades options are available
- Select Subject Science and note which Tested Grades are available

In the top left click on the **Clear all Selections** button to remove your selections (

#### 2. Interact With Your Data

1. Click the top right hand drop-down that currently says Student Assessments' Data



- 2. Click on the Overview (SY 15-16) Chart sheet
- 3. Click on the Clear all Selections button to remove your selections



4. In the chart entitled **Ward of Residence**, click on the horizontal bars with ward data to filter for that value. Notice how all of the other visuals on the sheet update.



In addition to a single selection, multiple selections can be made by highlighting multiple values.



5. On the **Grade Level** chart, move the data view window to see more of the data.



#### 3. Search for Data

1. In the top right corner, click on the **Search** icon



2. Type in 'ward'. Notice all of the data fields that come up that meet that requirement.

<b>1</b>	7 D	No se	lections	applied						
Q, wa	ard									
Ward	Ward 8	Ward 7	Ward 4	Ward 5	Ward 6	Ward 1	Ward 3	Ward 2		
-Ward Ward 6	, Ward 8 , W	/ard 1 , Wan	d 7 , Ward 5	<u>3 more</u>						
Ward Ward 6	, Ward 8 , W	/ard 1 , Wan	d 7, Ward 5	<u>3 more</u>						
			61,4	101						

- 3. Click one of these search results and notice the application update.
- 4. In the top right hand corner, click on the **global selector** icon **EX**. The global selector allows you to filter on any value that appears in your data set. Click on a few values. Click back on the global selector icon to see these filters applied.

			_	-			
SELECTIONS							
Q. Ward	e 🛛	्. Math					
Ward 4		Advanced					
Unknown		Basic					
Ward 1		Below Basic					
Ward 2		N/A					
Ward 3	1	Proficient					
Ward 5							
Ward 6		1					
Ward 7		1					
Ward 8		1					
APP DIMENSIONS	<b>Show field</b>	ta				Q search d	imensions and fields
् Composition		् Current Attending LEA	8	♀ Current Attending LEA 目	🔍 Current Attending School 🗏	् Current Attending Sch 🗏	🔍 Current Attending Sch 🗏
Advanced		Local Ed Agency 1992	/	1992	School Campus 80	80	DCPS
Basic		Local Ed Agency 1883		1993	School Campus 120	120	DCPS PCS
N/A		Local Ed Agency 1994	/	1994	School Campus 180	189	Independent PCS
Below Basic		Local Ed Agancy 1996	_/	1996	School Campus 260	260	Non-Public
Proficient		Local Ed Anency 1999		1999	School Campus 320	320	OSSE State School
1							
		Local Ed Agency 1918		1918	School Campus 349	349	
		Local Ed Agency 1918 Local Ed Agency 1921		1918 1921	School Campus 340 School Campus 380	340	
		Local Ed Agency 1918 Local Ed Agency 1921 Local Ed Agency 1931		1018 1021 1031	School Campus 349 School Campus 389 School Campus 889	340 380 660	
		Local Ed Agancy 1918 Local Ed Agancy 1918 Local Ed Agancy 1921 Local Ed Agancy 1931 Local Ed Agancy 1938		1018 1021 1031 1038	School Campus 340 School Campus 380 School Campus 680 School Campus 780	349 389 669 789	
		Local Ed Agency 1918 Local Ed Agency 1921 Local Ed Agency 1921 Local Ed Agency 1931 Local Ed Agency 1938 Local Ed Agency 1939		1018 1021 1031 1038 1038	School Campus 348 School Campus 389 School Campus 868 School Campus 788 School Campus 788	349 380 669 789 829	

5. Clear all selections.

- 6. You can also do more complex searches, such as:
  - a. In the top right corner, click on the **Search** icon.
  - b. Type in '**advanced math ward 4'**. Notice how Qlik makes several suggestions. This is part of the Smart Search capabilities. Select the first suggestion in the list in the gray bar to see all data related to Ward 4 and Advanced Math.

advanced math ward 4	
Ward 4 4440 4260 4860 4948	4920 4220 4380 4460
Science	Subject -Ward
Advanced	Math Ward 4
Science Advanced	Subject Ward Math Ward 4
Reading	Subject Ward
Advanced	Math Ward <mark>4</mark>
Math	Subject Ward
Advanced	Math Ward 4
Composition	Subject Ward
Advanced	Math Ward 4

7. Clear all selections and do not save the changes.

#### 4. Bookmarking Filters

- 1. From the Qlik Sense Hub, confirm that the application titled **Charter Sector Attendance Demo App** is open. If not, open the application, by clicking on it.
- 2. Click on the Monthly Attendance sheet.
- 3. Click on Grade and select 07.



4. On the pie chart, select NS and NA.



- 4. Click on the bookmark icon
- 5. Click on Create new bookmark.

		(C)	( the second sec	Π.	1	Edit	Monthly Attendance	*	<	>
ſ	Bookmarks							Create new b	ookma	irk
	Q, Search									*

#### 6. Create a title for the bookmark.

Bookmarks	Create new bookmark
Q Search	
✓ My bookmarks (1)	
Títle Monthly Attendance - Grade (1), Attendance Status (2)	
Test Selections: Grade, Attendance Statue Location: Monthly Attendance	٦

7. Click off of the dialogue box and the bookmark will automatically save.

8. To retrieve the bookmark, go back to the **Charter Sector Attendance Demo App** sheet, click on **Bookmarks**.

🖉 👻 🖂 🕶 Charter Sector Attendance Demo App 🖯					
	Charter Sector Attendance Demo App Data laat looded: October 38 2815 12:58 PM Published: March 15 2816 5:11 PM Published to: Training				
Sheets D Bookmarks	🚡 Stories				
+ My bookmarks (1)					
Monthly Attendance - Grade (1), Attendance Status (2)					

# Appendix A: Resources

Торіс	Location of Resource
SLED	To receive access to SLED, send an email to <u>sled.info@dc.gov</u>
Technical Assistance	For technical assistance, send an email to <u>OSSE.DARTraining@dc.gov</u> or submit a ticket in the <u>OSSE Support</u> <u>Tool.</u>
2016-17 School Year Unified Data Errors Guidance	http://osse.dc.gov/publication/2016-17-school-year-unified-data- errors
Entry and Exit Code Guidance	http://osse.dc.gov/service/entry-codes-exit-codes-and-enrollment
eSchoolPLUS	For assistance adding Points of Contact or updating calendars, go to <u>http://osse.dc.gov/publication/eschoolplus-lea-calendars-and-lea-points-contact</u>
LEA Data Mapping Application	http://osse.dc.gov/publication/lea-data-mapping-application
Special Education Data System (SEDS)	https://osse.pcgeducation.com/ (Each LEA has a different SEDS site) SEDS Resource Site - https://sites.google.com/a/dc.gov/seds-help- resources/

# Appendix B: Description of Current Qlik Applications

Name of Application	Description
9th Grade Transition	To support high schools to smooth the transition
	from eighth to ninth grade.
PARCC and MSAA Results	SY15-16 PARCC and MSAA results
SY15-16 Attendance Anomalies	It contains historical attendance anomalies.
SY15-16 Charter Sector Attendance	It contains historical attendance data.
SY15-16 Related Service Management Report (RSMR)	The RSMR is a report that compares the amount of time a related service is prescribed on a student's IEP to the amount of time the service is actually provided. The RSMR is based on data entered by the service provider via the Service Logging Wizard in SEDS.
SY15-16 SLED Roster and Assessments	It contains historical enrollment and demographic data.
SY16-17 Charter Sector Attendance	It contains attendance data.
SY16-17 DCPS Attendance	It contains attendance data.
SY16-17 Related Service Management Report (RSMR)	The RSMR is a report that compares the amount of time a related service is prescribed on a student's IEP to the amount of time the service is actually provided. The RSMR is based on data entered by the service provider via the Service Logging Wizard in SEDS.
SY16-17 Unified Data Errors	OSSE has consolidated all demographic, enrollment, attendance and special education data errors and anomalies to provide LEAs with a comprehensive error report in the Statewide Longitudinal Education Data System (SLED) and Qlik.