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# STUDENT ENGAGEMENT DURING COVID-19

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TCC Conference, April 18, 2023

7:30AM (HT), B Block

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# ALOHA: About the Presenters

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## Monica Blomker

LTEC Ph.D. Student  
University of North Texas (UNT)

Director, Research & Analytics  
Former K-12 Educator

### Research Interests:

- Cognitive Engagement + Motivation
- Measurement & Evaluation
- Equitable Learning Environments
- Opportunity to Learn



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Program Manager, Digital HR  
Former Higher Ed. Practitioner

### Research Interests:

- Behavioral Economics + AI
- UX/UI + Engagement
- Cognitive Engagement + Motivation
- Faculty/ Minorities & Ed. Tech



Defining Engagement



Measuring Engagement



Engagement Findings



Discernment and Discussion of Insights



Engagement Over Time



Feedback and Questions

# Academic Research on Student Engagement



- **No consistent definition exists:** There are varied definitions of engagement, and some emerging definitions are divergent and contradictory ( Bond, 2020; Kahu, 2013; Schindler et al., 2017;).
- **Engagement as a meta-construct:** Engagement is commonly described as a meta-construct and is composed of three types of engagement (Fredericks et al., 2004; Henrie et al., 2015).
- **Engagement as a continuum:** Often studied or referenced as affected by technology and other influences (Bond, 2020; Henrie et al., 2015).
- **Impact of technology on engagement:** Effective utilization/integration of technology may increase engagement through practices of self-directed learning, timely and instructive feedback, and flipped learning models. (Bond, 2020;Chiu, 2020; Hepplestone, 2011; Rashid & Agnar, 2016).



# VISUAL REPRESENTATIONS OF ENGAGEMENT MODELS

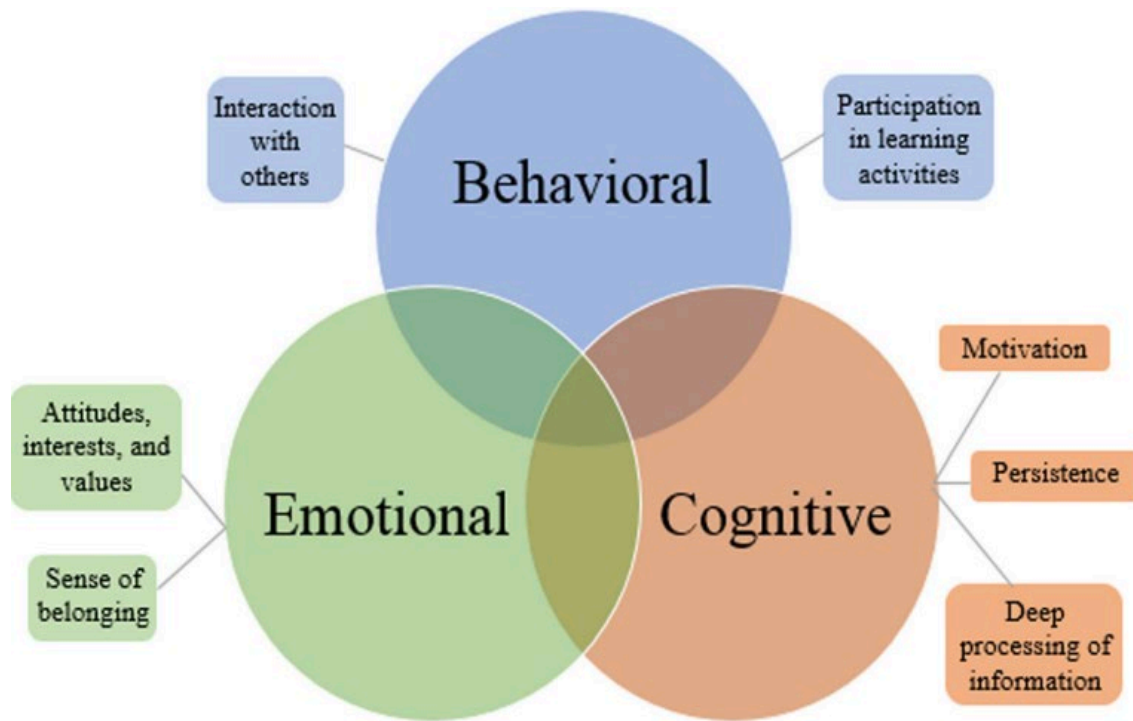


Fig. 1 Domains of Learner Engagement.

Reprinted from Schindler, L. A., Burkholder, G. J., Morad, O. A., & Marsh, C. (2017). Computer-based technology and student engagement: A critical review of the literature. *International Journal of Educational Technology in Higher Education*, 14(1), p.5. <https://doi.org/10.1186/s41239-017-0063-0>.

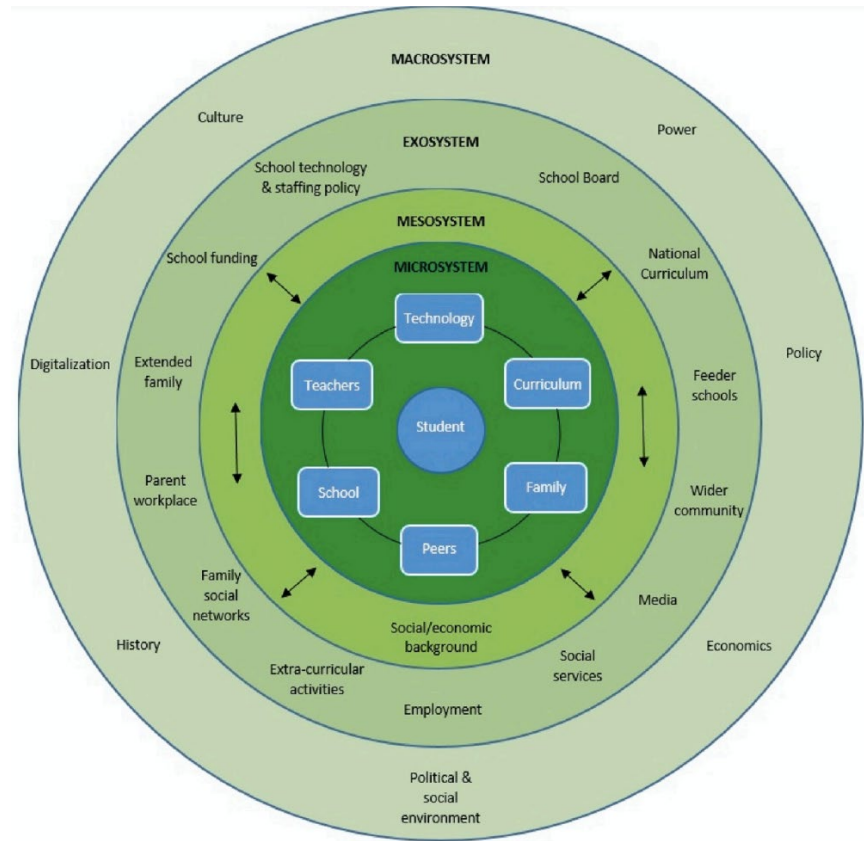


Fig. 2 Influences on School Student Engagement.

Reprinted from Bond, M. (2020). Facilitating student engagement through the flipped learning approach in K-12: A systematic review. *Computers and Education*, 151, p.2, <https://doi.org/10.1016/j.compedu.2020.103819>

# Models of Engagement

## Psychology & Emotions

Desired outcome that heavily considers mindset and both psychological and emotional states.

*(Schindler et al., 2017)*

## Student Success

Improving student success; focus on motivation, transactional relationships, institutional support, active citizenship.

*(Zepke & Leach, 2010)*

## Educational Outcomes & Performance

Linkage to positive educational outcomes; focus on academic performance, graduation rates, decrease in behavioral issues.

*Fredericks et al. (2004)*

## Positive State of Mind

Positive, fulfilling, learning-related state of mind; focus on vigor, dedication, absorption.

*(Wang et al., 2022)*

## 3 Domains of Engagement

Energy and effort students employ within learning community; focus on behavioral, cognitive, affective.

*(Bond, 2020)*

## Culture & Psychology

Grounded in psychological and/or cultural viewpoints.

*(Museus & Yi, 2015)*



# DEFINING ENGAGEMENT

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The degree of **attention, curiosity, interest, optimism, and passion** that students show when they are learning or being taught, which extends to the **level of motivation** they have to learn and progress in their education (The Glossary of Education Reform, 2016).



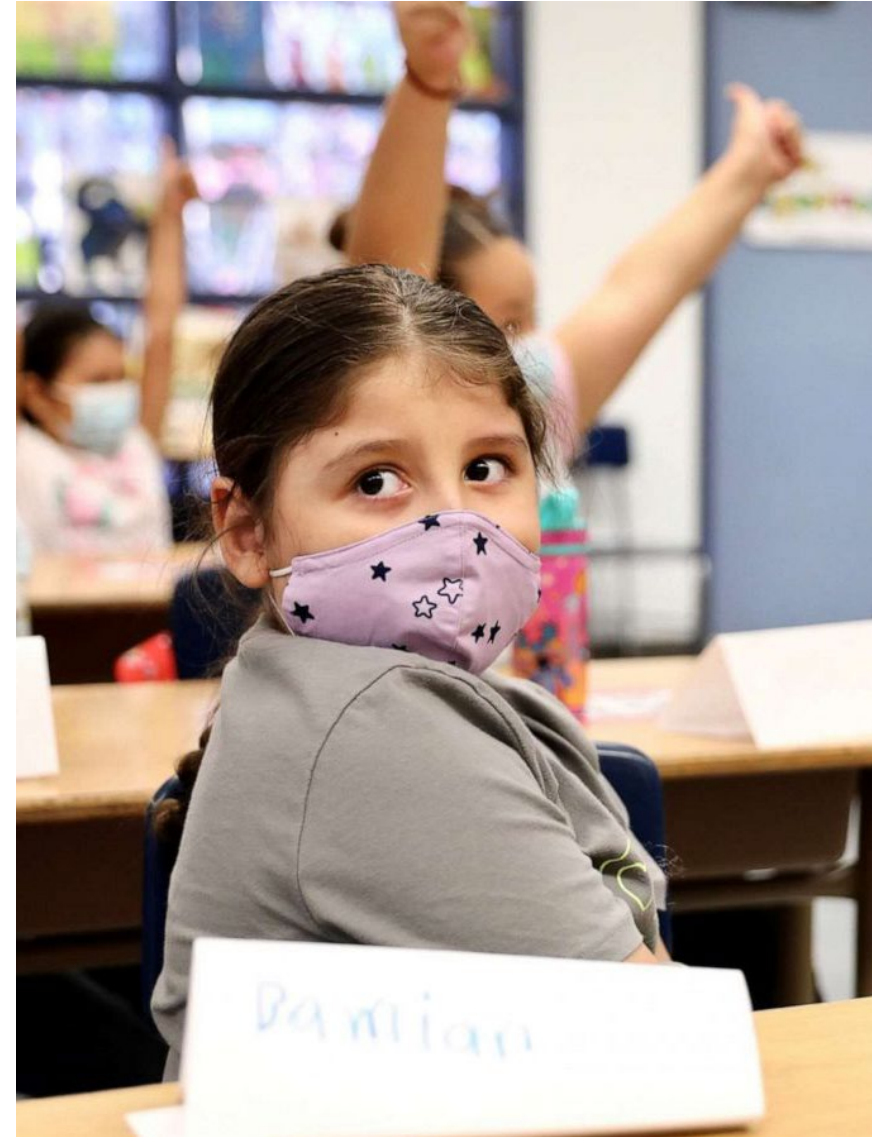
**Behavioral Engagement:** A student's observable actions or participation while in class considered through the student's conduct, effort, and participation (Fredricks, Blumenfeld, & Paris, 2004).



**Cognitive Engagement:** A student's cognitive processing effort brought to academic tasks, as well as the amount and type of strategies the student applies (Walker, Greene, & Mansell, 2006).



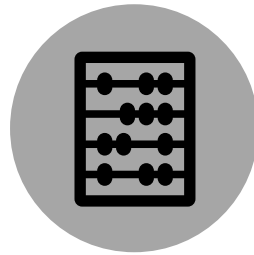
**Emotional Engagement:** A student's feelings toward their school, learning, teachers, and peers (Jimerson, Campos, & Grief, 2003).





# Measuring Engagement

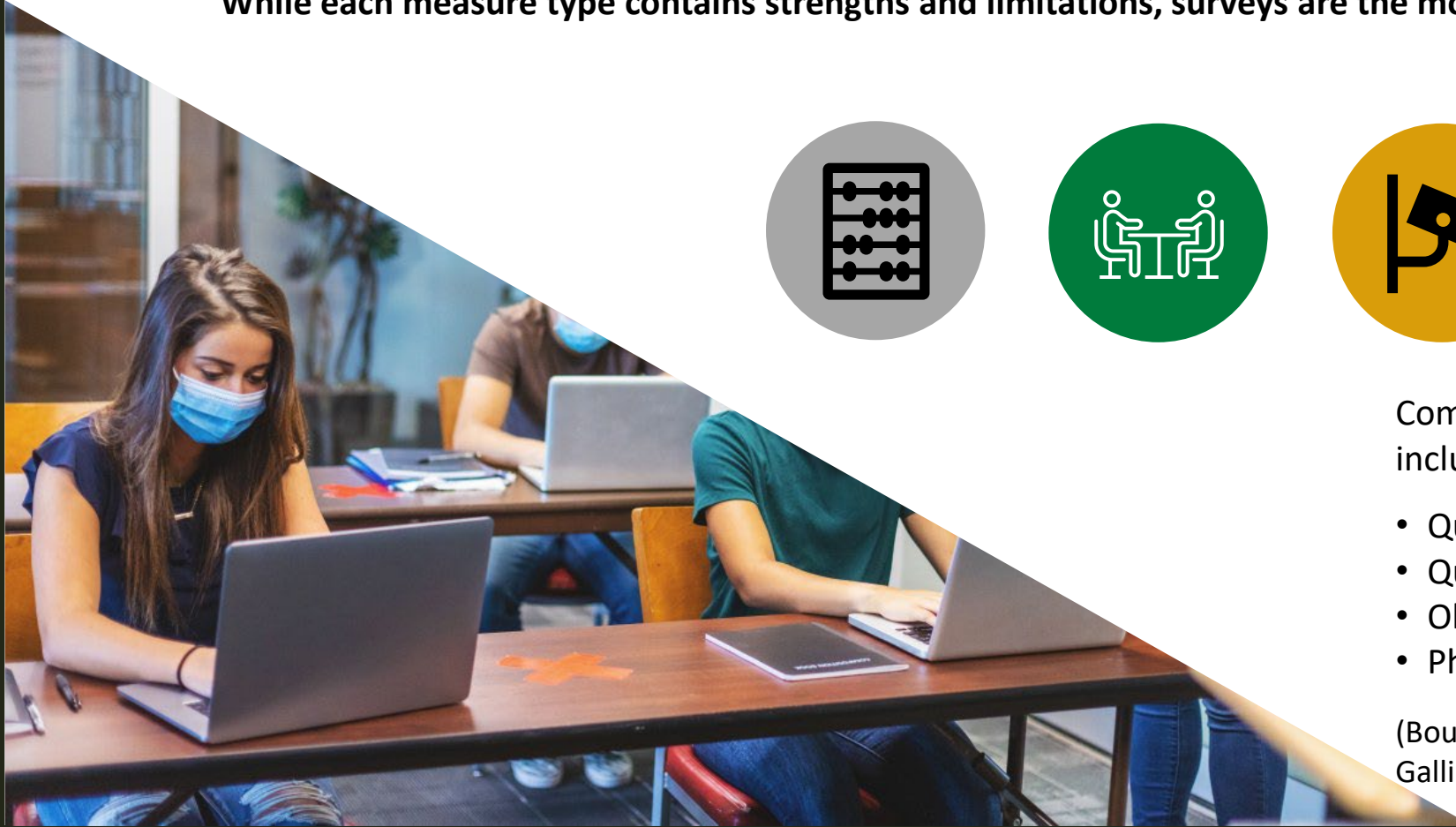
While each measure type contains strengths and limitations, surveys are the most frequently used tool.



Common engagement measurement tools include:

- Quantitative self-report measures
- Qualitative measures
- Observed quantitative measures
- Physiological sensors

(Boucheix et al., 2013; Figg & Jamani, 2011; Gallini & Barron, 2001; Russell et al., 2005).



# THE STUDENT ENGAGEMENT SURVEY

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- 21-item survey; 7 items per domain
- 3 grade-span appropriate forms
- Measured and reported separately for each domain, as well as overall

## Three Domains of Engagement



**Behavioral:** Students' efforts in the classroom



**Cognitive:** Students' investment in learning



**Emotional:** Students' emotions or feelings about their classroom and school

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# Engagement Types and Levels

Engagement Types	
<b>Committed</b>	Student finds personal meaning and value in tasks
<b>Compliant</b>	Meets expectations, follows rules, actively avoids consequences
<b>Disengaged</b>	Unmotivated, low participation, actively avoids completing tasks



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**When examining and measuring engagement, what considerations should educators, researchers, and policy-makers have regarding brick and mortar settings and remote learning environments? Does this vary by engagement domain?**

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# The Sample



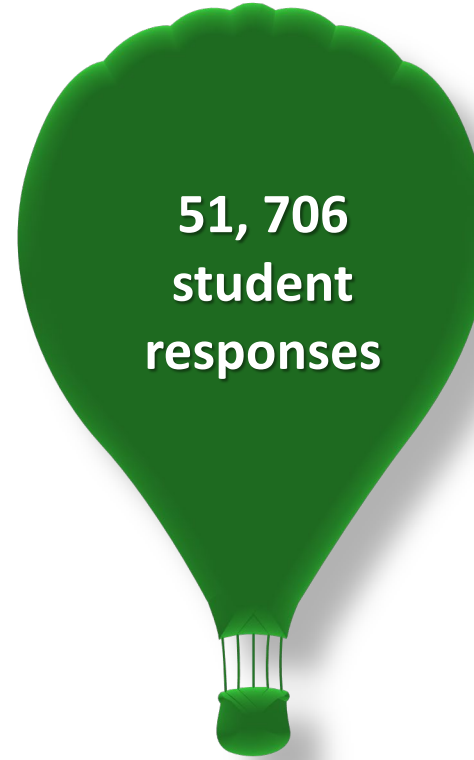
## 2020-2021

SES was administered to 162,420 students, grades 3-12.



## 33 States

International schools were not included in analysis.



## 220 Schools

Subsequent data represents 51,706 student responses from 220 schools during 2020-2021 school year.

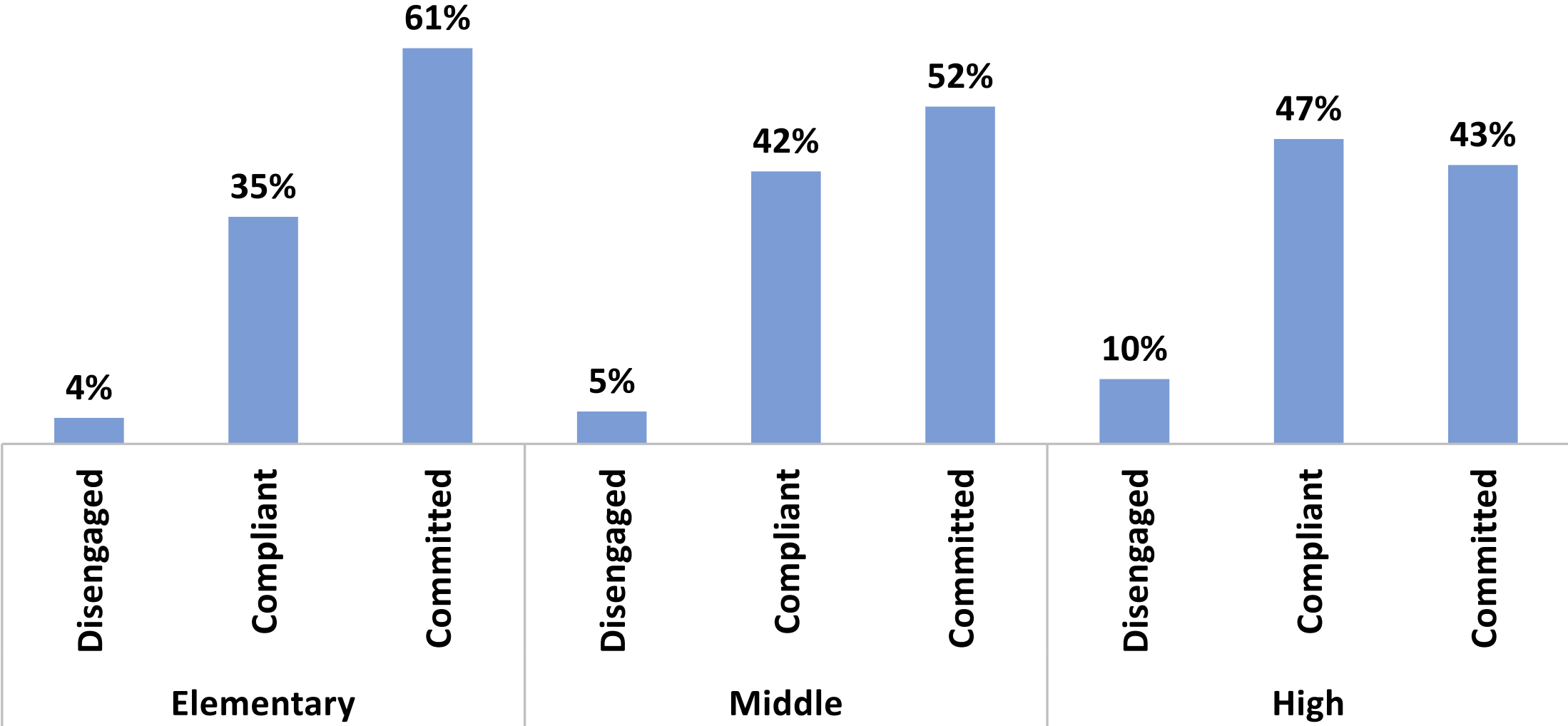


## Subset of Schools

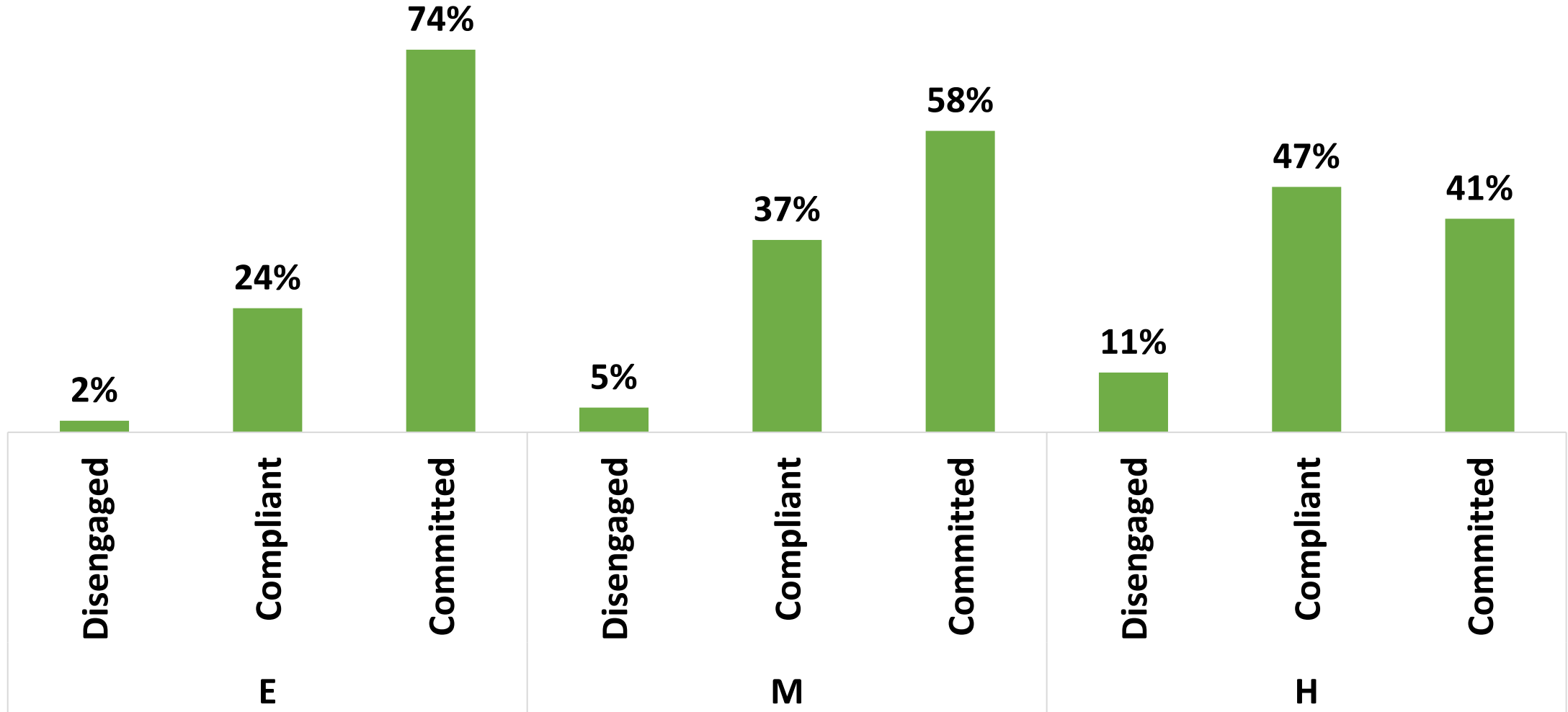
Data presented will focus on subset of schools for whom longitudinal data are available.

# Data

## Student Engagement Results Overall 2020-2021

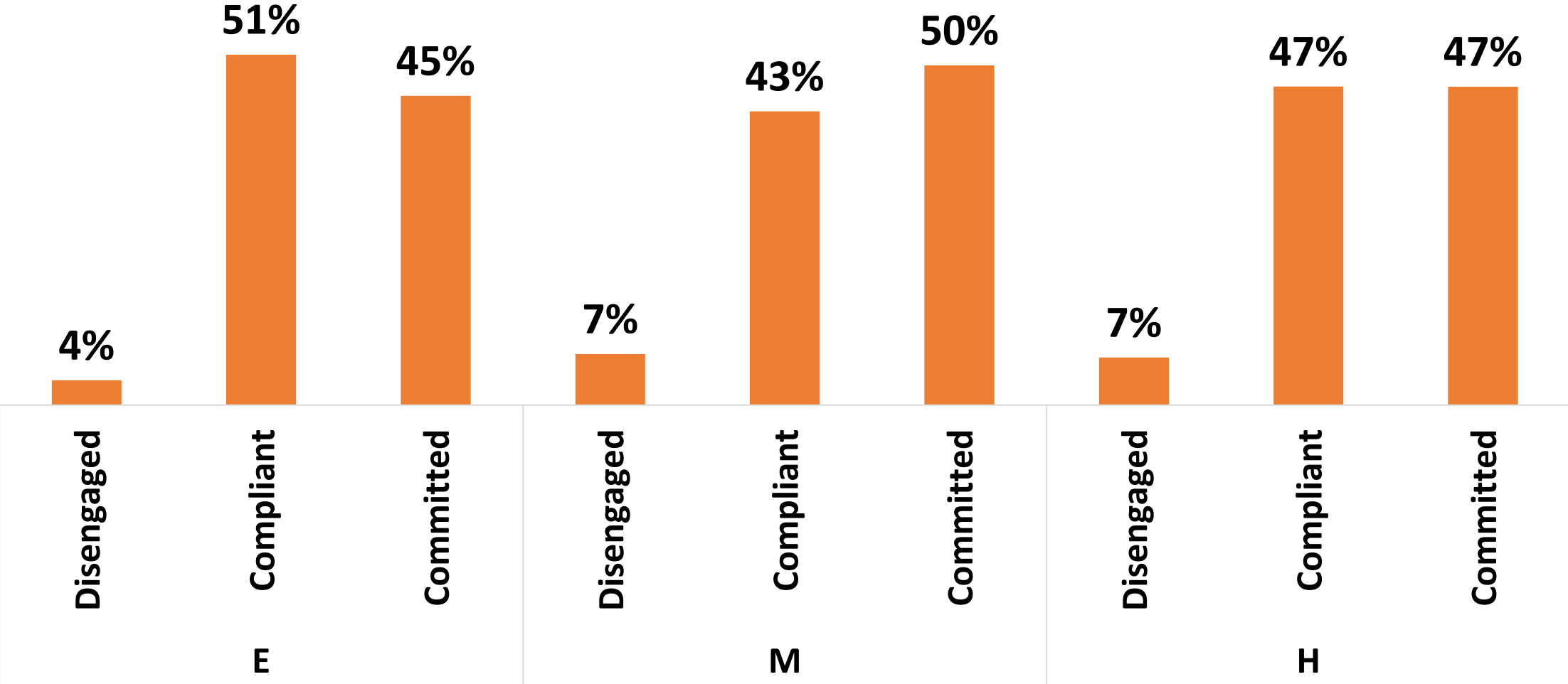


## Behavioral Domain 2020-2021

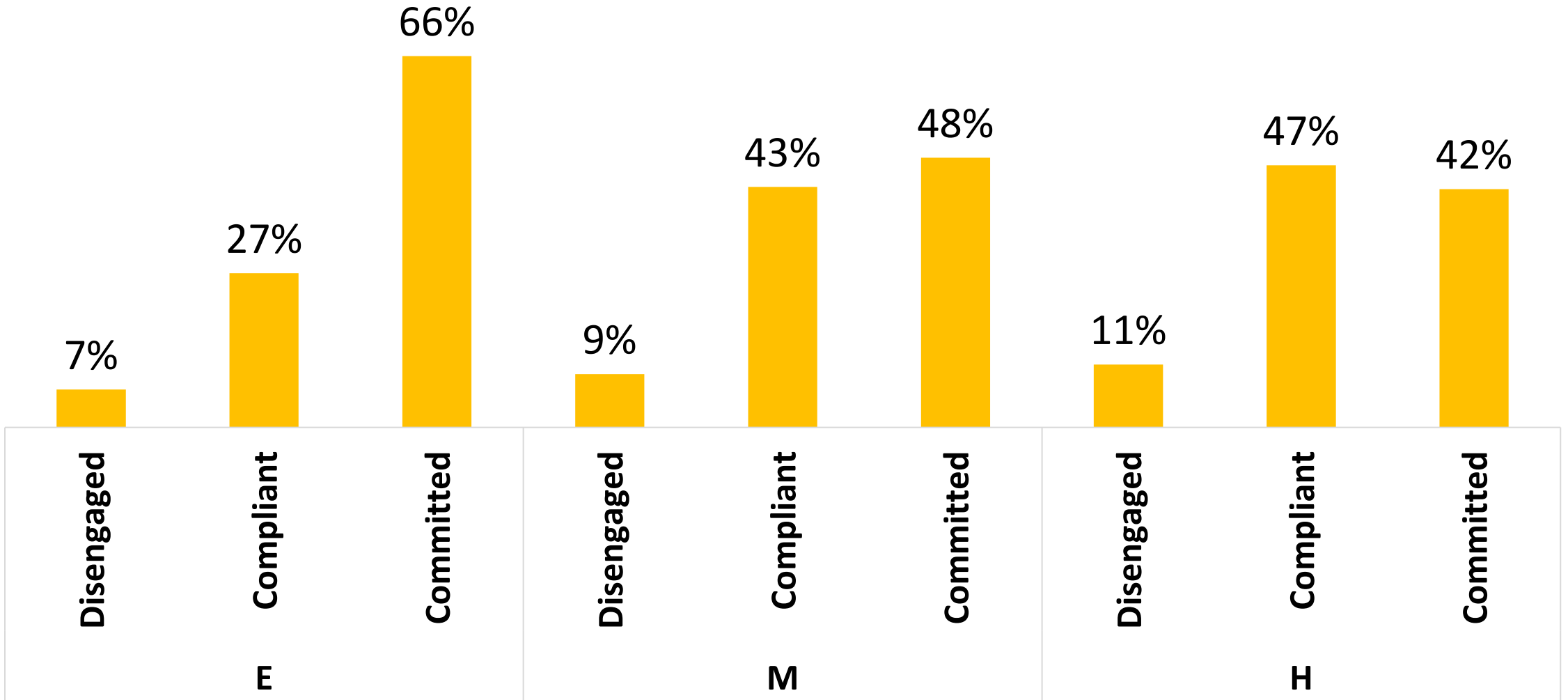




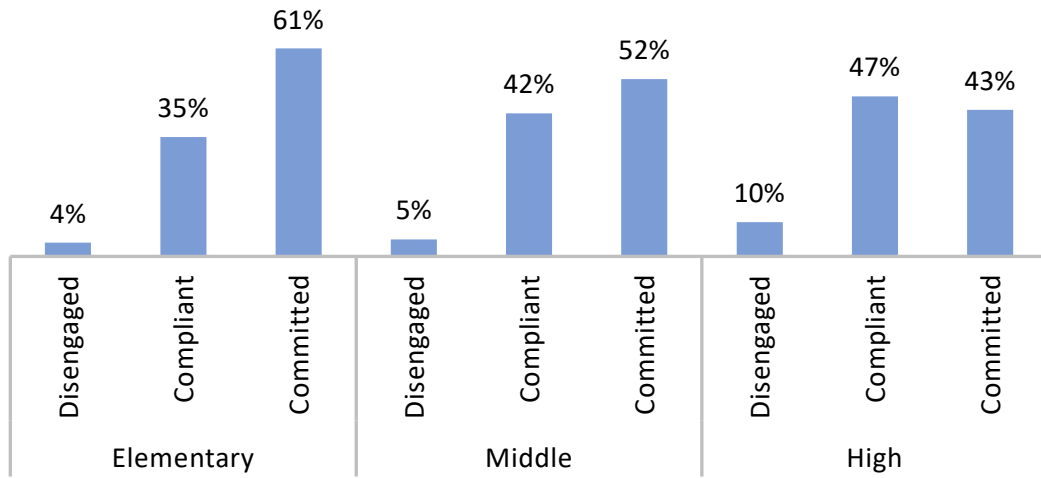
# Cognitive Domain 2020-2021



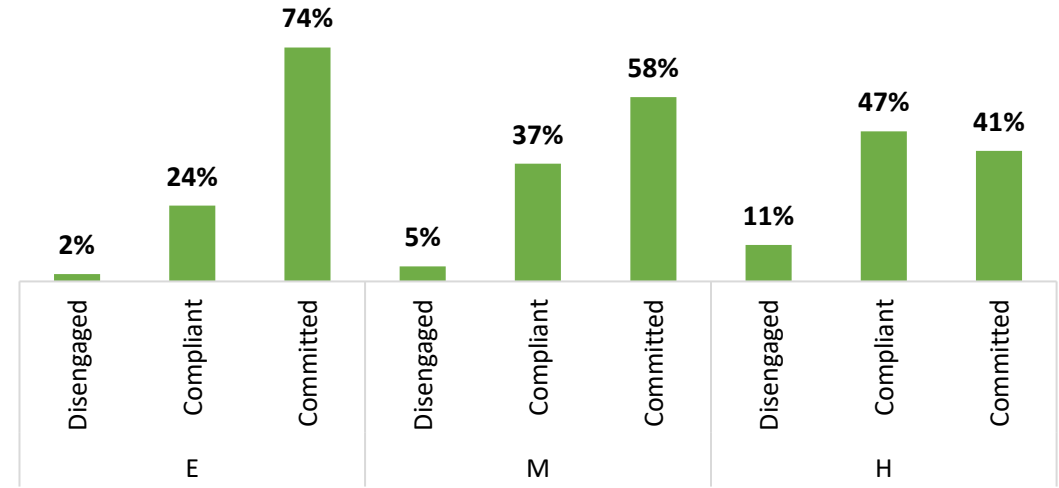
## Emotional Domain 2020-2021



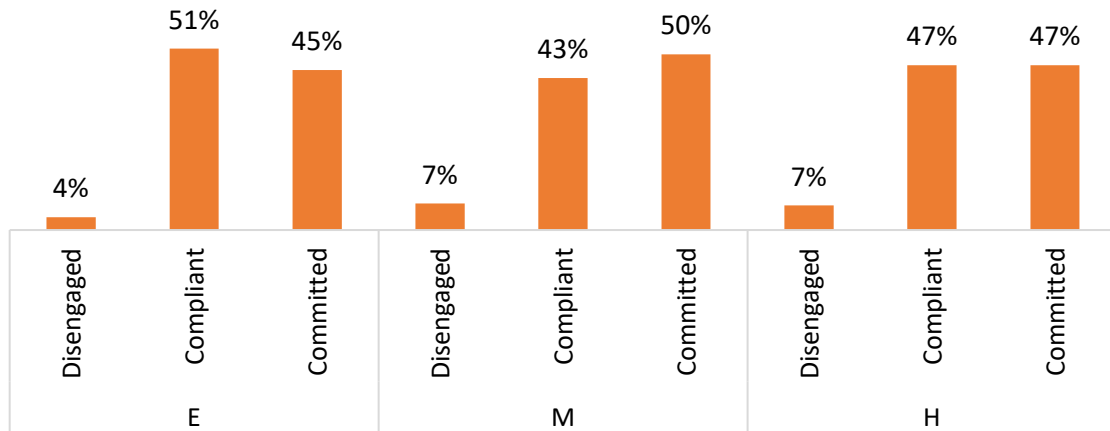
## Student Engagement Results Overall 2020-2021



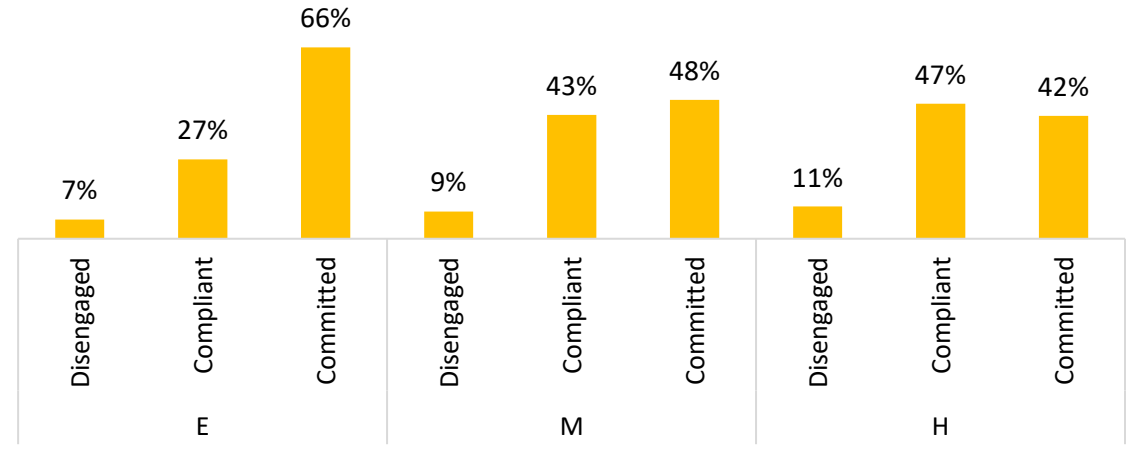
## Behavioral Domain 2020-2021

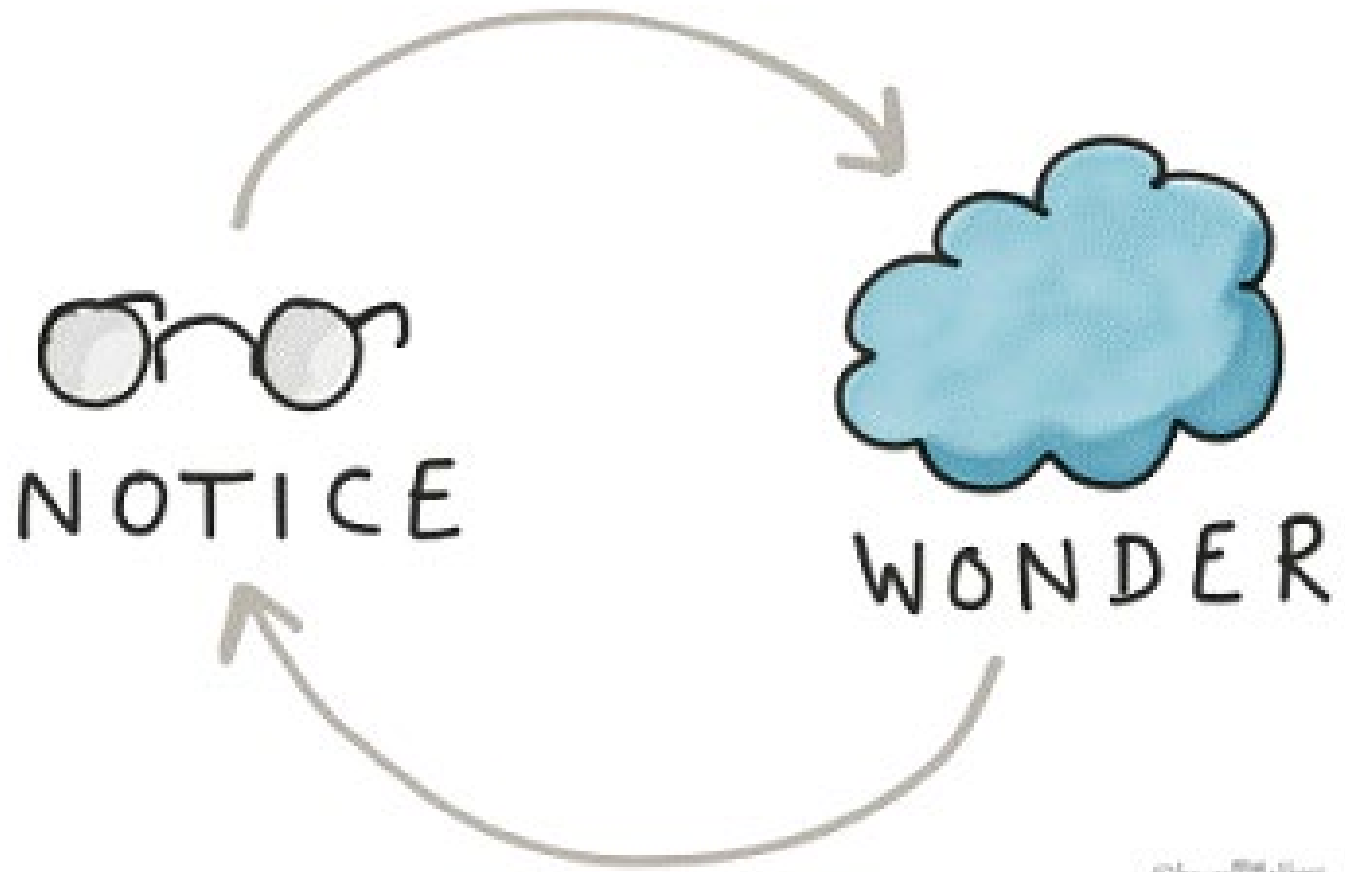


## Cognitive Domain 2020-2021



## Emotional Domain 2020-2021





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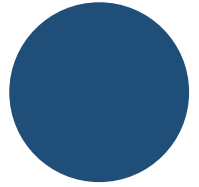


**Based on the data, what do you notice/wonder?**

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WHAT DO YOU NOTICE/WONDER?



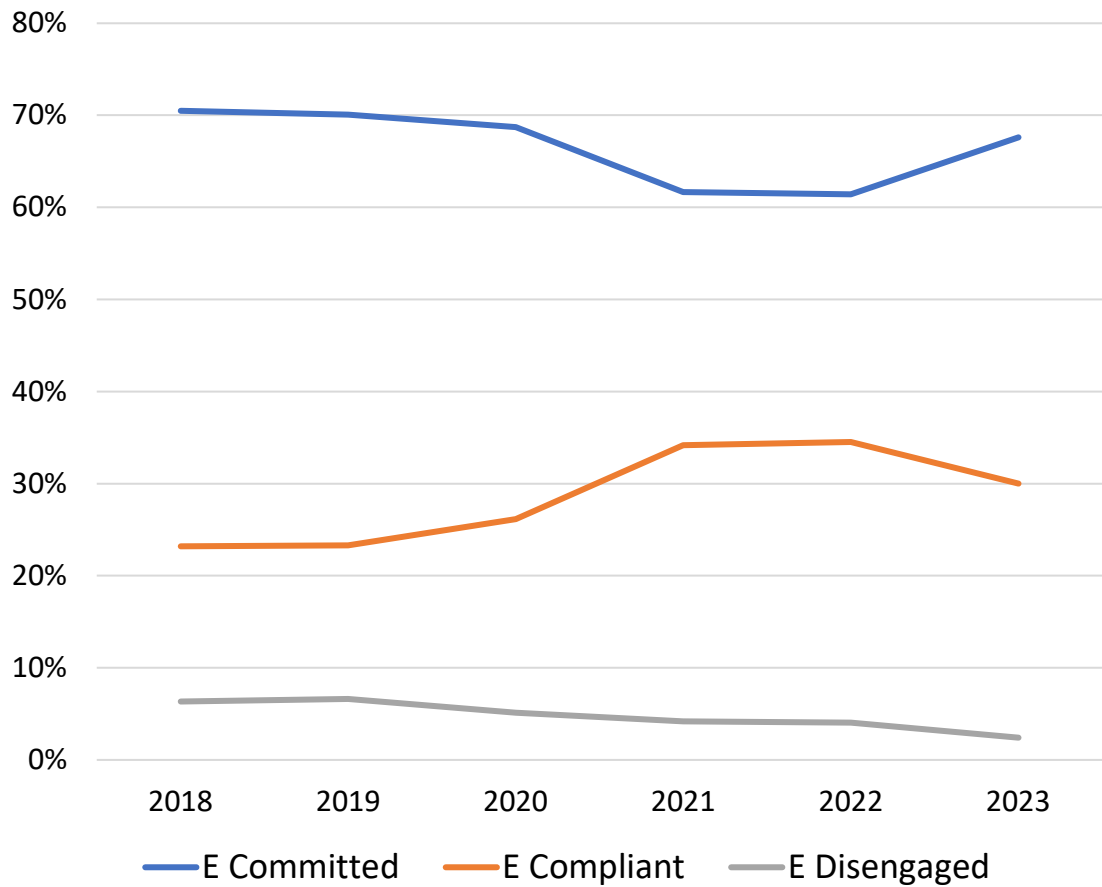
## KEY FINDINGS

- Committed Engagement is highest in Elementary school across all domains
- Disengagement is highest in High school across all domains
- Elementary students reported the higher behavioral commitment than cognitive commitment
- Cognitive engagement demonstrated the most consistent results across grade spans

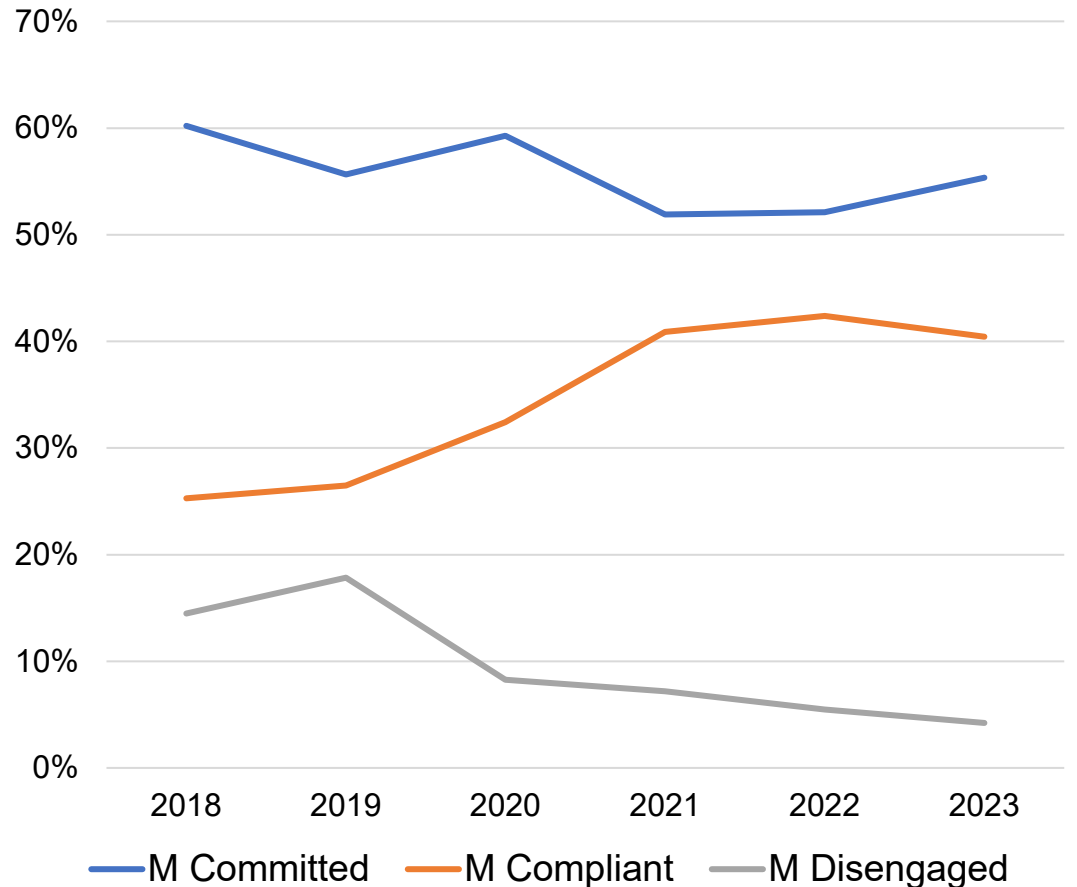


# Engagement Over Time

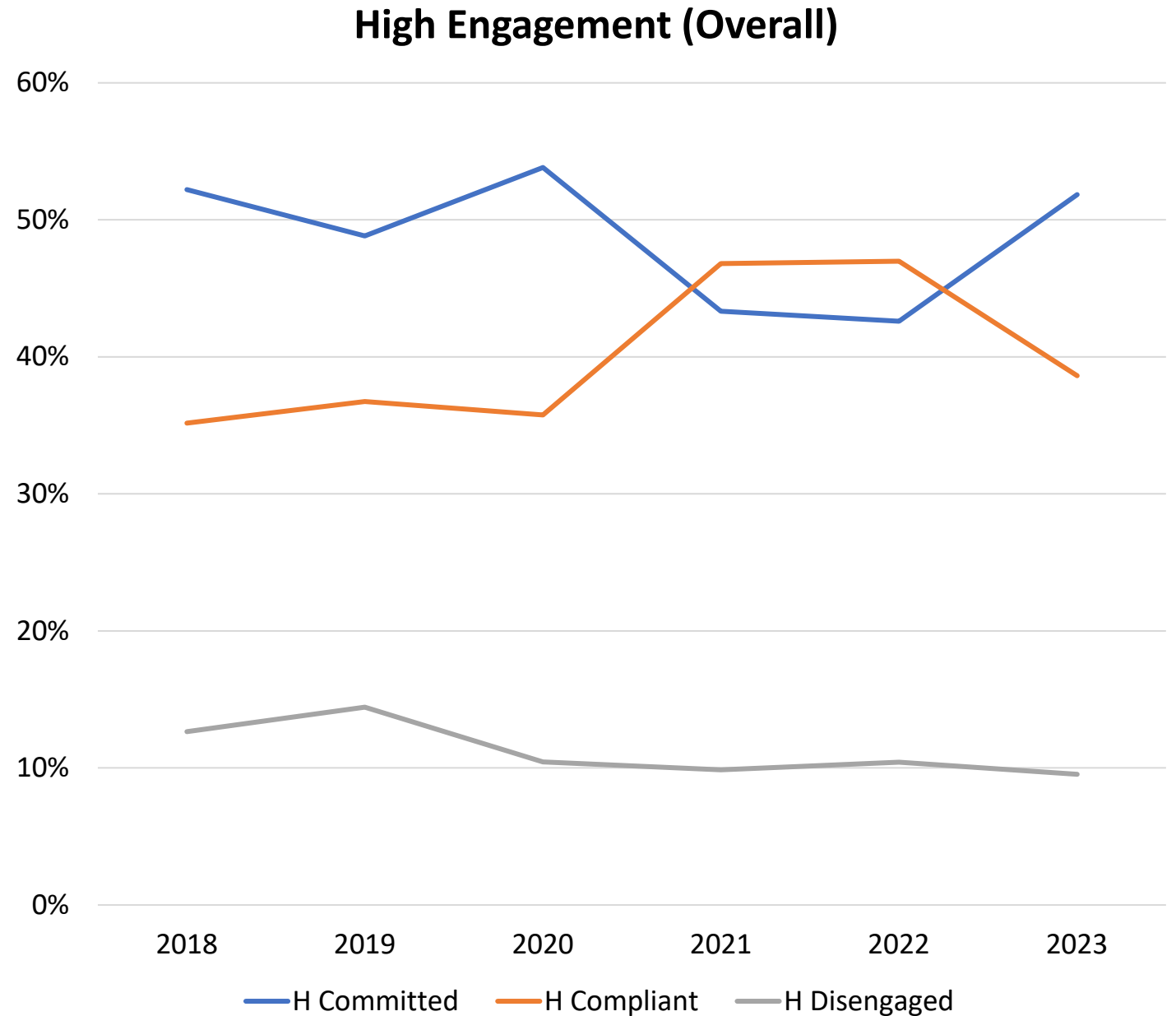
### Elementary Engagement (Overall)



### Middle Engagement (Overall)



# Engagement Over Time (CONT'D)





# INSIGHTS

All grade spans demonstrated a decrease in **COMMITTED** engagement beginning the 2020-2021 school year

- This did not correspond with an increase in **DISENGAGED**, but rather an increase in **COMPLIANT** engagement
- The decreased **COMMITTED** engagement largely persisted through 2021-2022
- In 2022-2023 we see a return toward pre-pandemic levels of **COMMITTED** engagement



OBSERVATIONS

# Discussion/Research Question

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- How (or to what extent) can educators encourage students to move from compliant or disengaged levels of engagement towards a more committed level?



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**How (or to what extent) can we encourage students to move from compliant/disengaged levels of engagement towards a more committed level?**

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## **Audience Q&A Session**

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Mahalo!