

The logo for the NAEP Alliance, featuring the text "NAEP Alliance" in white on a green rectangular background.

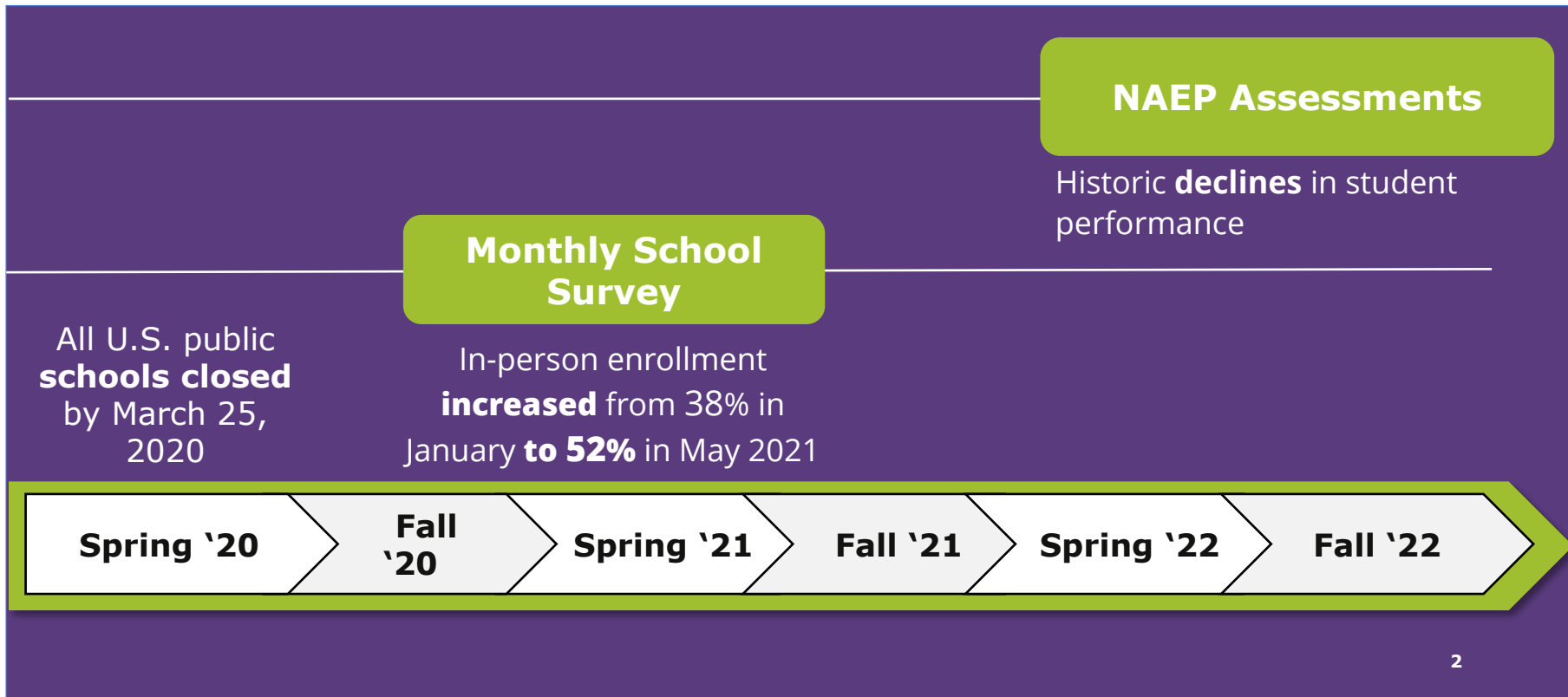
NAEP Alliance

# Linking NAEP 2022 to the 2021 Monthly School Survey

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# NAEP overview in 2021 and 2022

- The National Assessment of Educational Progress (NAEP) is a continuing and nationally representative measure of trends in academic achievement of U.S. elementary and secondary students in various subjects



# 2022 NAEP assessment overview

Study	Population	Sample	Collection Dates
Long-Term Trend, Age 9	Nation	410 schools 7,400 students	Jan. – Mar. 2022
Mathematics, Gr. 4, 8	Nation, states, TUDAs	11,000 schools 227,200 students	Jan. – Mar. 2022
Reading, Gr. 4, 8	Nation, states, TUDAs	11,000 schools 219,500 students	
Civics, Gr. 8	Nation	410 schools 7,800 students	
U.S. History, Gr. 8	Nation	410 schools 8,000 students	
Long-Term Trend, Age 13	Nation	460 schools 8,700 students	Oct. – Nov. 2022

# Monthly School Survey

- On January 21, 2021, President Biden issued the [Executive Order on Supporting the Reopening and Continuing Operation of Schools and Early Childhood Education Providers](#)
  - Among other tasks about supporting the safe reopening of schools, the order tasked the Secretary to
    - coordinate with the Director of the Institute of Education Sciences to facilitate...the collection of data necessary to fully understand the impact of the COVID-19 pandemic on students and educators, including data on the status of in-person learning. These data shall be disaggregated by student demographics, including race, ethnicity, disability, English-language-learner status, and free or reduced lunch status or other appropriate indicators of family income;
- As part of the response, IES made use of the already-drawn NAEP sample to survey schools about current status of instruction.
- The 2021 NAEP Monthly School Survey (MSS) questionnaire was administered to sampled schools each month between February and June 2021.

# Monthly School Survey Linking Study

- Using the portion of the 2022 main NAEP operational sample belonging to the same schools that were sampled for the 2021 MSS, we will link the 2021 MSS school-level responses to the 2022 main NAEP student-level data.
- Outcome will be an NCES report to address the following overarching questions:
  - How does student performance in 2022 differ by schools' responses to instruction or learning mode offered in 2021?
  - How does student performance in 2022 differ by schools' responses to enrollment in instruction modes in 2021?
- A set of plausible values for the 2022 MSS Linking sample will be made available for NAEP secondary research

# Outline

- Overview of 2021 MSS
- 2022 MSS Linking Study Reporting Goals
- Linking Study Methodology



# Overview of 2021 MSS



# Overview of survey and questionnaire

- Surveys were administered to collect five months of data for January – May of the 2021 school year.
  - Results were reported monthly and with a final summary report
- The survey questionnaire provided data on the following topics:
  1. To what degree did **schools offer** remote only, hybrid, or full-time in-person instruction?
  2. What was the **proportion** of students overall and by various student groups **enrolled** in each instructional mode?
  3. What was the **attendance** rate for each instructional mode by various student groups?
  4. What type of **hybrid model** was offered?
  5. On average, **how many days** were students offered in-person instruction under the **hybrid** instructional mode?
  6. **How many hours** of synchronous (i.e., **live**) **instruction** did students receive on average daily under the remote learning mode?
  7. Which **student groups received priority** for in-person instruction?
  8. What percentage of teachers have received at least one **shot of a COVID-19 vaccine**?



# Monthly School Survey: Sample Design

- Sampled schools were those originally planned for the 2021 operational assessment in Reading and Math
- Referred to as the “Slim Sample”
  - “Slim” refers to the fact that the sample was reduced by about 50%, primarily due to the pandemic and associated increased costs
- State Sample Sizes:
  - 40 Schools: Target sample size for non-TUDA states
  - 70 Schools: Target sample size for states with TUDAs
    - 30 schools per TUDA
    - No state had more than 1 participating TUDA

# Monthly School Survey – Questions #1, 2

1. In [previous month], what did your school offer as the mode of instruction or learning model for grade [4 or 8 as appropriate] students?

Please select **one** square in each row.

	Offered to all students	Offered to some students	Not offered
Remote or online only	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Open with both remote/online and in-person instruction (hybrid model)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Open with full-time in person	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2. What is the enrollment and mode of instruction for grade [4 or 8 as appropriate] students in your school in [previous month]?

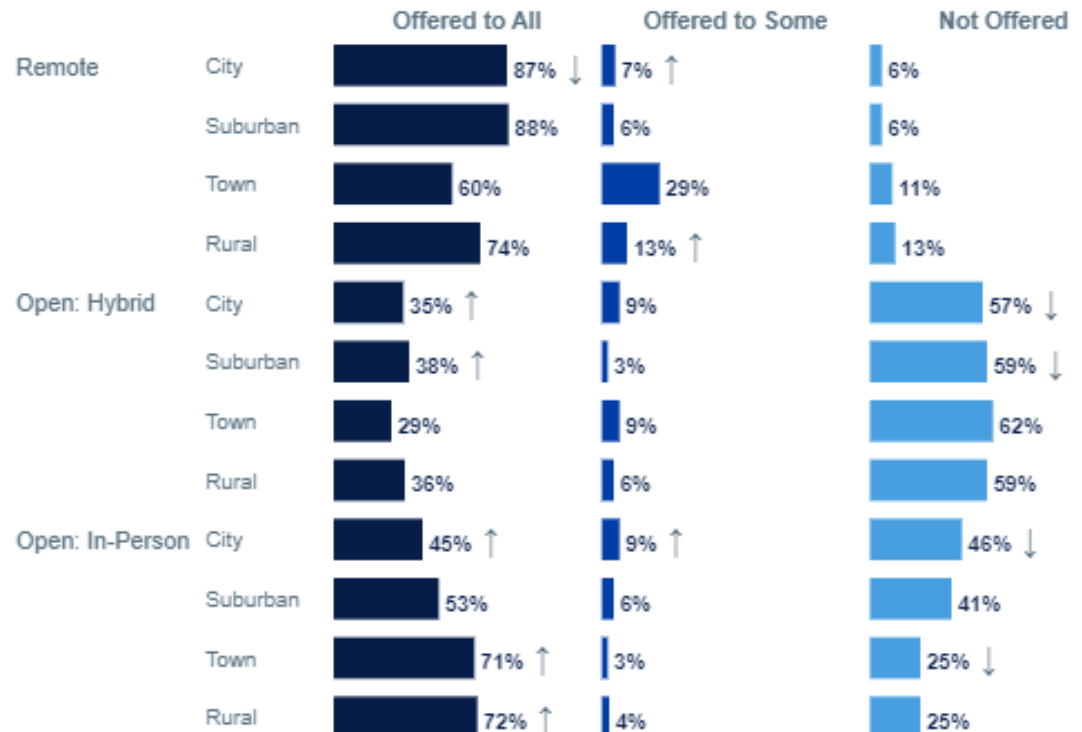
Please enter the number of students in each category.

	Total enrollment	Remote or online only	Open with both remote/online and in-person instruction (hybrid model)	Open with full-time in person
White, not Hispanic	#	#	#	#
Black or African American, not Hispanic	#	#	#	#
Hispanic, of any race	#	#	#	#
Asian, not Hispanic	#	#	#	#
American Indian or Alaskan Native, not Hispanic	#	#	#	#
Native Hawaiian or Pacific Islander, not Hispanic	#	#	#	#
Two or more races, not Hispanic	#	#	#	#
Race/Ethnicity information not available	#	#	#	#
All students	#	#	#	#

# Key Findings: Modes Offered in March

- Almost **90% of schools** offer some type of in-person instruction AND some type of remote option.
- In-person offerings have **increased** over the months.
- Regional differences observed, with students in **West and Northeast** less likely to have in-person instruction offering for all.
- Differences by locale also observed, with students in **city and suburban** schools less likely to have in-person offering for all.

Percentage of grade 4 students by instructional modes offered: March 2021





# Linking Study Methodology

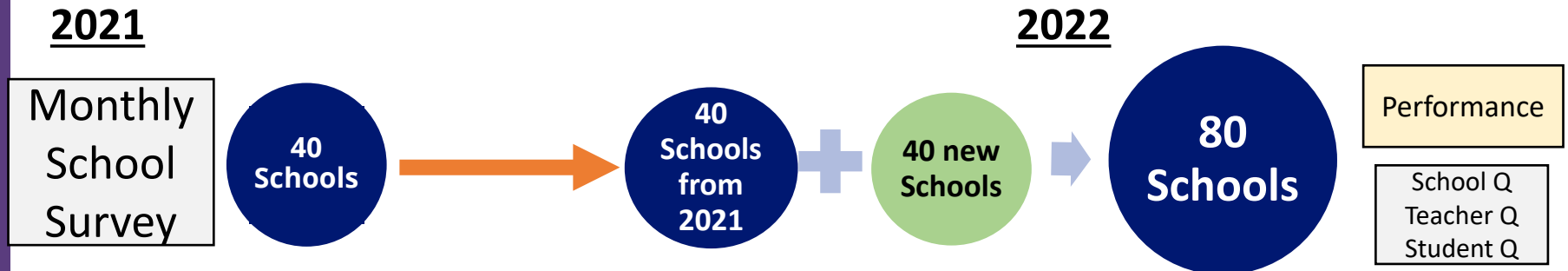


# Linking 2022 with 2021 Monthly School Survey

**Special analysis of relationship between 2022 performance and 2021 Monthly School Survey**

**Create variables for reporting performance by, for example**

- Mode of instruction offered
- Mode of instruction enrolled



Note: Number of schools are per state

# Monthly School Survey: Methodology

- 2022 student performance can only be described based on their schools' responses to the 2021 survey
- 2021 MSS data cannot be linked to 2022 students (e.g., we don't know details of attendance, enrollment, mode of instruction for the 2022 students)

# 2022 MSS Linking Sample

- Taking the 2021 MSS sample, a rule was developed to determine the set of responding schools for the 2022 MSS linking sample.
  - Responding schools: sampled public schools that responded to the MSS in months 2 and/or 3 (March and/or April 2021) to MSS Question 1 and with students in the sampled schools assessed with the 2022 NAEP assessment.
  - NAEP Sampling and Data Collection contractor produced a set of student-level weights for the 2022 NAEP sampled students in the responding schools
  - Student weights were adjusted for school nonresponse

# MSS Linking Study Score Reporting

- To estimate subgroup NAEP scores with subgroups defined by the MSS information, latent regression analysis was conducted by incorporating a set of variables from the 2021 MSS as model covariates
- Variables include:
  - Derived variables based on school responses to MSS Q1, MSS Q2, and MSS Q6 (details on upcoming slides)
  - Interactions with major reporting variables (e.g., gender, race/ethnicity, EL status, NSLP, SD status, region, school location, parental education).
- Analysis will support both national and state results.
  - National results will include a caveat that a handful of small states are missing.
  - State sample sizes are small; limited ability to contextualize state results





# MSS Linking Study Research Questions



# Research Question #1: Mode Offered

1. In [previous month], what did your school offer as the mode of instruction or learning model for grade [4 or 8 as appropriate] students?  
*Please select one square in each row.*

	Offered to all students	Offered to some students	Not offered
Remote or online only	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Open with both remote/online and in-person instruction (hybrid model)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Open with full-time in person	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- How does student performance in 2022 differ by schools' responses to instruction or learning mode offered in 2021?

# Research Question #1: Mode Offered

Can be reported roughly from least to most in person



1. In [previous month], what did your school offer as the mode of instruction or learning model for grade [4 or 8 as appropriate] students?

*Please select **one** square in each row.*

	Offered to all students	Offered to some students	Not offered
Remote or online only	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Open with both remote/online and in-person instruction (hybrid model)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Open with full-time in person	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Category

Remote only

Remote + Hybrid

Hybrid only

Remote + In person

All 3 modes

Hybrid + In person

In person only

# Research Question #1: Mode Offered

Multiple response paths form these categories

1. In [previous month], what did your school offer as the mode of instruction or learning model for grade [4 or 8 as appropriate] students?  
*Please select **one** square in each row.*

	Offered to all students	Offered to some students	Not offered
Remote or online only	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Open with both remote/online and in-person instruction (hybrid model)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Open with full-time in person	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Category

Remote only

Remote + Hybrid

Hybrid only

Remote + In person

All 3 modes

Hybrid + In person

In person only

# Research Question #2: Mode Enrollment

2. What is the enrollment and mode of instruction for grade [4 or 8 as appropriate] students in your school in [previous month]?

*Please enter the number of students in each category.*

	Total enrollment	Remote or online only	Open with both remote/online and in-person instruction (hybrid model)	Open with full-time in person
White, not Hispanic	#	#	#	#
Black or African American, not Hispanic	#	#	#	#
Hispanic, of any race	#	#	#	#
Asian, not Hispanic	#	#	#	#
American Indian or Alaskan Native, not Hispanic	#	#	#	#
Native Hawaiian or Pacific Islander, not Hispanic	#	#	#	#
Two or more races, not Hispanic	#	#	#	#
Race/Ethnicity information not available	#	#	#	#
All students	#	#	#	#

- How does student performance in 2022 differ by schools' responses to enrollment in instruction modes in 2021?

# MSS Linking Study Research Questions

- The research will allow for comparisons
  - Within **jurisdiction and month**, between **MSS categories**
  - Within **jurisdiction and MSS category**, between **months**
  - Within **MSS category and month**, between **jurisdictions**
- Provide information about duration of in-person learning in the 5-month window
  - Was in-person instruction never offered, offered starting Feb-May, or offered all months?
  - What was the average percent of in-person enrollment across the 5 months?

# Summary

- The 2021 NAEP Monthly School Survey (MSS) questionnaire was administered to schools each month between February and June 2021
- The 2022 MSS Linking Study will result in an NCES report linking student performance in 2022 to school responses to select 2021 MSS questions
- Secondary researchers will be invited to further explore how school-level variables related to instruction in 2021 were associated with NAEP student achievement in 2022