

# USING POWER BI FOR REPORT AUTOMATION



Power BI

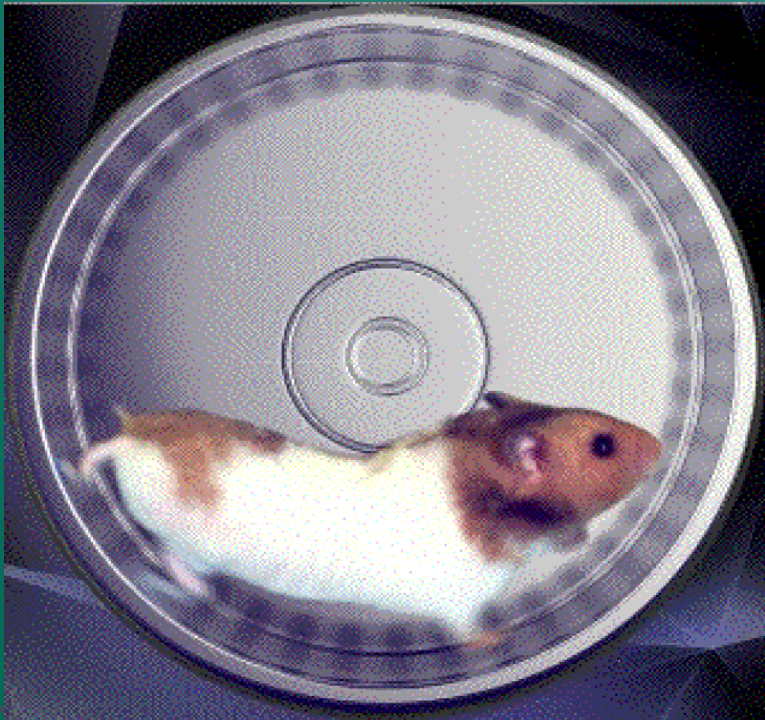
SHAWN LOHT, PHD

RESEARCH MANAGER

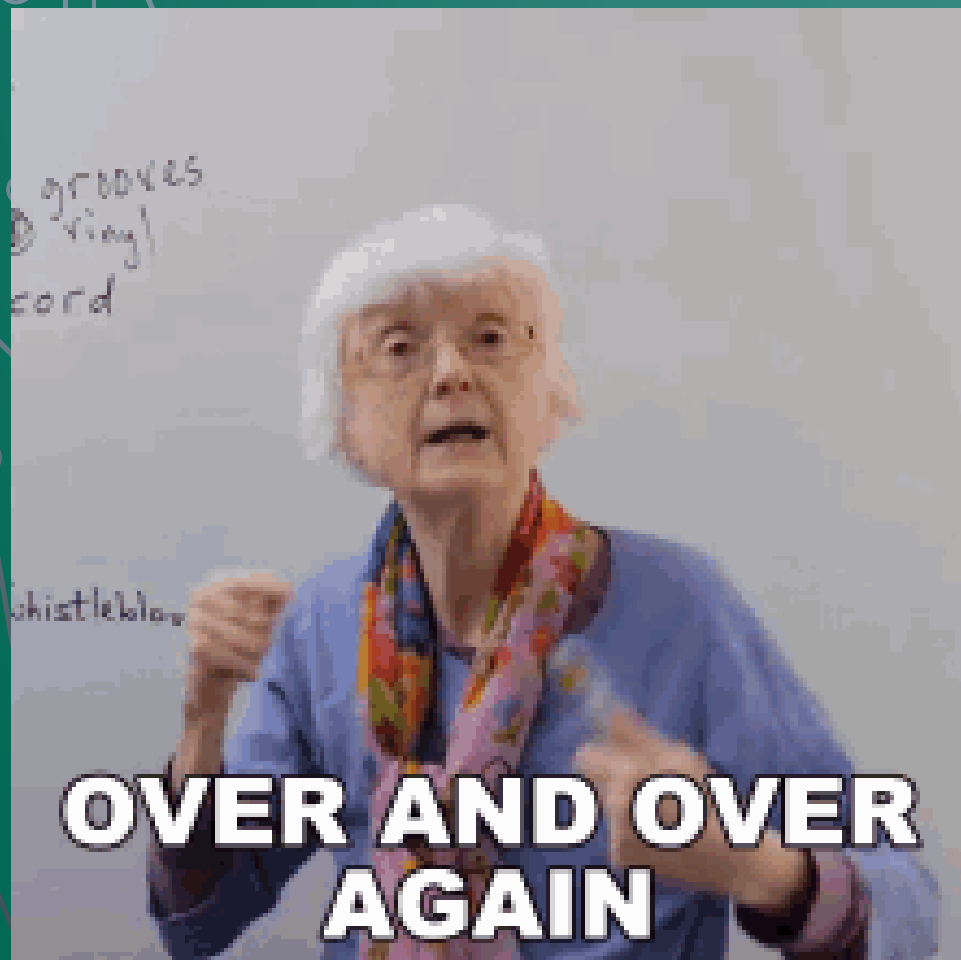
DELGADO COMMUNITY COLLEGE



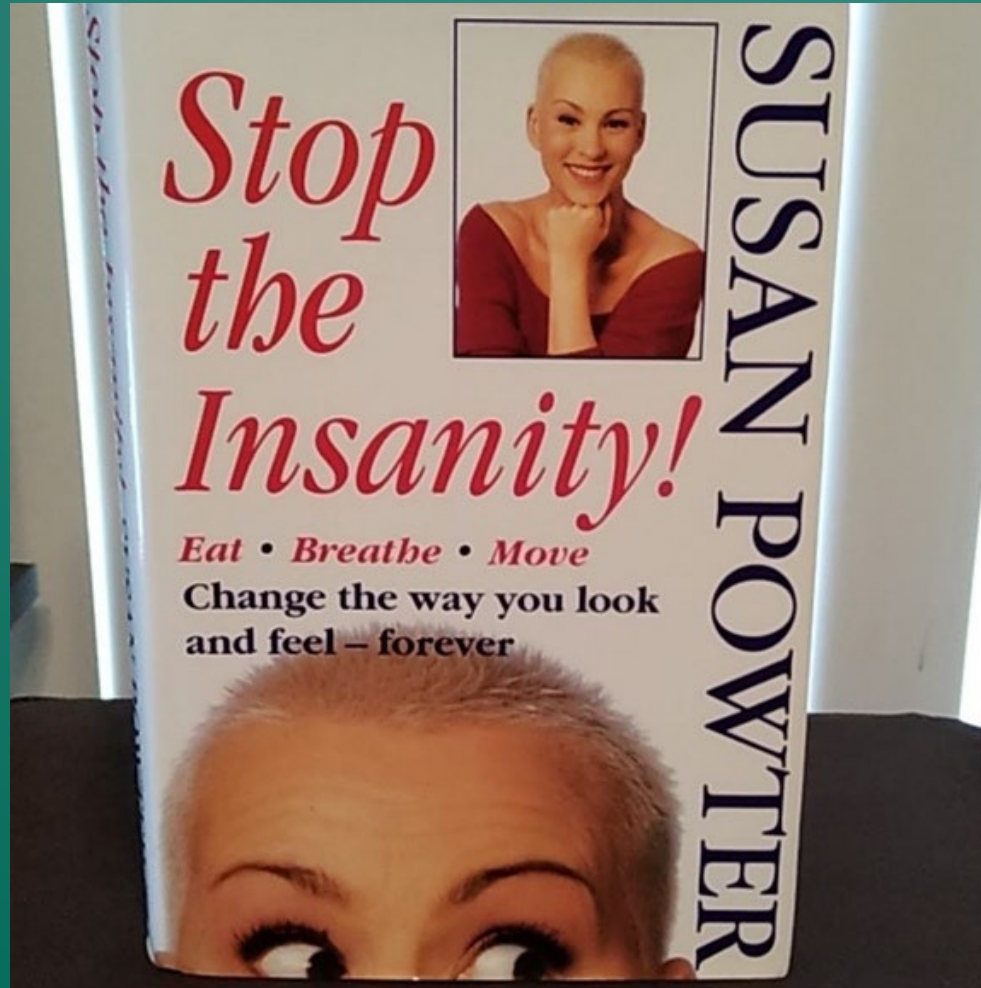
**ARE THERE REPORTS YOU COMPILE  
EVERY DAY OR EVERY WEEK??? DO  
YOU FEEL LIKE YOUR TIME IS BEING  
WASTED???**







I'M HERE TO TELL YOU  
IT DOESN'T HAVE TO BE THIS WAY...





**IF YOU ARE AN IR/IE ANALYST,  
YOUR TIME IS BETTER SPENT**

**IF YOU ARE A SUPERVISOR OF AN  
IR/IE ANALYST, THEIR VALUE IS TOO  
HIGH**

**NO!**



A decorative graphic on the left side of the slide, consisting of a network of thin, light-colored lines and small circles, resembling a circuit board or a stylized tree structure.

**POWER BI = AUTOMATING REPORTS  
AND ANALYSIS**

THE REPORT I USED TO BUILD EVERY DAY (EVEN ON SICK DAYS) IS NOW  
AUTOMATED



July 11, 2024

Fall Semester 2024 Enrollment - Today's Totals

CAMPUS/SITE	CONTINUING	FIRST-TIME FRESHMAN	TRANSFER	RETURNING	VISITING	HIGH SCHOOL	CROSS ENROLLED	NON MATRIC	TOTAL
River City	50	36	9	8	0	28	0	0	131
Sidney Collier	228	89	43	55	1	18	0	0	434
West Bank	564	166	99	198	7	3	0	0	1,037
City Park	3,579	676	562	871	46	24	0	0	5,758
Total Headcount	4,421	967	713	1,132	54	73	0	0	7,360
Total SCH	39,716	10,486	6,703	9,713	354	531	0	0	67,503

Enrolled Headcount One Year Ago

CONTINUING	FIRST-TIME FRESHMAN	TRANSFER	RETURNING	VISITING	HIGH SCHOOL	CROSS ENROLLED	NON MATRIC	TOTAL
4,645	919	556	1,080	62	21	0	0	7,283

1.1%

% Difference in Today's Headcount vs One Year Ago

Enrolled SCH One Year Ago

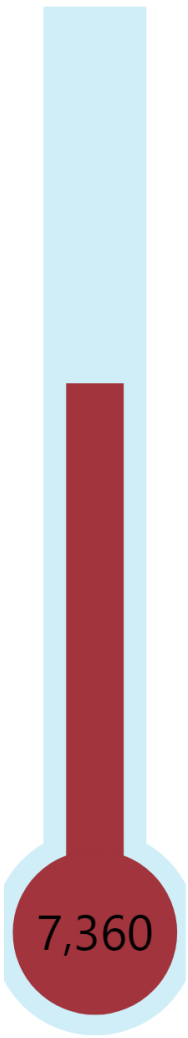
CONTINUING	FIRST-TIME FRESHMAN	TRANSFER	RETURNING	VISITING	HIGH SCHOOL	CROSS ENROLLED	NON MATRIC	TOTAL
41,416	10,146	5,389	9,556	391	113	0	0	67,221

0.4%

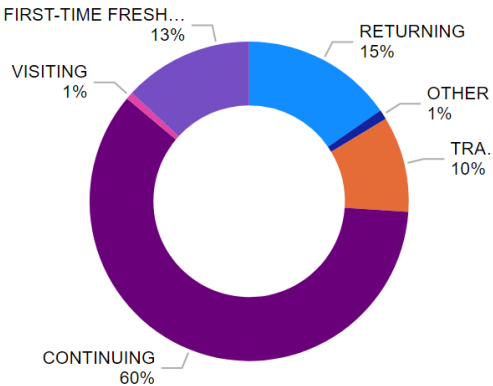
% Difference in Today's SCH vs One Year Ago

Report refreshes at 5:00am daily

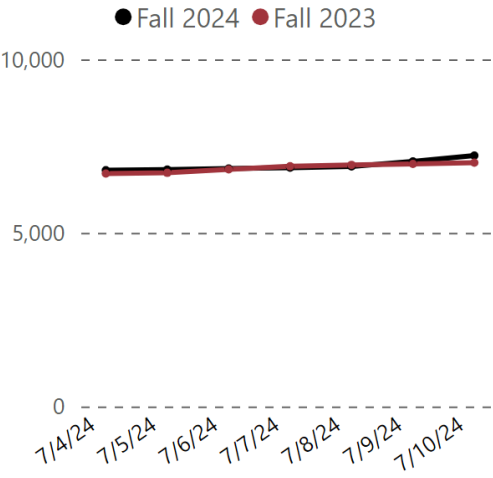
Enrollment Goal: 13,500 Students



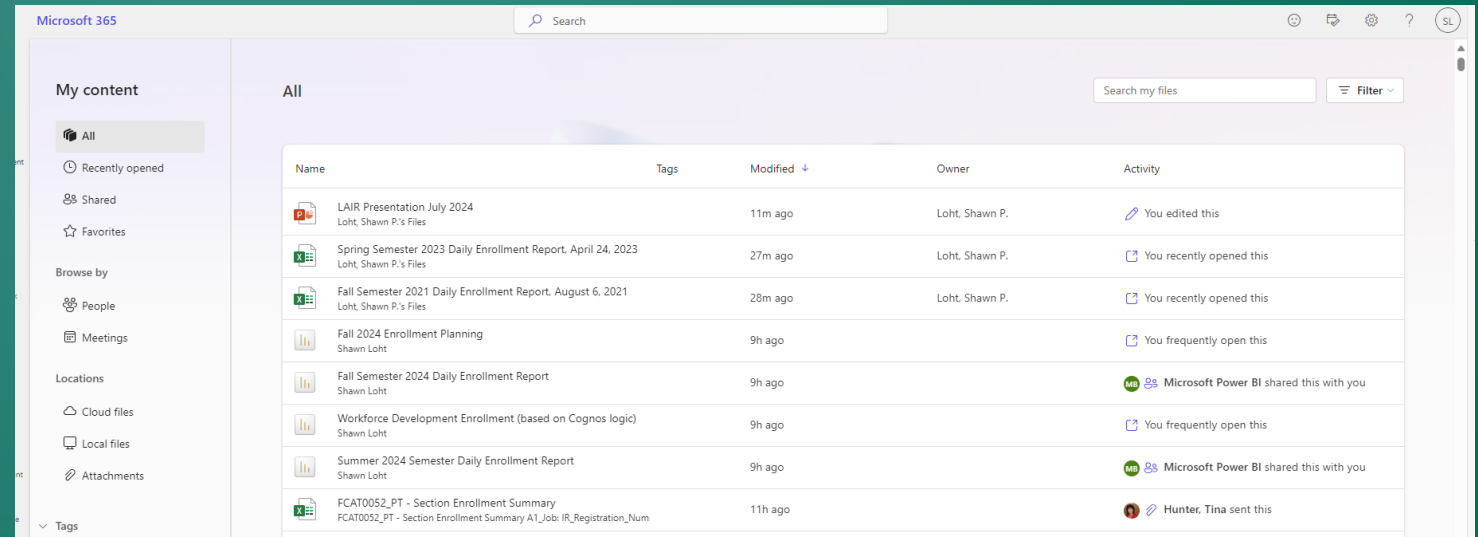
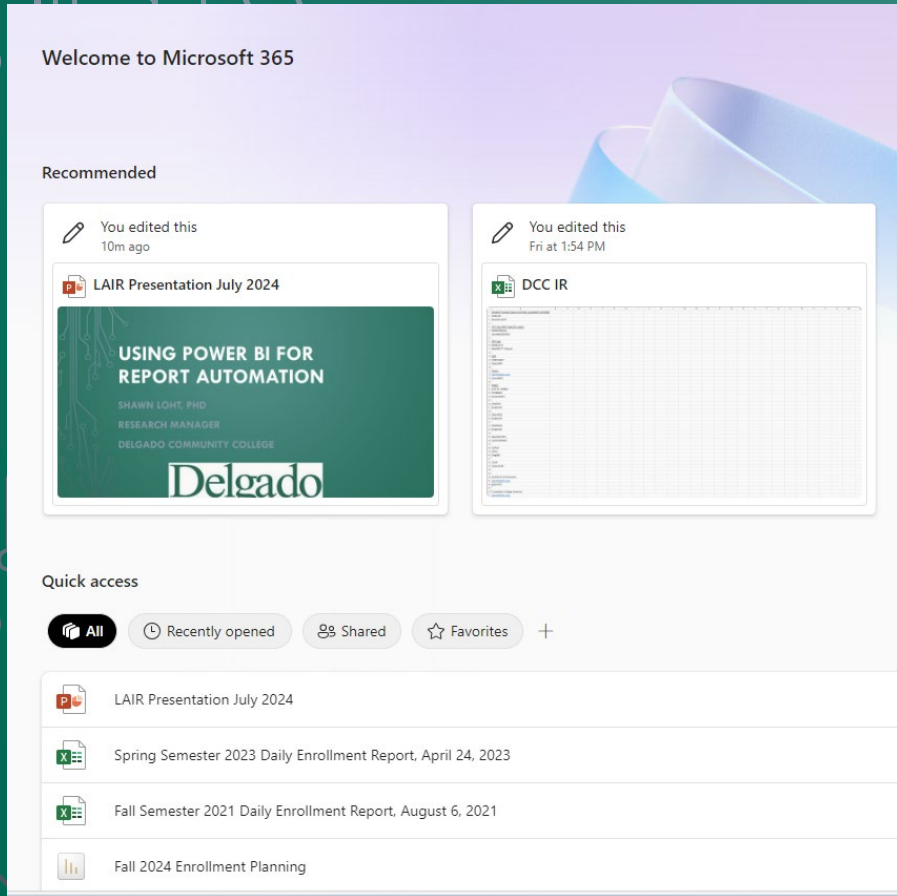
Enrolled Student Mix



Enrolled Headcount Last 7 Days, Current Year vs Previous



# It lives in the Microsoft 365 Cloud



# It refreshes and emails to stakeholders on a daily schedule

Search Automated

Current Folder

Automated

By Date

Today

Microsoft Power BI

Fall Semester 2024 Daily Enrollment Report

8:50 AM

Microsoft Power BI

Summer Session 2024 Daily Enrollment Report

8:41 AM

thunte@dcc.edu

FCAT0052\_PT - Section Enrollment Summary A1\_Job: IR\_Registration\_...

6:40 AM

This message and any files transmitted

cognosreporting@lctcs.edu

Job: Enrollment Dashboard - Spring

6:32 AM

Please contact Amy Cable <amycable@lctcs.edu> if you have questions

thunte@dcc.edu

FSTU2508\_PT - Current Student Registrations Headcount by Site and St...

6:22 AM

This message and any files transmitted

cognosreporting@lctcs.edu

Job: Enrollment Dashboard - Summer

6:15 AM

Please contact Amy Cable <amycable@lctcs.edu> if you have questions

cognosreporting@lctcs.edu

Job: Enrollment Dashboard - Adult Ed, Full Term Banner

6:05 AM

Contact Sheila Derouen <SheilaDerouen@lctcs.edu> for questions on

cognosreporting@lctcs.edu

New\_enrollment\_dashboard\_High\_School\_Summer

5:12 AM

Contact Amy Cable <amycable@lctcs.edu> if you have questions about

cognosreporting@lctcs.edu

New\_enrollment\_dashboard\_High\_School\_Spring

5:09 AM

Contact Amy Cable <amycable@lctcs.edu> if you have questions about

cognosreporting@lctcs.edu

New\_enrollment\_dashboard\_High\_School\_Fall

5:05 AM

Contact Amy Cable <amycable@lctcs.edu> if you have questions about

cognosreporting@lctcs.edu

Job: Enrollment Dashboard - Fall

4:54 AM

Please contact Amy Cable <amycable@lctcs.edu> if you have questions

Yesterday

cognosreporting@lctcs.edu

Report: Completers\_Graduation\_Data\_Correction\_Burst

Wed 1:27 PM

If you are receiving this email it indicates that you all have issues with

Reply Reply All Forward IM

Microsoft Power BI <no-reply-powerbi@microsoft.com> Loht, Shawn P.

Fall Semester 2024 Daily Enrollment Report

If there are problems with how this message is displayed, click here to view it in a web browser.

Fall Semester 2024 Daily Enrollment Report - (Today's Summary).png

432 KB

Microsoft

Power BI

Fall Semester 2024 Daily Enrollment

Open report in Power BI >

Delgado

July 11, 2024

Fall Semester 2024 Enrollment - Today's Totals

CAMPUS/SITE	CONTINUING	FRESHMAN	FRESHMAN	TRANSFER	RETURNING	VISITING	HIGH SCHOOL	CROSS ENROLLED	NON-MATRIC	TOTAL
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Total Headcount	4,421	967	713	1,132	54	73	0	0	0	7,360
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Enrolled Headcount One Year Ago

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4,645	919	556	1,080	62	21	0	0	7,283

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% Difference in Today's Headcount vs One Year Ago

Enrolled SCH One Year Ago

CONTINUING	FRESHMAN	TRANSFER	RETURNING	VISITING	HIGH SCHOOL	CROSS ENROLLED	NON-MATRIC	TOTAL
41,416	10,140	5,389	6,556	391	113	0	0	67,221

0.4%

% Difference in Today's SCH vs One Year Ago

Enrollment Goal: 13,500 Students

7,360

Enrolled Student Mix

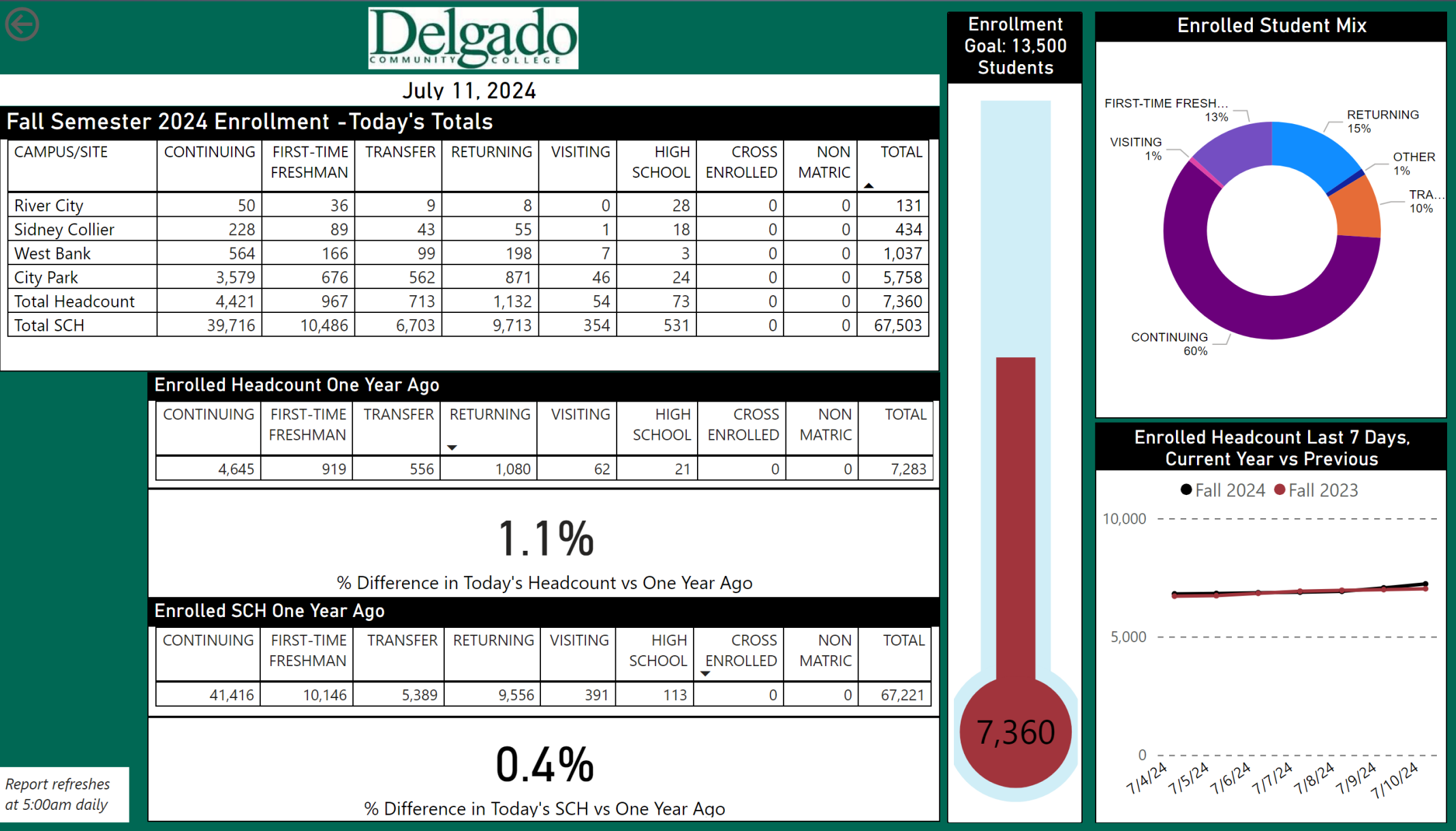
Donut chart showing student mix: CONTINUING 60%, FRESHMAN 13%, RETURNING 15%, VISITING 1%, OTHER 1%

Enrolled Headcount Last 7 Days, Current Year vs Previous

Line chart showing enrollment trend for Fall 2024 and Fall 2023

You're receiving this email because you subscribed to the 'Today's Summary' page of the 'Fall Semester 2024 Daily Enrollment Report' report. The image above was generated at July 11, 2024 13:48 UTC.

IT'S GOT EXTRA BELLS AND WHISTLES. ALSO A GENERAL "WOW" FACTOR.





PART 1

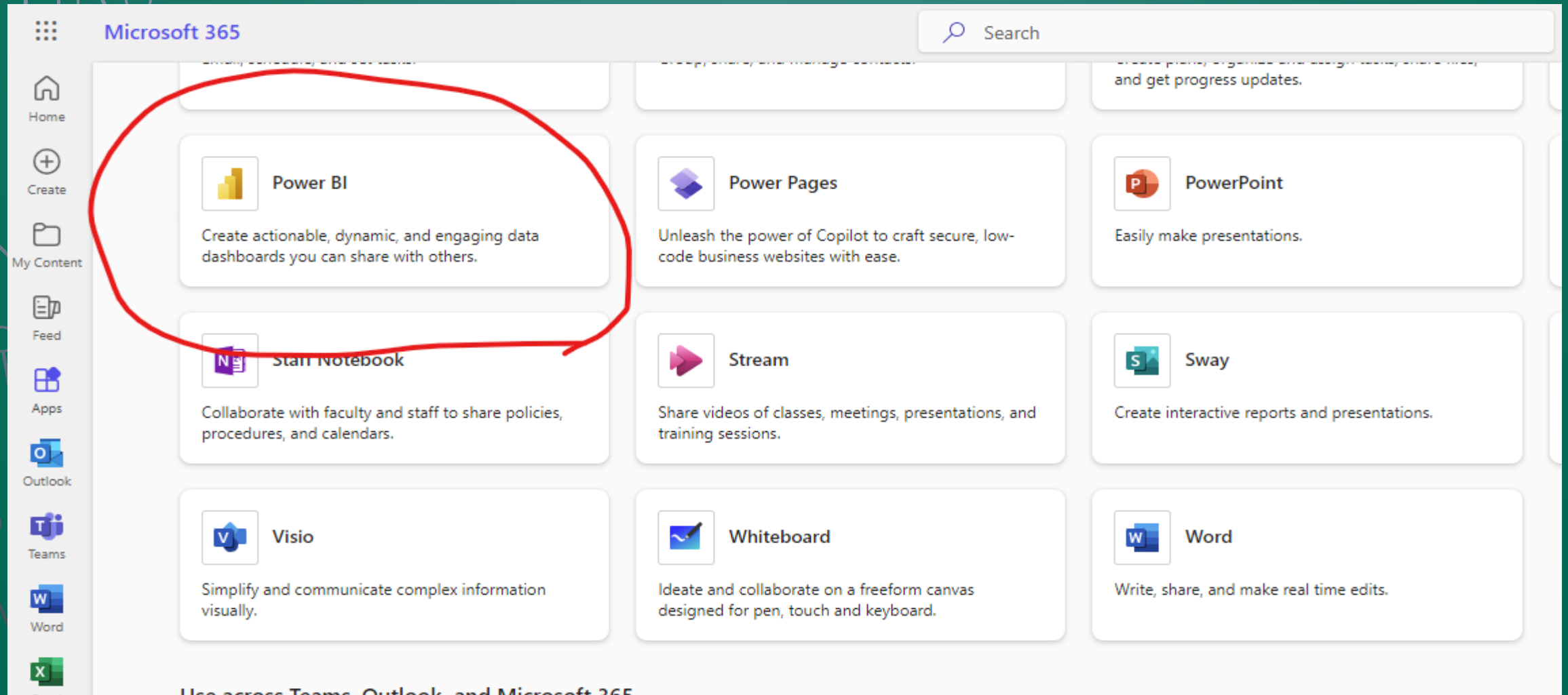
**REPORT AUTOMATION:**  
**HOW TO DO IT**



# **REPORT AUTOMATION:** **HOW TO DO IT**

- 1) THE SOFTWARE**
- 2) DATABASE CONNECTION**
- 3) POWER BI GATEWAY**
- 4) BUILD & PUBLISH REPORT**
- 5) SUBSCRIPTION**

# 1) THE SOFTWARE: FREE DOWNLOAD IN MS 365





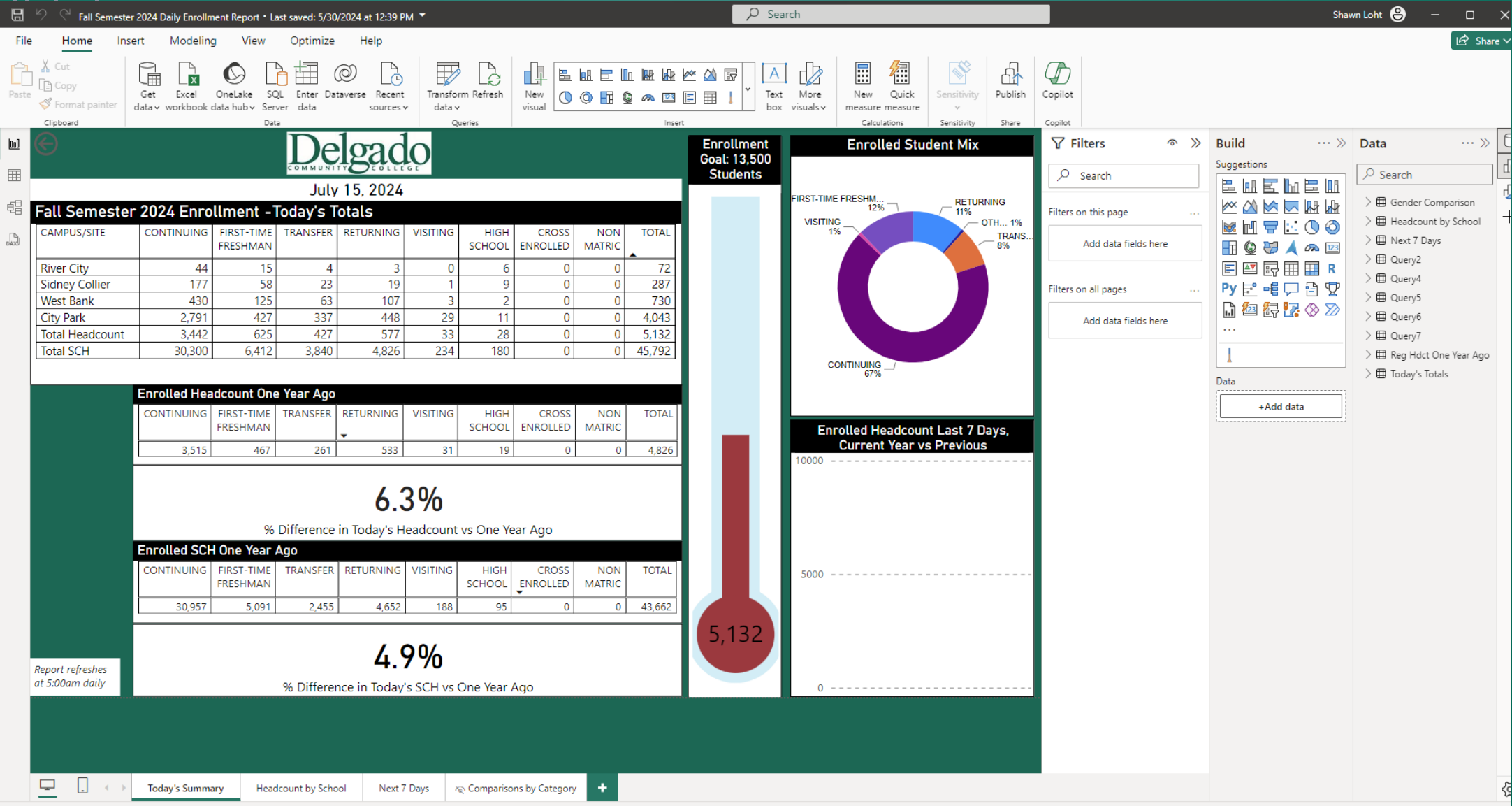
# **POWER BI DESKTOP**

**(DEVELOPMENT; LOCAL PC)**

# **POWER BI SERVICE (ON WEB)**

**(PUBLICATION; MS 365 CLOUD)**

# IN DESKTOP



IN SERVICE (WEB)



July 11, 2024

Fall Semester 2024 Enrollment - Today's Totals

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Enrolled Headcount One Year Ago

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4,645	919	556	1,080	62	21	0	0	7,283

1.1%

% Difference in Today's Headcount vs One Year Ago

Enrolled SCH One Year Ago

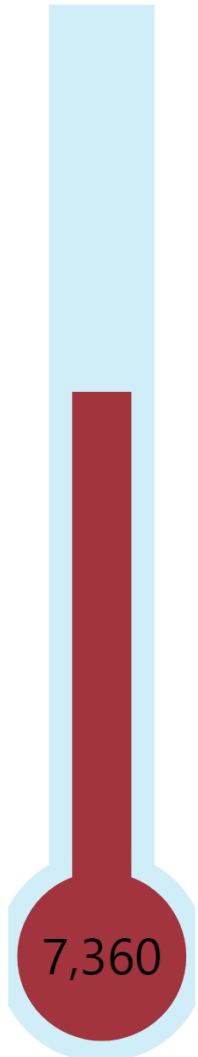
CONTINUING	FIRST-TIME FRESHMAN	TRANSFER	RETURNING	VISITING	HIGH SCHOOL	CROSS ENROLLED	NON MATRIC	TOTAL
41,416	10,146	5,389	9,556	391	113	0	0	67,221

0.4%

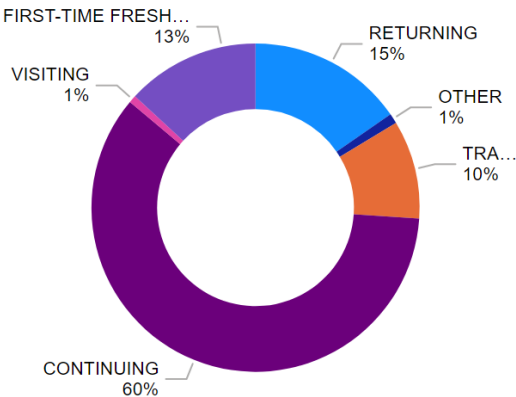
% Difference in Today's SCH vs One Year Ago

Report refreshes at 5:00am daily

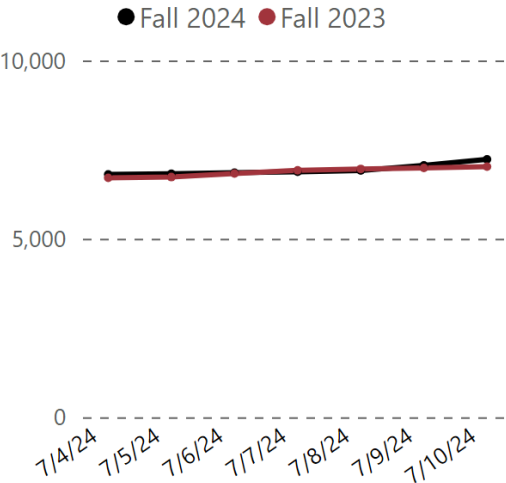
Enrollment Goal: 13,500 Students



Enrolled Student Mix



Enrolled Headcount Last 7 Days, Current Year vs Previous



# IN SERVICE (NAVIGATE TO IT LIKE ANY FILE)

Microsoft 365

Search

SL

My content

All

Recently opened

Shared

Favorites

Browse by

People

Meetings

Locations

Cloud files

Local files

















Attachments

Tags

All

Search my files

Filter

Name	Tags	Modified	Owner	Activity
 LAIR Presentation July 2024 Loht, Shawn P.'s Files		11m ago	Loht, Shawn P.	 You edited this
 Spring Semester 2023 Daily Enrollment Report, April 24, 2023 Loht, Shawn P.'s Files		27m ago	Loht, Shawn P.	 You recently opened this
 Fall Semester 2021 Daily Enrollment Report, August 6, 2021 Loht, Shawn P.'s Files		28m ago	Loht, Shawn P.	 You recently opened this
 Fall 2024 Enrollment Planning Shawn Loht		9h ago		 You frequently open this
 Fall Semester 2024 Daily Enrollment Report Shawn Loht		9h ago		 Microsoft Power BI shared this with you
 Workforce Development Enrollment (based on Cognos logic) Shawn Loht		9h ago		 You frequently open this
 Summer 2024 Semester Daily Enrollment Report Shawn Loht		9h ago		 Microsoft Power BI shared this with you
 FCAT0052_PT - Section Enrollment Summary FCAT0052_PT - Section Enrollment Summary A1_Job: IR_Registration_Num		11h ago		 Hunter, Tina sent this



## **2) DATABASE CONNECTION**

**A LITTLE BIT IN THE WEEDS...  
GET IT HELP**

**REQUIRED INSTALLS:**

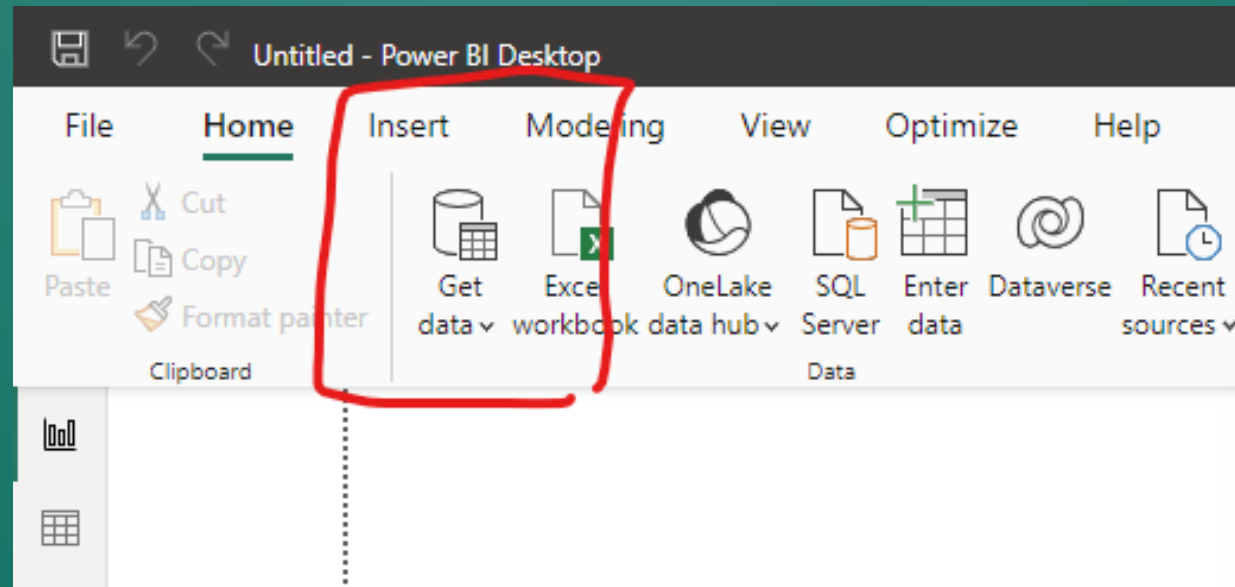
- ORACLE CLIENT FOR MS TOOLS**
- POWER BI GATEWAY**

**IDEALLY ON A SERVER, BUT JUST  
ON YOUR DESKTOP CAN WORK**

**2) DATABASE CONNECTION  
YOU DO ALSO NEED SQL. BUT ONLY  
FOR BASIC QUERIES.**



## 2) DATABASE CONNECTION



## 2) DATABASE CONNECTION

×

### Oracle database

Server

Data Connectivity mode ⓘ  
☒ Import  
☐ DirectQuery

⌵ Advanced options  
Command timeout in minutes (optional)

SQL statement (optional)  

```
select * from spriden
where spriden_last_name = 'Loht' and
spriden_first_name = 'Shawn'
```

☒ Include relationship columns  
☒ Navigate using full hierarchy

OK

Cancel

## 2) DATABASE CONNECTION

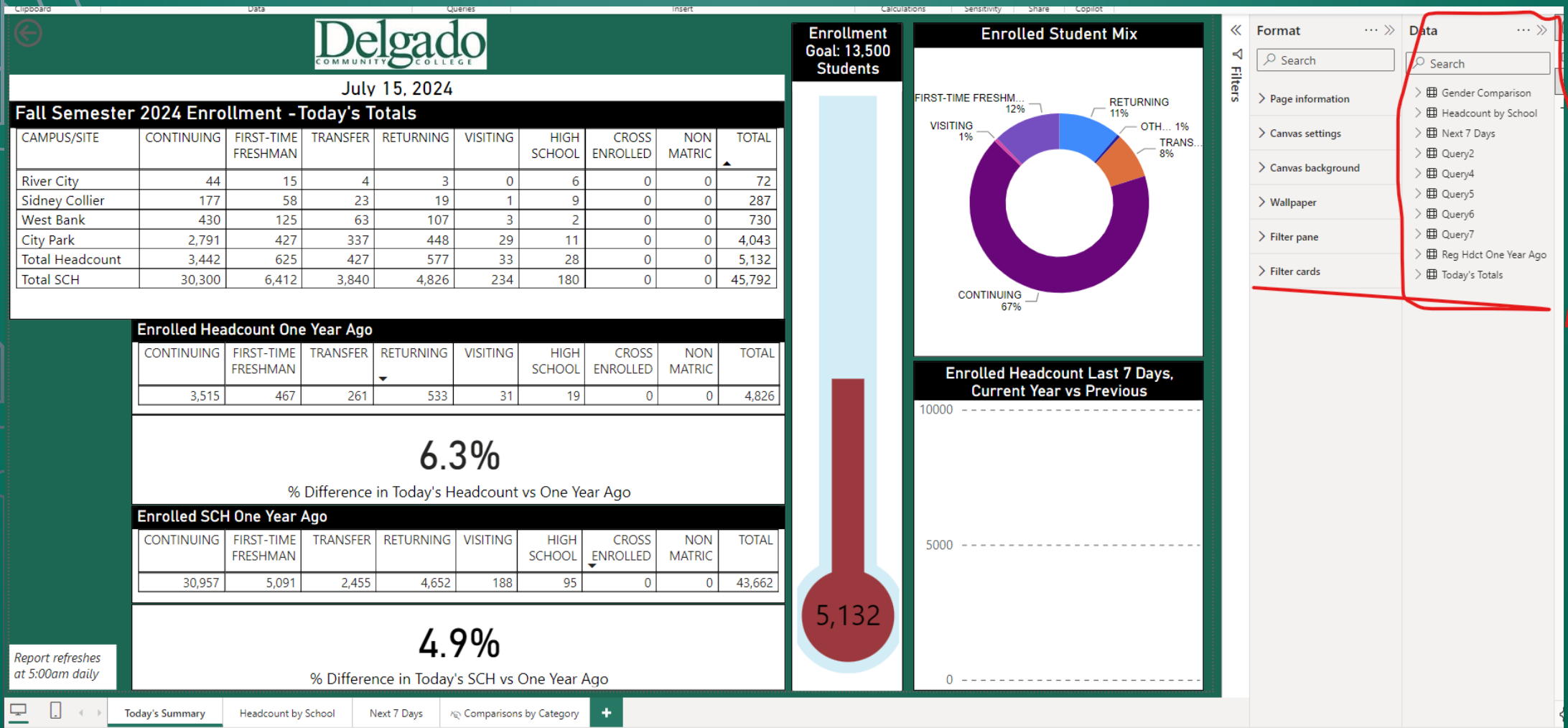
BannerProd

SPRIDEN_PIDM	SPRIDEN_ID	SPRIDEN_LAST_NAME	SPRIDEN_FIRST_NAME	SPRIDEN_MI	SPRIDEN_CHANGE_IND	SPRIDEN_ENTITY_IND
1848899	L01562761	Loht	Shawn	Patrick	null	P
1848899	L01562761	Loht	Shawn	null	N	P

< >

Load Transform Data Cancel

## 2) DATABASE CONNECTION

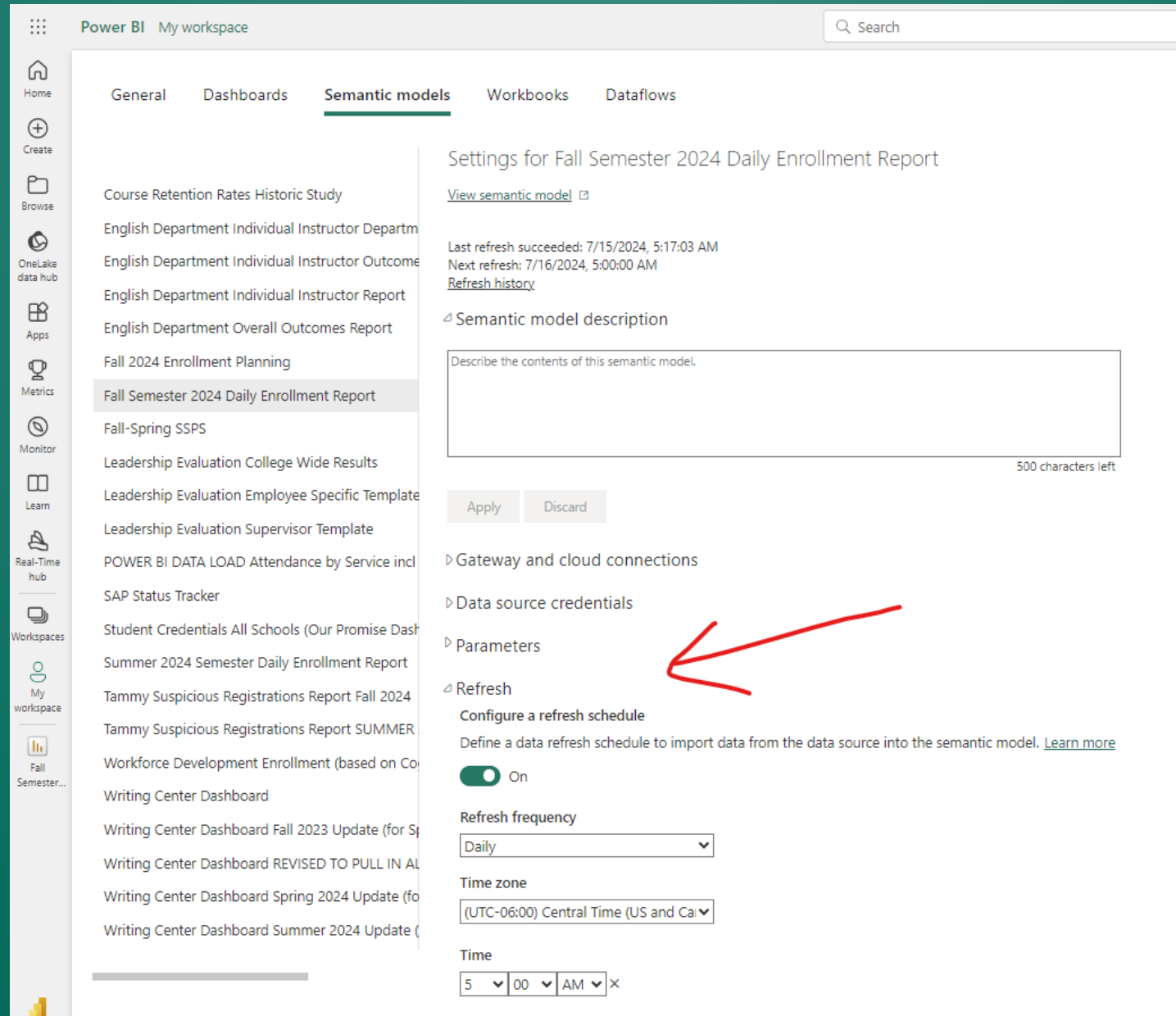


### **3) POWER BI GATEWAY**

**ENABLES AUTOMATED REPORT  
REFRESH FROM CLOUD**



# 3) POWER BI GATEWAY



The screenshot shows the Power BI 'My workspace' interface. The left sidebar contains navigation icons for Home, Create, Browse, OneLake data hub, Apps, Metrics, Monitor, Learn, Real-Time hub, Workspaces, and My workspace. The main area is titled 'Semantic models' and lists various reports. The 'Fall Semester 2024 Daily Enrollment Report' is selected. The right pane shows the settings for this report, including a description field, 'Apply' and 'Discard' buttons, and expandable sections for 'Gateway and cloud connections', 'Data source credentials', 'Parameters', and 'Refresh'. A red arrow points to the 'Parameters' section.

Power BI My workspace

Search

General Dashboards **Semantic models** Workbooks Dataflows

Course Retention Rates Historic Study

English Department Individual Instructor Departm

English Department Individual Instructor Outcome

English Department Individual Instructor Report

English Department Overall Outcomes Report

Fall 2024 Enrollment Planning

**Fall Semester 2024 Daily Enrollment Report**

Fall-Spring SSPS

Leadership Evaluation College Wide Results

Leadership Evaluation Employee Specific Template

Leadership Evaluation Supervisor Template

POWER BI DATA LOAD Attendance by Service incl

SAP Status Tracker

Student Credentials All Schools (Our Promise Dash

Summer 2024 Semester Daily Enrollment Report

Tammy Suspicious Registrations Report Fall 2024

Tammy Suspicious Registrations Report SUMMER

Workforce Development Enrollment (based on Co

Writing Center Dashboard

Writing Center Dashboard Fall 2023 Update (for Sp

Writing Center Dashboard REVISED TO PULL IN AL

Writing Center Dashboard Spring 2024 Update (fo

Writing Center Dashboard Summer 2024 Update (

Settings for Fall Semester 2024 Daily Enrollment Report

[View semantic model](#)

Last refresh succeeded: 7/15/2024, 5:17:03 AM  
Next refresh: 7/16/2024, 5:00:00 AM  
[Refresh history](#)

▾ Semantic model description

Describe the contents of this semantic model.

500 characters left

Apply Discard

▸ Gateway and cloud connections

▸ Data source credentials

▸ Parameters

▾ Refresh

Configure a refresh schedule

Define a data refresh schedule to import data from the data source into the semantic model. [Learn more](#)

☒ On

Refresh frequency

Daily

Time zone

(UTC-06:00) Central Time (US and Ca

Time

5 00 AM

## 4) BUILD & PUBLISH YOUR REPORT



## 4) BUILD & PUBLISH

TAKE NOTE:  
“PUBLISHING” =

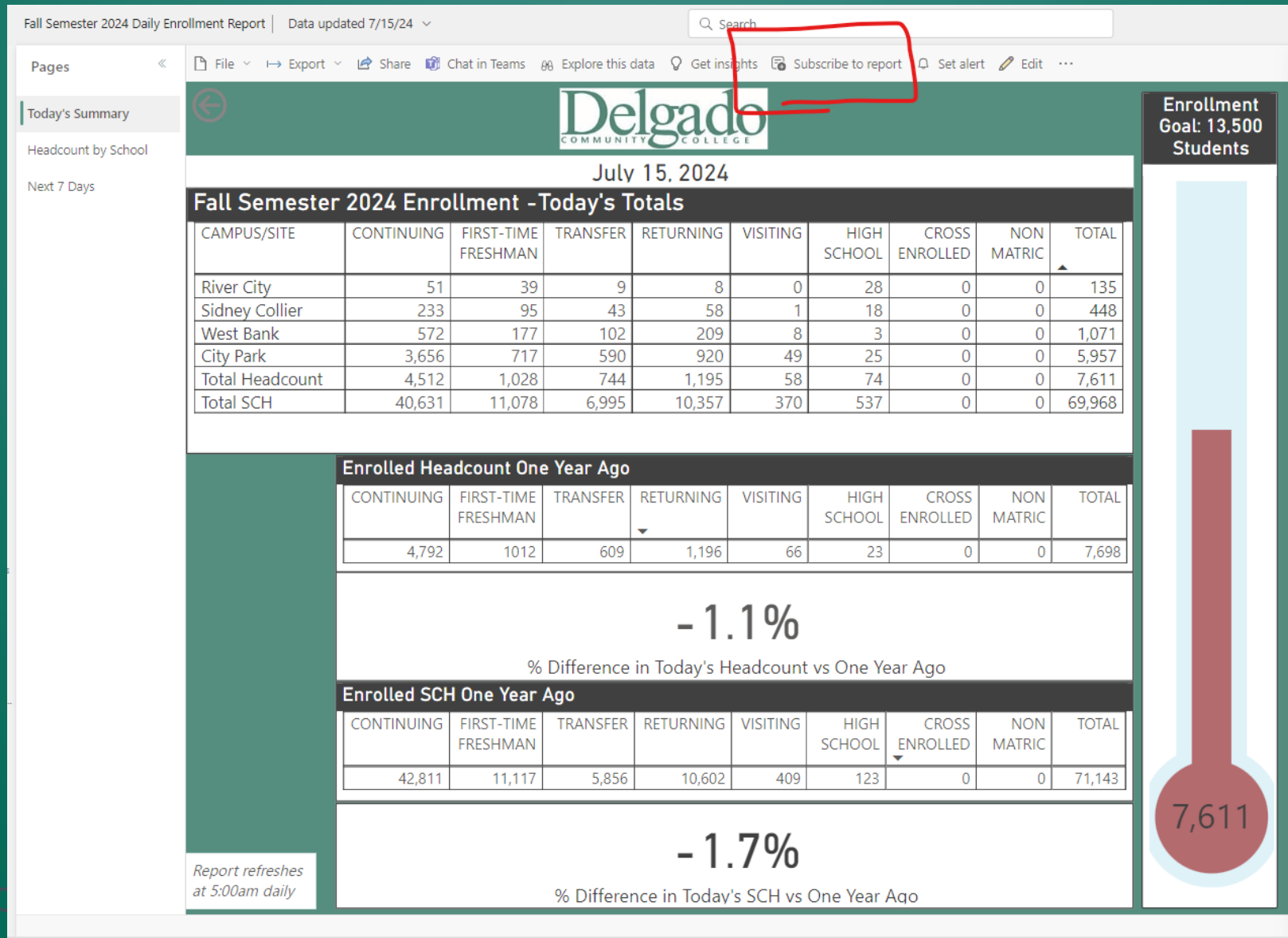
**PUSHING REPORT**  **MS 365 CLOUD**

A decorative graphic on the left side of the slide, consisting of a network of thin, light-colored lines and small circles, resembling a circuit board or a neural network, set against a dark teal background.

## **5) SUBSCRIPTION**

# **AUTOMATED EMAIL DISTRIBUTION**

# 5) SUBSCRIPTION



# 5) SUBSCRIPTION

Fall Semester 2024 Daily Enrollment Report | Data updated 7/15/24

Search

Pages

Today's Summary

Headcount by School

Next 7 Days

Delgado  
COMMUNITY COLLEGE

July 15, 2024

Fall Semester 2024 Enrollment - Today's Totals

CAMPUS/SITE	CONTINUING	FIRST-TIME FRESHMAN	TRANSFER	RETURNING	VISITING	HIGH SCHOOL	CROSS ENROLLED	NON MATRIC	TOTAL
River City	51	39	9	8	0	28	0	0	135
Sidney Collier	233	95	43	58	1	18	0	0	448
West Bank	572	177	102	209	8	3	0	0	1,071
City Park	3,656	717	590	920	49	25	0	0	5,957
Total Headcount	4,512	1,028	744	1,195	58	74	0	0	7,611
Total SCH	40,631	11,078	6,995	10,357	370	537	0	0	69,968

Enrolled Headcount One Year Ago

CONTINUING	FIRST-TIME FRESHMAN	TRANSFER	RETURNING	VISITING	HIGH SCHOOL	CROSS ENROLLED	NON MATRIC	TOTAL
4,792	1012	609	1,196	66	23	0	0	7,698

- 1.1%

% Difference in Today's Headcount vs One Year Ago

Enrolled SCH One Year Ago

CONTINUING	FIRST-TIME FRESHMAN	TRANSFER	RETURNING	VISITING	HIGH SCHOOL	CROSS ENROLLED	NON MATRIC	TOTAL
42,811	11,117	5,856	10,602	409	123	0	0	71,143

- 1.7%

% Difference in Today's SCH vs One Year Ago

Report refreshes at 5:00am daily

Enrollment Goal: 13,500 Students

7,611

Subscriptions

Keep track of your data by subscribing to this report.

Manage all

Fall Semester 2024 Daily Enrollment

Subscription name \*

Fall Semester 2024 Daily Enrollment

Recipients \*

Angela Camaille Elizabeth Duett Raymond Duplessis Malene Arnaud-Davis Tamika Duplessis Harold Gaspard Shawn Loht Ronald Russo Amy Laszcz Leslie Salinero Traci Smothers Emily Cosper Rachel Wilkerson Barbara Waiters Larissa Littleton Steib

Enter email addresses

Attach full report

None

Scheduled date and time

Start date \* 4/1/2024

End date 12/1/2024

Repeat \* Daily

Scheduled time \* 8 45 AM

Time zone \* (UTC-06:00) Central Time (US and Cana

Save New subscription



# **PART 2**

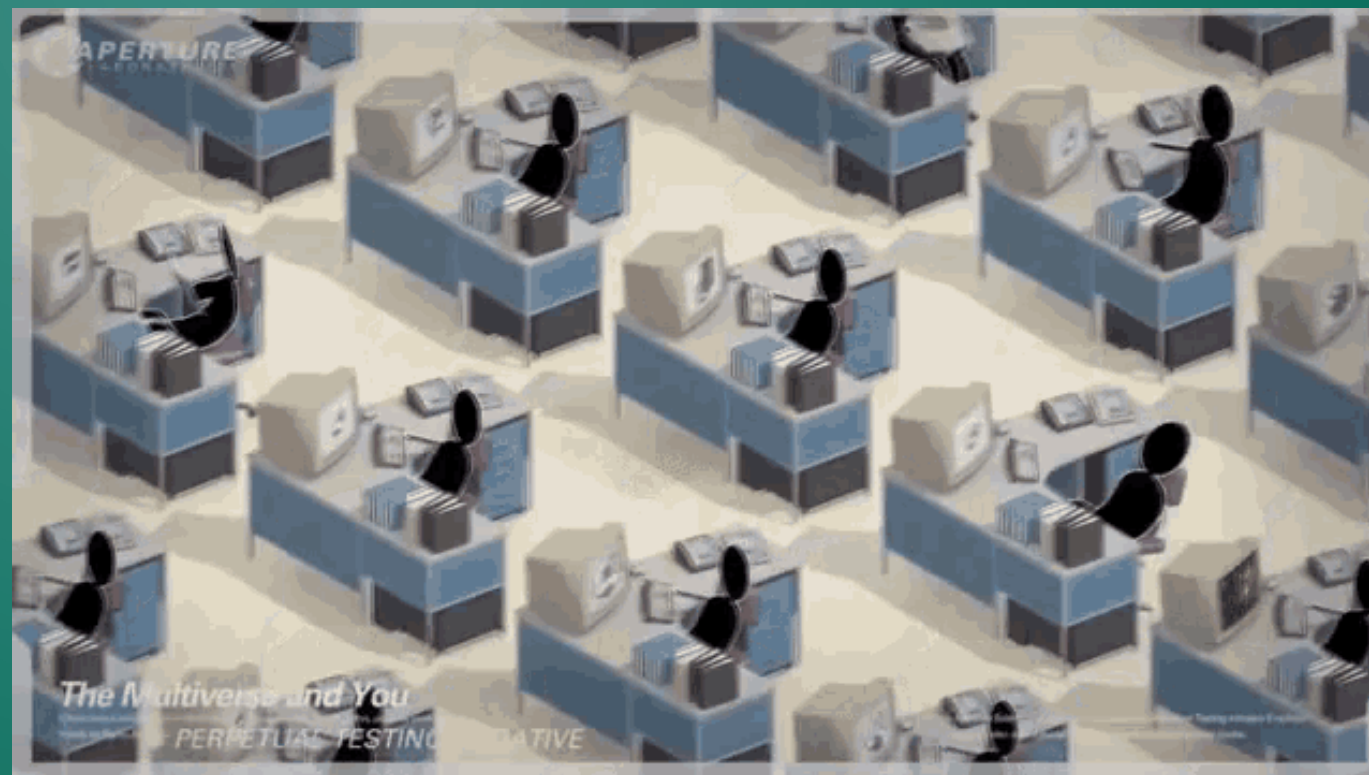
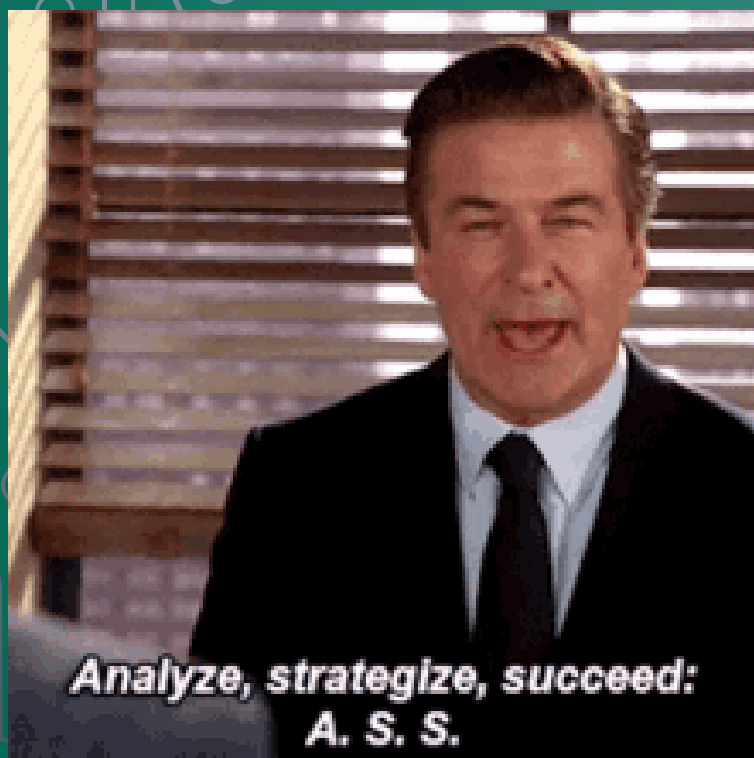
## **USING POWER BI FOR ANALYSIS**



**IR/IE SPECIALISTS DON'T SIMPLY  
“PULL” DATA...**

**POWER BI ADDS VALUE BY  
AUTOMATING NOT JUST DATA  
EXTRACTION BUT ANALYSIS (AND  
SYNTHESIS)**

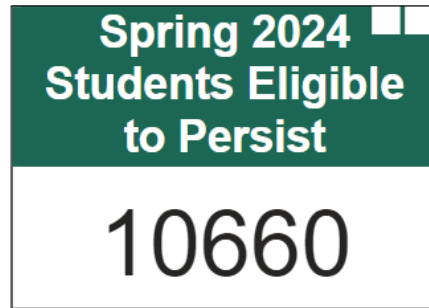
**THINK OF IT LIKE A TEAM OF  
WORKERS**



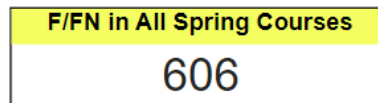
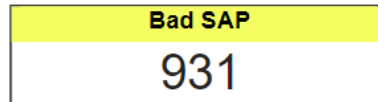
# AUTOMATING ANALYSIS: SAMPLES OF REPORTS I USED TO MANUALLY BUILD IN EXCEL EVERY WEEK

## Fall 2024 Semester Enrollment Planning Snapshot

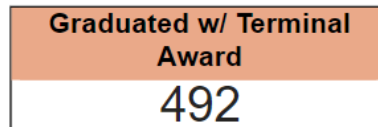
7/15/2024



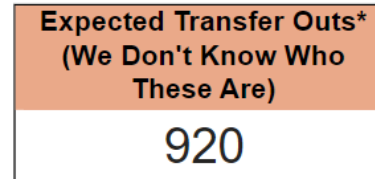
**Students with 1+ conditions preventing persistence**



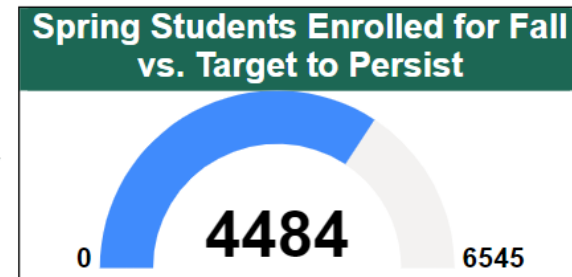
AR	CI	CL	AR	RH	SS
13	0	34	1269	56	701



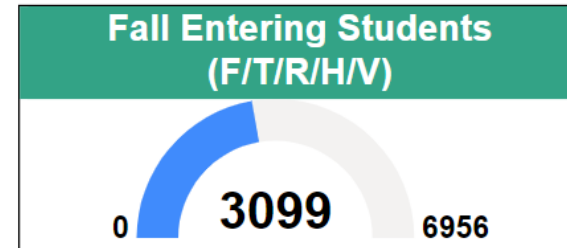
Subtracts students shown in yellow/red at left from overall eligible total (10,660).



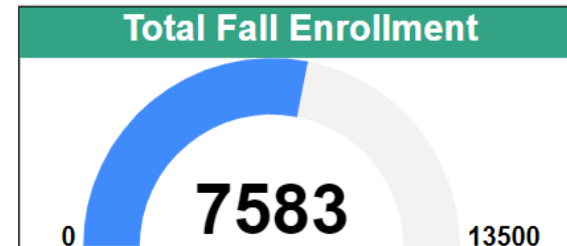
\*Based on Spring 2023 Percentage of Students Transferred Out and Not Returned (8.2%).



6,545 (target) based on historical precedent of Spring-Fall persistence rate (61.4%).  $10,660 \times 61.4\% = 6,545$ .



6,956 (target) is number of entering students needed for goal of 13,500, if target for spring-fall persistence is met.



Report refreshes every day at 5:00am

# AUTOMATING ANALYSIS: SAMPLES

## Progress Toward LCTCS "Our Promise" Targets, AY 2023-24 YTD Credential and IBC Awards Recorded in Banner

AY 2023-24 Awards  
(Approximate Target: 8,462)



### Award Totals by School

SCHOOL	Awards
Allied Health	433
Business	1363
CATS	414
LASSE	899
Nursing	644
STEM	299
UNKNOWN	108
Workforce Development	5058
<b>Total</b>	<b>9218</b>

### Award Totals According to Award Type (Approximate)

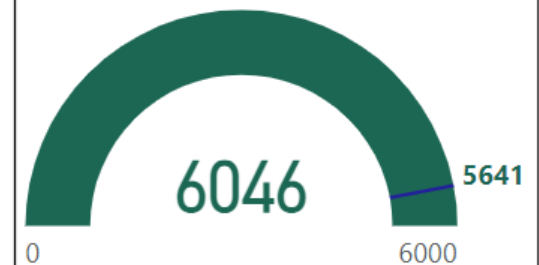
Award Type	Awards
Credit	4055
Non-Credit	5163
<b>Total</b>	<b>9218</b>

### Award Totals by Program

SCHOOL	PROGRAM	Awards
Allied Health	Diagnostic Medical Sonography PAC	13
Allied Health	Dialysis Technician CTC	3
Allied Health	Electrocardiographic (EKG) Tec CTC	16
Allied Health	EMT Basic CTC	44
Allied Health	Entry Level Pharm. Tech No FA CTC	9
Allied Health	Funeral Service CTS	8
Allied Health	Funeral Service Education AAS	12
Allied Health	Health Info Technology AAS	3
Allied Health	IBC-Clinical Medical Assistant	7
Allied Health	IBC-EMT Basic	24
Allied Health	IBC-Medical Care Provider	3
Allied Health	IBC-Patient Care Technician	6
Allied Health	IBC-Pharmacy Technician Certification	5
Allied Health	IBC-Physical Therapist Assistant	20
Allied Health	IBC-Registered Radiologic Technologist-R.T (R)	43
Allied Health	Massage Therapy CTS	10
Allied Health	Medical Coding CAS	18
Allied Health	Medical Coding CTS	8
Allied Health	Medical Lab Technician AAS	7
Allied Health	Nuclear Medicine Technology PAC	6
Allied Health	Occupational Therapy Asst AAS	14
Allied Health	Pharmacy Technician CTS	2
Allied Health	Phlebotomy Technician CTC	19
<b>Total</b>		<b>9218</b>

Source/Reporting Method: replicates method from LCTCS Cognos Report "BannerWorkforce: Student Credentials All Schools"  
Report refresh schedule: 8:00am every Sunday and/or on demand

AY 2023-24 Progress Toward  
Target: 5,641 Unduplicated  
Students



### Unduplicated Student Count by Student Type (Approximate)

Student Type	Undup Students
Non-Credit	3188
Credit	2866
<b>Total</b>	<b>6046</b>

Note: the official LCTCS target is for 5,641 unduplicated students earning an award.

The conversion from unduplicated students to awards is approximately 1.5 awards per unique student. **The awards target shown at upper left (8,462) is only a forecast.**



# **AUTOMATING ANALYSIS: SAMPLES**

**NOTE THAT THESE CAN BE ENTIRE  
PACKAGES**

**EX. ENGLISH DEPT REPORTS AT DCC**

# SUMMARY

## POWER BI AUTOMATES (AND MAKES PERMANENT):

- DATA EXTRACTION
- DATA ANALYSIS
- REPORT REFRESH
- REPORT DELIVERY

