



ed-fi[®]
ALLIANCE

FAMIS 2022 – Ed-Fi Show and Tell

Brian Boyd, Leon County Schools

Sherod Keen, NEFEC

Marybeth Windham, Baker County Schools

Ed-Fi Data Standard

A standard makes complex systems run smoothly, coherently, and efficiently for all parties



Traffic lights and road signs

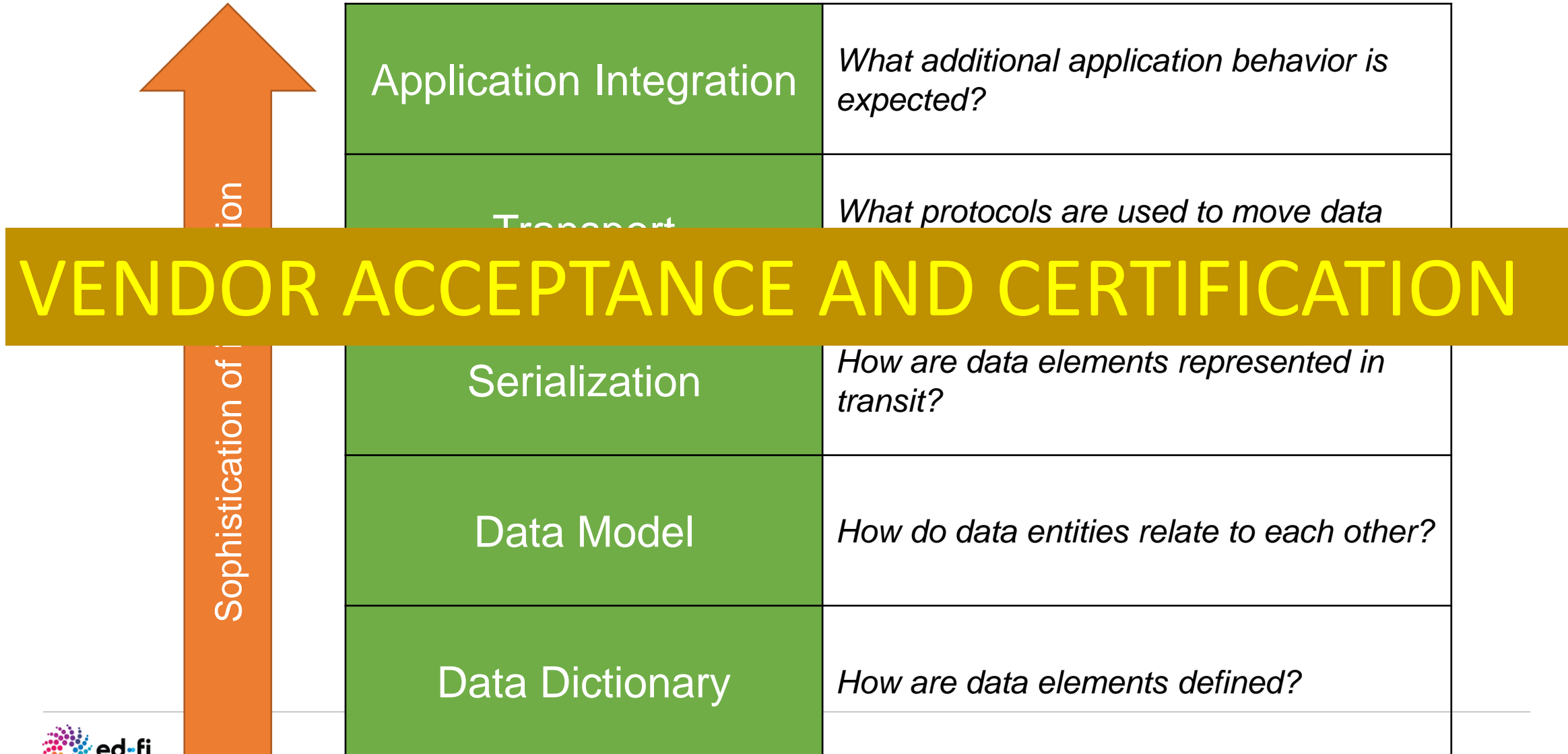


Bluetooth™



USB

Interoperability Levels



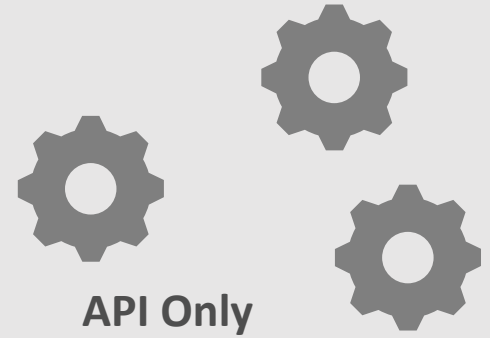


Ed-Fi ODS API

- Production-ready reference implementation



Other (Future) ODS APIs



API Only Implementations



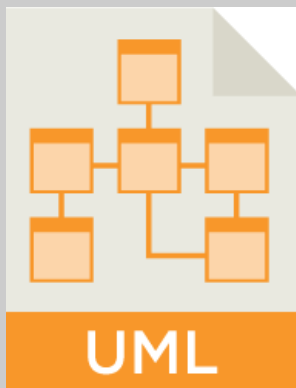
API Standards

- Deal with specific use cases
- Defined in Open API and normative guidelines
- Data modeled in JSON



XML (Bulk) Standards

- Deal with specific use cases
- Defined in XSD
- Fading away...



Ed-Fi Unifying Data Model

- Logical model in UML and a Data Handbook
- Foundation of all Ed-Fi technical standards
- Ensures that all standards are compatible



Note: the Ed-Fi ODS **database schema** is not a standard. The **logical** data model is a standard.

Ed-Fi Academy

Local Education Agencies

HOME / LOCAL EDUCATION AGENCIES

INTRODUCTION

1.0 

1.1 Introduction to Ed-Fi Technology

This short video provides a high-level overview of the Ed-Fi Alliance and Ed-Fi technology components as well as resources necessary for a successful project implementation.



1.2 Ed-Fi Technology Quick Start

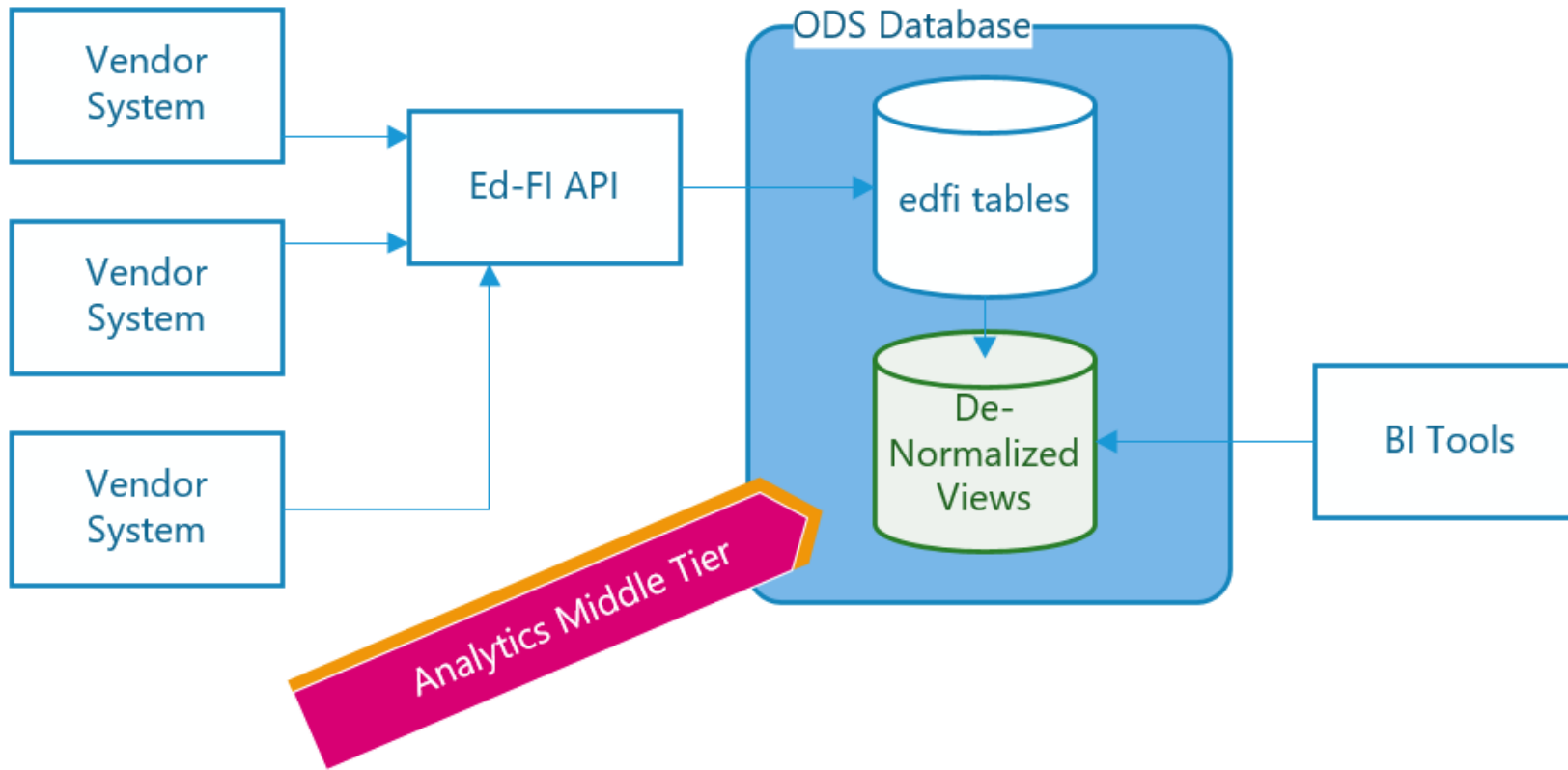
This 20-minute video provides an overview of the Ed-Fi technology components, including the data standard, ODS and API, dashboards and tools.



1.3 Navigating Ed-Fi Resources & Tools

Ed-Fi is an open community with a great deal of






Analytics Middle Tier



Analytics Middle Tier

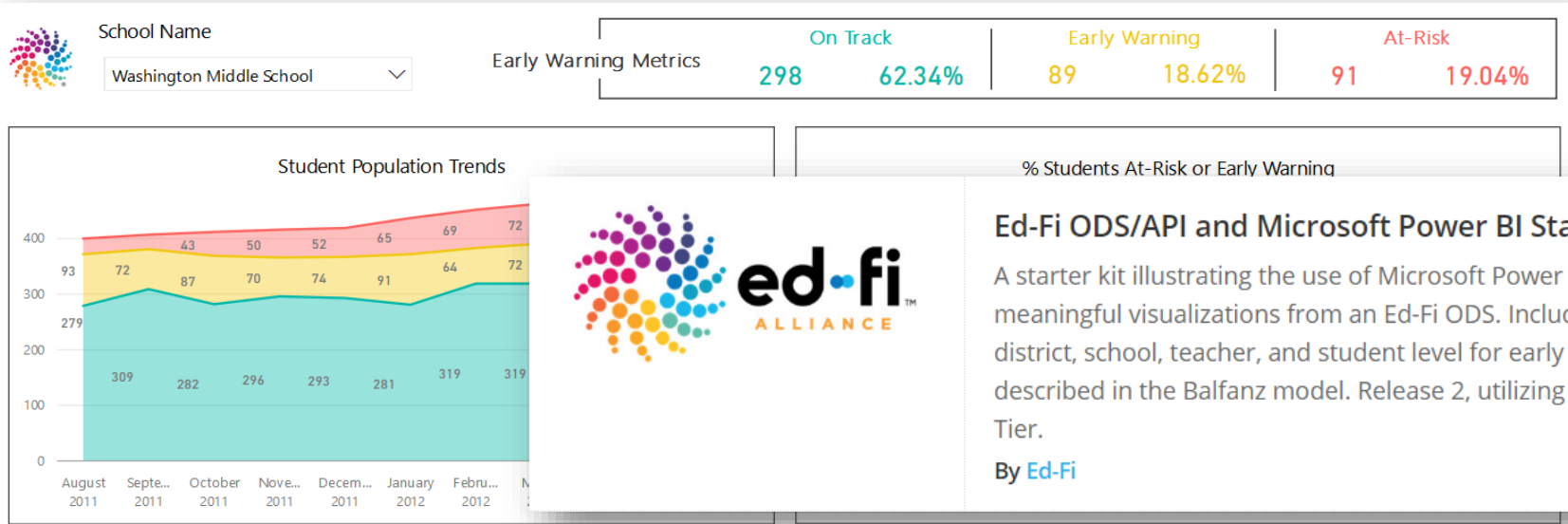
The Analytics Middle Tier is a set of dimension and fact views created to facilitate easier data modeling in self-service business intelligence tools.

By Ed-Fi

 Data Standard v2.2

 Released

BI Starter Packs

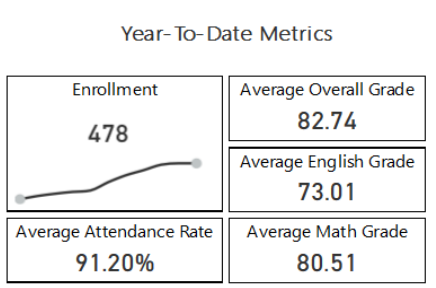


Ed-Fi ODS/API and Microsoft Power BI Starter Kit (v2)

A starter kit illustrating the use of Microsoft Power BI to create meaningful visualizations from an Ed-Fi ODS. Includes reports at the district, school, teacher, and student level for early warning indicators described in the Balfanz model. Release 2, utilizing the Analytics Middle Tier.

By Ed-Fi

- Data Standard v2.0
- ODS/API v2.3
- Released



Overall Indicator ...	Student Name	Grade Level	Attendance ...	Overall Grade ...	Math Grade ...	English Grade ...
At-Risk	Althea Coult	Eighth grade	83.83%	56.67	58.00	50.00
At-Risk						
At-Risk						
At-Risk						
At-Risk						
At-Risk						
At-Risk						
At-Risk						
At-Risk						
At-Risk						



Ed-Fi Analytics Views for Google Data Studio

This project contains a set of scripts that can extract data from an Ed-Fi ODS to create analytics views in Google Sheets and Google Cloud SQL. The extracted data is transformed to meet a format that's optimal for building data dashboards in Google Data Studio. The repository also comes with Data Studio report templates that can be copied into your Data Studio instance.

By DataViz Starter Pack / InnovateEdu

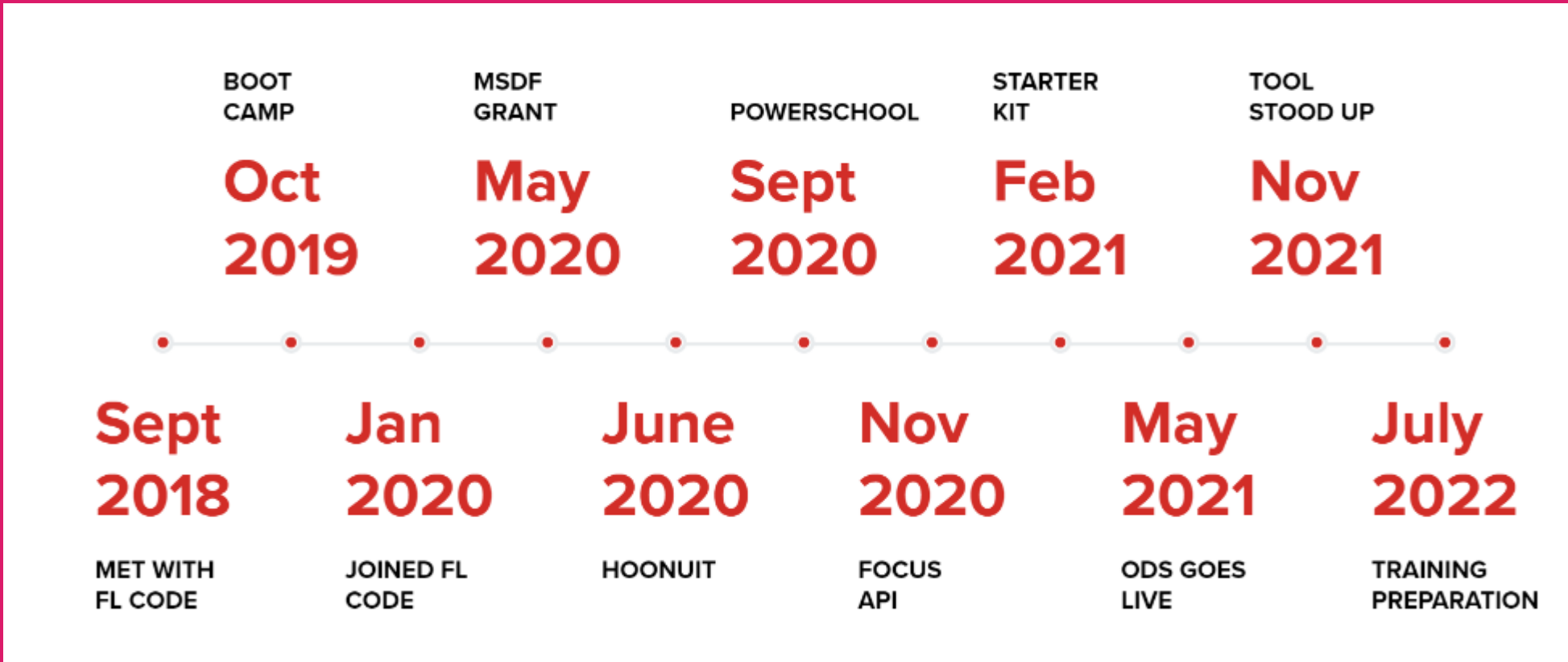
- Data Standard v2.2
- ODS/API v2.5
- Released



<https://exchange.ed-fi.org>



Our Ed-Fi Journey





Dr. Kathleen L. Rodgers

LEON COUNTY SCHOOLS IN FLORIDA • ASSISTANT SUPERINTENDENT

"Leon County's vision is to be an engaging, safe, and respectful learning environment that embraces change and produces successful learners who value diversity and are conscientious contributors to society. We use our data to provide all students with equitable access to programs, courses, highly effective teachers, technology, and other district resources free of bias based on ethnicity, race, sex, gender, or any other demographic differences across our diverse group of students."

Equitable Access for Who?

All Students Regardless of...

- Ethnicity
- Gender
- Age
- Lunch Status
- ELL
- 504
- ESE
- Pretty much everything

Data Quality

- Data Governance
- Who enters the data?
- Validation
- Standardization

Equitable Access To What?

Secondary Academic Programs:

- AP
- Dual Enrollment
- IB

Discipline Outcomes

Highly Effective or Experienced Teachers

Assessment



What Potential Barriers Exist?

Feeder School

Discipline

Past Performance

Attendance

Group by

- School
- None
- Gender

Legend

- All
- EthnicityRace
- School

School

All

Ethnicity/Race

All

Program

Multiple selections

Gender

Multiple selections

Feeder/Prior School

All

Residence Zip Code

All

Lunch Status

All

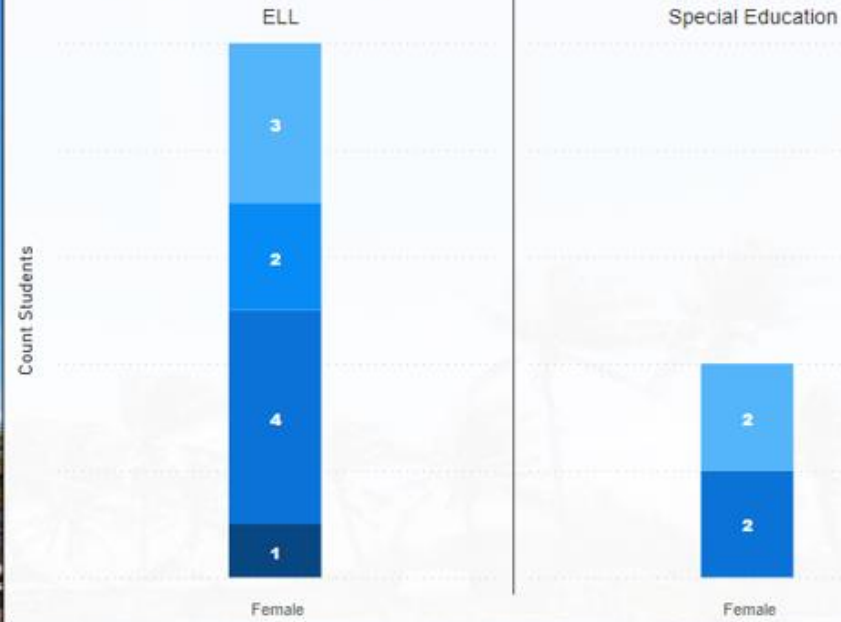
Age

All

Grade Level

All

Category Asian Black - African American Native Hawaiian - Pacific Islander White



Student	School	Grade Level	Enrollment History	Referrals/Suspensions	Attendance History	GradeSum
Alfredson, Amalia	Leon High 0021	Tenth grade	Leon High 0021 2000-01-01	0	100.00	

Group by

- School
- None
- Gender
- EthnicityRace

Legend

- All
- EthnicityRace
- Gender

School

Apalachee Elementary-0441

Ethnicity/Race

All

Program

All

Gender

All

Feeder/Prior School

All

Residence Zip Code

All

Lunch Status

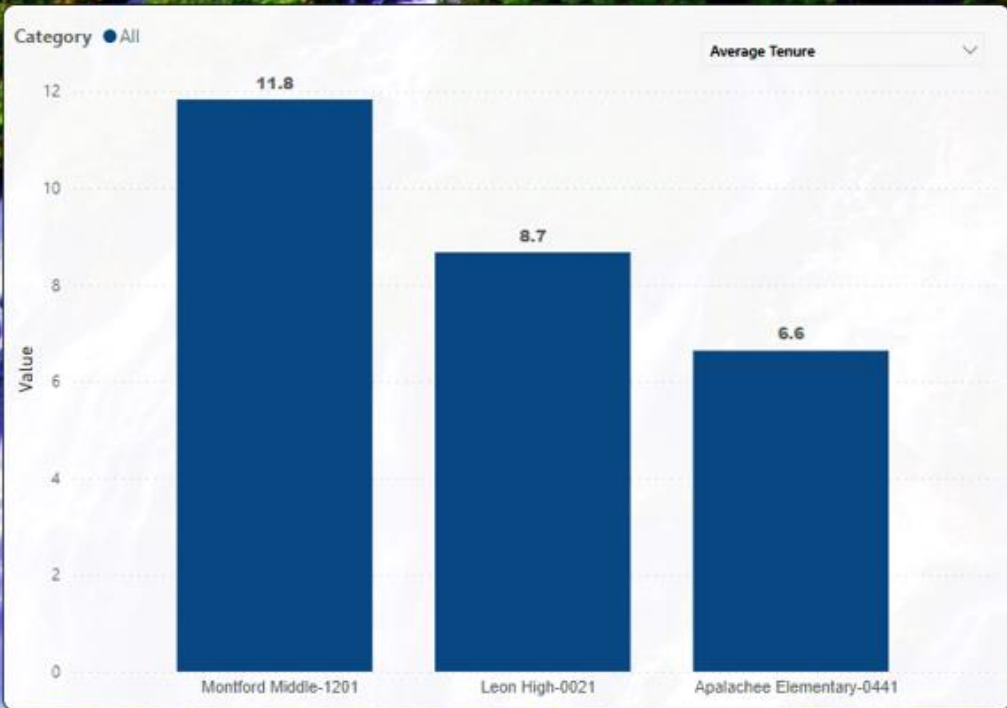
All

Age

All

Grade Level

All



Student	School	Grade Level	Enrollment History	Referrals/Suspensions	Attendance History	GradeSummary
[Table content is obscured]						

Group by

- None
- Gender
- EthnicityRace

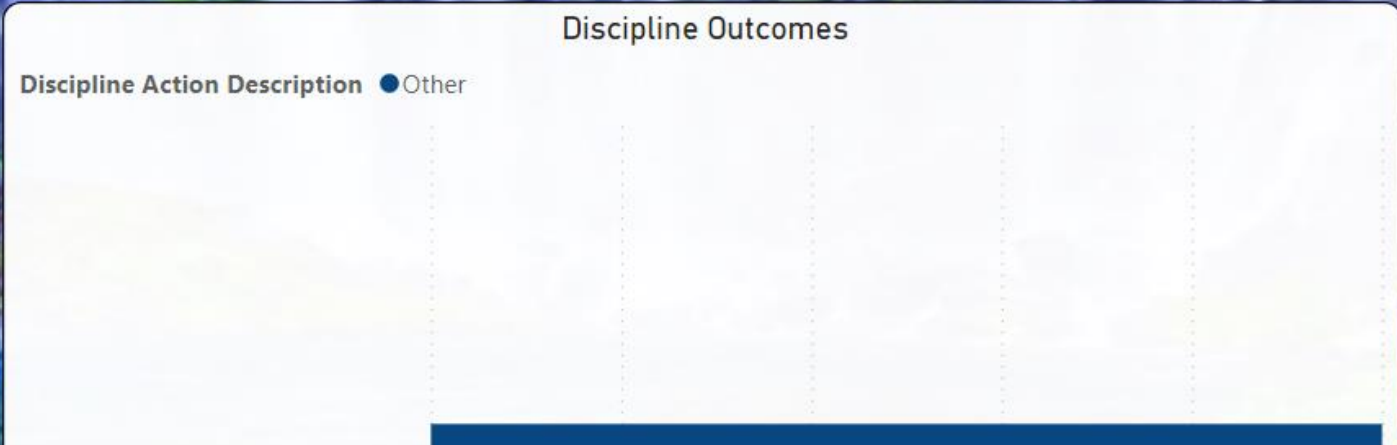
Legend

- All
- Gender
- School

School

All

Ethnicity/Race **Program**

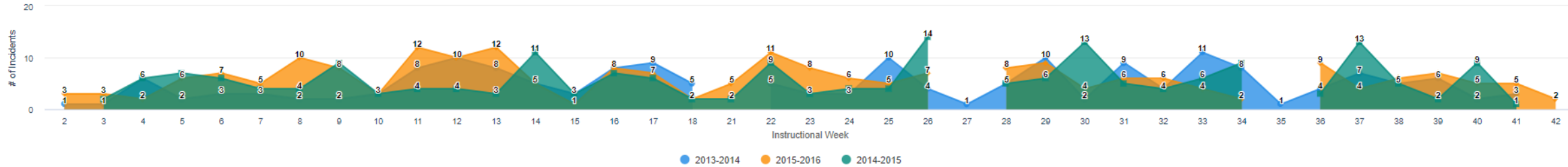


Overview of Student Behavior

Filter Data Fox High School Adams, MIREYA

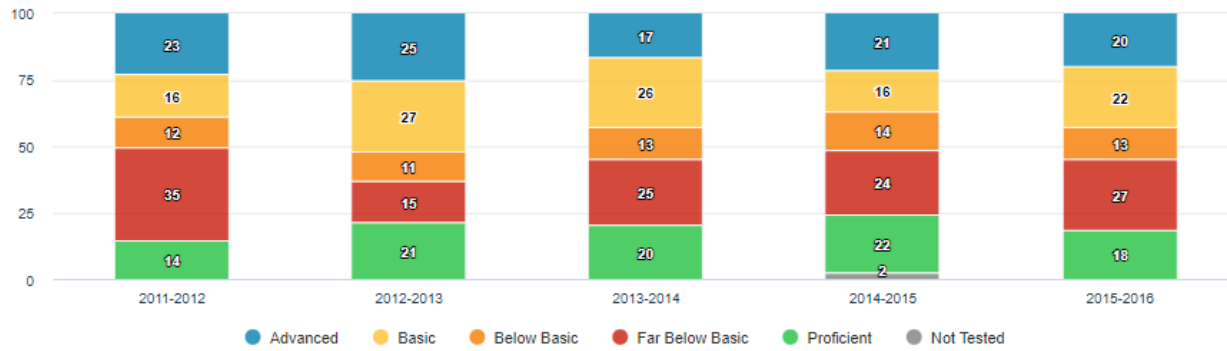
Are incidents decreasing week over week?

The weekly trend of incident occurrences over the last 3 years.

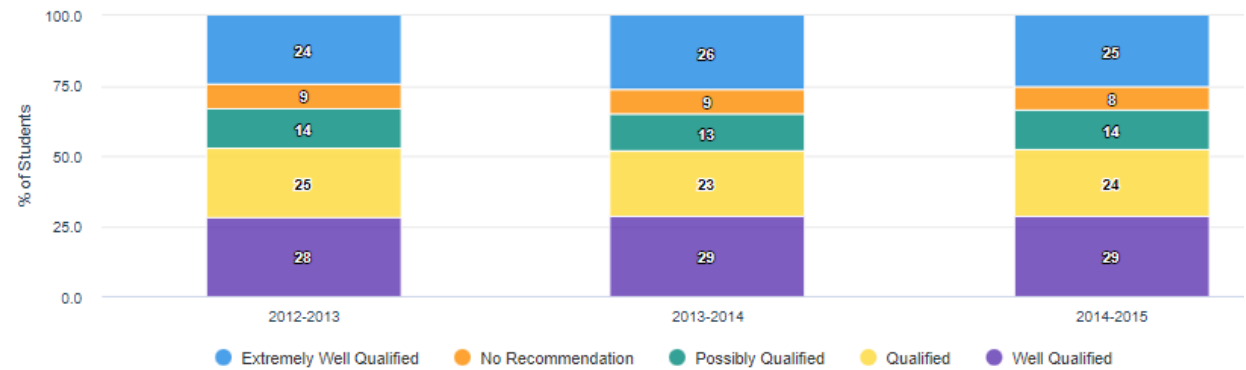


Assessments

State Achievement: Reading & Literature



AP Overall Performance by Year



Live Demo

- <https://app.powerbi.com/>
- <https://data.leonschools.net/>



NEFEC

— NORTH EAST FLORIDA —
EDUCATIONAL CONSORTIUM

The North East Florida Educational Consortium (NEFEC) has seen several districts make concrete and deliberate steps to “own their data” through **Ed-Fi** and **FLCODE**.

The standout districts are:

Baker, Bradford, Dixie, and Union.

Three areas where these districts have placed special emphasis are **Student Progress Monitoring, Early Warning Systems, and Student Discipline.**

Data visualizations and reporting are based solely on information contained in the **Operational Data Store**.

In combination with NEFEC's commitment to support districts, **Data Quality** is an area that is central to future successful initiatives.

Progress Monitoring

Mathematics Achievement and Learning Gains



Current Level



Gain Direction



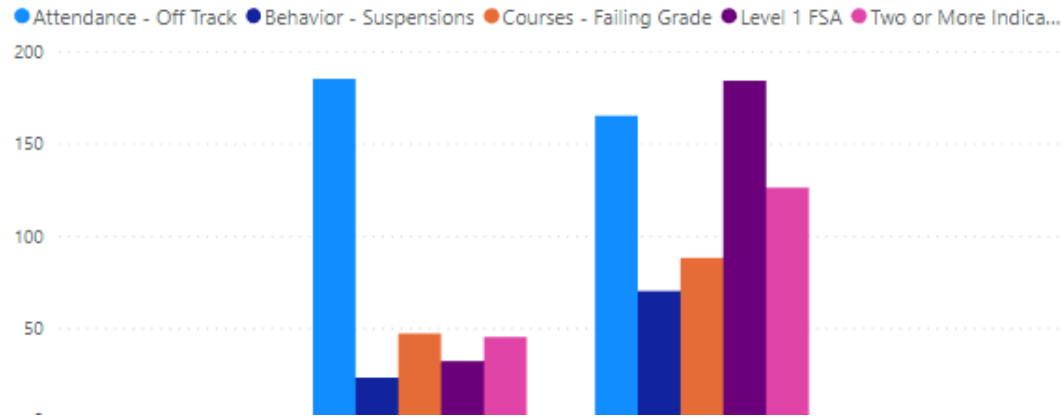
Student Name	OtherID	Grade	Prior Level	Prior Scale	Current Level	Current Scale	Gain Direction	FSA Date	Assessment	Assessed Grade
			Level 5	362.00	5.00	537.00	+ improved	5/14/2021	FSA Geometry	8
			Level 5	369.00	5.00	534.00	+ improved	5/14/2021	FSA Geometry	9
			Level 3	310.00	2.10	312.00	- regressed	5/14/2021	FSA Mathematics	5
			Level 1 High	279.00	1.30	295.00	- regressed	5/14/2021	FSA Mathematics	5
			Level 4	357.00	3.00	509.00	- regressed	5/14/2021	FSA Geometry	10
			Level 1 High	282.00	1.30	293.00	- regressed	5/14/2021	FSA Mathematics	5
			Level 4	350.00	3.00	500.00	- regressed	5/14/2021	FSA Algebra I	9
			Level 3	325.00	2.10	324.00	- regressed	5/14/2021	FSA Mathematics	8
			Level 4	354.00	3.00	516.00	- regressed	5/14/2021	FSA Algebra I	9
			Level 5	370.00	4.00	521.00	- regressed	5/14/2021	FSA Geometry	10
			Level 4	340.00	3.00	511.00	- regressed	5/14/2021	FSA Algebra I	8
			Level 3	316.00	3.00	327.00	+ improved	5/14/2021	FSA Mathematics	6
			Level 5	349.00	3.00	338.00	- regressed	5/14/2021	FSA Mathematics	6

Early Warning

Attendance Off Track 350	Behavior Suspensions 93	Courses Failing Grade 135	FSA Level 1 Level 1 FSA 216	Early Warning - Students Two + Indicators 171	Students Selected Enrollment 1186
---------------------------------------	--------------------------------------	--	--	--	--

School Name	Attendance - Off Track	Attendance Rate	Behavior - Suspensions	Courses - Failing Grade	Level 1 FSA	Two or More Indicators	Students
<input type="checkbox"/> [Blurred School Name]	185	27.24	23	47	32	45	569
<input type="checkbox"/> [Blurred School Name]	165	34.85	70	88	184	126	617
Total	350	31.20	93	135	216	171	1186

Early Warning by School

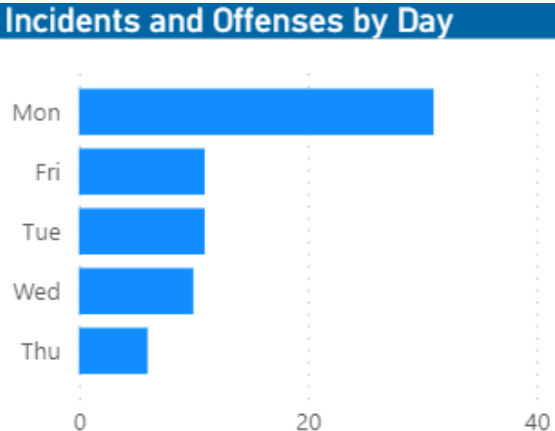


Students with One or More EWS Flags

Student Name	EWS Flags	School
[Blurred]	4	HIGH SCHOOL
[Blurred]	4	HIGH SCHOOL
[Blurred]	4	HIGH SCHOOL
[Blurred]	4	HIGH SCHOOL
[Blurred]	4	HIGH SCHOOL
[Blurred]	4	HIGH SCHOOL
[Blurred]	4	HIGH SCHOOL
[Blurred]	4	HIGH SCHOOL
[Blurred]	4	HIGH SCHOOL
[Blurred]	4	HIGH SCHOOL
[Blurred]	4	HIGH SCHOOL
[Blurred]	4	HIGH SCHOOL
[Blurred]	4	HIGH SCHOOL
[Blurred]	4	HIGH SCHOOL
[Blurred]	4	HIGH SCHOOL

Student Discipline

School Discipline Counts				
School Name	Incidents	Offenses	Students	Actions
[Redacted]	69	69	53	70
Total	69	69	53	70

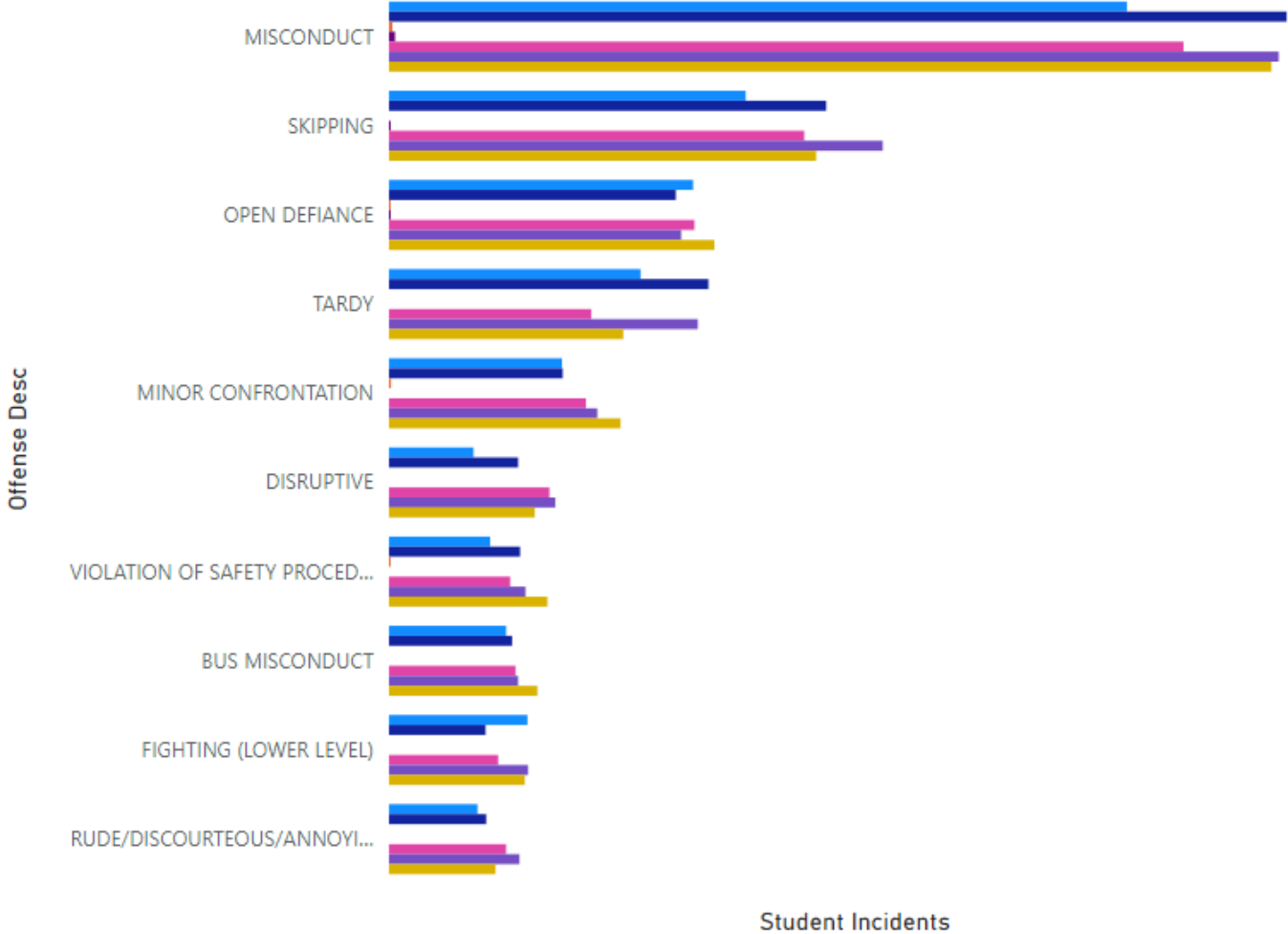


Incidents and Offenses by Day				
Day	Incidents	Offenses	Students	Actions
Mon	31	31	31	31
Fri	11	11	9	12
Tue	11	11	10	11
Wed	10	10	10	10
Thu	6	6	5	6
Total	69	69	53	70

Student Discipline

Top 10 Offenses

● Friday
 ● Monday
 ● Saturday
 ● Sunday
 ● Thursday
 ● Tuesday
 ● Wednesday



HR to Student Sync Using Ed-Fi

Baker County School District (000)

Ed-Fi

- Ed-Fi
 - Data by Subject
 - Mass Send to API
 - Mass Send to API Tasks
 - Data Sent History - Record Sets
 - Data Sent History - Individual Records
 - Data Sent History - Current API Data
 - Ed-Fi Tables and Fields
- Legacy Ed-Fi
 - Mass Send to API
 - Mass Send to API Tasks
 - Data by Subject
 - Data Sent History
 - API Interface
 - Load Staff Fields from API

Load Staff Fields from API

Display My Templates Display Shared Templates Display Skyward Templates

Load Staff Fields from API Templates

Template Type	Description	Created By
2) Entity	Load Staff Fields from API	WINDHAM, MARYBETH

1 records displayed

Load Staff Fields from API

Template Description: Load Staff Fields from API

Share with other users in entity 000

Print Greenbar

This template is used by a scheduled or monitored task. Changing this template will affect the task.

Ed-Fi Plugin to Use

School Year: 2021-22

Plugin: 6 - Production v2.5 (EdFiPrAs12)

Staff Ranges

Staff Key: [] to ZZZZZZZZZZ

Active: Active Inactive Both

Entities:

- 000 - Baker County School District
- 0011 - Baker County Adult School
- 0012 - Baker County High School
- 0013 - Macclenny Elementary School
- 0022 - Baker County PK/KG Center
- 0031 - J. F. Keller Intermediate
- 0032 - Baker County Middle School

Options

How to Set Fields

Title: Set If Blank Overwrite Preview Only

Survey Jobcode: Set If Blank Overwrite Preview Only

FL Ed. Identifier: Set If Blank Overwrite Preview Only

Certificate Number: Set If Blank Overwrite Preview Only (all zeroes is considered blank)


Local Staff ID: Set If Blank Overwrite Preview Only

Find Local Staff ID Under Employee ID

What to Print

- Fields that differ between Ed-Fi Staff and its matched Skyward Staff
- Fields that are the same between Ed-Fi Staff and its matched Skyward record
- Ed-Fi Staff with an invalid match from Skyward
- Ed-Fi Staff with no match from Skyward
- Skyward Staff with no match from Ed-Fi

Data Quality

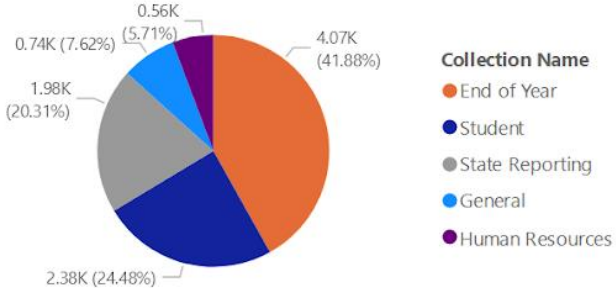


Overview
Rules

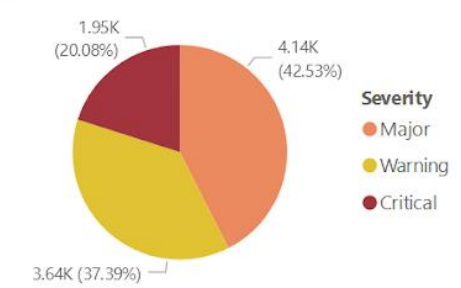
Collection Name
Container Name
Severity
School ID

Total Errors
9727

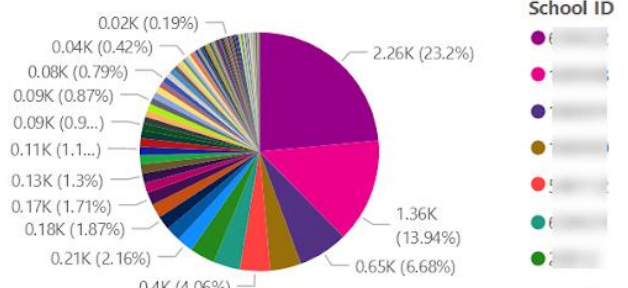
Error Count By Collection



Error Count By Severity




Error Count by School ID



Severity	ContainerName	Error Count	Rule Code	Rule Name	Execution Date	Execution Time	Error Message	Resolution
Warning	Student Class	2192	GLO9	Middle School Transcript GLOs and Course Flags	6/8/2022	8:58 AM	A middle school student has earned credit in a high school course but their class record does not have the correct transcript GLO entered, the GLO is not included in GPA calculations, and/or does not have a course flag of 9.	Enter a Transcript GLO value of "09", include the transcript GLO in GPA calculations, and/or add a course flag of 9 to the student's class record.
Warning	Assignments	555		Active Staff Without Assignments	6/8/2022	8:58 AM	Active staff member without an assignment	Please check the HR system to make sure the staff member is configured with the appropriate information to generate an assignment record.
Critical	Prior School Status/Student Attendance	79	29	Edit 29	6/8/2022	8:58 AM	Entry Code is a Re-Entry Code (R01, R02, or R03) and Prior School District does not match District Number, Current Enrollment.	Correct Prior School District to match District Number, Current Enrollment.
Critical	Prior School Status/Student Attendance	284	26	Edit 26	6/8/2022	8:58 AM	Entry Code is E01 and Prior School District does not match District Number, Current Enrollment, Prior School State is not FL, and/or Prior School Country is not US.	Correct Prior School District to match the District Number, Current Enrollment, Prior School State to FL, and/or Prior School Country to US.
Critical	Prior School Status/Student Attendance	181	27	Edit 27	6/8/2022	8:58 AM	Entry Code is E02 and Prior School District is 99 or matches the District Number.	Correct the Prior School District value for the Entry Code.

Go back
Overview
DataChecker_v3 | Data updated 6/8/22

Data Quality Rules



Overview
Rules

CollectionName
All

ContainerName
All

Level
All

Number of Rules
55

Collection	Container	Rule	Description	Create Date	Execution Date	Version	Severity
State Reporting	Prior School Status/Student Attendance	Edit 14	Prior School/Location: District/County must be numeric and in the range 01-68, 71-75 or 99.	11/4/2021	6/8/2022 9:28:10 AM	5	Critical
State Reporting	Prior School Status/Student Attendance	Edit 26	If the Entry Code is E01, then the Prior School/Location: District must be the same as the District Number, Current Enrollment, the Prior School/Location: State/Territory or Commonwealth must be FL, and the Prior School/Location: Country must be US.	11/4/2021	6/8/2022 9:28:12 AM	5	Critical
State Reporting	Prior School Status/Student Attendance	Edit 27	If the Entry Code is: - E02, then the Prior School/Location: District/County must not be 99 and must not be the same as the District Number, Current Enrollment. - E2A, then the Prior School/Location: District/County must be 99	11/4/2021	6/8/2022 9:28:15 AM	5	Critical
State Reporting	Prior School Status/Student Attendance	Edit 28	If the Prior School/Location: District is 99 and the Prior School/Location: State/Territory or Commonwealth is ZZ, the Prior School/Location: Country may not be US and vice versa.	11/4/2021	6/8/2022 9:28:16 AM	5	Critical
State Reporting	Prior School Status/Student Attendance	Edit 29	If the Re-Entry Code is R01, R02, or R03, the Prior School/Location: District must be the same as the District Number, Current Enrollment.	11/4/2021	6/8/2022 9:28:18 AM	6	Critical
State Reporting	Student Discipline/Resultant Action	Hours Used in Action	Hours were entered into Skyward for the Action instead of using Days.	9/15/2021	6/8/2022 9:27:24 AM	7	Warning
End of Year	EOY Student Verification Report	Retained Grad Req Base Year Mismatch (Grades 08 and Below)	If the student is being retained and is in eighth grade or below, the Grad Req Base Year must match the Next Year Grad Year.	8/30/2021	6/8/2022 9:27:49 AM	6	Major
End of Year	EOY Student Verification Report	Promoted Grad Req Base Year Mismatch (Grades 08 and Below)	If the student is being promoted and is in eighth grade or below, the Grad Req Base Year must match the Current Grad Year.	8/30/2021	6/8/2022 9:27:51 AM	5	Major
End of Year	EOY Student Verification Report	Enrolled Graduated Student	The student's Current Grad Year is prior to the current school year but had an entry/withdrawal record this year. The student is considered to have already graduated.	7/15/2021	6/8/2022 9:27:35 AM	6	Major
End of Year	EOY Student Verification Report	Advanced Next Year Grad Year	If the student is marked Advanced, the Next Year Grad Year must be the Current Grad Year minus one.	7/15/2021	6/8/2022 9:27:37 AM	9	Major
End of Year	EOY Student Verification Report	Academically Advanced without Good Cause Exemption	The student has a Grade Promotion Status of "A" (academically advanced) but does not have a Good Cause Exemption code.	7/15/2021	6/8/2022 9:27:39 AM	5	Major
End of Year	EOY Student Verification Report	Retained Next Year Status	The student is being retained and the Next Year Status is Inactive (unless the student is future enrolled in a different entity or does not have a W01 withdrawal code)	7/15/2021	6/8/2022 9:27:40 AM	5	Major

Go back
Rules
DataChecker_v3 | Data updated 6/8/22

Data Quality Rule Ideas

Data Quality Rules ☆ 📄 🌐

File Edit View Insert Format Data Tools Extensions Help Last edit was made 6 days ago by Michael Preslar

100% \$ % .00 123 Default (Arial) 12 B I U A

1	A	B	C	D	E	F
1	Rule Explanation	Submitted By	Comments	Status/Review	Source of Validation	
2	In Class History, check for middle schoolers earning credit, but not having GLO set to 09, OR Include GLO in GPA Calculation Not Checked, OR a course flag of 9.		I recently had an email from our gc about the course not printing on the transcript due to these issues.	Done		
3	Would like an error for students who have an ELL status but whose teacher does not have ESOL endorsement in HR					
4	Would like an error for students withdrawn with a W26 to Adult Education who doesn't have an enrollment into Adult Ed		Adult Ed School type is 05 in School Code Setup-high priority due to Grade Rate Cohort that I am currently working on and all changes/corrections are due by December 9, 2021.	Missing Data - Entity Types		
5	Would like to have an error for students who have a Resident Status - STUDENT-EW.DISTRICT-CODE - of an A or B and don't have the Zoned School information		Zoned District/School information not sent to ODS? -MVP	Missing Data - Zoned Dist/Schl Information		
6	Would like to have an error for discipline incidents that have an action of "O" or "I" and the number of days is "000"			Complete? - Existing Data Checker rule for 0 days.		
7	Would like to have an error discipline incidents that have a school of "000"			Research Needed - Are discipline records with a School of 000 sent to ODS?		
8	Would like to have an error report for students have language other than English in one of the 3 language questions and have no test information on the ELL Special Programs panel		Only student "dominant" language sent to ODS. Language questions in ODS? ELL test information in ODS?	Missing Data - Additional ELL Information (Language Questions, ELL Test Information)		
9	Would like an error for students whose address is not in Baker and don't have the Resident Status of an A or a B		Get with Shane regarding using his address visualization to visualize student addresses.	Error - Inability to determine if an address exists within a county.		
10	Would like an error for students whose address is not a Baker County address and the Resident Status - STUDENT-EW.DISTRICT-CODE isn't District Code		Get with Shane regarding using his address visualization to visualize student addresses.	Error - Inability to determine if an address exists within a county.		
11	Address validations around special characters, invalid formats, etc.		Look for special characters in student addresses and flag as data quality issues.	Research Needed - Are student addresses sent to the ODS?		
12	I would like an error report that shows if a student is listed as a guardian of another student.			Research Needed - Are guardians sent to the ODS?		
13	Flag a 'warning' for an employee profile that is 'active' when a termination date has been entered. Display the termination date in the warning			Doable - SEOEA + Supplemental	3	
14	Flag an 'error' when the Position Control Job Code, Assignment Account Job Code, Pay Record Account Job Code and Check Account Job codes differ.			Missing Data - Additional Job Codes from Other Sources		
15	Flag a 'warning' when an Employee has a Teacher or Instructional assignment but does not have a certification on file.			Missing Data - Certifications to the Suite 3 ODS		
16	Flag a 'warning' when an Employee is assigned a Lane code flagged as a degree lane (state code) but does not have degree info.			Question - Degree lane codes?		
17	Flag an 'error' when the Employee / Profile / State / DOE Rpt information is wrong for the employee status, type and assignment > Only Active employees should have Employment Status 'A' > There should be an assignment with 6+ hours per day for employees with employee type 'RF'. Subs should be temporary. > Employment Length should sync with the employee assignment calendar > School Principal Certification should be 'z' except for those assigned to a Principal position > A warning should appear if Contract Status is not 'AC' for someone in an instructional position; and ZZ for everyone else > A warning should appear if Country of Citizenship is not US			Missing Data - DOE State Reporting Tab Fields from HR		
18	A 'warning' should appear if the job code and account function vary (ie. salaries paid out of function 6200 should likely have a job code beginning with '620')			Missing Data - Pay Records		
19	Format Total variation between Surveys			Question - What is the threshold for notifications? 10%?		

+ Data Quality Rules Data Quality Concerns/Issues Definitions Explore

Questions?