

# Quarterly Performance Review of the Arizona Education Learning and Accountability System: AELAS

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Submitted to the Arizona Department of Education  
by WestEd and CELT

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## OVERVIEW

This report documents a quarterly performance review of the Arizona Education Learning and Accountability System (AELAS) by an independent evaluator as required by *Arizona Revised Statutes* (A.R.S.) 15-249 that was conducted March 30 and 31, 2016. WestEd, the prime contractor, and the Center for Educational Leadership and Technology (CELТ), the subcontractor, were hired by the Arizona Department of Education (ADE) to serve as that independent evaluator. This quarterly monitoring report is a follow-up to the initial performance review conducted in 2013, with a report submitted on September 9, 2013. This report follows all previous quarterly monitoring reports, updating commendations and recommendations.

The main findings from this monitoring visit include:

1. **The Menu of Assessments:** House Bill 2544 requires that the Arizona State Board of Education adopt a menu of assessments from which districts may select to meet their summative assessment state reporting requirements. This means that AELAS will have to bring in all of these various sets of test results, cut scores, etc. and modify the accountability, teacher evaluation and school grading/rating systems as well as the dashboards for presenting the data. This menu goes into effect for school year 2017-18 for high schools and 2018-19 for grades K-8. If AELAS is the system of record for reporting and displaying this data, it will be very important to allow ample time to establish and quality assure the data connections for each vendor as well as the dashboards and reports.
2. **IT Sell Bill:** An “IT sell bill” is moving forward as legislation. The bill allows state-owned intellectual property (IP) to be sold, with the proceeds split 40 percent to ADE for ongoing development and support of the IP and 60 percent going to the state’s general fund. The organization and product support structure for selling and supporting components of AELAS are as yet undetermined.
3. **Conversion to AzEDS:** Some districts are beginning to express concerns about switching to AzEDS for state reporting. The conversion to AzEDS and the expected (and more accurate) lower ADM count, together with the change to current-year funding, is seen as a risky combination for financial stability by some districts. These concerns are late in the cycle of this project and should have been communicated much earlier. Regardless, there is no option that the West Ed/CELТ reviewers see for continuing with the old SAIS legacy applications, which themselves pose a more serious support and security risk to the state and districts the longer they are supported.
4. **The ADE recently completed an effort to review all of the business rules in AELAS and confirm them against legislation. It was determined that there were no substantive changes that remain to be made. The major variances that remain between the two data streams are in the interpretation between how SAIS and AzEDS handles the rules. For example, absences were not specific in SAIS (could be part or full day) whereas AzEDS is very specific in the treatment of absences (tracked by minutes). The treatment of the rules by AzEDS is more accurate and is affecting funding with a more accurate and may result in lower ADM count. The delta between ADM as calculated through SAIS and through**

AzEDS has narrowed to the point that it is believed to be as close as it can get, given the more accurate treatment of the data by AzEDS. Consequently, the ADE team has discontinued efforts to close this gap further.

5. ADE continues to address the data issues coming into AzEDS for the districts as they convert from SAIS. The types of data errors are evolving to be primarily single students or small groups of students. The help desk and tier 2 and 3 support for addressing the data issues have improved.
6. As of the March visit, ADE was processing 400 of 700+ districts through the AELAS APIs, and were migrating 65-75 districts per week. Approximately 50% of the students were being submitted through AzEDS at the end of March. Some of the SIS vendors lack sufficient tools to help districts correct data errors on their end. Additionally, at least one vendor has no students loaded through AzEDS yet, but represents up to 25% of the total number of students in the state. ADE set up a user acceptance test (UAT) environment to fully mirror production so larger districts can see the full impact of the switch to the AzEDS data stream. Support from the State Superintendent has been very good, with a letter issued in March explaining the requirement that districts convert to AzEDS by June 30, 2016 or risk lapses in funding.
7. Legacy Apps: Conversion to OEMS is complete and there were reported to be no residual risks for this project. The Enterprise system must be kept alive (e.g., fed through OEMS real time) until ADE can convert all of the SAIS legacy systems to the API structure. The APIs are developed but not yet implemented in the legacy apps. This work will require business process and data analysts to support the process changes needed for converting the legacy apps.
8. Opt-In SIS: ADE has transitioned 13 of 47 statewide SIS districts to the AzEDS data submittal stream. ADE engaged the statewide SIS vendor, to better prepare them in their support for districts in this conversion. ADE has hired 2 people for outreach to build the pipeline for the statewide SIS, but there has been less interest this year, leading to the team not meeting their targets.
9. Supplemental services – districts purchase these through ADE for Edupoint to provide. LEAs have not been rendered services within the time of their contract. Extra time and effort is spent tracking down supplemental services such as training, integrations, etc. and calling to seek why these services are not rendered. While the reasons vary (not enough time to implement the service, turnover in staff and administration), it is imperative that ADE and Edupoint work together to provide the services LEAs have purchased. To that end, ADE may need to explore contract modification language to alter payment arrangements for these supplemental services.
10. Data Governance: The processes and internal controls for the approval and review of ADE staff access to databases and sources appear to be owned in IT, placing IT fully responsible for data quality and data access. The department should engage data stewards and owners in the approval and review of ADE staff's access to databases and sources.

11. Strategic Planning: A successful election on Prop 123 will divert over \$3.2 billion over 10 years to schools. Given this, together with the changes required for ESSA and the availability of AELAS as an excellent foundation upon which to support an education reform agenda, the ADE should consider developing a comprehensive and forward visioning strategic plan for education.
12. Current-year Funding: Current-year funding will go into effect in fiscal year 2017. The work to make this switch is on schedule. There is little concern for the AELAS technical components, however there is some concern with the business processes and legacy budget code.

## COMMENDATIONS

Commendations pertain to activities that ADE is doing especially well and are highlighted as examples of superlative performance. The WestEd/CELT team has noted the following commendations from observations during the March 2016 site visit:

1. The ADE has made significant progress on the dual option approach despite resource constraints and limited access to the business owners for rules and requirements definitions. The dual process has enabled ADE to identify key discrepancies between the old and the new systems, allowing for increased accuracy of reporting. The discrepancies between the old and new systems have decreased to an acceptable level. The delta between ADM as calculated through SAIS and through AzEDS has narrowed to the point that it is believed to be as close as it can get, given the more accurate treatment of the data by AzEDS. Consequently, the ADE team has discontinued efforts to close this gap further. The close match of ADM counts through the legacy SAIS process and the real-time, event driven AzEDS process is a major accomplishment for the ADE IT team. They are to be commended for this accomplishment.
2. An “IT sell bill” is moving forward as legislation. This is an innovative approach to sustaining the AELAS system over time.
3. The ADE continues to engage the business partners through the Education Transformation group. This enables the business partners and IT to address current and emerging needs through collaborative decision making.
4. The ADE is expanding the use of AzEDS to include data from district-level assessment systems. This is a best practice example of providing data structures and services to districts for use in local decision making and instructional planning. Given the passage of House Bill 2544, the Menu of Assessments, accommodations will need to be made in how to deal with the diversity of data from the many different assessments. This will be a major challenge, due to the different vendors, the different sources of data, and the different reporting processes (i.e., scores that may or may not be equated and placed into a common metric).

## FINDINGS BY RECOMMENDATIONS

The initial recommendations (11 total) from the first site visits have served as a baseline from which the WestEd/CELT team has been working for all subsequent site visits. Additional findings and recommendations have been added relative to the initial findings. Below is a synthesis of the team’s findings and recommendations from the March 2106 visit.

1. **Stay the course as envisioned in the AELAS business case.**

<u><i>Findings</i></u>	<u><i>Recommendations</i></u>
<p><b>Transition to AzEDS Data Stream</b></p> <p>The dual system approach (old SAIS and new AzEDS) is in production and the API data submission process for AzEDS has been turned on for approximately 50 percent of the student population in the state. As expected, there are differences between the two data streams for ADM (with AzEDS ADM calculations generally lower). The delta in the ADM for the two data streams is within expected levels however. It has been anticipated throughout the AzEDS project that the more accurate and timely AzEDS data stream would produce more accurate (and possibly lower) ADM counts. The deltas are due to more accurate data (for example: elimination of duplicate students), more timely data (for example: student adds/deletes occur in real time instead of at a future reporting period) and corrections to the business rules. While the lower ADM count may place a financial burden on some districts for the transition period, overall this should be construed as a <u>VERY</u> positive outcome of the AzEDS project. The state of Arizona now has a method for more accurately and fairly determining funding allocations to districts, which will better enable education funds to flow to districts as intended by legislation.</p>	<p>Continue conversion to the AzEDS data stream for the remaining districts.</p>
<p>Some districts are beginning to express concerns for switching to AzEDS for state reporting. The conversion to AzEDS and the expected (and more accurate) lower ADM count, together with the change to current-year</p>	<p>Establish a high-level team of ADE staff (non IT) to meet individually or in small groups with concerned district leaders/superintendents to hear their concerns and explain the cutover process and support that is available from</p>

<u><i>Findings</i></u>	<u><i>Recommendations</i></u>
<p>funding, is seen as a risky combination for financial stability by some districts.</p>	<p>ADE.</p>
<p>During the state legislative session in 2015, the Legislature approved moving district schools from prior year funding to current-year funding starting in fiscal year 2017. The change request was approved by ADOA in December 2015. This was a major change in ADE work-scope for the rest of FY 16 and for FY 17. This requires changes to existing legacy APOR reports (APOR was previously planned to be re-written in FY16), as well as modifications to CSF and IIF reports. Additionally a Web application will be developed to supply FY17 budget worksheets to LEAs. The FY16 planned rewrite of APOR, CHAR and Budget will be moved to FY17, as will the continuation of other impacted development activities (i.e., ACE 2.0). All of this required reallocation of existing resources as well as additional resources for School Finance and Customer Support to develop the business rules, conduct testing and develop and deliver training, communications and support to LEAs.</p> <p>The work to make this switch in 2017 is on schedule. There is little concern for the AELAS technical components; however, there is some concern with the business processes and legacy budget code.</p> <p>It is important to note, however, that the switch to current-year funding is a source of consternation to school district leadership, and the timing to occur concurrent with the AzEDS transition magnifies the local concerns to a degree that brings risk to both efforts.</p>	<p>Request that the finance department conduct dry-run tests of their procedures and legacy applications in a current-year scenario, and report the results to executive leadership. It is incumbent on School Finance to work with ADE IT to ensure that these changes are properly managed and communicated and that the SAIS replacement efforts stay on target for FY18.</p>
<p><b>SSIS Opt-In Project:</b></p> <p>ADE has transitioned 13 of 47 statewide SIS districts to the AzEDS data submittal stream. ADE engaged the statewide SIS vendor, to better prepare them in their support for districts in this conversion.</p>	<p>Over time, consider the pros/cons of a second statewide SIS vendor, to promote competition and options for districts.</p>

<u><i>Findings</i></u>	<u><i>Recommendations</i></u>
<p>The current SIS opt-in pipeline has fewer planned implementations than desired, although the target of 110,000 students is still achievable. ADE has hired 2 people for outreach to build the pipeline for the statewide SIS, but there has been less interest this year, leading to the team not meeting their targets.</p>	<p>Have sales team conduct focus groups with the district holdouts to determine what would make them come onboard. Engage an advisory panel of opt-in district reps to monitor progress and recommend changes to services, vendor contract, marketing, etc. with a mind toward bringing in more districts.</p> <p><i>Recommendations from last report:</i> Explore legality of pursuing a marketing campaign to build the pipeline, with promotions, incentives and “sales calls” in the same manner that private-sector SIS vendors conduct their marketing campaigns.</p> <p>Establish an oversight board for the SIS opt-in “cost center” that includes district representatives. This board can review the services, pricing and marketing strategies for the SIS opt-in.</p>
<p>LEAs have not been rendered services within the time of their contract. Extra time and effort is spent tracking down supplemental services such as training, integrations, etc. and calling to seek why these services are not rendered. While the reasons vary (not enough time to implement the service, turnover in staff and administration), it is imperative that ADE and Edupoint work together to provide the services LEAs have purchased. To that end, ADE may need to explore contract modification language to alter payment arrangements for these supplemental services.</p>	<p>Withhold payment to the vendor until the service is rendered and there is customer signoff.</p>

**2. Utilize business architecture concepts, aligning department strategic plans to and across program area plans and associated execution activities and methodologies.**

<u><i>Findings</i></u>	<u><i>Recommendations</i></u>
<p>A successful election on Prop 123 will divert over \$3.2 billion over 10 years to schools. Given this, together with the changes required for ESSA and the availability of AELAS as an excellent foundation upon which to support an education reform agenda, the ADE should</p>	<p>Begin planning for a state education strategic planning process. Issue an RFP to secure a consulting firm to facilitate the process and bring to the engagement subject-matter expertise in the emerging trends in education around personalized learning and competency-</p>

<u><i>Findings</i></u>	<u><i>Recommendations</i></u>
consider developing a comprehensive and forward visioning strategic plan for education.	based progression.
<p>House Bill 2544 requires that the Arizona State Board of Education to adopt a menu of assessments from which districts may select tests to meet their summative assessment state reporting requirements. This means that AELAS will have to bring in all of these various sets of test results, cut scores, etc. and modify the accountability, teacher evaluation, and school grading/rating systems as well as the dashboards for presenting the data . This menu goes into effect for school year 2017-18 for HS and 2018-19 for K-8. If AELAS is the system of record for reporting and displaying this data, it will be very important to allow ample time to establish and validate/certify the processes for the data connections for each vendor and test the dashboards.</p> <p>This menu of assessments have both data and psychometric implications. It is essential for ADE to consider the equating and alignment processes that will be used as the testing metric underlies the teacher evaluation and school grading processes.</p>	<p>The current data exchange with the state’s assessment vendor is a custom interface, which places much of the responsibility for the quality and accuracy of the interface on ADE. Consider adopting the Ed-Fi standard XML for these data interchanges and placing the burden of conforming and quality assuring to these standards on the assessment vendors. Additionally, some of the menu options may include a more formative assessment, and results will be wanted immediately to inform instruction. An Ed-Fi API structure will be very helpful in this scenario.</p> <p>Bring in an independent psychometrician to provide advice about the implications of the menu of assessments.</p>

**3. Directly address the budgetary issues that pertain to AELAS, SAIS, and the SLDS that include detailed work plans, deliverables, and timelines.**

<u><i>Findings</i></u>	<u><i>Recommendations</i></u>
There is a full ask in the 2016-17 budget for development and maintenance (\$10 or 11 million) for AELAS.	Continue to brief legislators and JLBC about the potential consequences of decreased or lost funding. Help them to understand the importance of AzEDS in identifying the data discrepancies, verifying that the investment in the system heretofore has been sound.

4. **Improve and continue to develop a communication plan to diverse stakeholders.**

<b><u>Findings</u></b>	<b><u>Recommendations</u></b>
<p>Repeated from above:</p> <p>Some districts are beginning to express concerns for switching to AZEDS for state reporting. The switch to AZEDS and the expected (and more accurate) lower ADM count, together with the change to current-year funding, is seen as a risky combination for financial stability by some districts.</p>	<p>Repeated from above:</p> <p>Establish a high-level team of ADE staff (non IT) to meet individually or in small groups with concerned district leaders/superintendents to hear their concerns and explain the cutover process and support that is available from ADE.</p>

5. **Creation of a data governance process.**

<b><u>Findings</u></b>	<b><u>Recommendations</u></b>
<p>The processes and internal controls for the approval and review of ADE staff access to databases and sources appear to be owned in IT, placing IT fully responsible for data quality and data access.</p>	<p>Engage data stewards and owners in the approval and review of ADE staff access to databases and sources. Shift the responsibility for this review and approval out of IT to the assigned data stewards.</p>

6. **Reduce the redundancy among data collections.**

<b><u>Findings</u></b>	<b><u>Recommendations</u></b>
<p>The data governance process has implemented the procedures required to properly review proposals for new data collections. They are working on an annual calendar that defines the timeframes for identifying and communicating new data collections.</p>	<p>Ensure that the enhanced process to review new collections is not lost with the changes being implemented to the approval process.</p>

7. **Creation of a non-profit organizing structure.**

<b><u>Findings</u></b>	<b><u>Recommendations</u></b>
<p>There is renewed interest in this recommendation at ADE and at the Legislature, especially as funding for AELAS support and further development is in question.</p>	<p>There is much to be learned from technology product vendors regarding the best practices and lessons learned around product marketing, pricing, sales, implementation support and</p>

<u><i>Findings</i></u>	<u><i>Recommendations</i></u>
<p>An “IT sell bill” is moving forward as legislation. The bill allows state-owned intellectual property (IP) to be sold, with the proceeds split 40% to ADE for ongoing development and support of the IP and 60% going to the state’s general fund. The organization and product support structure for selling and supporting components of AELAS are as yet undetermined.</p>	<p>ongoing help desk and release management. We recommend researching these areas to understand the nuances of “product” versus “services” organizations as a pre-cursor to establishing the support structure for IP sales to other states.</p>

**8. Improvement of human capacity around the use of data (e.g., data literacy).**

<u><i>Findings</i></u>	<u><i>Recommendations</i></u>
<p>Although this topic falls outside the current scope of monitoring, ADE is making progress in this area. ADE has developed a rubric of data literacy skills and is working with schools of education to integrate data literacy with the preparation of teachers and administrators. This is an exemplar for other states as few states have their leading universities including courses on data use. Both the University of Arizona and Arizona State University are tackling this challenging topic.</p> <p>There are efforts within ADE to improve the capacity of program staff to understand simple statistics and measurement topics to help them understand data better. Podcasts have been developed.</p>	<p>Continue the effort to build data literacy within ADE, the LEAs, and teacher preparation programs.</p> <p>Recognize that data literacy is role-based, particularly within LEAs. Everyone who touches data needs to have at least a basic understanding of responsible data use, data security, data quality, and their role in the process. This includes staff from the school data clerks to the superintendents.</p> <p>The human capacity issue is even more salient with the introduction of the Menu of Assessments that will introduce a plethora of student achievement data into the landscape. Educators must understand the implications of how these data will be used and interpreted.</p>

**9. Attend closely to the needs of the most rural districts.**

<u><i>Findings</i></u>	<u><i>Recommendations</i></u>
<p>A state-wide initiative is being pursued to</p>	<p>Continue this effort to close the gap in</p>

<u><i>Findings</i></u>	<u><i>Recommendations</i></u>
address the limited bandwidth issues among many districts in Arizona. This will be especially beneficial to the more rural districts.	technology for the more rural districts in Arizona.

**10. Development of a comprehensive long-term plan and continued outreach to stakeholders in the form of periodic needs analyses as a process by which to monitor changing needs of the stakeholder groups.**

<u><i>Findings</i></u>	<u><i>Recommendations</i></u>
<p>Leading states and school districts across the nation are pursuing such 21<sup>st</sup> Century initiatives as blended learning, personalized learning and digital learning. Blended learning environments are taking hold in pockets of schools across the state and there are significant technologies to support such efforts. AELAS can and should be a part of such technology-enhanced learning environments to further such a strategic vision for education in Arizona.</p> <p>A successful election on Prop 123 will divert over \$3.2 billion over 10 years to schools. Given this, together with the changes required for ESSA and the availability of AELAS as an excellent foundation upon which to support an education reform agenda, the ADE should consider developing a comprehensive and forward visioning strategic plan for education.</p>	<p>Convene a high-level group of knowledgeable stakeholders and prominent business people to advise ADE in developing and implementing a sustainability plan. This group could be led by someone like Craig Barrett and call upon the current equivalent of the Arizona Ready Education Council, which provided initial input and support.</p> <p>Continue briefing policymakers and legislators about the progress being made and the fact that AzEDS functions to identify discrepancies that SAIS has been unable to determine.</p> <p>Begin planning for a state education strategic planning process. Issue an RFP to secure a consulting firm to facilitate the process and bring to the engagement subject-matter expertise in the emerging trends in education around personalized learning and competency-based progression.</p>

**11. Engage program areas and policymakers in supporting the work of AELAS.**

<u><i>Findings</i></u>	<u><i>Recommendations</i></u>
The associate superintendents and other high-level administrators are now engaged in working with IT to ensure that the technologies meet their needs and incorporate appropriate data.	Continue to educate the associate superintendents and other relevant high-level staff about the processes and timelines involved in working with AzEDS, including the implications of adding new data elements and

<i><b>Findings</b></i>	<i><b>Recommendations</b></i>
The work of the Education Transformation group facilitates this work.	the expected timeframe for implementation.

**CHALLENGES**

- The most pressing challenges for the ADE from our visit appear to be:
1. Getting the remaining districts to sign on to AzEDS.
  2. Incorporating the diverse data that will result from the Menu of Assessments.
  3. The sustainability and continuity of commitment to the AELAS work across all levels of government in Arizona.
  4. Engaging data stewards and owners in the approval and review of ADE staff access to databases and sources. The data governance structure needs to be reconsidered. Progress was being made on the structure, but due to the changes to the structure, the processes have ceased to function effectively.

**CONCLUSION AND NEXT STEPS**

AELAS forms a good foundation for Arizona to begin the journey into the world of sound educational decision making, data-informed instruction, and ultimately digital learning. However, without a clear vision for such a direction and funding to build upon this foundation, the momentum gained by the AELAS effort stands to be lost. Arizona has climbed into the top tier of state education departments with regard to data collection and potential for data-informed instruction supported by state systems. This progress will be quickly lost without proper vision and support. We strongly urge ADE to work with external advisors to develop and implement a sustainability plan for the technology and a training plan to build and maintain the human capacity to use the data effectively and responsibly. We also urge ADE to begin planning for a state education strategic planning process. ADE should consider issuing an RFP to secure a consulting firm to facilitate the process and bring to the engagement subject-matter expertise in the emerging trends in education around personalized learning and competency-based progression.