



**Education Data Flow and Business Process Review**

**Solicitation June 13, 2016**

**Tennessee Department of Education**

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## **Data and Business Process Flows for TDOE Data Systems**

### **Description of Project**

The Tennessee Department of Education (TDOE) is seeking an experienced vendor to document and review our business processes. TDOE requires detailed **process flows** showing the integrations across various departments and functions within the TDOE and lifecycle of state-collected and managed data. This project is a critical step towards the TDOE updating, redesigning and reengineering internal processes and IT systems based on:

1. Documented business processes
2. Documented enterprise data flows that meet TDOE's state and federal reporting needs along with supporting various other reporting needs including the need to service ad hoc requests for data.
3. The structuring of data objects and entities within data domains with clear alignment to organization functions and roles that will ultimately lead to an updated data governance model over the enterprise data model.

The goal of this project is to define all mission critical business processes and related data flows relative to the capture or creation, updating, reporting and archival of state-managed data. The project will review and document TDOE's business processes and data repositories for storing, managing, and accessing data based on statutory, federal or agency-specific requirements.

### **Project Scope & Approach**

The scope of this project will be the data capture, management and reporting requirements of the education data captured and managed by the TDOE. The data is primarily data local education agencies (LEA's) are required to submit or publish to the TDOE and excludes all accounting and financial data submitted to the TDOE by LEA's or used by the TDOE and contained in the TDOE's Enterprise Resource Planning (ERP) system.

This is an important scope assumption because much of the data that the TDOE requires is sourced from LEA's student-information systems, ERP systems. In an indeterminate number of cases, the data may be sourced from LEA's systems but then keyed in manually to the state data systems. The goal of this project is to document the various data entry points and requirements and as such, this project will not be required to assess the integrity of systems publishing data to the state TDOE. However, the project will define the data at the definitional or meta-data level in order to identify data definition or integrity issues that could arise when data is captured in a heterogeneous environment and subsequently used in downstream business rules or reports. The project will also define and catalog the business rules used in the TDOE primarily for aggregating data for the purpose of funding or reporting (e.g. business rules and/or formulas used to calculate total miles transported based in input data for students, bus routes and schedules).

For the purpose of this project and moving forward, TDOE will define data domains as the highest-level descriptions for data entities. Examples of state-collected and state-managed data domains include:

### Data Domains

<b>Data Entity</b>	<b>Brief Description</b>
1. Student	A very large domain that includes simple demographic data such as state-wide, unique ID, race, eligibility for a variety of services including free-and-reduced lunch, transportation, and special education services etc. The domain also includes student scores on state required assessments.
2. School	Data elements include state-issued school ID, school calendar and numerous summary fields based on summarizations of student demographic data. An important aggregation for school-level reporting includes ADM (average daily membership) along a variety of categories that drive state funding rules.
3. LEA/School District	Data elements include state-issued district ID and, like school-level data, a number of measures that represent summarizations and aggregations of school-level data.
4. Teacher/Provider	TDOE maintains a number of important fields at the teacher level to meet state and federal reporting requirements. Some but not all of these attributes include teacher certifications, years of services, compensation and a variety of performance indicators based on Tennessee's teacher evaluation and Tennessee Value-Added Assessment Systems (TVAAS).

The table above is provided only to give a high-level scope for the project. The TDOE anticipates that through the requirements definition phase of this project, many more attributes or data elements associated with each data domain will need to be defined and the processes reviewed and documented.

Based on the project scope above, the primary approach for this project will be a methodical approach for interviewing TDOE personnel, collecting and reviewing available documentation and then, documenting key data objects, definitions, process flows, data transformations and data stores that comprise an end-to-end view of TDOE's business processes. The project will require face-to-face meetings with between 15 to 20 different subject matters experts and key stakeholders to understand the current flow of data in the organization. In the spirit of fully documenting business processes, the first meetings will focus on capturing and collecting existing, documented sources of information. The second set of meetings will document current processes, and the third set of meetings will be required to confirm business process flows, including additional business process details such as exceptions to basic processes and confirmation of data sources, stores and transformations performed on the data. All of the key personnel for the project are located in Nashville and the selected vendor will be expected to conduct numerous face-to-face data collection and business process development sessions to complete the project.

### Project Deliverables

The deliverables for the project include:

- Process flows describing the entry point for data into the TDOE, any required transformations and derivative uses of the data and end-user access to the data.
- Narratives for each process flow that documents the inputs, outputs and major steps along with who is responsible for performing the steps. In addition, the narrative will document issues with the current process including but not limited to: inefficiencies in the method of capturing data, data integrity issues, data storage issues (e.g. similar data is stored in various systems and files), and issues related to TDOE responsibilities related to capture, quality assurance, storage and access. While the project will document TDOE's current data repositories (e.g. EIS or Enterprise Information System), the project will not be recommending new or upgraded IT or application improvements for this phase of work.
- The definitions of the data at all points in the process (e.g. the description or definition of the data at the point of entry in a TDOE system including derivative data elements or data fields that are defined and used within the TDOE based on other input data. (e.g. total transportation miles is a formula with inputs based on number of routes and miles of each route).

### **Bid Response and Project Timeline**

<b>EVENT</b>	<b>DATE</b>
1. Bid Issued	Monday, June 13, 2016
2. Response Deadline	Tuesday, July 8, 2016
3. Contracting Phase	July 9 - July 17, 2016
4. Project Kick-off	July 20, 2016
5. Targeted Project Completion	Oct. 28, 2016

The State reserves the right to determine, at its sole discretion, the appropriateness and adequacy of responses related to this solicitation and to adjust the release and timeline of events.

Responses are to be submitted electronically via email to Melisa Greene and should not exceed 12 pages. Response sections must include:

1. Company Overview or Professional Background
  - a. Please include number of years in business and office location(s)
2. Methodology and High-Level Work Plan for Project
  - a. Please comment on process modeling tools and standards that will be utilized
3. Project Cost
  - a. Proposing firms must comply with state policy on travel, lodging and per diems rates.
4. Credentials

- a. Please include at least two samples of projects of similar scope, approach and deliverables and the outcomes for the project.
  - b. Please include at least two references with current names, titles and phone numbers
  - c. If the credential and reference is not for a large urban or county K-12 education agency then the bidder should describe the industry and the justification for why the credential is being submitted.
5. Staffing and Resume(s)
- a. Please include resume(s) of individual(s) who will be assigned to the project

**Responses to this solicitation must be submitted electronically to [Melisa.Greene@tn.gov](mailto:Melisa.Greene@tn.gov) no later than 5 p.m. Tuesday, July 8, 2016 CDT.**

Tennessee Department of  
Education Andrew Johnson  
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Nashville, TN 37243  
ATTN: Melisa Greene (615) 741-2095 (office)  
[Melisa.Greene@tn.gov](mailto:Melisa.Greene@tn.gov)

If you have any questions, please email to Ms. Greene.

### **Vendor Selection Criteria and Scoring**

While cost is an important factor in the award of this contract, other considerations include, but are not limited to, the experience of the bidder in assessing and improving K-12 business operations and staff resumes.

Proposals will be scored against the following categories.

<b>Category</b>	<b>Score</b>
1. Firm's experience documenting process and data flows and the firm's ability to demonstrate methodical approach for reviewing and documenting current data and process flows.  a. Samples of similar deliverables from previous projects b. A recommended project plan for this project	0 – 30 points
2. Staff qualifications:  a. Identification of specific staff that will be assigned to the project including each proposed staff member's resume b. Experience of the assigned staff	0 – 25 points
3. Industry experience:  a. Provision of two credentials with references for similar projects • Credentials should include the project description and deliverables	0 – 20 points
4. Cost of Services a. Bidders will be ranked by cost and weighting applied	0 – 25 points
<b>Total Score</b>	<b>100 points</b>