PARCC Next Generation Online Assessments: Opportunities, Challenges, and Lessons Learned from the 2014 Field Test

MAG 2014

Dale Cornelius, Project Manager
Maryland State Department of Education

Maryland's History With Online Testing

- **National Leader in online testing: online since 2007**
- **All MD state tests (except MSA math) have been offered online for years.**
- **MD was one of first states to use Technology-Enhanced Items on a high-stakes assessment (MSA Science).**
- **MD helped lead effort to develop accessibility and interoperability standards for online testing systems (known as APIP), adopted by many states, non-profits, and private companies.**

The 2014 PARCC Field Test

- **MD was only state to test in every school (7 schools unable to participate)**
- **Half of the schools tested online (1 or more groups)**

PARCC Field Tests Administered in Maryland	Online	Paper
	65,122	33,154

PARCC: Opportunities and Challenges

- **Part I: New Accessibility and Accommodations Options**
- **Part II: New Item Types: Technology Enhanced Items**
- **Part III: New Modes of Delivery**
- **Part IV: Creating Digital Equity in Schools**

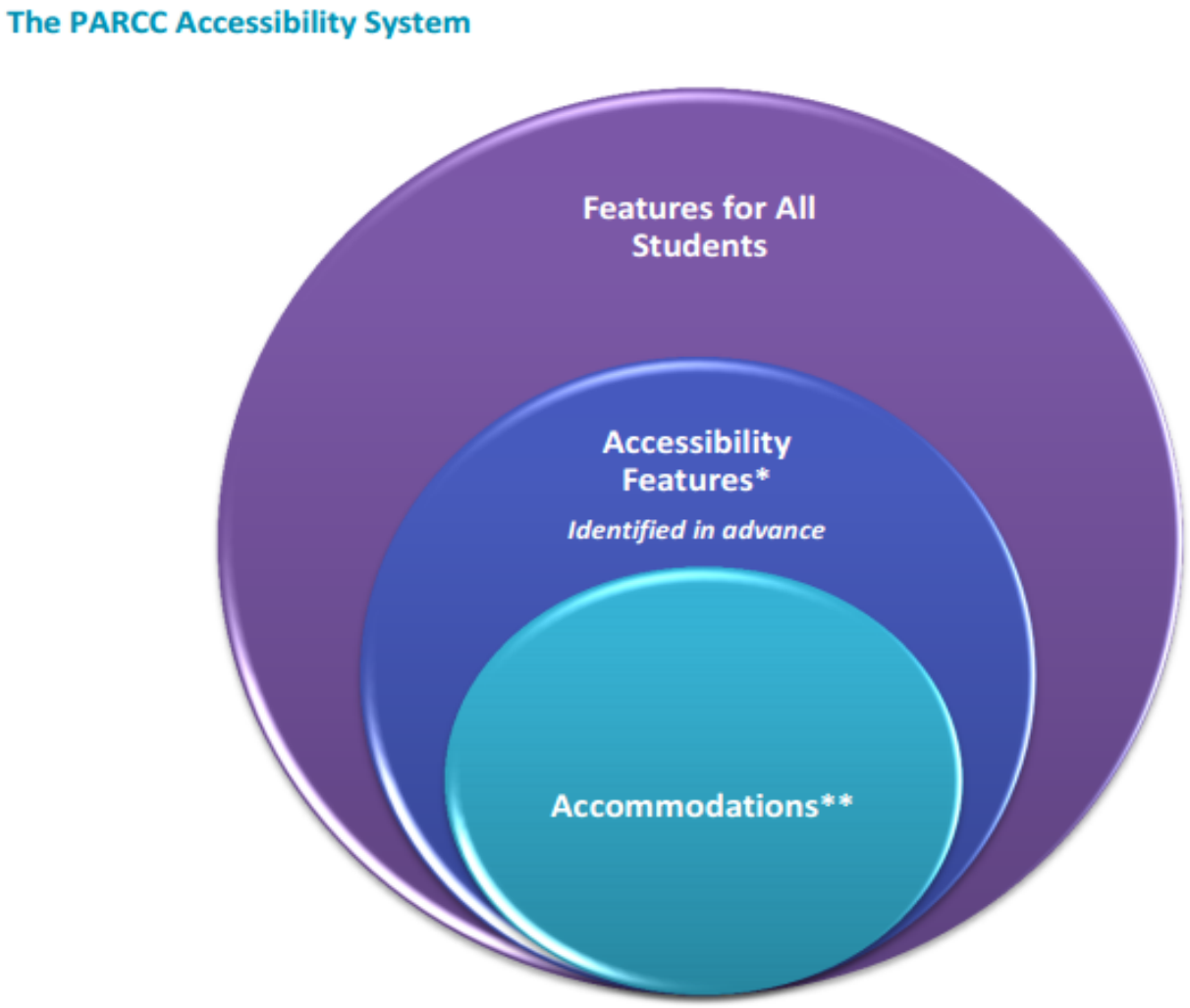
Part I

New Accessibility and Accommodations Options

New Accessibility Features

- **On PARCC technology-based assessments, accessibility features are tools or preferences that are either built into the assessment system or provided externally by test administrators.**
- **Accessibility features can be used by any student taking the PARCC assessments (i.e., students with and without disabilities, gifted students, English learners, and English learners with disabilities).**
- **Since the accessibility features are intended for all students, they are not classified as accommodations**

The PARCC Accessibility System



Accessibility Features for All Students

Support	Description	Identified in Advance by PNP
General Masking	The student creates a custom "mask" to electronically cover portions of test items, including passages, as needed.	Yes
Highlight Tool	The student highlights text as needed to recall and/or emphasize.	

Accessibility Features for All (con't)

Support	Description	Identified in Advance by PNP
Line Reader Tool	**The students uses onscreen tool to assist in reading by raising and lowering the tool for each line of text onscreen.**	
Headphones or Noise Buffers	The student uses headphones or noise buffers to minimize distraction, access embeded text-to-speech.	

Accessibility Features for All (con't)

Support	Description	Identified in Advance by PNP
Magnification/Enlargement Device	**The student enlarges text and graphics onscreen, up to 400% (while preserving clarity, contrast, and color).**	
NotePad	The student writes and edits notes using embedded NotePad application.	

Accessibility Features for All (con't)

Support	Description	Identified in Advance by PNP
Pop-up Glossary	**The student is able to view definitions of pre-selected, construct-relevant words by selecting a hyperlink on screen via pop-up text box**	
Redirect Student to the Test (by test administrator)	The test administrator redirects the student's attention to the test without coaching or assisting the student in any way.	

Accessibility Features for All (con't)

Support	Description	Identified in Advance by PNP
Spell Checker	**Spell Checker The student uses spell-check software.**	
Text-to-Speech for the Mathematics Assessments	Text is read aloud to the student using embedded text-to-speech software. Student must be tested in a separate setting if unable to wear headphones.	Yes

Accommodations Options Identified in Advance (for students with IEPs, etc.)

- Refreshable Braille displays
- Text-to-speech
- American Sign Language
- Descriptive video
- Closed captioning of multimedia passages
- Tactile graphics
- Word prediction
- For more information: http://parcconline.org/sites/parcc/files/PARCCAccessibilityFeaturesandAccommodationsManualNovember2013.pdf

For a Complete List of Accessibility and Accommodations Features

Download the PARCC ACCESSIBILITY FEATURES AND ACCOMMODATIONS MANUAL

http://parcconline.org/sites/parcc/files/PARCCAccessibilityFeaturesandAccommodationsManualNovember2013.pdf

Part II

New Item Types: Technology Enhanced Items

New Item Types: Technology Enhance Items (TEIs)

Challenges	Opportunities
New Item Types: Students need to become familiar with the format of the new, online item types.	TEIs: Ability to assess deeper levels of learning and understanding as opposed to traditional multiple choice and constructed response. Unlimited opportunity.
New Tools and Functionality: Students need experience practicing online so that they become comfortable with the online tools and user interface	TEI: More engaging and interesting to most students

Technology Enhanced Items

- **Becoming Familiar With PARCC Online Question Types**
- **Two sites to bookmark:**
  - **practice.parcc.testnav.com**
  - **http://parcc.pearson.com/**

New English Language Arts Question Types and Tools

- **PARCC Sample Set Grades 3-5 ELA: http://practice.parcc.testnav.com/**
- **Drag and drop**
- **Constructed Response Editors (Microsoft Word type tools). And what is the point of the editor? Wills students get points for bolding or putting font in italics? To be determined?**

Do your third graders know how to keyboard? If so, they probably learned in second grade, right?

New English Language Arts Question Types and Tools

- PARCC Sample Set Grades 6-8 ELA: http://practice.parcc.testnav.com/
- Drag and drop
- Video Passages: watch a video and answer questions
- Multiple Select instead of multiple choice (click all that apply)
- Analyze Multiple Passages simultaneously (in past students were only asked to read and respond to one passage at a time).
- Constructed Response Editors (tools like what is seen on Microsoft Word). Again, what does bolding do?

New Mathematics Question Types and Tools

- **Grade 3-5 Math Sample Items**
  - **Link: http://practice.parcc.testnav.com/**
- **Select numbers from an Option Box Drop Down (requires knowledge of how to use a mouse)**
- **Enter answer in a box (requires experience with keyboarding)**
- **Gridding (easy if you have done it before)**
- **Completing subtraction online (the child will need scratch paper, so experience transferring answer from paper to online is needed)**
- **Equation editor-better practice with that (being simplified)**

MSDE is Developing Tutorials that Explain all the New Online Item Types, Features and Functionality

- Check the Maryland Online Testing website for more information in the near future:
  - www.marylandonlinetesting.org
- Tutorials being developed for teacher and student use.
- Stay tuned. Will launch in December when practice tests go live.

Part III

New Modes of Delivery

New Modes of Delivery

Challenges	Opportunities
Setting up and managing devices for testing is complex, takes time, training, and significant investments in human capital (all of which are in scarce supply).	Online high-stakes assessments will eventually give students and teachers immediate feedback (most benchmarks and diagnostic assessments online already do).
Purchasing needed devices, making needed investments in bandwidth, and hiring staff to support PARCC will be more challenging in some districts than others.	Ability to use devices used for learning to assess students (i.e., tablets and Chromebooks, PCs, Macs) is ideal because students should be familiar with the hardware.

PARCC Online: Modes of Delivery

- Traditional PCs and Macs
- Tablets: iPads, Windows, Android
- Chromebooks

For more info see PARCC Technology Guidelines:

http://parcconline.org/sites/parcc/files/Technology%20Guidelines%20for%20PARCC%20Assessments%20v%204_2%20May%202014.pdf

Technology is the Common Thread

- **New Maryland College and Career Ready Standards require equal access to technology:**

One Example (of many): 3rd grade Maryland College and Career Ready Standard standard for English Language Arts Literacy:

Requires that students "With guidance and support from adults, use technology to produce and publish writing (using keyboarding skills) as well as to interact and collaborate with others."

Students should begin learning keyboarding in 2nd grade, since the PARCC assessments are computer-based, starting in 3rd grade, and students who know how to keyboard in third grade will have an easier time answering questions that require a written response.

So how ready are our schools to administer PARCC 100% online? For the most part, we will be ready, but there are gaps when it comes to access to digital learning.

District Readiness to Administer PARCC Online in 2014-2015

District Readiness to Administer PARCC Online in 2014-2015		
100% Online	**75% Online**	**25% or Below Online**
PG	*Carroll*	*Harford*
Wicomico	*Frederick*	
Talbot	*Anne Arundel*	
Cecil	*Somerset*	
Howard	*Charles*	
Washington	*Allegany*	
Kent	*Baltimore City*	
Caroline	*Dorchester*	
Montgomery	*Calvert*	
Worcester	*Queen Anne's*	
St. Mary's	*Garrett*	
Baltimore County		
Total: 12	**Total: 11**	**Total: 1**

Question

How can we create equal access to technology in the transition to digital learning and next generation, online PARCC assessments?

Part IV

Creating Digital Equity in Schools

Three Ways to Achieve Digital Equity in Schools

- **Create 1-1 Schools***
- **Build human capacity to support digital learning and online testing**
- **Assess students 100% online**

*1-1 Schools are schools that have a 1-1 student-to-device (computer) ratio

Increase Funding to Support 1-1

Student-to-Device* Ratio in Maryland by County						
1-to-1	1-to-2	1-to-3	1-to-5	1-to-7	1-to-10	1-to-15 or Higher
None	*Talbot*	*Carroll*	*Somerset*	*Worcester*	*Frederick*	*Dorchester*
	Wicomico	*PG*	*Charles*			*Garrett*
	Anne Arundel	*Harford*	*Baltimore County*			
	Kent	*Allegany*	*Baltimore City*			
	Caroline	*Cecil*				
	Montgomery	*Howard*				
	St. Mary's	*Washington*				
		Calvert				
		Queen Anne's				
0	7	9	4	1	1	2

* A device is a computer or tablet that can be used for digital learning and assessment

The Tipping Point: 1-1 Schools

- Create more learning opportunities for students
- Access limitless learning opportunities online.
- Collaborate more easily with teachers and other students.
- Receive more personalized instruction (for example Khan Academy)
- Leverage innovative approaches to learning like “flipped classrooms”

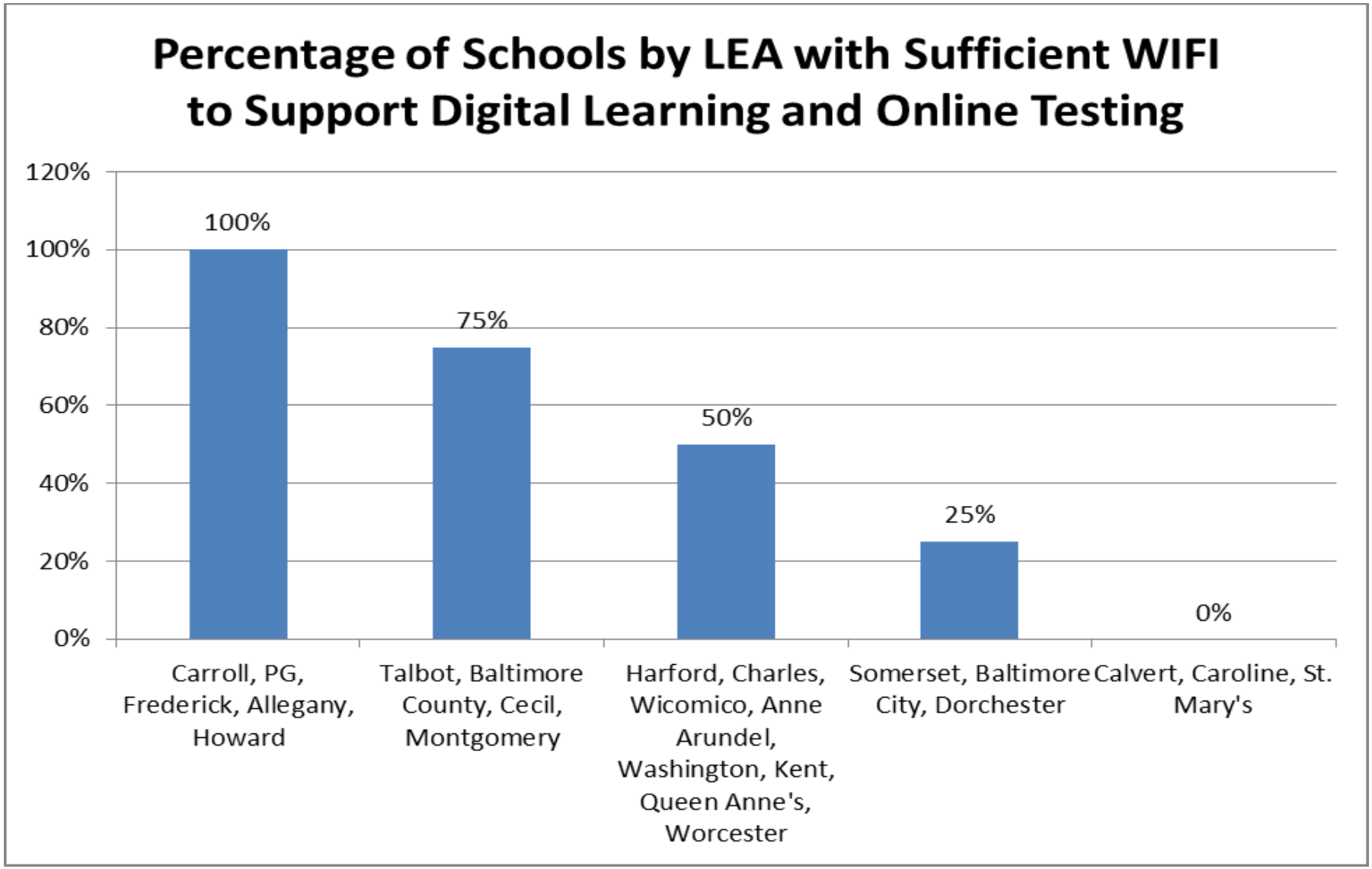
Leverage Bring Your Own Device (BYOD) if Possible (it's not easy)

- **Technology**-If students control devices, and not school districts, nefarious activity can be done without school leaders knowing.
- **Policy**-The creation of a BYOD program requires the development of policy for all interested parties (students, parents, teachers, administrators)
- **Equity**-If students can not afford a personal device, the school district should provide one. Some districts may not have the ability to go BYOD because of the student population.
- **Funding**-BYOD is not free and there are associated costs.

Number of BYOD Schools by County

0 Schools	1-5 Schools	Over 20 Schools
Talbot	Charles	Carroll
PG	Cecil	Frederick
Harford	Baltimore City	Allegany
Somerset	Calvert	Howard
Wicomico		Montgomery
Baltimore County		
Anne Arundel		
Dorchester		
Washington		
Kent		
Queen Anne's		
Caroline		
Garrett		
Worcester		
St. Mary's		

Increase Investments in WiFi

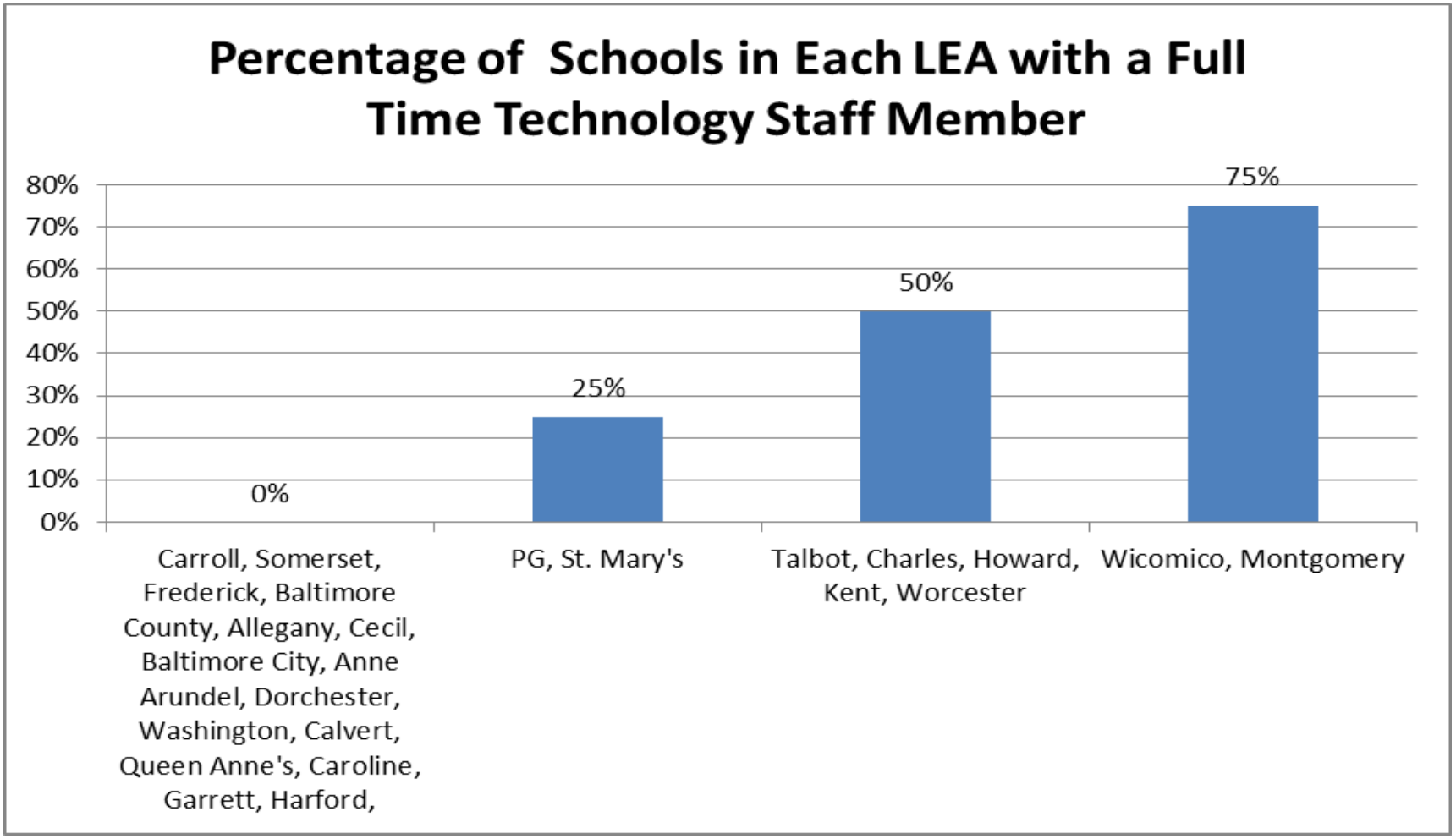


Build Human Capacity to Support Technology

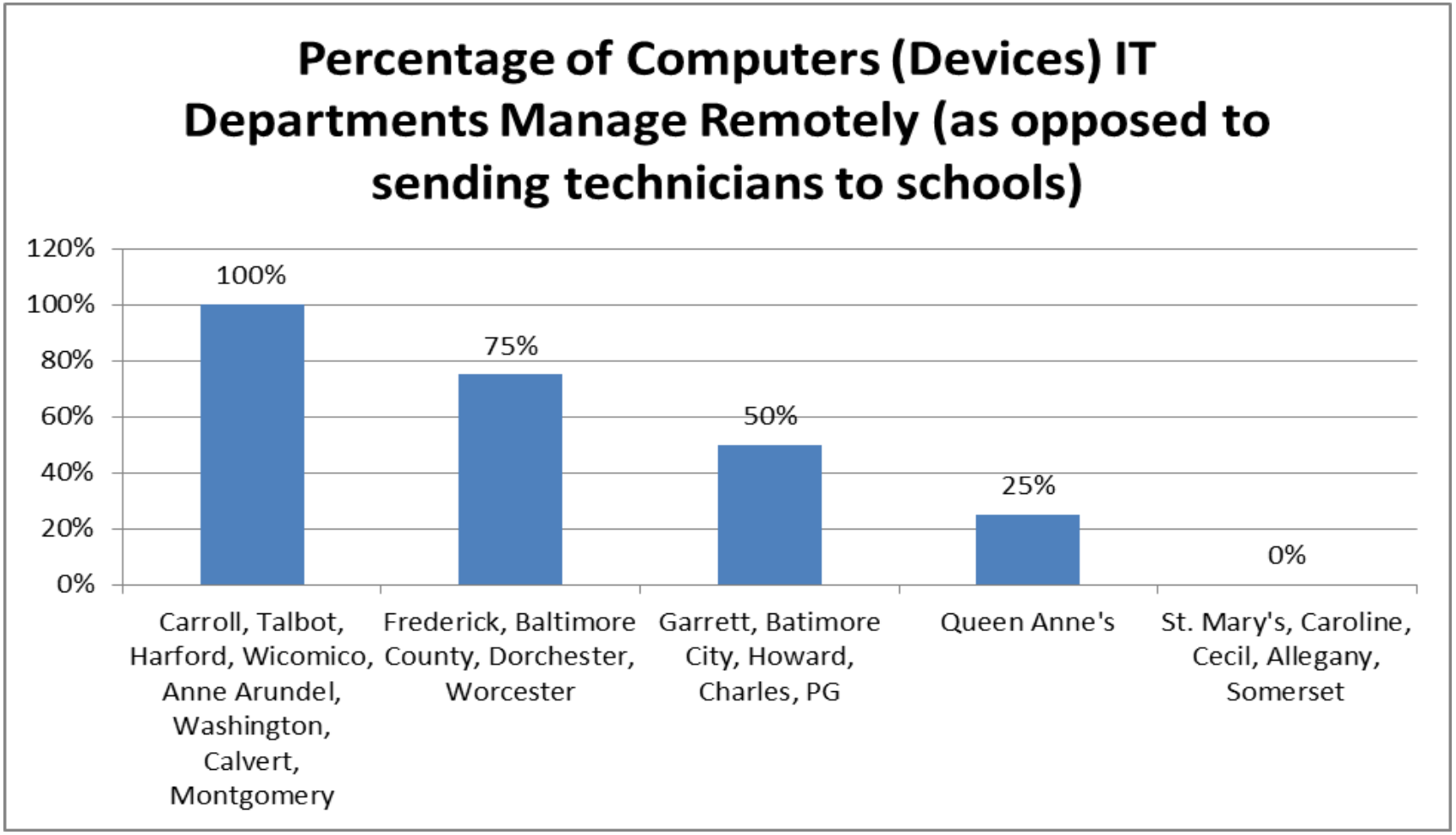
- **Pay Market Rate for Highly Skilled Information Technology (IT) Professionals. It is hard to hire, and retain, skilled workers when they can make more in the private sector.**

- **Hire a Full Time Technology Staff Member at Every School**

Hire a Full Time Technology Staff Member at Every School



Invest in Remote Management and Monitoring



Change the Way Technology is Funded in Schools

Grants for technology are not helpful if they do not include support for ongoing costs.

Transitional costs do not occur in one fiscal year alone but rather over the course of the implementation period (i.e., over multiple fiscal years).

Ongoing costs always include:

- Maintenance and repair
- Technological obsolescence

Conclusion

PARCC is creating many new challenges and opportunities for schools, but we can't forget that it is not all about assessment; rather, it is about learning, and investment in technology to support PARCC gives us the opportunity to provide greater access to digital learning and, in turn, technology equity among students.

Ask yourself, "Could I do my job without my laptop or device?" The answer is "no" and the same is true for student learning in the 21st Century.

THANK YOU!

Questions?

- A copy of this presentation will be made available on the MAG website
- Thank You