

HILLSBOROUGH COUNTY PUBLIC SCHOOLS

# Using Power BI to Address Disproportionate Discipline

---

June 30, 2021

---



Hillsborough County

PUBLIC SCHOOLS

Preparing Students for Life

# HILLSBOROUGH COUNTY PUBLIC SCHOOLS

**Shannon Lesperance: ESE Assistant Director**

**Julie McLeod: Department Manager, Evaluation**

**Anthony Ciancio: Power BI Consultant**

**Scott Fairbanks: Power BI Consultant**



**Hillsborough County**

**PUBLIC SCHOOLS**

Preparing Students for Life

# CCEIS Overview

## Disproportionality and Comprehensive Coordinated Early Intervening Services (CCEIS)

### What is Disproportionality?

- Defined – “over-representation” or “under-representation” of a particular population or demographic group
  - Complex issue that impacts
    - Racial/ethnic groups
    - ELL
    - Gender
    - SES – Socio Economic status
    - LRE – Least Restrictive Environment
    - Discipline

**Comprehensive Coordinated Early Intervening Services (CCEIS)**  
**Hillsborough School District**  
**Discipline - Out-of-School Suspensions more than 10 Days**  
**Risk Ratios, 2017-18 and 2019-20**

LEA is identified as having significant disproportionality for Out-of-School Suspensions more than 10 days by:  
Having a risk ratio greater than 3.0 for for past three years and not meeting reasonable progress.

Hillsborough

		Hispanic/ Latino	American Indian or Alaska Native	Asian	Black or African American	Native Hawaiian or Other Pacific Islander	White	Two or More Races	Risk (Black/African American)*	Comparison Risk (All Other Races)**	Risk + Comparison Risk = Risk Ratio***
Out-of-School Suspensions more than 10 days											
2017-18	Out-of-School Suspensions more than 10 days	70	1	1	182	0	48	9	182/10750)* 100 =	129/30684*100 =	4.03
	Membership	16189	69	720	10750	42	12061	1603	1.693023256	0.420414548	
2018-19	Out-of-School Suspensions more than 10 days	53	0	2	158	0	35	5	158/11056*100=	95/31572*100=	4.75
	Membership	16782	64	756	11056	41	12155	1774	1.429088278	0.300899531	
2019-20	Out-of-School Suspensions more than 10 days	30	0	0	58	0	12	2	58/7921*100=	44/25107*100=	4.18
	Membership	13409	39	624	7921	33	9614	1388	0.732230779	0.17524993	

\* Risk = Number of discipline incidents by Black/African American students divided by total number of Black/African American SWD X 100 (no rounding).

\*\* Comparison Risk = Number of discipline incidents by all other races combined divided by total number of all other races SWD X 100 (no rounding).

\*\*\* Risk Ratio = Risk divided by Comparison Risk (rounded to two decimal places).

## Comprehensive Coordinated Early Intervening Services (CCEIS)- Discipline

Black SWD are disproportionately suspended for > 10 days (data from 6/5/21)

- 3.46 times more likely than other SWD (CCEIS)
- 4.93 times more likely than all other students (Indicator 4B)

### **Required Comprehensive Coordinating Early Intervening Services (CCEIS) Mandatory 15% Set Aside of IDEA Grant (about 6.8 Million )**

- Funds must be used to root out the factors that lead to disproportionality
- Used only to address relevant flaws in policies, practices, or procedures
- Identify and address disproportionality
- Must have a correlation between what lead to disproportionality and funds used to address it

# Data? Calculations?

We knew we had a problem with disproportionate discipline outcomes, but we didn't know exactly:

- what specific data were used
- how the calculations were made
- how to get ahold of and monitor the data during the year instead of after it was over

# Equity Profile

Cohort schools went through the four-step problem solving with USF/PBIS. The Equity profile is the basis of the work.

- Schools had to complete it by hand
- Time Consuming
- Data was in many different places

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
4							Guiding Question 1: Are outcomes equitable for all student groups?			Guiding Question 2: How big are the disparities?					Guiding Question 3: How much of your target group is affected by disproportion?
5							Student Composition	Referral Ratio	Referral Rate	Risk Ratio	Difference in Student Composition	Difference in Referral Composition	Referral Comparison	Risk	
6	School Name:		Number of Students Enrolled at the School	Number of Students in Group Who Received a Referral	Total Number of Referrals from Group	Group's Percent of Student Body	<i>The % of students with referrals who belong to a target group; <b>REB</b> calls suggest disproportionality</i>	<i>Referral Rate for group divided by the Referral Rate for all other students; <b>R</b> is equal</i>	<i>Total number of referrals for group divided by the number of enrolled students from that group</i>	<i>Group's risk of receiving a referral compared to all other students; <b>R</b> is equal</i>	<i>Student Comparison minus the Percent of the Student Body; <b>Positive values suggest disproportionality</b></i>	<i>Referral Comparison minus the Percent of the Student Body; <b>Positive values suggest disproportionality</b></i>	<i>% of referrals accounted for by students of a particular group</i>	<i>% of students in a group who have at least one referral</i>	
7															
8															
9	White					N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10	Hispanic/Latino					N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
11	African American/Black					N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
12	American Indian/Alaskan Native					N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
13	Asian					N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
14	Native Hawaiian/Pacific Islander					N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

# Data For Root Cause Analysis

Problem Identification – Specific Definition of Patterns-*Select the one pattern you want to focus on (i.e. problem behavior, location, etc.)*      Date of Data Pull: 05/01/2020

4. What are the most common discipline patterns for your target group? <i>(Guiding Question 4; Problem Definition Template, "Target Group Input" tab)</i>		4b. Is this pattern common to 50% or more of the target group's referrals and/or students who have referrals? <i>(Guiding Question 4b; Problem Definition Template, "Target Group Input" tab)</i>	5. Is this pattern <u>UNIQUE</u> to your target group, or is it the <u>same</u> as the discipline pattern for all other students? <i>(Guiding Question 5; Problem Definition Template, "Pattern Comparison" tab)</i>
<b>Problem Behavior</b>	Skipping	Yes	Unique
<b>Location</b>	Classroom	Yes	Unique
<b>Time</b>	Between 5 <sup>th</sup> and 6 <sup>th</sup> period	Yes	Unique
<b>Admin Decision</b>	Detention	Yes	Unique
<b>Grade</b>	10	No	Same
<b>Motivation</b>	Avoid Task	Yes	Unique





# We Needed More

We attempted:

- To match calculations
- To request/generate various reports
- To disaggregate data by subgroup/school

However,

- we could never exactly replicate it
- the process was very cumbersome/manual
- the data were cold too quickly
- we wanted to slice and dice the data in too many ways for a report or even set of reports

# Solution Overview

Power BI Dashboards



Hillsborough County  
PUBLIC SCHOOLS  
Preparing Students for Life

# Power BI Solution Goals

- Wanted a solution that projected CCEIS ratios based on the FLDOE calculations for current school year
- Wanted to use FLDOE file submissions to show YOY trends for district use
- Needed to provide visibility to each school in the district with timely data
- Needed views on who was receiving discipline, who was referring, and who was assigning discipline responses

# Power BI Solution

- Utilized Power BI desktop files (.pbix) to develop district and school dashboards
- Used Powershell script to generate school dashboards off a single master workbook and refresh with current data each week
- Shared with schools and district staff via Sharepoint with object level security by school

# Initial Design

- Designed a District Dashboard that can see trends by grade level, school type, individual schools and standard student cohort groups
- Refreshed weekly to address timeliness of data
- Rolled out pilot for schools in cohorts and then district-wide

# Data Governance

- Needed a trusted source of data used by district staff to prevent dueling data sources
- Partnered with IT to get access to data extracts for student enrollment and historical discipline information for Power BI
- Pulled information weekly and refreshed solution
- Partnered with technical liaison and IT to resolve any data quality issues

# Data Liaison Between Programmatic and Technical

- Helped translate educationese and technical lingo
- Communicated ESE's vision and needs to technical folks (even though they know education)
- Assisted in obtaining the necessary data
- Made sure everyone understood the data elements and was on the same page

# Side Benefit – Cleaner Data!

As the dashboards were built and tested, we came across many different types of issues

- We worked with IT to clean the source data
  - Add labels to new variables/values
  - Edit outdated labels
  - Recode miscoded ESE determinations
  - Multiple actions for single incident not showing
  - Multiple incidents on a single day not showing
  - Include teacher writing referral and administrator assigning discipline



## Side Benefit – Cleaner Data!

As the dashboards were built and tested, we came across many different types of issues

- We worked with schools to clean the data they were inputting
  - Open referrals not processed
  - Multiple records of same incident
  - Students not attending ISS automatically flipped to OSS
- Transparency held schools accountable - could no longer discount their data

## Side Benefit – Cleaner Data!

As the dashboards were built and tested, we came across many different types of issues

- We worked with FLDOE to understand the intricate details of how the ratios were calculated for CCEIS
  - When was ESE status determined?
  - Do summer incidents count?

# Solution Overview



School Enrolled

All

School Number

All

School Type

All

Grade Level

All

## CCEIS Risk Gap

Ethnicity	Enrollment (Overall)	Students with > 10 days OSS Duration (Overall)	Students (ESE)	Students > 10 days OSS Duration (ESE)	Students (GenEd)	Students > 10 days OSS Duration (GenEd)
American Indian Or Alaskan Native	382	0	49	0	333	0
Asian Or Pacific Islander	9,734	2	672	0	9,062	2
Black, Non-Hispanic	44,268	101	8,030	30	36,238	71
Hispanic	77,906	40	12,949	10	64,957	30
Multiracial	13,043	9	1,860	2	11,183	7
White, Non-Hispanic	67,114	39	9,242	13	57,872	26
<b>Total</b>	<b>212,447</b>	<b>191</b>	<b>32,802</b>	<b>55</b>	<b>179,645</b>	<b>136</b>

Ethnicity	% Enrollment	% Enrollment ESE	% Enrollment GenEd	Student Composition % (> 10 Days OSS Overall)	Student Composition % (> 10 Days OSS ESE)	Student Composition % (> 10 Days OSS GenEd)	Risk Ratio (ESE) 4B	Risk Ratio (CCEIS)
American Indian Or Alaskan Native	0.2%	0.1%	0.2%	0.0%	0.0%	0.0%	0.00	0.00
Asian Or Pacific Islander	4.6%	2.0%	5.0%	1.0%	0.0%	1.5%	0.00	0.51
Black, Non-Hispanic	20.8%	24.5%	20.2%	52.9%	54.5%	52.2%	4.93	3.46
Hispanic	36.7%	39.5%	36.2%	20.9%	18.2%	22.1%	1.02	0.41
Multiracial	6.1%	5.7%	6.2%	4.7%	3.6%	5.1%	1.42	0.82
White, Non-Hispanic	31.6%	28.2%	32.2%	20.4%	23.6%	19.1%	1.86	0.65
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>2.21</b>	

Data Refreshed from IPT as of: 6/5/2021 6:48:17 AM

# Solution Overview



School Enrolled   
 All   
 School Number   
 All   
 School Type   
 All   
 Grade Level   
 All

## Ethnicity Risk Gap - Office Discipline Referrals (ODR)

Ethnicity	Enrollment Count	Students with Incidents	Incident Count	Guiding Question 1: Are outcomes equitable for all student groups?				Guiding Question 2: How big are the disparities?				Referral Composition	Risk (ODR)
				% Enrollment	Student Composition % (ODR)	Referral Ratio (ODR)	Referral Rate (ODR)	Risk Ratio (ODR)	Diff in Student Composition (ODR)	Diff in Referral Comp	Risk (ODR)		
Hispanic	77,906	7,323	19,936	36.7%	35.1%	0.84	0.26	0.93	-1.6	-3.8	32.8%	9.4%	
White, Non-Hispanic	67,114	4,795	12,439	31.6%	23.0%	0.56	0.19	0.65	-8.6	-11.1	20.5%	7.1%	
Black, Non-Hispanic	44,268	7,367	24,675	20.8%	35.3%	2.60	0.56	2.07	14.5	19.8	40.6%	16.6%	
Multiracial	13,043	1,153	3,190	6.1%	5.5%	0.85	0.24	0.89	-0.6	-0.9	5.3%	8.8%	
Asian Or Pacific Islander	9,734	204	441	4.6%	1.0%	0.15	0.05	0.21	-3.6	-3.9	0.7%	2.1%	
American Indian Or Alaskan Native	382	30	57	0.2%	0.1%	0.52	0.15	0.80	0.0	-0.1	0.1%	7.9%	
<b>Total</b>	<b>212,447</b>	<b>20,872</b>	<b>60,738</b>	<b>100.0%</b>	<b>100.0%</b>		<b>0.29</b>		<b>0.0</b>	<b>0.0</b>	<b>100.0%</b>	<b>9.8%</b>	

**Guiding Question 3:** How much of your target group is affected by disproportionate discipline?

## Ethnicity Risk Gap - Out of School Suspensions (OSS)

Ethnicity	Enrollment Count	Students with OSS Incidents	OSS Incident Count	Guiding Question 1: Are outcomes equitable for all student groups?				Guiding Question 2: How big are the disparities?				OSS Composition	Risk (OSS)
				% Enrollment	Student Composition % (OSS)	Referral Ratio (OSS)	Referral Rate (OSS)	Risk Ratio (OSS)	Diff in Student Composition (OSS)	Diff in OSS Comp	Risk (OSS)		
American Indian Or Alaskan Native	382	8	9	0.2%	0.1%	0.45	0.02	0.59	-0.07	-0.10	0.1%	2.1%	
Asian Or Pacific Islander	9,734	50	60	4.6%	0.7%	0.11	0.01	0.14	-3.91	-4.05	0.5%	0.5%	
Black, Non-Hispanic	44,268	3,074	4,839	20.8%	41.0%	2.88	0.11	2.64	20.20	22.27	43.1%	6.9%	
Hispanic	77,906	2,426	3,541	36.7%	32.4%	0.80	0.05	0.83	-4.28	-5.13	31.5%	3.1%	
Multiracial	13,043	403	576	6.1%	5.4%	0.83	0.04	0.87	-0.76	-1.01	5.1%	3.1%	
White, Non-Hispanic	67,114	1,529	2,200	31.6%	20.4%	0.53	0.03	0.56	-11.18	-11.99	19.6%	2.3%	
<b>Total</b>	<b>212,447</b>	<b>7,490</b>	<b>11,225</b>	<b>100.0%</b>	<b>100.0%</b>		<b>0.05</b>		<b>0.00</b>	<b>0.00</b>	<b>100.0%</b>	<b>3.5%</b>	

**Guiding Question 3:** How much of your target group is affected by disproportionate discipline?

# Solution Overview



School Enrolled   
   
 School Number   
   
 School Type   
   
 Grade Level

## ESE Risk Gap - Office Discipline Referrals (ODR)

**Guiding Question 3:**  
How much of your target group is affected by disproportionate discipline?

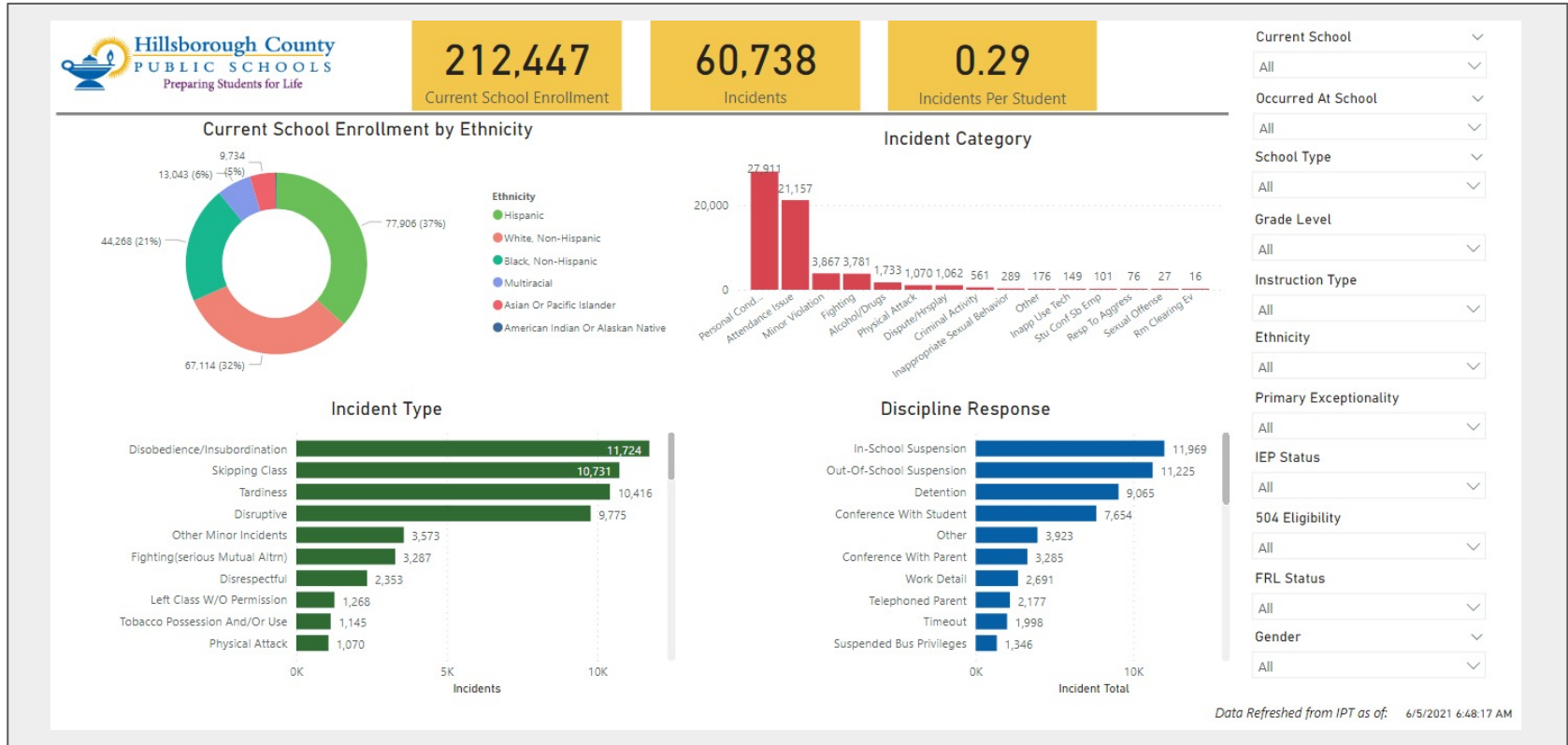
IEP Status	Enrollment Count	Students with Incidents	Incident Count	Guiding Question 1: Are outcomes equitable for all student groups?			Referral Rate (ODR)	Guiding Question 2: How big are the disparities?			Referral Composition	Risk (ODR)
				% Enrollment	Student Composition % (ODR)	Referral Ratio (ODR)		Risk Ratio (ODR)	Diff in Student Composition (ODR)	Diff in Referral Comp		
Active IEP	32,802	4,181	14,173	15.4%	20.0%	1.67	0.43	1.37	4.6	7.9	23.3%	12.7%
General Education	179,645	16,691	46,565	84.6%	80.0%	0.60	0.26	0.73	-4.6	-7.9	76.7%	9.3%
<b>Total</b>	<b>212,447</b>	<b>20,872</b>	<b>60,738</b>	<b>100.0%</b>	<b>100.0%</b>		<b>0.29</b>		<b>0.0</b>	<b>0.0</b>	<b>100.0%</b>	<b>9.8%</b>

## ESE Risk Gap - Out of School Suspensions (OSS)

**Guiding Question 3:**  
How much of your target group is affected by disproportionate discipline?

IEP Status	Enrollment Count	Students with OSS Incidents	OSS Incident Count	Guiding Question 1: Are outcomes equitable for all student groups?			Referral Rate (OSS)	Guiding Question 2: How big are the disparities?			OSS Composition	Risk (OSS)
				% Enrollment	Student Composition % (OSS)	Referral Ratio (OSS)		Risk Ratio (OSS)	Diff in Student Composition (OSS)	Diff in OSS Comp		
Active IEP	32,802	1,788	2,923	15.4%	23.9%	1.93	0.09	1.72	8.43	10.60	26.0%	5.5%
General Education	179,645	5,702	8,302	84.6%	76.1%	0.52	0.05	0.58	-8.43	-10.60	74.0%	3.2%
<b>Total</b>	<b>212,447</b>	<b>7,490</b>	<b>11,225</b>	<b>100.0%</b>	<b>100.0%</b>		<b>0.05</b>		<b>0.00</b>	<b>0.00</b>	<b>100.0%</b>	<b>3.5%</b>

# Solution Overview



# Solution Overview



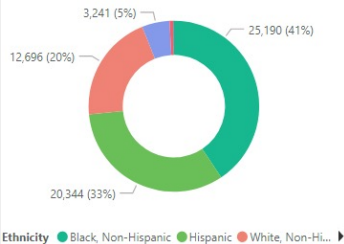
## Discipline Assignment By Staff

Referrals By Staff		
Referral Creator	School Name	Incident Count
	Freedom High School	1,316
	Freedom High School	785
	Bloomington High School	696
	Jefferson High School	605
	Wharton High School	597
	Sickles High School	573
	Plant High School	465
	Hillsborough High School	437
	Alonso High School	404
<b>Total</b>		<b>61,976</b>

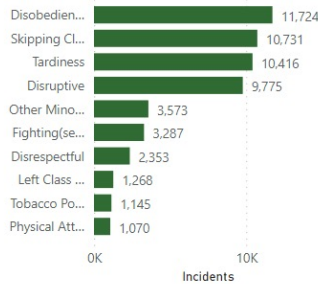
Discipline Actions By Staff		
Assigning Admin	School Name	Incident Count
	Freedom High School	1,674
	Freedom High School	1,250
	Bloomington High School	1,015
	Jefferson High School	985
	Wharton High School	979
	Greco Middle Magnet School	799
	Blake High School	763
	Marshall Middle Magnet School	742
	Hillsborough High School	718
<b>Total</b>		<b>61,976</b>

- Current School
- All
- Occurred At School
- All
- School Type
- All
- Grade Level
- All
- Instruction Type
- All
- Ethnicity
- All
- Primary Exceptionality
- All
- IEP Status
- All
- 504 Eligibility
- All
- FRL Status
- All
- Gender
- All
- Incident Type
- All

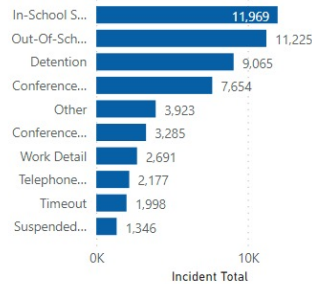
Incidents By Ethnicity



Incident Type



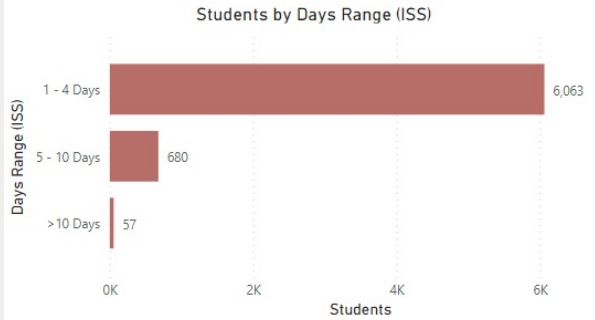
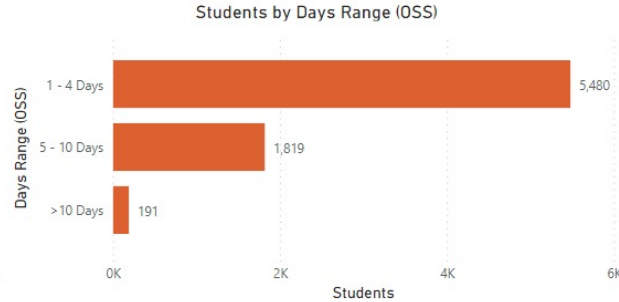
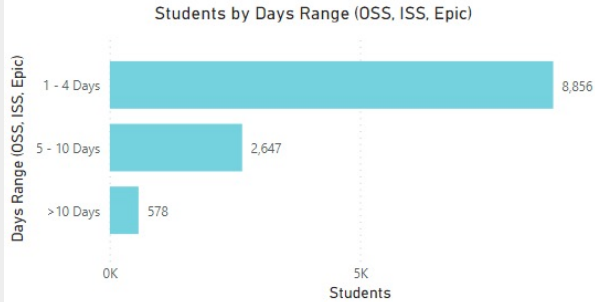
Discipline Action



# Solution Overview



## Student Suspension Summary



Students w/ >= 5 Days Suspension Alert

Student	District #	School Enrolled	5 Susp. Date	Total Duration - Suspensions	Total Incidents
	6852314	Webb Middle School	05/28/2021	5	1
	5738183	Webb Middle School	05/28/2021	5	1
	7382238	Winthrop Charter School	05/28/2021	5	3
	5639886	Farnell Middle School	05/27/2021	5	5
	4302700	Freedom High School	05/27/2021	5	8
	5261863	Mulrennan Middle School	05/27/2021	5	2
	6177449	Kimbell Elementary	05/26/2021	6	3
	5688420	Literacy Leadership Tech Acad	05/26/2021	5	4
	6354279	Mann Middle School	05/26/2021	5	5
	5382503	Marshall Middle Magnet	05/26/2021	6	5
<b>Total</b>				<b>25,652</b>	<b>23,165</b>

- Current School
- All
- School Type
- All
- Grade Level
- All
- Ethnicity
- All
- Primary Exceptionality
- All
- IEP Status
- All
- 504 Eligibility
- All
- FRL Status
- All

Data Refreshed from IPT as of: 6/5/2021 6:48:17 AM

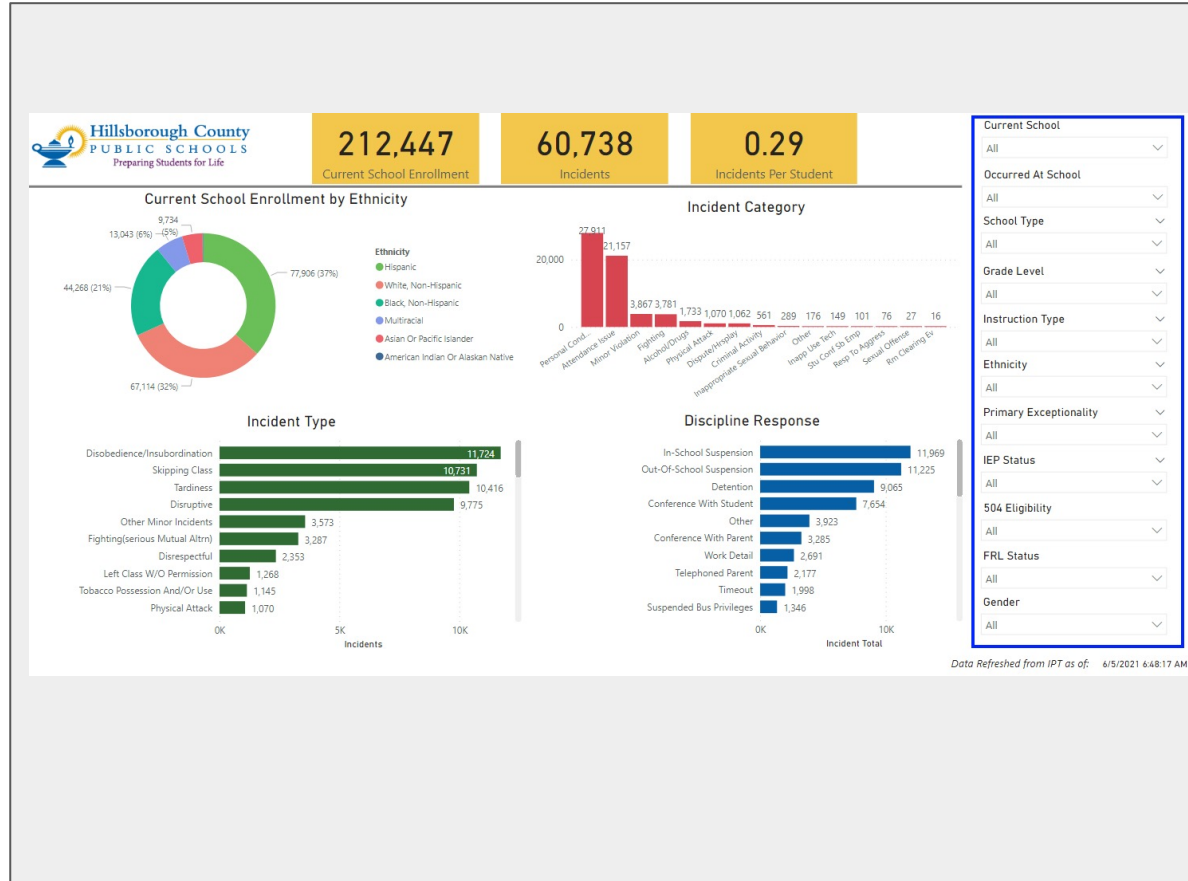


# Power BI Tips & Tricks

How did we make these dashboard screens work so well together?

# Optional Prompts

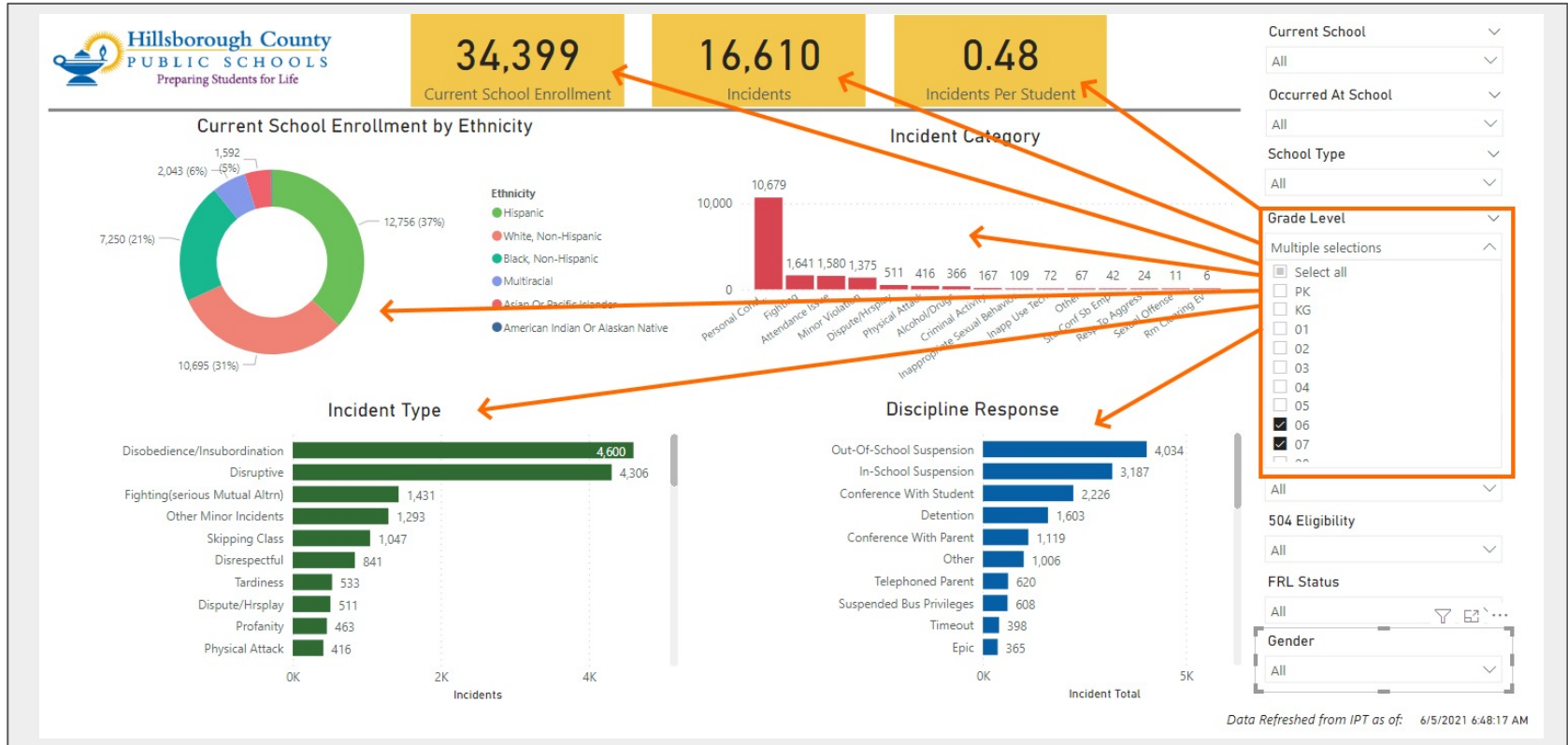
- Allow users to slice and dice data in their preferred way
- Does not have to be a field that is showing in a visualization to use as a filter



# Optional Prompts



# Optional Prompts

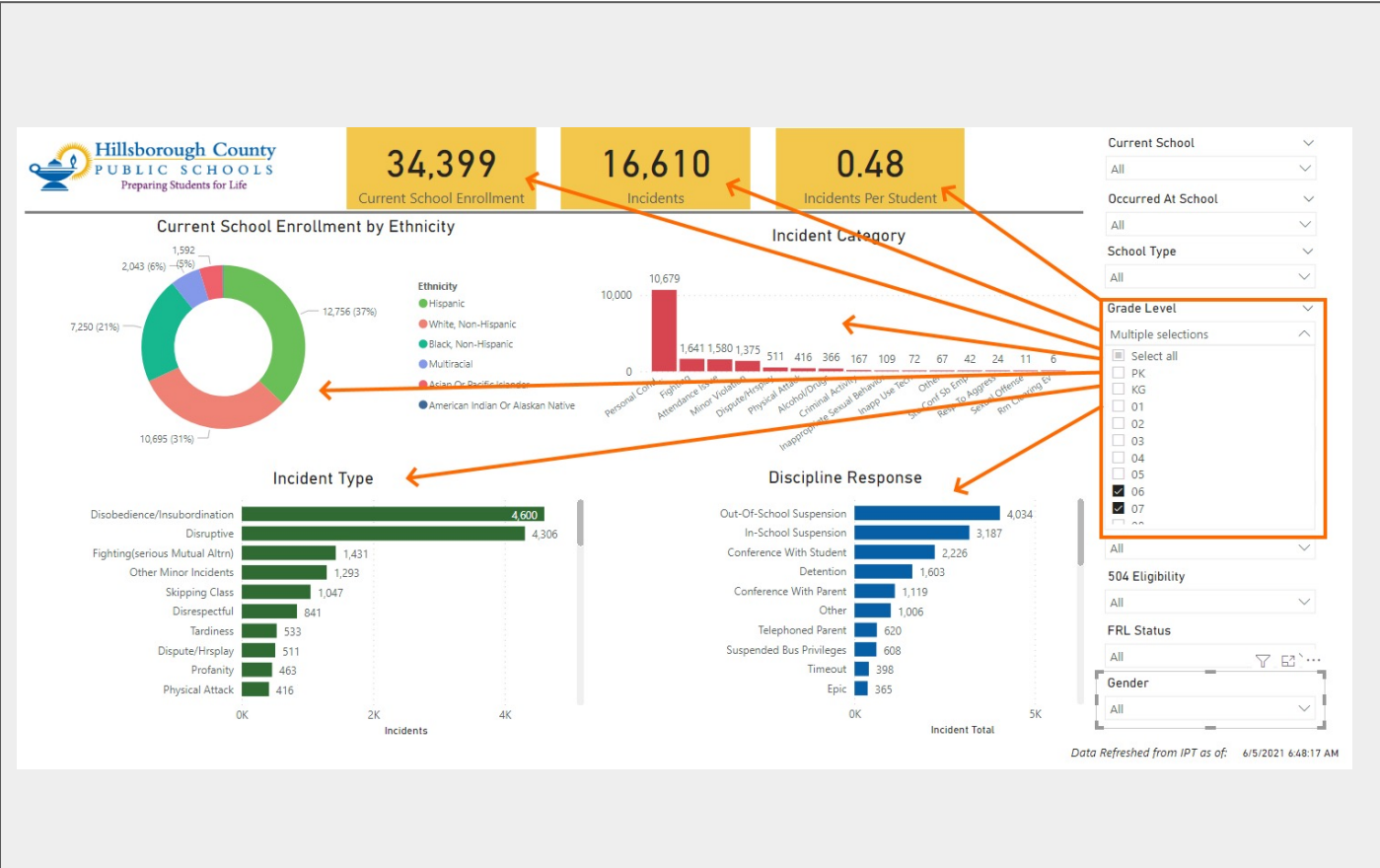


# Visual Interactions

- Power BI sets every visual on a single report page to interact with each other by default
- Using a visualization to filter other visualizations is an intuitive and powerful way to uncover potential correlations

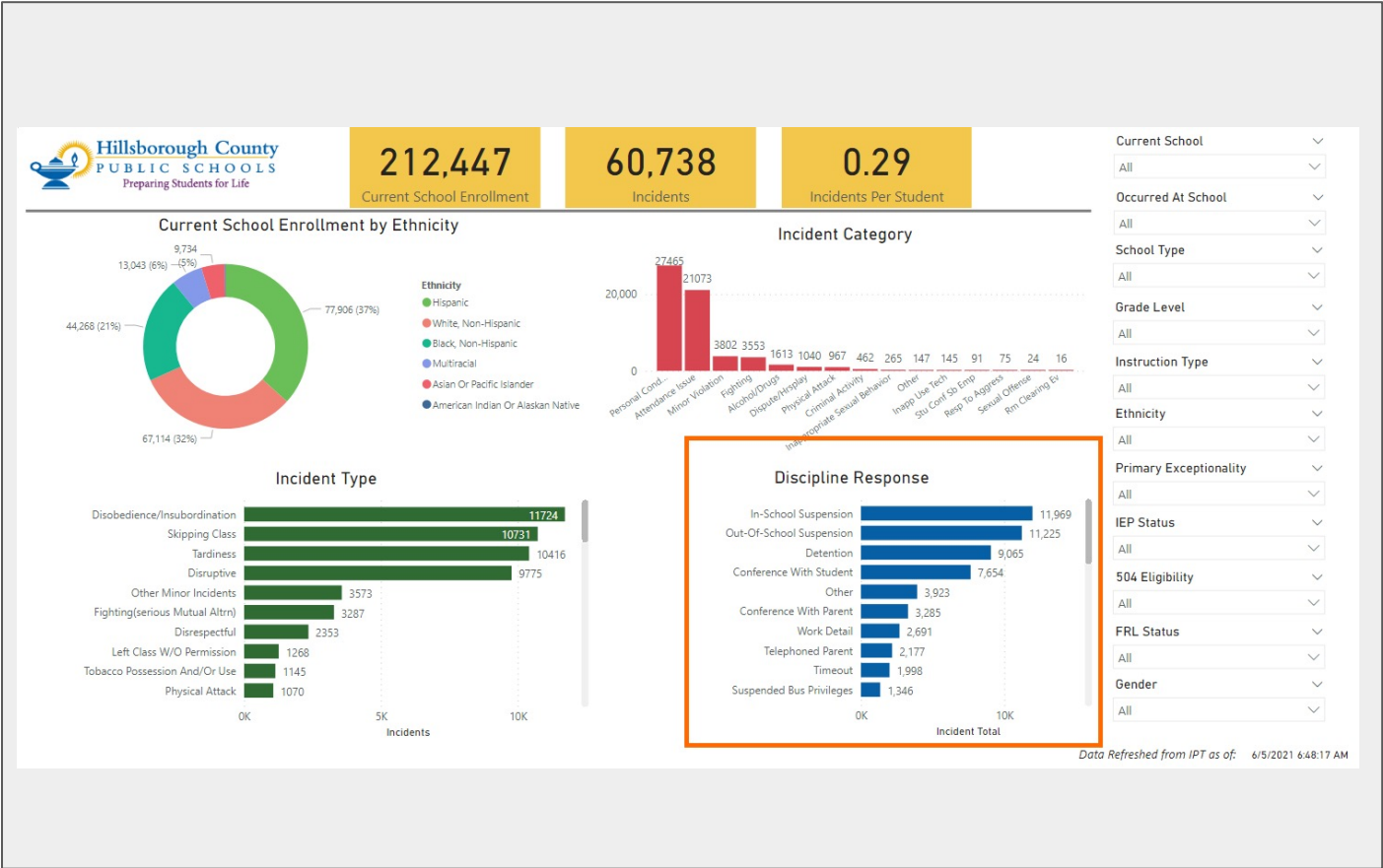
# Visual Interactions

- Example of an optional prompt affecting all the other objects on the page



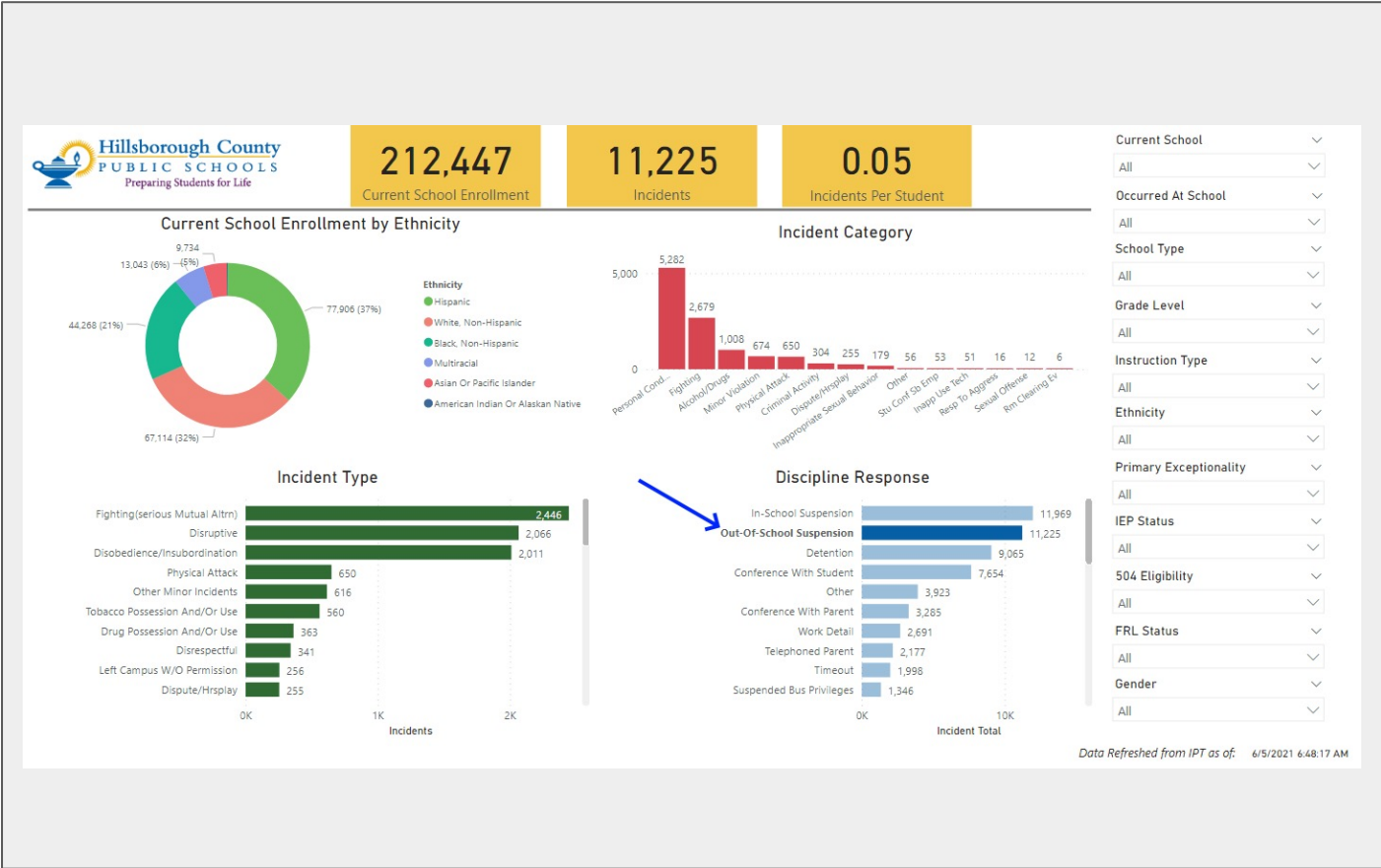
# Visual Interactions

- Example where one chart affects some of the other objects, but not everything



# Visual Interactions

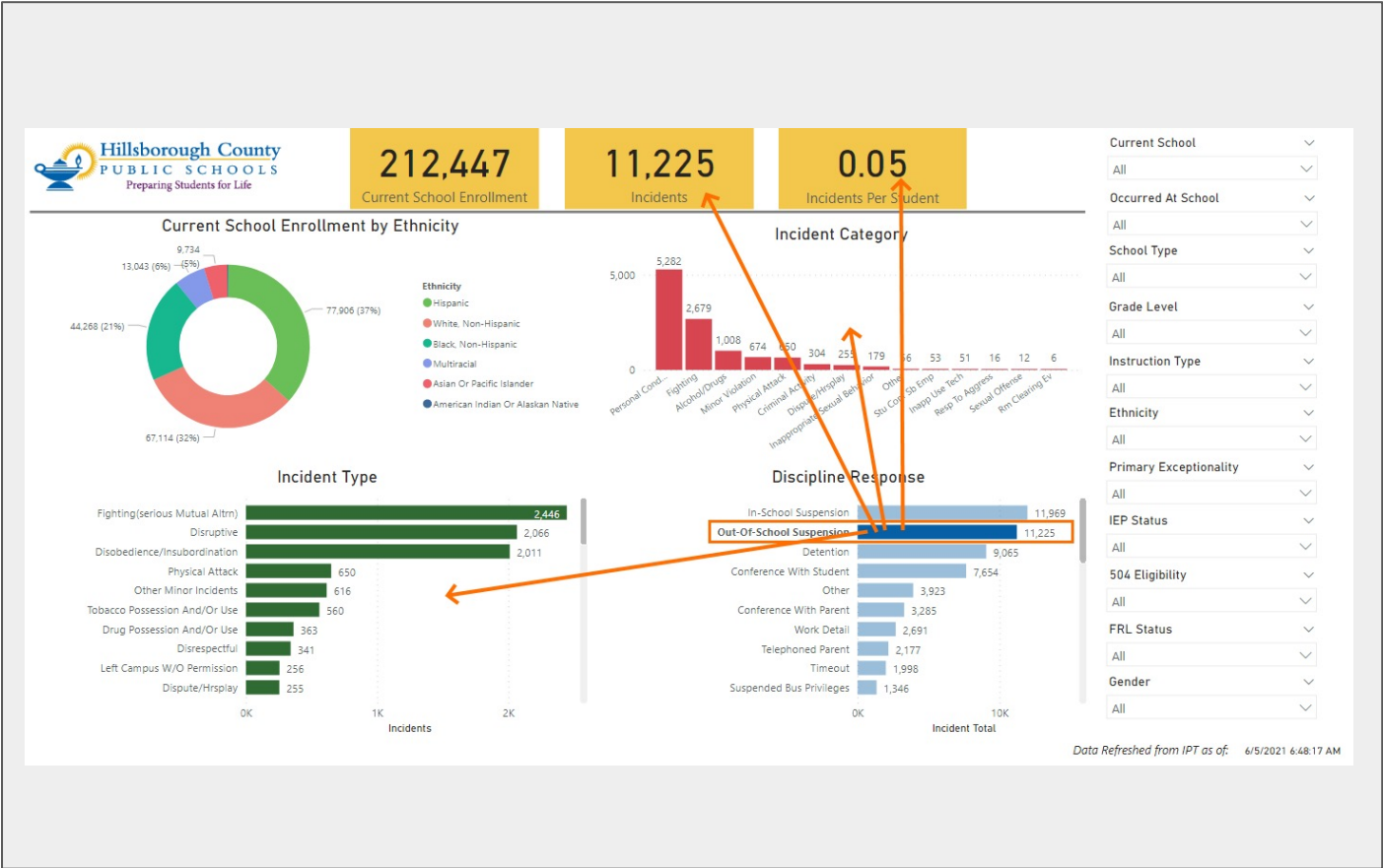
- Example where one chart affects some of the other objects, but not everything





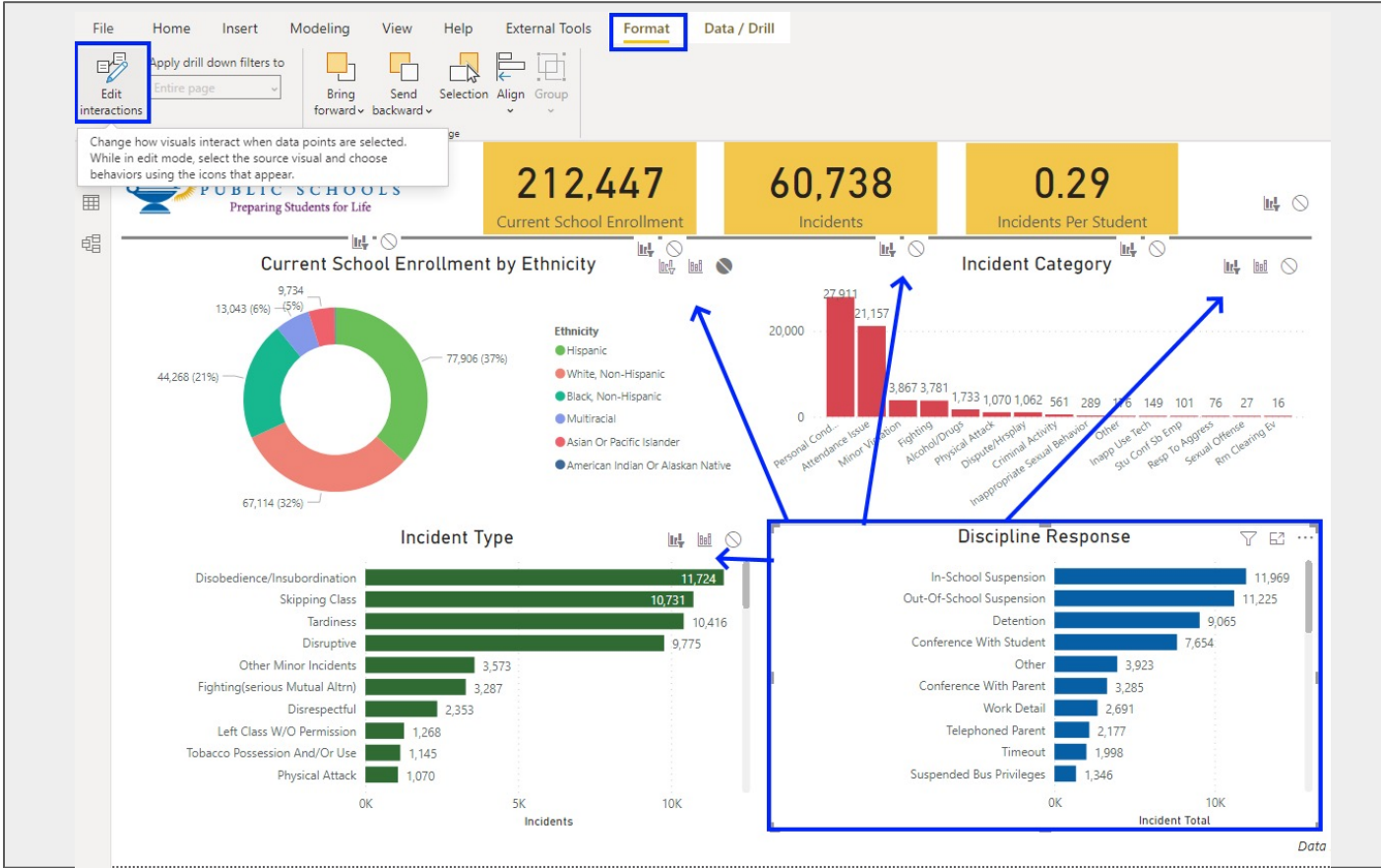
# Visual Interactions

- Example where one chart affects some of the other objects, but not everything



# Visual Interactions

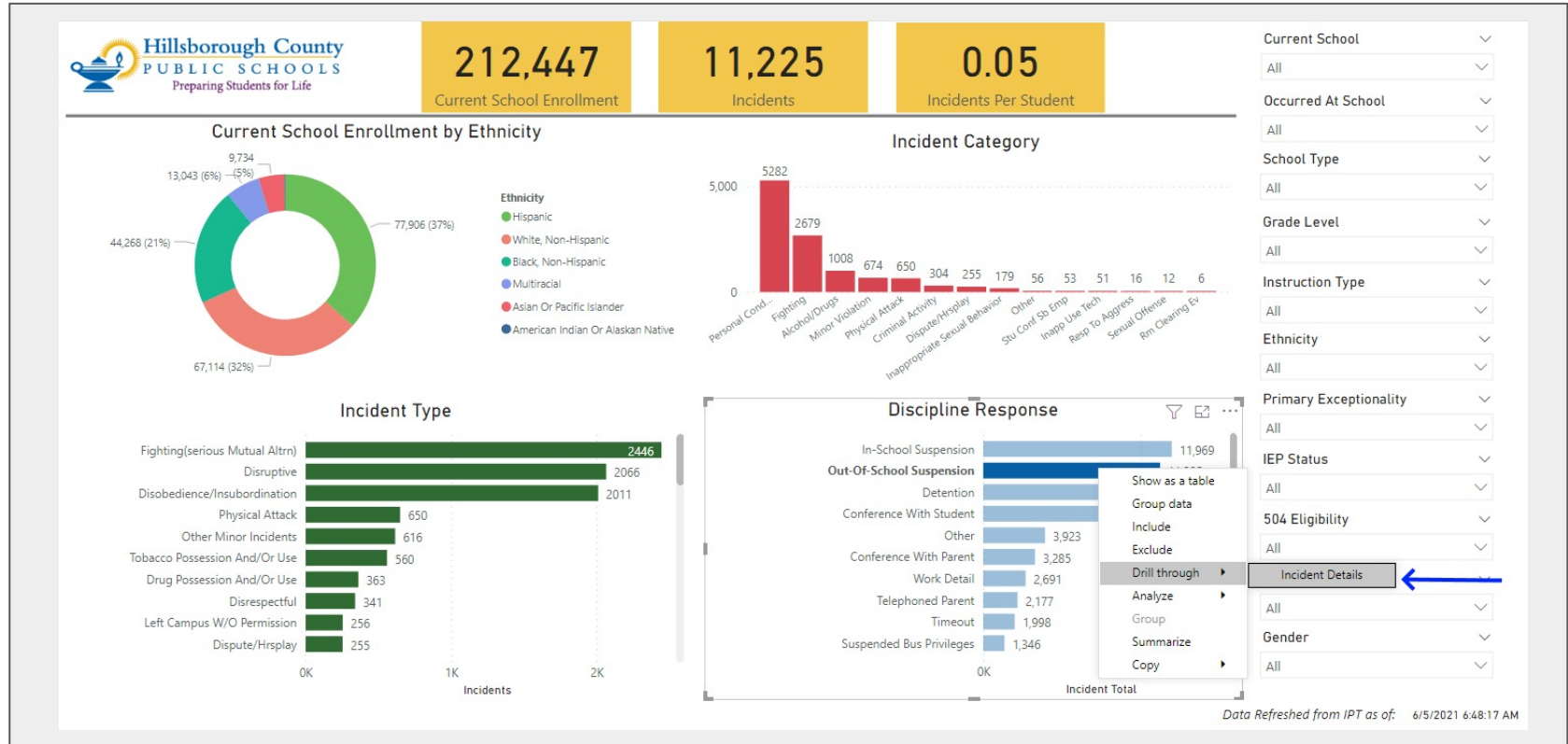
- Edit interactions button is under the Format menu
- Shows how the selected object (Bottom right chart) will affect each visual




# Drill Through Capabilities

- Drill through: a visualization that allows the user to navigate to another report page to see additional details
- Allowing for drill through activity empowers end user to answer their next question about the data
  - Who are the 10 students behind this bar in the chart?
  - The chart shows ISS as the most common response, but I'd like to see the details behind the chart and look for patterns.

# Drill Through Capabilities



# Drill Through Capabilities



## Incident Detail

**11,225**  
Incidents


**11,225**  
Discipline Responses

Student	District #	School Enrolled	School Occurred	Incident Date	Incident Number	Category	Reason	Response	Duration	Refers
				01/19/2021	25590	Fighting	Fighting(serious Mutual Altrn)	Out-Of-School Suspension	5	Jone
				11/09/2020	13275	Physical Attack	Physical Attack	Out-Of-School Suspension	2	Jone
				09/11/2020	612	Personal Conduct	Disruptive	Out-Of-School Suspension	1	Jone
				09/29/2020	3096	Personal Conduct	Profanity	Out-Of-School Suspension	2	Holl
				10/06/2020	4837	Physical Attack	Physical Attack	Out-Of-School Suspension	3	Jone
				09/09/2020	388	Fighting	Fighting(serious Mutual Altrn)	Out-Of-School Suspension	3	Jone
				09/28/2020	2793	Fighting	Fighting(serious Mutual Altrn)	Out-Of-School Suspension	4	Jone
				01/28/2021	28631	Fighting	Fighting(serious Mutual Altrn)	Out-Of-School Suspension	5	Stan
				10/27/2020	10064	Inappropriate Sexual Behavior	Inappropriate Sexual Behavior	Out-Of-School Suspension	3	Stan
				11/05/2020	12400	Personal Conduct	Disruptive	Out-Of-School Suspension	1	Jone
				12/11/2020	19623	Personal Conduct	Disruptive	Out-Of-School Suspension	1	Jone
				12/11/2020	19757	Physical Attack	Physical Attack	Out-Of-School Suspension	5	Stan
				10/29/2020	10647	Personal Conduct	Disobedience/Insubordination	Out-Of-School Suspension	1	Stan
				11/17/2020	14447	Personal Conduct	Disobedience/Insubordination	Out-Of-School Suspension	1	Jone
				12/01/2020	17260	Personal Conduct	Disobedience/Insubordination	Out-Of-School Suspension	2	Stan
				12/15/2020	20625	Personal Conduct	Disobedience/Insubordination	Out-Of-School Suspension	1	Jone
				01/06/2021	22984	Personal Conduct	Disobedience/Insubordination	Out-Of-School Suspension	2	Jone
				01/12/2021	24433	Personal Conduct	Disobedience/Insubordination	Out-Of-School Suspension	2	Jone
				11/05/2020	12165	Personal Conduct	Disrespectful	Out-Of-School Suspension	1	Mill
				01/20/2021	25719	Fighting	Fighting(serious Mutual Altrn)	Out-Of-School Suspension	2	Jone
				03/02/2021	41413	Fighting	Fighting(serious Mutual Altrn)	Out-Of-School Suspension	3	Hall,
				12/10/2020	19379	Personal Conduct	Disruptive	Out-Of-School Suspension	1	Jone
				01/08/2021	23619	Personal Conduct	Disruptive	Out-Of-School Suspension	1	Jone
				02/02/2021	30114	Physical Attack	Physical Attack	Out-Of-School Suspension	5	Jone
				12/11/2020	19697	Personal Conduct	Disobedience/Insubordination	Out-Of-School Suspension	2	Holl
				04/12/2021	52655	Alcohol/Drugs	Drug Possession And/Or Use	Out-Of-School Suspension	5	Berr,
				05/11/2021	64449	Alcohol/Drugs	Drug Possession And/Or Use	Out-Of-School Suspension	3	Jone
<b>Total</b>									<b>25,478</b>	

Ctrl + click to reset filters  
**Applied Filters:**  
 All  
 Filter: Category  
 All  
 Filter: Reason  
 Out-Of-School Suspension  
 Filter: Response

Data Refreshed from IPT as of: 6/5/2021 6:48:17 AM

# Drill Through Capabilities – Export Details



## Incident Detail

11,225  
Incidents

11,225  
Discipline Responses

Student	District #	School Enrolled	School Occurred	Incident Date	Incident Number	Category	Reason	Response	Du
				01/19/2021	25590	Fighting	Fighting(serious Mutual Altrn)	Out-Of-School Suspension	
				11/09/2020	13275	Physical Attack	Physical Attack	Out-Of-School Suspension	
				09/11/2020	612	Personal Conduct	Disruptive	Out-Of-School Suspension	
				09/29/2020	3096	Personal Conduct	Profanity	Out-Of-School Suspension	
				10/06/2020	4837	Physical Attack	Physical Attack	Out-Of-School Suspension	
				09/09/2020	388	Fighting	Fighting(serious Mutual Altrn)	Out-Of-School Suspension	
				09/28/2020	2793	Fighting	Fighting(serious Mutual Altrn)	Out-Of-School Suspension	
				01/28/2021	28631	Fighting	Fighting(serious Mutual Altrn)	Out-Of-School Suspension	
				10/27/2020	10064	Inappropriate Sexual Behavior	Inappropriate Sexual Behavior	Out-Of-School Suspension	3 Stan
				11/05/2020	12400	Personal Conduct	Disruptive	Out-Of-School Suspension	1 Jone
				12/11/2020	19623	Personal Conduct	Disruptive	Out-Of-School Suspension	1 Jone
				12/11/2020	19757	Physical Attack	Physical Attack	Out-Of-School Suspension	5 Stan
				10/29/2020	10647	Personal Conduct	Disobedience/Insubordination	Out-Of-School Suspension	1 Jone
				11/17/2020	14447	Personal Conduct	Disobedience/Insubordination	Out-Of-School Suspension	1 Jone
				12/01/2020	17260	Personal Conduct	Disobedience/Insubordination	Out-Of-School Suspension	2 Stan
				12/15/2020	20625	Personal Conduct	Disobedience/Insubordination	Out-Of-School Suspension	1 Jone
				01/06/2021	22984	Personal Conduct	Disobedience/Insubordination	Out-Of-School Suspension	2 Jone
				01/12/2021	24433	Personal Conduct	Disobedience/Insubordination	Out-Of-School Suspension	2 Jone
				11/05/2020	12165	Personal Conduct	Disrespectful	Out-Of-School Suspension	1 Milk
				01/20/2021	25719	Fighting	Fighting(serious Mutual Altrn)	Out-Of-School Suspension	2 Jone
				03/02/2021	41413	Fighting	Fighting(serious Mutual Altrn)	Out-Of-School Suspension	3 Hall
				12/10/2020	19379	Personal Conduct	Disruptive	Out-Of-School Suspension	1 Jone
				01/08/2021	23619	Personal Conduct	Disruptive	Out-Of-School Suspension	1 Jone
				02/02/2021	30114	Physical Attack	Physical Attack	Out-Of-School Suspension	5 Jone
				12/11/2020	19697	Personal Conduct	Disobedience/Insubordination	Out-Of-School Suspension	2 Holl
				04/12/2021	52655	Alcohol/Drugs	Drug Possession And/Or Use	Out-Of-School Suspension	5 Berr
				05/11/2021	64449	Alcohol/Drugs	Drug Possession And/Or Use	Out-Of-School Suspension	3 Jone
<b>Total</b>									<b>25,478</b>

Data Refreshed from IPT as of: 6/5/2021 6:48:17 AM

Export data
Excel

Show as a table

Remove

Automatically find clusters

Spotlight

Sort descending

Sort ascending

Sort by

All

Category

Reason

Response

Ctrl + click to reset filters

**Applied Filters:**

All

Filter: Category

All

Filter: Reason

Out-Of-School Suspension

Filter: Response

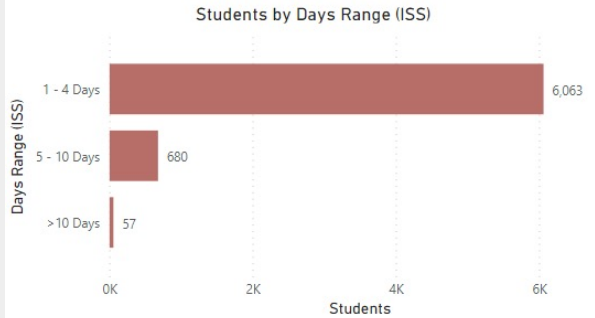
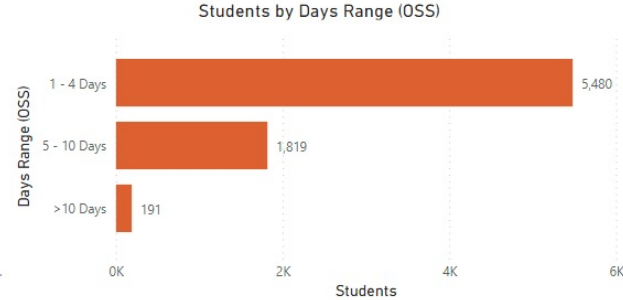
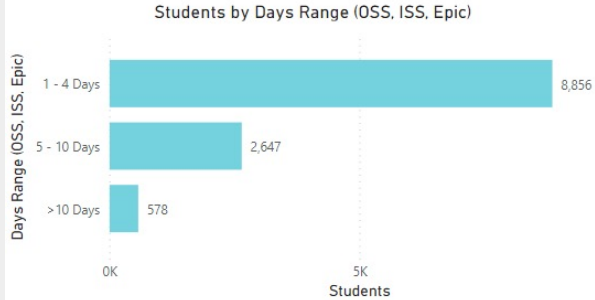
Export data

Excel

# Drill Through Capabilities



## Student Suspension Summary



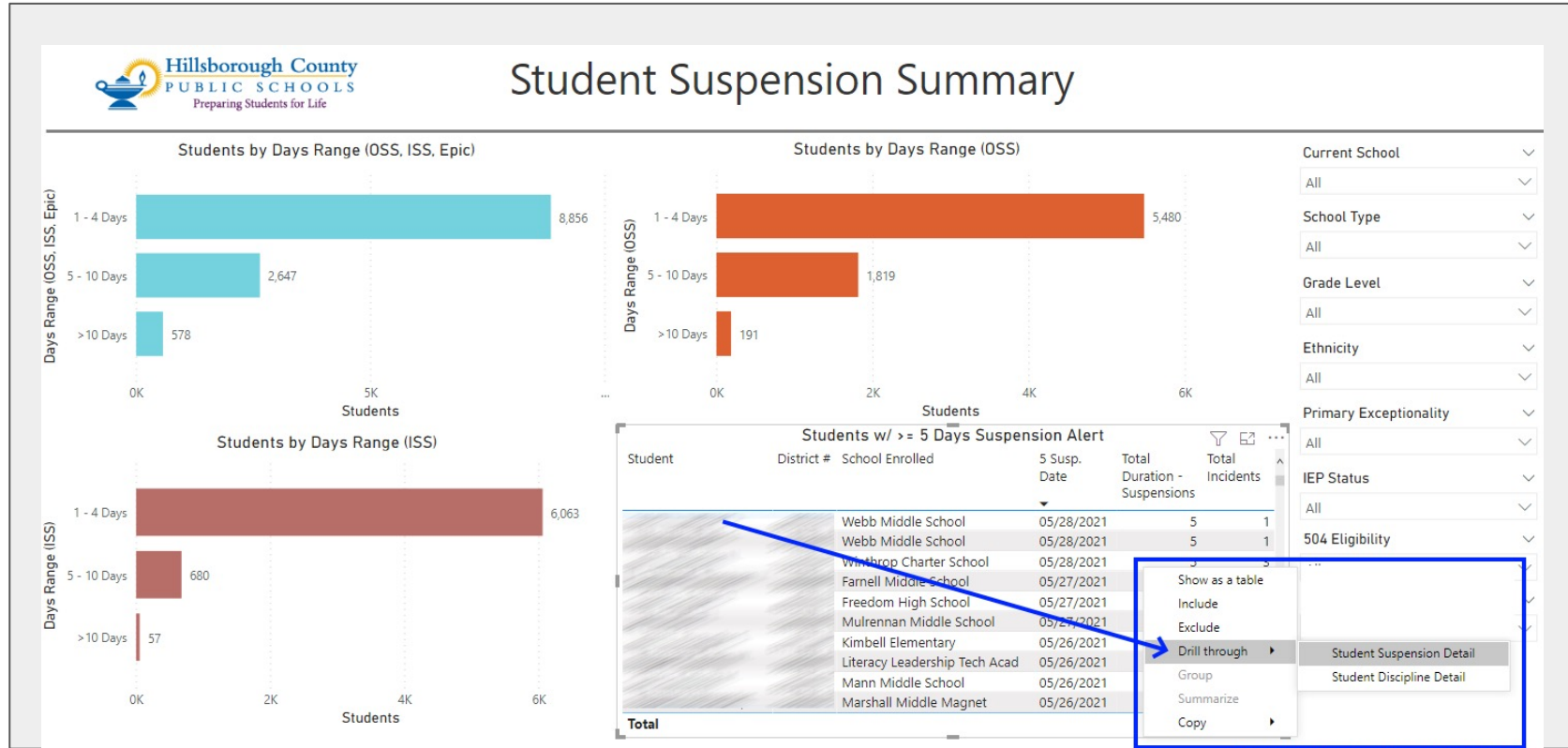
Students w/ >= 5 Days Suspension Alert

Student	District #	School Enrolled	5 Susp. Date	Total Duration - Suspensions	Total Incidents
		Webb Middle School	05/28/2021	5	1
		Webb Middle School	05/28/2021	5	1
		Winthrop Charter School	05/28/2021	5	3
		Farnell Middle School	05/27/2021	5	5
		Freedom High School	05/27/2021	5	8
		Mulrennan Middle School	05/27/2021	5	2
		Kimbell Elementary	05/26/2021	6	3
		Literacy Leadership Tech Acad	05/26/2021	5	4
		Mann Middle School	05/26/2021	5	5
		Marshall Middle Magnet	05/26/2021	6	5
<b>Total</b>				<b>25,652</b>	<b>23,165</b>

- Current School   
All
- School Type   
All
- Grade Level   
All
- Ethnicity   
All
- Primary Exceptionality   
All
- IEP Status   
All
- 504 Eligibility   
All
- FRL Status   
All

Data Refreshed from IPT as of: 6/5/2021 6:48:17 AM


# Drill Through Capabilities – Multiple Target Options



Data Refreshed from IPT as of: 6/5/2021 6:48:17 AM



# Drill Through Capabilities



## Student Discipline Detail

Student detail data will only be displayed from a drill-through from another Report Tab. Select a student on another screen, right click, select drill-through, and choose Student Discipline Detail

**Student:**  
[REDACTED]

**School Enrolled:**  
Winthrop Charter School

Incident Date	Incident Number	Student	School Occurred	Category	Reason	Response	Duration	Referral Creator	Assigning Admin	Suspension Day
04/14/2021	[REDACTED]	[REDACTED]	Winthrop Charter School	Personal Conduct	Disruptive	Out-Of-School Suspension	2	[REDACTED]	[REDACTED]	[REDACTED]
05/07/2021	[REDACTED]	[REDACTED]	Winthrop Charter School	Personal Conduct	Disruptive	Out-Of-School Suspension	2	[REDACTED]	[REDACTED]	[REDACTED]
05/28/2021	[REDACTED]	[REDACTED]	Winthrop Charter School	Personal Conduct	Disruptive	Out-Of-School Suspension	1	[REDACTED]	[REDACTED]	[REDACTED]
<b>Total</b>							<b>5</b>			

Data Refreshed from IPT as of: 6/5/2021 6:48:17 AM

# Drill Through Capabilities

- Include the field to use as the drill through item in the visualization pane on the target report
- Use that field in a visualization on a different report page, right click on the visualization to see the drill through choices
- Report pages that are drill through enabled are seen here (use good naming conventions)

The screenshot shows a Power BI Desktop window titled 'District Discipline Dashboard - IPT vSF - Power BI Desktop'. The main report is 'Student Discipline Detail' for Hillsborough County Public Schools. It displays a table of incident data with columns for Incident Date, Incident Number, Student, School Occurred, Category, Reason, Response, Duration, Referral Creator, Assigning Admin, and Sus Day. The table shows three incidents on 04/14/2021, 05/07/2021, and 05/28/2021, all at Winthrop Charter School, categorized as Personal Conduct with a Disruptive reason. The total duration is 5 days.

The 'Drill through' menu is open over the 'Student' field in the table. The menu options include: Add data fields here, Cross-report, Off, Keep all filters, Off, Student, Student Check, UniqueIncident..., UniqueIncident..., IPT Discipline Explorer, IPT Student Demo Ex..., and RiskGap. The 'Student' option is highlighted with an orange circle and an arrow.

Incident Date	Incident Number	Student	School Occurred	Category	Reason	Response	Duration	Referral Creator	Assigning Admin	Sus Day
04/14/2021			Winthrop Charter School	Personal Conduct	Disruptive	Out-Of-School Suspension	2			
05/07/2021			Winthrop Charter School	Personal Conduct	Disruptive	Out-Of-School Suspension	2			
05/28/2021			Winthrop Charter School	Personal Conduct	Disruptive	Out-Of-School Suspension	1			
<b>Total</b>							<b>5</b>			

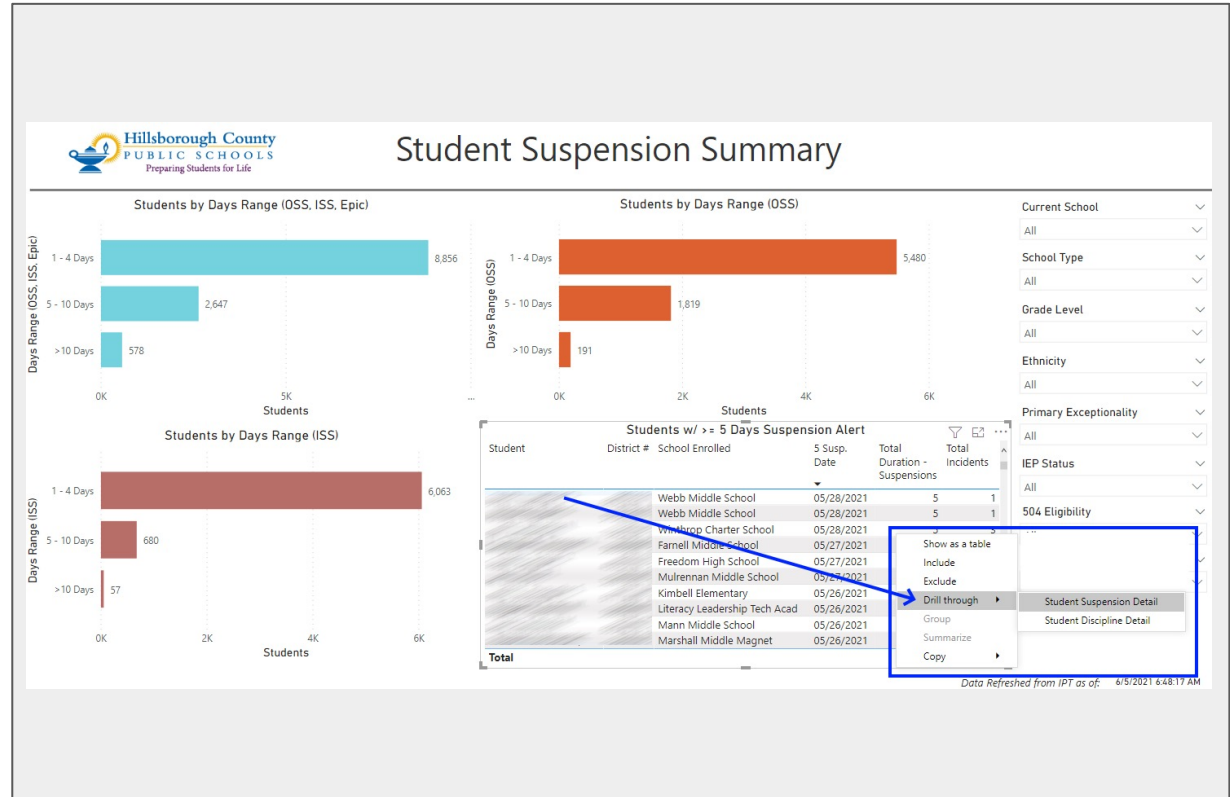
# Drill Through Capabilities

- Include the field to use as the drill through item in the visualization pane on the target report
- Use that field in a visualization on a different report page, right click on the visualization to see the drill through choices
- Report pages that are drill through enabled are seen here (use good naming conventions)

The screenshot displays the Power BI Desktop interface for a report titled "District Discipline Dashboard - IPT vSF". The "View" tab is active, and the "Data / Drill" ribbon is visible. A context menu is open over a visualization, showing options like "Show as a table", "Include", "Exclude", "Drill through", "Group", "Summarize", and "Copy". The "Drill through" option is expanded, showing "Student Suspension Detail" and "Student Discipline Detail". The "Fields" pane on the right shows the "Student" field selected in the "Values" section. The "Drill through" section is also visible, showing "Student" as the cross-report field. The bottom navigation bar shows the current page is "Student Suspension Summary" and the next page is "Student Suspension Detail".

# Drill Through Capabilities

- Include the field to use as the drill through item in the visualization pane on the target report
- Use that field in a visualization on a different report page, right click on the visualization to see the drill through choices
- Report pages that are drill through enabled are seen here (use good naming conventions)



# Using Colors to Focus Attention

- Power BI makes it easy to set background colors to help group data together
- Conditional formatting to highlight specific scenarios is a helpful way to monitor performance
  - E.g. when Risk Ratio  $\geq 3$ , red background

# Using Colors to Focus Attention

## Old version (PDF)

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
				Guiding Question 1: Are outcomes equitable for all student groups?			Guiding Question 2: How big are the disparities?				Guiding Question 3: How much of your target group is affected by discrimination?			
School Name:	Number of Students Enrolled at the School	Number of Students in Group Who Received a Referral	Total Number of Referrals from Group	Group's Percent of Student Body	Student Composition	Referral Ratio	Referral Rate	Risk Ratio	Difference in Student Composition	Difference in Referral Composition	Referral Composition	Risk		
				Group's Percent of Student Body	The ratio of the number of students in the group to the total number of students in the school.	Referral Rate for group divided by the Referral Rate for all other students. If it is equal	Total number of referrals for group divided by the number of students in that group.	Group's risk of referral compared to other students. If it is equal	Student Composition minus the Student Referral Rate.	Referral Composition minus the Percent of the Student Body.	Referral Rate for group minus the Referral Rate for all other students.	Referral Rate for group divided by the Referral Rate for all other students.		
White														
Hispanic/Latino					N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
African American/Black					N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
American Indian/Alaskan Native					N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
Asian					N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
Native Hawaiian/Pacific Islander					N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		

# Using Colors to Focus Attention

## Old version (PDF)

Guiding Question 1: Are outcomes equitable for all student groups?				Guiding Question 2: How big are the disparities?				Guiding Question 3: How much of your target group is affected by disproportionate discipline?			
School Name	Number of Students Enrolled at the School	Number of Students in Group Who Received a Referral	Total Number of Referrals from Group	Group's Percent of Student Body	Referral Rate for group	Referral Rate for all other students	Risk Ratio	Difference in Student Composition	Difference in Referral Composition	Referral Composition	Risk
White				N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Hispanic/Latino				N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
African American/Black				N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
American Indian/Alaskan Native				N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Asian				N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Native Hawaiian/Pacific Islander				N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

## New version (Power BI)

### ESE Risk Gap - Office Discipline Referrals (ODR)

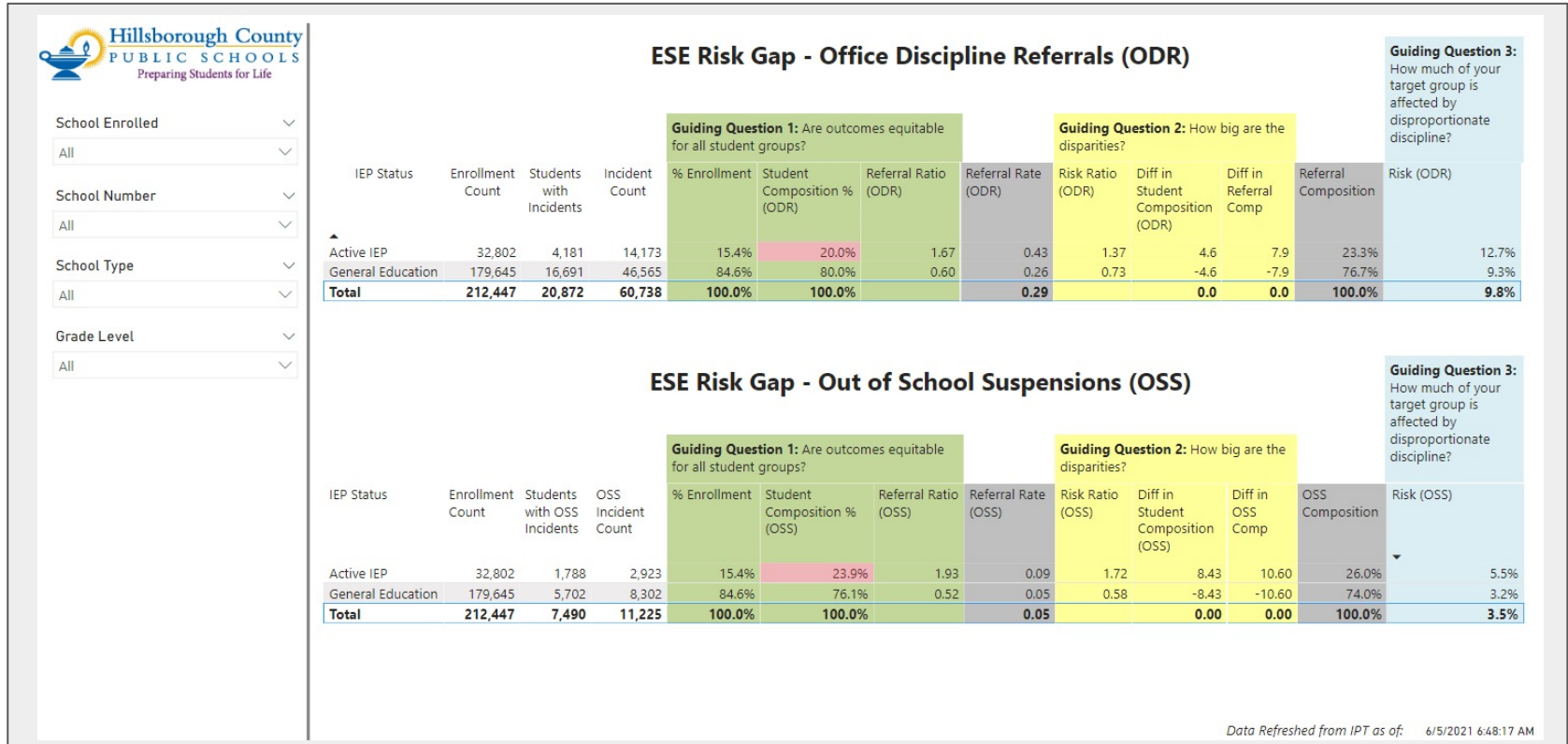
IEP Status	Enrollment Count	Students with Incidents	Incident Count	% Enrollment	Student Composition % (ODR)	Referral Ratio (ODR)	Referral Rate (ODR)	Risk Ratio (ODR)	Diff in Student Composition (ODR)	Diff in Referral Comp	Referral Composition	Risk (ODR)
Active IEP	32,802	4,181	14,173	15.4%	20.0%	1.67	0.43	1.37	4.6	7.9	23.3%	12.7%
General Education	179,645	16,691	46,565	84.6%	80.0%	0.60	0.26	0.73	-4.6	-7.9	76.7%	9.3%
<b>Total</b>	<b>212,447</b>	<b>20,872</b>	<b>60,738</b>	<b>100.0%</b>	<b>100.0%</b>		<b>0.29</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>100.0%</b>	<b>9.8%</b>

### ESE Risk Gap - Out of School Suspensions (OSS)

IEP Status	Enrollment Count	Students with OSS Incidents	OSS Incident Count	% Enrollment	Student Composition % (OSS)	Referral Ratio (OSS)	Referral Rate (OSS)	Risk Ratio (OSS)	Diff in Student Composition (OSS)	Diff in OSS Comp	OSS Composition	Risk (OSS)
Active IEP	32,802	1,788	2,923	15.4%	23.9%	1.93	0.09	1.72	8.43	10.60	26.0%	5.5%
General Education	179,645	5,702	8,302	84.6%	76.1%	0.52	0.05	0.58	-8.43	-10.60	74.0%	3.2%
<b>Total</b>	<b>212,447</b>	<b>7,490</b>	<b>11,225</b>	<b>100.0%</b>	<b>100.0%</b>		<b>0.05</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>100.0%</b>	<b>3.5%</b>

# Using Colors to Focus Attention



School Enrolled ▼

All ▼

School Number ▼

All ▼

School Type ▼

All ▼

Grade Level ▼

All ▼

## ESE Risk Gap - Out of School Suspensions (OSS)

**Guiding Question 3:**  
How much of your target group is affected by disproportionate discipline?

School Enrolled ▼

All ▼

School Number ▼

All ▼

School Type ▼

All ▼

Grade Level ▼

All ▼

**Guiding Question 1:** Are outcomes equitable for all student groups?

**Guiding Question 2:** How big are the disparities?


IEP Status	Enrollment Count	Students with OSS Incidents	OSS Incident Count	% Enrollment	Student Composition % (OSS)	Referral Ratio (OSS)	Referral Rate (OSS)	Risk Ratio (OSS)	Diff in Student Composition (OSS)	Diff in OSS Comp	OSS Composition	Risk (OSS)
Active IEP	32,802	1,788	2,923	15.4%	23.9%	1.93	0.09	1.72	8.43	10.60	26.0%	5.5%
General Education	179,645	5,702	8,302	84.6%	76.1%	0.52	0.05	0.58	-8.43	-10.60	74.0%	3.2%
<b>Total</b>	<b>212,447</b>	<b>7,490</b>	<b>11,225</b>	<b>100.0%</b>	<b>100.0%</b>		<b>0.05</b>		<b>0.00</b>	<b>0.00</b>	<b>100.0%</b>	<b>3.5%</b>

**Guiding Question 3:**  
How much of your target group is affected by disproportionate discipline?

Data Refreshed from IPT as of: 6/5/2021 6:48:17 AM



# Using Colors to Focus Attention



**Hillsborough County  
PUBLIC SCHOOLS**  
Preparing Students for Life

School Enrolled

School Number

School Type

Grade Level

## Risk Gap Projection > 10 days OSS (4A/4B)

Ethnicity	Enrollment (Overall)	Students with > 10 days OSS Duration (Overall)	Students (ESE)	Students > 10 days OSS Duration (ESE)	Students (GenEd)	Students > 10 days OSS Duration (GenEd)
American Indian Or Alaskan Native	382	0	49	0	333	0
Asian Or Pacific Islander	9,734	2	672	0	9,062	2
Black, Non-Hispanic	44,268	101	8,030	30	36,238	71
Hispanic	77,906	40	12,949	10	64,957	30
Multiracial	13,043	9	1,860	2	11,183	7
White, Non-Hispanic	67,114	39	9,242	13	57,872	26
<b>Total</b>	<b>212,447</b>	<b>191</b>	<b>32,802</b>	<b>55</b>	<b>179,645</b>	<b>136</b>

Visualizations

Filters

Field formatting

Conditional formatting

Risk Ratio (ESE) 4B

Background color

Font color

Data bars

Icons

Web URL

**Guiding Question 1:** Are outcomes equitable for all student groups?

Ethnicity	% Enrollment	% Enrollment ESE	% Enrollment GenEd	Student Composition % (> 10 Days OSS Overall)	Student Composition % (> 10 Days OSS ESE)	Student Composition % (> 10 Days OSS GenEd)	Risk Ratio (Overall)	Risk Ratio (ESE) 4B	Risk Ratio (GenEd)	Diff. in Student Composition Overall (> 10 OSS)	Diff. in Student Composition ESE (> 10 OSS)	Diff. in Student Composition GenEd (> 10 OSS)	Risk (Overall)	Risk (ESE)	Risk (GenEd)
White, Non-Hispanic	31.6%	28.2%	32.2%	20.4%	23.6%	19.1%	0.56	1.86	0.50	0.00	0.00	0.00	0.00	0.00	0.00
Multiracial	6.1%	5.7%	6.2%	4.7%	3.6%	5.1%	0.76	1.42	0.82	0.00	0.00	0.00	0.00	0.00	0.00
Hispanic	36.7%	39.5%	36.2%	20.9%	18.2%	22.1%	0.46	1.02	0.50	0.00	0.00	0.00	0.00	0.00	0.00
Black, Non-Hispanic	20.8%	24.5%	20.2%	52.9%	54.5%	52.2%	4.26	4.93	4.32	32.04	30.07	32.03	0.00	0.00	0.00
Asian Or Pacific Islander	4.6%	2.0%	5.0%	1.0%	0.0%	1.5%	0.22	0.00	0.28	0.00	0.00	0.00	0.00	0.00	0.00
American Indian Or Alaskan Native	0.2%	0.1%	0.2%	0.0%	0.0%	0.0%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>		<b>2.21</b>		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**4A Indicator**

**Guiding Question 2:** How big are the disparities?

**Guiding Question 3:** How much of your target group is affected by disproportionate discipline?

Data Refreshed from IPT as of: 6/5/2021 6:48:17 AM

# Using Colors to Focus Attention

Background color - Risk Ratio (ESE) 4B

Format by: Rules (dropdown) Apply to: Values only (dropdown)

Based on field: Risk Ratio (ESE) (dropdown)

Rules: Reverse color order (button) + New rule (button)

If value is greater than or equal to 2 Number and is less than 3 Number then [Color] (dropdown) ↑ ↓ ×

If value is greater than or equal to 3 Number and is less than 9999 Number then [Color] (dropdown) ↑ ↓ ×

Learn more (link) OK Cancel (buttons)

4A Indicator (text box)

Data Refreshed from IPT as of: 6/5/2021 6:48:17 AM

Visualizations: Risk Ratio (ESE) 4B (dropdown)

Background color: On (toggle) Advanced controls (link)

Font color: On (toggle) Advanced controls (link)

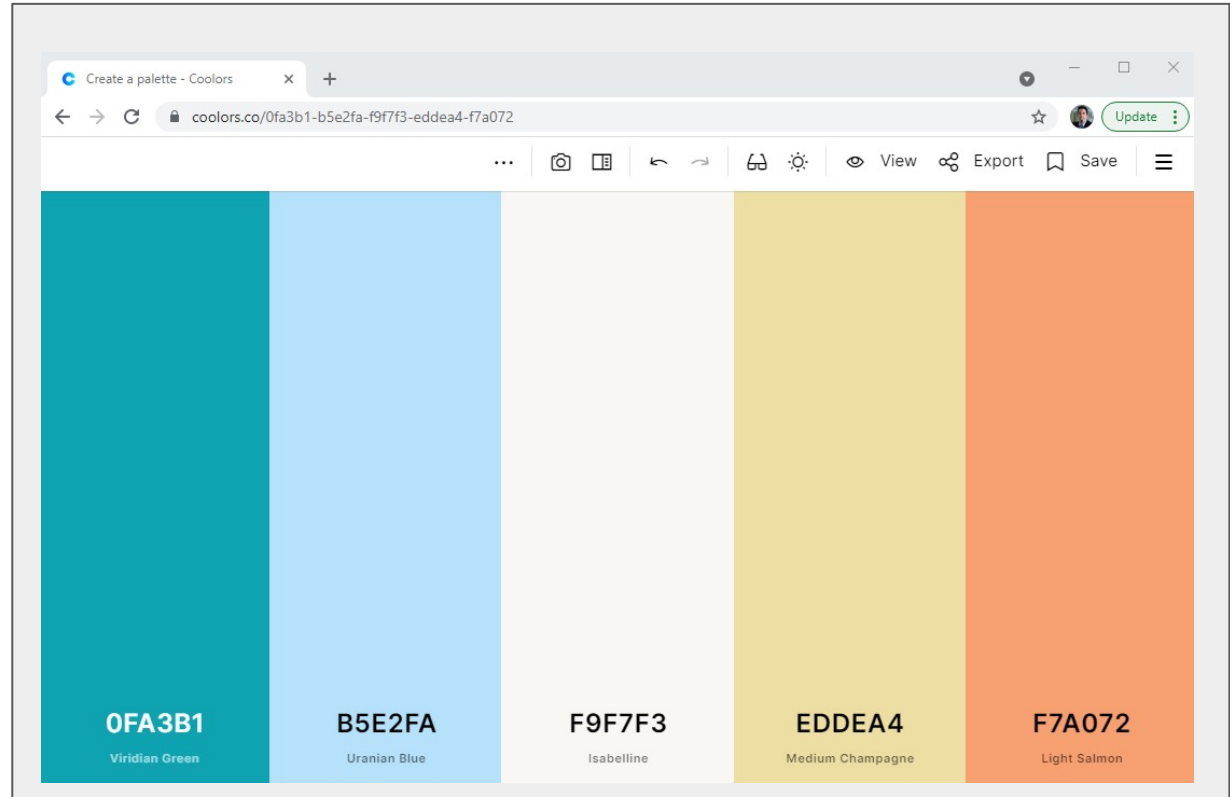
Data bars: Off (toggle)

Icons: Off (toggle)

Web URL: Off (toggle)

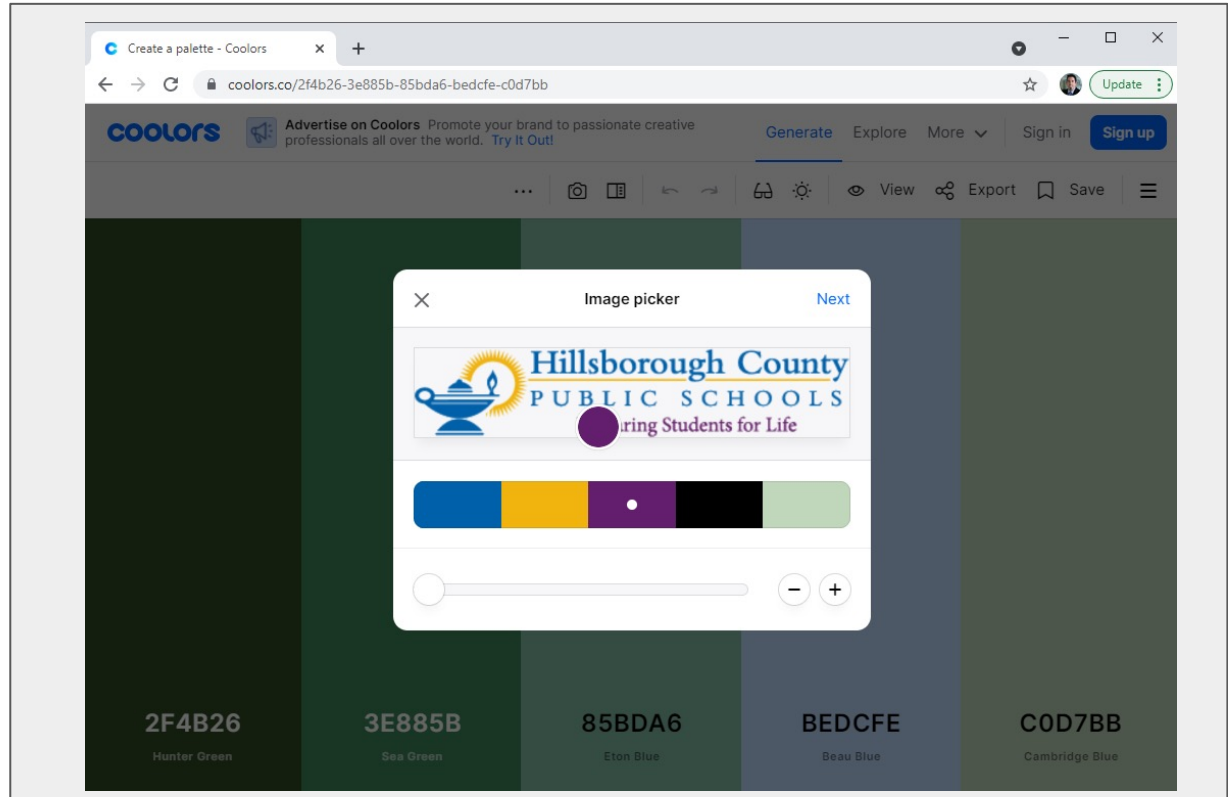
# Color Palette Picking Pro-Tip

- <https://coolors.co>
- Generates various types of complimentary colors to help fill out your palette
- Possible to use a logo or other image to choose colors



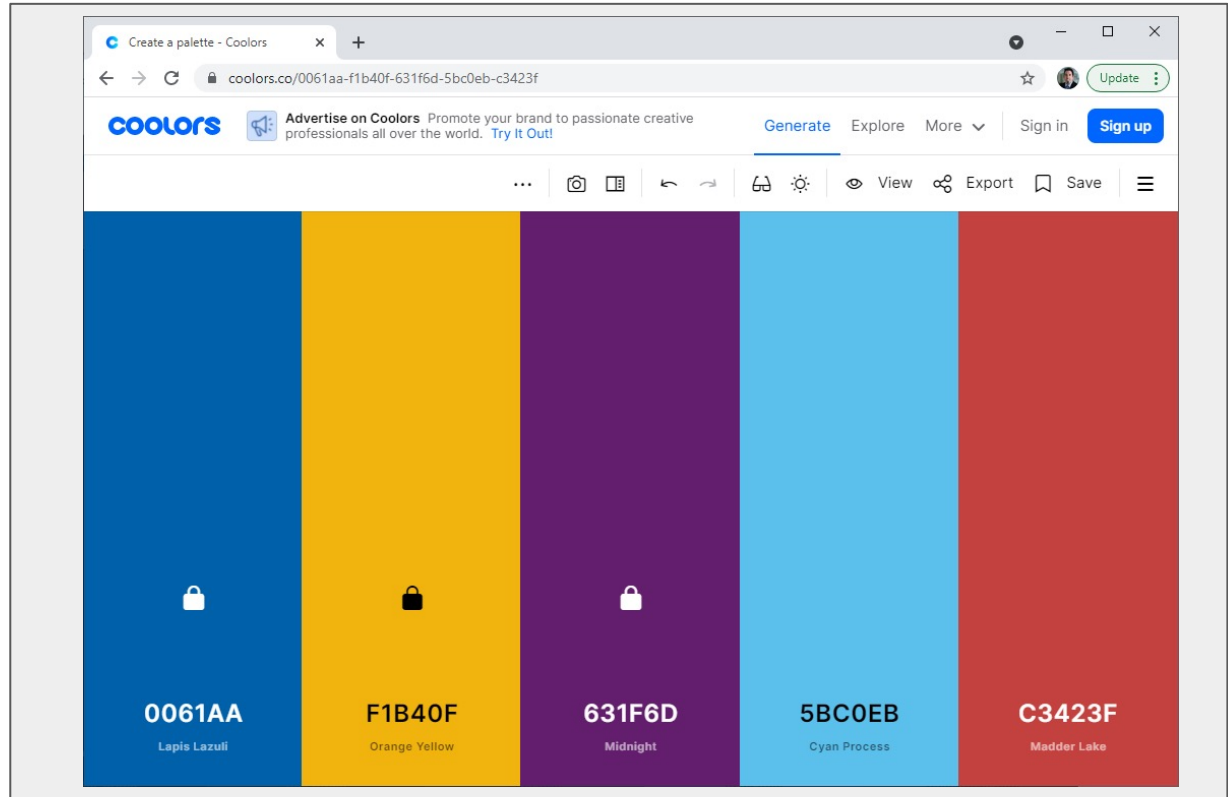
# Color Palette Picking Pro-Tip

- <https://coolors.co>
- Generates various types of complimentary colors to help fill out your palette
- Possible to use a logo or other image to choose colors



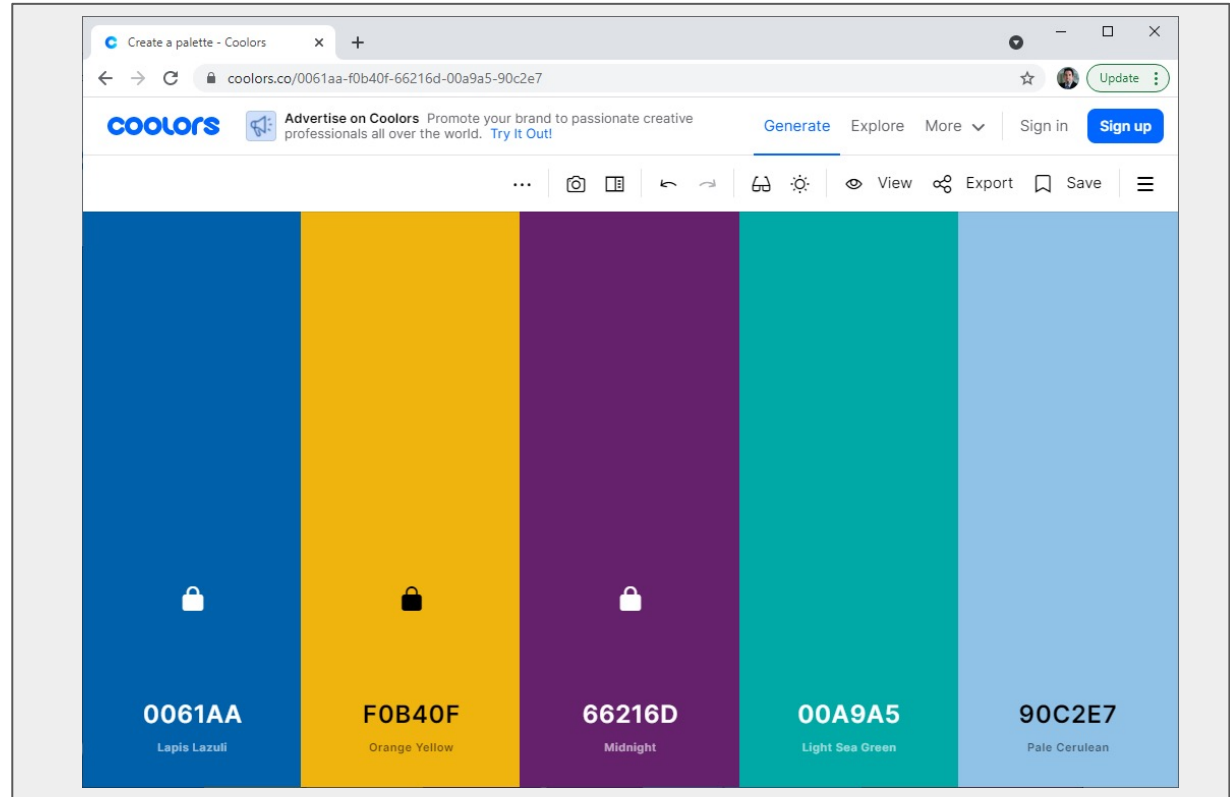
# Color Palette Picking Pro-Tip

- <https://coolors.co>
- Generates various types of complimentary colors to help fill out your palette
- Possible to use a logo or other image to choose colors



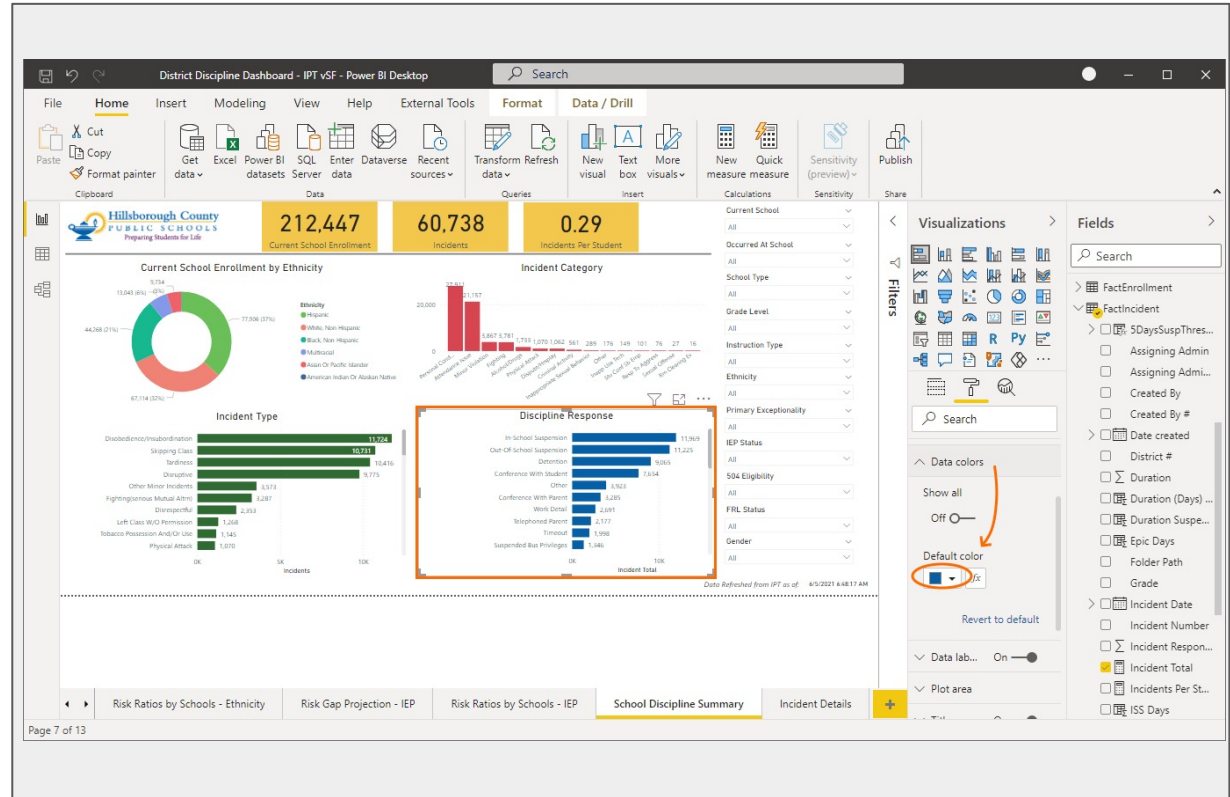
# Color Palette Picking Pro-Tip

- <https://coolors.co>
- Generates various types of complimentary colors to help fill out your palette
- Possible to use a logo or other image to choose colors



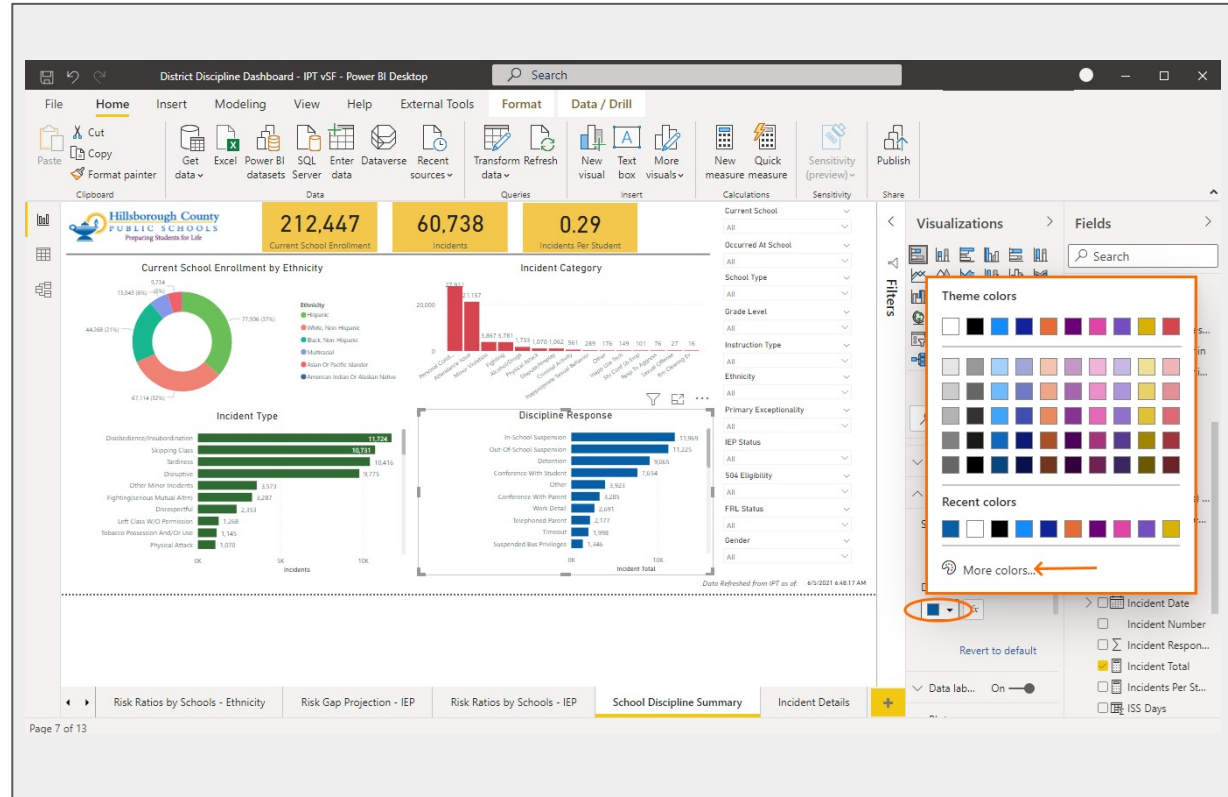
# Color Palette Picking Pro-Tip

- <https://coolers.co>
- Generates various types of complimentary colors to help fill out your palette
- Possible to use a logo or other image to choose colors



# Color Palette Picking Pro-Tip

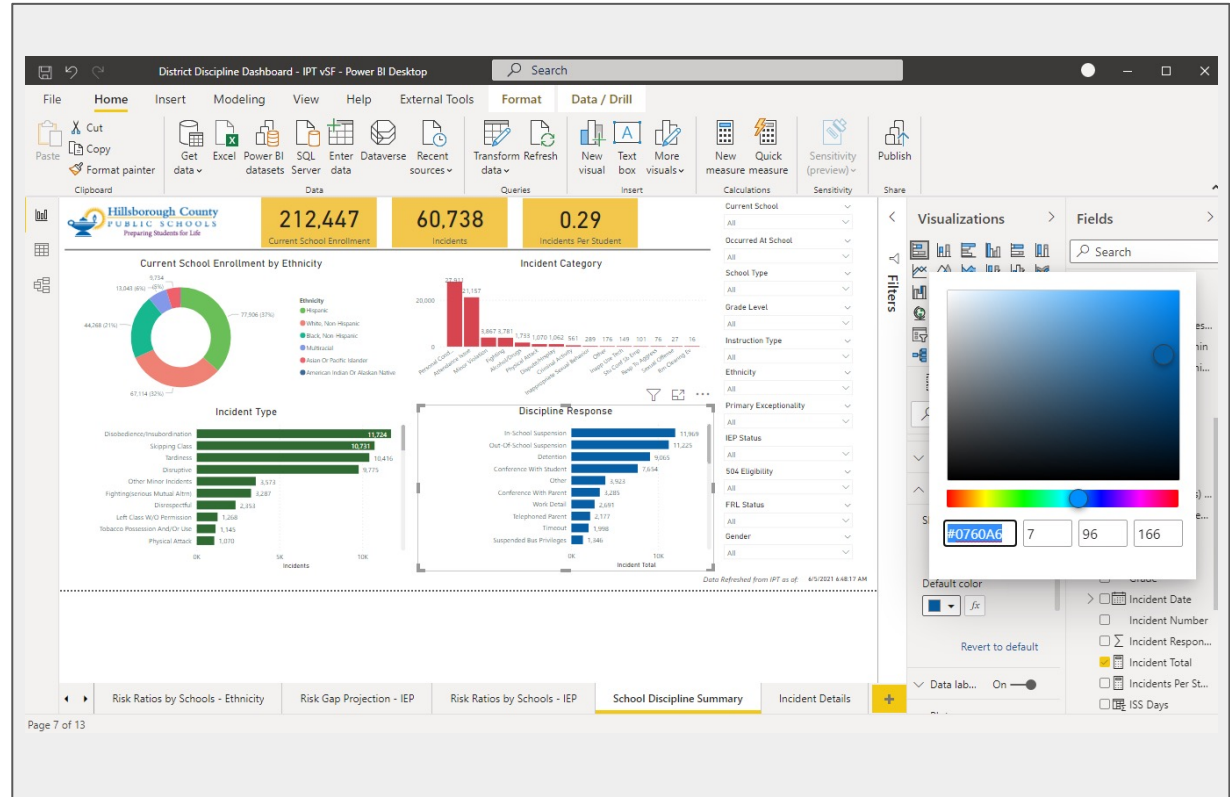
- <https://colors.co>
- Generates various types of complimentary colors to help fill out your palette
- Possible to use a logo or other image to choose colors





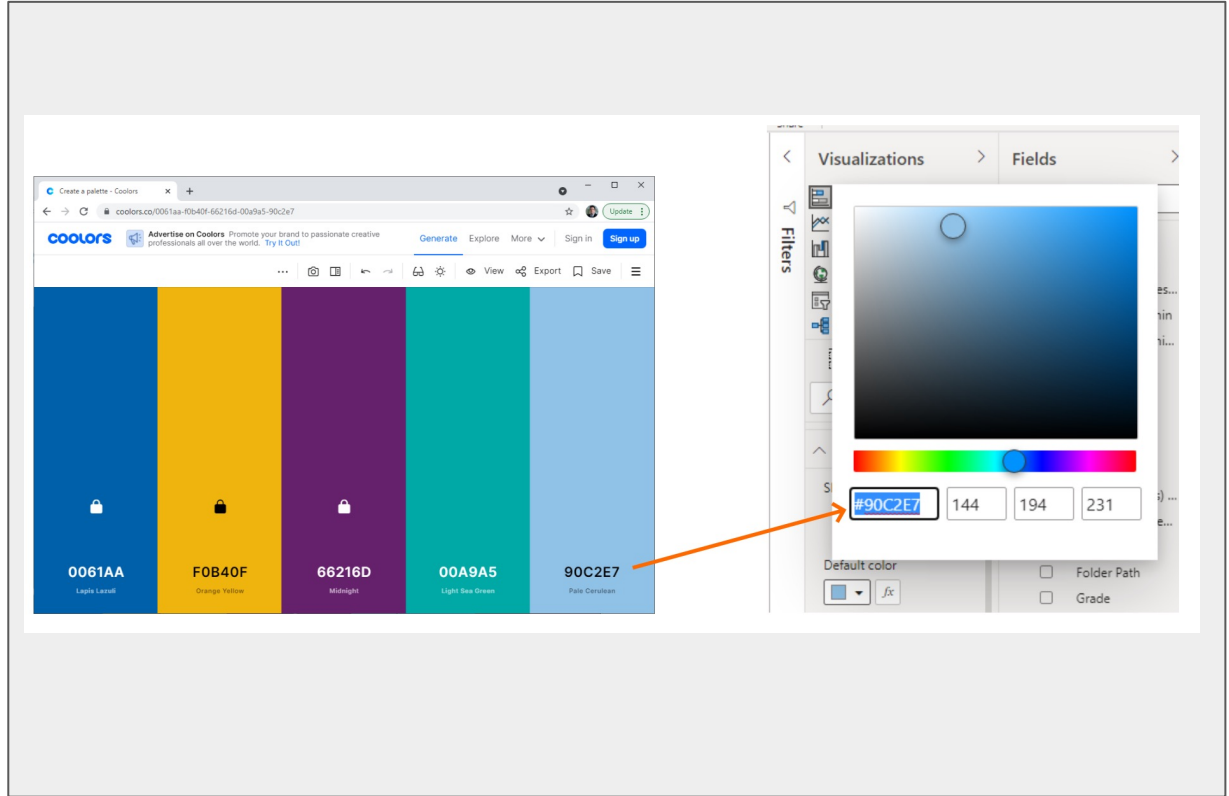
# Color Palette Picking Pro-Tip

- <https://colors.co>
- Generates various types of complimentary colors to help fill out your palette
- Possible to use a logo or other image to choose colors



# Color Palette Picking Pro-Tip

- <https://coolers.co>
- Generates various types of complimentary colors to help fill out your palette
- Possible to use a logo or other image to choose colors



# Calculation Walkthrough

- Power BI leverages DAX query language to allow for powerful and complex calculations
- Note: this approach assumes the data has already been organized and modelled in a usable way
  
- Risk Ratio (CCEIS) Calculation

**Number of students from racial/ethnic group in discipline category**

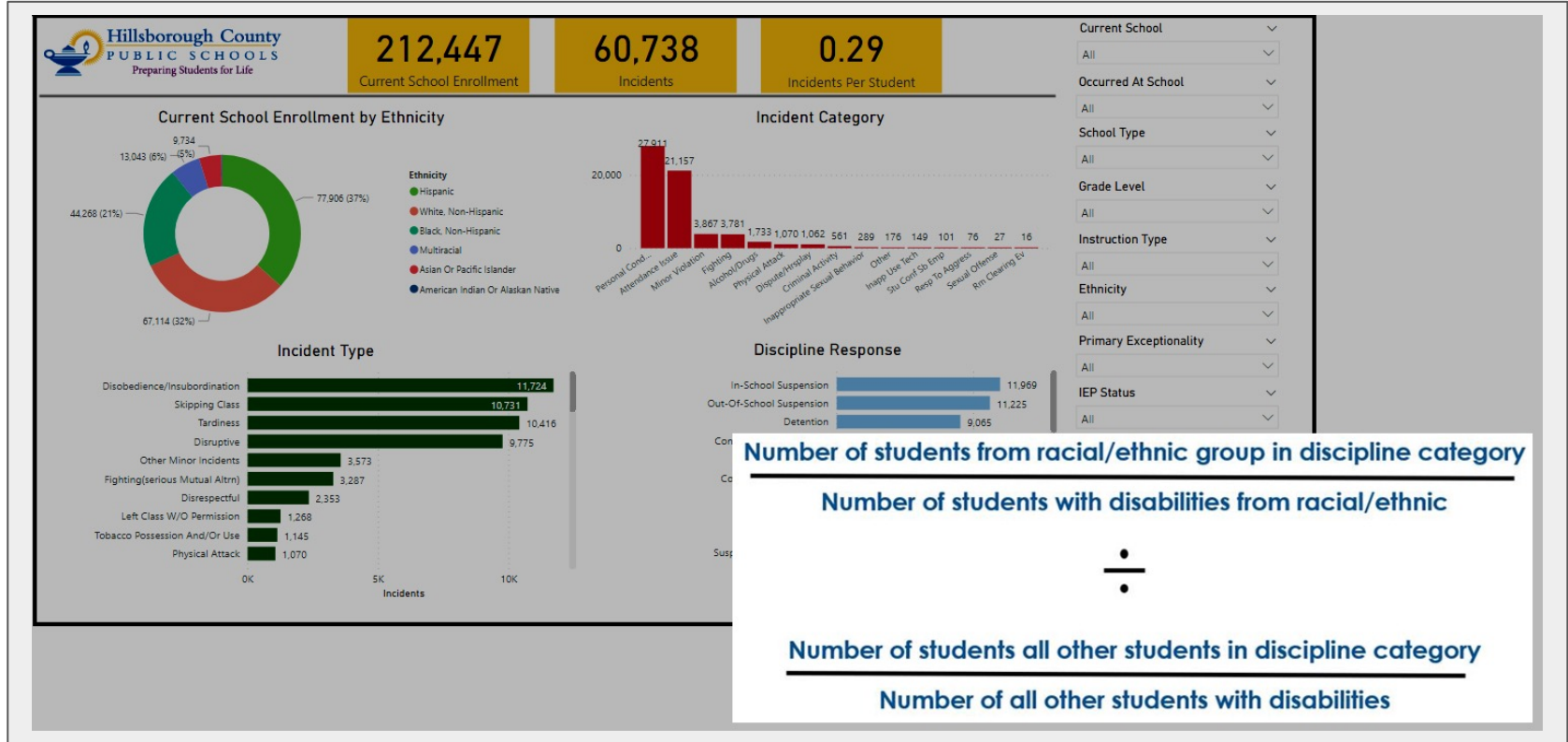
**Number of students with disabilities from racial/ethnic**

÷

**Number of students all other students in discipline category**

**Number of all other students with disabilities**

# Calculation Walkthrough



# Calculation Walkthrough

- Create new measures for each building block of calculation
- Be careful with context of measure: where you place it matters
- This approach helps with traceability and testing
- Use good naming conventions

**Number of students from racial/ethnic group in discipline category**

**Number of students with disabilities from racial/ethnic**

÷

**Number of students all other students in discipline category**

**Number of all other students with disabilities**

# Calculation Walkthrough

- Create new measures for each building block of calculation
- Be careful with context of measure: where you place it matters
- This approach helps with traceability and testing
- Use good naming conventions

The screenshot shows the DAX editor for a measure named "Risk Ratio (CCEIS)". The formula is as follows:

```
1 Risk Ratio (CCEIS) =  
2 DIVIDE(  
3     DIVIDE(  
4         sum([Students with > 10 days OSS Duration]),  
5         sum([Students with IEPs])  
6     ),  
7     DIVIDE(  
8         ([Total Students with > 10 Days OSS Duration (dynamic)]-Sum([Students with > 10 days OSS Duration])),  
9         ([Total IEP Enrollment (dynamic)]-Sum([Students with IEPs]))  
10    )  
11 )
```

Annotations with arrows point from the formula to the following text:

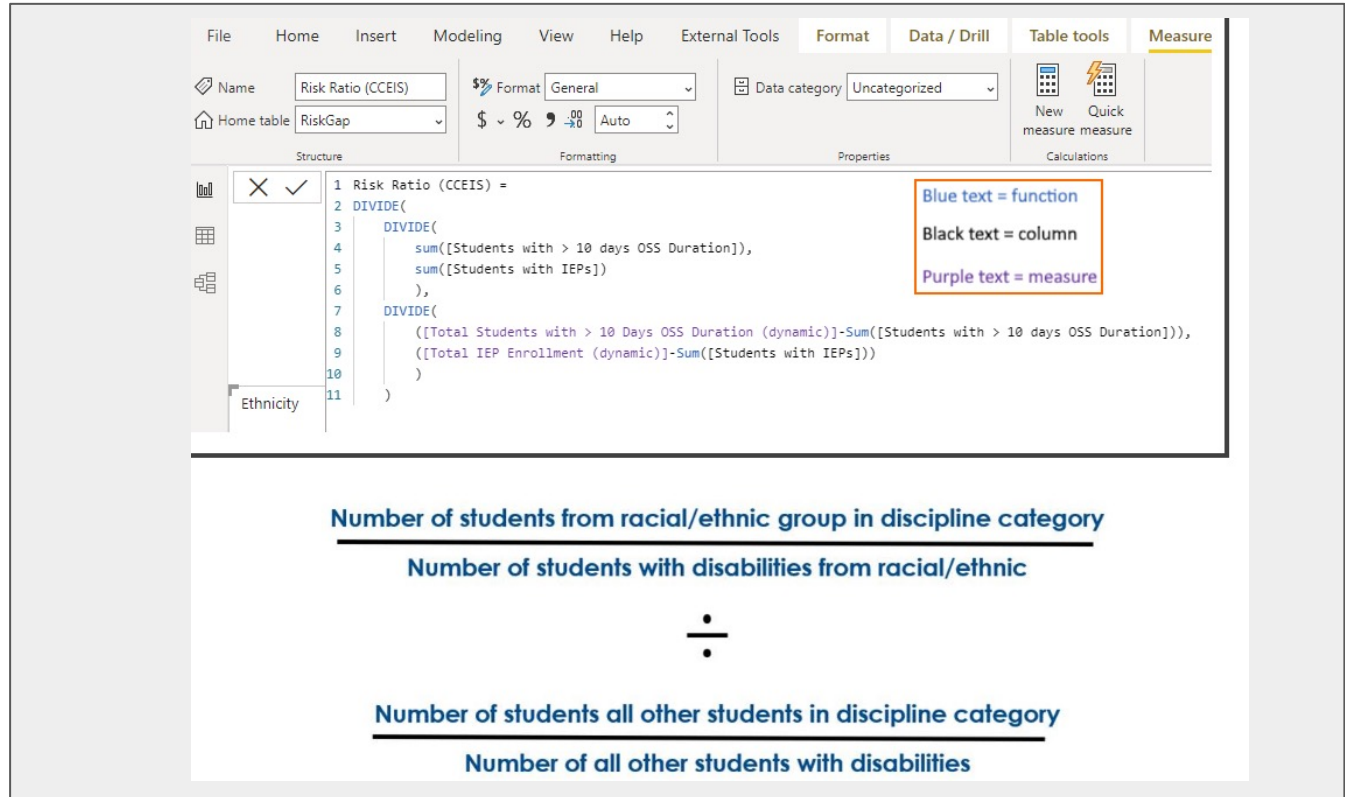
- The numerator's numerator (line 4) is annotated as: **Number of students from racial/ethnic group in discipline category**
- The numerator's denominator (line 5) is annotated as: **Number of students with disabilities from racial/ethnic**
- The denominator's numerator (line 8) is annotated as: **Number of students all other students in discipline category**
- The denominator's denominator (line 9) is annotated as: **Number of all other students with disabilities**

The overall calculation is represented as a fraction:

$$\frac{\text{Number of students from racial/ethnic group in discipline category}}{\text{Number of students with disabilities from racial/ethnic}} \div \frac{\text{Number of students all other students in discipline category}}{\text{Number of all other students with disabilities}}$$

# Calculation Walkthrough

- Create new measures for each building block of calculation
- Be careful with context of measure: where you place it matters
- This approach helps with traceability and testing
- Use good naming conventions



The screenshot shows the Power BI Desktop interface with the DAX editor open. The measure name is 'Risk Ratio (CCEIS)' and the home table is 'RiskGap'. The DAX formula is as follows:

```
1 Risk Ratio (CCEIS) =  
2 DIVIDE(  
3     DIVIDE(  
4         sum([Students with > 10 days OSS Duration]),  
5         sum([Students with IEPs])  
6     ),  
7     DIVIDE(  
8         ([Total Students with > 10 Days OSS Duration (dynamic)]-Sum([Students with > 10 days OSS Duration])),  
9         ([Total IEP Enrollment (dynamic)]-Sum([Students with IEPs]))  
10    )  
11 )
```

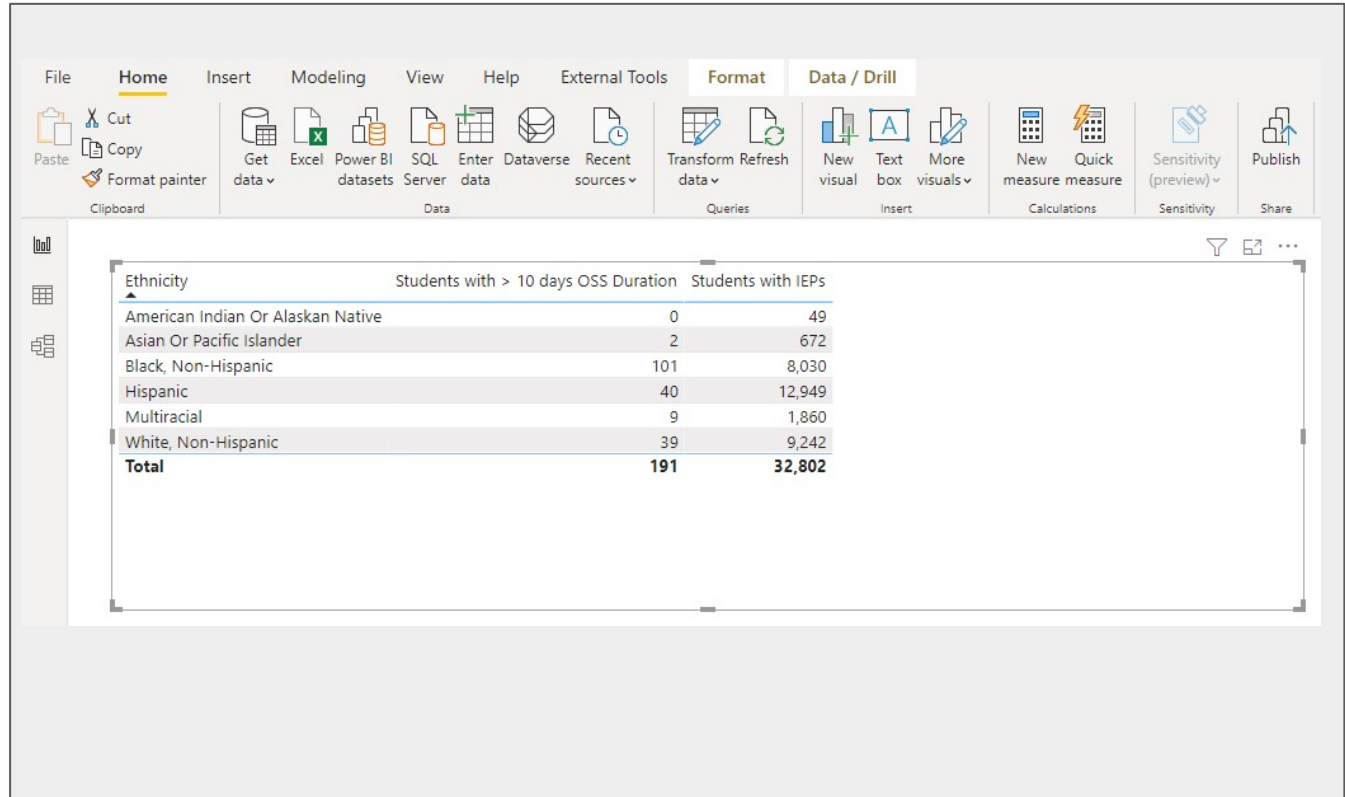
Annotations in the screenshot indicate: Blue text = function, Black text = column, and Purple text = measure.

Below the screenshot, the formula is represented as a fraction:

$$\frac{\text{Number of students from racial/ethnic group in discipline category}}{\text{Number of students with disabilities from racial/ethnic}} \div \frac{\text{Number of students all other students in discipline category}}{\text{Number of all other students with disabilities}}$$

# Calculation Walkthrough

- Create new measures for each building block of calculation
- Be careful with context of measure: where you place it matters
- This approach helps with traceability and testing
- Use good naming conventions



The screenshot displays the Microsoft Power BI Desktop interface. The ribbon at the top includes tabs for File, Home, Insert, Modeling, View, Help, External Tools, Format, and Data / Drill. The Data / Drill tab is active, showing options like New visual, Text box, and More visuals. Below the ribbon, a table is displayed with the following data:

Ethnicity	Students with > 10 days OSS Duration	Students with IEPs
American Indian Or Alaskan Native	0	49
Asian Or Pacific Islander	2	672
Black, Non-Hispanic	101	8,030
Hispanic	40	12,949
Multiracial	9	1,860
White, Non-Hispanic	39	9,242
<b>Total</b>	<b>191</b>	<b>32,802</b>



# Calculation Walkthrough

- Create new measures for each building block of calculation
- Be careful with context of measure: where you place it matters
- This approach helps with traceability and testing
- Use good naming conventions

The screenshot shows the Power BI Desktop interface. The ribbon is set to 'Table tools' > 'Measure tools'. The 'Name' field is 'Total Students with...' and the 'Home table' is 'RiskGap'. The 'Format' is set to 'Whole number'. The 'Data category' is 'Uncategorized'. The formula bar contains the following DAX formula:

```
1 Total Students with > 10 Days OSS Duration (dynamic) = calculate(sum(RiskGap[Students with > 10 days OSS Duration]),ALLSELECTED(RiskGap))
```

An orange arrow points from the 'calculate' function in the formula bar to the 'Total' row in the table below. The table has four columns: 'Ethnicity', 'Students with > 10 days OSS Duration', 'Students with IEPs', and 'Total Students with > 10 Days OSS Duration (dynamic)'. The 'Total' row shows values of 191, 32,802, and 191. The 'Total' cell in the third column is highlighted with an orange box.

Ethnicity	Students with > 10 days OSS Duration	Students with IEPs	Total Students with > 10 Days OSS Duration (dynamic)
American Indian Or Alaskan Native	0	49	191
Asian Or Pacific Islander	2	672	191
Black, Non-Hispanic	101	8,030	191
Hispanic	40	12,949	191
Multiracial	9	1,860	191
White, Non-Hispanic	39	9,242	191
<b>Total</b>	<b>191</b>	<b>32,802</b>	<b>191</b>

\*Calculate function is the key to this approach

# Calculation Walkthrough

- Create new measures for each building block of calculation
- Be careful with context of measure: where you place it matters
- This approach helps with traceability and testing
- Use good naming conventions

File Home Insert Modeling View Help External Tools **Table tools** **Measure tools**

Name: Risk Ratio (CCEIS) Format: General Data category: Uncategorized

Home table: RiskGap

Structure Formatting Properties Calculations

```

1 Risk Ratio (CCEIS) =
2 DIVIDE(
3   DIVIDE(
4     sum([Students with > 10 days OSS Duration]), 1
5     sum([Students with IEPs]) 2
6   ),
7   DIVIDE(
8     ([Total Students with > 10 Days OSS Duration (dynamic)]-Sum([Students with > 10 days OSS Duration])), 1
9     ([Total IEP Enrollment (dynamic)]-Sum([Students with IEPs])) 2
10    )
11  )


```

*\*Note: purple measures are ignoring context so that it is possible to do the appropriate math on each row (Ethnicity)*

Ethnicity	1 Students with > 10 days OSS Duration	3 Total Students with > 10 Days OSS Duration (dynamic)	2 Students with IEPs	4 Total IEP Enrollment (dynamic)	Risk Ratio (CCEIS)
American Indian Or Alaskan Native	0	191	49	32,802	0.00
Asian Or Pacific Islander	2	191	672	32,802	0.51
Black, Non-Hispanic	101	191	8,030	32,802	3.46
Hispanic	40	191	12,949	32,802	0.41
Multiracial	9	191	1,860	32,802	0.82
White, Non-Hispanic	39	191	9,242	32,802	0.65
<b>Total</b>	<b>191</b>	<b>191</b>	<b>32,802</b>	<b>32,802</b>	

# Calculation Walkthrough

- Create new measures for each building block of calculation
- Be careful with context of measure: where you place it matters
- This approach helps with traceability and testing
- Use good naming conventions



**Hillsborough County  
PUBLIC SCHOOLS**  
Preparing Students for Life

School Enrolled

School Number

School Type

Grade Level

### CCEIS Risk Gap

Ethnicity	Enrollment (Overall)	Students with > 10 days OSS Duration (Overall)	Students (ESE)	Students > 10 days OSS Duration (ESE)	Students (GenEd)	Students > 10 days OSS Duration (GenEd)
American Indian Or Alaskan Native	382	0	49	0	333	0
Asian Or Pacific Islander	9,734	2	672	0	9,062	2
Black, Non-Hispanic	44,268	101	8,030	30	36,238	71
Hispanic	77,906	40	12,949	10	64,957	30
Multiracial	13,043	9	1,860	2	11,183	7
White, Non-Hispanic	67,114	39	9,242	13	57,872	26
<b>Total</b>	<b>212,447</b>	<b>191</b>	<b>32,802</b>	<b>55</b>	<b>179,645</b>	<b>136</b>

Ethnicity	% Enrollment	% Enrollment ESE	% Enrollment GenEd	Student Composition % (> 10 Days OSS Overall)	Student Composition % (> 10 Days OSS ESE)	Student Composition % (> 10 Days OSS GenEd)	Risk Ratio (ESE) 4B	Risk Ratio (CCEIS)
American Indian Or Alaskan Native	0.2%	0.1%	0.2%	0.0%	0.0%	0.0%	0.00	0.00
Asian Or Pacific Islander	4.6%	2.0%	5.0%	1.0%	0.0%	1.5%	0.00	0.51
Black, Non-Hispanic	20.8%	24.5%	20.2%	52.9%	54.5%	52.2%	4.93	3.46
Hispanic	36.7%	39.5%	36.2%	20.9%	18.2%	22.1%	1.02	0.41
Multiracial	6.1%	5.7%	6.2%	4.7%	3.6%	5.1%	1.42	0.82
White, Non-Hispanic	31.6%	28.2%	32.2%	20.4%	23.6%	19.1%	1.86	0.65
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>2.21</b>	

# Roll Out

CCEIS District Committee: Cross  
Divisional Team

ESE District Leadership

Cohort Schools: 15 schools

Elementary Principals

Middle School Principals

High School Principals

ESE Specialists

# Updated Equity Profile



School Enrolled

School Number

School Type

Grade Level

## ESE Risk Gap - Office Discipline Referrals (ODR)

**Guiding Question 3:**  
How much of your target group is affected by disproportionate discipline?

IEP Status	Enrollment Count	Students with Incidents	Incident Count	Guiding Question 1: Are outcomes equitable for all student groups?			Referral Rate (ODR)	Guiding Question 2: How big are the disparities?			Referral Composition	Risk (ODR)
				% Enrollment	Student Composition % (ODR)	Referral Ratio (ODR)		Risk Ratio (ODR)	Diff in Student Composition (ODR)	Diff in Referral Comp		
Active IEP	32,802	4,181	14,173	15.4%	20.0%	1.67	0.43	1.37	4.6	7.9	23.3%	12.7%
General Education	179,645	16,691	46,565	84.6%	80.0%	0.60	0.26	0.73	-4.6	-7.9	76.7%	9.3%
<b>Total</b>	<b>212,447</b>	<b>20,872</b>	<b>60,738</b>	<b>100.0%</b>	<b>100.0%</b>		<b>0.29</b>		<b>0.0</b>	<b>0.0</b>	<b>100.0%</b>	<b>9.8%</b>

## ESE Risk Gap - Out of School Suspensions (OSS)

**Guiding Question 3:**  
How much of your target group is affected by disproportionate discipline?

IEP Status	Enrollment Count	Students with OSS Incidents	OSS Incident Count	Guiding Question 1: Are outcomes equitable for all student groups?			Referral Rate (OSS)	Guiding Question 2: How big are the disparities?			OSS Composition	Risk (OSS)
				% Enrollment	Student Composition % (OSS)	Referral Ratio (OSS)		Risk Ratio (OSS)	Diff in Student Composition (OSS)	Diff in OSS Comp		
Active IEP	32,802	1,788	2,923	15.4%	23.9%	1.93	0.09	1.72	8.43	10.60	26.0%	5.5%
General Education	179,645	5,702	8,302	84.6%	76.1%	0.52	0.05	0.58	-8.43	-10.60	74.0%	3.2%
<b>Total</b>	<b>212,447</b>	<b>7,490</b>	<b>11,225</b>	<b>100.0%</b>	<b>100.0%</b>		<b>0.05</b>		<b>0.00</b>	<b>0.00</b>	<b>100.0%</b>	<b>3.5%</b>

# Building Data Based On Root Cause Analysis

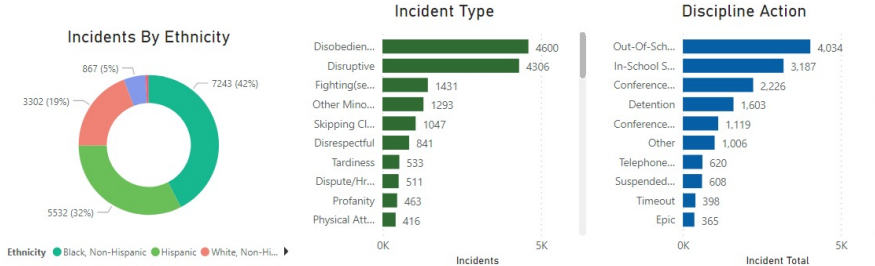
- What data do we need to address the root cause as a district?
- What data do schools need to address their root cause?
- What data do schools need to impact student outcomes?



## Discipline Assignment By Staff

Referrals By Staff			Discipline Actions By Staff		
Referral Creator	School Name	Incident Count	Assigning Admin	School Name	Incident Count
	Davidson Middle School	1		Rodgers Middle Magnet School	589
	Ferrell (GIRLS) Middle Magnet	2		Marshall Middle Magnet School	548
	Orange Grove Middle Magnet	7		Young Middle Magnet	546
	Roland Park K-8 Magnet	1		Greco Middle Magnet School	531
	Randall Middle School	2		Eisenhower Middle School	449
	Shields Middle School	1		Burnett Middle School	416
	Burns Middle School	8		Liberty Middle School	413
	Greco Middle Magnet School	29		McLane Middle School	382
	Jennings Middle School	18		Mann Middle School	380
<b>Total</b>		<b>16610</b>	<b>Total</b>		<b>17066</b>

- Current School
- Occurred At School
- School Type
- Grade Level
- Instruction Type
- Ethnicity
- Primary Exceptionality
- IEP Status
- 504 Eligibility
- FRL Status
- Gender
- Incident Type



# Equity Profile Data

## Cohort 1: Equity Profile for ODR's for SWD's

Year	HS 1	MS 1	MS 2	HS 2
End of quarter 3 2020	2.32	1.63	1.51	1.47
End of quarter 3 2021	1.42	.87	1.28	1.49
End of school year 2021	1.35	.81	1.11	1.41

# Equity Profile Data

## Cohort 1: Equity Profile for OSS's for SWD's

Year	HS 1	MS1	MS2	H2S
End of quarter 3 2020	3.09	2.35	2.16	1.46
End of quarter 3 2021	1.40	.88	1.42	2.27
End of school year 2021	1.25	.69	1.22	1.69





# Questions



Hillsborough County  
PUBLIC SCHOOLS  
Preparing Students for Life