# Partnership for Assessment of Readiness for College and Careers (PARCC)

Assessment Capacity Planning Tool

Release Version 1: March 5, 2013

This tool is continually being updated and improved. Please visit
http://www.parcconline.org/assessment-administration-guidance
for the most current versions of the Capacity Planning Tool and
related information.

Input fields to be completed by school

Background data values and/or interim calculations

Calculated capacity planning data

PLEASE NOTE: This document is for planning purposes only, to provide estimated values of high level assessment capacity calculations. The estimated specifications and other assumptions used in this tool are subject to change.

Please refer to the **Assumptions Tab** and the Users' Guide to the Assessment Administration Capacity Planning Tool for more information and assistance in using and interpreting the Planning Tool.

ENTER YOUR SCHOOL DATA

STUDENTS

Enter Student Population Estimates for the 2014-2015 School Year:

Grade	Total population
3	
4	
5	
6	
7	
8	
9	
10	
11	
TOTAL	0

DEVICES

Enter the number of computer devices available for assessment that meet PARCC Minimum Technology Specifications:

(For assistance in calculating eligible devices, please use the separate PARCC-SBAC Technology Readiness Tool and PARCC Technology Guidelines)

Devices available for assessment that meet PARCC minimum specifications- By Location	
Computers that can be used simultaneously in classrooms or are on computer carts	
Computers that can be used simultaneously in computer labs	
TOTAL	0

NUMBER OF ADMINISTRATION DAYS

Enter your preferred number of administration days to be used in calculating planning models (PARCC maximum = 20 days, PARCC minimum = 5 days. States or districts may set different requirements.)

	Enter your preferred number of administration days
Run calculations using the PARCC estimate of a 20-day maximum OR Use a different number of administration days (for example, states or districts may establish different requirements)	

BANDWIDTH

Enter information about the school's average connection speed to the Internet (total kbps as reported by your Internet Service Provider or district technology office):

(PARCC encourages schools to run a trusted speed test tool to generate this estimate. More information is provided in the Capacity Planning Tool Users' Guide. Alternately, schools my use as an estimate the connectivity as reported by your Internet Service Provider or district technology office):

Internal Connection Speed (kbps)	External Connection Speed (kbps)

Calculate an estimate for the level of simultaneous Internet usage that will be taking place in the school concurrent with assessment administration.

Type of Use	Number of simultaneous users (students, teachers, administrators) engaged in activity	Average bandwidth demand in Kbps (for reference)	Bandwidth In Use
Email		500	0
Web Browsing		500	0
Online Learning (not interactive)		250	0
Online Learning (interactive/single player)		1000	0
Audio Streaming		100	0
Student Content Creation		150	0
Accessing School/District Portal		250	0
Video Streaming (standard quality)		700	0
Video Streaming (high-definition)		4000	0
Video Conferencing (standard quality)		1000	0
Video Conferencing (high-definition)		4000	0
VoIP		500	0
		TOTAL	0

Note: Average bandwidth demands of common school technology activities derived from those used by the State Educational Technology Directors Association in their 2012 report The Broadband Imperative, as well as SETDA's original source -- the School 2.0 Bandwidth Calculator (http://etoolkit.org/etoolkit/bandwidth_calculator).

CALCULATED PLANNING MODELS

DEVICE TO STUDENT RATIO MODELS

Calculations are based on the school population and the assessment design, using an estimate of 2 testing blocks per day.

	Students per device based on data entered by the school		At the largest grade level: 2 students per device
			(Recommended for schools with one, two, or three tested grades)
	Performance-Based Assessment	End Of Year Assessment	Performance-Based Assessment
Students per device for all tested grades	#DIV/0!	#DIV/0!	#DIV/0!
Estimated Devices Needed for This Model			0

Devices

Reported Available	0	0	0
Additional Devices Needed to Meet Target Ratio			0
Maximum Estimated Need (Administered Online): Bandwidth per Test Block at Target Device Capacity (in kbps)	0	0	0
Minimum Estimated Need (Administered with Caching): Bandwidth per Test Block at Target Device Capacity (in kbps)	0	0	0
Current Availability: Bandwidth per Test Block (in kpbs)	0	0	0
Additional Bandwidth Needed to Meet Target Device Capacity **(Administered Online)**	0	0	0

Bandwidth

Additional Bandwidth Needed to Meet Target Device Capacity (Administered Using Caching)	0	0	0
Assessment Administration Days — Days Required by this model	#DIV/0!	#DIV/0!	#DIV/0!
Reported Available	0	0	0
Capacity Gap in Days	#DIV/0!	#DIV/0!	#DIV/0!

ADMINISTRATION DAY MODELS

Calculations are based on the school population and the assessment design, using an estimate of 2 testing blocks per day.

		20 Days	20 Days	15 Days
		Performance-Based Assessment	End Of Year Assessment	Performance-Based Assessment
Devices	Minimum number of devices need to support the target number of administration days	0	0	0
	Reported Available	0	0	0
	Additional devices needed to meet the target number of administration days	0	0	0
Bandwidth	**Maximum Estimated Need (Administered Online):** Bandwidth per Test Block at Target Device Capacity (in kbps)	0	0	0

Minimum Estimated Need (Administered with Caching): Bandwidth per Test Block at Target Device Capacity (in kbps)	0	0	0
Current Availability: Bandwidth per Test Block (in kpbs)	0	0	0
Additional Bandwidth Needed to Meet Target Device Capacity **(Administered Online)**	0	0	0
Additional Bandwidth Needed to Meet Target Device Capacity **(Administered Using Caching)**	0	0	0

DEVICE TO STUDENT RATIO MODELS

PARCC RULE OF THUMB:

At the largest grade level: 2 students per device	At the largest grade level: 1 student per device		1 Student per device for all tested students		
(Recommended for schools with one, two, or three tested grades)	(Recommended for schools with more than three tested grade levels)				
End Of Year Assessment	Performance-Based Assessment	End Of Year Assessment	Performance-Based Assessment	End Of Year Assessment	
#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	Students per device for all tested grades
0	0	0	0	0	Estimated Devices Needed for This Model

0	0	0	0	0	Reported Available
0	0	0	0	0	Additional Devices Needed to Meet Target Ratio
0	0	0	0	0	**Maximum Estimated Need (Administered Online):** Bandwidth per Test Block at Target Device Capacity (in kbps)
0	0	0	0	0	**Minimum Estimated Need (Administered with Caching):** Bandwidth per Test Block at Target Device Capacity (in kbps)
0	0	0	0	0	Current Availability: Bandwidth per Test Block (in kpbs)
0	0	0	0	0	Additional Bandwidth Needed to Meet Target Device Capacity **(Administered Online)**

0	0	0	0	0	Additional Bandwidth Needed to Meet Target Device Capacity **(Administered Using Caching)**
#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	Days Required by this model
0	0	0	0	0	Reported Available
#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	Capacity Gap in Days

ADMINISTRATION DAY MODELS

15 Days	10 Days	10 Days	5 Days	5 Days	
End Of Year Assessment	Performance-Based Assessment	End Of Year Assessment	Performance-Based Assessment	End Of Year Assessment	
0	0	0	0	0	Minimum number of devices need to support the target number of administration days
0	0	0	0	0	Reported Available
0	0	0	0	0	Additional devices needed to meet the target number of administration days
0	0	0	0	0	**Maximum Estimated Need (Administered Online):** Bandwidth per Test Block at Target Device Capacity (in kbps)

0	0	0	0	0	**Minimum Estimated Need (Administered with Caching):** Bandwidth per Test Block at Target Device Capacity (in kbps)
0	0	0	0	0	Current Availability: Bandwidth per Test Block (in kpbs)
0	0	0	0	0	Additional Bandwidth Needed to Meet Target Device Capacity **(Administered Online)**
0	0	0	0	0	Additional Bandwidth Needed to Meet Target Device Capacity **(Administered Using Caching)**