

## REQUEST FOR PROPOSALS

**ITEM DESCRIPTION: District Student Data Warehouse and Dashboard Solution**

**DATE AND TIME TO BE OPENED: Wednesday, September 1, 2021 at 1:00PM**

**PRE-BID CONFERENCE (IF APPLICABLE): None**

**SUBJECT MATTER EXPERT (NAME): Steven Cartwright**

**SUBJECT MATTER EXPERT (EMAIL): steven.cartwright@providenceschools.org**

**QUESTION DEADLINE: Friday, August 13, 2021 at 4:30PM**

### Instructions

1. Bidders must submit sealed proposals in an envelope clearly labeled with the Item Description shown above on the outside of the envelope. The proposal envelope and any information relative to the proposal must be addressed to:

**Purchasing Department, Suite 206  
797 Westminister Street  
Providence, RI 02903**

2. Bidders must include **at least** one original, one copy, and a digital PDF copy on a flash drive.
3. Proposal responses must be in ink or typewritten.
4. Bidders are advised that all materials submitted to Providence Public Schools for consideration in response to this Request for Proposals shall be considered to be public records as defined in [R.I. General Law Section 38-2 et seq.](#), without exception, and may be released for public inspection. All proposals submitted become the property of Providence Public Schools.
5. Bid proposals that are not present in the Providence Public Schools Purchasing Department at the time of opening for whatever cause will be deemed to be late and will not be considered. Postmarks shall not be considered proof of timely submission.
6. Questions regarding this request for proposals must be submitted to the Subject Matter Expert via email by the question deadline listed above. Questions will be answered via addendum to be posted publicly on the Providence Schools website. Bidders are responsible for checking the website for all addenda distributed in response to questions and requests for additional information.

## **Notice to Vendors General Terms**

1. Providence Public Schools reserves the right to award the contract on the basis of the lowest responsible evaluated bid proposal.
2. In determining the lowest responsive evaluated bid proposal, cash discounts based on preferable payment terms will not be considered.
3. No proposal will be accepted if it is made in collusion with any other bidder.
4. Providence Public Schools reserves the right to award to a single vendor, to split the award between multiple vendors and to reject any and all proposals. Unless otherwise specified, Providence Public Schools reserves the right to make the award by item or items or by total as may be in its best interest.
5. As Providence Public Schools is exempt from the payment of Federal Excise Taxes and Rhode Island Sales Tax, prices quoted are not to include these taxes.
6. In case of error in the extension of prices quoted, the unit price will govern. In the event there is a discrepancy between the price written in words and written in figures, the prices written in words shall govern.
7. Awards shall be subject to the General Terms set forth herein, which terms shall be deemed accepted by the Bidder upon submission of the bid proposal, subject to the provisions of this paragraph, and shall be further deemed to be incorporated into the contract upon issuance of the award. Any proposed exceptions, modifications, or deviations from the terms, conditions, and specifications contained herein must be listed and fully explained on a separate sheet attached to the Bidder's detailed conditions and specifications and referred to separately in the Bids. Such proposed exceptions, modifications, or deviations shall be an additional variable for consideration by the Providence Public School District in addition to vendor qualifications, price, quantity, and/or scope of services. In all cases not indicated by Bidders as an exception, modification, or deviation, it is understood that the terms, conditions and specifications of the Providence Public School District shall apply. No exception, modification, or deviation shall be deemed accepted, approved, or otherwise incorporated into the contract unless expressly set forth in the award notice.
8. Proposals must meet the attached specifications. Bids may be submitted on an "equal in quality" basis. Providence Public Schools reserves the right to decide equality and determine whether bids are responsive. Bidders must indicate brand or make offered and submit detailed specifications if other than brand requested.
9. A bidder who is an out of-state corporation shall qualify or register to transact business in this State, in accordance with R.I. General Law [Section 7-1.2-1401](#) et seq. as amended)
10. Delivery dates must be shown in the bid. If no delivery dates are specified, it will be assumed that an immediate delivery from stock will be made.

11. Only one shipping charge will be applied in the event of partial deliveries for blanket or term contracts.
12. For contracts involving construction, alteration and/or repair work, the provisions of State Labor Law concerning payment of prevailing wage rates apply (See R.I. General Law [Section 37-13-1](#) et seq. as amended).
13. All proposals will be disclosed at the opening date and time listed above. After a reasonable lapse of time, tabulation of proposals may be viewed on the Providence Public School's website (<https://www.providenceschools.org/Page/4634>).
14. Awards will be made within ninety (90) days of the proposal opening. All proposal prices will be considered firm, unless qualified otherwise. Requests for price increases will not be honored.
15. No goods should be delivered and no work should be started without a Purchase Order from Providence Public Schools.
16. Prior to commencing performance under the contract, the successful bidder (the "Contractor") shall attest to compliance with provisions of R.I. General Law [Section 28-29-1](#), et seq. If exempt from compliance, the Contractor shall submit a sworn Affidavit by a corporate officer to that effect, which shall accompany the signed contract.
17. Prior to commencing performance under the contract, Contractor shall, submit a certificate of insurance, in a form and in an amount satisfactory to Providence Public Schools.
18. The Contractor will not be permitted to: assign or underlet the contract; or assign either legally or equitably any monies or any claim thereto without the previous written consent of the Director of Purchasing.
19. The Contractor shall not be paid in advance.
20. The contract shall be in effect from the date of award through **June 30, 2022** or for such other duration as may be agreed to in writing and signed by the parties, unless terminated by either party at any time, with or without cause.
21. In the event of termination by District or the Contractor prior to completion of the contract, compensation shall be prorated on the basis of hours actually worked, and the Contractor shall only be entitled to receive just and equitable compensation for any satisfactory work completed and expenses incurred up to the date of termination.
22. Failure to deliver within the time quoted or failure to meet specifications may result in default in accordance with the general specifications.
23. The Contractor must conduct a criminal background check, at the Contractor's expense, of all employees employed under the contract who interact with students, except District employees.

The Contractor shall provide a copy of the background check report(s) to the District, upon request.

24. The Contractor is not an employee of District and is not entitled to fringe benefits, pension, workers' compensation, retirement, etc. District shall not deduct Federal income taxes, FICA (Social Security), or any other taxes required to be deducted by an employer, as this is the responsibility of the Contractor.
25. The Contractor understands products produced as a result of the contract are the sole property of the District and may not be used by the Contractor without the express written permission of the District.
26. The Contractor agrees to hold District and the City of Providence harmless from any and all damages incurred by District or the City by reason of the Contractor's negligence or breach of contract, including without limitation, damages of every kind and nature, out-of-pocket costs, and legal expenses.
27. The contract may not be modified or amended in any way except by mutual agreement in writing and signed by each party. Notwithstanding the foregoing, and subject to the provision concerning exceptions, modifications, or deviations set forth in Paragraph 7 hereinabove, the General Terms shall not be modified or amended in any way by subsequent agreement. In the event of a conflict between the General Terms and any subsequent modification or amendment to the contract, the General Terms shall control.
28. The Contractor expressly submits itself to and agrees that all actions arising out of or related to the contract or the relationship between the parties shall occur solely in the venue and jurisdiction of the State of Rhode Island.

**BID FORM 1: BIDDER INFORMATION**

**Agrees to Bid on: District Student Data Warehouse and Dashboard Solution**

**DATE AND TIME TO BE OPENED: Wednesday, September 1, 2021 at 1:00PM**

Name of Bidder (Firm or Individual): \_\_\_\_\_

Business Address: \_\_\_\_\_

Contact Name: \_\_\_\_\_

Contact Email Address: \_\_\_\_\_

Contact Phone Number: \_\_\_\_\_

Delivery Date: \_\_\_\_\_

\_\_\_\_\_  
Signature of Representation

\_\_\_\_\_  
Title

Providence Public School District

## **Request for Proposals**

**District Student Data Warehouse and Dashboard Solution**

July 2021

Funding Source (Contingent on Funding): Stimulus Funds

## I. Background

- a. **About the District.** Providence Public School District (PPSD) is the largest school district in Rhode Island, serving approximately 24,000 students attending 41 schools. PPSD serves a diverse population of students and families, who speak 55 different languages and hail from 91 countries of origin. Since late 2019, PPSD has pursued a major transformation effort in partnership with students, families, school leaders, teachers, support staff, and the entire community, to create a world-class school system that prepares every student to succeed. This transformation requires that stakeholders at every level have timely access to relevant data to inform decisions.
- b. **About the Team.** The Office of Innovation and Accountability is the analytic hub within the district. The team develops and delivers data-focused solutions to support school improvement and better inform decisions across the district. If we're successful, all stakeholders working with and for our students will have the right data at the right time to make decisions in those students' best interests. The Office of Innovation and Accountability will lead this project within the district, in partnership with stakeholders from other teams including Information Technology, Network, Legal, and others.
- c. **Current Challenges.** As part of its initial work, the Office of Innovation and Accountability conducted a diagnostic analysis of PPSD's data capabilities and infrastructure. Several key challenges emerged, including the following:
  - i. The district internally hosts, but does not actively maintain, a SQL Server-based data warehouse. The warehouse includes a variety of ETL pipelines to ingest and export data from and to other systems across the district, but these routines regularly fail without maintenance.
  - ii. Significant staff turnover has lowered the district's capacity to support stakeholders with data retrieval, reporting, and analysis.
  - iii. While the district uses Tableau Server for developing and sharing dashboards with central office and school leaders, the data in these dashboards is often outdated due to outdated records in the data warehouse, resulting in limited utility and usage
- d. **Data Warehouse and Dashboard Opportunity.** The district seeks a technical partner with deep experience working with K-12 school systems to build and maintain a longitudinal student data warehouse and reporting/dashboarding solution. The solution will house all of the district's most essential student data and allow user-friendly access to a suite of dashboards and reports that visualize those data. The goals of this project are to:
  - i. Establish a comprehensive, single source of truth for critical longitudinal student data spanning enrollment, demographics, assessment, attendance, behavior, graduation, and other information;
  - ii. Facilitate connections between the district's data and third party applications (such as e-learning platforms) through an operational data store, ensuring that data produced by those systems are collected and housed permanently within the data warehouse; and
  - iii. Supplement the district's current Tableau reporting solution with pre-configured dashboards and reports that allow easy access to information within the data warehouse and promote faster, more accurate diagnosis of strengths and gaps

across the system and facilitate classroom-, school-, and district-level decision-making.

The ideal partner for this work will have developed multiple successful data warehouse and reporting solutions in public school districts or other educational organizations, including the integration, storage, and reporting of longitudinal student data from student information systems and with education technology vendors. They will have experience with and empathy for common K-12 education data challenges and a strong commitment to supporting public education and improving outcomes for all students.

## **II. Required Qualifications**

- a.** Respondents must demonstrate a passionate commitment to K-12 education and supporting underserved students, as demonstrated by prior experience working with large public school districts, charter management organizations, or other K-12 education entities; and
- b.** Respondents must have five or more years of relevant experience developing data warehouse solutions that integrate data from student information systems and other applications; and
- c.** Respondents must have five or more years of relevant experience deploying configurable data dashboards that visualize and report on underlying data in the warehouse; and
- d.** Respondents must be familiar with CEDS and/or EdFi data standards; and
- e.** Respondents must have a strong customer success team that can provide the district with maintenance and support after the initial development and deployment of the data warehouse and dashboards.

## **III. Scope of Work**

- a. Approach.** The district requires a vendor to run an intensive process to design, build, launch, and maintain the data warehouse and dashboards. The vendor must propose a project approach that enumerates activities related to discovery, development, testing, implementation, and maintenance and support. The vendor must provide project management services that ensure clear, decisive communication between stakeholders involved in the process and timely completion of deliverables.
- b. Deliverables.** The vendor must develop and successfully produce the following deliverables within the scope of this engagement and in accordance with the requirements set forth below.
  - i.** Data warehouse that integrates, stores, and reports on comprehensive historical student information, as well as select staff data.
  - ii.** Operational data store that facilitates data exchanges between the data warehouse and various education technology platforms.
  - iii.** Dashboards and reports that provide end-users with access to underlying, aggregated, and disaggregated data from various elements of the warehouse.
  - iv.** Documentation that outlines the entities and relationships within the warehouse and details any business rules used in the extraction, transformation, and/or loading of source data to and from the warehouse.



- v. Support in adding new, additional data sources over time and training and supporting district users of the warehouse and dashboard.
- c. **Training and support.** The vendor must provide training and support services to district stakeholders through the following means:
  - i. One-on-one training to selected central office stakeholders on data uploads and maintaining data connectors;
  - ii. Access to help desk support professionals to facilitate trouble-shooting with reasonable response and resolution times; and
  - iii. Written documentation and user guides for users at the school and district levels specific to their use cases.
- d. **Service Level Agreement (SLA).** The vendor must develop an SLA that includes and ensures the following:
  - i. The data warehouse and dashboard environments are compliant with Family Education Rights and Privacy Act (FERPA) and any other applicable state and federal laws;
  - ii. Any data collected, analyzed, and/or disseminated by the solution remain the sole property of and for the exclusive use of Providence Public Schools;
  - iii. The vendor monitors the platform's performance and uptime, reporting any outages to district staff promptly;
  - iv. The vendor collects and reports on key performance indicators for the solution regularly;
  - v. Routine backups of data and mitigations for disaster recovery; and
  - vi. Consequences for not meeting service level obligations (such as credit, reimbursement, or termination of contract).
- e. **Requirements.** This section details a variety of functional and technical requirements for the data warehouse and dashboard solution.
  - i. **Hosting and technical environment**
    - a. The solution must be cloud-based and externally hosted and managed.
    - b. The solution must include a standard architectural framework detailing the major components and relationships of the warehouse and dashboard solution, as well as network capacity considerations.
    - c. The solution must be hosted within the continental United States.
  - ii. **Security**

- a. The vendor must sign a comprehensive data sharing agreement with the district and appoint a data custodian to protect the confidentiality and security of student data.
- b. In the event of a data breach, the data custodian must report the incident in alignment with the data sharing agreement.
- c. The vendor must provide a secure means (e.g., SFTP) of data exchange for ingesting and exporting data.
- d. The solution must include security features such as role-based permissions that structure who can view and edit data.

**iii. Access**

- a. The solution must accommodate SAML 2.0 for single sign-on compatibility.
- b. The dashboards must be accessible on both desktop and mobile devices either through a mobile app or a responsive web design.

**iv. Data integrations**

- a. The vendor will partner with the district to inventory and prioritize data for migration into the warehouse and for display on dashboards.
- b. The vendor will develop a source to target mapping and data dictionary for the warehouse that includes a definition of each element and its frequency of update.
- c. The vendor will develop a scalable architecture to serve as the warehouse's technical and application foundation and identify and select the implementation hardware, software, and middleware components.
- d. The vendor will develop ETL pipelines/connections between the data warehouse and the following sources. Note that some current ETL pipelines have been developed in a combination of R and Python scripts that the vendor may choose to review in its discovery work or leverage as it develops new pipelines. Note also that this list is preliminary and not exhaustive. Per item 1 above, the vendor will support the district in inventorying data for migration to the data warehouse.
  - i. Routine data transfers for operational data, including:
    - 1. Skyward, the district's student information system, inclusive of all enrollment, demographic, coursetaking, attendance, and behavior data, as well as program enrollment and eligibility data for special populations (i.e., MLL, special education students, etc.) like home language survey data, WIDA screener data, special education evaluations, IEPs and student disability data; and
    - 2. Lawson employee records, including staff demographics, certifications, job history, positions held;

3. PowerSchool for special education records (though this system may be subject to change);
  4. Frontline employee attendance records, professional development, and hiring data.
- ii. Additional third party vendor applications, including:
    1. American Reading Company;
    2. GreatMinds Eureka Math;
    3. McGraw Hill ALEKS;
    4. McGraw Hill Illustrative Math;
    5. EnVision Math; and
    6. College Board Springboard;
  - iii. Migrations of historical data from the district's SQL Server data warehouse, including:
    1. Assessments
      - a. STAR Early Literacy, Math and Reading results since 2013
      - b. P/SAT – results since 2017-18, along with school day testing since 2015-16, as well as district P/SAT testing
      - c. RICAS – ELA and math results since 2017-18
      - d. NGSA – Initial results from 2018-19
      - e. ACCESS for ELLs 2.0 – Results since 2016-17
    2. Critical incident reports and student records submitted by campus staff from the 2016-17 school year to present;
    3. Attendance and discipline information, including all suspension and absence incidents for enrolled students since the 2016-17 school year;
    4. SAO Referral Data since 2016-17
    5. Hardship and Safety transfer records since 2016-17
    6. Official graduation cohort memberships since 2016-17
  - iv. Uploads of other historical data, possibly including:
    1. Alternate ACCESS for ELLs;
    2. BIMAS-2;
    3. Dynamic Learning Maps - ELA (DLM);
    4. Dynamic Learning Maps - Math (DLM);
    5. Dynamic Learning Maps - Science (DLM);
    6. National Student Clearinghouse;
    7. Next Generation Science Assessment (RI NGSA);
    8. Social Emotional Competencies Assessment (SECA);
    9. Senior Exit Survey;
    10. Spanish Language Screener;
    11. SurveyWorks;
    12. Teaching Strategies Gold;
    13. WIDA Model;
    14. WIDA Screener;
    15. World Language Proficiency Test (ACTFL); and

#### 16. Youth Experience Survey.

- e. The vendor will establish a data refresh program for the ETL pipelines above that is consistent with district needs, timing, and cycles.
- f. The solution will include an operational data store (ODS) to facilitate connection with other education technologies and follow the EdFi data standards. Note that the district currently has an EdFi-compliant ODS developed in SQL Server hosted internally on a development server.
- g. The solution will provide data import features that allow selected district users to map and upload additional data sources into the warehouse to facilitate storage and reporting.
- h. The solution will allow for self-service reporting and data export through user-friendly access to the data in the warehouse.
- i. The underlying database/s of the solution will be accessible to the district, including via SQL query.

#### v. **Data dashboards**

- a. The solution will provide role-based dashboards for access to selected data at the classroom-, school-, and district-level.
- b. The solution will allow for disaggregation of data at the student-, classroom-, school-, and district-level.
- c. The vendor will define the correct level of summarization or information construction to support decision making.
- d. The solution will allow for reporting of trend data over time and in comparison to targets and/or benchmarks, such as the district average.
- e. The solution will allow for reporting data in multiple formats, including, possibly, HTML, PDF, and/or XLS/CSV.
- f. The solution will be compatible with multiple browsers, including Safari, Internet Explorer, and Google Chrome.
- g. The solution will be aesthetically pleasing and support ADA compliance guidelines for content display.

### IV. **Timeline for Implementation**

The period of performance will be one-year with two one-year option for renewal upon mutual agreement between PPSD and the consultant/consulting organization and on the availability of funds.

Year 1: Upon Award to June 30, 2022

Option Year 1: July 1, 2022 to June 30, 2023

Option Year 2: July 1, 2023 to June 30, 2024

- a. **The vendor** must propose a detailed timeline of activities to produce the deliverables above. The district **aspires** to the following timelines for major milestones:



- Proposer’s proposed scope of work including project approach, timeline for major milestones, and summary of deliverables with each stage of work
- Note that proposals must clearly demonstrate:
  - A detailed understanding of the requirements outlined in this RFP;
  - A thoughtful timeline of what is due, by whom, and when, including a clear differentiation of responsibilities between the district and the proposer at each stage of the project;
  - An assurance of the capacity and capability of the proposer to perform the work on schedule;
  - A clear support and maintenance model, inclusive of hours of availability; and
  - How the proposer will form and manage successful working relationships with the district

Tab 4 - Relevant Prior Experience and References

- Summary of the proposer’s prior experience with data warehouse and dashboard development in educational contexts, including total number of relevant projects completed
- A detailed description of three similar projects the proposer has completed, including contact information for references with each customer
- Access to a demo account as a school or district leader, if applicable

Tab 5 - Pricing Proposal

- Breakdown of costs services and product costs within each phase of the project
- Forecast of support and maintenance costs over the next five years
- Written rationale for each cost

## VII. Questions

Questions concerning this solicitation should be emailed to [steven.cartwright@providenceschools.org](mailto:steven.cartwright@providenceschools.org). Questions are due by Friday, August 13, 2021. Questions will be answered via addendum.

## VIII. Evaluation of Proposals

Each proposal will be reviewed and scored against the criteria in the table below. A review committee with at least three members will evaluate the proposals. Each member of the committee will conduct a thorough, independent evaluation of each proposal. The committee will then meet for a discussion after which members will have the option to revise their scores. The technical score will be determined by averaging each member’s score in each category.

The maximum number of points scored is 100. Proposals scoring below 75 points will be deemed technically unacceptable and will not be considered in the cost proposal review.

The award will then be made to the lowest cost, technically acceptable proposal(s). Providence Public Schools may choose to seek clarifications from vendors with regard to their proposals. All responses will be provided in writing, and incomplete and/or unclear responses may result in a proposal being deemed technically unacceptable. Providence Public Schools reserves the right to make a selection without requesting clarification. Additionally, Providence Public Schools may not necessarily seek clarifications from all vendors submitting proposals.

<b>Technical Proposal Category</b>	<b>Weight</b>
Fulfillment of Data Warehouse Requirements	45
Fulfillment of Dashboard and Reporting Requirements	25
Qualifications and Past Experience	25
Strength of References	5