Chesapeake Bay Region 2024 Environmental Literacy Report

Results from the ELIT Survey

Final Report: 04/04/2025

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ELIT Background & Purpose

The Chesapeake Bay Environmental Literacy Indicator Tool (ELIT) was developed to monitor the capacity and progress of public school districts toward meeting the environmental literacy goal stated in the 2014 Chesapeake Bay Watershed Agreement. The goal was to:

> **Enable every student in the region to graduate with the knowledge and skills to act responsibly to protect and restore their local watershed.**

Three outcomes are stated in the agreement:

1. **Students**: Increase age-appropriate understanding of the watershed through meaningful watershed educational experiences (MWEEs) and rigorous, inquiry-based instruction, with a target of at least one MWEE in elementary, middle, and high school, depending on available resources.

2. **Sustainable Schools**: Increase the number of schools that reduce impact of buildings and grounds on their local watershed, environment, and human health through best practices, including student-led protection and restoration projects.

3. **Environmental Literacy Planning**: Develop a comprehensive and systemic approach to environmental literacy for all students, including policies, practices and voluntary metrics that support environmental literacy goals and outcomes.

The ELIT contributes to monitoring public school districts' progress toward these outcomes, collecting data about:

- School district preparedness to implement a comprehensive and systemic approach to environmental literacy education (Outcome 3);
- Student participation in MWEEs during the school year (Outcome 1);
- School district needs to support further improvements in environmental literacy education.

The ELIT tool used in 2024 was identical to the tool used in 2022.

The ELIT is administered biennially to all local education agencies (LEAs) in six jurisdictions: the District of Columbia, Delaware, Maryland, Pennsylvania, Virginia, and West Virginia. This report presents results from all LEAs included in the survey in these jurisdictions.

ELIT Data Collection

Data Collection Procedure

The ELIT is administered every two years as an electronic survey. It is intended to be completed by a single representative from the administration of each LEA (school district) who is able to report on district-wide activities. Additional data that are more reliably obtained through non-survey means (e.g., student enrollment) are identified from external sources and merged with the survey responses.

Past ELIT data were collected in 2015, 2017, 2019, and 2022. There was a one-year pause in data collection during the COVID-19 pandemic.

The Chesapeake Bay Program Education Workgroup organized data collection in 2024. Representatives from each state's education office led distribution of the survey to LEAs within their jurisdiction. ELIT data collection targets only public school districts. This report does not contain data about private or charter schools.

Data Collection Timing & Details

The 2024 ELIT asked districts to report on the status of activities for the 2023-24 school year. The ELIT survey opened for responses in August 2024 and remained open for responses through early December 2024.

Five of the jurisdictions (DC, Delaware, Maryland, Pennsylvania, and Virginia) endeavor to survey all of their public school districts – whether the LEA is within or outside of the Chesapeake Bay watershed – in order to establish an understanding of the conditions of environmental education statewide. West Virginia, however, only distributes the survey to the eight LEAs that fall within the watershed.

This analysis and report present results from across the entire region surveyed, which includes LEAs both inside and outside of the watershed in all jurisdictions except for West Virginia (680 LEAs in total).

Additional Information about Data

The most significant challenge of the ELIT is obtaining a strong response rate from 680 LEAs across six jurisdictions. As more LEAs report their activities into this dataset, the Chesapeake Bay Program has a more accurate understanding of the status of environmental literacy regionwide.

To maximize ability to generalize about conditions across the region, ELIT results include all data submitted in the current year's survey, as well as available data from prior ELIT surveys, within two years. **In this report, results include all responses to the 2024 ELIT, as well as data from any LEA that responded in 2022, but did not update their records in 2024.** The underlying assumption is that changes for non-reporting districts are likely minor in just two years.

In some analyses, we constrain the dataset to only those districts who provided data in *both* recent years – 2024 and 2022 – to offer the most accurate reporting of patterns of change at the district level.

About Rounding: In tables and graphs throughout this report, we display distributions with whole number percentages. In some tables and graphs, percentages may appear to add up to slightly more or less than 100%. This is due to variation when rounding decimals.

2024 ELIT Response Rate: By Total LEAs

183 LEAs in the 6 jurisdictions completed the ELIT survey in 2024. This constituted a response rate of 27% of all districts in the region.

Another 119 LEAs (18%) responded in 2022, but not 2024. These data were carried forward in 2024 analysis to provide as robust a picture as possible of the recent state of environmental literacy in the region. **In all results that follow (e.g., indicator measures), this combined dataset is the basis for 2024 ELIT results.**

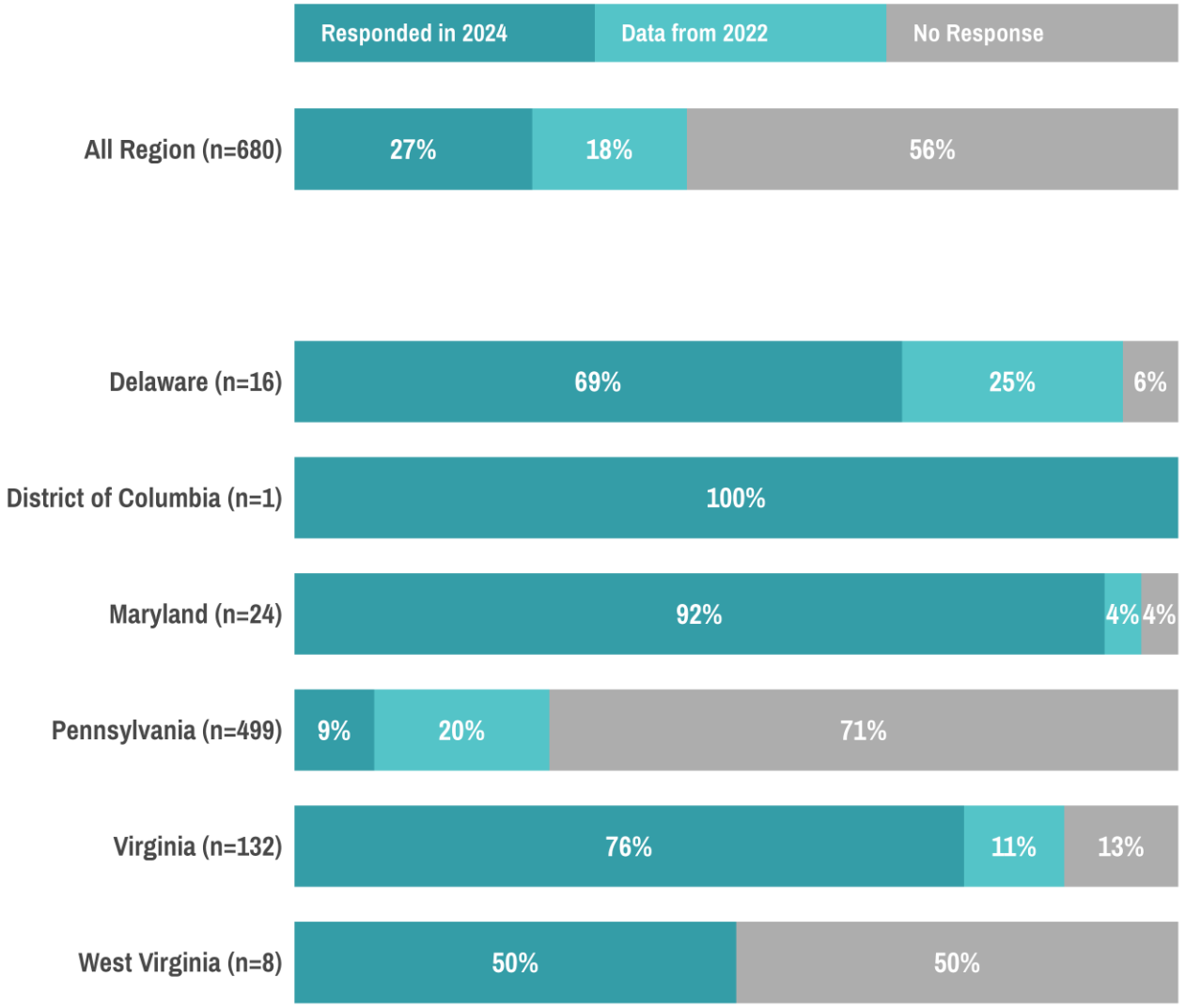
As in all past years, the main differentiating factor in response rate was state. District of Columbia, with a single public school district, was the only state to obtain a 100% response rate. Maryland also continued to have a very high response rate.

Half or more of LEAs in West Virginia, Virginia, and Delaware responded to the 2024 ELIT. Representation was lowest in Pennsylvania.

State-by-state variation is largely consistent with 2022 response rates. This report aggregates across the region, but interpretation of results should consider it is biased toward what is occurring in states with high number of districts responding.

ELIT Response Rate: Percentage of LEAs, by state, responding to the ELIT in 2024

Percentages reflect the proportion of all LEAs in the jurisdiction that responded to the ELIT.
WV is the exception; in that state, only LEAs that are within the watershed are invited to particpate in the ELIT.



2024 ELIT Response Rate: By Total Enrollment

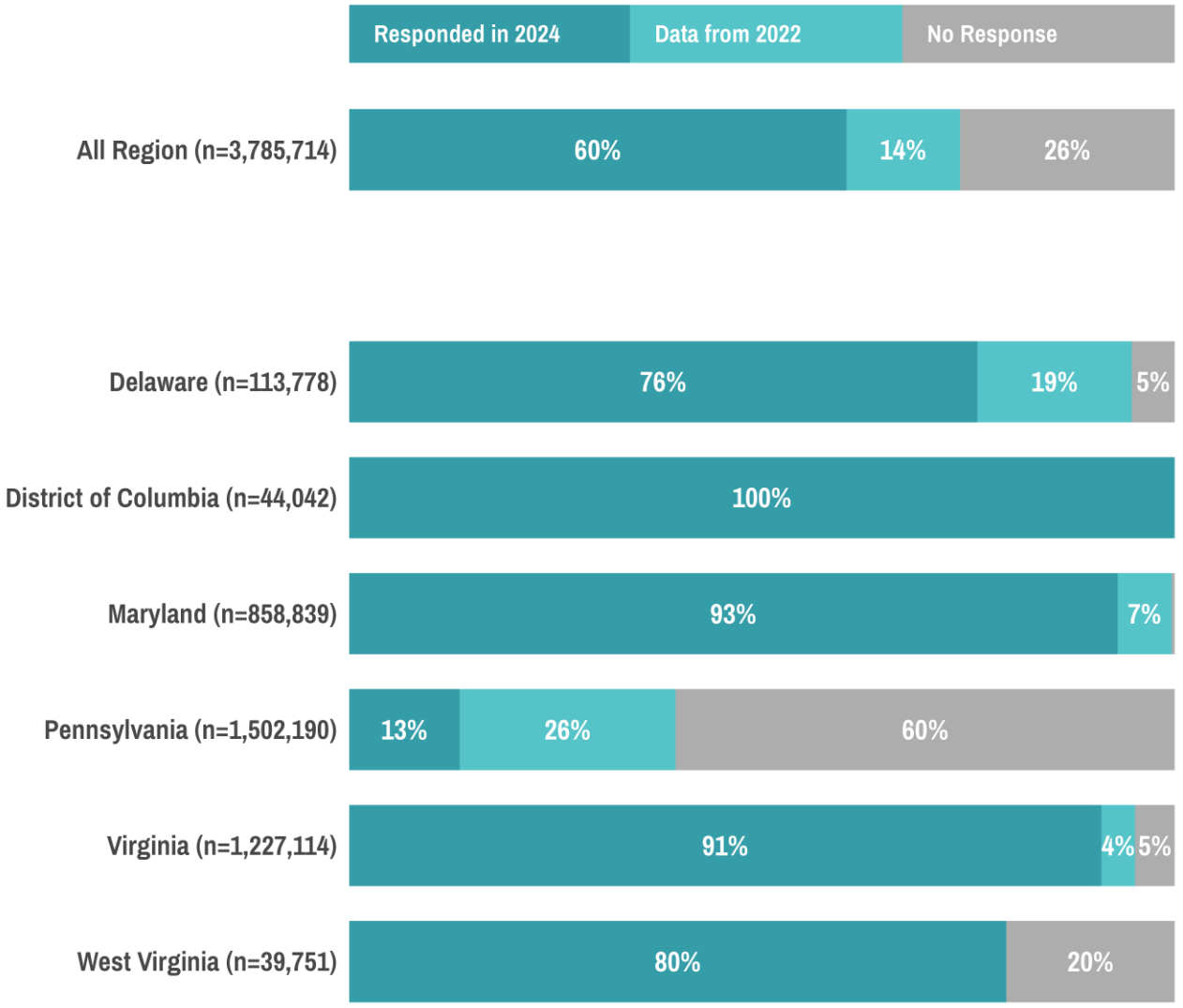
When considering the representation of enrolled students, the 2024 ELIT data represent 60% of all students in the region. With 2022 additions, these results represent 74% of all students.

Virginia and Maryland each are home to large numbers of students – over 1 million and nearly 900,000, respectively. Because these states also had high district response rates, the overall dataset provides strong representation of the learning environments experienced by students in these states. Pennsylvania, in comparison, is home to more students than the other states, but the lower response limits the degree of representation in this report.

This also underscores how differently LEAs are organized. Maryland's 859,000 students are contained in 24 districts, while Pennsylvania's 1.5 million students are spread across 499 LEAs. The number of districts within a state does not fully account for response rate, but it does indicate that data gathering is a more challenging task for less centralized educational systems. We have consistently found that the ELIT is more likely to be completed by larger and more urban school districts.

ELIT Response Rate: Percentage of Total Enrolled Students at Responding LEAs

Percentages show the proportion of all enrolled students within the region attending LEAs that responded to the ELIT. WV is the exception; in that state, only LEAs that are within the watershed are invited to particpate in the ELIT.



Availability of Paired Year-to-Year Data

In the dataset for analysis, nearly half of the districts provided updated data in both 2024 and 2022. These data allow analysis of direct change in indicators from year-to-year.

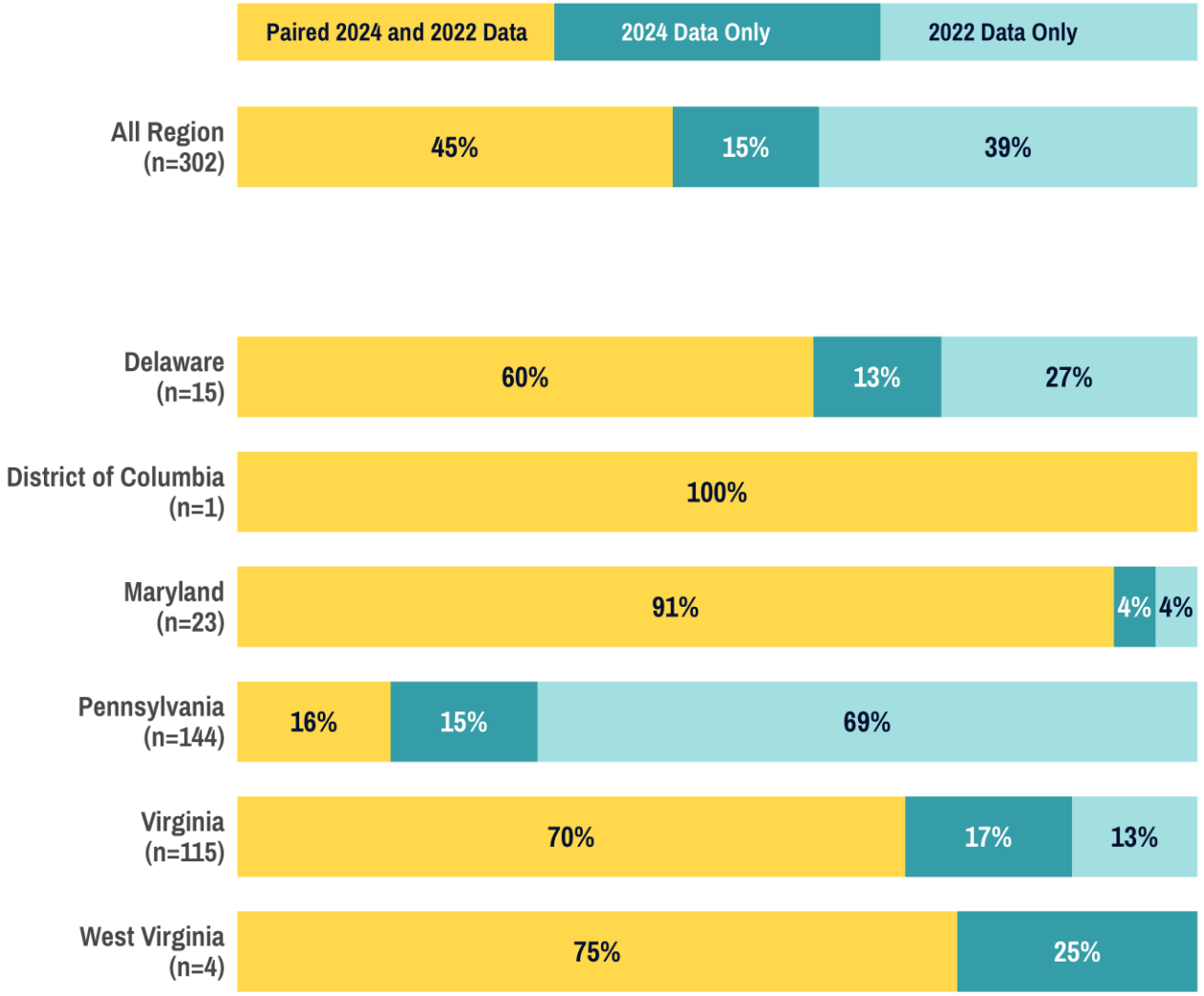
In the analyses that follow, we examine change over time for each measure. In general, this involves aggregating all data from each year (2017-2024). However, these aggregate number are affected by which districts responded in a given year – which we know to vary.

To examine patterns of change, we explored the smaller dataset of districts with paired data from the 2024 and 2022 reporting. This finer-grained analysis shows actual patterns in the number of districts whose indicators increased or decreased in the past two years. It also suggests where aggregate metrics may be influenced by fluctuations in the subset of districts that respond to the ELIT survey.

As the figure to the right shows, 60% or more of data in all states except Pennsylvania has paired responses, meaning consistency in which LEAs responded.

Repeat ELIT Respondents: Availability of Paired 2024 and 2022 Data

The dataset used for the 2024 analysis includes data from 302 LEAs. The yellow segments show the proportion of districts for which we have paired data from both 2024 and 2022 ELIT collection. The remaining segments (teal) indicate districts for which we only have one year's data (either 2024 or carried-forward data from 2022).



Staff Responsible for Sustainable Schools

Just over half of the responding LEAs indicated that their district does not have dedicated staff responsible for sustainable schools.

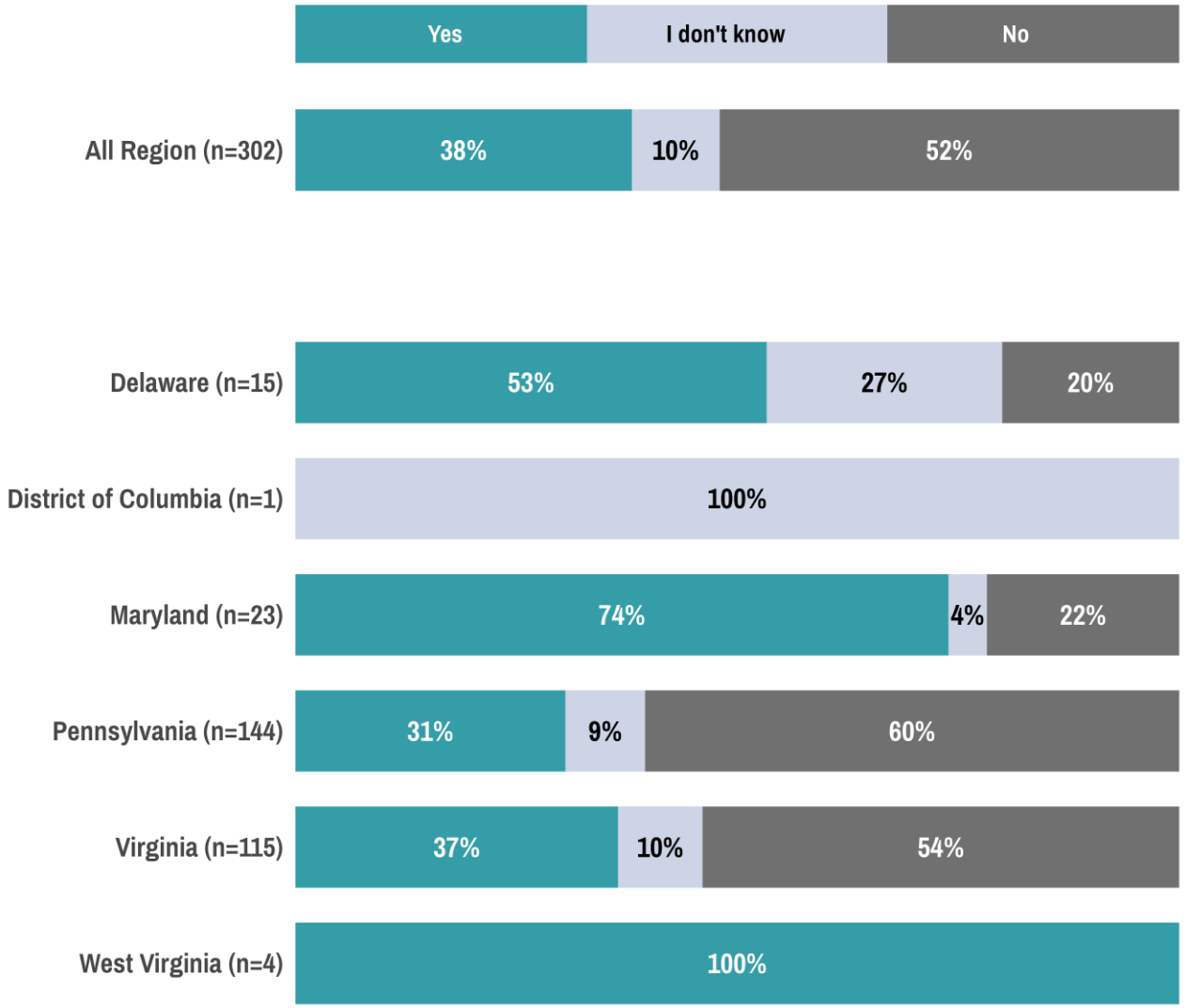
The 2024 ELIT did not engage in a full inquiry of sustainable schools practices. Only one question was asked, which was to gauge if the district had dedicated staff responsible for sustainable school efforts.

West Virginia was the only state in which all responding LEAs reported having staff responsible for sustainable school efforts. Maryland also reported a high rate, with 17 of 23 LEAs confirming that they had staff responsible for sustainable schools. In Delaware, more than half of LEAs had a dedicated staff person in this role.

Virginia and Pennsylvania had markedly lower rates of staff dedicated to sustainable school activities. In the District of Columbia, the LEA representative who responded to the ELIT reported they were unsure whether or not the district had staff dedicated to this effort.

Sustainable Schools: Presence of Support Staff

Responses to the question: Does your LEA have a staff lead or team responsible for coordinating sustainable schools efforts?



RESULTS

Preparedness to Implement Environmental Education

Measurement Overview

To assess each LEA's current capacity to implement a comprehensive and systemic approach to environmental education (EE), respondents considered six elements (below) and indicated for each whether it was:

- Not in place
- Partially in place
- Fully in place

The response for each element was scored with a value of 0, 1, or 2, respectively. These values were summed to arrive at a total preparedness score for the district.

Six Elements Used to Determine LEA Preparedness for EE:

a) An established program leader for environmental education (providing effective, sustained, and system leadership).

b) An integrated program infusing environmental concepts into appropriate curricular areas.

c) Regular communication among staff responsible for environmental education curriculum and program implementation.

d) A support system in place that enables teachers and administrators to engage in high quality professional development in content knowledge, instructional materials, and methodology related to environmental education.

e) A plan to ensure opportunities for all students to engage in meaningful watershed educational experiences (MWEEs) at the elementary, middle and high school levels.

f) Established community partnerships for delivery of environmental education, including implementation of MWEEs.

LEA Preparedness to Implement EE

The majority of responding LEAs are somewhat prepared to implement high quality environmental education (EE).

Responding LEAs rated how fully their district has implemented the six indicators of planning and infrastructure for high quality EE. Total preparedness scores, across all indicators, were grouped into three levels of preparedness:

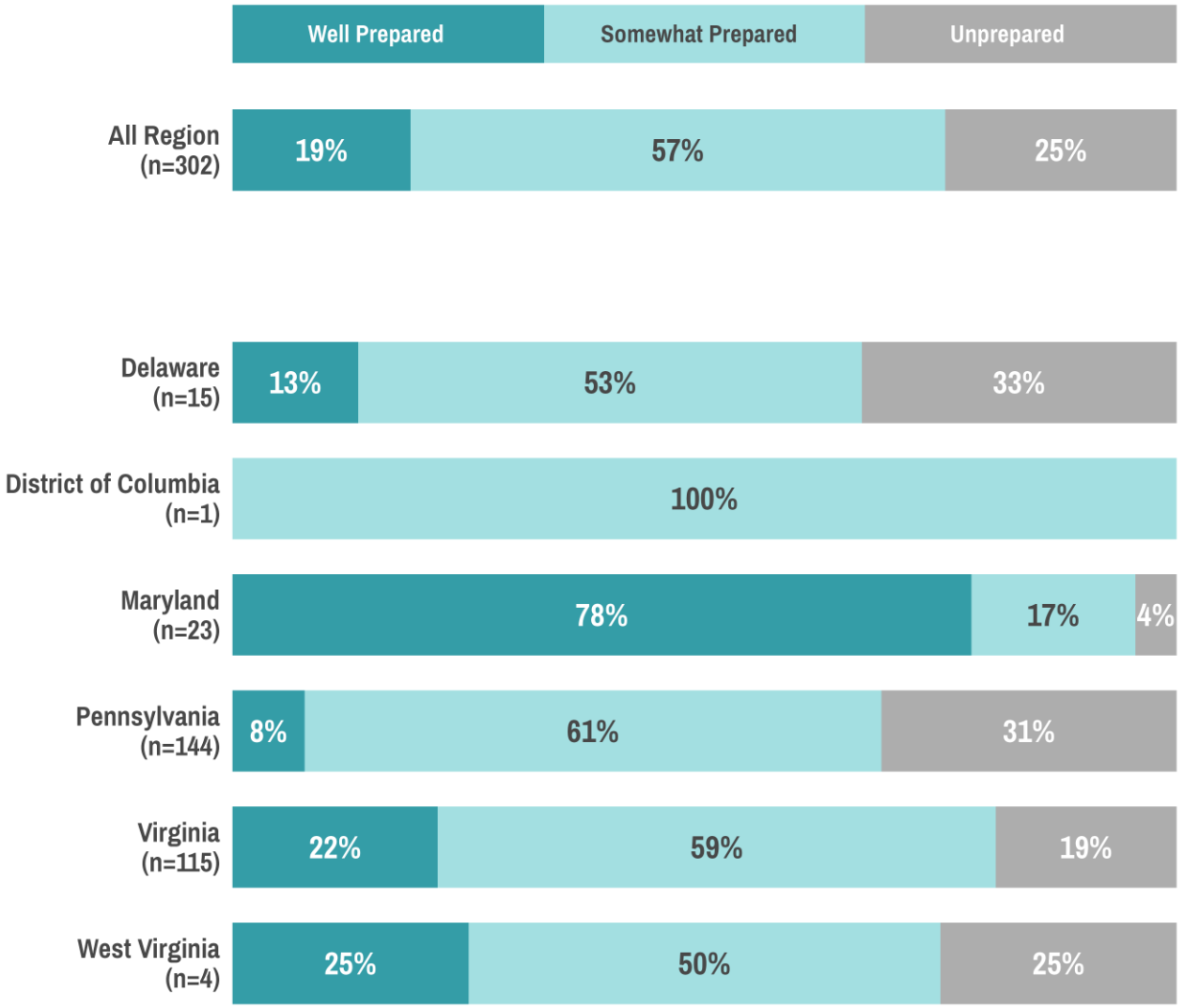
- Well Prepared: scores from 9-12
- Somewhat Prepared: scores from 4-8
- Not Prepared: scores from 0-3

Preparedness varied a great deal between the states. Maryland saw the majority of its districts scoring as well prepared, with Virginia and West Virginia having close to 25% of districts score as well prepared. Pennsylvania and Delaware saw only 8% and 13% of LEAs at the well-prepared level, respectively.

Overall, the results of this indicator are quite stable from the state-by-state results in 2022.

Self-Reported Levels of Preparedness to Implement Environmental Education

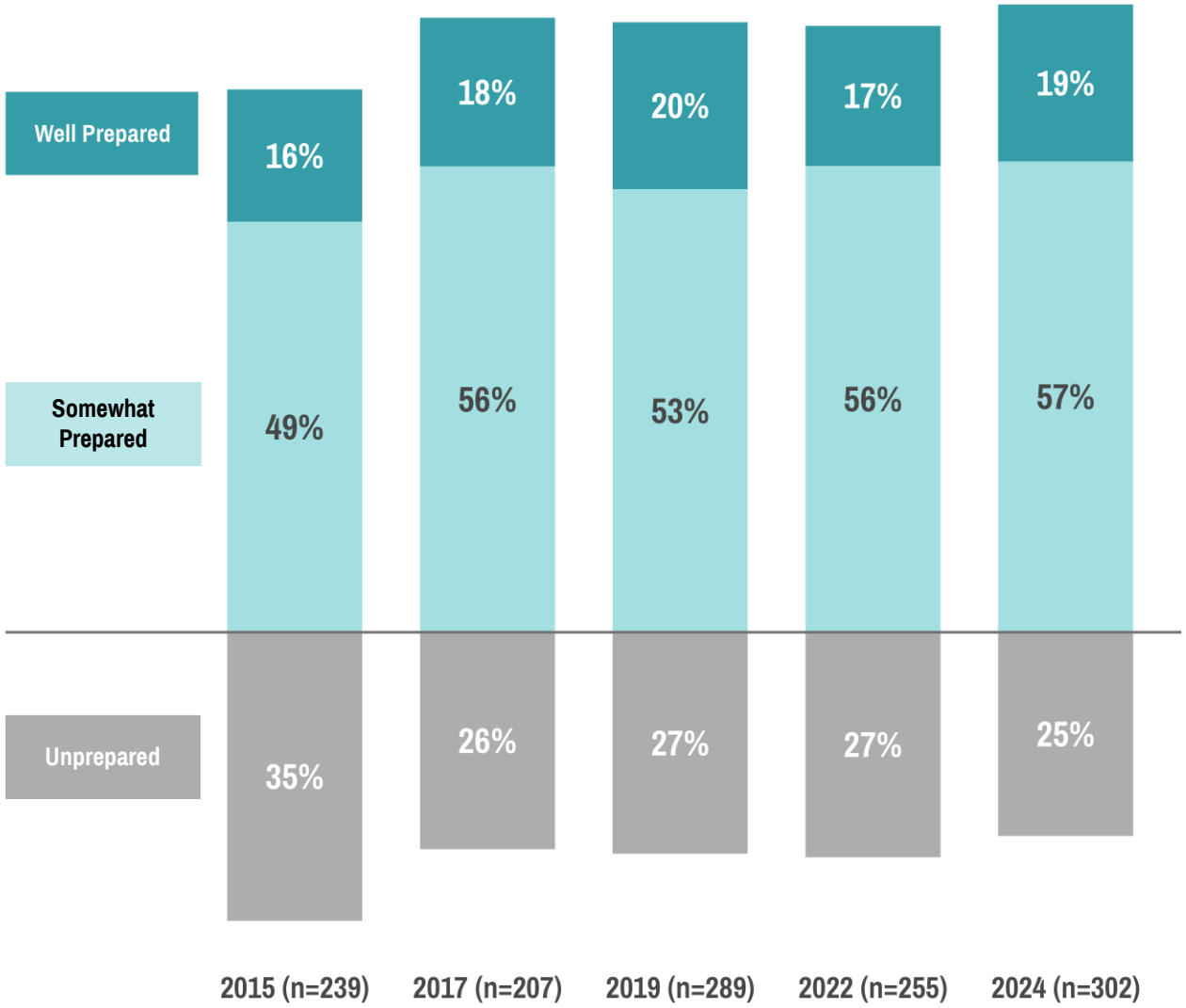
Levels of preparedness is based on a total preparedness score, which derives from answers to six elements of preparedness for EE evaluated by the ELIT.



LEA Preparedness: Trends Over Time

Changes in Environmental Literacy Preparedness Over Time (2015-2024)

Region-wide preparedness levels in each of the ELIT years' reporting. Divergence illustrates the change in proportion of districts reporting any level of preparedness



The percentage of LEAs scoring as well-prepared to implement environmental education increased slightly in 2024, ending close to 2019 levels, rebounding from a dip in 2022.

The percentage of LEAs scoring as unprepared dropped very slightly from previous years, while the rate of well-prepared and somewhat prepared LEAs grew slightly.

Overall, rates of unprepared LEAs across the region remained fairly constant since 2017. However, 2024 saw the lowest rate of unprepared LEAs to date. This suggests that the positive trend in having more prepared LEAs may be gaining momentum again.

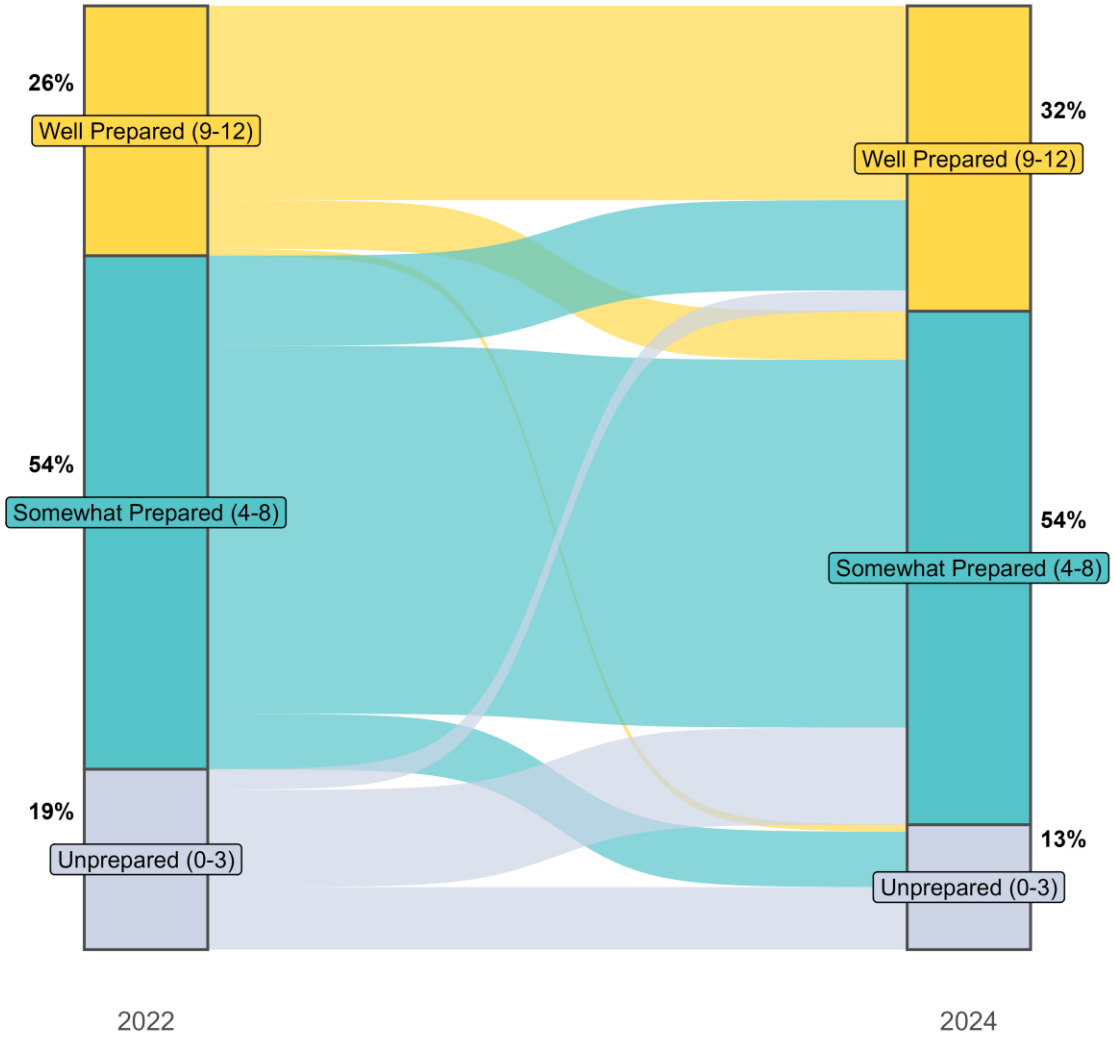
When we look at the raw, total preparedness score (used to assign the levels), there was a very slight increase in the total score, from an average of 5.42 in 2022 to 5.50 in 2024 – bringing scores back to 2019 levels. This further confirms the slight but positive trend in this indicator, regionwide.

On the next page, we examine changes for just districts with paired 2022 and 2024 data.

LEA Preparedness: District Changes from 2022 to 2024

ELIT Preparedness: Pathways of Change between 2022 and 2024

This graphic shows how the planning level of individual school districts changed between the 2022 and 2024 ELIT. It includes only districts that responded to the survey in both years.



When we look only at districts for which we have reported data in both 2022 and 2024 (n=136 districts), we see that LEAs reported being better prepared in 2024 – with an increase of 6 percentage points in well-prepared school districts.

This analysis provides a clear picture of year-to-year change and pathways of movement in the metric by tracking each individual district that reported status in both years. Most districts maintained their level of preparedness over the two years. But, overall, more districts moved to higher levels of preparedness than those that moved to lower levels of preparedness. This graph highlights that most changes in preparedness were gradual, with very few LEAs showing dramatic shifts from one end of the preparedness scores to the other (positively or negatively).

When we look at the raw, total preparedness score (used to assign the levels) of all LEAs with paired data, **the average total score increased from 6.41 in 2022 to 6.71 in 2024**. This indicates an overall trend of school districts becoming more prepared since 2022. It also shows that consistent ELIT responders tend to skew towards better preparedness than their inconsistent peers.

Breaking Down the Elements of Readiness

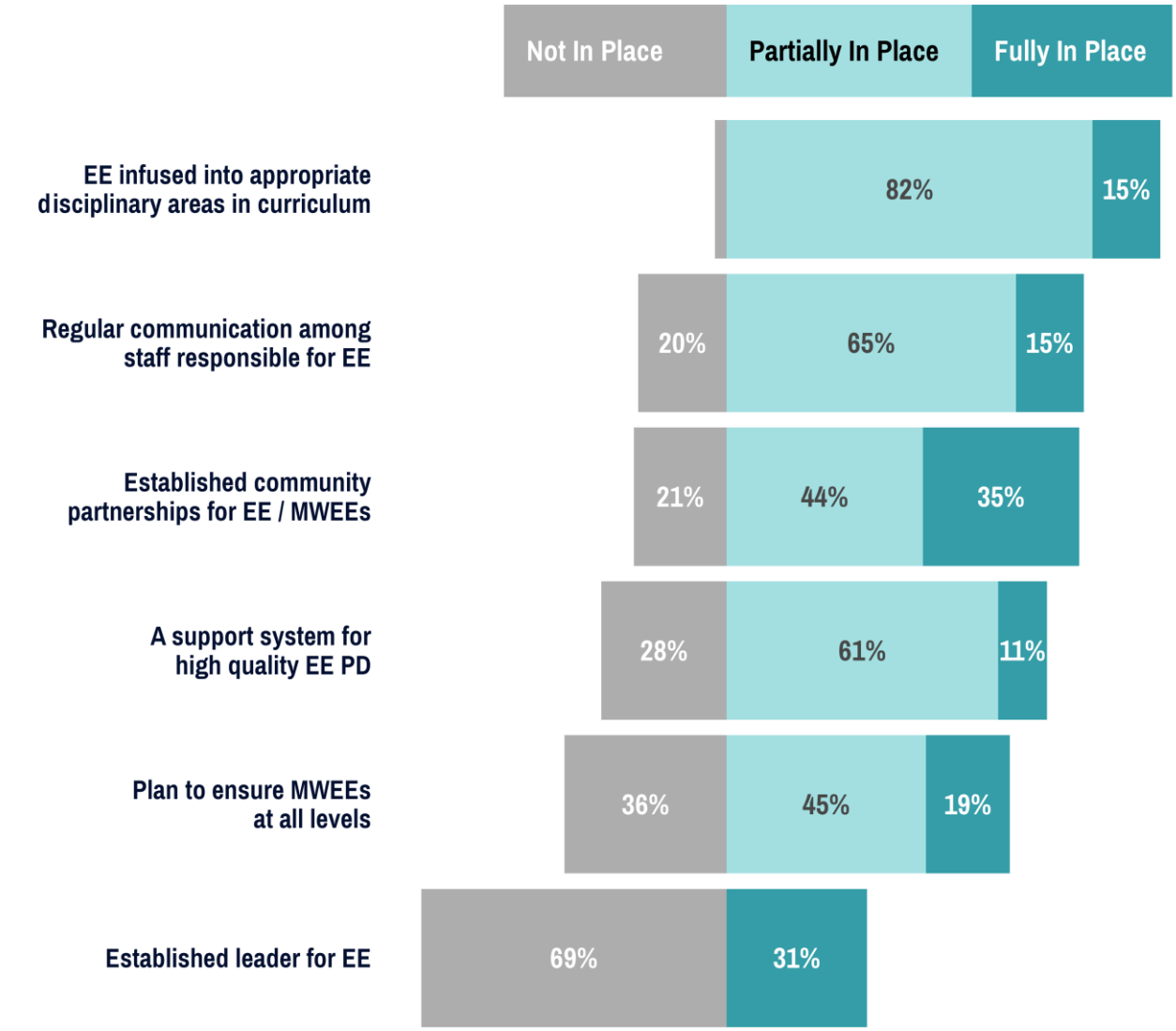
EE integration into curricula is the most common element of planning and infrastructure that is fully or partially in place among LEAs. Having established partners and a leader for EE are the most common elements to be fully in place.

The breakdown of readiness within each element in the preparedness indicator show trends in LEA strengths and challenges for planning. As in previous years, an integrated program that infuses environmental topics across the curriculum is the area in which the greatest number of LEAs have made progress (82%), with another 15% of LEAs having fully achieved this. Only 3% of districts had done nothing in this area. Establishing community partnerships for EE is the area LEAs have had greatest success at fully accomplishing (35%), with only 21% reported no partnerships for EE.

The next page shows a breakdown of these elements, comparing activities between the three sub-groups (well-prepared, somewhat prepared, or unprepared). It suggests that having an EE leader, community partners, and integrating EE across the curriculum are areas in which districts make early strides toward greater preparedness.

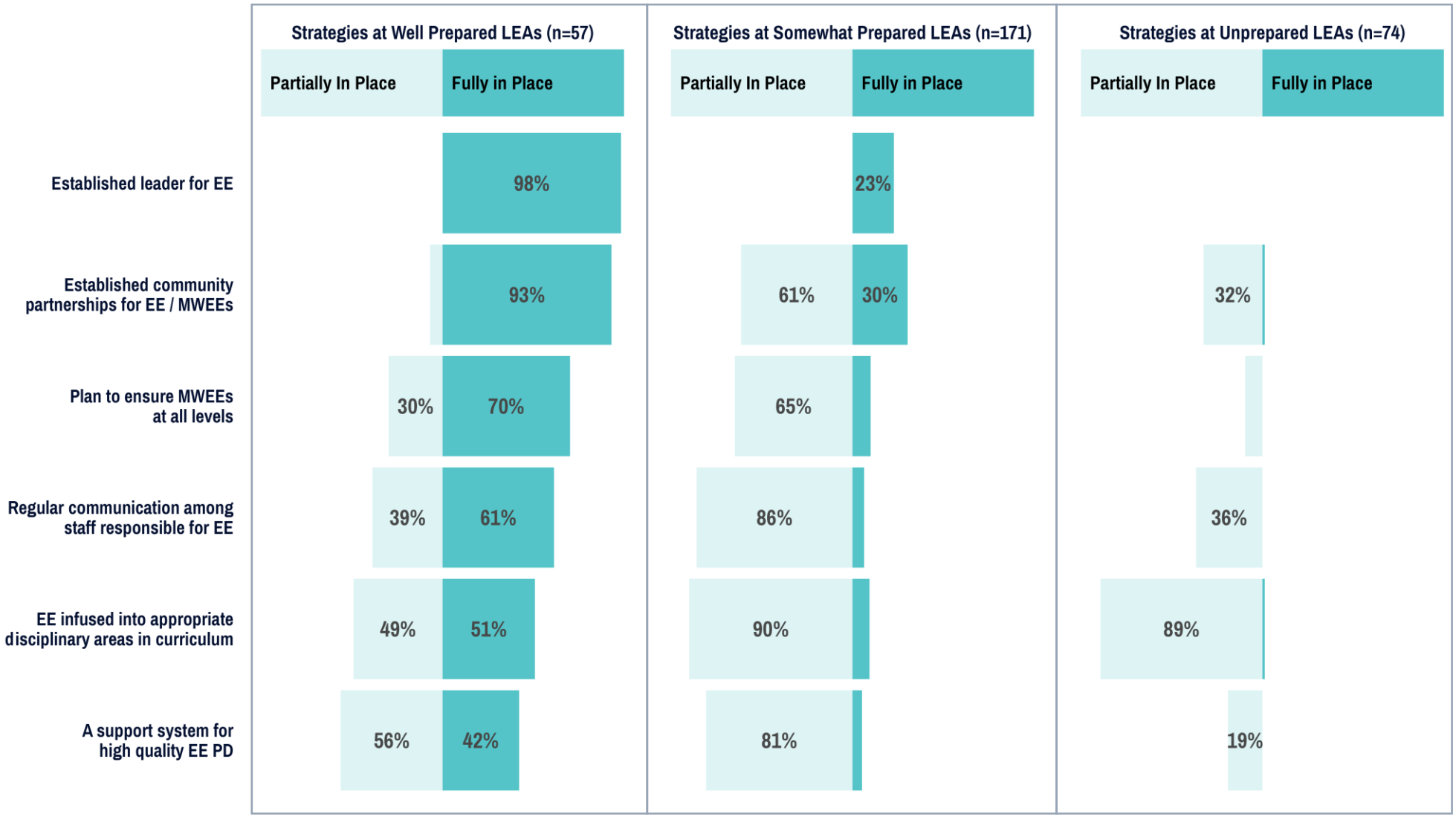
Degree of Readiness for Each Element of LEA Planning and Infrastructure.

Distribution of ratings to individual items in the planning indicator by all LEAs in Region (n=302)



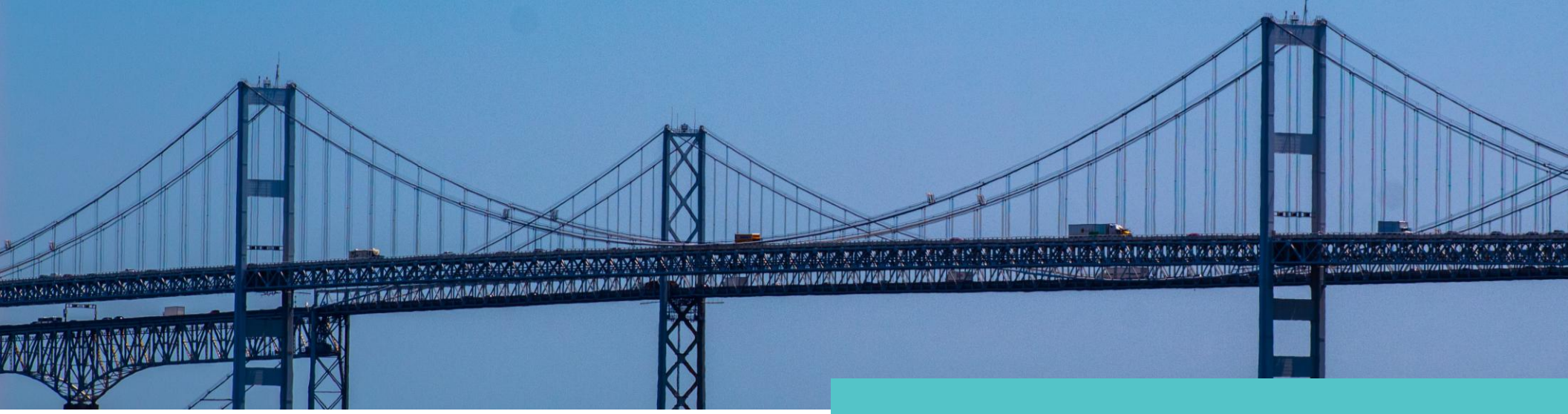
Elements Fully or Partially in Place

Comparing Strategies between Levels of Preparedness



RESULTS

Student Participation in Meaningful Watershed Educational Experiences (MWEEs)



RESULTS: STUDENT PARTICIPATION IN MWEES

Measurement

To assess the level of student participation in MWEEs within each LEA, respondents were asked to assess the presence of MWEEs within curricular offerings within each grade level (K-12), considering if they were system-wide or isolated to schools or classes. (See detail, right.) Respondents were given a reminder of the complete definition of a MWEE before the questions.

Although respondents reported at individual grade levels, analysis aggregated these data to report results by grade band (elementary, middle, or high school). The aggregation grouped each LEA into one of three levels within each grade band:

- At least one system-wide MWEE provided in the grade band;
- Some MWEE programming in the grade band, but not system-wide;
- No MWEE programming provided in the grade band.

For elementary (K-5) and middle school (6-8) grades, respondents indicated whether the district had:

- A system-wide MWEE experience for students in this grade
- Some schools or classes in this grade participate in MWEEs
- No evidence that students in this grade participate in a MWEE

For high school, MWEEs are more likely to correspond to a course than a grade level. Therefore, respondents reflected on courses at the high school level, indicated if the course was required or elective and whether the district had:

- A system-wide MWEE experience for students in this course
- Some schools or classes participate in MWEEs for this course
- No evidence that students in this course participate in a MWEE

The MWEE level was computed based only on courses that were indicated to be graduation requirements (i.e., needed for all students).

Elementary: Student Participation in MWEEs

Nearly one-third of responding LEAs in the region have a system-wide MWEE in place at the elementary grade levels.

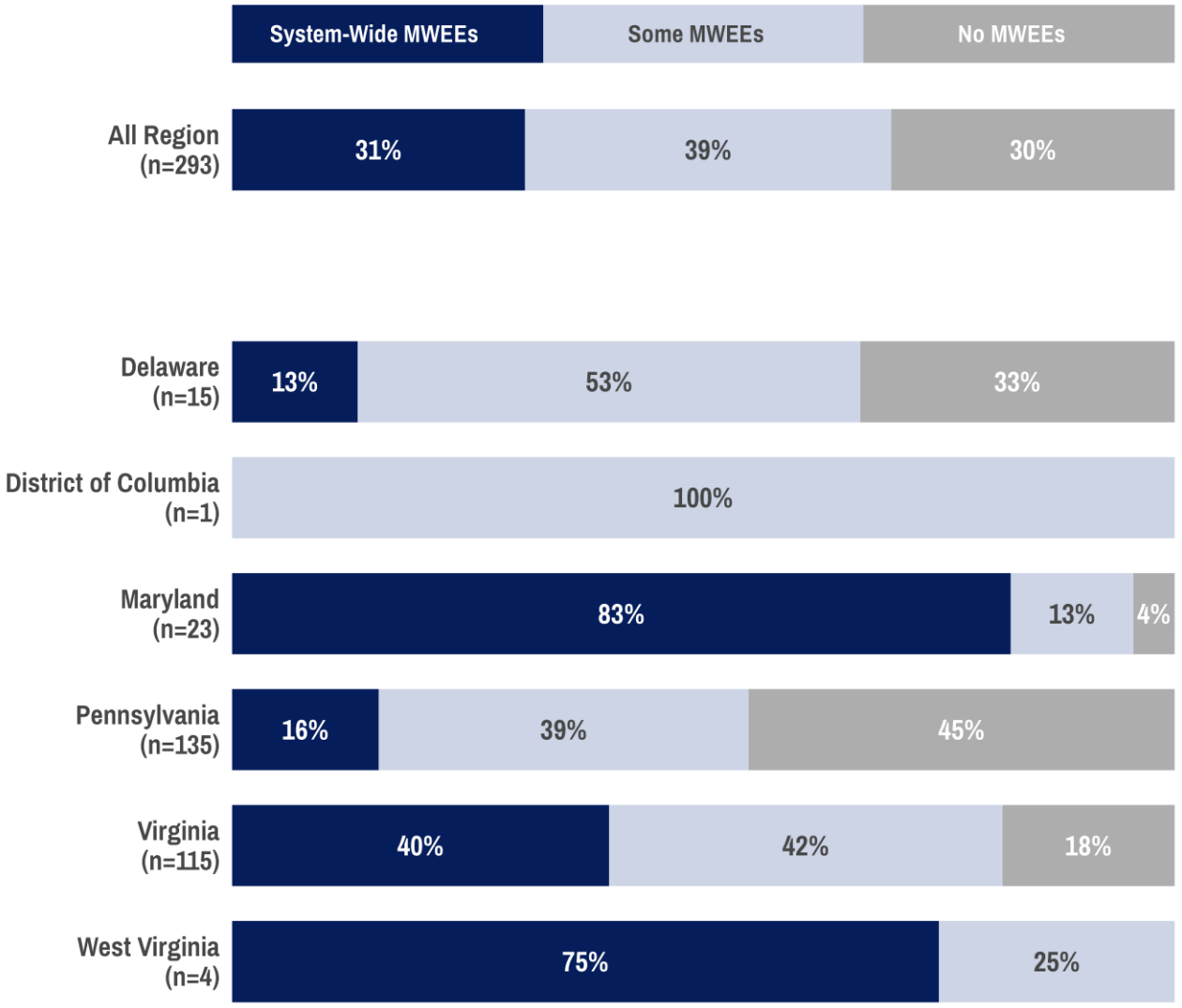
As with preparedness scores, there was substantial variation between the states in the prevalence of MWEEs in elementary school. Again, Maryland demonstrated state-wide success in this indicator, with 83% of districts having a system-wide MWEE for elementary students. Three of West Virginia's four responding districts reported having a system-wide MWEE at the elementary level. Virginia reported that over one-third of districts had a system-wide MWEE. These data are consistent with state patterns from 2017 through 2022.

Responding districts in Pennsylvania and Delaware had the greatest prevalence of no MWEE availability in elementary grades. Around one-fifth of Virginia's respondents similarly reported a lack of MWEE offerings in elementary school.

State-by-state patterns were fairly consistent with prior years, with the exception of DC. DCPS reported shifting from having system-wide MWEEs in 2022 to only partial MWEEs in 2024.

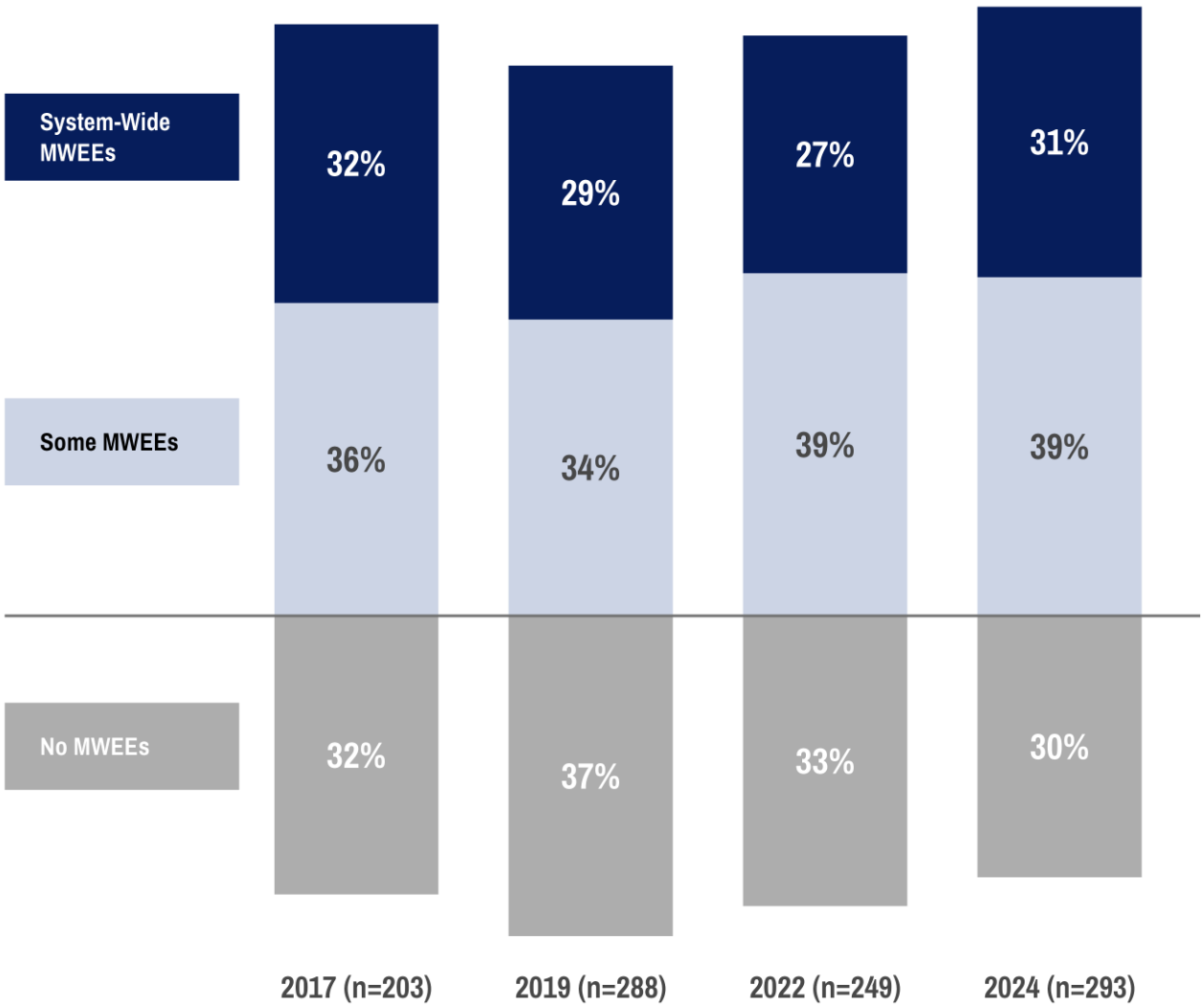
Elementary Grades: MWEE Availability among LEAs within the Region

Rates of availability by state in 2024. If a district reported there was a system-wide MWEE at any grade level(s) in K-5, they were scored as having "System-Wide MWEEs"; "No MWEEs" indicates no MWEEs at any grade in the band.



Elementary MWEEs: Trends Over Time

Changes in MWEE Availability in the Region: Elementary Grades (2017-2024)



Looking at all ELIT responses over time, the rate of system-wide MWEE availability for elementary grades increased slightly in 2024 – by 4 percentage points. The rate of districts with some MWEEs remained the same.

There was progress seen in this indicator in 2024. The rate of system-wide elementary MWEEs increased, while there was reduction in the proportion of districts without MWEEs at this level.

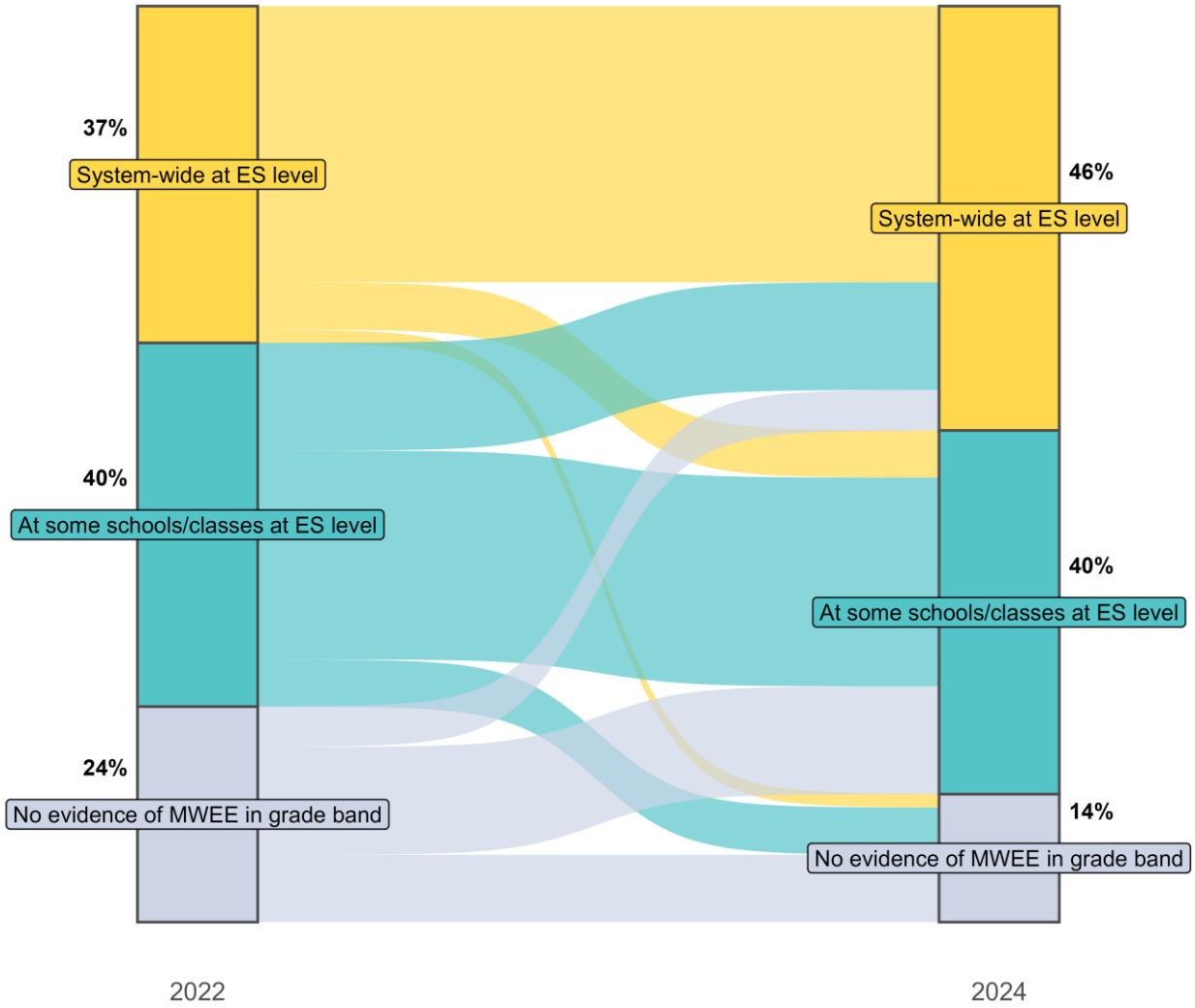
Since 2019, there has appeared to be a progressive decline in districts with no MWEE activity at all at this level. The data showed 2024 had the lowest level of LEAs without any MWEEs on record.

On the next page, we examine the data only from districts who provided both 2022 and 2024 responses, to explore if the aggregate patterns hold true among those districts who consistently provided data for this indicator.

Elementary MWEEs: Changes between 2022 & 2024

ES MWEEs: Pathways of Change between 2022 and 2024

This graphic shows how the presence of MWEEs of individual school districts changed between the 2022 and 2024 ELIT. It includes only districts that responded to the survey in both years (n=136).



Looking only at LEAs with paired 2022 and 2024 data, the changes in system-wide MWEE availability shows even more substantial growth than the aggregate – increasing by 9 percentage points year over year.

These data further indicate that there was a substantial growth in the prevalence of system-wide MWEEs at the elementary grades among those districts that responded in both years. In addition, the proportion of districts with no evidence of MWEEs decreased substantially. The midpoint held steady.

This graphic also illustrates the direction of changes for each district in the data set. By following the color pathways, we see that many districts moved up one or two levels in this metric. But, at the same time, there were other districts that decreased their MWEE level since 2022. There was an overall positive trend as 28% of districts increased their MWEE level and only 12% decreased their level.

Middle School: Student Participation in MWEEs

One-third of responding LEAs in the region reported having a system-wide MWEE in place at the middle school grade levels.

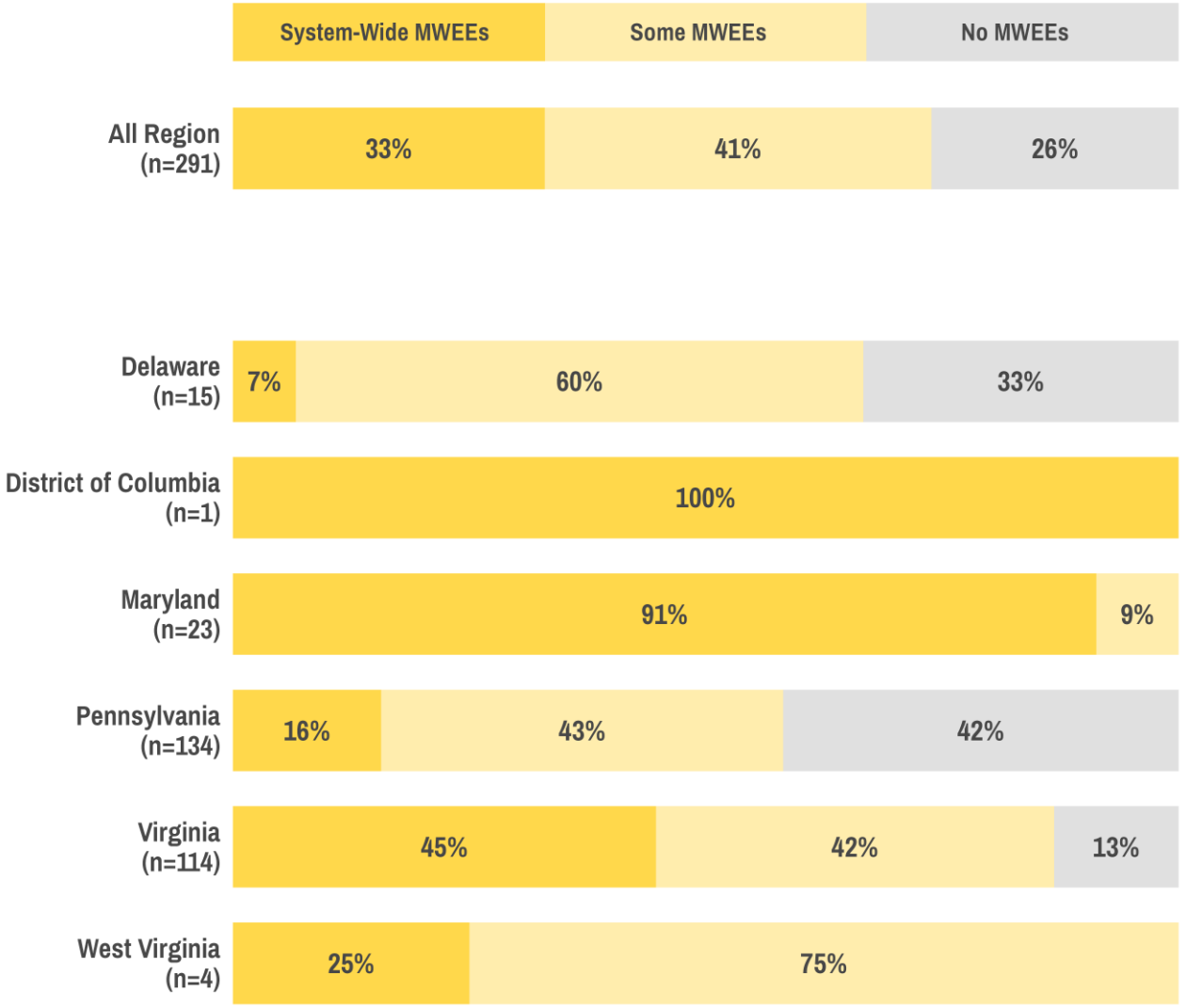
The overall breakdown of the availability of MWEEs in middle grades was very similar to the patterns seen for elementary grades, although there are slightly fewer LEAs reporting no MWEEs at the middle school grades.

At the state-level, District of Columbia and Maryland had the strongest penetration of system-wide MWEEs at the middle school level. Virginia reported slightly more system-wide MWEEs for middle grades, as compared to elementary. A majority of reporting LEAs in Delaware and West Virginia have some MWEEs for middle school, but few system-wide.

More than 40% of responding districts from Pennsylvania reported no MWEE programs at all for middle school students. Delaware and Virginia slightly decreased the number districts without MWEEs in 2024. West Virginia had no districts without MWEEs, an improvement from 2022, where, previously, two-thirds of their districts were without MWEEs.

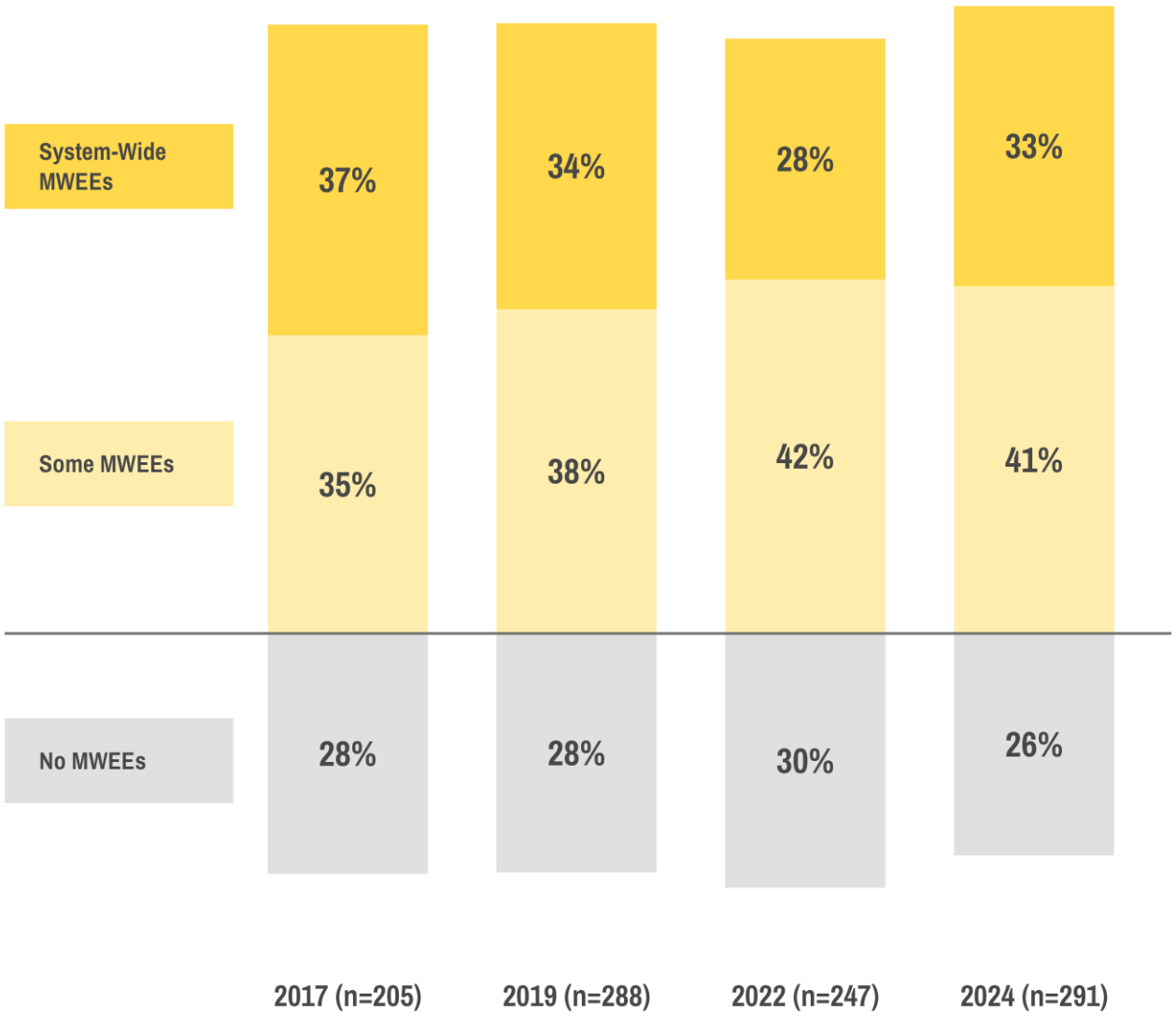
Middle School Grades: MWEE Availability among LEAs within the Region

Rates of availability by state in 2024. If a district reported there was a system-wide MWEE at any grade level(s) in 6-8, they were scored as having "System-Wide MWEEs"; "No MWEEs" indicates no MWEEs at any grade in the band.



Middle School MWEEs: Trends Over Time

Changes in MWEE Availability in the Region: Middle School Grades (2017-2024)



The rate of system-wide MWEE availability for middle school grades saw a rebound to nearly reach its 2017 rate.

The middle school MWEE indicator saw a substantial decrease in 2022. 2024 results looked more promising, as the prevalence of system-wide MWEEs in middle school increased by about five percentage points from the prior year's mark. This breaks a negative trend appearing in 2019, after districts reported their highest rate of system-wide MWEEs in 2017.

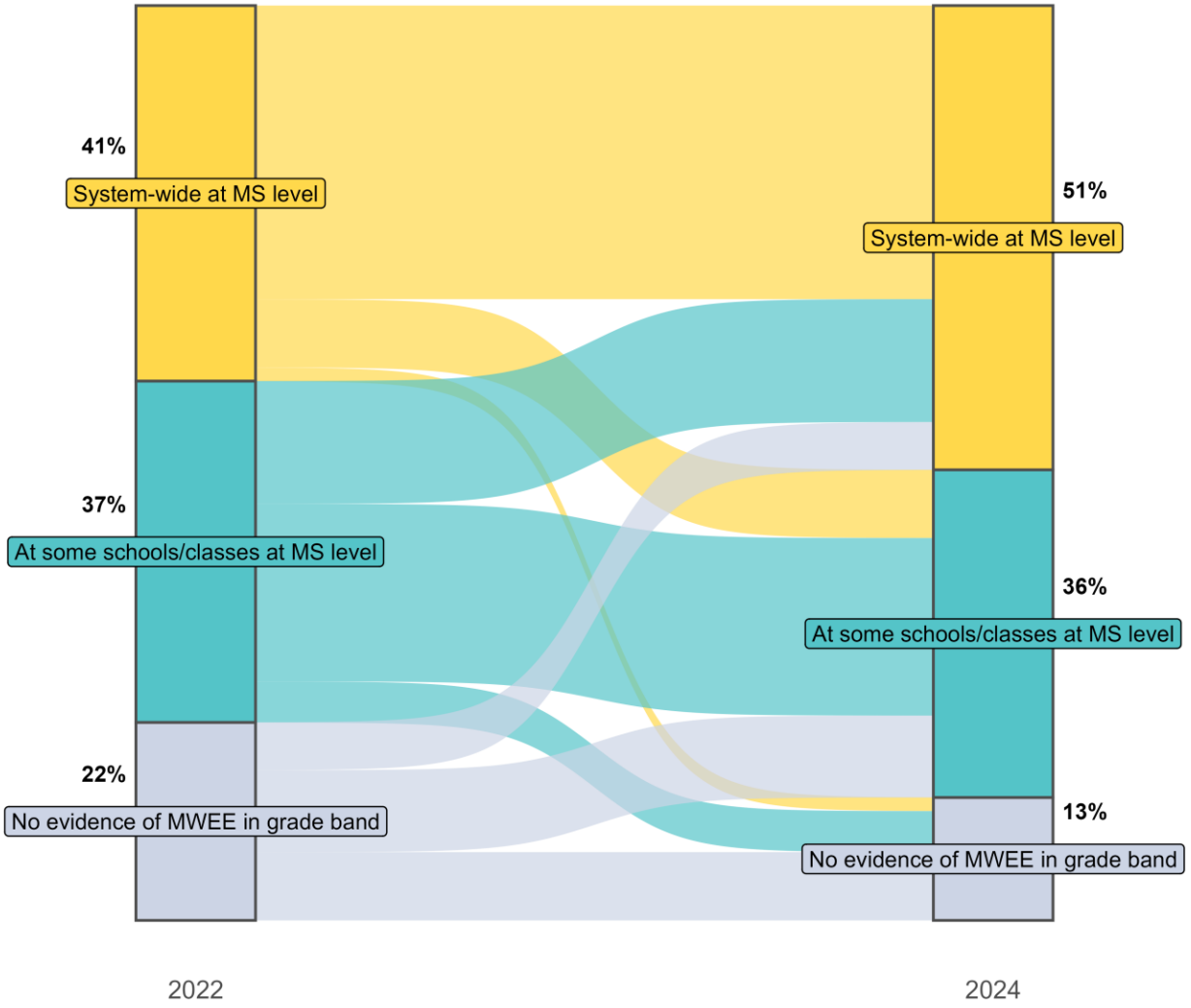
The proportion of districts reporting no MWEEs in middle school showed great success too. Data showed the lowest rate of districts reporting no MWEE activity anywhere in the middle school years. This mirrors the results from the Elementary Schools which also saw their lowest rate of LEAs without MWEEs in 2024.

On the next page, we examine the data only from districts who provided both 2022 and 2024 responses, to explore if the aggregate patterns hold true among those districts who consistently provided data for this indicator.

Middle School MWEEs: Changes between 2022 & 2024

MS MWEEs: Pathways of Change between 2022 and 2024

This graphic shows how the presence of MWEEs of individual school districts changed between the 2022 and 2024 ELIT. It includes only districts that responded to the survey in both years (n=134).



Among LEAs with paired 2022 and 2024 data, the changes in system-wide MWEE availability for middle school grades mirrors the patterns of the larger dataset – and is much more pronounced. The rate of system-wide MWEEs increased by 10 percentage points year over year.

These data further support the signals that there has been improvement in MWEE availability at middle school grades, particularly among districts who have consistently responded to the ELIT survey. These data also showed a marked decrease in the number of LEAs that reported no evidence of MWEE activity in their grade bands.

This graphic also illustrates the direction of change for each district in the dataset. By following the color pathways, we see that many districts moved up one or two levels in this metric. At the same time, there were districts that decreased their MWEE level. Overall, far more districts increased their level (28%) than districts whose level decreased (13%). These trends were very similar to the elementary level data.

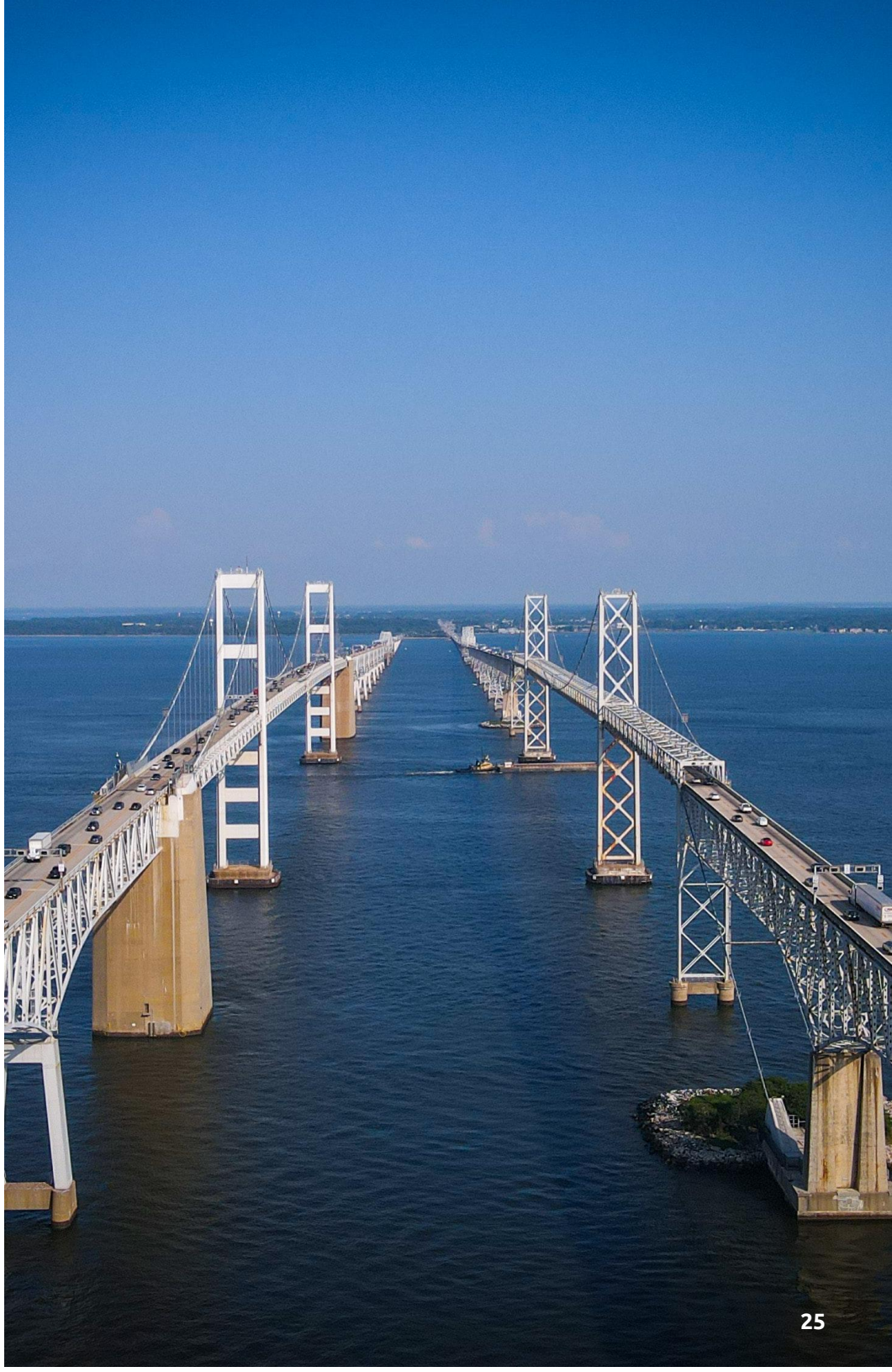
HS MWEE Measurement

The method for gathering data about high school MWEEs in 2024 was identical to the method used in 2022. However, the 2022 method was a shift from past years, as described below.

Early ELIT surveys received feedback that there may be inaccuracies in how high school courses were reported, particularly regarding clarifying whether MWEE reports were clearly limited to *required* courses (a critical element to be "system-wide"). For example, an AP course might be listed as a system-wide MWEE; but as AP course are electives, it indicated that early ELIT reports may have conflated requirements and electives.

In 2022, the question provided LEAs with an inventory of specific, common subjects, including: biology, chemistry, physics, Earth/ environmental science, history, government/civics, geography, algebra I, algebra II, geometry, language arts, literature, health/physical education, AP science, AP English, AP math, AP history, with space for write-in courses. LEA representatives reported the presence of MWEEs in each of these courses (system-wide, some schools, no evidence) – *regardless* of if it was required or elective. This allowed LEAs to focus on course topics.

A secondary question provided the same list of subjects and asked them to indicate which courses were graduation requirements. Analysis used this response to distinguish if each MWEE rating (above) pertained to a requirement (for the indicator) or an elective.



High School: Student Participation in MWEEs

Similar to the other grade levels, 30% of responding LEAs have a system-wide MWEE in place at the high school grade levels.

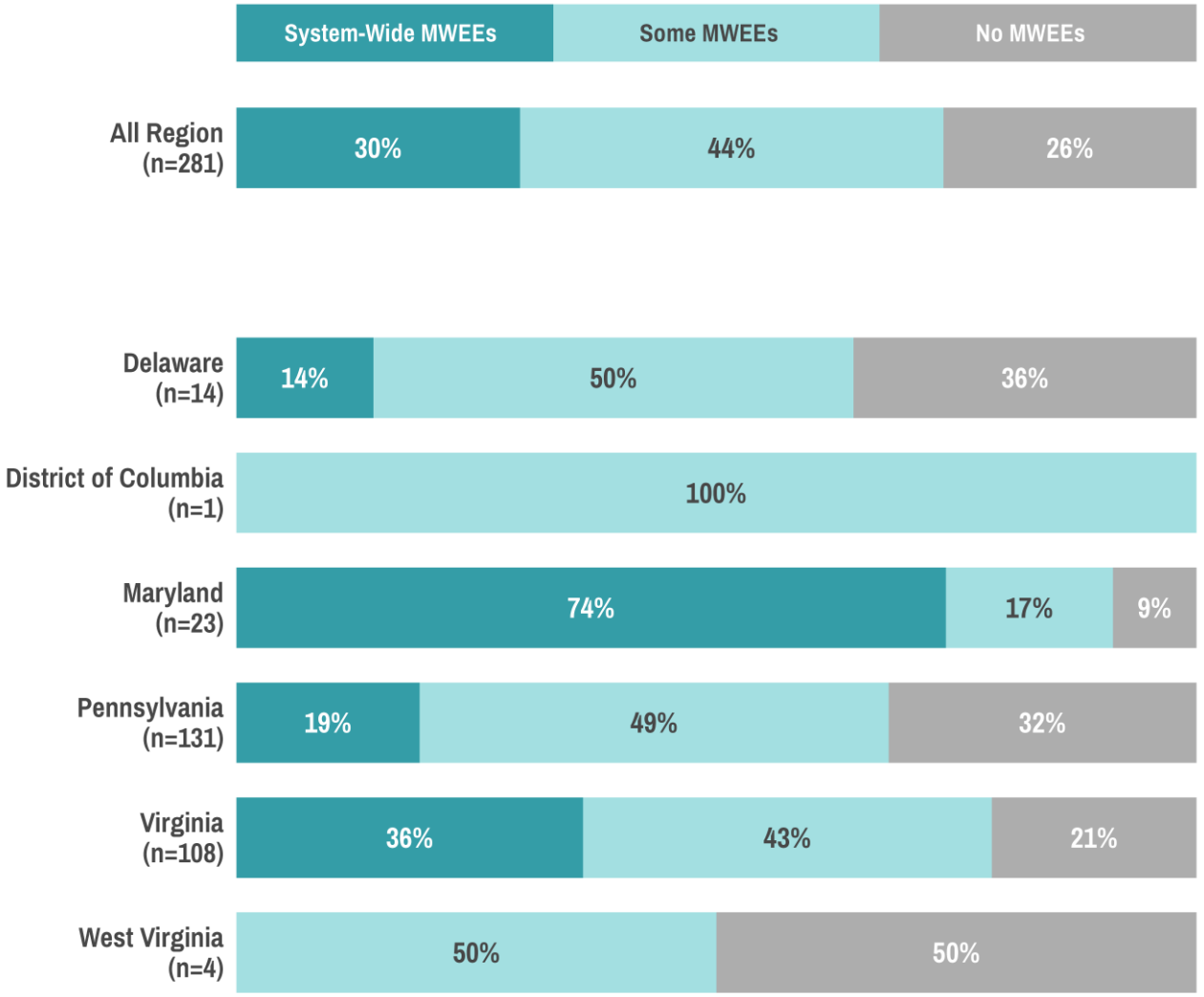
The overall breakdown of availability of MWEEs in high school had some similar patterns to the younger grades. The nature of high school, which centers more on individualized course selection, may make achieving truly system-wide MWEEs more difficult.

Maryland, for instance, has the highest rate of MWEEs in high school, but it is still lower rate than their rate of system-wide MWEEs in earlier grade bands.

Virginia, Pennsylvania, and Delaware were the only other states with any LEAs reporting a system-wide MWEE at the high school level, each reporting one-third or fewer of reporting districts meeting this mark. In West Virginia and District of Columbia LEAs, MWEEs appear to take place within individual schools or classes, but there are no MWEEs system-wide.

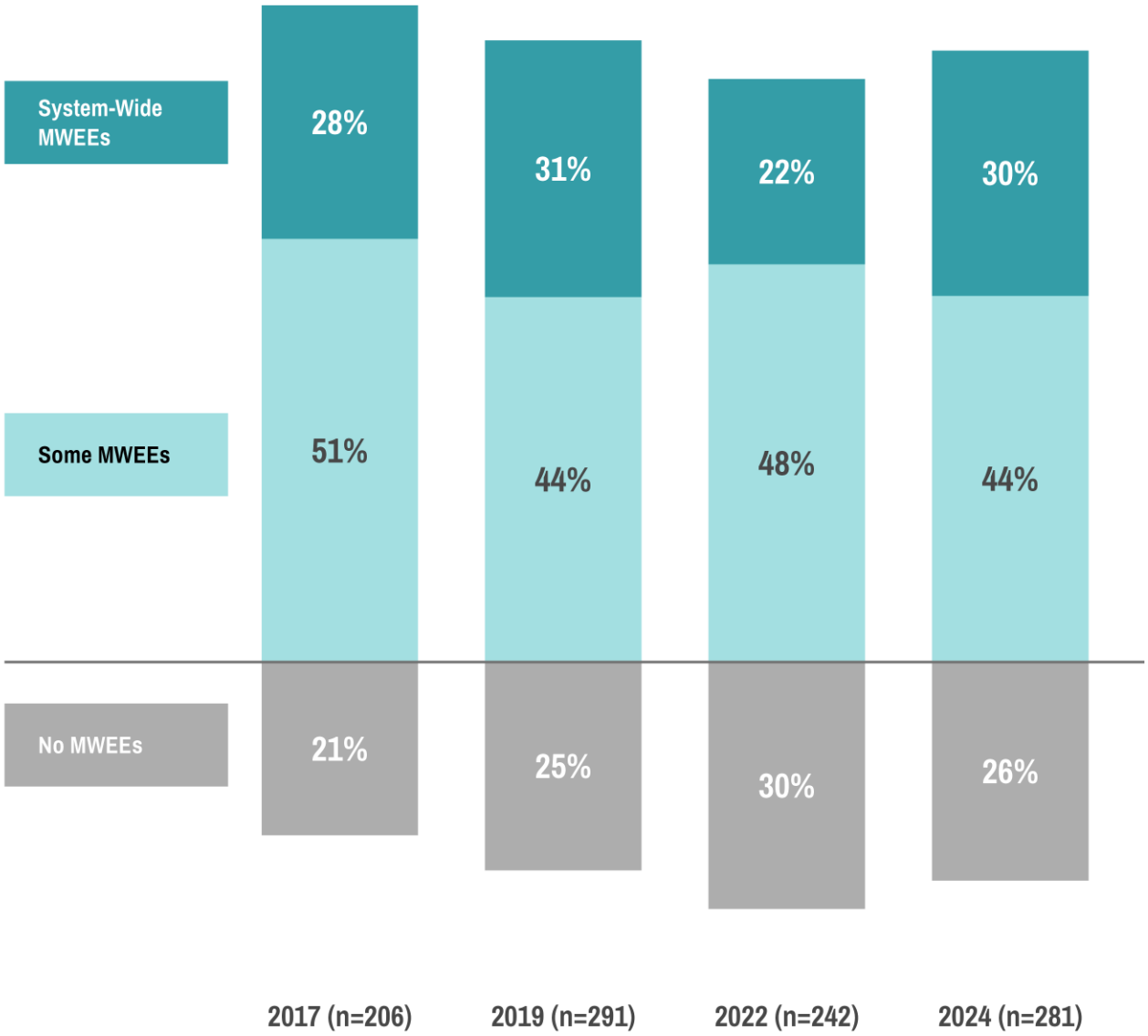
High School Grades: MWEE Availability among LEAs within the Region

Rates of availability by state in 2024. If a district reported there was a system-wide MWEE in any course they also flagged as a graduation requirement they were scored as having "System-Wide MWEEs"; "No MWEEs" indicates no MWEEs in any courses that the LEA indicated were requirements.



High School MWEEs: Trends Over Time

Changes in MWEE Availability in the Region: High School Grades (2017-2024)



Mirroring the pattern seen in lower grade levels, high school MWEE availability seem to increase in 2024, suggesting a gradual, positive shift in what was had been a negative trend since 2017.

This indicator took the most dramatic hit in 2022's ELIT reporting, dropping to just 22% of LEAs with system-wide MWEEs. But in 2024, there was a rebound, and the rate of system-wide MWEEs available at high school grew to a level almost equal to 2019's reported data. Additionally, the rate of LEAs that reported no MWEEs at the high school level also fell from 2022.

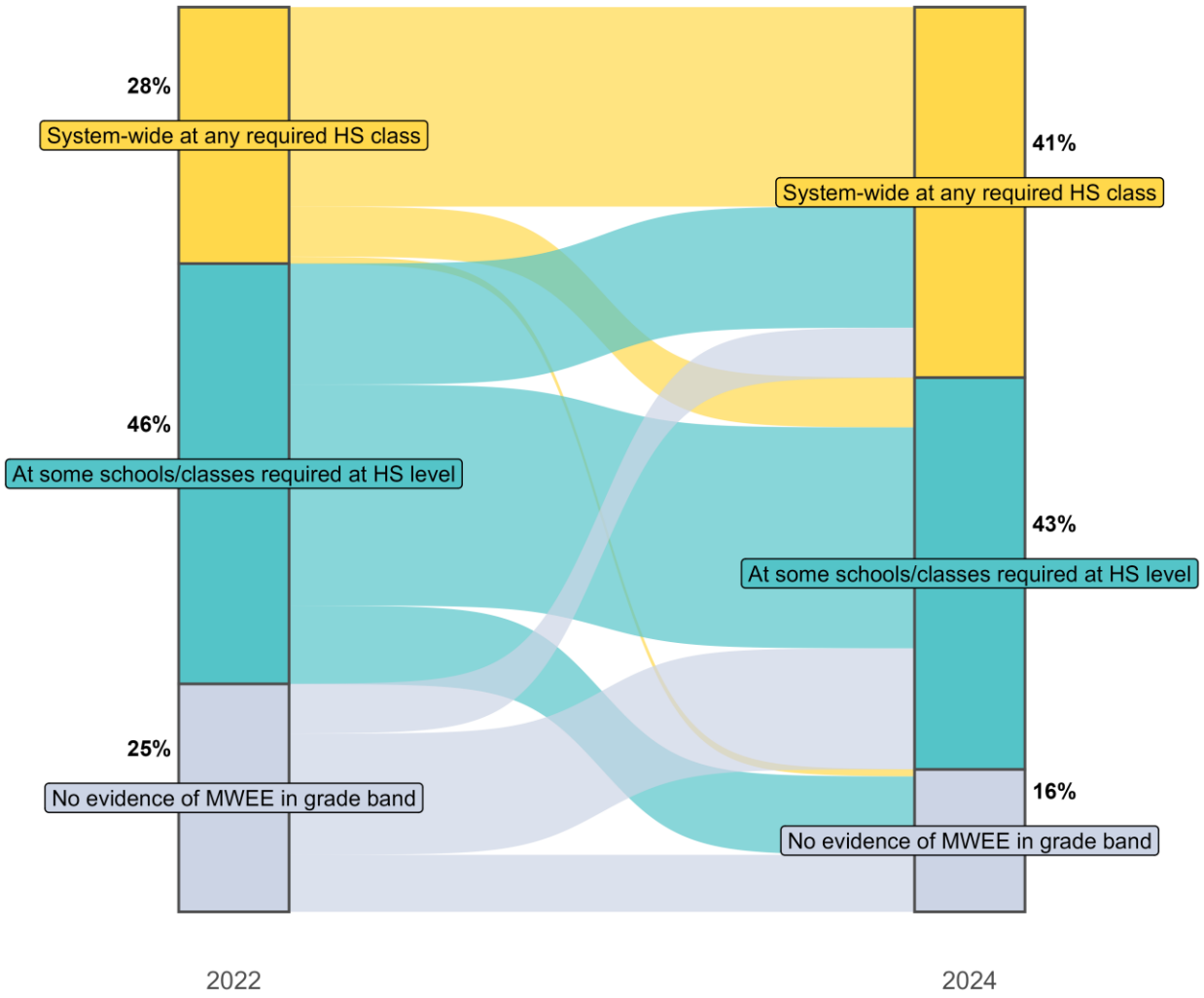
It is important to reiterate here that the high school indicator used a different measurement approach in the 2022 and 2024 data-gathering, with the question completely revised in an effort to make answering clearer (see page 25).

Notably, the number of LEAs that reported no MWEEs at the high school level and the number of LEAs that reported some MWEE availability both returned to rates close to or matching the 2019 rates, even with the changed question (which may have reduced inaccuracies inherent in earlier reporting).

High School MWEEs: Changes between 2022 & 2024

HS MWEEs: Pathways of Change between 2022 and 2024

This graphic shows how the presence of MWEEs of individual school districts changed between the 2022 and 2024 ELIT. It includes only districts that responded to the survey in both years (n=127).



Looking only at the LEAs with paired 2022 and 2024 data, the increase in the presence of system-wide MWEEs at the high school level is even more dramatic. Within this subset of data, there was an increase of 13 percentage points.

Not only was this a larger gain in 2024, but it reversed a negative trend that was seen between 2019 and 2022 (which showed a decrease of 5 percentage points). There was also a substantial drop in the number of districts with no evidence of MWEE activity at the high school level.

This graphic also illustrates the direction of changes. We see that many districts moved up one or two levels in this metric. And some, but fewer, decreased their MWEE level since 2022. In total, 32% of LEAs moved to a higher level of MWEE availability; while only 15% decreased their level.

**Rounding errors can cause percentages to appear to add up to more or less than 100%*

High School: Required Courses Using MWEEs

Of the 207 LEAs that reported having at least some MWEE experiences within required high school course(s), most tended to be within in science courses.

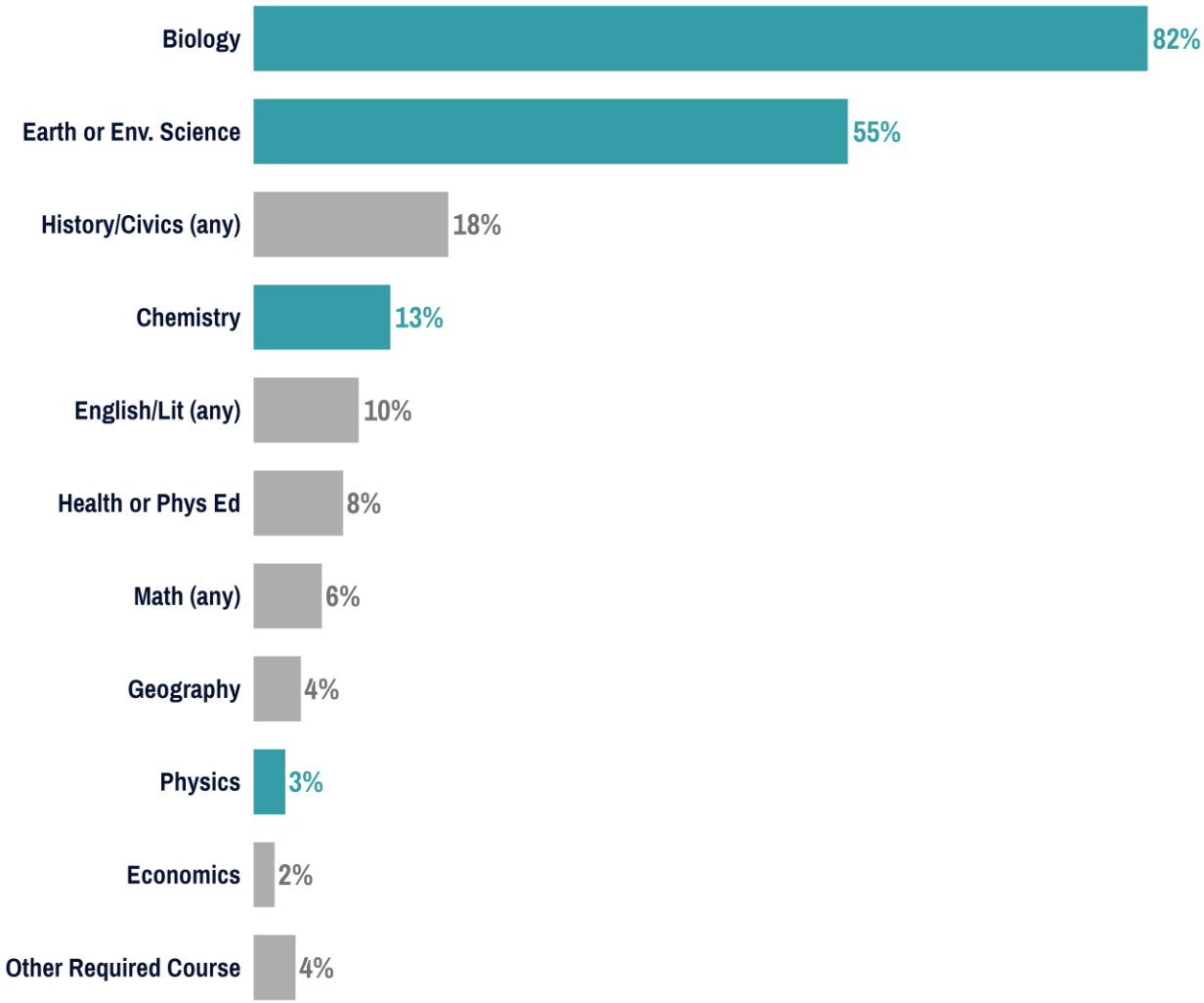
Biology was, by far, the most common required subject that incorporated MWEEs – whether in individual courses or system-wide. Environmental science was another common required course where districts reported using MWEEs.

Among required non-science courses, history, civics, and/or government were the most common subjects for a MWEE to be present. This graph and analysis has combined these subjects; these responses were essentially split between history and government/civics courses. In the handful of write-in responses for other required courses, the most repeated topic named was ecology.

Reported MWEE use in biology courses was consistent with prior years' data. Some subjects saw slight increases in frequency from 2022 reports – notably environmental science and chemistry.

Percentage of LEAs that Provide MWEEs within Each Required Subject (n=207)

Sample is just of LEAs that reported having MWEE(s) in at least one required high school course. Data rely on accurate self-reports that courses are requirements. Teal-colored bars indicate science-focused courses (the most common, broad subject area); gray bars indicate non-science courses.



High School: Elective Courses Using MWEEs

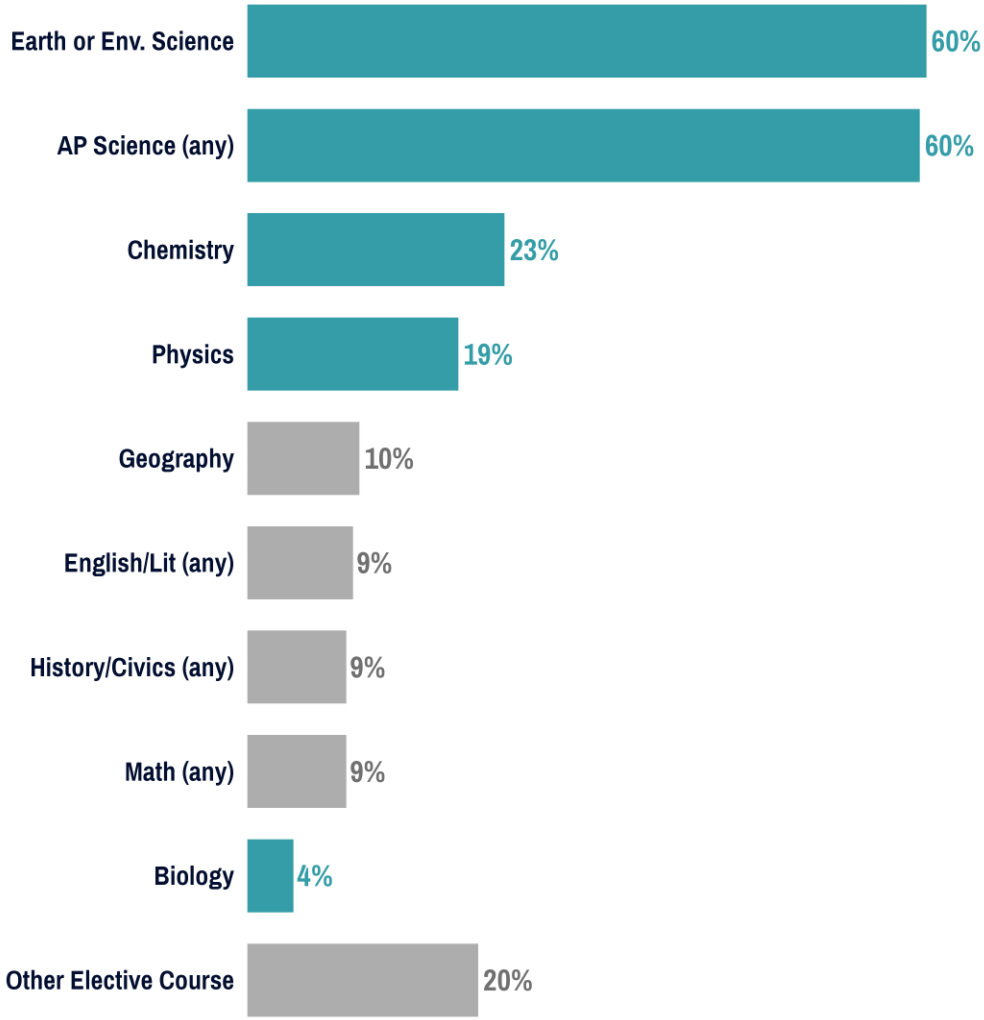
171 LEAs reported offering MWEEs within high school elective courses; most of these were in environmental science or AP science courses.

There was a wider range of science-focused electives that used MWEEs than in required courses. For example, respondents who reported MWEEs in an AP science course indicated those included AP environmental science, biology, and/or ecology. (For data collection, districts reported within the overarching category of "AP Science (any)", with the option to add specifics.)

The "other elective courses" that use MWEEs included data from health/physical education and economics electives. It also included write-in elective courses, which covered a wide range of subjects, including: marine science courses (marine biology, oceanography, aquatic ecology, freshwater biology), agriculture science, botany, Earth and space science, fisheries, forestry, interdisciplinary studies, wildlife management, a variety of AP courses, and CTE or vocational courses.

Percentage of LEAs that Provide MWEEs within Each Elective Subject (n=171)

Sample is just of LEAs that reported having MWEE(s) in at least one elective high school course. Data relies on accurate self-reports that courses are requirements. Teal-colored bars indicate science-focused courses (the most common broad subject area); gray bars indicate non-science courses.



RESULTS

Environmental Education Support Needs

Greatest Needs for EE Support

Across the Chesapeake Bay region, the greatest need for EE support was to receive more funding for programming and supplies.

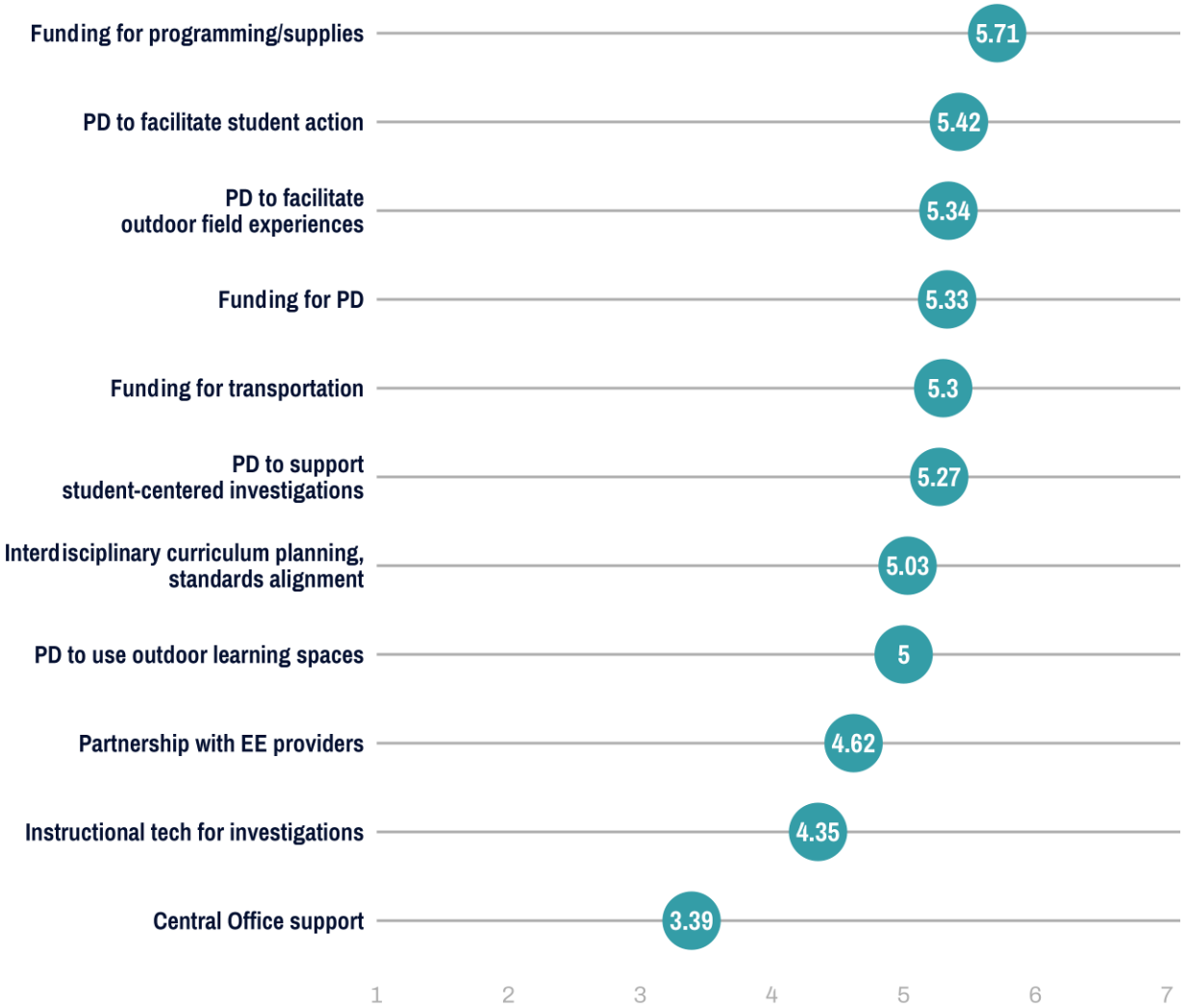
Notably, items focused on funding and professional development (PD) tended to be the most highly needed across LEAs. Funding for programming and supplies stood out at the top, but PD around facilitation of EE experiences, funding for PD, and transportation funding were also quite high – and rated very similarly to one another. When we compared 2024 ratings with 2022 ratings, the patterns and levels of need were very consistent over time.

There were about 30 additional write-in responses to this question, where LEAs identified other needs they had to promote EE. One frequently repeated need was for more time – in general and specifically for instruction or PD. Possibly related were the frequent requests for staffing, which included funding and availability of qualified instructors, substitutes, and staff in general. Also mentioned was support by Board of Education and school-level administrators.

The next page shows state-by-state priorities via median ratings by each state's respondents.

Average Ratings of Need for Support in Each Area, Region-Wide

Responding LEAs were asked to rate their level of need for support in each area from 1 to 7, with 7 being the greatest need. Number of respondents to each question varies because some LEAs skipped items (n=275-279).



Greatest Needs for Support: State-by-State

The seven highest-rated need statements within each jurisdiction

Maryland (n=23)	Median rating
Funding for PD	6
Funding for transportation	6
Funding for programs / supplies	6
PD to facilitate student action	5
PD for student investigations	5
Curriculum / standards alignment	5
PD to facilitate outdoor field exp.	5

Delaware (n=14)	Median rating
PD to facilitate student action	6
Funding for programs / supplies	6
Funding for transportation	6
Funding for PD	6
Partnerships with EE providers	6
PD for student investigations	6
Curriculum / standards alignment	6

Pennsylvania (n=125)	Median rating
Funding for programs / supplies	6
PD to facilitate outdoor field exp.	6
PD to facilitate student action	6
Funding for transportation	6
PD for student investigations	6
Funding for PD	6
PD to use outdoor learning spaces	6

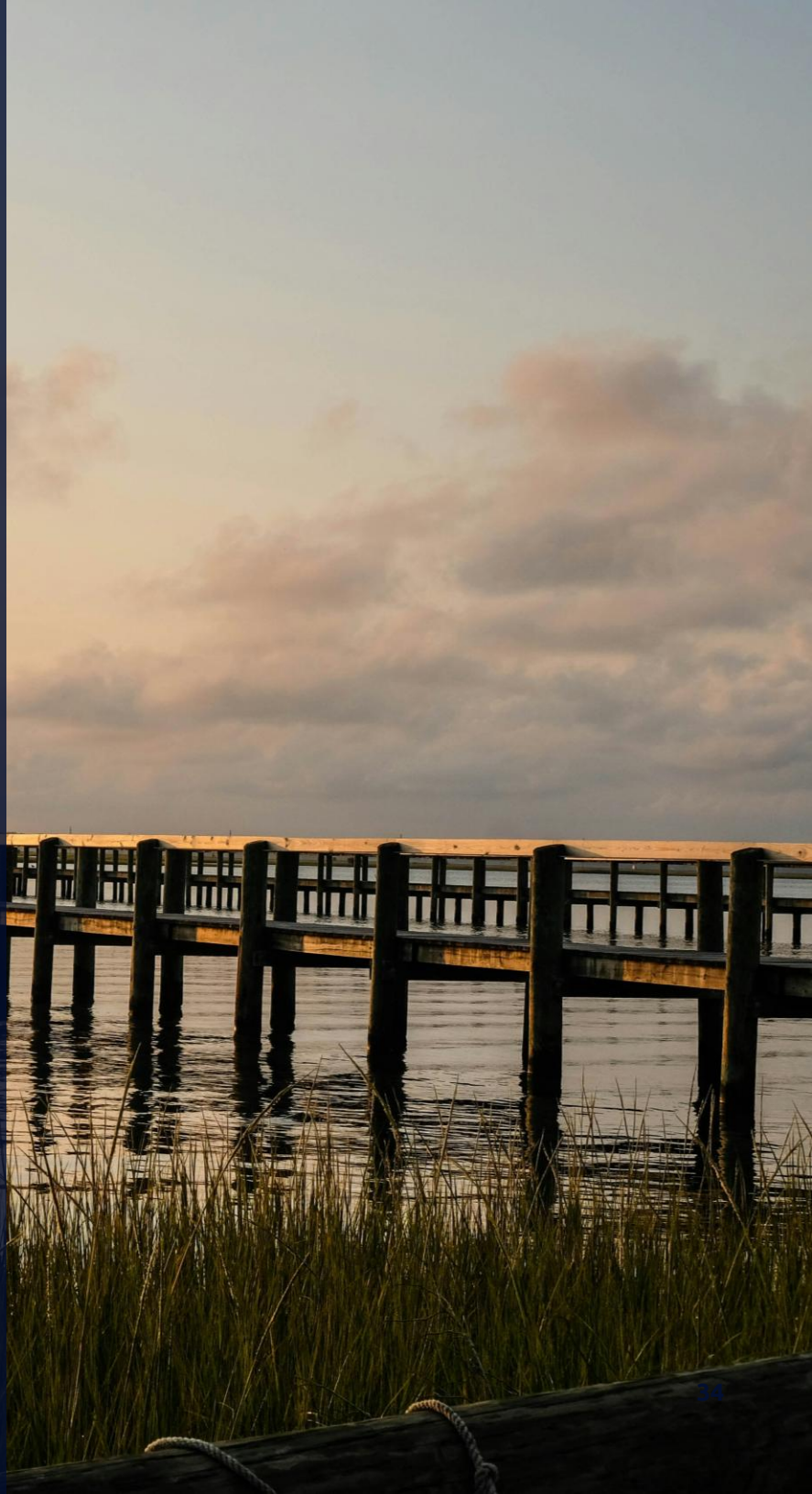
District of Columbia (n=1)	Median rating
Funding for PD	7
Funding for programs / supplies	7
Funding for transportation	7
Partnerships with EE providers	7
PD to facilitate outdoor field exp.	7
PD for student investigations	7
PD to use outdoor learning spaces	7

Virginia (n=112)	Median rating
Funding for programs / supplies	6
PD to facilitate student action	5
PD to facilitate outdoor field exp.	5
PD for student investigations	5
Funding for PD	5
Funding for transportation	5
PD to use outdoor learning spaces	5

West Virginia (n=4)	Median rating
Funding for PD	7
Funding for programs / supplies	7
PD to use outdoor learning spaces	6.5
Funding for transportation	6.5
PD to facilitate student action	6
PD to facilitate outdoor field exp.	6
Curriculum / standards alignment	6

RESULTS

Feedback on ELIT Difficulty



Degree of Difficulty to Complete the ELIT

LEA representatives found the 2024 ELIT to be moderately easy to complete with an average rating of 6.95 out of 10 – with 10 indicating it was very easy to complete.

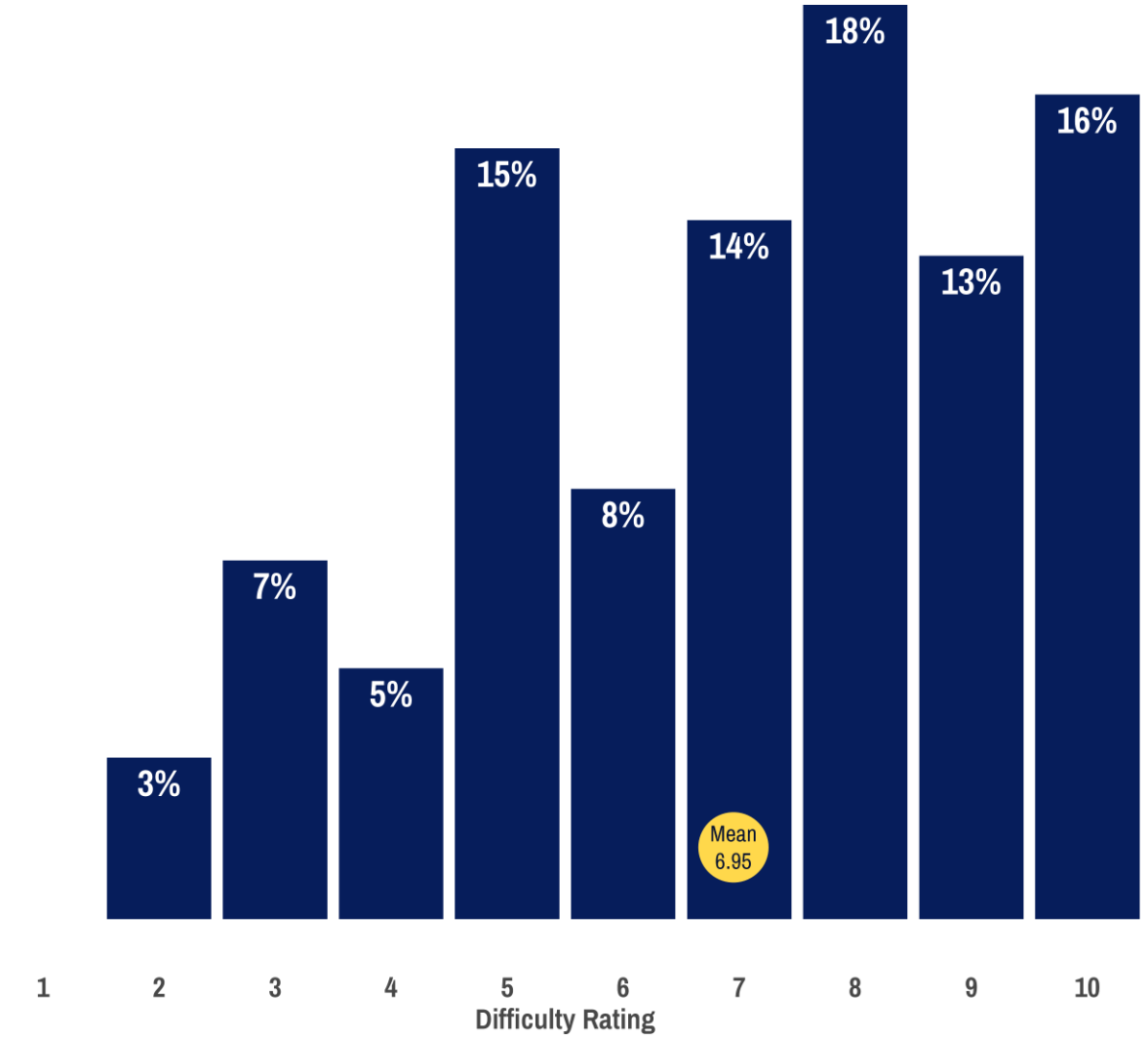
Although, anecdotally, we have heard that it can be difficult to reach LEAs and have their staff find time to complete the ELIT, around 70% rated the survey's difficulty on the "easy half" of the 10-point scale (a rating of 6 to 10).

The average rating in the 2024 data was very similar to the average rating given in 2022 to the ELIT, which used essentially the same process and form.

For the 2022 and 2024 ELIT surveys, systems were set up to provide districts with fairly easy access to past responses to the ELIT – via the district-level reports produced for the states. It is possible that, at least for repeat responding districts, that this resource is helpful at minimizing the labor of recreating responses from scratch every two years.

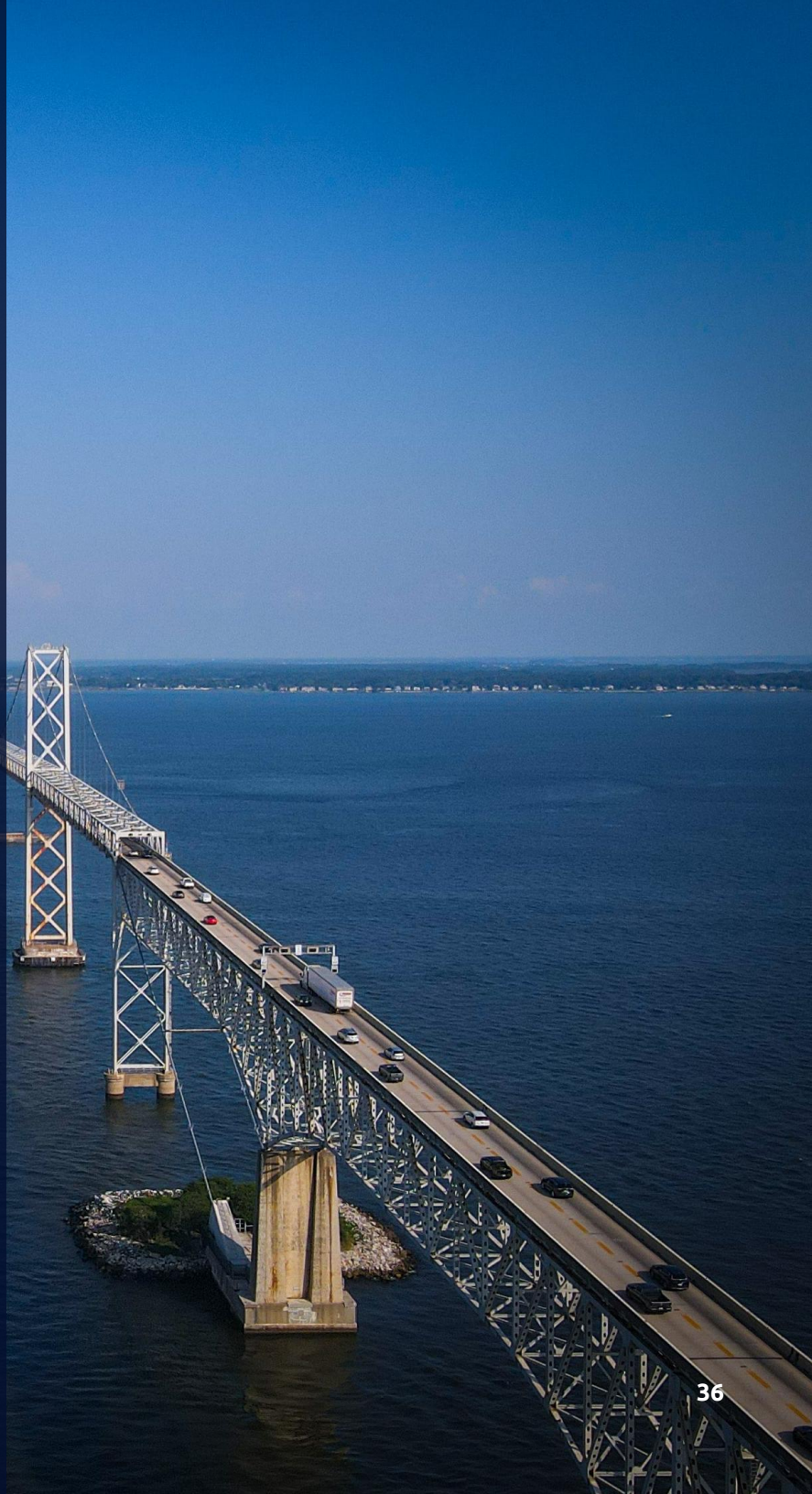
Distribution of Ratings of Degree of Difficulty to Complete the ELIT (n=283)

ELIT respondents are asked to rate how difficult it is to complete the ELIT.
Respondents rated on a scale from 1 (very difficult) to 10 (very easy).



CONCLUSIONS

Discussion & Conclusions from the 2024 ELIT Survey



Indicator Changes: 2017 to 2024

2024 showed an impressive rebound in all four indicators, with the region largely close to or exceeding 2019 levels.

The major story from the ELIT data in 2022 was the apparent decline in many ELIT indicators. The results from 2024 data are very encouraging as a signal of a rebound in environmental education practices in K-12 – from district planning through systemic MWEEs in elementary, middle, and high school grades. Each indicator increased by at least 2 and as much as 8 percentage points from 2022 results.

This perhaps supports the hypothesis that the 2022 ELIT results reflected the degree to which school districts were still grappling with the aftermath of the COVID-19 pandemic on education practices generally, and environmental and outdoor education specifically. Data from the 2023-24 school year gave space for another two years of effort, and it seems many LEAs were able to reestablish practices in planning and curriculum at a level similar to pre-pandemic practices.

The presence of MWEEs in the high school grades showed the biggest turnaround of all the ELIT indicators.

In the aggregate measure of system-wide MWEEs, data from 2024 showed a substantial increase in the proportion of responding districts that reported having a system-wide MWEE implemented as part of graduation requirement classes. This measure increased by 8 percentage points from the level in 2022 data.

This is encouraging and should be celebrated. However, it should still be noted that data reporting at high school is always challenging due to the flexibility and diversity of curricula offered to students as they approach graduation. Criteria for system-wide (i.e., all students must experience the class and, thus, the MWEE) require district respondents to distinguish both the MWEE presence and if courses are required. Efforts have been made to improve and streamline this reporting, but it continues to be an area that is ripe for errors in self-reporting.

Paired year-to-year data showed the strongest evidence of improvement, isolating data from external factors.

There is immense value in obtaining consistent, year-to-year ELIT data from districts. The more consistency there is in the dataset, the more certain we can be about how well the indicators represent actual change in education in the region. As explored in this report, when year-to-year data is available for more districts, the region has a better picture of the overall patterns and the nuances of success and challenge.

There was also evidence that LEAs that provide year-to-year data tend to be slightly stronger at delivering on the indicators than districts that are sporadic in responding. The overall patterns are accurate, but repeat respondents tend to report stronger practices than the sample at large. To the extent possible, encouraging districts that have previously responded to continue to update their records every two years should be a priority. Systems are also in place to make that work easier, through the ability to update data, rather than recreate it, every two years.

Key Takeaways from 2024 ELIT Indicators

What Contributes to Preparedness?

Examining the individual elements that make up the Preparedness score has been quite consistent over the last four ELIT cycles. Two elements have been consistently implemented by nearly all well-prepared LEAs – having an established program leader and community partners. When we look at less-prepared districts, we see that integrating cross-curricular EE is often an area where districts make some progress – even if it is one of the hardest to have fully in place.

We also have evidence that responding to the ELIT survey itself may have a relationship to being more prepared. This makes sense; if a district has staff and structures in place to support EE, it is more likely to have capacity to complete this bi-annual survey. As the ELIT measurement moves into its 10th year, it may be worth revisiting the elements that comprise this indicator to ensure that it is allowing districts to report any and all meaningful practices and elements that signal preparedness, including offering a menu of ways a district can exhibit preparedness that respects the great differences between the six jurisdictions.

The Complexity of High School

The indicator measuring MWEEs at the high school level has been the most volatile of the ELIT indicators over the past three iterations. While the 2024 ELIT data showed an encouraging rebound, the overall pattern of volatility in this metric may reflect that it is inherently difficult to measure and report.

As the ELIT indicators and measures are considered in future years, high school continues to be an area that could use careful examination. The complexity of high school curricula is that they offer substantial flexibility to students, which has made it very difficult to define for districts what constitutes a "system-wide" MWEE. Some of the volatility in this measure could come from district respondents using different judgment to report whether the Biology class that has a MWEE in all sections and schools and is an *option* to fulfill a graduation requirement would count as "required" or not. If the judgments of responding district staff are not reliable (across or within LEAs), it will greatly impact whether the course would count toward the HS MWEE indicator.

Considering Areas of Need

One consistent finding in the ELIT's questioning about areas of need for support was that "support from the central office / administration" is consistently rated the lowest need. While we do not have data on the reason, it could be that ELIT respondents are often *from* the district's central office. They may not see their own immediate colleagues as being the barrier. In fact, a few write-in responses suggest that needs for support from above the central office (e.g., district board, state board, IU, etc.) and/or from below (e.g., school principals or curriculum coordinators) may resonate more with this audience.

The other common patterns in write-in responses about need could be considered for additions to the list of options. The general response of "time" and "staff/substitutes" were fairly common write-in responses. Adding more specific statements about these as closed-ended questions to drill into the prevalence of these issues could help region leaders unpack what is at the heart of these comments and if they are widespread issues to address.

All images in this report courtesy of Unsplash, including work from photographers:

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