

Chapter 2

Automated Individual Student Record System

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Introduction

In order to comply with the National Reporting System (NRS), programs must select and implement an automated individual student record system. The NRS guidelines address the importance of an individual student record system as follows:

- ✘ To meet NRS requirements each local program must use an automated individual student record system to enter NRS data.

Considering the term “automated individual student record system” in three parts helps highlight its importance:

- *Automated.* Computers and software are required. Data must be maintained in an electronic format.
- *Individual Student Record.* Data regarding each student enrolled in a program must be tracked at a student-by-student level and must include each student's demographics, goals, assessments, outcomes, and instructional activity.
- *System.* The NRS requirements affect more than just data entry protocol. Collecting and reporting student data for the NRS affects the entire adult education program, from the teacher, to the counselor, to the data entry staff, to the program manager, to the director, to the New York State Education Department (NYSED).

An automated individual student record system assists programs on two different levels. By tracking individual student outcomes, gains, and instructional activity throughout the course of a fiscal year, automated individual student record systems help programs conform to the NRS federal and state reporting requirements. They generate valuable data that programs can use for programmatic change and improvement, which ultimately benefits both staff and learners alike. (See Chapter 7.) An example from the federal *NRS Implementation Guidelines* states:

- ✘ Only an individual record system would allow analysis of such issues as whether a specific type of student (such as students with employment-related goals) achieved their outcomes, or the number of instructional hours needed by groups of students to advance an educational level.

General and Technical Requirements for an Individual Student Record System

According to the federal *NRS Implementation Guidelines*, each program's automated individual student record system must meet several general standards and requirements. The system software must:

- ✘ Have a relational database structure.
- ✘ Allow information on a student to be related to other variables in the database.
- ✘ Allow data to be aggregated and analyzed for specific subgroups.
- ✘ Be capable of aggregating data to produce the required federal reporting tables.

In addition to the general standards, the NRS has established several technical requirements. Some of the technical requirements will determine the data entered for each student. Others will affect how the student data is reported to the state and federal government. In other words: the NRS data inputs and the NRS report outputs. The federal NRS guidelines for the inputs and outputs are described below.

The system must include the following inputs:

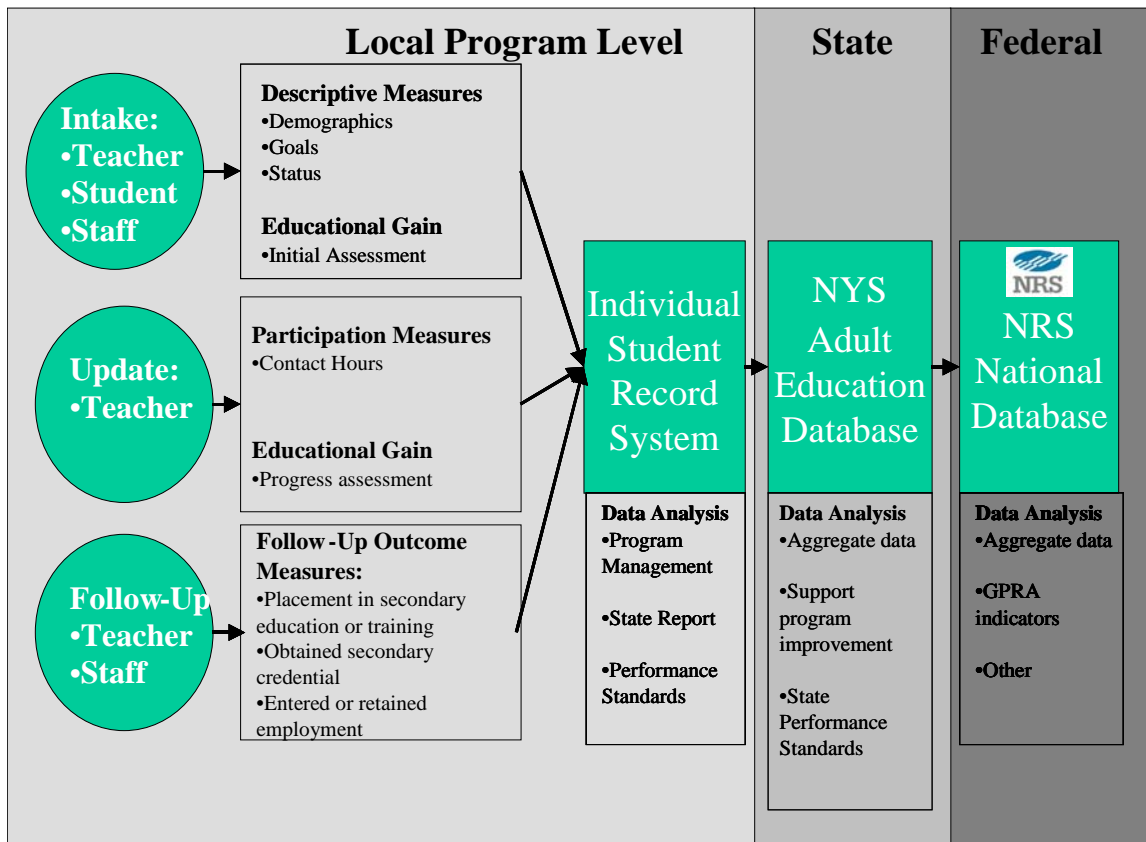
- ✘ The NRS core outcome measures, such as educational gain, employment, etc.
- ✘ The NRS secondary measures, such as reduction in public assistance, voting, etc.
- ✘ Other measures such as information about classes, instructors and staff to use NRS data to evaluate program performance and promote program improvement.

The system must include the following outputs:

- ✘ NRS reports for the program overall.
- ✘ Electronic individual student data for aggregation.

National Reporting System Data Flow Specifications

The local programs, the NYSED, and the U.S. Department of Education each play an essential role in the collection of valid and reliable NRS data. The picture below depicts the flow of data, beginning with local programs and moving through to the federal government. Following the picture is a description of how the data flows.



The data flow begins at the local program level. Programs are required to gather data for each student three times per fiscal year:

- Data is initially collected during intake. In New York State, staff, teachers, and students must use the Individual Student Record Form (ISRF) as a guide to ensure that all required data is collected.
- During the course of a student's participation in a program, teachers should update his or her data with participation measures and progress assessment(s).
- Finally, in order to obtain outcome measure data, teachers and staff must conduct follow-up surveys with their students. (The information can be entered after the student leaves the program.) Programs should design their follow-up survey to determine whether specific core outcomes were achieved.

From initial intake to follow-up surveys, programs are required to enter all student data into their automated individual student record system. After the data has been entered into the system, each local program is responsible for using the data to:

- Improve program performance and develop corrective action plans if necessary.
- Provide year-end and interim individual student record data to NYSED via the Literacy Assistance Center (LAC) for the State Report.
- Complete and review the NRS reporting tables so program performance can be measured according to standards.

According to the U.S. Department of Education, individual programs are responsible for allocating resources for gathering and entering the data.

- ✘ Local programs have primary responsibility for collecting these measures using valid, uniform procedures to ensure comparability across programs and must maintain these data in an individual student record system.

Programs must complete data analysis, submission, and reporting in accordance with the policies and standards of both New York State and federal NRS guidelines. (See Chapter 6.)

- ✘ For the data to be meaningful on a statewide and national basis, however, data collection procedures must be standardized across all programs to ensure that data is comparable.

Once a program submits its data to the LAC, it is processed and aggregated. This aggregation process allows for the creation of New York State Adult Education Database. The federal *NRS Implementation Guidelines* states:

- ✘ Each local program must submit their data to the state education agency to enable the state to develop a statewide adult education database.

The NYSED then maintains the Adult Education Database (which includes student data from all programs as per the specifications of the federal NRS guidelines) and submits the aggregate data to the U.S. Department of Education.

Local Program Data Roles and Responsibilities

Local programs play a critical role in the gathering of student information. Local programs are dealing directly with the students and their educational experiences.

- ✘ Local programs are on the front lines of the system as they must allocate the sufficient resources to collect the information from students—the descriptive, participation and outcomes measure that comprise the database.

To begin the process, programs must select an automated individual student record system to assist their staff in gathering, updating, and reporting NRS student information. According to the federal NRS guidelines:

- ✘ The software system should allow local programs to enter and retrieve their own data for individual students and to be most useful, the data should be organized by site and class.

Once they have selected an automated individual student record system, programs should reflect on their data-gathering process. Procedures should be revised, if necessary, to ensure that all NRS-required data is effectively gathered and entered into an automated individual student record system. This may require, among a variety of other management strategies, teachers and data entry staff to attend staff development workshops and programs to use additional data-gathering forms.

After an effective data collection process is in place, programs are responsible for gathering student information and entering the information into their system. The specific types of data that should be entered into the electronic format include:

- Descriptive measures—demographics, goals, and status.
- Assessment information—pre- and post-assessments.
- Participation measures—contact hours.
- Outcome measures—educational gain, placement in postsecondary education or training, receipt of secondary school diploma or GED, entered employment, or retained or improved employment.

After the information has been entered into the system, programs must submit their data electronically to NYSED through the LAC. (See Chapter 6.) This data must be extracted from an automated individual student record system and must be submitted in an electronic format. In New York State, the data must contain at least one record per student and may not be submitted on an aggregate basis. In addition to using the data to meet NRS reporting requirements, programs should use the data to assess their own program performance and strategize ways to improve.

- ✓ NYSED will develop systems to audit local program data to ensure that it is of high quality. (For more information, see Chapter 7.)

NYSED Policy on Data Collection Systems

NYSED does not require programs to use a specific automated individual student record system. However, the NYSED does require programs to use an automated individual student record system that is capable of generating the reports required by the NRS. A program that uses paper to track student information and does not submit electronic data will be placed under corrective action. As stated in the NRS guidelines:

- ✗ The NRS does not require a specific type of record system or software. Local programs may use any software as long as it includes the NRS measures and coding categories and can produce the Federal Reporting tables.

While the “NRS does not specify the software or design of the student records system but leaves this to local and state discretion,” the NRS does offer explicit directions to help programs choose an appropriate system. These instructions take into consideration not only the software’s ability to meet NRS requirements but technical and functional issues, such as:

- The overall design of the software—i.e., software, hardware, and usability issues.
- The training and support offered by the software’s vendor.
- The methods used to enter data into the software.
- The various ways the software allows the program to use data, including reporting data analysis and program planning functions.

In addition to these technical and functional requirements, New York State specifies that student record systems must be capable of gathering the following data:

- Agency and site information, such as the various funding sources and locations where instruction takes place.
- Personnel information, such as instructors and administrative staff.
- Schedule information, including all available classes, groups, and one-on-one tutorial sessions.
- Student intake information, including demographics, goals, initial assessments, and class enrollments.
- Post-test assessments.
- Contact hours.
- Updates of goals, demographics, and enrollment information.
- Outcome survey information, including the outcomes achieved, the outcome quarter, the survey date, and the date the student exited the program.

Adult Literacy Information and Evaluation System (ALIES)

As stated above, the NYSED does not mandate that programs use a specific database software package. However, after careful consideration, New York State has decided to support ALIES as the statewide individual student record system. While programs are free to implement other systems, New York State supports ALIES—both fiscally and procedurally.

ALIES is a unit within the Literacy Assistance Center (LAC). Founded in 1983, the LAC is a not-for-profit organization that provides essential referral, training, information, and technical assistance services to hundreds of adult and youth literacy programs in New York City and State. The LAC's mission is to support and promote the expansion of quality literacy services in New York.

The ALIES product consists of a group of tools to help programs collect, manage, and report student data. The tools include paper forms, database software, reports, data management, training, customization, and user support. The ALIES software is a Windows-based database system developed in Microsoft Access 2000. It can run on either standalone computers or networks. ALIES helps programs collect data, which can be used to inform funders of performance outcomes. The data can be used by program managers to assess their programs' performance, progress, and needs. The software contains a variety of comprehensive reports for effective program management and improvement. The system is intuitive and easy to use. ALIES complies completely with both NRS and NYSED standards by:

- Maintaining individual student records (which include goal, assessment, and enrollment data) with unique student identifiers
- Collecting instructional activity, including contact hours and outcomes
- Providing reports for various federal and state funding streams and reporting formats, including NRS, EL/Civics, EDGE, SASS, EA, and EPE
- Helping programs make use of the data for program improvement through features like Data Check, Data Management, and Ad Hoc Reports

Approximately 200 programs throughout New York State currently use ALIES. In addition to the software, ALIES provides various supplementary forms of support. For instance, members of the ALIES team encourage user feedback, a practice that enables the system to be continually customized and improved upon. ALIES provides standard forms to help programs efficiently gather, update, and enter information into the system. Additionally, the ALIES training and support infrastructure offers assistance for end-users regarding issues of data, management, and policy. The training and support infrastructure includes the following components:

- Classroom training for managers, teachers, directors, and data entry personnel.
- Data management workshops for required reports.
- Policy workshops.
- Customized training for specific group needs.
- User documentation, including the *User Manual*, installation instructions, etc.
- Personalized support via email, phone, and fax.
- The ALIES website, which provides information, forms, and software updates.
- ALIES Knowledge Sharing sessions, which allow users to troubleshoot problems and share solutions.
- Interactive Report Reviews, in which ALIES users work through funding report issues with the help of LAC staff.

Finally, ALIES is responsible for the aggregation of New York State's individual student record data and the creation of the New York State Adult Education Database. The state then submits this aggregate data to the federal government. Therefore, whether or not a program decides to use the ALIES software, ALIES is ultimately involved in the collection and aggregation of data from every New York State program. The ALIES unit brings 15 years of experience with New York City, New York State, and federal adult education policy. (For more information on ALIES, go to www.alies.org.)

Other Individual Student Record Systems

As stated above, NYSED does not require programs to implement a particular automated individual student record system. However, the department does mandate that every program must use a system that can generate electronic data submission files. Therefore, if a program decides to implement a system other than ALIES, it must make certain the system is automated and capable of submitting data electronically to the LAC in the format specified in Chapter 6. In New York State, programs must implement an electronic data collection system that can:

- ✓ Collect student descriptive, participation, assessment, and outcome data according to NRS requirements and standards.
- ✓ Generate NRS reports according to NRS policy and standards.
- ✓ Submit electronic data in compliance with the ALIES specifications as described in Chapter 6.

New York State's Individual Student Record Form (ISRF) and Instructions

In order to help programs gather individual student intake data, the NYSED has developed a standard Individual Student Record Form (ISRF). This form, which is updated annually, can be downloaded from the NYSED or the ALIES website. The ISRF conforms to the federal requirements for gathering descriptive measures upon intake.

- ✘ Upon intake into the program, local staff collects descriptive measures—demographic information, student goals and status measures—and conducts an assessment of the student's educational functioning level for placement.

The ISRF is a valuable tool for gathering the data required by the NRS. However, programs are free to use their own forms, as long as those forms obtain the requisite data. In order to gather additional program-specific data, programs are free to attach supplemental forms to the ISRF. The ISRF has seven components that align with the federal requirements for intake data:

- ✘ Contact information, including name, address, and phone number.
- ✘ Ethnicity, nationality, gender, and employment status information.
- ✘ Educational background and family information.
- ✘ Population categories and referral source.
- ✘ NRS primary and secondary goals.
- ✘ Initial assessment dates, test type, and results.
- ✘ Enrollment information.

Appendix A includes a copy of the ISRF form and its associated instructions.