

PARCC Consortium Analysis Planning for Spring, 2018-2019 Analyses

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Background

Since its beginning in 2014-2015, the PARCC consortium had changing state membership from one year to the next. From the beginning of SGP analyses in 2015-2016, both state level and consortium level growth norms have been calculated for all students with suitable data for growth analyses (Betebenner, 2009). With the 2018-2019 administration of PARCC, there will be for the first time two versions of PARCC administered: An abbreviated form (ABO) and a traditional form (Flagship). States/organizations taking these versions of the test are as follows:

ABO Illinois, New Jersey, New Mexico, BIA

Flagship District of Columbia, Maryland, DoDEA

Student growth percentile (SGP) analyses have been conducted in two way with PARCC data:

State level analyses The state's students are used to create the growth norm group. These results are often referred to as state-level SGPs.

Consortium level analyses The entire PARCC consortium's students are used to create the growth norm group. These results are often referred to as consortium-level SGPs.

SGP growth norms presume that students are taking the *same* test at the *same* time. With students in different states in the consortium receiving two test versions, consortium-level SGPs *may* be impacted. A similar issue occurred previously in PARCC when students took either a paper-and-pencil version of the test or an online version of the test. In that case, dual modes of administration occurred within almost all PARCC states.

Because consortium level SGPs will be reported and there are unknowns as to which states (and tests) will form the consortium, the Center for Assessment has established the following work flow to determine and advise in real-time to Pearson and PARCC member states for which states consortium SGPs will be calculated.

Analysis Workflow

There are several approaches possible in the construction of consortium norms for PARCC in 2018-2019. As the following options show, there are up to a maximum of 3 distinct consortium growth norms (and SGPs) that can be calculated. Barring unforeseen circumstances, the *mini-consortium*

norms can definitely be calculated. However, calculation of consortium norms and SGPs for all the PARCC member states is contingent on a demonstration of ABO-Flagship form comparability. The District of Columbia has already expressed a desire for consortium level SGPs, and the BIA has previously relied exclusively on consortium level SGPs. This year will be the first year in which the DoDEA will have adequate data for SGP calculation and may require consortium level SGPs as well.

- Calculation of *mini-consortium* norms and SGPs for ABO and/or Flagship separately.
- Calculation of *consortium* norms and SGPs (assuming ABO-Flagship comparability, see below).

ABO-Flagship Form Comparability

We assume that Pearson is conducting due diligence so that the ABO and Flagship forms return comparable results on the reported scale. By their very nature, SGPs can also be used to investigate comparability. To do so, we examine whether SGP results change dramatically from year-to-year for states. Were a particular version of the test harder/easier than another version, then when conditioning on prior achievement (where all students are taking the same version of the PARCC assessment) we would notice lower/higher SGPs for that state or group than we had observed previously. For example, were a state previously to have a 2016-2017 mean SGP (consortium SGP) of 55 in ELA for grade 4, we would expect lower/higher mean SGPs for that group of students were they administered a harder/easier exam in 2018-2019.

Because the state participants in PARCC have changed over the past years, to avoid confounding changes in consortium membership with changes due to versions of the test, we create consortium SGPs using only the current PARCC membership for 2016-2017 and 2017-2018.¹ Summary level results by year, grade, content-area, and demographic subgroups will be examined to see whether results from 2018-2019 differ dramatically from those seen in 2016-2017 and 2017-2018.

As soon as SGP analyses are finished with data provided by Pearson (mid June and on a rolling basis as data arrives), summary tables will be immediately constructed and shared with Pearson and PARCC member states to discuss the results what course of action in terms of consortium SGP calculations best satisfies members' requirements and makes sense technically. We have not specified thresholds for what constitutes a *dramatic* difference is but want to view it against the two years of baseline data for the state to see whether calculations from 2018-2019 are (or are not) outliers.

Next Step Decisions

There are no issues currently preventing the calculation of state level SGPs. However, as outlined above, there are potential issues related to the calculation of consortium level SGPs. The Center for Assessment is preparing for any contingency so that growth data is returned as quickly as has been returned in the past. To do so, the Center will create consortium level growth norms in three ways:

- We will create consortium growth norms using all states. We will use results from these calculations to test for the validity of these consortium norms by comparing the results for states with previous years. One possibility is that these norms will yield *invalid* data and will not be recommended for use.
- We will create ABO growth norms for all states taking this version of the test. Because BIA is taking the ABO version of the test, these norms will be used to create SGPs for the BIA if calculating the entire consortium norms prove to be untenable.

¹Illinois, New Jersey, New Mexico, BIA, District of Columbia, Maryland, DoDEA.

- We will create Flagship growth norms for all states taking this version of the test. Because DC is taking the Flagship version of the test, these norms will be used to create SGPs for DC if calculating the entire consortium norms prove to be untenable.

For Spring 2019 SGP analyses there will be three different consortium SGPs calculated. Because current data formats provided to Pearson allow just a single consortium SGP to be provided, we would like to clarify what consortium SGPs will be provided based upon some as yet to be known circumstances.

- If initial analyses show consortium level SGPs based upon the entire consortium to be valid, then the consortium level SGPs will be these.
- If initial analyses show consortium level SGPs based upon the entire consortium to be *not* valid, then it will be necessary to use the ABO and Flagship consortium level SGPs in place of those previously based upon the entire consortium.

One consideration would be to let the state choose which type of consortium SGP they would like. Our preference would be to *not* do that and to instead follow the two conditions just stated.

References

Betebenner, D. W. (2009). Norm- and criterion-referenced student growth. *Educational Measurement: Issues and Practice*, 28(4), 42–51.