



Index No.: EDU044  
Contract No.: CSP903214  
Eff. Date: 06/27/14

STATE OF OHIO  
DEPARTMENT OF ADMINISTRATIVE SERVICES  
GENERAL SERVICES DIVISION  
OFFICE OF PROCUREMENT SERVICES  
4200 SURFACE ROAD, COLUMBUS, OH 43228-1395

AMENDMENT FOR CHANGE  
AMENDMENT NO. 3

TO: OHIO DEPARTMENT OF EDUCATION  
FROM: ROBERT BLAIR, DIRECTOR, DEPARTMENT OF ADMINISTRATIVE SERVICES  
SUBJECT: CONTRACT FOR VALUE-ADDED ANALYSIS AND REPORTING

Attached are pages 2 through 6 to this contract. Remove these pages from the existing contract and replace with the attached pages on the effective and/or revision date.

This amendment is issued to add the Dropout Recovery Measure and to re-paginate the document.

All other prices, terms and conditions remain unchanged.

Questions regarding this Amendment and/or the Requirements Contract may be directed to:

Therese Gallego, CPPB  
therese.gallego@das.ohio.gov

This Amendment, the main Requirements Contract and any additional amendments thereto are available from the DAS Web site at the following address:

<http://www.ohio.gov/procure>

Affected Contractor(s):

94684  
SAS Institute Inc.  
100 SAS Campus Drive  
Cary, NC 27513  
richard.frederick@sas.com

## MUTUALLY AGREED-UPON REVISIONS

The Ohio Department of Education (ODE) requested an amendment to this contract to address specific needs that have developed since the implementation of the original contract: primarily the Auditor of State investigation into several school districts regarding data reporting issues in the 2011 school year. To address these needs, two additional deliverables are added to the contract.

### 1. Auditor's Findings Data Update.

#### Introduction

ODE shall update data based on information from the Auditor of State Findings. This data will include student level attribution to their accountable schools and districts for state level OAA testing. ODE will submit these student level updates for school years for 2010-2011 and later 2011-2012. Up to four revisions will be conducted by the Contractor due to ODE having this information at different times. Multiple districts will have schools included in the student level updates. Final web updates will occur with the 2014 regular update. Below are the details that have been discussed between SAS and ODE.

#### Details

After receiving the updated data, the Contractor will re-run its statistical analysis to provide new value-added metrics for state accountability and the student level projections for federal accountability. All other data within those districts will remain unchanged. Updates will also be made for the current year 2013 value-added metrics since those do include multiyear trend that would be impacted by changing prior year data. This will only impact the overall accountability metrics using three year averages in the current year. Again, this will only impact schools that have students who have changed attribution.

Such analysis is dependent upon the State's delivery of modified data in a form mutually agreeable to the parties to adjust the existing longitudinal database. Once such data is received by Contractor, Contractor will perform the following:

- A. Contractor will use such new data to re-calculate the value-added measures for all schools and districts impacted for the year in question as well as the current year three year average measures.
- B. Contractor will also use such new data to update the projections used for federal accountability for students in schools that were impacted.
- C. Files containing the re-calculated value-added measures for state accountability will be delivered to the State in a form mutually agreeable to the parties.
- D. Files containing the re-calculated student level projections for federal accountability will be delivered to the State in a form mutually agreeable to the parties.

### \*2. Dropout Recovery Measure:

#### Introduction

The State Board of Education recently approved a statutorily required new measure for Dropout Recovery Community School Report Cards. This measure is part of the larger Report Card system that this contract supports. This new measure would have been part of the original RFP, but had a different implementation timeline. This new measure is specifically based on the deliverables that Contractor is currently providing.

Growth measures are required for dropout recovery programs. Currently, there are approximately 85 schools in such programs with at least 15,000 total students. Given the unique nature of student enrollment, student grade and student testing, it is preferable to customize the value-added modeling and data inputs for a more meaningful growth measure. The final proposal would align to the expectations and needs of ODE.

#### Details

According to ODE preferences, the value-added model for dropout recovery programs would consider the growth students make at a particular program in context to the other dropout recovery programs. The following options are designed with that feature in mind.

#### A. Option 1.

The model would use spring test scores of a norm-referenced test in a univariate response model (URM), similar to the OAA science model currently used in non-dropout recovery schools in the state. With this option, growth is measured through a regression-based approach, which compares students' predicted score with their observed score. A student's predicted score is obtained by looking at all prior testing history across all subjects with the OAA, as well as all students with similar prior achievement, and estimating how that group of students scored, on average, on that test.

Expected growth means that students with a school or teacher made the same amount of progress as students with the average program in the reference population for that same year/subject. The reference population is comprised of the dropout recovery programs.

\*Indicates change 06/27/14.

The growth measure is a function of the difference between the predicted and observed scores for a group of students with the program. The growth measure represents how many scale score points a program's students scored above or below how they were expected to score, given their prior testing history. A growth index is then calculated by dividing the growth measure by its standard error in order to determine the significance of the growth measure. Similar to other schools in Ohio, the growth index can be placed into one of five "effectiveness" categories for context and educational significance.

B. Option 2.

This model would require two testing windows during the year such that students test when they start the program and again when they end the program or in the spring. This model would be similar to the multivariate response model (MRM) currently used for OAA math and reading in non-dropout recovery schools in the state. With this option, growth is measured through a gain-based approach using the two test scores within a given year.

The growth measure is the estimated change in achievement for a group of students with a program relative to the distribution of test takers for that subject. If a national test is used with vertical scales, then a positive change could indicate growth depending on the uncertainty around that estimate. This indicates whether students make any growth at all relative to the fixed vertical scale of growth.

To determine whether students made significant progress or significantly declined, a growth index is then calculated by dividing the growth measure by its standard error. In addition programs could be categorized according to the magnitude of their growth to identify the programs making the most growth, least growth, etc.

The transient nature of the student populations in the dropout recovery program should be considered within the context of this option, as it would complicate the gain calculation.

C. Option 3.

This model is very similar to the option listed above, with the distinction of using a normed expectation of growth. This model would define a test-based expectation of growth and compare students' performance against that expectation. Rather than an expectation that students make *any* growth at all, the expectation is defined by students making *enough* growth to meet the normed expectation based on the testing norms for the given national assessment. This option would require accurate grade information, as norms are based on each grade.

Again, using this approach, indices could be calculated to categorize schools relative to this expectation. In addition, schools could be separated based on the magnitude of growth they show.

D. Option 4 (stand-alone or add-on to above options)

Using all prior and current testing data for each student, this option would provide a student-level projection for individual students. The projection would provide a probability of success towards an important benchmark, such as proficiency on the OGT. The projections would be delivered through the existing EVAAS web application, and access would be customized by user.

The student-level projections would serve as a more reliable metric of students' entering achievement so that educators can target their instruction more effectively.

Testing Considerations

The precise testing requirements depend on the data available for students and the type of test. In short, key considerations would include the following:

If students do not have an enrolled grade, then a computer-adaptive test is preferred.

If students are compared to an expected amount of normed growth (see Option 3), then a norm is required.

MUTUALLY AGREED-UPON CLARIFICATION TO TERMS AND CONDITIONS

5.3.3 Ownership of Deliverables

Contractor shall use SAS software products ("Software") to provide EVAAS analyses and reporting, including but not limited to any web reporting and any specialized or customized report formats or data analyses, showing analyses of student achievement data for potential summative and formative use from test data ("Reports"). Contractor hereby grants the State a limited, nontransferable, nonexclusive, royalty-free license to (i) use any website established and maintained by Contractor, (ii) receive the benefits of the Software, via the Reports, used by Contractor to produce the Reports, and (iii) use any Reports delivered to the State pursuant to the Contract. The Reports, Contractor's time, and the licenses granted herein shall be the sole deliverables provided to the State hereunder. Nothing herein grants the State a license to access or use the Software.

\*Indicates change 06/27/14.

Contractor shall retain exclusive ownership of the Software, any web site established by Contractor to deliver any Reports to the State, and the Reports, including any intellectual property rights embodied therein. The license granted with respect to any website established and maintained by Contractor shall terminate upon expiration of this Contract. The licenses granted by Contractor in connection with the right to receive the benefit of the Software, via the Reports, and the use of any Reports, are perpetual. Contractor retains ownership of all tools, methods, techniques, standards, and other development procedures, as well as generic and preexisting shells, subroutines, and similar material incorporated in any Deliverable.

\*Indicates change 06/27/14.

Value-Added Analysis and Reporting  
 CSP903214  
 UNSPSC CATEGORY CODE: 86000000  
 OAKS ITEM NUMBER: 25153

Deliverable	FY2014 07/01/13-6/30/14 Cost	FY2015 07/01/14-6/30/15 Cost	FY2016 07/01/15-6/30/16 Cost	FY2017 07/01/16-6/30/17 Cost
1. Accountability System Value-Added and Student Reports. 1A: Development Plan, Statistical Documentation, and Technical Report 1B: Scale stabilization, analytics, web reporting 1C: Diagnostic analytics and web reporting  Export Functionality on the Web Included  Cost per Student	<i>(Deliverable 1 costs not to exceed statutorily defined \$2.00 per student cost in FY 2014)</i>  \$2.00 for quantities less than 862,000; \$1.85 for quantities over 862,000.	<i>(Deliverable 1 costs not to exceed statutorily defined \$2.00 per student cost in FY 2015)</i>  \$2.00 for quantities less than 862,000; \$1.85 for quantities over 862,000.	<i>(Deliverable 1 costs not to exceed statutorily defined \$2.00 per student cost in FY 2016)</i>  \$2.00 for quantities less than 862,000; \$1.85 for quantities over 862,000.	<i>(Deliverable 1 costs not to exceed statutorily defined \$2.00 per student cost in FY 2017)</i>  \$2.00 for quantities less than 862,000; \$1.85 for quantities over 862,000.
Evaluation quantity	797,000	1,337,000	1,337,000	1,337,000
<b>Total</b> (Evaluation quantity x cost)	\$1,594,000.00	\$2,473,450.00	\$2,473,450.00	\$2,473,450.00
2. Research and Development (R&D) Per Diem Cost	\$1,875.00 (R&D per diem)			
3. Demonstration Site	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00
4. Teacher Reports	<i>(Not to exceed \$564,432 in FY 2014)</i> \$ 564,432.00	\$ 1,042,860.00	\$1,042,860.00	\$1,042,860.00
Deliverable	FY2014 07/01/13-6/30/14 Cost	FY2015 07/01/14-6/30/15 Cost	FY2016 07/01/15-6/30/16 Cost	FY2017 07/01/16-6/30/17 Cost
5. Auditor's Findings Data Update	Up to four data updates with a maximum total of \$200,000		\$ 0.00	\$ 0.00
*6. Dropout Recovery Measure		\$ 50,000.00	\$ 50,000.00	\$ 50,000.00
<b>*Total</b>	\$2,218,432.00 plus R&D and Auditor's Findings Data Update	\$3,576,310.00 plus R&D and Auditor's Findings Data Update	\$3,576,310.00 plus R&D	\$3,576,310.00 plus R&D

CONTRACTOR INDEX

CONTRACTOR AND TERMS:

94684  
 SAS Institute Inc.  
 100 SAS Campus Drive  
 Cary, NC 27513

BID CONTRACT NO.: CSP903214-1 (12/31/15)

TERMS: Net 30

CONTRACTOR'S CONTACT:

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\*Indicates change 06/27/14.

SUMMARY OF AMENDMENTS

Amendment Number	Effective Date	Description
3	06/27/14	To add the Dropout Recovery Measure and re-paginate the document.
2	03/28/14	To clarify details for the Auditor's Findings Update.
1	03/18/14	To modify deliverables in response to the Auditor of State Report; to repaginate and, to add Summary of Amendments page.