



**New York State
Education Department**

Request for Information (RFI)

for an

Early Warning System

June, 2011

**New York State Education Department
89 Washington Avenue, Room
Albany, NY 12234**

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NEW YORK STATE EDUCATION DEPARTMENT

Early Warning System

Request for Information

The New York State Education Department (NYSED) hereby issues this “Request for Information” (RFI) to determine system capabilities with respect to NYSED’s Early Warning System needs.

The intent of this RFI is to explore the spectrum of existing solutions and capabilities which currently exist. This process is part of the information-gathering phase of our project. We may use the information garnered from the RFI process to enhance a future procurement(s).

Specifically, this RFI seeks to:

1. Identify the range and types of services vendors (interested parties) can offer;
2. Facilitate understanding of the available tools, strategies, and practices;
3. Solicit information on successful approaches and best practices;
4. Ascertain key requirements and issues the State must define and/or consider when developing an approach;
5. Determine the benefits the State can realistically expect to achieve in both the short- and long-term; and,
6. Increase understanding of the compensation mechanisms used by companies that offer such services.

This RFI is exploratory in nature. It is being conducted to solicit information about industry best practices, ideas, tools, and recommendations from interested parties concerning early warning systems.

INTRODUCTION

1.1 ORGANIZATION BACKGROUND

The New York State Education Department (NYSED) is responsible for oversight of all educational institutions in the state, for operating certain educational and cultural institutions, for certifying teachers, and for registering and licensing practitioners of more than 40 professions. NYSED's supervisory activities include chartering all educational institutions in the state, including schools, libraries, museums, and historical societies; accrediting college and university programs; allocating state and federal financial aid to schools; and providing and coordinating vocational rehabilitation services.

A Board of Regents, consisting of 17 members elected by the state legislature, governs NYSED. The Board oversees the University of the State of New York (USNY), consisting of all public and private schools, colleges and universities, chartered libraries, museums, historical societies, and other educational institutions in the state. NYSED's chief executive officer is the Commissioner of Education and President of the University, who is appointed by the Board of Regents.

NYSED is composed of these major organizational areas:

- Office of P-12 Education
- Office of Higher Education
- Office of Cultural Education
- Office of Counsel
- Office of State Review
- Office of Professions
- Adult Career and Continuing Education Services
- Office of Operations and Management Services

The Office of P-12 Education has primary responsibility within NYSED for measuring student performance and implementing accountability measures in schools. This office plays a central role in the collection, management, and reporting of educational data. The P-12 website contains additional information on the programs, services, and organization of that office, including information about current educational data collection and reporting.

(<http://www.p12.nysed.gov/offices.html>).

Public school districts and charter schools are known as Local Educational Agencies (LEAs) in New York State. These LEAs are responsible for administering and operating the individual public schools within a district.

Below are key facts about the enrollment and entities for P-12 and Higher Education in New York:

- New York P-12 Education Facts
 - 697 school districts
 - 62 counties
 - 3.1M total students
 - 2.7M students enrolled in public, K-12 institutions
 - 0.4M students enrolled in non-public, K-12 institutions
- New York Higher Education Facts
 - 270 total colleges

- 875K total student enrollment
- The State University of New York (SUNY)
 - 64 colleges
 - 228K student enrollment
- The City University of New York (CUNY)
 - 19 colleges
 - 160K student enrollment
- Independent colleges
 - 148 colleges
 - 460K student enrollment
- Proprietary colleges
 - 39 colleges
 - 25K student enrollment

A complete description of the University of the State of New York and the State Education Department can be found at <http://usny.nysed.gov/about/>.

1.2 PROJECT CONTEXT

NYSED is creating an Instructional Reporting and Improvement System (IRIS), as described in its Race to the Top grant application, which shall include instructional reporting, collaboration, and platform features (referred to as the Educational Data Portal or EDP). The EDP will serve as a single platform providing access to educational data and applications for use by LEAs, as well as others across the State of New York and in other states. It will enable diverse stakeholders - including educators, parents, policy leaders, and researchers - to access and analyze educational data, make decisions, and take actions to improve student outcomes. The IRIS will also enable third-party developers to create and distribute new software applications for use across the state.

The EDP Software (including the platform, data models, data marts, and initial applications) will be non-proprietary, feature a software development kit, and potentially be maintained by NYSED or its assignee/contractor after its completion. The EDP will include an open Application Programming Interface (API) that will enable third-party developers to create and distribute new software applications for stakeholder use.

Using the EDP, teachers and school administrators will be able to view individual student profiles and aggregate views of student information, create student groupings, and filter by certain student attributes.

Parents will be able to view the profile for their child. All information available through the EDP will be provided through an access and authentication method designed to protect the privacy of individual student records.

Data expected to be included in the EDP is indicated in Appendix A.

1.3 EARLY WARNING SYSTEM

NYSED is seeking a statewide, standardized approach to identifying students who are on track for graduating, on track for graduating with career and college readiness skills, at risk of dropping out of school, or who may not enroll in or complete post-secondary education programs.

It is expected that an Early Warning System will be implemented as an application integrated within the above-mentioned Educational Data Portal.

The objectives of implementing an Early Warning System may include the ability to:

- View and understand students' progress
- Spot learning problems early for individual students and groups of students
- Optimize intervention measures for individual students and groups of students
- Maximize "on-track" performance and graduation rates
- Predict district performance and track year-over-year progress in benchmark assessment tests to ensure schools are meeting state and federal requirements for programs such as No Child Left Behind (NCLB)
- Determine, improve, and implement solutions for low-performing students before funding is impacted
- Enhance teacher performance and efficacy
- Work with individual teachers to determine the most appropriate action for students deemed at risk of being retained, dropping out, or underperforming to improve the student's chance of success
- Implement personalized education plans for at-risk students based on early identification of problems
- Export student-level results for use in other data applications

More specific examples of what the system might be expected to predict include:

- Probability of persistence to next grade from PK through 11
- Probability of graduating with Regents diploma and/or Regents diploma with advanced designation at end of Grade 12 (predicted at grade 6, 7, 8, 9, 10, 11, and 12)
- Probability of getting C or below in any English language arts, mathematics, social studies, and science course in Grade 3-12 (predicted at grade 3, 4, 5, 6, 7, 8, 9, 10, 11, and 12)
- Probability of not enrolling in at least two-year postsecondary immediately after Grade 12 (predicted at grade 10, 11, and 12)
- Probability of needing remediation in any core subject in postsecondary (predicted at grade 10, 11, and 12)
- Identification of common course sequences that do or do not lead to college success

1.4 RFI CONTACT INFORMATION

Interested Entities are encouraged to submit a written response by July 15, 2011, including a cover letter on company letterhead, characterizing their interest and background. Information pertaining to ideas, concepts, design issues, and practical knowledge gained from relevant Early Warning System experiences is being sought. Additionally, responses to the questions and inquiries listed in Section 2 are requested.

Note: This IS NOT a Request for Proposals. It is an invitation to provide the NYSED with information regarding current technologies and viable approaches to implementing an Early Warning System. Additionally, responses will be used to gauge the level of interest in the Early Warning System Project. Information obtained may be used to develop a needs requirement upon which a future procurement might be based. If further discussion is required, or should

questions arise, please contact the NYSED contact person listed below. All questions regarding the Early Warning System RFI must be submitted in writing, via E-mail to: NYSEDEW@mail.nysed.gov

Questions may be asked through July 1, 2011. A summary of all questions and answers will be posted to <http://usny.nysed.gov/rttt/docs/rfi/earlywarning-qa.html> by July 8, 2011.

Participation in this RFI is voluntary, and NYSED will not pay for the preparation of any information submitted by a respondent or for NYSED's use of that information. Vendors may respond to some or all of the information requested in Section 2.

Vendors are advised that if any part of their response to this RFI contains trade secrets or is submitted to NYSED by a commercial enterprise or derived from information obtained from a commercial enterprise and which, if disclosed, would cause substantial injury to the competitive position of the subject enterprise, then vendors should identify such in their response.

Mail or E-mail Responses To:

US Mail:

New York State Education Department
Attn: Leigh Mountain
Room 865 EBA
89 Washington Avenue
Albany, NY 12234
Attention: Early Warning System RFI

E-mail:

NYSEDEW@mail.nysed.gov

Respondents who mail their responses are requested to provide an electronic copy in MS Word or PDF Format. These formats are also required for E-mail submissions.

NYSED may issue announcements amending this RFI in response to vendor questions. SED reserves the right to request additional information from respondents and may be in the form of an oral presentation.

1.5 ADMINISTRATIVE GUIDANCE FOR RESPONDENTS

RFI schedule:

June 17, 2011	RFI published
July 1, 2011	Deadline for questions
July 8, 2011	Response to questions issued
July 15, 2011	Deadline for receipt of responses
Please Note: Responses received after July 15 th , 2011, may not be considered in this evaluation or in subsequent RFP development.	

2.RESPONSE REQUIREMENTS

2.1 RESPONSE OUTLINE AND ORGANIZATION

Responses should be organized as follows:

2.1.1 Cover Letter

The respondent should provide a cover letter (limited to no more than two pages in length) that includes the following corporate information:

- Company Name
- Contact Name
- Title
- Phone #
- E-mail address
- Mailing address
- Fax #

Note: Provide additional contact persons as needed.

2.1.2 Company Information

The vendor shall summarize its experience in the Early Warning Systems or equivalent functionality fields. An indication of the extent and scope of the experience should be provided, including:

- Length of time your company been providing Early Warning Systems
- Prior Early Warning Systems design or implementation work you have performed with other educational entities, including the dates of this work
- Contacts in educational entities that you have worked with
- The role of your company in these engagements (e.g., primary or sub-contractor)
- The project phases in which your company participated
- The environments in which the systems were implemented
- Any partnerships or alliances your company has that would provide benefits to the project

Based on the experience outlined above, vendors should identify the following:

- Lessons learned from past implementations regarding analysis, design, development, testing, deployment, and training tasks
- General implementation time frames from previous efforts
- What your company believes is its competitive advantage

2.1.3 Product Information

Company literature and brochures describing Early Warning System products may be included as part of the response. While additional information links are not disallowed, NYSED prefers not to receive links wherein pertinent information is available but requires extensive searching.

Product information should include:

- Overview of how the product works (including a system overview diagram). Transparency is desirable. The system needs to be explainable rather than a “black box.” Specifically, how does the system work with respect to:
 - Allowing administrators of the system to configure business rules created by Subject Matter Experts (e.g. set thresholds for SME-identified predictor variables)
 - Defining algorithms in the system based on empirical research done outside the system using sample data
 - Defining algorithms in the system that can dynamically change as new predictor/criterion data enter the system
- How the product protects student records and complies with relevant privacy laws and regulations.
- Whether the product has the ability to integrate with existing data systems or whether the system functions stand-alone. If the product integrates – what are the requirements for integration?
- What predictors does the product utilize, and what are they able to predict?
- Are there things that it is believed cannot be predicted?
- Can predictors used by other educational entities be incorporated?
- What are the hardware and software requirements for using the product?
- What is the current version of the product? Are any major releases currently planned?
- Is the product proprietary or open source?
- Is the product typically hosted by the vendor (or a third party) or installed in-house?
- Ability to provide research on early indicators, including how the indicators vary across different types of districts

2.1.4 Supporting Services

Include information about how you typically provide support after implementation. Include information on the following:

- Hosting
- Service Level Agreements
- Training
- Knowledge transfer
- Help Desk Services
- Software upgrades and maintenance

Describe options on how independent a customer is after implementation:

- What aspects of support of the product are expected to be covered by the user of your product’s functional and IT staff versus what is expected to be handled by your company?
- What are the business and IT resources required in our organization to support the product after implementation?

2.1.5 Pricing Model

Without indicating specific pricing, include information about your pricing model for the product:

- Do you charge a software licensing fee?
- Do you charge by user, by server, by district?
- Do you negotiate state-wide agreements with state educational authorities?
- Do you offer a perpetual license agreement?
- How are ongoing maintenance charges assessed?

APPENDIX A: DATA SET

Core Data

1. Administrative
 - a. Teachers, Principals, Administrators: IDs, limited biographic data
 - b. Organization hierarchy (districts, schools, etc.)
 - c. School groupings (e.g., clusters and networks)
2. Students
 - a. Local/district ID
 - b. Biographic data
 - c. Demographic data
 - d. Program participation
 - e. Adult contact information
3. Enrollment
 - a. Student-school linkages
 - b. Courses
 - c. Sections
 - d. Teacher-Section-Student linkages
4. Student attendance
 - a. Students daily attendance (date absent, tardy rate, year-to-date)
 - b. Student-teacher period attendance linkage
5. State assessments (to be transitioned to PARCC assessments in 2014-15)
 - a. Grades 3-8 ELA/Math
 - b. Grades 4/6-8 Science (proposed for statewide expansion)
 - c. Grade 6-8 Social Studies (proposed for statewide re-introduction and expansion)
 - d. NYSESLAT
 - e. NYSAA
 - f. Grades 9-11 ELA (proposed for statewide expansion)
 - g. Regents exams
 - h. RCTs
 - i. PARCC assessments
6. Local interim and formative assessments with known proficiency cut scores and alignment to New York State and Common Core State Standards
7. Transcripts
 - a. MS and HS transcripts
 - b. MS and HS current course schedule w/term grades

Variations from, and extensions of, core data sets:

1. Administrative
 - a. Organization hierarchy applicable statewide:
 - i. Three-level administrative hierarchy within the state (State -> District -> School).
 - ii. Schools that do not aggregate to a district (e.g., charter schools and non-public schools) will be treated like a district.
 - iii. Arbitrary groups of schools (i.e., networks, including networks that include schools from multiple LEAs, state agencies, charter management organizations, networks of non-public schools). There will only be one type of arbitrary groups of schools.
 - iv. Arbitrary groups of districts (i.e., RICs, BOCES). There will only be one type of arbitrary groups of districts.
 - v. Ability to attach users and roles at the district, RIC, BOCES, network (including networks that include schools from multiple LEAs), and state level.
 - vi. Special institution type for BOCES and other school providers, and ability to attach users and student enrollments to it. Students enrolled in these institution types may have other simultaneous valid enrollments. Both valid enrollments will be displayed in the EDP (Release 1.5).
2. Student
 - a. Statewide identifier
 - b. Student characteristics (e.g., disability status, English language learner)
3. Enrollment
 - a. Modeling of multiple teachers per class/section.
 - b. Modeling enrollment of students in multiple schools to allow, in particular, for BOCES and other school provider educators to access their student data, even though students are only partially and simultaneously enrolled in the BOCES or other school provider.
4. Assessments
 - a. Item-level data for state tests (3-8, 9-11 ELA, and Regents)
 - b. PARCC assessments data (end-of-course and through-course), at a level of detail equivalent to the NYS tests Additional state tests to be loaded using the same data format as other state assessments, at the item-aligned-to-standard-level (item does not include item prompt):
 - i. 6-8 Science
 - ii. 6-8 Social Studies
 - iii. 9-10 Global and Economics Regents
 - iv. 9-11 ELA
 - c. Assessments used as approved alternatives to Regents exams for graduation purposes (see <http://www.p12.nysed.gov/osa/hsgen/archive/list.pdf> and <http://www.p12.nysed.gov/osa/sam/secondary/section7.html#appendix2>). These results are to be loaded using the same common data format as other state assessments and will carry, at most, details at the standard level

- d. Standard or non-standard Interim/Benchmark assessments
 - i. With details at the standard-breakdown level, if available (including assessment score, assessment response, item mapping to standard, assessment name, and cut scores).
 - ii. Optionally providing breakdowns in categories that do not correspond to standards but follow the same structure (These will be stored but won't be accessible in the standards-based views).
 - iii. Following the default assessment file format and integration path.
- 5. Attendance
 - a. Student-teacher period attendance linkage