



CONNECTICUT STATE DEPARTMENT OF EDUCATION

---

# The Early Indication Tool (EIT)

## Practical Uses and Implications for Attendance Teams and Building Leaders

*Presented by*

**David Alexandro, Ph.D.**

November 15, 2019

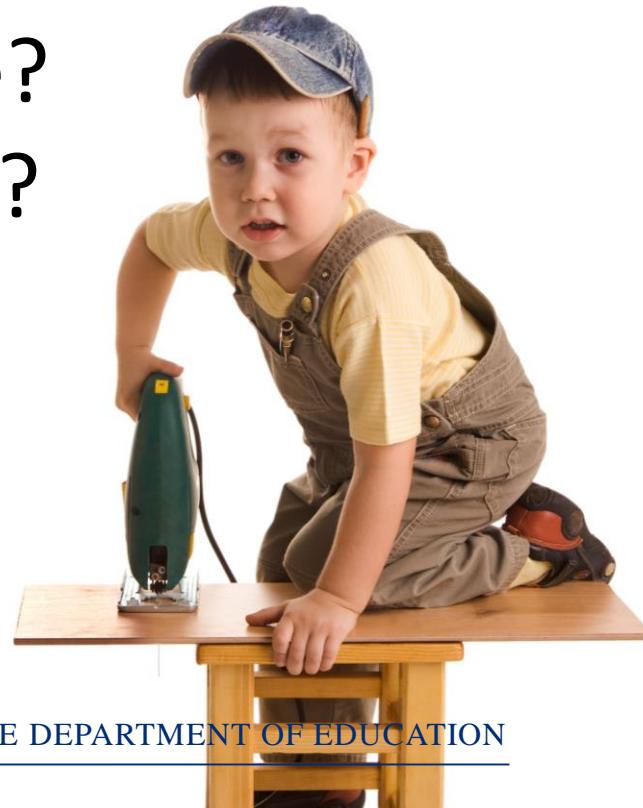
# Early Warning System (EWS)

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?



# Additional Attendance Considerations

- Ambivalence and/or Alienation
  - Ineffective teaching
  - Staff turnover
  - Teacher absenteeism
  - Classroom chaos
  - Bullying
  - Correlation: Overall vs. specials day



# What is **EdSight Secure**?

EdSight  
Secure

- Secure Online Data Portal
- For Designated LEA Staff
- Access Student-level Data
- View Charts and Tables
  - Filter and Disaggregate
  - Export



# How do I gain access?



Find your LEA Security Manager at: <https://portal.ct.gov/SDE/Performance/Data-Collection/Help-Sites/Directory-Manager//-/media/SDE/Performance/Data-Collection/Help-Sites/Directory-Manager/LEASecurityManagerContactList.pdf>

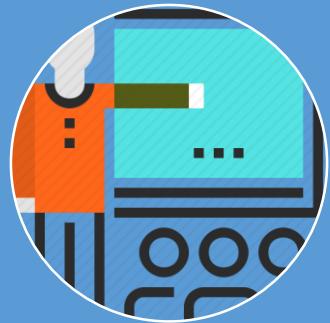


# What reports are available?



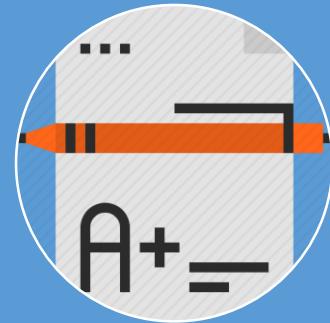
## Students

- Early Indication Tool (EIT)
- FAFSA Completion



## Educators

- Educators with Active Endorsements



## Performance

- CMT/CAPT Science
- Connecticut School Day SAT
- Smarter Balanced Achievement
- Smarter Balanced Growth
- LAS Links Achievement/Mastery
- LAS Links Growth

# What reports are coming soon?

- **Next Generation Science Standards (NGSS)**
  - Similar look/feel of current assessment reports
- **Student Summary**
  - Single-student profile
  - 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

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

Student Name, SASID: 0123456789 Data Last Updated: Tuesday, October 15, 2019 06:01:47 AM

Grade 08	Age 13	Special Education No	English Learner No	Homeless No	Special Program Magnet	Language Spanish
Attendance Rates Most Recent	ELA Achievement SB Performance Level	Math Achievement SB Performance Level	ELA Growth Percent of Target Achieved	Math Growth Percent of Target Achieved	LAS Links Overall	
<p>FallOfYear: 2017 Attendance Rate: 90.1% Days of Attendance: 164 Days of Membership: 182</p> <p>90.1%</p>	<p>2</p>	<p>1</p>	<p>110.0%</p>	<p>0.0%</p>	<p>4</p>	

Most Recent Average > Smarter Balanced SAT > Smarter Balanced SAT > PTA PTA > Overall Reading >



# 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



# what is the EIT?

A data analytics and visualization tool that uses statistical methods to systematically predict and improve student outcomes





# EARLY INDICATION TOOL (EIT)

Early Indication Tool

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

subgroup 1

subgroup 1	Female	Male	Female	Male	Female	Male	Female	Male
01	Low	Medium	Low	Medium	Low	Medium	Low	Medium
02	Low	Medium	Low	Medium	Low	Medium	Low	Medium
03	Low	Medium	Low	Medium	Low	Medium	Low	Medium

0%   100%

Support Level: LOW   MEDIUM   HIGH

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.

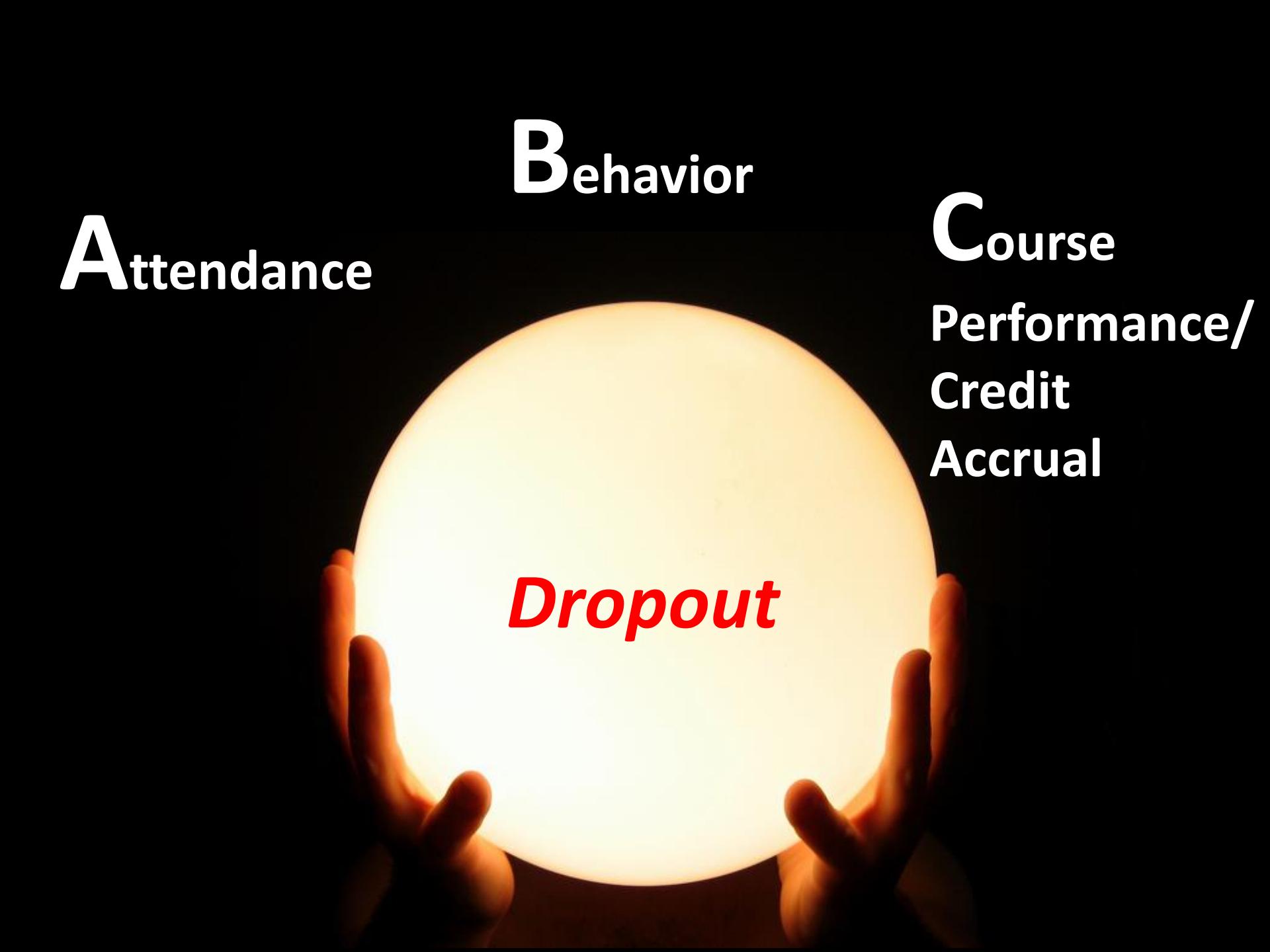


# Primary Purpose of the EIT

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

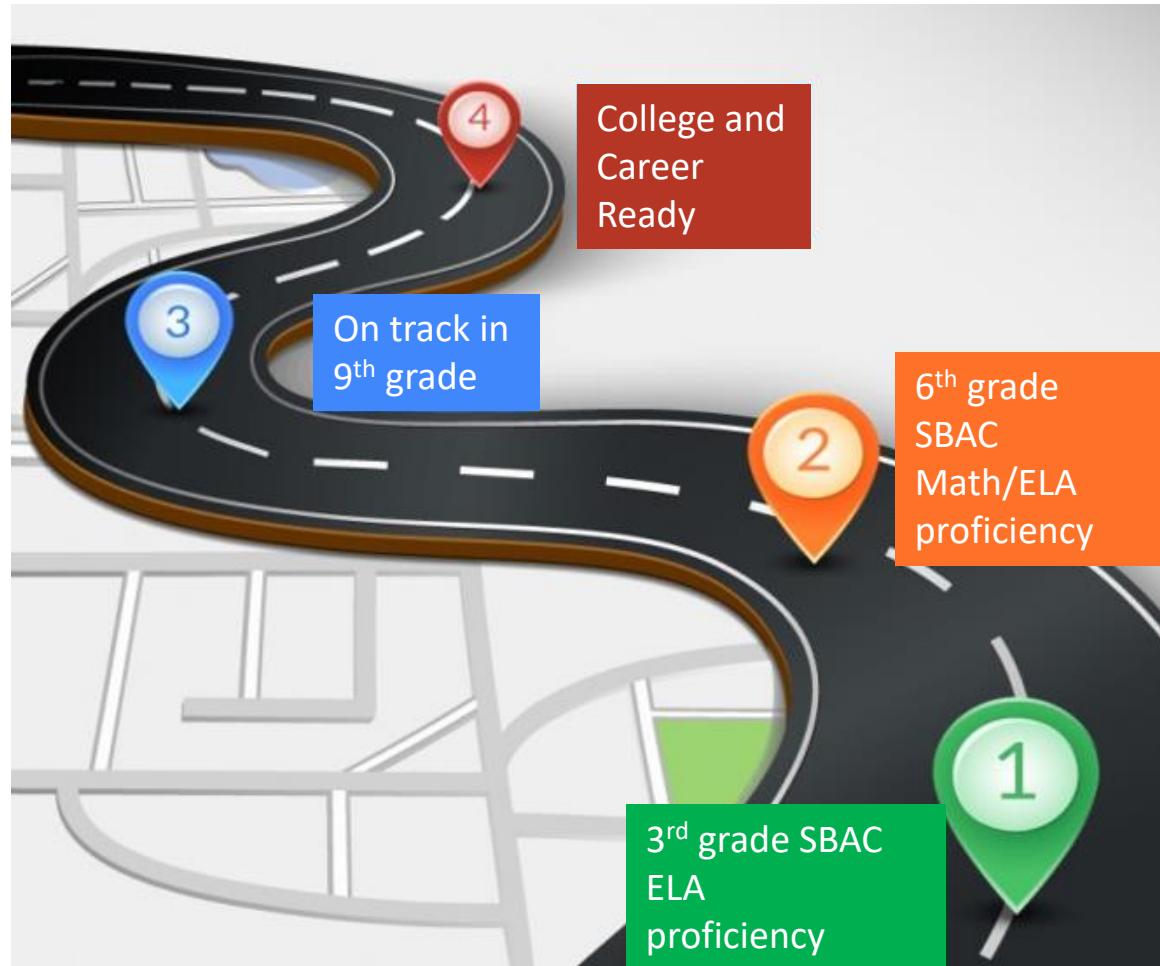
*Academic  
Milestone*

Course  
Performance

District  
Indices

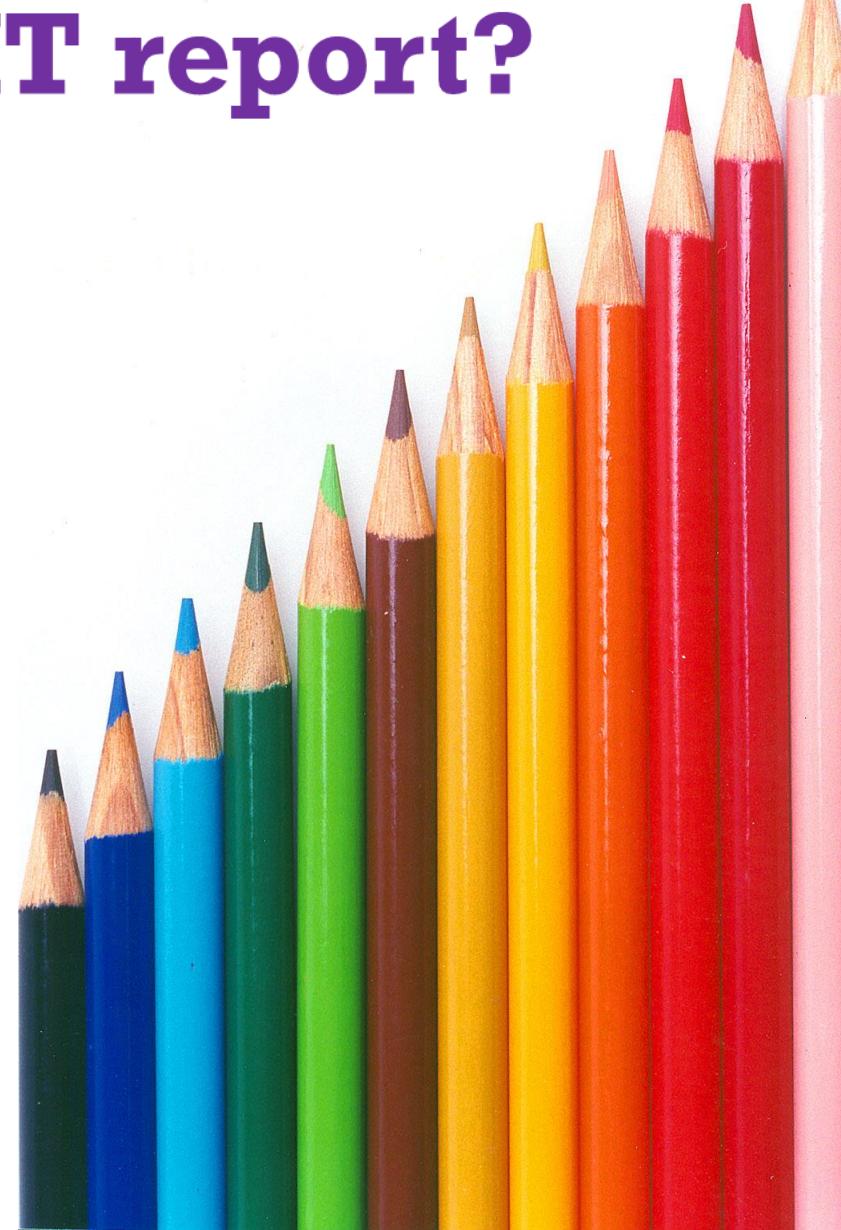
# MILE MARKER APPROACH

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

---

<b>Subgroup</b>	<b>Four-Year Graduation Rate</b>	<b>Five-Year Graduation Rate</b>
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)

CONNECTICUT STATE DEPARTMENT OF EDUCATION

# Machine Learning

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



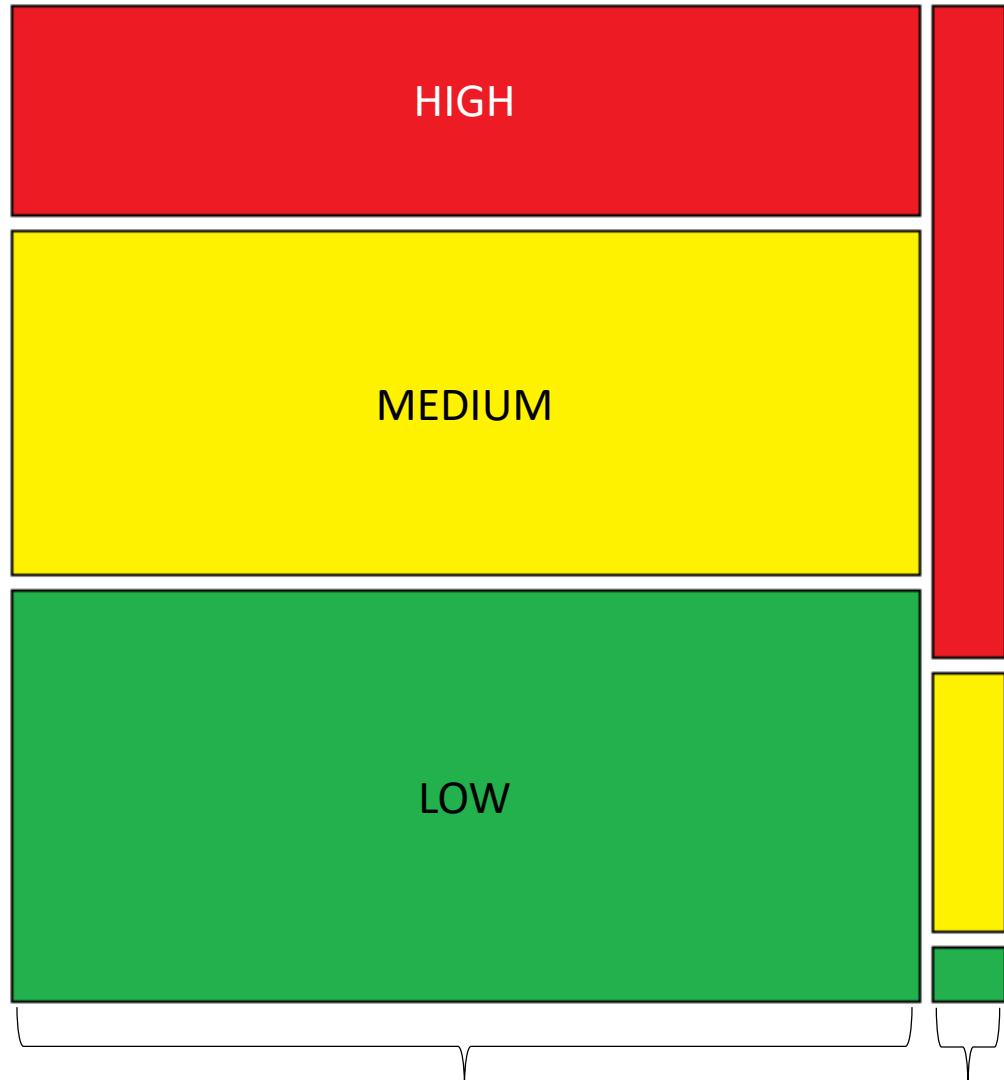
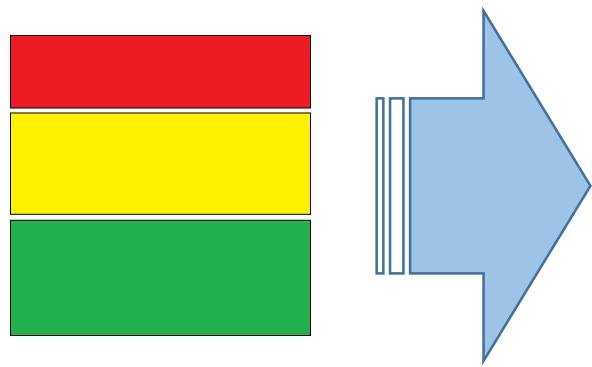
# Support Levels

HIGH

MEDIUM

LOW

# Support Levels by Chronic Absentee Status



# 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





# EARLY INDICATION TOOL (EIT)

Early Indication Tool

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

subgroup 1

subgroup 1	Female	Male	Female	Male	Female	Male	Female	Male
01	Low	Medium	Medium	High	Low	Medium	Medium	High
02	Low	Medium	Medium	High	Low	Medium	Medium	High
03	Low	Medium	Medium	High	Low	Medium	Medium	High

0%   100%

Support Level: LOW   MEDIUM   HIGH

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.





# 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

Current Grade	Special Education Status	English Learner Status	Race/Ethnicity	Gender	High Needs Status	Support Level	Attendance Rate (Last yr)	Attendance Rate (2 yrs 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

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

Please email questions and comments to the EdSight Help Desk at [EdSight.SDE@ct.gov](mailto:EdSight.SDE@ct.gov)

# ***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



# 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
- **New:** Student Summary
- More conversations like today
- Continuous improvement of models and reports
- Expanded Targeted Support Library



# THANK YOU!

david.alexandro@ct.gov  
860-713-6881

charles.martie@ct.gov  
860-713-6809

