

Assessment Results Webinar Series: NGSA

November 26, 2019



Agenda

- Statewide Assessment and NGSA
- Understanding NGSA Results
- 2019 NGSA Statewide Results
- Using NGSA Data
- Resources to use with educators and parents



Statewide Assessment and NGSA

Why are statewide assessments important?

What is NGSA?

Transition to the NGSA



Why are statewide assessments important?

- Statewide assessments give teachers, students, and families information about student progress, school performance, and how to improve teaching and learning.
- These assessments fulfill federal requirements as well as help us measure how well our state, districts, and schools are doing in English Language Arts/Literacy, Mathematics, Science, and English Language Proficiency.

What is the NGSA?

- The Rhode Island Next Generation Science Assessment (NGSA) is a high-quality assessment that fulfills federal requirements for assessing science at the elementary, middle, and high school levels (grades 5, 8, and 11)
- NGSA assesses students' understanding of the Next Generation Science Standards (NGSS), measuring students' science knowledge as well as their ability to think critically, analyze information, and solve complex problems
 - The NGSS were designed to set forth the knowledge and skills required for students to succeed in jobs and opportunities in science, technology, engineering, and mathematics
 - Disciplinary core ideas (DCI) are the fundamental ideas that are necessary for understanding a particular science discipline
 - Crosscutting concepts (CCC) are the concepts connect across different disciplines or situations that students can use to connect new learning to prior experience
- Rhode Island and Vermont partnered to develop this assessment, built with items developed by ten states



Transition to the Next Generation Science Assessment

2013

- Adoption of the Next Generation Science Standards

2017

- Last administration of the NECAP Science assessment

2018

- Field test of the Next Generation Science Assessment

2019

- First administration of the Next Generation Science Assessment

Understanding NGSA Results

How can we access results for statewide assessments?

How are results reported?

What information is on the NGSA Individual Student Report?

Key Concepts and Definitions



How can we access results for this statewide assessment?

- RIDE's Assessment Results page: www.ride.ri.gov/Assessment-Results
 - Links to the public and confidential data portals
 - Supplemental materials, reports, and archive for current/past statewide assessments
- Public Rhode Island Assessment Data Portal (RI-ADP):
 - Aggregate data downloads and dashboard visualizations
 - In-depth presentation of district, school, and student subgroup data for all Rhode Island state assessments starting with SY 2017-18
- Confidential Educator Access through RIDEmap
 - Access for district leaders, school leaders, and educators to student level data through links created between educators and students from course data submitted by districts
 - If you do not have a RIDEmap account, please register for a new account at <https://ridemap.ride.ri.gov> or contact your district data manager
- AIRWays Reporting System: [User Guide](#)



How are results reported?

- NGSA results are reported in a number of ways so that districts, schools, teachers, and parents can see how students performed on each assessment:
 - Scale Scores
 - Overall Achievement Levels
 - Performance Levels by Science Discipline
- Individual Student Reports (ISR) contain all the above information

* Remember that **all assessment data**, scale scores, proficiency levels, and item statistics, should be used in conjunction with other data sources – attendance, local achievement data, observations – when making instructional decisions.



NGSA Individual Student Score Report – Spring 2019

Spring 2019 Rhode Island Next Generation Science Assessment Individual Student Report



Name: Last Name, First Name
SASID: 0123456789
Date of Birth: MM/DD/YYYY

District: District Name (Code)
School: Elementary School (School Code)
Grade: 5

What is the Next Generation Science Assessment? (NGSA)

This report provides your child's results from the 2019 Next Generation Science Assessment (NGSA). This is the first year of administration for this assessment. The NGSA is a new assessment that measures student knowledge and skills on the Next Generation Science Standards (NGSS) that Rhode Island adopted in 2013 (www.RIDE.ri.gov/NGSS). NGSA is administered to students in grades 5, 8, and 11 and provides information on student knowledge and skills in the areas of life science, physical sciences, and earth and space sciences.

The report shows:

- Your child's score between 1 and 120 and their achievement level
- Your child's achievement compared to school, district, and state averages
- How your child performed in the different areas of science measured by this assessment

Your Child's Overall Results in Grade 5

Science
 Achievement Level
Meeting Expectations
 Score
63
 (Score range: 1-120)

State tests provide valuable information for you and your child's teacher

These results give you the ability to compare your child's school to schools across the state. They also let you track your child's progress over time. We hope this report can help inform and empower you as you advocate for your child. You know your child best.

For more information on how to understand the results, visit www.RIDE.ri.gov/Assessment-Results.

What Do I Do Next?

After reviewing this report, it is critical that you attend family-teacher conferences and discuss with your child's teachers your questions and concerns. Don't be afraid to speak up. Children whose families stress the value of education are more likely to find it important, as well.

How Can I Support My Child's Education?

- School attendance matters, every single day. Missing just two days of school a month is chronically absent, so make it a priority to get your child to school on time daily.
- Establish daily reading routines, let your child see you read, and encourage your child to read for fun all year long.
- Get involved and stay connected to your child's school, however and whenever you can.
- Share your voice! Help improve your child's school by participating in SurveyWorks every year.
- Start a conversation. Ask questions. Talk to your child about what they're learning and show an interest in the subjects that excite them.

Remember, you are your child's first teacher, and you play an important role in setting your child up for success.



Join us to improve education!
 Scan the QR code to access important information and resources for your family

Did you know that establishing family routines can help your child succeed?

Make a habit of setting up designated times for homework, reading, mealtimes, family conversations, bedtime, and leaving for school each day.

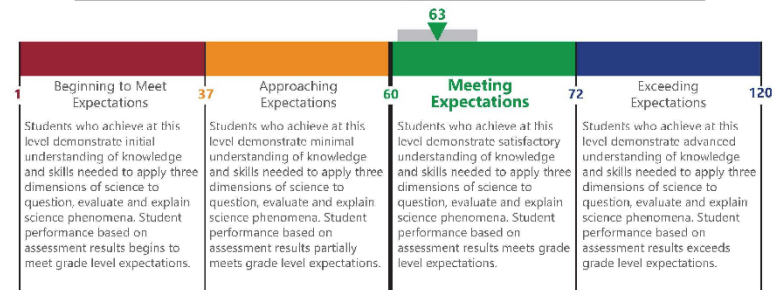
Name: Last Name, First Name
SASID: 0123456789

Grade 5
 Spring 2019

Science

Computer-based Test

Your Child's Achievement Level **Meeting Expectations**
 Your Child's Score **63**



The horizontal gray bar shown in the graphics above shows the range of likely scores your child would receive if he or she took the test multiple times. The score range for your child is between 58 and 69.

Your Child's Science Score

63
 Meeting Expectations

Your child's Science score is 63. This score is **higher than** the average score of fifth graders in the school, **higher than** that of fifth graders in the district, and **higher than** that of fifth graders statewide.

Achievement

How your child performed compared to students in their school, district, and state.

Year	Your Child's Score	Average Score		
		School	District	State
2019	63	44	44	52

How Did Your Student Perform in the Different Areas of Science?

Life Sciences



Your student can sometimes model life cycles and movement of matter in ecosystems; use evidence to explain that organisms need structures to live; and interpret data to show that individuals inherit traits, populations have many different traits, and some organisms thrive in specific environments.

Physical Sciences



Your student can sometimes conduct experiments to explain the structure of matter; signs of chemical change, and how forces affect the motion of objects; use evidence to explain speed and energy transfer, and model particles of matter and light waves.

Earth and Space Sciences



Your student can sometimes display data to show the results of Earth's movements around the sun; graph where fresh and salt water exist on Earth; model interactions of the geosphere, biosphere, hydrosphere, and atmosphere; and use evidence to analyze solutions to hazards caused by weather.

Overall Results

Your Child's Overall Results in Grade 5

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Meeting Expectations
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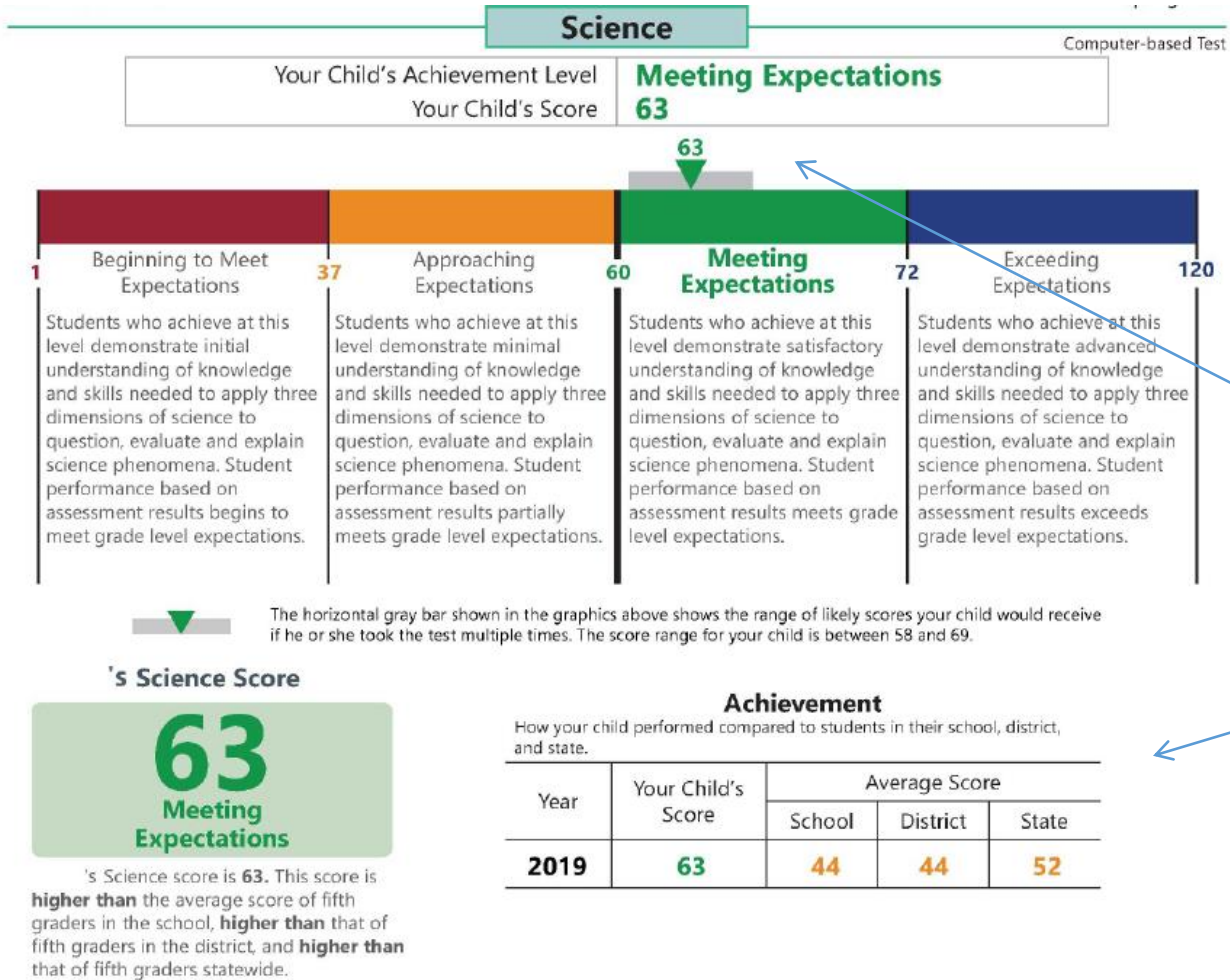
Make a habit of setting up designated times for homework, reading, mealtimes, family conversations, bedtime, and leaving for school each day.

- This section tells you which achievement level the student has reached, which helps to show if the student is on-track with grade-level expectations.
- This section shows the student's overall score out of a possible 120 on the test that the student took in spring 2019.
- Additionally, this section also includes information on how parents can use these results to work in collaboration with their child's teacher to help them succeed.

(grade 5 ISR pictured)



Detailed Achievement Information



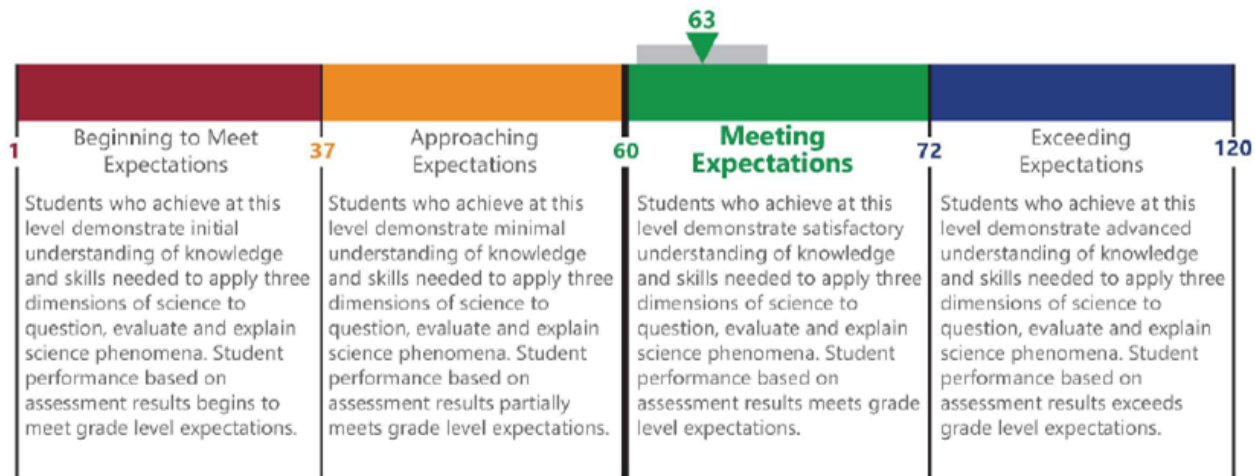
- This section demonstrates, in more detail, the student's score and achievement level. It gives you information on what achievement levels mean.
- The colored bar shows the score range for each achievement level and where the student's score falls, which indicates how close the student is to the next level.
- You will also see how the student's score compares to the average score in their school, their district, and statewide.

(grade 5 ISR pictured)

Scale Scores

- Scale scores are numerical values that summarize the overall level of achievement attained
 - NGSAs scale ranges from 0 to 120
- Cut-scores are the scores between each performance level and vary by grade, as noted on the grade 5 example

Grade	Level 1	Level 2	Level 3	Level 4
5	1-37	38-59	60-71	72-120
8	1-37	38-59	60-74	75-120
11	1-35	36-59	60-70	71-120






The horizontal gray bar shown in the graphics above shows the range of likely scores your child would receive if he or she took the test multiple times. The score range for your child is between 58 and 69.

The Standard error of measurement reflects the variability that would be expected in the scores that the student would likely receive if the assessment was taken multiple times.

The probable range of scores differs across forms and across level of performance within forms.

Science Discipline Performance

- Science has three disciplines for which students receive information about their performance: Life Sciences, Physical Sciences, and Earth and Space Sciences.
- This chart shows how close to mastery the student is in each area, according to how the student performed on this assessment: below mastery, at or near mastery, or above mastery.
- The description provides information about the various grade-specific topics or skills where the student is succeeding and where the student may need additional support to enhance specific skills needed to master grade-level standards.

How Did Your Student Perform in the Different Areas of Science?	
<p>Life Sciences</p>  <p>Below Mastery At/Near Mastery Above Mastery</p>	<p>Your student can sometimes model life cycles and movement of matter in ecosystems; use evidence to explain that organisms need structures to live; and interpret data to show that individuals inherit traits, populations have many different traits, and some organisms thrive in specific environments.</p>
<p>Physical Sciences</p>  <p>Below Mastery At/Near Mastery Above Mastery</p>	<p>Your student can sometimes conduct experiments to explain the structure of matter, signs of chemical change, and how forces affect the motion of objects; use evidence to explain speed and energy transfer; and model particles of matter and light waves.</p>
<p>Earth and Space Sciences</p>  <p>Below Mastery At/Near Mastery Above Mastery</p>	<p>Your student can sometimes display data to show the results of Earth's movements around the sun; graph where fresh and salt water exist on Earth; model interactions of the geosphere, biosphere, hydrosphere, and atmosphere; and use evidence to analyze solutions to hazards caused by weather.</p>

Note: Each grade level's discipline explanations are different; this example chart is for grade 5



2019 NGSA Statewide Results

Historical NECAP Results (2008-2017)

2015 NAEP Science Results

2019 NGSA Performance by Grade

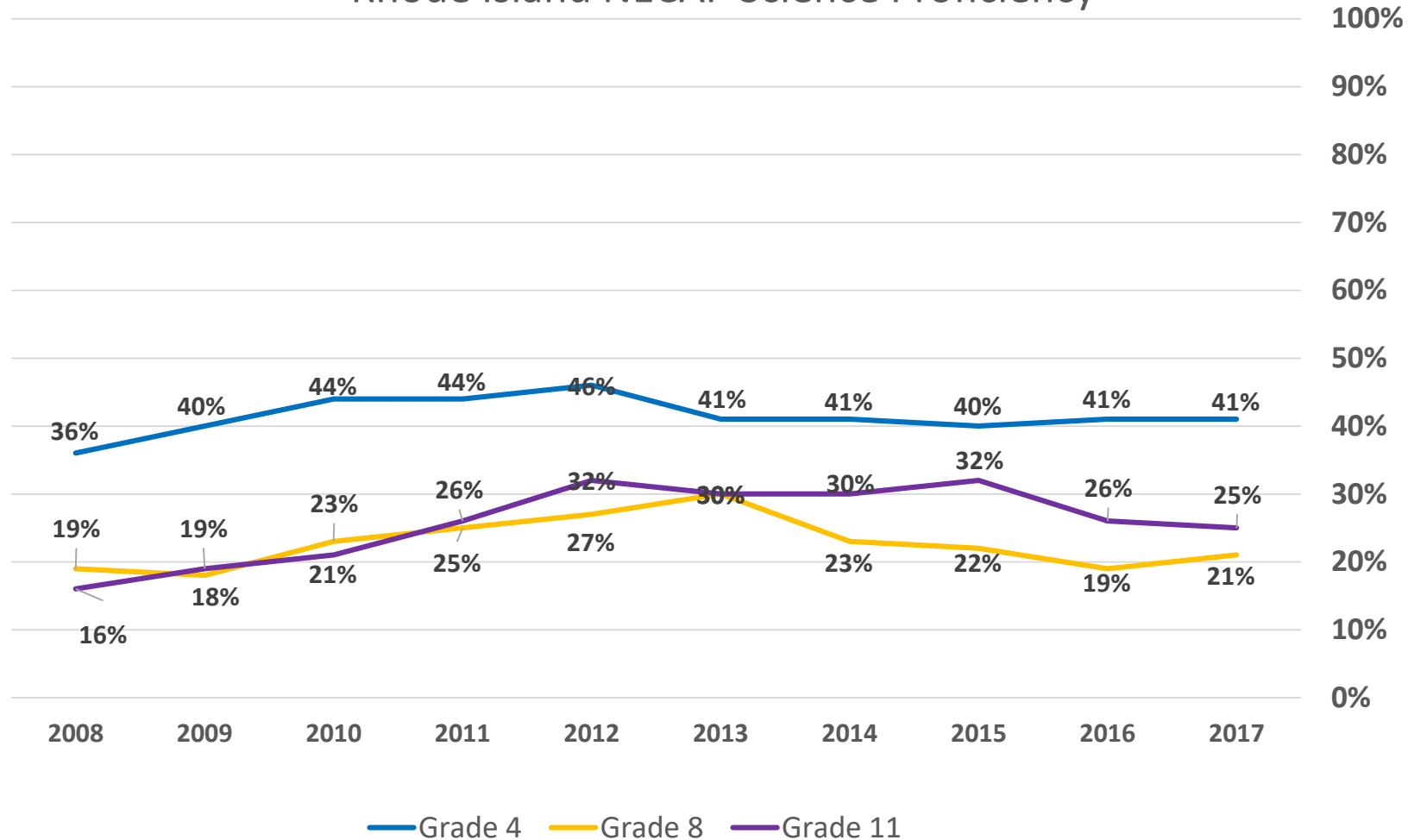
Percent of Students Meeting and Exceeding Expectations by Subgroup

Percent of Students Meeting and Exceeding Expectations by Race/Ethnicity



Historical NECAP Results (2008-2017)

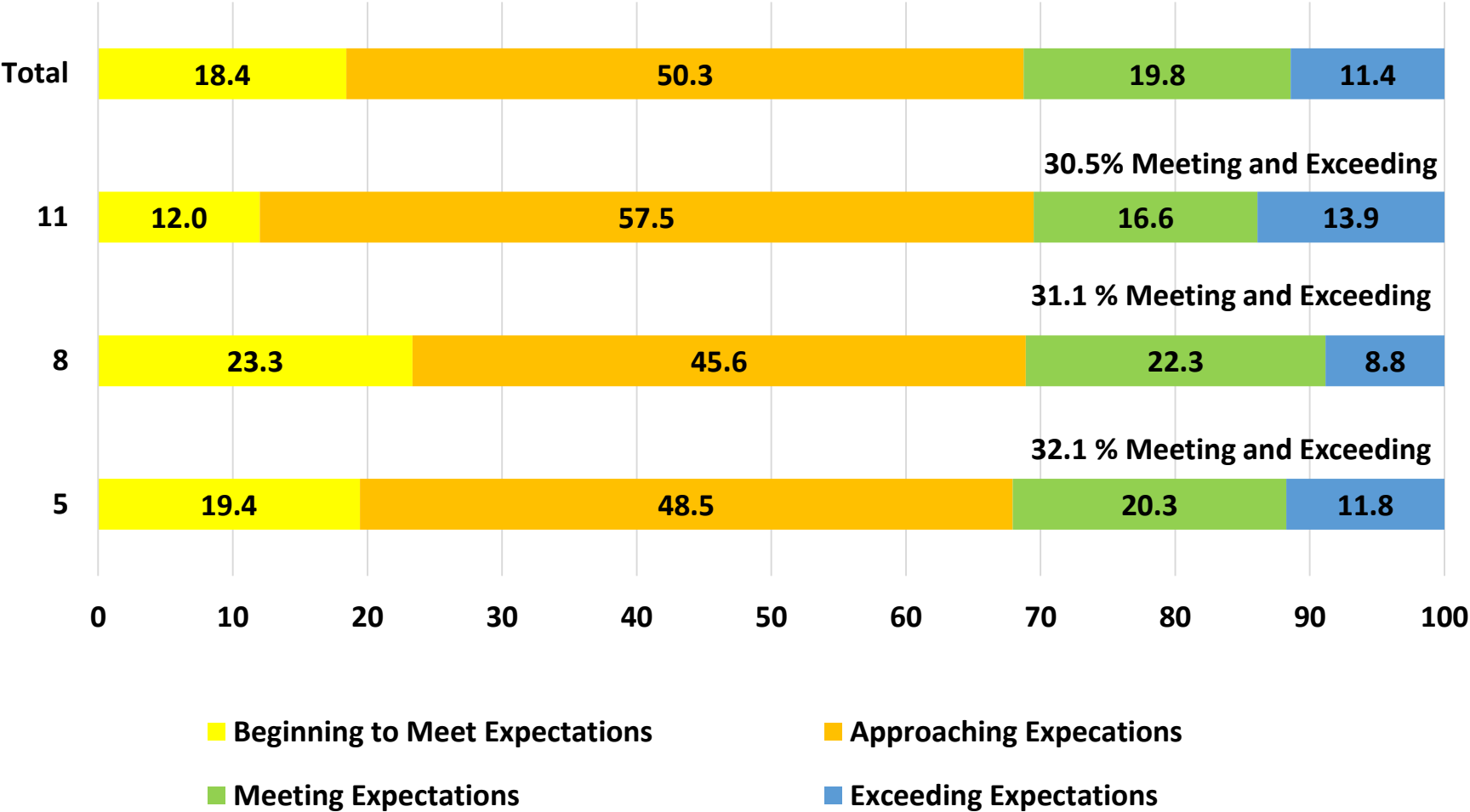
Rhode Island NECAP Science Proficiency



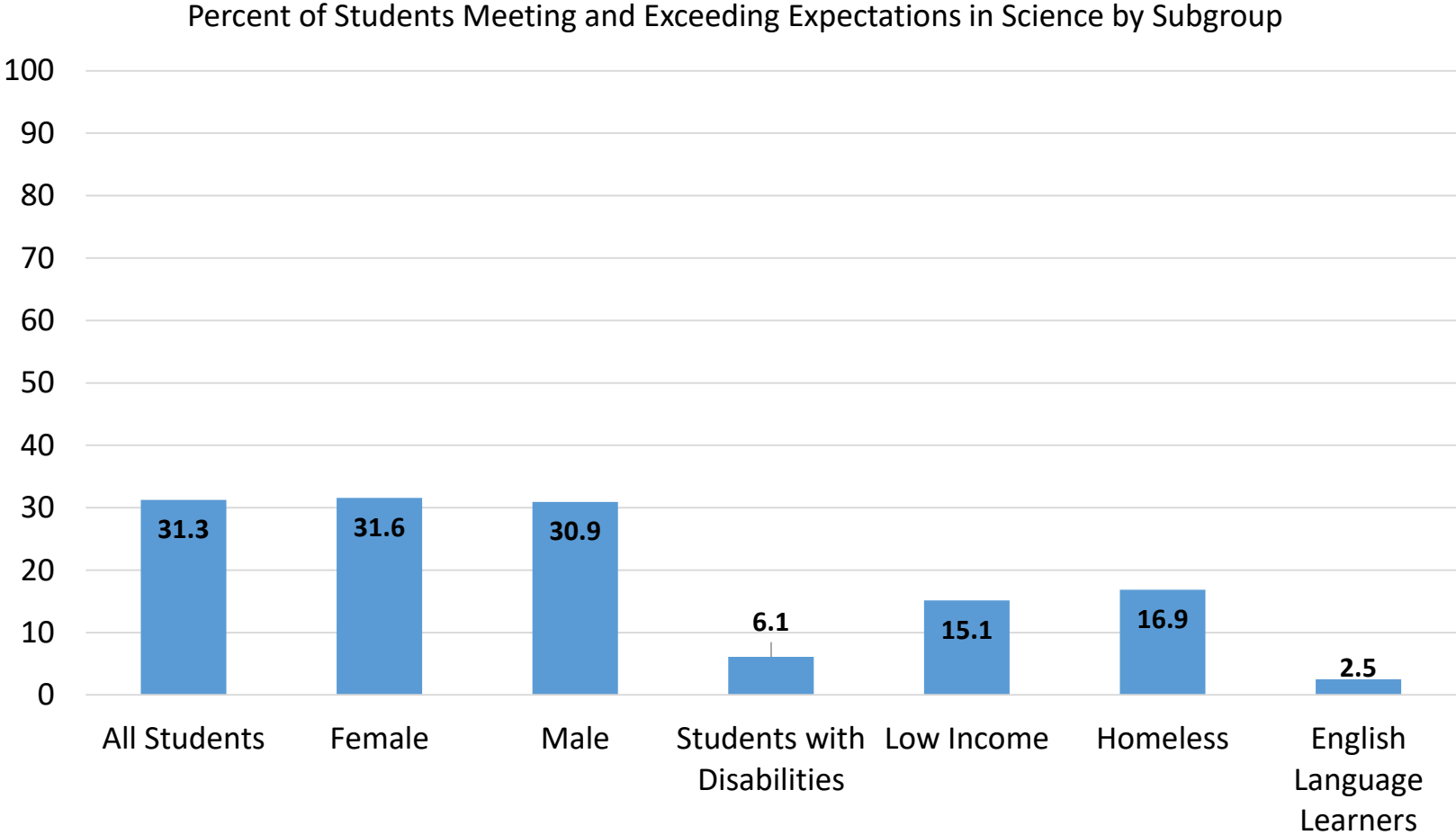
2015 NAEP Science Results

	Average Scale Score <i>Grade 4</i>	Percent At or Above Proficient <i>Grade 4</i>	Average Scale Score <i>Grade 8</i>	Percent At or Above Proficient <i>Grade 8</i>
Rhode Island	152	36	151	32
National Public	153	37	153	33

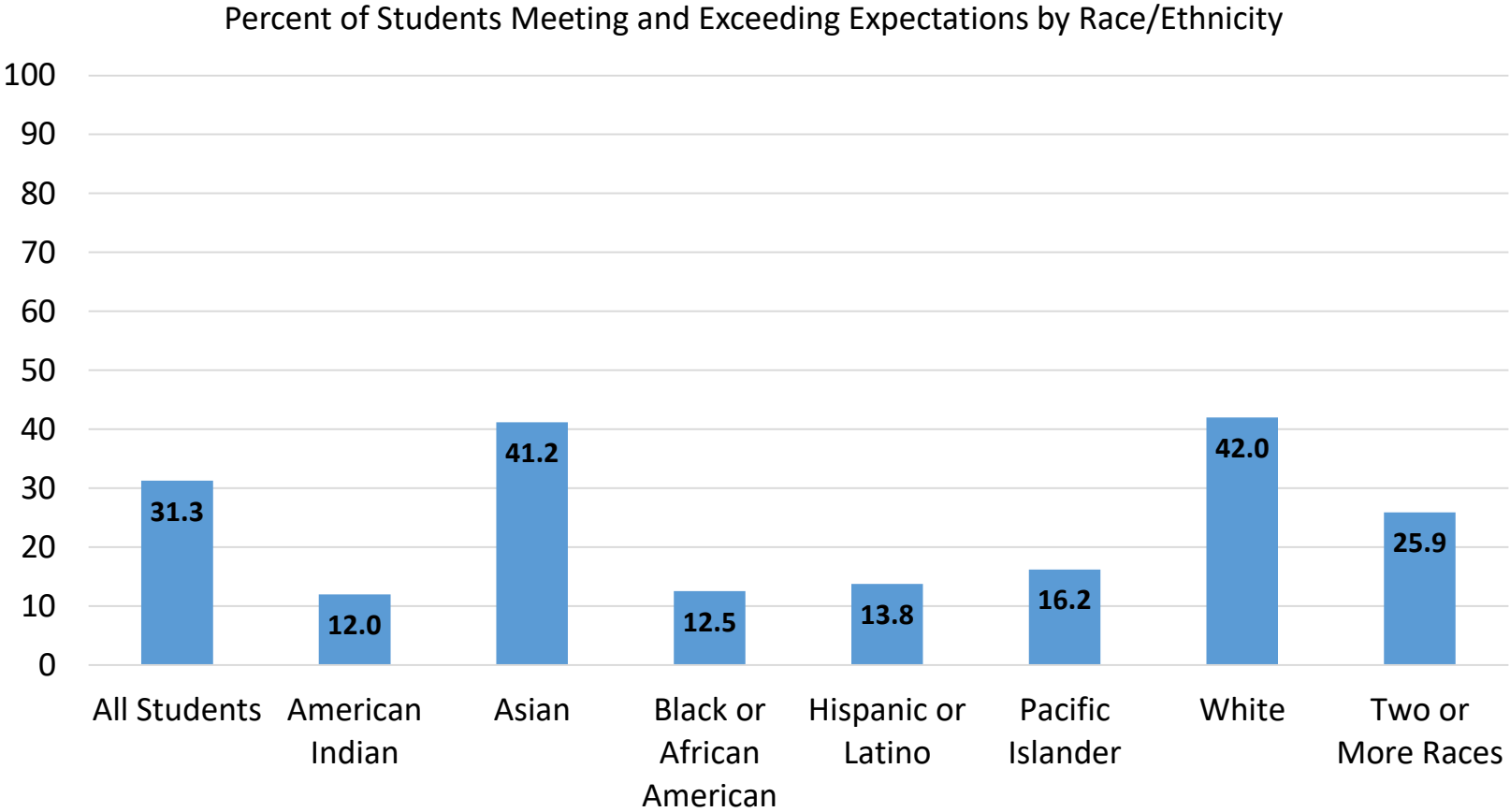
2019 RI Next Generation Science Assessment Performance by Grade



Percent of Students Meeting and Exceeding Expectations in Science by Subgroup



Percent of Students Meeting and Exceeding Expectations in Science by Race/Ethnicity



Using NGS Data

AIRWays Reporting System

Understanding the data

Actions to take

What other data and resources can we use with NGS?

Some queries to use with the RI-ADP



What can NGSA data be used for?

- Summative assessments are good for looking at the “big picture” through use of aggregate data
- Misalignment for gaps in scope and sequence or curriculum
- Assessing overall school and district performance in science
- Indicating areas of strength and areas for growth at the school and district level – by science discipline and overall performance



Cautions to keep in mind

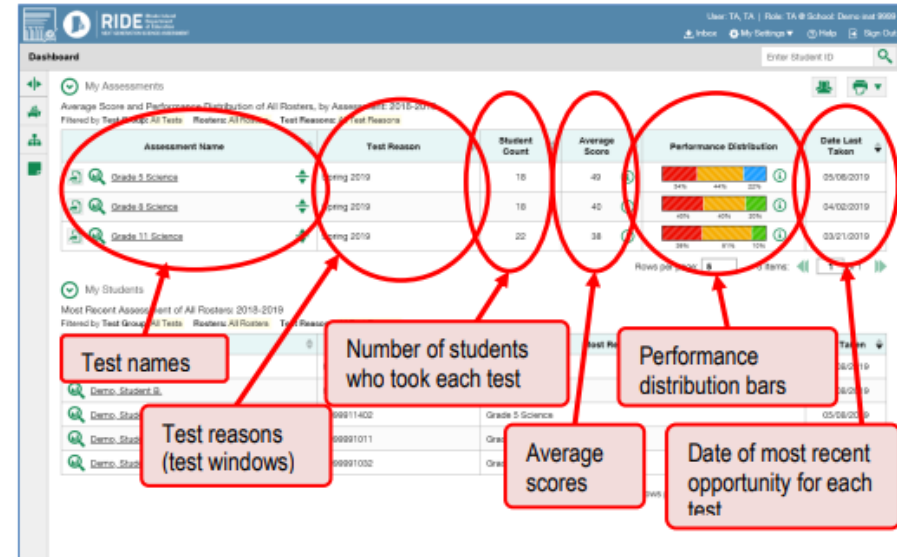
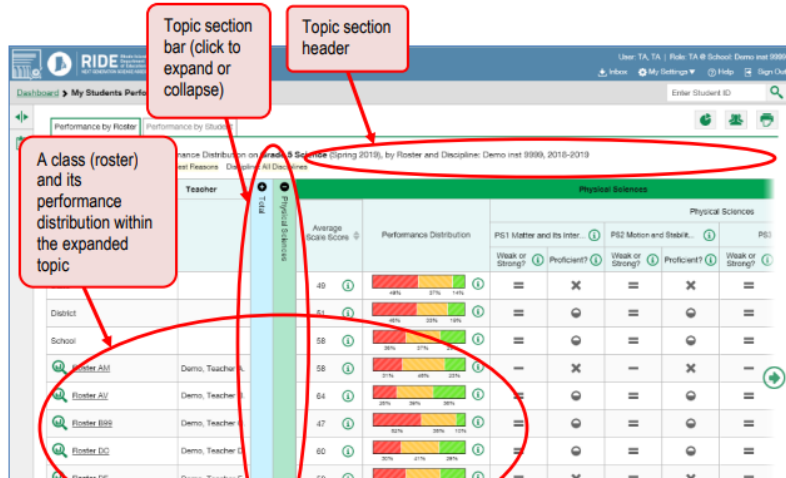
- NGSA data should be used in conjunction with other sources of data to provide a complete picture of student performance, as well as overall teaching and learning – it should not be the sole data used to decide students' supports or coursework
- NGSA and NECAP are two different assessments based on different standards and expectations, therefore growth comparisons should not be made based on scale scores between these assessments



AIRWays Reporting System

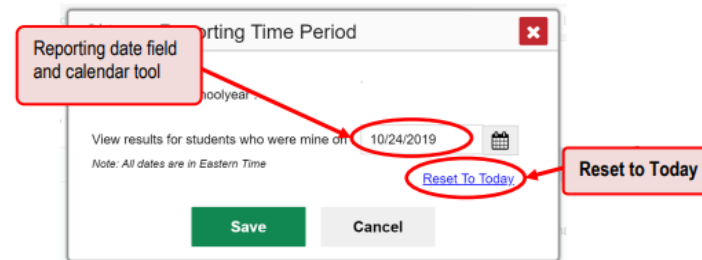
The guide includes the following sections:

- How to Navigate Reports
- How to Set Up Your Reports So They Make Sense
- How to Export and Print Data



1. From the **My Settings** menu in the banner, choose **Change Reporting Time Period**. The **Reporting Time Period** window appears (see [Figure](#)).

Figure 47. Reporting Time Period Window



Important – the system defaults to display the students where they are as of the day you log in. For this reason, many of you will have to update the Reporting Time Period. Go to the upper right, <Settings> choose, <Change Reporting Time Period> enter a date when all students were registered such as June 1.

Some questions to consider when analyzing your data

How can you use the summative NGSA data?

What actions do we take for investigating an area of weakness?

What needs to be considered when elevating the K-12 science program?

How will understanding the Test Item Specifications support science instruction and assessment?



How can you use the summative NGSAs Data?

1. Identify overall strengths and weaknesses for each domain performance expectation at each grade band

- ✓ Above the Proficiency Standard
- At/Near Proficiency Standard
- ✗ Below the Proficiency Standard
- * Insufficient Information
- + Area of Strengths
- = Performance is similar to performance on the test as a whole
- Area of Weakness
- * Insufficient Information

		Physical Science						
Physical Science	Average Scale Score	Performance Distribution	Physical Science					
			PS1 Matter and Its Interactions		PS2 Motion and Stability: Forces and Interactions		PS3 Energy	
			Proficient?	Weak or Strong?	Proficient?	Weak or Strong?	Proficient?	Weak or Strong?
State	51		✗	+	✗	+	✗	=
District	59		○	=	✓	+	○	-
School	59		○	=	✓	+	○	-

PRIMARY FOCUS
Look into the instruction of this performance expectation

SECONDARY FOCUS
There is room for improvements with this performance expectation

Celebrate success and continue with existing instruction

What actions do we take for investigating an area of weakness?

- Use data to begin evidence-based discussions.
- What does the big picture tell us? What will we focus on first?
- Is the content being taught? (Review your scope and sequence)
- If content is missing, add, and update the scope and sequence.
- If it's taught, review curriculum materials and instructional effectiveness.
- Look for gaps among sub-groups.



What needs to be considered when elevating the K-12 science program?

- Are the scope and sequence aligned?
- Are learning progressions appropriate?
- Are instructional methods accessible to all students?
- What is the fidelity of district implementation?
- How much time is spent on science at each grade level K-12?
- Are teachers trained to teach and assess the 3 dimensions of NGSS?
- Is teacher expertise capitalized for course placement 7-12?
- Is instruction consistent within a grade and across schools?
- Have the instructional materials been reviewed for 3D alignment?



How will understanding the Test Item Specifications support science instruction and assessment?

- Districts and schools should ensure teachers are trained in understanding and developing three-dimensional NGSS assessments.
- Each grade level 3-11, should have common benchmark assessments that promote the application of content and practices rather than memorization of facts.
- Teachers can use the NGSAs state assessment test design specs when developing local formative and summative assessments:
 - Application of expectations for each PE
 - Content limits
 - Essential vocabulary
 - Possible phenomena and task demands
 - Use as a backward design for their instruction
 - Create ongoing formative and summative embedded assessments
- Additionally, teachers and students should use the online practice tests and become fluent with the [technical skills required for the computer-based assessment](#).



Proven Strategies

- Professional learning for teachers and leaders
- [High quality instructional materials](#)
- Comprehensive assessment system
- Effective communication
- Collaboration within district
- Acting on student outcomes

Useful Resource: [NGSS District Implementation Guide](#)

What other data and resources can we use with NGSA?

- ACCESS (e.g., comparing achievement levels on ACCESS and NGSA)
- RICAS ELA and Math (e.g., comparing achievement levels on RICAS and NGSA)
- Local summative assessments
- Local formative and interim assessments
- Attendance data
- Student-level interventions for educational services outside the classroom
- Educator certificates and years of experience with NGSS

Some queries to use with the RI-ADP:

- Subgroup performance (e.g., students without disabilities vs. students with disabilities)
- Schools within your district at the same grade level
- Compare achievement level data for your school with local attendance data



How to explain data to families

- Individual Student Reports
 - Go through full score report
 - Include details from curriculum (e.g., how covering topics/skills, how plan to address areas for growth)
- School and District Data
 - What you learned from analyzing data: what you found are areas of strength and areas for growth
- RIDE's "Resources for Families" page: www.ride.ri.gov/Families
 - FAQs about content standards and assessments
 - Guidance and flyers explaining assessment concepts
 - Report shells in various languages for all assessments

Next Steps...

- As part of NGSA analysis, review data at district, school, and student level
- Identify areas for improvement – overall and by domain
- Calibrate expectations – both for educators & students
- Review curriculum and current instructional practices
- Analyze to inform current instruction

Resources



NGSA Resources

- www.ride.ri.gov/NGSS for resources about the NGSS
- www.ride.ri.gov/NGSA for information about the NGSA
- RIDE Assessment Results: www.ride.ri.gov/Assessment-Results
(includes resources to support interpretation of results)
- NGSA Practice Test: www.ride.ri.gov/Released-Items
- Test Item Specs: [Elementary School Level Item Specifications](#) [Middle School Level Item Specifications](#) [High School Level Item Specifications](#)
- AIRWays Reporting System (New for 2019!): <https://ri.portal.airast.org/>
- RIDE Resources for Families: www.ride.ri.gov/Families
 - sample NGSA Individual Student Reports for grades 5, 8, & 11
 - the NGSA 2019 Individual Student Reports Guide for Families
- RI Assessment Data Portal:
 - Public: <https://lms.backpack.education/public/ride>
 - Confidential: <http://ridemap.ride.ri.gov>
 - September 2019 Test Coordinator Webinar: information about accessing the RI-ADP



Thank you!

If you have questions about this presentation, please contact assessment@ride.ri.gov

