

Technology Readiness

Presented by: Kenneth Klau,
Director, Office of Digital Learning

MASSACHUSETTS DEPARTMENT OF
ELEMENTARY AND SECONDARY
EDUCATION



Computer-Based PARCC Test (CBT)

- ★ What is the minimum standard to administer the CBT PARCC?
- ★ How many schools do not have sufficient technology to administer the CBT PARCC?
- ★ What is the estimated cost to get these schools up to the minimum standard?



Minimum Standard for the CBT

- ★ An Internet connection (wired or wireless) to download the test to each student's computer prior to test administration ("proctor caching")
- ★ Sufficient bandwidth (at least 5kbps per student)
- ★ Sufficient # of computers (desktops, laptops, netbooks, thin clients, and tablets) with a web browser & "input device" (keyboard/mouse or touchpad)



Calculating # of Computers for the CBT

20-day testing window X 3 sessions/day = 60 sessions

Each student sits for up to 7 sessions

The number of students X 7 sessions = total # of "seats"

Example: A school with 721 tested students has 85 testing seats & therefore needs 85 computers to give the CBT during the testing window ($721 * 7 / 60 = 84.1$)

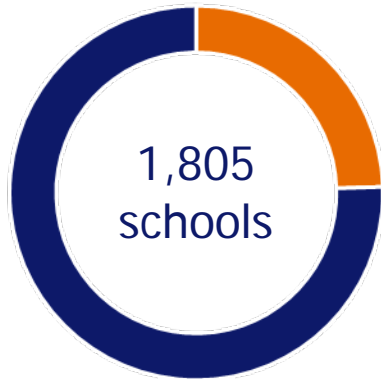
Minimum number of **classrooms** is 5 ($721 / 18.1 = 4.7$)
(basis for infrastructure calculations)



PARCC Technology Readiness: # of Schools

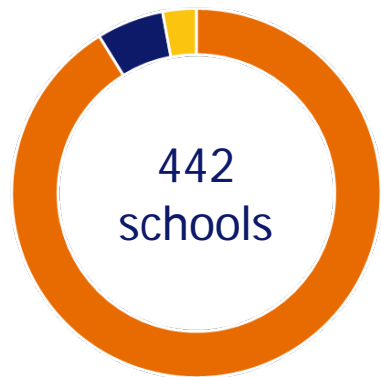
** Based on school and district self-reported data as of August 2014*

Overall Readiness



- 1,363 meet minimum specifications
- 442 do not meet minimum specifications

Reasons for Lack of Readiness



- 403 have insufficient computers only
- 26 have insufficient infrastructure & computers
- 13 have insufficient infrastructure only



PARCC Technology Readiness: Cost Estimates

● Computers: **\$3.1 to \$12.3 million**, based on type (\$250 to \$1,000 ea.)

- 304 schools need ≤ 30
- 85 schools need 31-60
- 37 schools need 61-90
- 13 schools need 91-120
- 3 schools need 121-150

● Infrastructure: **\$2.4 million**

- Based on non-repetitive costs at the classroom, school, and district level
- Includes broadband costs for schools that do not meet proctor caching requirements



Digital Learning is the thoughtful and deliberate use of technology to support teaching and learning

- ★ Affords students increased control over pace, path, place, time, content, & method of instruction
- ★ Prepares students for 21st century careers & life
- ★ Helps teachers intervene more quickly with struggling students, maximize time, & adjust instruction
- ★ Not a panacea for poor instruction, but can make good instruction more effective
- ★ **The standard for digital learning is higher than PARCC**

