



CONNECTICUT STATE DEPARTMENT OF EDUCATION

The Early Indication Tool (EIT)

Best Practices and Use Cases

Presented by

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October 17, 2019

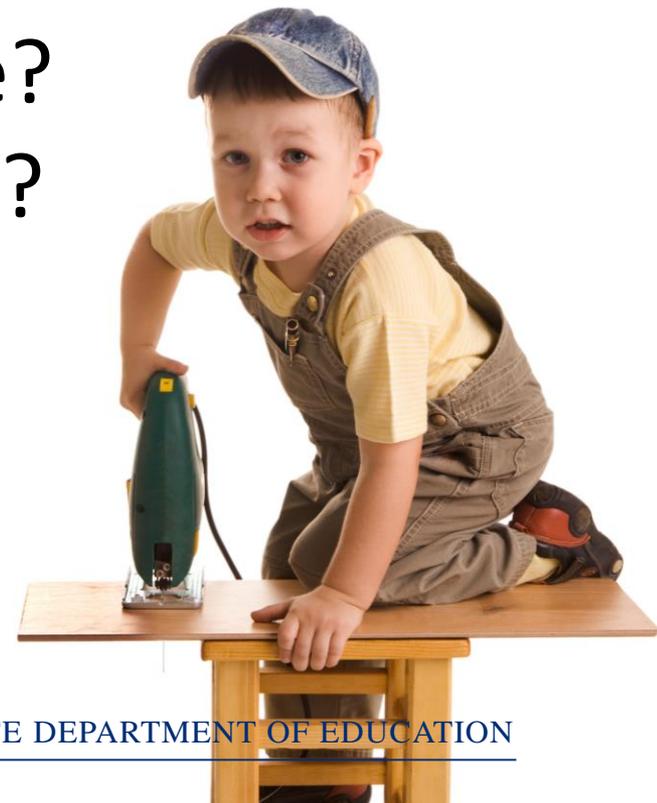
Early Warning System (EWS)

Data analytics tool that uses readily available education data to systematically *predict* and *improve* student outcomes



What EWS tools do you use?

- For each tool:
 - What is the tool?
 - What data does it include?
 - What is the methodology?





EARLY INDICATION TOOL (EIT)

- Grades 123 Chart
- Grades 123 Data
- Grades 4567 Chart
- Grades 4567 Data
- Grades 89 Chart
- Grades 89 Data
- Grades 10to12 Chart
- Grades 10to12 Data
- Resources

District ABC

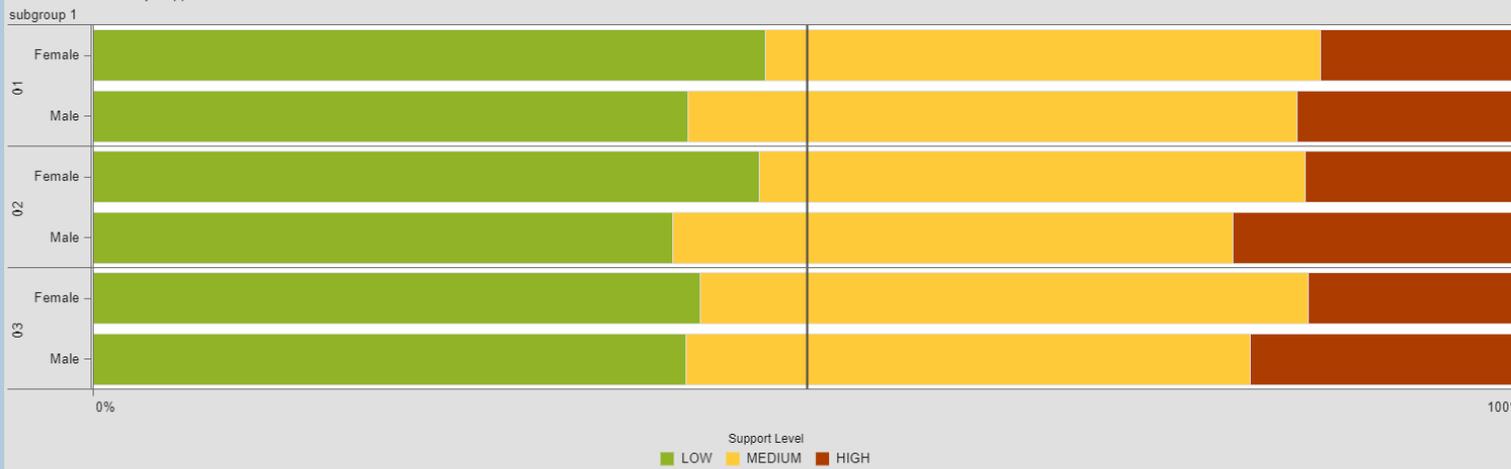
- School/Program
- Current Grade*
- Gender
- Race/Ethnicity
- High Needs
- Special Education
- English Learner

Filter = <No interactive filters present>

This bar chart shows the percentage of students in the filtered group (Grade, School, Subgroup, etc.) by support level indicated by the Early Indication Tool Model.

To narrow your data to a specific grade, school, or subgroup, use the dropdown filters above. Double-click on the chart to open a window of student-level data for only students at that support level. To get a full list of all students, go straight to the Grades 123 Data tab. To create a cross-tabulation, select a subgroup in either one or both of the drop-down lists below.

Percent of Students by Support Level



Select subgroup 1:
Gender

Select subgroup 2:
Grade

*The EIT models are specific to each grade level. For the most meaningful results, filter the data using the Grade drop-down list or choose Subgroup "Grade" to break out the bar charts by Grade Level.



Primary Purpose of the EIT

To *allow for timely student interventions* by district/school staff with the ultimate goal of *improving student engagement and outcomes*

(aligned to Connecticut's ESSA Plan for provision of student supports)

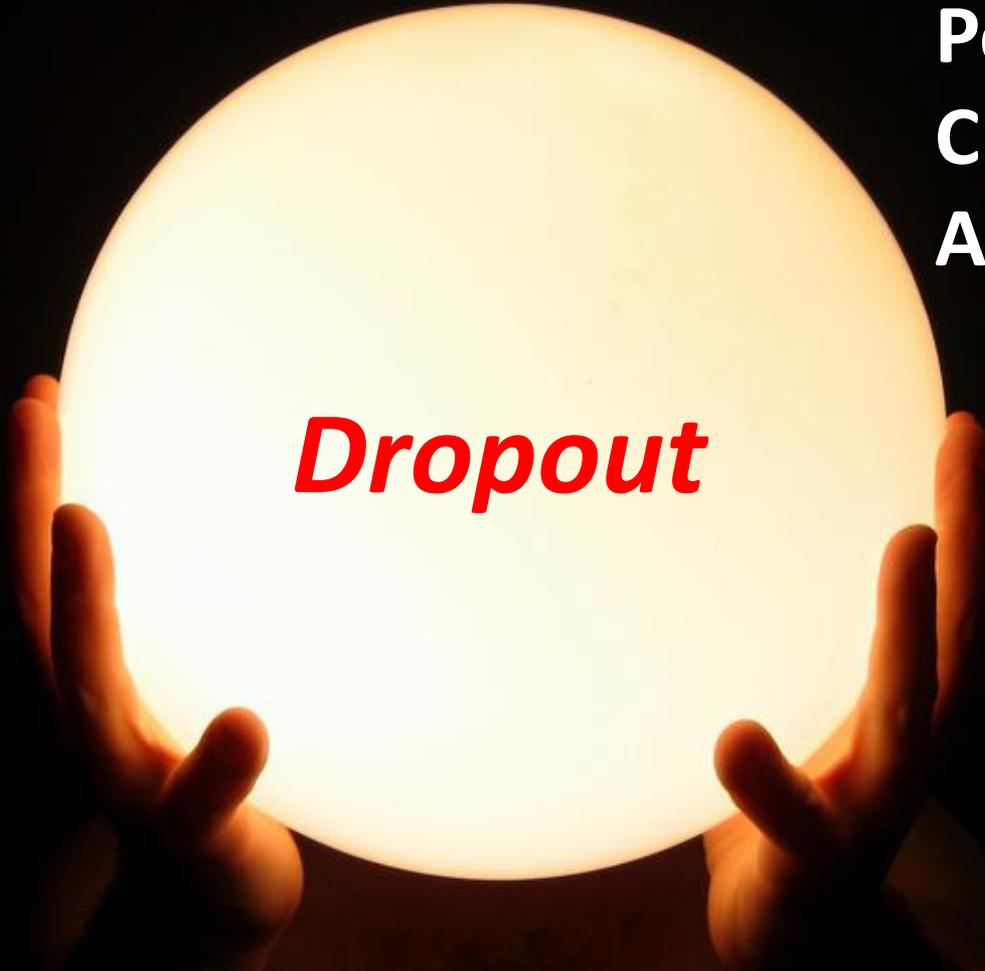


Attendance

Behavior

Course

Performance/
Credit
Accrual



Dropout

Attendance

Behavior

Demographics

Mobility

**Achievement
Tests**

**School
Indices**

***Academic
Milestone***

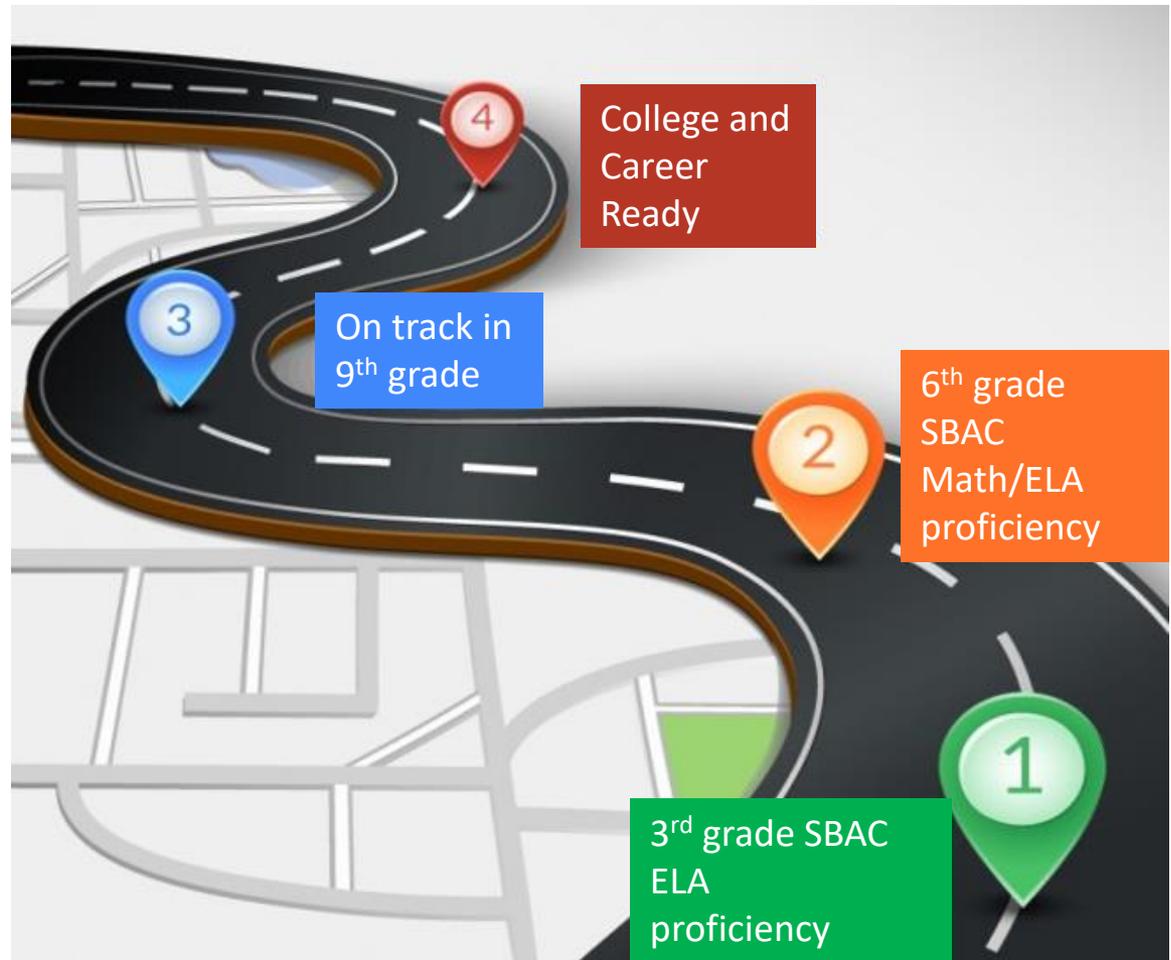
**District
Indices**

**Course
Performance**



MILE MARKER APPROACH

Markers serve as **targets** for students, and as **dependent variables** in the EIT model



What does the EIT report?

- **Secure student-level data**
 - Demographics
 - Attendance Rates
 - Suspensions
 - Mobility
 - Achievement
 - Course performance
- **Targeted support level**
 - High, Medium, or Low



EIT Predictors (grade-invariant)

The following are included in all EIT models:

- **Attendance**
- **Behavior**
- **Mobility**
- **High Needs status**
- **Detailed special education data**
- **Retention; age in grade**



Graduation Rates SWD

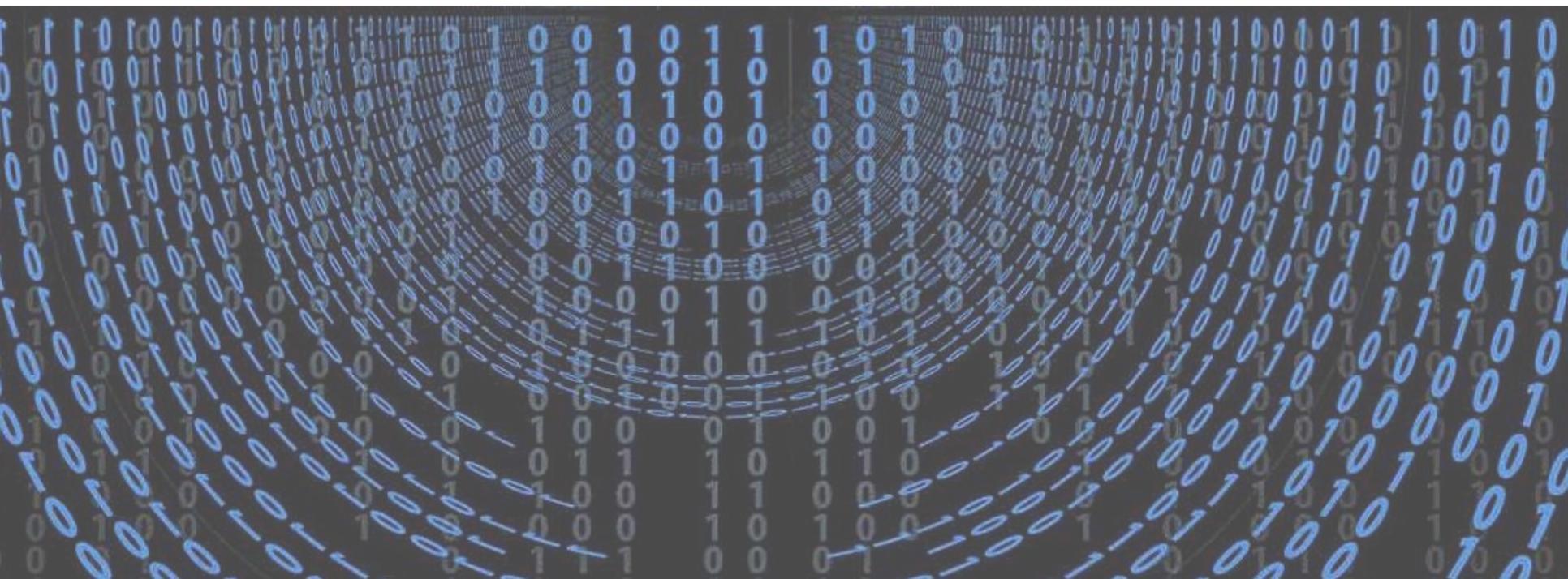
Subgroup	Four-Year Graduation Rate	Five-Year Graduation Rate
Students without Identified Disabilities	67.10%	69.60%
Two+ Years below Grade Level	45.50%	49.00%
Learning Disability	47.80%	52.70%
Mild Cognitive Disability	41.70%	47.20%
Emotional Disturbance	18.70%	23.50%
Speech/Language Disabilities	58.10%	63.50%
Physical/Sensory Disabilities	75.00%	77.50%



Source: Gwynne, J., Lesnick, J., Hart, H. M., & Allensworth, E. M. (2009)

Machine Learning

Data mining techniques and computer algorithms to understand patterns in data to solve problems



How to Get the Most out of the EIT EdSight Secure Report

Sections By Student Grade Levels

Bar Charts of Support Levels

Filters, lattices, flyovers, info windows

Data lists

Numerical and Character Filters

Color coded data display

Sorting student-level data

Resources tab

Support links

Student support best practices links





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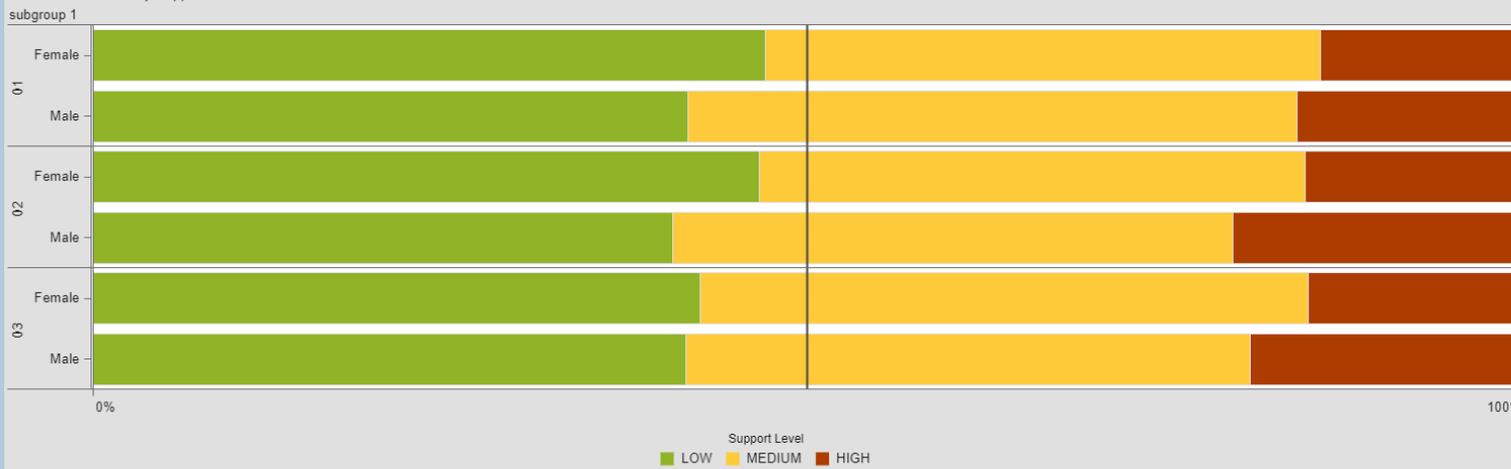
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EARLY INDICATION TOOL (EIT)

OVERVIEW

The EIT is a K-12 system that uses statistical methods to identify clusters of students who are at-risk of missing milestones and/or dropping out, and *ultimately facilitates more timely interventions by assigning targeted student support levels.*

INFORMATION & ACCESS

The EIT provides **color-coded longitudinal data** and **visualizations** to school and district users in a secure fashion via EdSight Secure.

THE DASHBOARD

Early Indication Tool

School/Program | Current Grade | Support Level | Gender | Race/Ethnicity | High Needs | Special Education | English Learner

Filter = Special Education Status = 'Special Education'; Current Grade = '06'; Support Level = 'High'

SASID Search: Enter SASID... | Attendance (Last yr) | Perf. Level ELA (Last yr) | Perf. Level Math (Last yr) | Total School Moves | Total ISS (2 yrs) | Total OSS (2 yrs)

Current Grade	Special Education Status	English Learner Status	Race/Ethnicity	Gender	High Needs Status	Support Level	Attendance Rate (Last yr)	Attendance Rate (2yrs ago)	SB ELA Score (Last yr)	Perf. Level ELA (Last yr)	SB Math Score (Last yr)	Perf. Level Math (Last yr)	SB ELA Score (2 yrs ago)	SB Math Score (2 yrs ago)	Total School Moves	Total ISS (2 yrs)	Total OSS (2 yrs)
06	Special Education	Non-English Learner	Hispanic/Latino of any race	Male	High Needs	High	88.5%	90.1%	2340	1	2429	1	2359	2456	0	0	0
06	Special Education	Non-English Learner	Asian	Male	High Needs	High	88.5%	98.3%	2430	1	2471	2	2355	2412	0	0	0
06	Special Education	Non-English Learner	Hispanic/Latino of any race	Male	High Needs	High	89.0%	90.7%	2534	3	2505	2	2382	2442	0	0	0
06	Special Education	Non-English Learner	Two or More Races	Female	High Needs	High	89.6%	94.5%	2475	2	2470	2	2499	2437	0	0	0
							Average:	Average:	Average:	Average:	Average:	Average:	Average:	Average:	Maximum:	Maximum:	Maximum:
							94.1%	95.0%	2398	1	2413	1	2366	2393	2	7	4

Filters

One row per student (*)

Options to maximize, save, and export

Summary data by column

Demographics and special populations status fields

Two years of attendance, achievement, mobility, discipline, and retention

Targeted Student Support Level
(as determined by the EIT model)

* Additional fields, including student ID, name, and date of birth, are displayed in the EIT

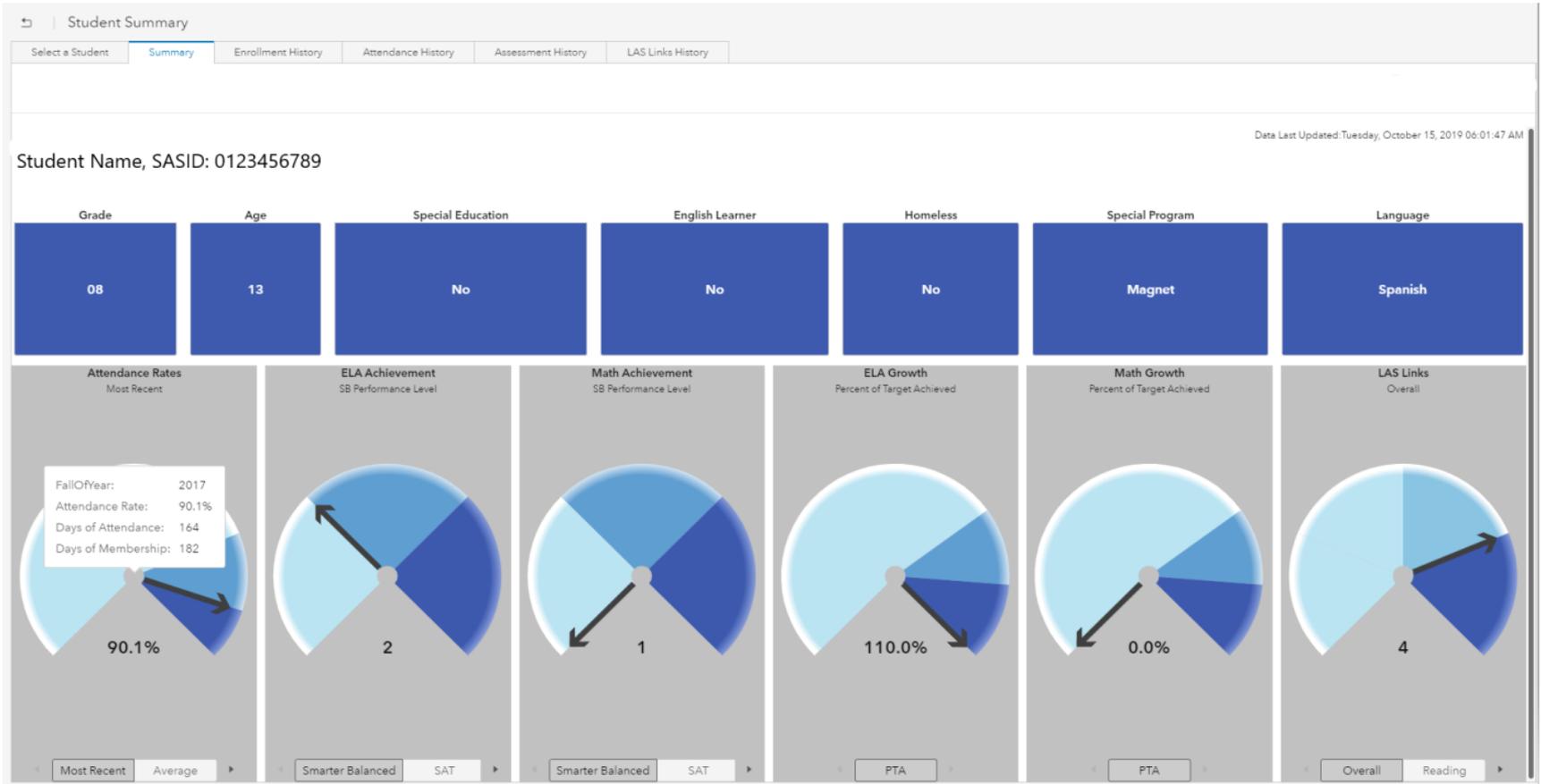
Student Summary *(Coming soon!)*

- Single-student profile that will be accessible by clicking any student record in the EIT
- Dashboard with most current information
 - Grade, Age, Special Education Status, English Learner Status, Homeless Status, Special Program Status, Language, Attendance Rate, English Language Arts/Math Achievement and Growth, LAS Links
- Separate tabs with historical data
 - Enrollment, Attendance, Assessment, LAS Links



Student Summary

Dashboard



Student Summary

Historical Data Page

Student Summary

Select a Student | Summary | **Enrollment History** | Attendance History | Assessment History | LAS Links History

Enrollment History for SASID

School Year ▲	Co... ▲	Reporting District	School	Grade	Race/Ethnicity	Student_SpecEd_CH	Student_LEP_CH	EL Program Type	HomelessnessStatusFlag
2014-15	Oct			g3	Hispanic/Latino of any race	0	1	Eligible, participating in a TBE program	0
2014-15	Jan			g3	Hispanic/Latino of any race	0	1	Eligible, participating in a TBE program	0
2014-15	Jun			g3	Hispanic/Latino of any race	0	1	Eligible, participating in a TBE program	0
2015-16	Oct			g4	Hispanic/Latino of any race	0	1	Eligible, participating in a TBE program	0
2015-16	Jan			g4	Hispanic/Latino of any race	0	1	Eligible, participating in a TBE program	0
2015-16	Jun			g4	Hispanic/Latino of any race	0	1	Eligible, participating in a TBE program	0
2016-17	Oct			g5	Hispanic/Latino of any race	0	1	LTSS after 30 months in program	0
2016-17	Jan			g5	Hispanic/Latino of any race	0	1	LTSS after 30 months in program	0
2016-17	Jun			g5	Hispanic/Latino of any race	0	1	LTSS after 30 months in program	0
2017-18	Oct			g6	Hispanic/Latino of any race	0	0		0
2017-18	Jun			g6	Hispanic/Latino of any race	0	0		0
2018-19	Oct			g7	Hispanic/Latino of any race	0	0		0





CONNECTICUT STATE DEPARTMENT OF EDUCATION

East Hartford Public Schools Intervening Early with Data

Dr. Sarah Brzozowy

October 17, 2019

Session Objectives

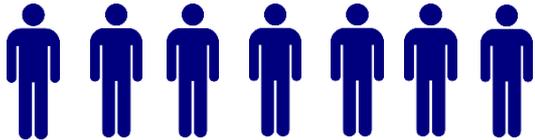
- East Hartford Public Schools (EHPS) approach to data
- The Early Indication Tool
- Responding to Data



East Hartford Public Schools



5% Asian



37% Black



43% Hispanic



15% White



6,481



758



88.9%



-58%



-30%



68.9



76%



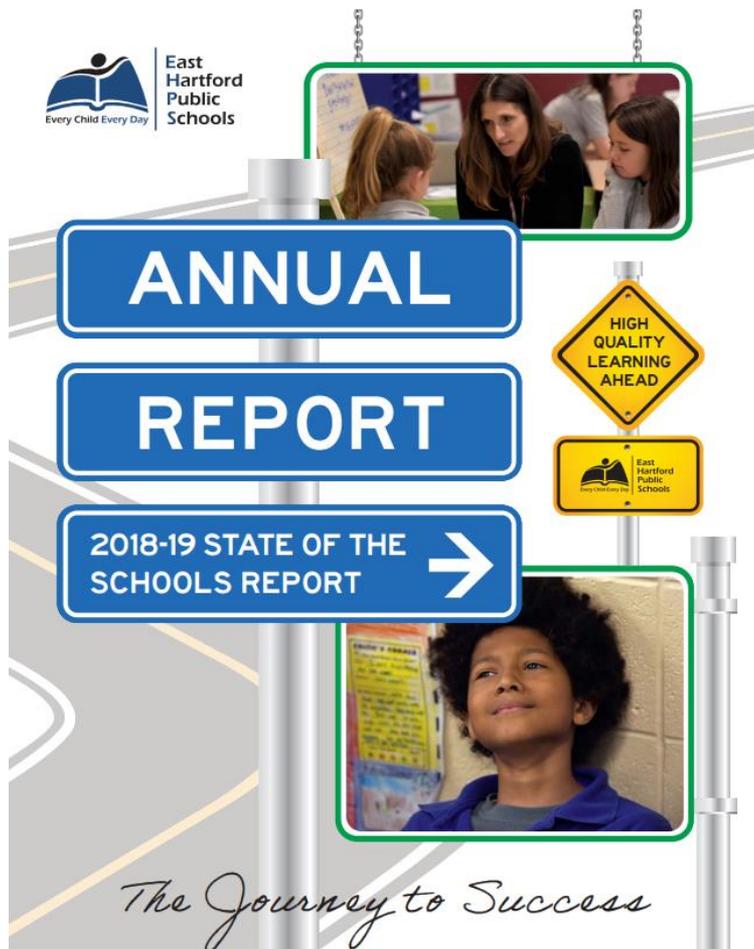
35%



95.1%



East Hartford Public Schools



East Hartford Public Schools



**SLOW DOWN
GREAT SCHOOLS
AHEAD**

The Kids in the Car...

EHPS proudly serves 6,812 diverse, talented and dynamic students between grades Pre-K and 12. Our average grade ranges between 500-550 students with elementary class sizes around 21 students per class (dependent on grade level). At EHPS, we celebrate and embrace an incredibly diverse student body that represents the vibrant communities of our great town. We are proud to be a district that provides our students with the beauty of our world and believes that "together, we are better."

With 18 buildings and over 210 acres of property, EHPS represents a major piece of our town and certainly the future of our community. In addition to our 15 schools, our Central Registration and Facilities Division are located at 734 Tolland Street, while the Board of Education and Central Administration can be found at 1110 Main Street. We take pride in our schools and work hard to keep them maintained, clean and ready for learning every day.

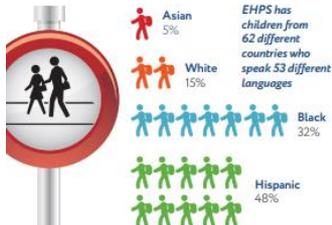
Pre-School:
Early Childhood Learning Center
at Hockanum School

Elementary Schools:
Anna E. Norris School
Franklin H. Mayberry School
Governor William Pitkin School
John A. Langford School
Joseph Goodwin Elementary School
Thomas O'Connell IB School
Robert J. O'Brien STEM Academy
Silver Lane School

Middle Schools:
Sunset Ridge School
East Hartford Middle School

High Schools:
Connecticut IB Academy
East Hartford High School

Alternative Programs:
Stevens Alternative High School
Woodland School



EHPS is steadfast in the use of data to make informed decisions around improving systems, teaching, and learning. In preparation for 2018-2019, the EHPS Performance Office led a charge to provide and analyze data with a focus on historical and contextual information. This process led to the implementation of a redesigned district accountability system with grade level targets, thus providing more comprehensive goal-setting practices for the district, schools, teachers, and students.



Keeping an eye on the Speedometer



95% attendance rate for the entire district



Incidents of ISS have decreased by 12% over the last 5 years



Incidents of OSS have decreased by 30% over the last 5 years



376 students with perfect attendance



100% CIBA graduation rate



97% EHHS graduation rate

16.3% increase in overall PSAT to SAT EBRW scale score performance

17.7% increase in overall PSAT to SAT Math scale score performance

26.3% increase in Smarter Balanced ELA performance over the last 5 years

41.1% increase in Smarter Balanced Math performance over the last 5 years

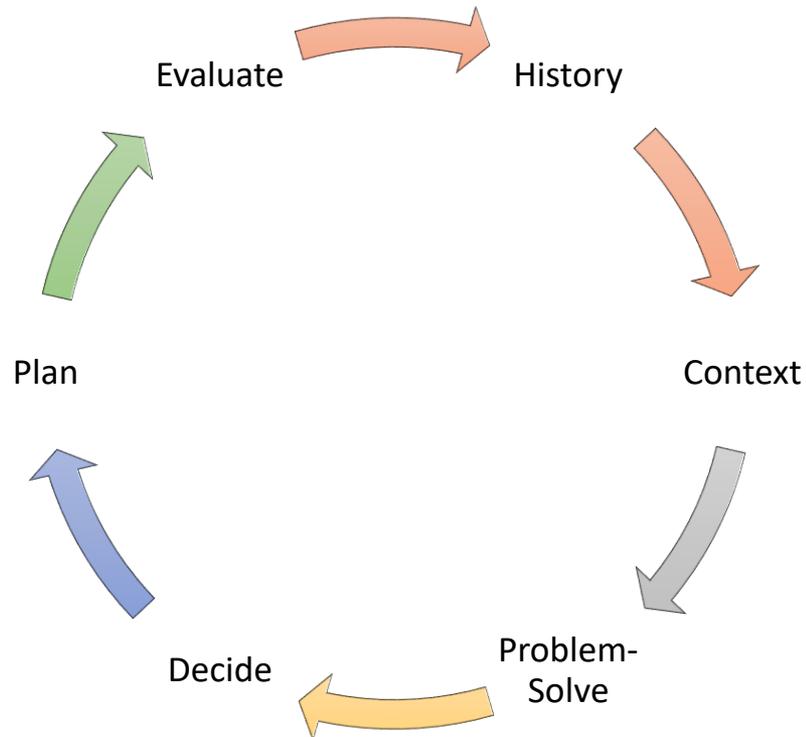


Approach to Data

- The importance of data begins with the Senior Leadership team and is a priority for the entire East Hartford School District

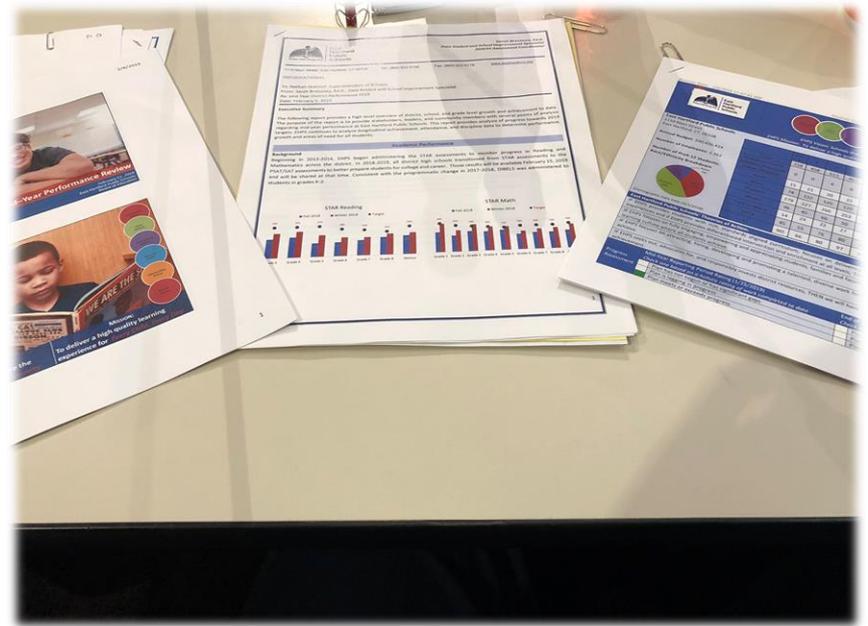


Approach to Data



Approach to Data

- District Data Team
- School Data Team
- Instructional Data Team
- Data Team Leaders
- Data Summits
- Data Reports



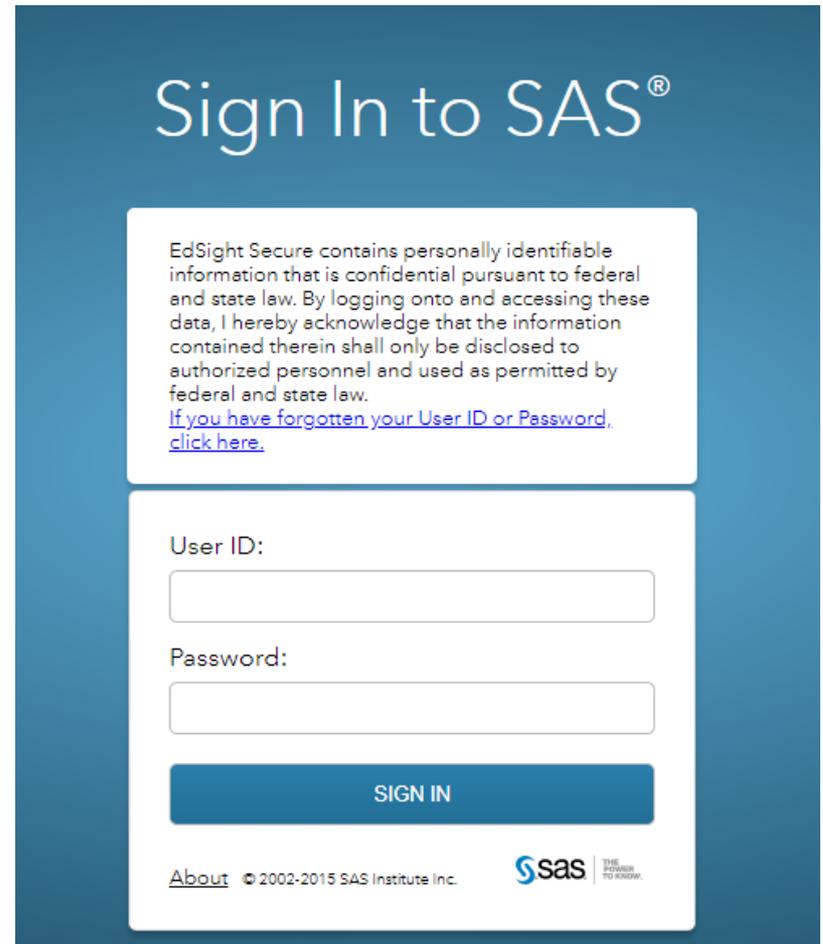
The Early Indication Tool (EIT)

- Provided training to all district data leaders
- Used it as model for data efforts
- Leveraged it as a means for efficient data access



Responding to Data

- Subgroup Data
- Trend Data
- School Data
- Student Data



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Responding to Data

ID	Grade	SPED	EL	Attendance Rate	Total Absences	Chronic	SB ELA	SB ELA SS	SB Math	SB Math SS	STAR Reading (Spring)	STAR Math (Spring)	ISS	OSS
10	7	No	No	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	0	0
42	8	No	No	89.33	19	Y	1	2417	1	2295	26	8	2	2
51	8	No	No	94.38	10	N	2	2531	1	2344	9	21	4	5
38	6	Yes	No	#N/A	#N/A	#N/A	1	2326	1	2387	23	1	0	0
96	7	No	No	88.76	20	Y	1	2347	1	2436	3	49	4	5
17	6	No	No	#N/A	#N/A	#N/A	1	2394	1	2329	17	13	0	0
61	8	Yes	No	86.52	24	Y	1	2438	1	2369	8	#N/A	5	5
39	8	No	No	87.08	23	Y	1	2299	1	2360	8	2	3	7
03	8	No	No	91.57	15	N	1	2392	1	2386	24	#N/A	2	4
12	8	No	No	97.19	5	N	1	2369	1	2324	39	#N/A	9	1
14	8	No	No	92.13	14	N	1	2309	1	2350	4	#N/A	6	7
52	8	Yes	No	87.64	22	Y	1	2446	N/A	N/A	18	#N/A	4	1
14	8	No	No	92.7	13	N	2	2500	1	2354	11	5	9	1
29	8	Yes	No	96.63	6	N	1	2359	1	2365	1	1	10	4
55	6	No	No	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	0	2
10	8	Yes	No	91.57	15	N	1	2459	2	2511	16	#N/A	4	3
45	6	No	Yes	#N/A	#N/A	#N/A	1	2402	1	2373	3	8	0	0
24	8	No	No	77.53	40	Y	1	2371	1	2414	1	1	3	12



Any Questions?

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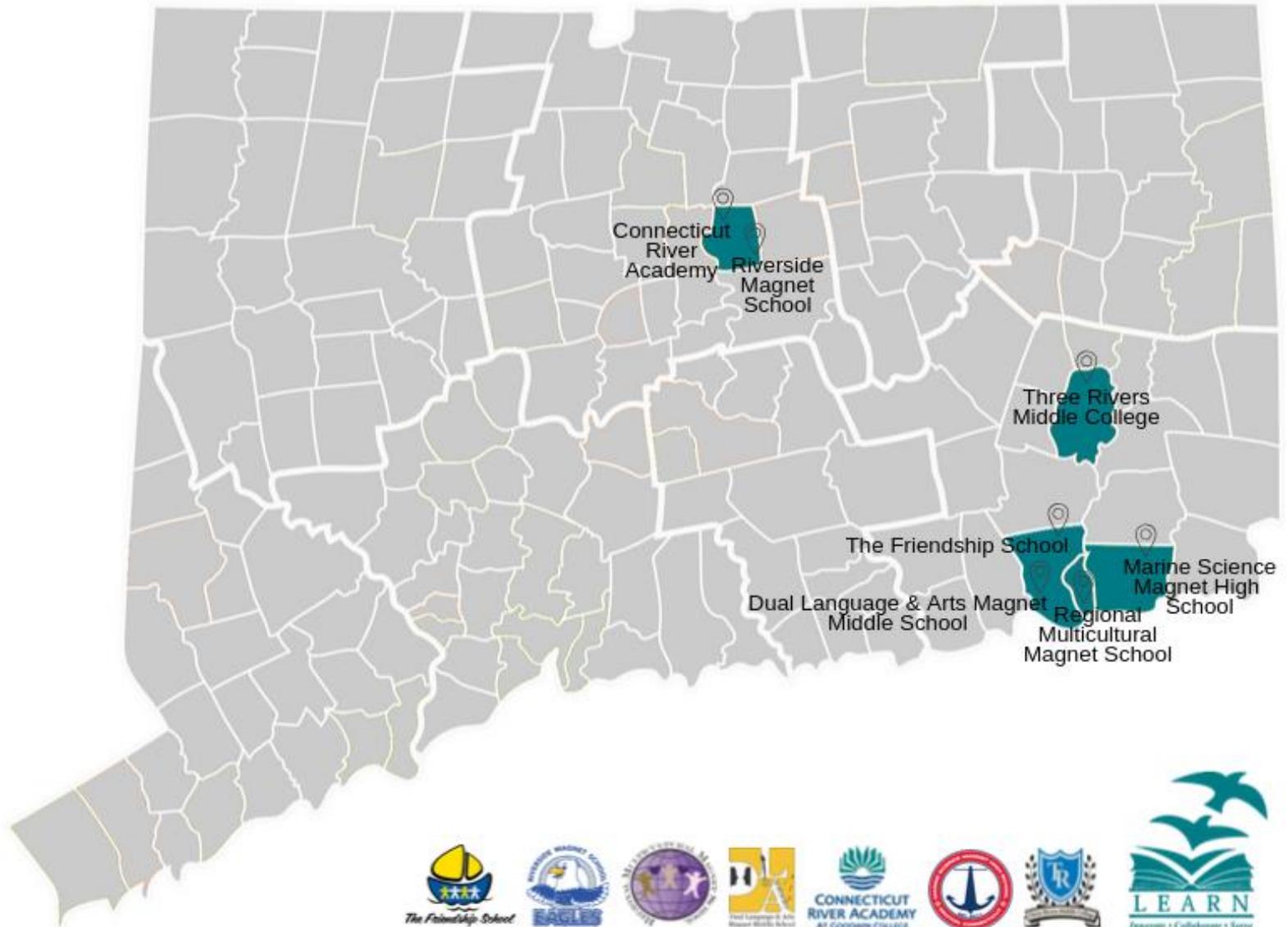


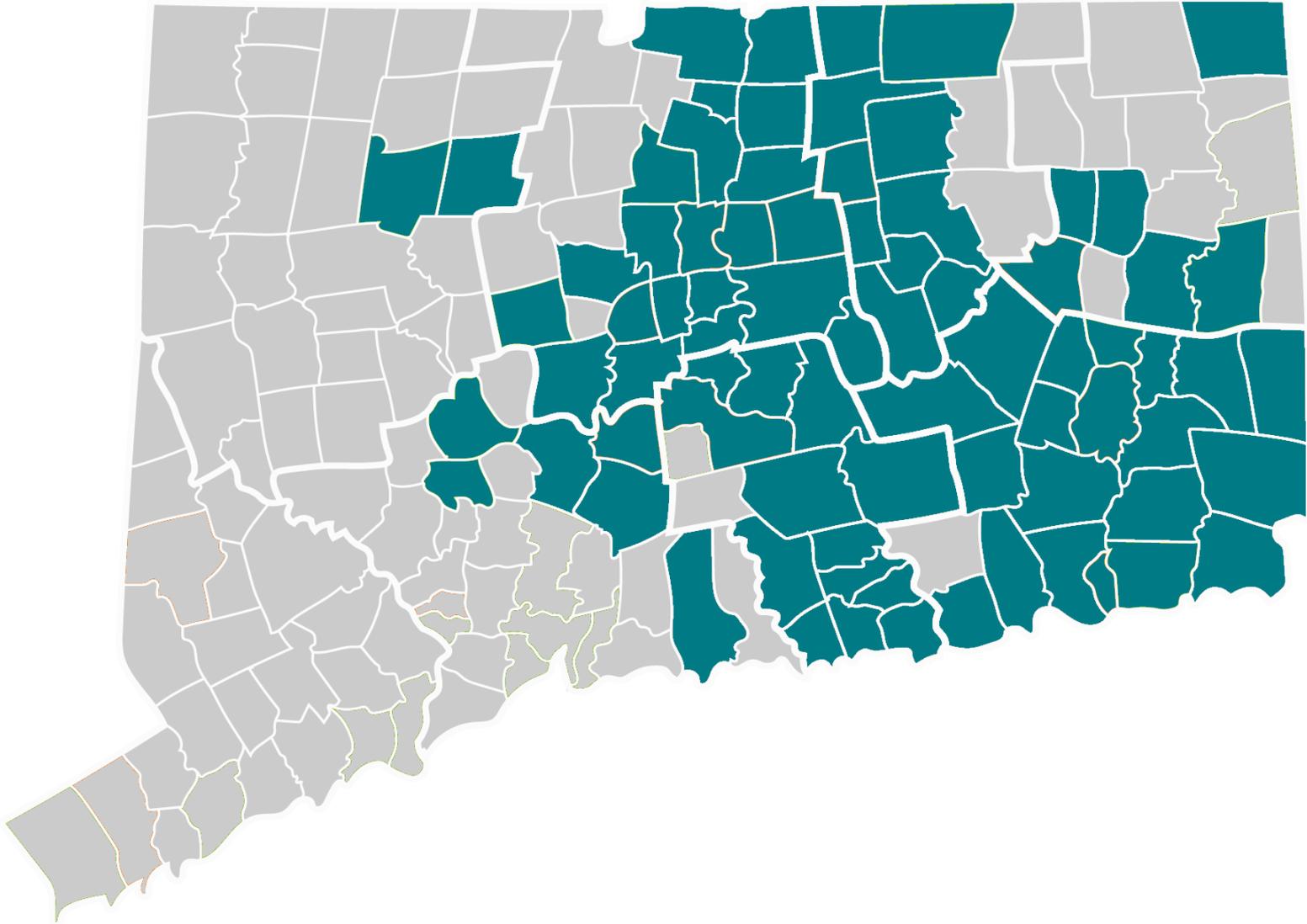
CONNECTICUT STATE DEPARTMENT OF EDUCATION

EIT: The LEARN Experience

Wendy Jean Sonstrom, Ph.D.
Coordinator of Student Information
LEARN

October 17, 2019





1st round – Winter 2017-2018

- * Imported into PowerSchool
- * Pushed out to building leaders

2nd round – Winter 2018-2019

- * Now through grade 12!
- * Assistant superintendents
- * Eastern CT PowerSchool users group



LOOKING AHEAD...

Looking forward to Round 3 this winter
and implementing additional strategies!





CONNECTICUT STATE DEPARTMENT OF EDUCATION

Early Indication Tool Use
Bloomfield Public Schools

Jason Titelbaum, M.B.A.

Data Systems Manager

Bloomfield Public Schools

October 17, 2019

Bloomfield Public Schools: Overview

Bloomfield conducts monthly meetings with principals to review data around student academic performance, discipline, and attendance.

The Early Indication Tool allows for gathering information on students that are coming into Bloomfield Public Schools from another district.

Bloomfield:

- Has many students attending schools out of district
- Operates two magnet schools
 1. For students in Pre-Kindergarten
 2. For Grades 6-12



Bloomfield Public Schools and the EIT

Without this tool, Bloomfield would not be able to gather information systematically on students we have not had in district.

Name	Grade	Absences	Membership	Absence %	Absences since 2/19/2019	District of Residence	2017-18 Days Absent	2017-18 Absence %
Student 1	10	31	128	24.22	6	District A	25	13.9%
Student 2	8	18	107	16.82	5	District R	9	5.0%
Student 3	10	20	128	15.63	0	District P	12	6.7%
Student 4	8	16	107	14.95	5	District B	18	10.0%
Student 5	9	16	107	14.95	9	District J	9	5.0%
Student 6	8	19	128	14.84	9	District T	18	10.0%
Student 7	11	18	128	14.06	3	District A	18	10.0%
Student 8	10	18	128	14.06	1	District G	26	14.4%



EIT: Suggestions

- Compare EIT support levels with your EWS results
- Remember: Variability matters
 - Filter and/or sort to differentiate
- Look beyond thresholds
- Avoid silos
 - Consider interactions between variables
- Use findings to dig deeper and/or start a conversation
- Export and blend with your District data



LOOKING AHEAD...

- Grades 1 through 12
 - Models will be run in the Fall semester using the 2018-19 data and updates will be available soon thereafter
- **Coming Soon:** Student Summary
- More conversations like today
- Continuous improvement of models and reports
- Expanded Targeted Support Library



THANK YOU!

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