

# BREAKING DOWN SILOS

Building a Data and Analytics Ecosystem to  
Support Next Generation Learning

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Katy Independent School District

# KATY INDEPENDENT SCHOOL DISTRICT



5<sup>th</sup> Largest School District in Texas ≈ 84,000 students



Ranked #1 School District in the Houston area by Niche, 2019



Named Top Ten US Schools for Digital Curriculum by the Learning Counsel



Named Top Ten Digital Schools (#2) by the Center for Digital Education & National School Boards Association



Named District of Distinction for Improving Access to Data for All Users by District Administration Magazine

WHAT DID WE DO?

WHY DID WE DO IT?

STRUGGLES & ROADBLOCKS

IMPACTS TO DECISION-MAKING

WHERE WE GO FROM HERE?

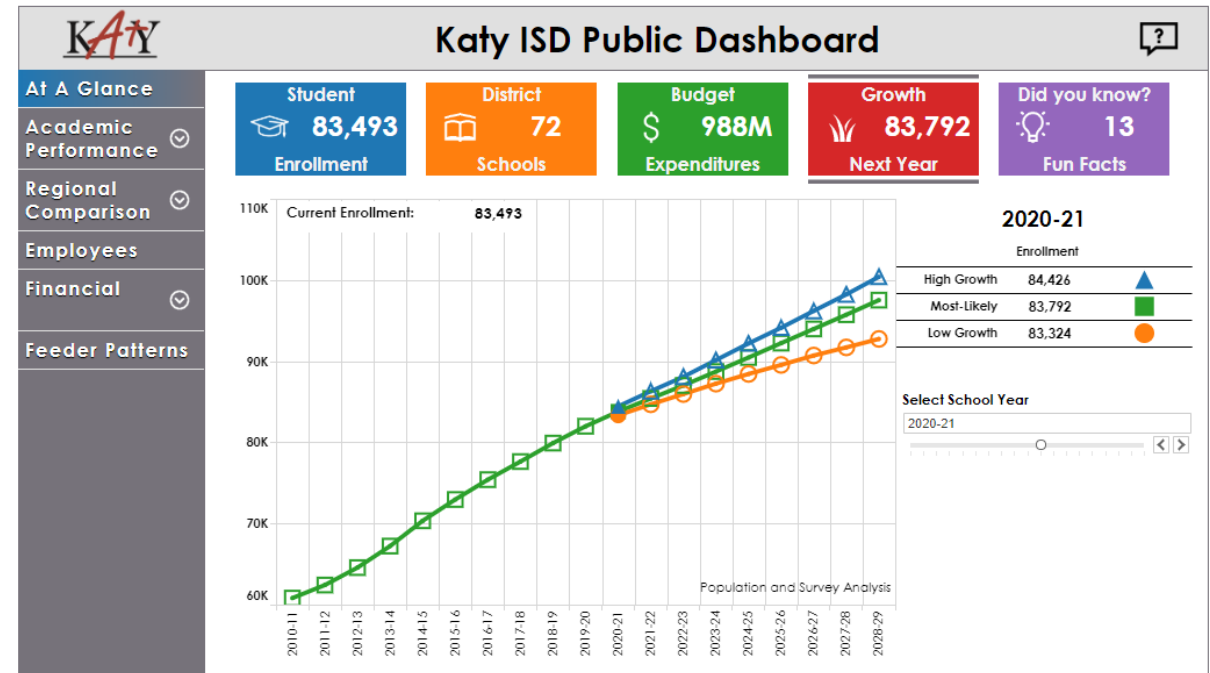
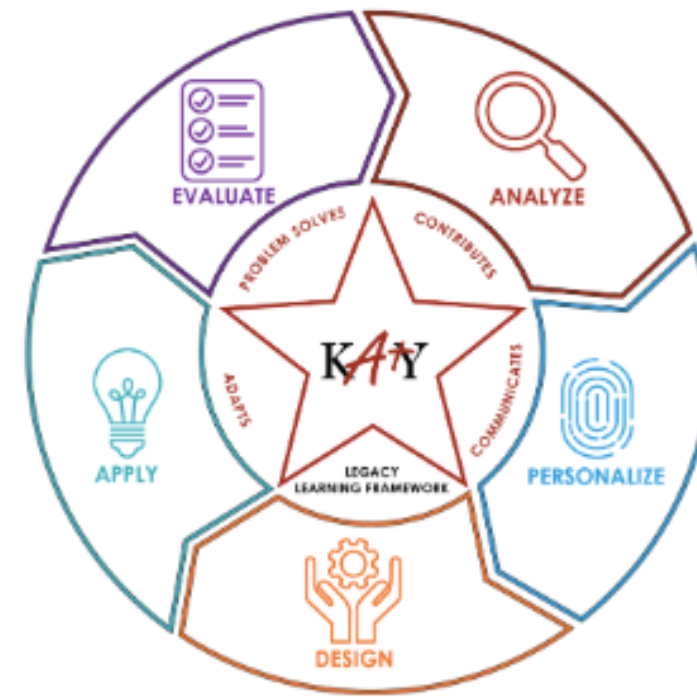
## WHAT DID WE DO?

- Star Schema Data Warehouse (based on the Kimball dimensional model)
- Information Delivery Portal (Performance Management Portal)
- Secure Dashboards

## WHY DID KATY ISD CHOOSE TO FOCUS ON BUILDING A DATA AND ANALYTICS ECOSYSTEM?

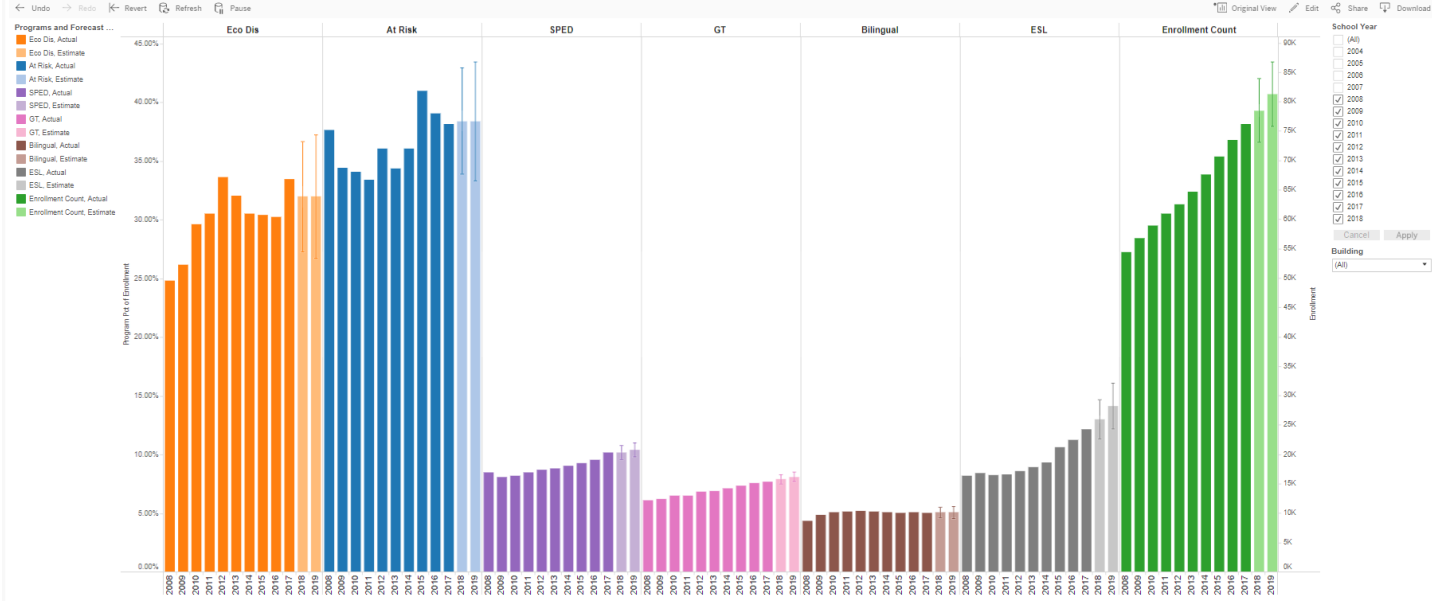
- Empower our Stakeholders and Provide Transparency
- Manage Growth and Demographic Shift
- Create a Single Source of Truth

# I. EMPOWER OUR STAKEHOLDERS & PROVIDE TRANSPARENCY

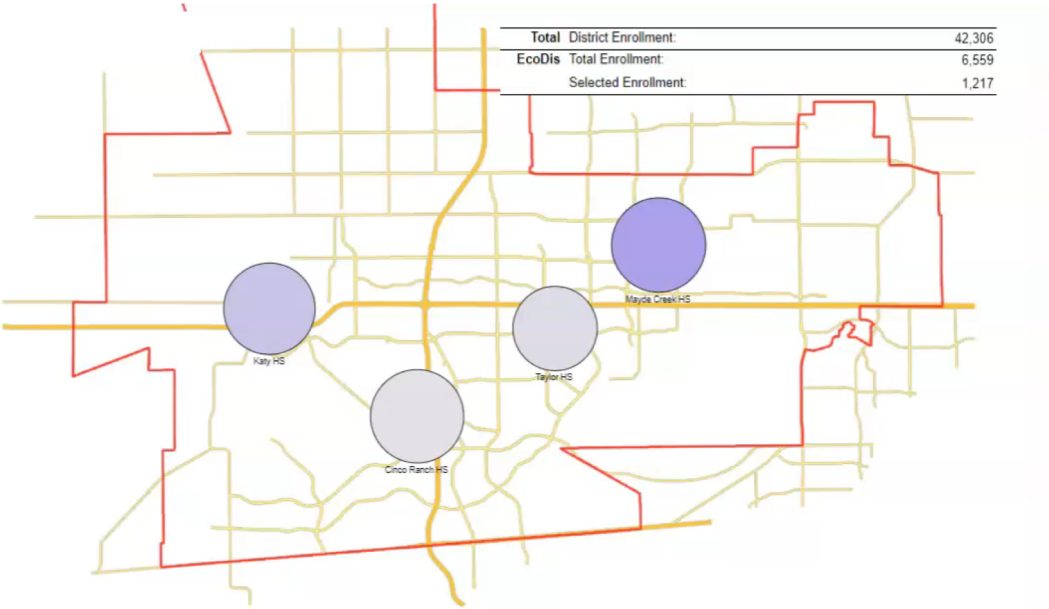


Why did Katy ISD choose to focus on building a data and analytics ecosystem?

# II. MANAGE GROWTH & DEMOGRAPHIC SHIFT

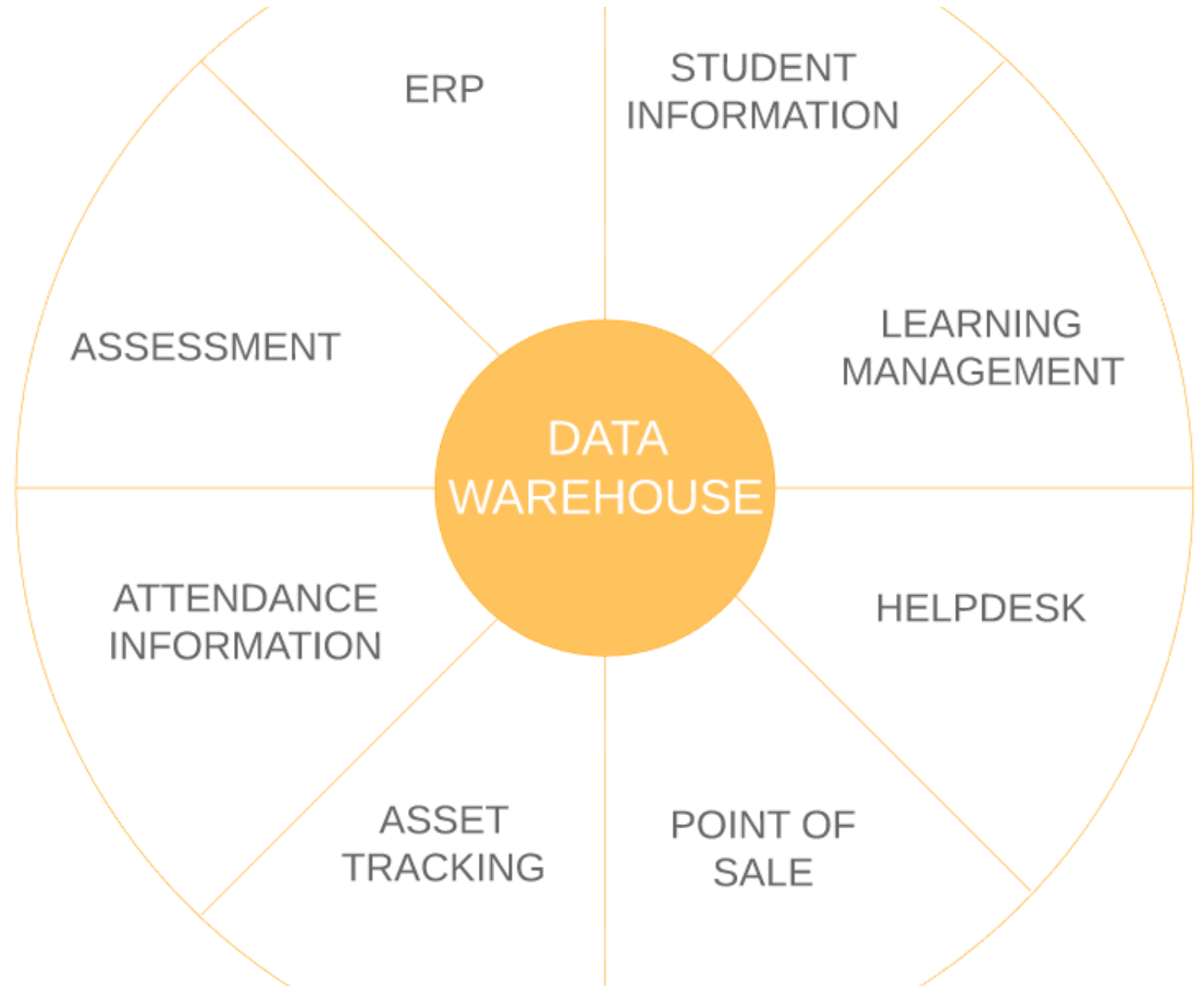


2004 EcoDis



Why did Katy ISD choose to focus on building a data and analytics ecosystem?

### III. A SINGLE SOURCE OF TRUTH



Why did Katy ISD choose to focus on building a data and analytics ecosystem?



## WHAT STRUGGLES & ROADBLOCKS DID KATY ISD ENCOUNTER?

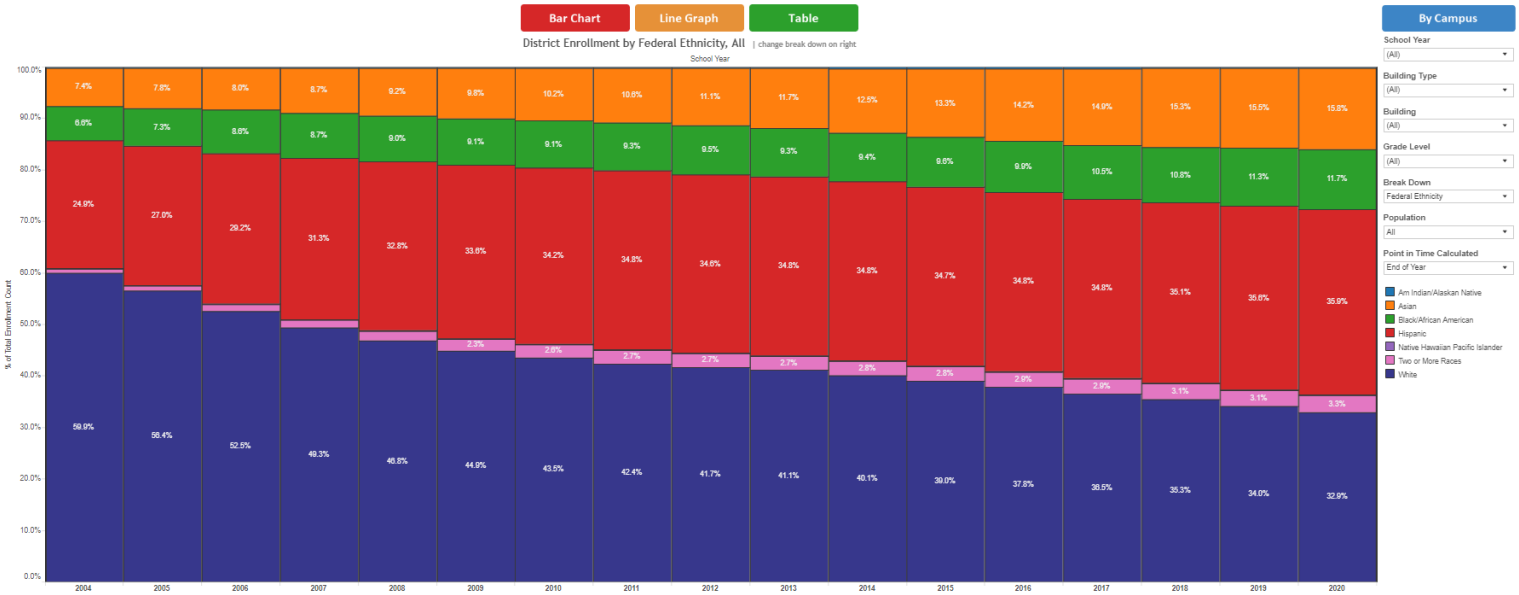
- Technical / Security
- Buy-In
- Ownership

## I. TECHNICAL / SECURITY



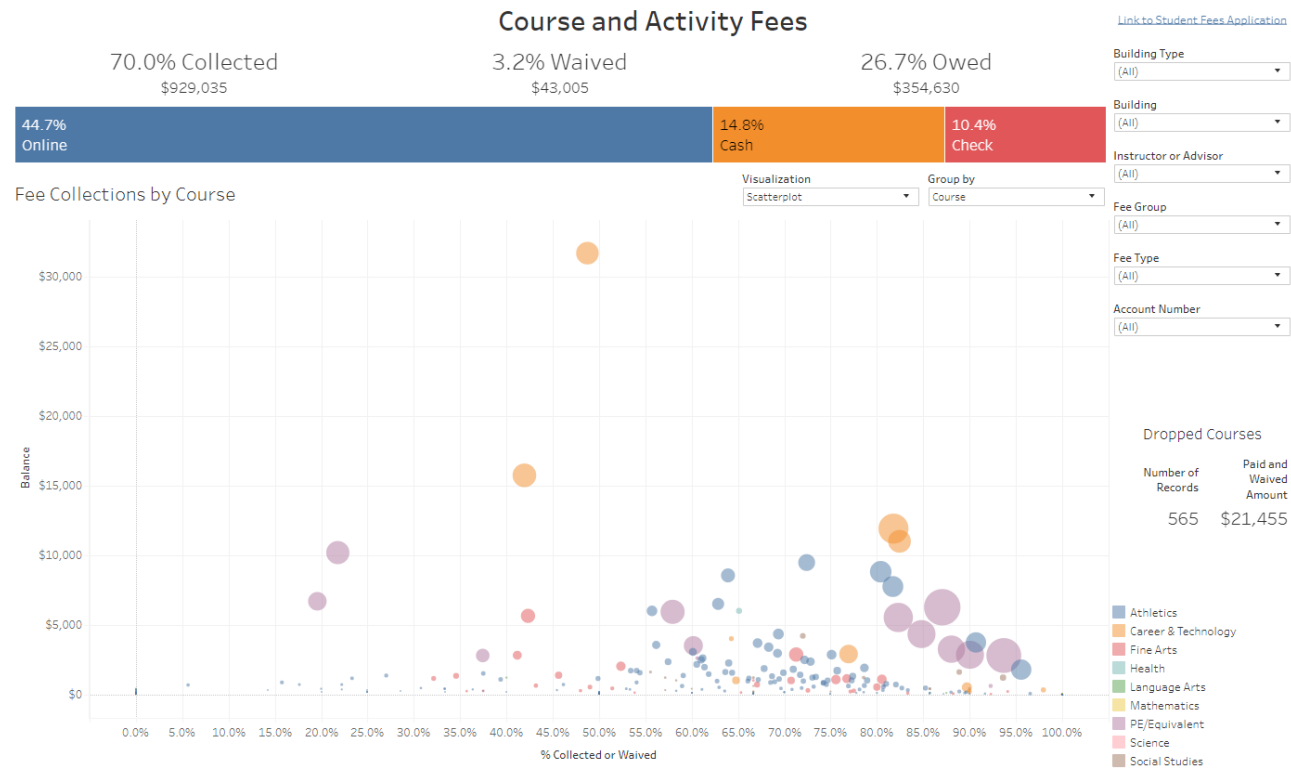
What struggles and roadblocks did we encounter?

## II. BUY IN – LEARN TO WALK BEFORE YOU RUN



What struggles and roadblocks did we encounter?

### III. OWNERSHIP



### Fountas & Pinnell BAS and STAAR Reading

#### F&P Independent Grade Level by STAAR Performance Level

	Grand Total	Not Approaches	Approaches	Meets	Masters
Grand Total	128 (100%)	18 (14%)	26 (20%)	35 (27%)	49 (38%)
Below Grade Level	45 (35%)	16 (13%)	15 (12%)	8 (6%)	6 (5%)
On Grade Level	58 (45%)	2 (2%)	11 (9%)	25 (20%)	20 (16%)
Above Grade Level	25 (20%)			2 (2%)	23 (18%)

Based on first administration of STAAR.  
Excludes STAAR Alternate / Alternate 2.  
School Year: 2018 - 2019

Display: Heat Map

Student Filters: Tested Building: 109 - Nottingham...  
F&P Controls: Assessment Period: EOY

#### F&P Independent Level by STAAR Performance Level

	Grand Total	Not Approaches	Approaches	Meets	Masters
Grand Total	128 (100%)	18 (14%)	26 (20%)	35 (27%)	49 (38%)
L	1 (1%)	1 (1%)			
N	1 (1%)	1 (1%)			
O	5 (4%)	4 (3%)	1 (1%)		
P	2 (2%)	2 (2%)			
Q	3 (2%)	1 (1%)	1 (1%)	1 (1%)	
R	14 (11%)	5 (4%)	6 (5%)	2 (2%)	1 (1%)
S	19 (15%)	2 (2%)	7 (5%)	5 (4%)	5 (4%)
T	28 (22%)	1 (1%)	7 (5%)	12 (9%)	8 (6%)
U	30 (23%)	1 (1%)	4 (3%)	13 (10%)	12 (9%)
V	22 (17%)			2 (2%)	20 (16%)
W	1 (1%)				1 (1%)
X	2 (2%)				2 (2%)

Current Building: (All)      Level Type: Independent

Tested Grade Level: Fifth      Measure (Bottom): Level

Gender: (All)      Grade Level: (All)

Race / Ethnicity: (All)      Level Gradient: (All)

Tested Special Prog.: All      Level: (All)

STAAR Controls  
Language Version: English

Test Version: STAAR

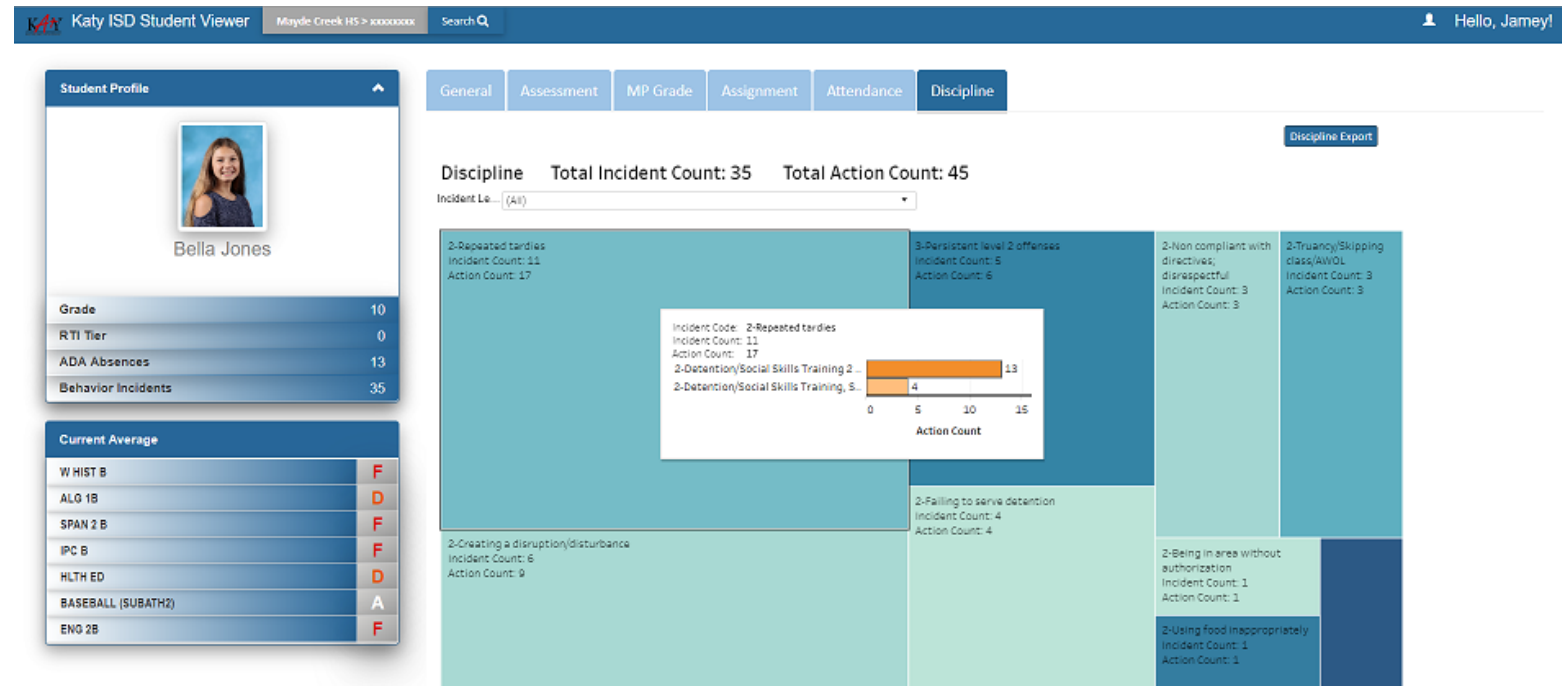
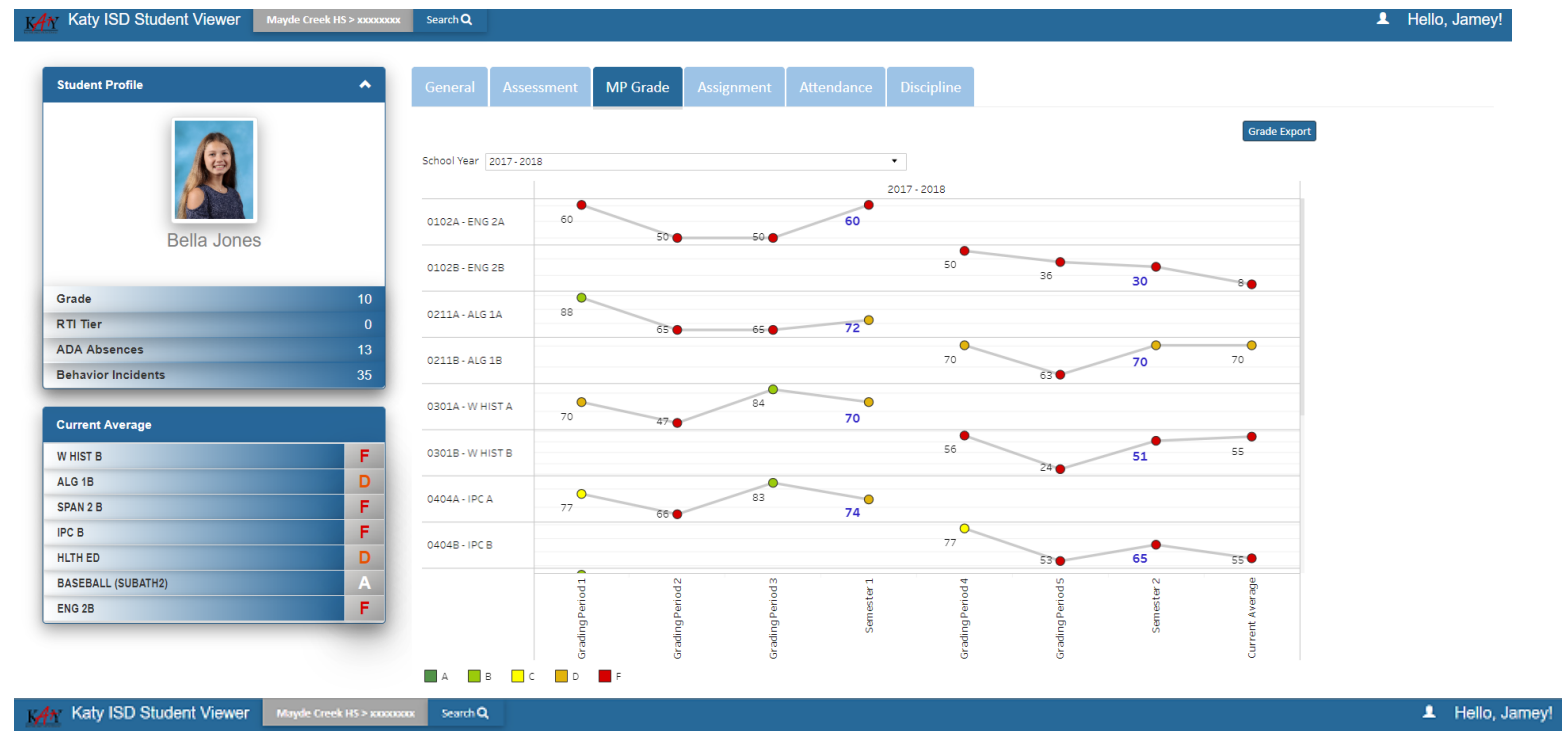
Performance Level: (All)

What struggles and roadblocks did we encounter?

# WHAT IMPACTS HAVE ANALYTICS MADE ON INSTRUCTIONAL, OPERATIONAL AND STRATEGIC DECISION MAKING?

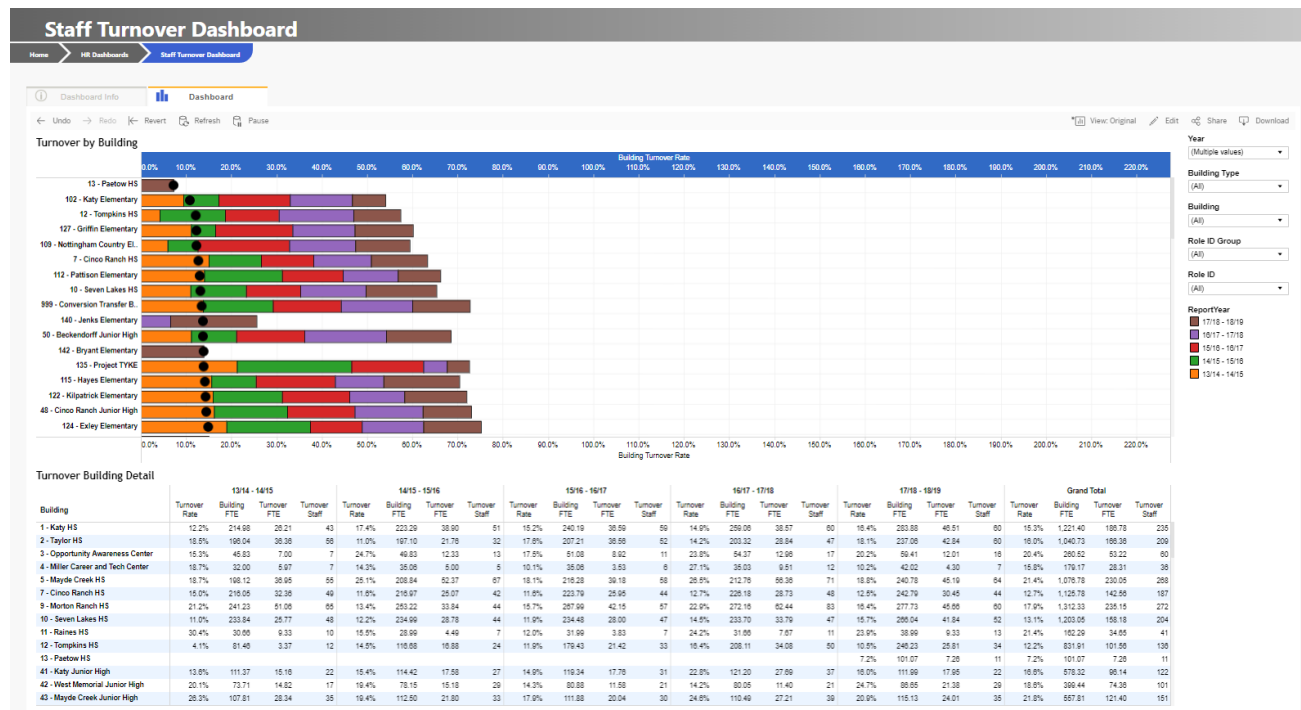
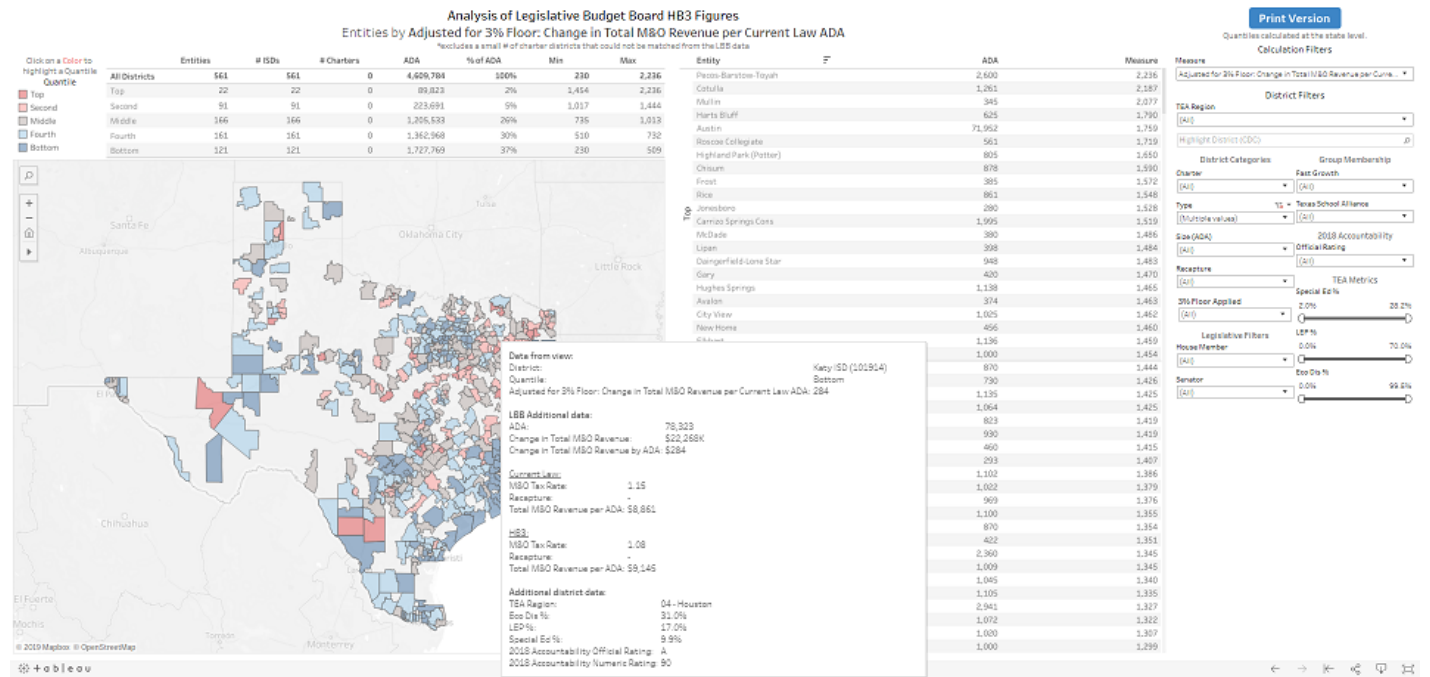
- Personalized Learning
- Operational Decision Making
- Social Emotional Learning

# I. PERSONALIZED LEARNING



WHAT IMPACTS HAVE ANALYTICS MADE ON INSTRUCTIONAL, OPERATIONAL AND STRATEGIC DECISION MAKING?

## II. OPERATIONAL DECISION MAKING



WHAT IMPACTS HAVE ANALYTICS MADE  
ON INSTRUCTIONAL, OPERATIONAL AND  
STRATEGIC DECISION MAKING?

### BHIP Dashboard

Home Academic Dashboards **Admin Reports Dashboards** BHIP - Admin Dashboard

Dashboard Info **Dashboard**

130 Completed Investigations 39 In Progress Investigations

#### BHIP Dashboard

Visuals display only completed investigations.

##### Incident Type

Incident Type	Percentage
Cyberbullying	6%
Error Review	27%
Physical	36%
Relational	5%
Verbal/Written	62%

##### Campus

Campus	Percentage
Elementary	55%
Junior/High	34%
High School	12%

##### Gender

Gender	Percentage	Count
Female	37%	112
Male	61%	187
No Aggressor	2%	7

##### Location

Location	Count
Classroom	45
Lunch Room	26
Playground	27
Gym/Field	15
Hallway	18
Bus/School Transportation	19
Other	14
Lunchroom	9
Locker Room	8
Not Set	7
Social Media	6
Bathroom	5
School Event	2
Electronic Device	1
Instamart	1
Parking Lot	1

##### Incident Date

Expand to see by Month

School Year	Count
2020	130

View Original Edit Share Download

Campus: [All] School Year: [2020]

Role: [All]

### Vaping Analysis Dashboard

Academic Dashboard | Discipline Dashboard | Vaping Analysis Dashboard

Dashboard Info | Dashboard

Undo | Redo | Revert | Refresh | Pause

Incident Comment - Click Chart on left to see comments

School Year	Incident Count
2017	66
2018	263
2019	564
2020	194

Incident Code

- ✓ 2.6-Creating a disruption/disturbance
- ✓ 2.7-Possession of prescription/nonprescription...
- ✓ 2.11-Using food inappropriately
- ✓ 2.13-Abusing the use of a nail pass
- ✓ 2.16-Using inappropriate language (verbal or ...
- ✓ 2.18-Loitering on campus (before or after scho...
- ✓ 2.19-Non-compliant with directives, disrespect...
- ✓ 2.25-Violating the Responsible Use Guidelines ...
- ✓ 2.31-Possessing lighters/matches/tobacco-rel...
- ✓ 3.33-Felony/Stepping class/KIDOL
- ✓ 3.34-Being in area without authorization
- ✓ 3.6-Selling/Giving/Delivering/Using/Possessin...
- ✓ 3.7-Failing to disclose information; commitm...
- ✓ 3.10-Possessing/Using Fireworks, pyrotechnics...
- ✓ 3.17-Creating potential health or safety hazard
- ✓ 3.18-Engaging in illegal behavior (non-mandat...
- ✓ 3.19-Using profane/obscene/threatening lang...
- ✓ 3.21-Using lighters/matches
- ✓ 3.24-Possessing drug paraphernalia/parool p...
- ✓ 3.25-Persistent level 2 offenses
- ✓ 3.27-Attempting to sell/buy a prohibited subst...
- ✓ 3.30-Stealing, unauthorized possession, theft...
- ✓ 3.31-Telecommunication device violation (othe...
- ✓ 3.32-Possessing/Using tobacco containing pro...
- ✓ 3.32-Tobacco, tobacco-less, e-cigs including vab...
- ✓ 3.33-Interfering, trespassing/boycotting/grou...
- ✓ 3.34-Vandalizing/Defacing property, non-felon...
- ✓ 3.35-Possessing/Concealing weapon
- ✓ 4-1-Alcohol (non felony)
- ✓ 4-Dangerous drugs (non felony)
- ✓ 4-A-Marijuana/Controlled substance (non felony)
- ✓ 4-Public Intoxication

Cancel Apply

Incident Building

(All)

\*This information was the result of a search on each incident comment. Search criteria key words were: "vape", "e-cig", "ecig", "electronic cigarette", "cannridge", "thc", "dab pen", "wax", and "juul".

There can be false positives.

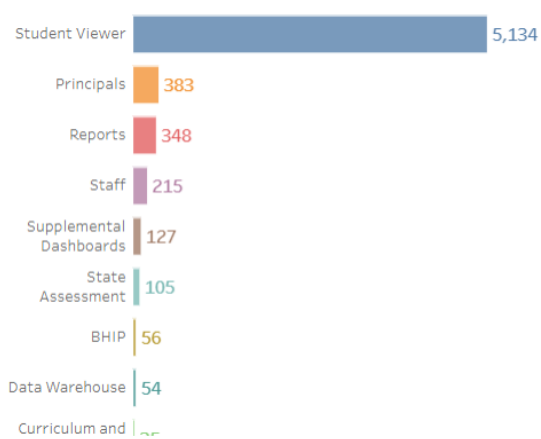


# THE PATH FORWARD... WHERE KATY ISD GOES FROM HERE

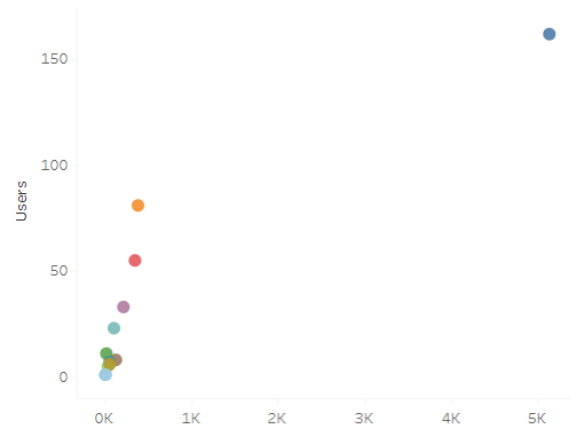
- Standardization
- Hosted Data & Services
- Predictive Analytics

Usage and users for published views on Tableau Server Academic, Assessment, Business and 5 more for the last 30 days

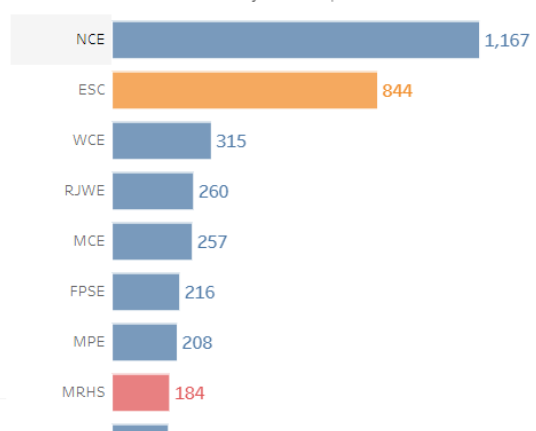
Total views by Project | click to filter



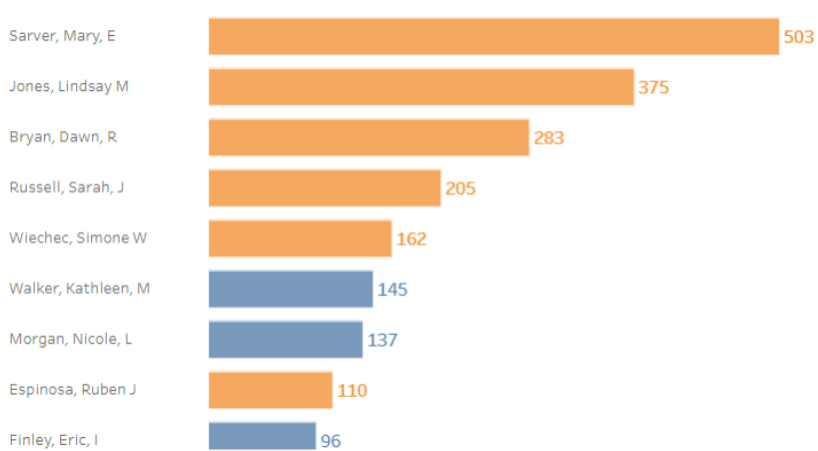
Number of Views & Distinct Users by Project | click to filter



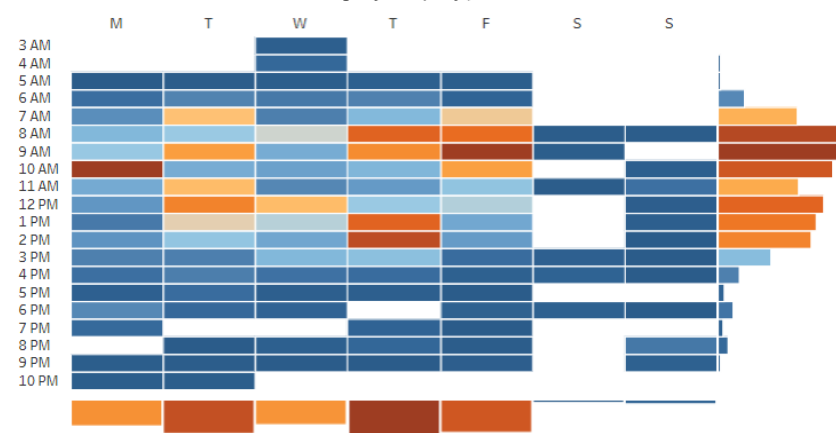
Total views by location | click to filter



Top users | click to filter



Usage by time / day | click to filter



6,490 | Total views

Filters

Project

Measure  
Total views

Detail By

Project

Timeframe

Last 30 days

Site

(All)

Project

(All)

Workbook

(All)

View

(All)

User

Exclude Devs  
Yes

Group

(All)

User

(All)

Location by Security

(All)

User type is based on groups. 'Other' contains staff with only user access.

- All - 286 users at 64 locations with 6,490 views
- AP - 81 users at 48 locations with 1,347 views
- Campus - 116 users at 47 locations with 4,130 views
- ESC - 54 users at 1 locations with 767 views
- Principal - 28 users at 29 locations with 169 views
- Other - 7 users at 1 locations with 77 views