

Glossary

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| Advancement | Learner advanced from one educational functioning level to the next, based on the learner's performance. |
| Aggregation, or data aggregation | The process of combining reports from one level of analysis into a single measure at the next level (e.g., combining local program reports into one statewide report). |
| Assessment | Methods of measuring student progress, including standardized testing, other testing, teacher judgment, and student reports. |
| Class level | The educational functioning level in which students are placed. |
| Contact hours | Hours of instruction or instructional activity the learner receives from the program. Instructional activity includes any program-sponsored activity designed to promote student learning in the program curriculum such as classroom instruction, assessment, tutoring, or participation in a learning lab. |
| Data forms | A written or electronic document for collecting student information. |
| Data items | Individual questions or pieces of information contained on data forms. |
| Descriptive measures | For the purposes of the NRS, descriptive measures may include student demographics, status, and goals. |
| Earn a high school diploma or achieve a GED certificate | Obtaining a state accredited secondary diploma or passing the General Education Development (GED) tests. |
| Educational gain | Learner completes or advances one or more educational functioning levels from starting level measured on entry into the programs. |
| Employed | Learners who work as paid employees, work in their own business or farm, or who work 15 hours or more per week as unpaid workers on a farm or in a business operated by a member of the family. Also included are learners who are not currently working, but who have jobs or businesses from which they are temporarily absent. |
| English-as-a-Second Language programs | Programs for limited English proficient students have a focus on improving English communication skills such as speaking, reading, writing, and listening. |
| Enter employment | The learner obtains full- or part-time paid employment before the end of the first quarter after the program exit quarter. |
| Enters other education or training program | The learner enters another education or training program, such as community college, trade school, a four-year college or university, etc. |
| Family literacy programs | A program with a literacy component for parents and children or other intergenerational literacy components. |
| GED | Certificate given to learners who attain passing scores on the General Education Development (GED) tests. |
| Goals | Information collected at intake about the main reasons that a student enrolled in the adult education program. |
| Improve employment | The learner maintains his or her current employment but receives an increase in pay, responsibility, or improved job-related skills. |
| Level benchmarks | Guidelines for placing students in educational functioning levels, based on performance on standardized tests. |
| Mandatory program | A local, state, or federal program that requires a student to attend adult education classes, for example welfare, NAFTA, or probation. |

Glossary

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| Mandatory students | Students who are required to attend adult education classes because of their participation in some other local, state, or federal program, including welfare, NAFTA, job training, or probation. Mandatory students do not include students required to attend classes by their employer. |
| NAFTA program | A federal program to assist workers displaced by the North American Free Trade Agreement (NAFTA). |
| Outcome measures | For the purposes of the NRS, core and secondary outcomes of adult education include learning gains, advancement to further education and training, credentials obtained, employment, family, and community measures. |
| Participation measures | For the purposes of the NRS, possible participation measures include contact hours and program enrollment type. |
| Performance standards | Numeric levels established for outcome measures in the state plan indicating what proportion of students at each level will achieve each outcome. |
| Post-test | A test administered to a student at regular intervals during a program. It is usually used to measure advancement in the program. |
| Pre-test | A test administered to a student upon entry into a program. It is usually used for initial placement. |
| Probation | A situation in which a student is under the supervision of a court and may be required to attend classes. |
| Program (or program area) | The main emphasis of instruction for a set of classes. Examples of program areas are ABE, GED, workplace literacy, ESL and family literacy). |
| Retained employment | The learner remains employed in the third quarter after the exit quarter. |
| Specific academic goal | A student goal in which the student desires to learn a specific academic skill not covered by any of the other goal categories (e.g., multiplication, fractions, grammar, etc.). |
| Standard, (as in procedures, guidelines, and definitions) | All states and programs use the same definitions and coding categories for every data element in the NRS. States and programs follow the same step-by-step instructions on how and when to collect each data element. |
| Student performance | Student attainment formally measured by an approved method. |
| Student record system | A computerized or paper-based system for keeping track of student attendance, intake information, achievement, and outcomes. |
| Student retention | Student attendance is long enough to show learning gains. |
| TANF | Temporary Assistance for Needy Families. A federal welfare program. |
| Uniform system for collecting measures | All states and programs use the same methodology for collecting data on the measures. |
| Voluntary students | Students who attend adult education classes of their own free will; they are not required to attend by any state agency. |
| Work-based project learner activity | A short-term course (at least 12 hours and no more than 30 hours) in which instruction is designed to teach work-based skills and in which the educational outcomes and standards for achievement are specified. |
| Workplace literacy programs | A program designed to improve the literacy skills needed to perform a job and it is at least partly under the auspices of an employer. |

Answer to Home Team Pre/Post Test

Directions: As a team, collaboratively answer the following questions as best you can. Leave blank any questions you are unable to answer. Keep this test for further reference. You will have 5 minutes to complete this task.

1. What are the three goals of the Adult Education and Family Literacy Act?
 - a. Assist adults to become literate and gain or improve employment and become more self-sufficient.
 - b. Assist parents to become full partners in their children's educational development.
 - c. Assist adults in completion of Secondary School education.

2. What are the educational functioning levels for:

| ABE | ESL |
|------------------------------|---------------------------|
| a. Beginning ABE literacy | a. Beginning ESL literacy |
| b. Beginning basic education | b. Beginning ESL |
| c. Low intermediate ABE | c. Low intermediate ESL |
| d. High intermediate ABE | d. High intermediate ESL |
| e. Low ASE | e. Low advanced ESL |
| f. High ASE | f. High advanced ESL |

3. What are three of the core follow-up measures reported to the U.S. Department of Education? (Note: all four core follow-up measures are provided).
 - a) entered employment
 - b) retained employment
 - c) receipt of secondary school diploma or GED
 - d) placement in postsecondary education or training

Facilitator's Supplement
Interpretation of Race 9 Information
(Why Peter's Pond is the best choice.)

Note: You may not want to reveal all of this information, but it is presented here in case you are asked questions.

1. **Note:** This is a claiming race. That is, the horses can be "claimed" and purchased for \$12,500. That figure indicates the estimated value of the horse...and horses may move up and down in value depending on their performance. All of the horses, except *Peter's Pond* are moving **UP** in class—racing with better horses. *Peter's Pond* is moving **DOWN** in class (from \$14,000 claiming to \$12,500 as seen on the **right side of the left column**) **so he is racing against slower horses and therefore stands a better chance of winning.**
2. ***Peter's Pond* has already beaten *Cash Value* this year on this track** (15 Jan 99—see far left column). *Cash Value*, however, did beat *Peter's Pond* last year (18 Dec 98) at Hollywood Park, so he is a contender. That, however, was a longer race (6-1/2 furlongs—this one is 6—and *Peter's Pond* was 1st but tired in that last distance). *Cash Value*, on the other hand, had a spurt of speed from 4th to 2nd also in that last distance. *Cash Value* may like longer distances as he also came in 3rd on 20 Feb 22 at 6-1/2 furlongs.
3. ***Peter's Pond* has a slight edge in his speed factor** (Beyer rating) which was 78 last race (*Cash Value* was 76) and *Peter's Pond* has past ratings as high as 83 and 84 (the higher the factor, the faster the speed). *Cash Value* has also had an 83 and 84 but the last race is important.
4. **Solis is a good jockey for *Peter's Pond*.** He was riding during his Jan 15 win. The horse did very poorly when Puglisi was rider. This is the first time that Jo Alferez has ridden *Cash Value* so that combination of horse and jockey is unknown, but gives *Peter's Pond* an edge.
5. **About *Ruby Lover*:** He has almost nothing going for him. Poor speed ratings; poor past performance; a new jockey and has been beaten by **both *Peter's Pond* and *Cash Value***. Why is he here? Probably because he has had two recent WORKS (i.e., Work Outs—see bottom line for each horse) of 5 furlongs at a little better than one minute—similar to the other horses. But his last wins were over a year ago.

Possible Answers to Scenario #1

1. **Is there much of a difference between the average pre-test scores of the eight classes?**

There is not a large difference between the lowest scoring class and highest scoring class. The lowest average pre-test score for a class is 213.3, while the highest average pre-test score for a class is 214.9.

Are all pre-test scores in the CASAS low intermediate ABE range?

Yes. The range of pre-test scores is 211-219 which falls under the CASAS Low Intermediate ABE range.

2. **Which students, if any, should be advanced?**

The following students should be advanced:

- In class 1—Myra Arrendondo (221), Bertha Galvan (222), Corey Gibson (223), Ivor Mulligan (228), and Michael Simone (225);
- In class 2—Lubna Bashir (223), Vicky Patapis (223), Natalie Portal (224), and David Soden (221);
- In class 3—Peter Carras (221), Alexander Gilles (225), and Maricris Naval (222);
- In class 4—Mark Cole (221) and Rafael Diaz (221);
- In class 5—Crecilla Cohen (224) and Jessica Taylor (223);
- In class 6—Daniel Carpenter (221), Krista Olson (222), Anthony Sanchez (222), and Laurel Tanaka (221);
- In class 7—Kerry Pisacane (223) and Sherrie Rudick (221); and
- In class 8—none.

3. **Which classes made the greatest average gains?**

Classes 1 and 3 made the greatest average gains. The average gains of the 2 classes were 4.4 and 4.2 points, respectively. Classes No. 5 and 7 had average gains of 3.8 points, class 6 had an average gain of 3.2 points, class 2 had an average gain of 2.5 points, class 8 had an average gain of 1.4 points, and class No. 4 had an average gain of 0.9 points.

Possible Answers to Scenario #1

4. **What differences, if any, appear to be related to whether the instructors are full- or part-time?**

Three of the four classes with the largest average gains had full-time instructors. Both of the classes with the lowest average gains had part-time instructors. It might be the case, therefore, that full-time instructors' classes have larger average gains between the pre-test and post-test as measured by the standardized test.

5. **What relationships, if any, appear to exist between attendance hours and test scores?**

There is no perfect relationship, but it appears that classes in which students had higher average attendance hours tended to show higher average gains on the standardized tests, especially for students 90 hours and over.

6. **What relationships, if any, appear to exist between gains and attending professional development?**

Three of the four classes with the largest average gains had instructors who attended professional development on reading. The two classes with the smallest average gains had instructors who did not attend professional development on reading. There appears, therefore, that there may be a positive relationship between attending professional development and improved performance on standardized tests.

7. **What relationships, if any, exist between student gains and whether or not instructors use new reading strategies?**

The instructors of three of the four classes with the largest average gains were observed using the strategies they learned in the professional development (Jennifer Lewis, Class 7 did not attend the professional development but had a 3.8 class gain.) Among the four classes that had the smallest average gains, none of the instructors who attended professional development were observed using the strategies taught in the professional development sessions. There appears, therefore, to be a strong positive relationship between being observed using the new strategies and having a class that performs well on standardized tests.

Possible Answers to Scenario #1

8. **What conclusions would you make from these data? Should you send additional instructors for professional development? Should you hire more full-time instructors? Are placements within test ranges? Other?**

Based on this evidence, the director of this program should encourage as many instructors as possible to attend professional development. Furthermore, the director should consider hiring more full-time instructors, since their classes appear to perform better on the program's standardized tests. The program appears to be placing its students well. All of the students placed in the low intermediate level in this program had test scores that fell within the range suggested by the NRS.

9. **What other information would you need to know in order to assess:**
- **The effectiveness of professional development?**
 - **Whether having part-time or full-time instructors makes a difference?**
 - **Whether the number of class attendance hours makes a difference?**

To determine the effectiveness of professional development, it would be helpful to have a greater quantity of data collected over time and from many different levels. It also would be helpful to have more information about when and how the teachers use the strategies they learned in the professional development sessions.

To determine the difference between having full-time and part-time instructors, it would be helpful to have data collected over time for the same instructors and to compare the performance of their classes over the course of several semesters. It would also be helpful to compare the performance of full-time and part-time instructors' classes from levels other than just the low intermediate level, i.e. a larger sample.

Because there is not a very wide range in the average number of hours attended by each class, it would be necessary to collect more data, including attendance hours and pre-test and post-test scores from several different class levels in order to determine the effect of attendance hours on achievement gains.

Possible Answers to Scenario #2

1. **Initially, are students placed in appropriate levels according to their pre-test scores? For example, are students placed too high or too low?**

Table 1, Student Placement Pre-Test Scores, indicates that students are generally correctly placed. The average CASAS scores fall within the level benchmarks. Looking at the range of CASAS scores, however, there are a few students who have higher or lower scores than the CASAS level benchmarks. For example, for Beginning ABE the CASAS benchmark is 201-210, but the range of students' CASAS scores is 199-211. For Low Intermediate ABE, the CASAS benchmark is 211-220 and the range of CASAS scores is 205-225. Also, for High Intermediate ABE, the CASAS benchmark is 221-235 and the range of CASAS scores is 214-239.

Additional information on the number of students who fall outside the benchmark scores would be helpful to accurately determine if the students are correctly placed.

2. **How would you describe the level of post-testing in the program?**

Information on Table 2, Student Post-Test Information, shows that a total of 295 students are post-tested. Almost 40 percent of the 750 students are post-tested. Column 3 of that table shows the number of students at each level that are post-tested. According to that data, the lower the class level, the lower the percent of students post-tested. It appears that students at lower levels do not remain in class long enough to be post tested.

How many students advance to the next level?

Table 3, ABE Advancement Information, shows that a total of 195 students advanced to the next level. This is only about one-quarter (26%) of all students.

What level shows the most advancement? The least advancement?

Table 3, Advancement Information, shows that the students in High ASE show the most advancement (60%). The students in Beginning Literacy show the least advancement (12%).

3. **Which class:**

Takes the most instructional hours for advancement?

Table 3, Advancement Information, shows that students in Beginning Literacy take the most contact hours before advancement (81 hours).

Possible Answers to Scenario #2

Takes the fewest contact hours for advancement?

According to Table 3, Advancement Information, students in Low Intermediate ABE and Low ASE take the least contact hours before advancement (39 hours).

4. **What is the average number of contact hours for advancement?**

Table 3, Advancement Information, indicates that the average number of contact hours for advancement is 54 hours.

5. **In what *Programs* (e.g., GED, ESL, workplace) are:**

The highest percentage of students recommended for advancement?

Table 4, Advancement by Program, shows that 53% (105) of the students in ESL are recommended for advancement.

The lowest percentage of students recommended for advancement?

Table 4, Advancement by Program, indicates that in Family Literacy, only 14% (7) of the students are recommended for advancement.

6. **Students with which goals are most likely to achieve their goal?**

Table 6, Advancement by Goal, shows that students with the goals of personal growth (47%), enter postsecondary education (30%), obtain a job (27%), improve current job (25%), and earn a HS diploma/GED (24%) are the students who are most likely to advance.

What is the relationship between students who achieve their goals and the number of contact hours they receive?

Table 6, Advancement by Goal, shows that, in general, there is no consistent relationship between the percentage of students achieving their goals and instructional hours.

At which pre-test score range are students most likely to achieve their goals?

Table 6, Advancement by Goal, shows that students most likely to achieve their goal are those who want personal growth. Their test score range is 184-216. The next most likely are those who want to advance to further education. Their test score range is 220-249.

Possible Answers to Scenario #2

7. **What other information, if any, do you need to understand further student performance?**

It might be helpful to have tables that provide information on: instructor qualifications, support services available to students, employment or family situation (e.g. single parent)

8. **How well is the program meeting its performance standards?**

Table 3, ABE Advancement Information, shows that only Low Intermediate ABE and High Intermediate ABE, are meeting the performance standards. The standards were 33% and 45%. Thirty six percent and 45% respectively, are advancing. The remainder of the class levels are below the standard with Low ASE and High ASE being particularly low.

Table 5, Advancement in a Sample of Classes, shows that classes are not doing well in meeting performance standards. The Beginning Literacy Class advanced 14% of the students, just slightly under the 15% standard. The Beginning ABE Class 1 (17%) is not meeting the 20% standard, while Class 2 is (24%). Neither of the Low Intermediate classes is meeting the 33% performance standard, and the High Intermediate Class only advanced 26%, which is 54 percentage points short of the performance standard.

What program changes, if any, would you recommend?

The following are recommendations for program changes:

- Based on the range of CASAS scores it appears that students need to be placed in lower or higher levels, especially in Low and High Intermediate ABE classes. The program director should review initial placement procedures to ensure that students are placed in the appropriate levels.
- The program should also consider changing class schedules and locations for Low ASE and High Intermediate levels to increase contact hours.
- Finally, the low percentage of students post-tested indicate that many of the students drop out of the program. The blends of support services that students need to remain in class needs to be determined in order to increase retention.
- May want to review standards to see if some are unreasonable.

Scenario # 3 Understanding Student Retention

The Scenario

You've read that the new law governing adult education funding requires that programs provide instruction of "sufficient quality and duration" to help students achieve literacy gains. While you know the quality of instruction at your program is excellent and that your classes meet often enough to help students, you wonder whether students are attending long enough to show gains. You also know that since your program will be held to standards of improving student learning gains, students need to stay in classes long enough to improve their skills. To study this, you decide to look at how many contact hours different types of students in your program are getting.

The Data

From your program's student record system, you ask for student contact hours for different types of students. You ask for their incoming literacy level and goals for attending. Computer staff at your program produced the attached tables, using data in your system on students enrolled over the past four months.

The Task

Use the tables to study the retention patterns in the program. Before reviewing the tables, discuss with your group the type of information you think you will need in order to understand student retention patterns and the type of student variables you might want to examine. Then, address the following questions as you review the tables.

1. What student characteristics relate to retention?
2. What relationship, if any, do you see between class level and contact hours?
3. What outcomes require the most contact hours to achieve? What outcomes require the fewest contact hours to achieve?
4. What programs (GED, ESL, etc.) have the most contact hours?
5. What other tables or data would you like to have to examine this issue further?
6. What conclusions and program changes might you suggest based on these data?

Scenario #3

Table 1. Contact Hours by Student Goal

| Goal | Avg. Contact Hours | Range |
|-------------------------------------|--------------------|-------|
| Earn HS Diploma/GED | 48 | 16-85 |
| Read Better | 42 | 23-62 |
| Personal Growth | 36 | 31-55 |
| Find New Job/Improve Old Job | 54 | 46-78 |
| To Advance to Further Education | 60 | 41-83 |
| To Learn Citizenship Skills | 39 | 19-58 |
| To Achieve a Specific Academic Goal | 51 | 44-71 |
| Other | 33 | 29-59 |

Table 2. Contact Hours by Gender and Age

| Contact Hours | Gender | | Age | | | | | |
|---------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | Female | Male | 15-20 | 21-30 | 31-40 | 41-50 | 51-64 | 65+ |
| | N=416 | N=344 | N=66 | N=214 | N=191 | N=139 | N=94 | N=76 |
| 0-12 | 8 % | 10 % | 21 % | 9 % | 4 % | 5 % | 9 % | 24 % |
| 13-25 | 12 % | 14 % | 14 % | 15 % | 7 % | 6 % | 14 % | 14 % |
| 26-35 | 9 % | 17 % | 15 % | 17 % | 11 % | 10 % | 18 % | 15 % |
| 36-45 | 16 % | 22 % | 21 % | 22 % | 15 % | 16 % | 25 % | 20 % |
| 46-55 | 24 % | 16 % | 18 % | 20 % | 22 % | 23 % | 19 % | 16 % |
| 56-65 | 13 % | 12 % | 6 % | 8 % | 18 % | 16 % | 7 % | 5 % |
| 65-75 | 10 % | 6 % | 3 % | 6 % | 13 % | 14 % | 5 % | 4 % |
| 75+ | 8 % | 3 % | 2 % | 3 % | 10 % | 12 % | 3 % | 2 % |
| Total | 100 % | 100 % | 100 % | 100 % | 100 % | 100 % | 100 % | 100 % |

Scenario #3

Table 3. Contact Hours by Years of Education

| Contact Hours | Years of Education | | | | | |
|---------------|--------------------|--------------|--------------|--------------|--------------|--------------|
| | <4 | 4-6 | 7-9 | 10-11 | 12 | 13+ |
| 0-12 | 21 % | 11 % | 11 % | 9 % | 5 % | 3 % |
| 13-25 | 21 % | 16 % | 13 % | 15 % | 6 % | 8 % |
| 26-35 | 18 % | 25 % | 16 % | 17 % | 10 % | 10 % |
| 36-45 | 15 % | 15 % | 23 % | 22 % | 16 % | 16 % |
| 46-55 | 14 % | 12 % | 15 % | 20 % | 22 % | 23 % |
| 56-65 | 6 % | 9 % | 11 % | 8 % | 17 % | 16 % |
| 65-75 | 3 % | 7 % | 8 % | 6 % | 14 % | 14 % |
| 75+ | 2 % | 5 % | 3 % | 3 % | 10 % | 12 % |
| Total | 100 % | 100 % | 100 % | 100 % | 100 % | 100 % |

Table 4. Contact Hours by Class/Level

| Class/Level | Contact Hours | | | | | | | | | |
|-----------------------|---------------|------|-------|-------|-------|-------|-------|-------|-----|--------------|
| | Avg. | 0-12 | 13-25 | 26-35 | 36-45 | 46-55 | 56-65 | 66-75 | 76+ | Total |
| Beginning Literacy | 49 | 5 % | 3 % | 16 % | 18 % | 16 % | 20 % | 13 % | 9 % | 100 % |
| Beginning ABE | 48 | 2 % | 6 % | 22 % | 20 % | 14 % | 15 % | 12 % | 9 % | 100 % |
| Low Intermediate ABE | 39 | 12 % | 10 % | 20 % | 26 % | 10 % | 11 % | 7 % | 4 % | 100 % |
| High Intermediate ABE | 40 | 11 % | 10 % | 19 % | 24 % | 13 % | 15 % | 4 % | 4 % | 100 % |
| Low ASE | 51 | 6 % | 2 % | 8 % | 14 % | 21 % | 26 % | 17 % | 6 % | 100 % |
| High ASE | 50 | 5 % | 4 % | 12 % | 17 % | 18 % | 21 % | 15 % | 8 % | 100 % |

Scenario #3

Table 5. Student Outcomes

| Goal/Outcome | Number Identifying Each Goal | Percent Achieving Goal | Avg. Contact Hours | Range of Contact Hours |
|-------------------------------------|------------------------------|------------------------|--------------------|------------------------|
| Earn HS Diploma/GED | 206 | 9% | 51 | 16-85 |
| Read Better | 52 | 17 % | 42 | 23-62 |
| Personal Growth | 138 | 64 % | 36 | 31-55 |
| Find New Job/Improve Old Job | 51 | 27 % | 57 | 46-78 |
| To Advance to Further Education | 32 | 8 % | 60 | 41-83 |
| To Learn Citizenship Skills | 14 | 12 % | 45 | 27-69 |
| To Achieve a Specific Academic Goal | 11 | 10 % | 51 | 44-71 |
| Advanced One or More Levels | N/A ^a | 26 % | 33 | 29-59 |

^aProgram goal—students cannot identify advancement as a personal goal at intake

Table 6. Contact Hours by Program

| Program | Number Enrolled (all levels) | Percent of Total Enrollment | Avg. Contact Hours | Range of Contact Hours |
|---------------------|------------------------------|-----------------------------|--------------------|------------------------|
| ABE | 225 | 27% | 45 | 17-87 |
| GED | 265 | 32% | 60 | 30-102 |
| ESL | 197 | 24% | 69 | 24-96 |
| Family Literacy | 49 | 6% | 54 | 39-72 |
| Workplace Literacy | 86 | 10% | 69 | 58-90 |
| All Programs | 822 | 100% | 60 | 17-102 |

Possible Answers to Scenario #3

1. **What student characteristics relate to retention?**

Table 2, Contact Hours by Gender and Age, shows that gender and age have significant effects on retention. Women tend to stay longer than men. The largest proportion of women stay between 46 and 55 hours, while the largest proportion of men stay between 36 and 45 hours.

Also, very young and very old students tend to stay less time than middle aged students.

Table 3, Contact Hours by Years of Education, shows that more highly educated students tend to stay longer.

2. **What relationship, if any, do you see between class level and contact hours?**

Table 4, Contact Hours by Class/Level, shows that Beginning Literacy students stay the longest, while High Intermediate ABE students stay the least amount of time.

3. **What outcomes require the most contact hours to achieve? What outcomes require the fewest contact hours to achieve?**

Table 5, Student Outcomes, shows advancing to further education takes the most time (60 hours), while advancing a level takes the least amount of time to achieve (33 hours).

4. **What programs (GED, ESL, etc.) have the most contact hours?**

Table 6, Contact Hours by Program, shows that ESL and Workplace Literacy students receive the most instruction (69 hours), followed by GED (60), Family Literacy (54), and ABE (45).

5. **What other tables or data would you like to have to examine this issue further?**

In order to examine this issue further, more data are needed on other student characteristics (such as disability status and reasons for leaving the program). Also, a table detailing the levels into which students are placed related to goals achieved would be necessary to see how realistic the goals are.

Possible Answers to Scenario #3

6. **What conclusions and program changes might you suggest based on these data?**

According to the data presented recent school dropouts seem to stay for short periods of time. Programs should be made more relevant to them and efforts should be made to increase the retention of this population.

Also, students with less than four years of education tend to drop out of the program. The program can offer additional support in the way of tutoring services or classroom aides to help those who are having difficulties in class and increase retention.

Scenario # 4

The Impact of Mandatory Students

The Scenario

The new welfare law is really affecting your program. Due to a new arrangement with your county human services department, there has been a large increase in enrollment over the past two years of TANF students. These students are required to attend classes 20 hours per week and special classes have been set up for them, although some have been placed in existing classes. Then, a few months ago, a large textile plant in your district closed and moved operations to Asia, laying off several hundred workers. Your local district received dislocated worker funds available under NAFTA laws to provide education and retraining to these workers. These students are also mandatory, as they are receiving financial assistance under NAFTA during retraining. There is yet another mandatory population attending your program – low-literate criminal offenders who are court-ordered to attend as part of their probation.

Your program director is concerned about the impact of these students on the program overall and wonders about the characteristics, literacy levels, and performance of these students as compared to other students in the program. She asks you for a full report.

The Data

You have a rich pool of data, due to the reporting requirement for these students. You ask your computer staff for tables on the goals, characteristics and achievements of these students over the last six months.

The Task

Describe what you would put in a report to your program director on these students compared to other students in your program using the information from the following tables. Before reviewing the tables, discuss with your group the type of information you think you will need to get the most important information about these students. Use the following questions to assist you in reviewing the tables.

1. How many mandatory students are enrolled? What are their initial goals? In what program components are mandatory students placed?

Scenario # 4

The Impact of Mandatory Students

2. Compared to voluntary students are mandated students typically placed at higher or lower levels?
3. At what level do mandatory students:
 - Take the most contact hours to advance?
 - Take the fewest contact hours to advance?
 - At what levels is there the most advancement?
4. How does the advancement of mandatory students compare with voluntary students?
5. What outcomes do mandatory students achieve? How does this compare with voluntary students? How long does it take mandatory to achieve outcomes? How does the number of hours to achieve outcomes compare with hours needed by voluntary students?
6. What other tables or data would you like to have to examine this issue further?
7. What conclusions and program changes might you suggest based on these data?

Scenario #4

Table 1. Learner Enrollment Status by Special Program

| Enrollment Status | TANF | NAFTA | Probation | Voluntary |
|------------------------------------|--------------|--------------|--------------|--------------|
| | N=72 | N=21 | N=144 | N=513 |
| Enrolled/did not begin instruction | 13 % | 6 % | 11 % | 8 % |
| Remained in program | 70 % | 87 % | 74 % | 84 % |
| Left before completing goal | 14 % | 5 % | 13 % | 7 % |
| Other | 3 % | 2 % | 2 % | 1 % |
| Total | 100 % | 100 % | 100 % | 100 % |

Table 2. Level by Enrollment Status

| Class Level | TANF | NAFTA | Probation | Voluntary |
|-----------------------|-----------|-----------|------------|------------|
| Beginning Literacy | 27 | 4 | 43 | 111 |
| Beginning ABE | 19 | 11 | 58 | 99 |
| Low Intermediate ABE | 12 | 5 | 24 | 124 |
| High Intermediate ABE | 8 | 1 | 11 | 106 |
| Low ASE | 4 | | 5 | 51 |
| High ASE | 2 | | 3 | 22 |
| Total | 72 | 21 | 144 | 513 |

Scenario #4

Table 3. Advancement by Enrollment Status

| Class/Level | Number of Students Recommended for Advancement | | Percentage of Students Recommended for Advancement | | Avg. Contact Hrs/Student for Advancement | |
|-----------------------|--|-----------|--|-------------|--|------------|
| | Voluntary | Mandatory | Voluntary | Mandatory | Voluntary | Mandatory |
| Beginning Literacy | 14 | 18 | 13 % | 24 % | 49 | 161 |
| Beginning ABE | 28 | 24 | 28 % | 27 % | 48 | 186 |
| Low Intermediate ABE | 35 | 12 | 28 % | 29 % | 39 | 181 |
| High Intermediate ABE | 32 | 6 | 30 % | 30 % | 40 | 142 |
| Low ASE | 16 | 2 | 31 % | 22 % | 51 | 124 |
| High ASE | 8 | 0 | 36 % | 0 % | 50 | 165 |
| TOTAL | 133 | 62 | 26 % | 26 % | 46 | 160 |

Table 4. Program Enrollments by Special Program

| Program | TANF | NAFTA | Probation | Voluntary |
|---------------------|-----------|-----------|------------|------------|
| ABE | 36 | 5 | 78 | 140 |
| GED | 26 | 3 | 60 | 166 |
| ESL | 3 | | 6 | 124 |
| Family Literacy | | | | 31 |
| Workplace Literacy | 7 | 13 | | 52 |
| All Programs | 72 | 21 | 144 | 513 |

Scenario #4

Table 5. Special Program Participant Goals

| Program | TANF | NAFTA | Probation | Voluntary |
|-------------------------------------|------|-------|-----------|-----------|
| Earn HS Diploma/GED | 46 | 3 | 71 | 213 |
| Read Better | 22 | 0 | 11 | 54 |
| Personal Growth | 0 | 0 | 0 | 143 |
| Find New Job/Improve Old Job | 4 | 18 | 62 | 51 |
| To Advance to Further Education | 0 | 0 | 0 | 32 |
| To Learn Citizenship Skills | 0 | 0 | 0 | 14 |
| To Achieve a Specific Academic Goal | 0 | 0 | 0 | 6 |

Table 6. Student Outcomes: Voluntary vs. Mandatory Students

| Goal/Outcome | Percent Achieving Goal ^a | | Average Contact Hours | | Range | |
|--|-------------------------------------|---------------------|-----------------------|---------------------|---------------------|---------------------|
| | Voluntary Standards | Mandatory Standards | Voluntary Standards | Mandatory Standards | Voluntary Standards | Mandatory Standards |
| Earn HS Diploma/GED | 28 % | 21 % | 49 | 182 | 16-85 | 91-211 |
| Read Better | 17 % | 18 % | 40 | 185 | 23-62 | 82-224 |
| Personal Growth | 64 % | 0 % | 37 | 0 | 31-55 | 0 |
| Find New Job/Improve Old Job | 31 % | 25 % | 56 | 154 | 46-78 | 61-185 |
| To Advance to Further Education | 11 % | 0 % | 60 | 0 | 41-83 | 0 |
| To Learn Citizenship Skills | 12 % | 0 % | 38 | 0 | 19-58 | 0 |
| To Achieve a Specific Academic Goal | 14 % | 0 % | 52 | 0 | 44-71 | 0 |
| Advanced One or More Levels ^b | 26 % | 26 % | 46 | 160 | 16-85 | 61-211 |

^a Of those who identified each goal at intake

^b Program goal—students cannot identify advancement as a personal goal at intake

Possible Answers to Scenario #4

1. How many mandatory students are enrolled?

Table 1, Learner Enrollment Status by Special Program, shows that 237 mandatory students are enrolled (72 TANF + 21 NAFTA +144 Probation).

What are their initial goals?

Table 5, Special Program Participant Goals, shows that TANF and Probationary students are most interested in getting a GED or HS diploma (roughly half of TANF and Probationary students identified this as a goal). Probationary and NAFTA students are interested in finding a new job or improving their old job (almost half of Probationary students and 80% of NAFTA students identified this as a goal).

In what program components are mandatory students placed?

Table 4, Program Enrollments by Special Program, shows that mandatory students are placed in the following manner:

- **TANF**—Students are placed mostly in ABE (50%) and GED (31%). Other components (ASE, ESL, and Workplace Literacy) total only 19% of the students.
- **NAFTA**—Students are mostly in Workplace Literacy (62%). Twenty four percent are in ABE and 14% are in GED.
- **Probationary**—Students are primarily in ABE (54%) and GED (31%). Other components (ASE and ESL) total 16% of the students. None are placed in Family or Workplace Literacy.

No mandatory students are placed in Family Literacy.

2. Compared to voluntary students, are mandated students typically placed at higher or lower levels?

Table 2, Level by Enrollment Status, shows that mandatory students are generally placed at lower levels than voluntary students. For example, 94% of mandatory students (223) are placed in the first four class levels compared to only 86% of voluntary students (440).

Possible Answers to Scenario #4

3. **At what level do mandatory students:**

Take the most contact hours to advance?

Table 3, Advancement by Enrollment Status, shows Beginning ABE students take the most hours to advance (186 hours).

The fewest contact hours to advance?

Low ASE take the fewest hours to advance (124 hours).

Demonstrate the most advancement?

Mandatory students in High Intermediate ABE demonstrate the most advancement (30%).

4. **How does the advancement of mandatory students compare with voluntary students?**

Table 3, Advancement by Enrollment Status, shows that on average, it takes 160 hours for mandatory students to advance, compared to 46 hours for voluntary students. At each level, it takes more instructional hours for mandatory students to advance.

The advancement of voluntary and mandatory students seems to be the same overall.

5. **What outcomes do mandatory students achieve? How does this compare with voluntary students? How long does it take mandatory students to achieve these outcomes? How does the number of hours to achieve outcomes compare with hours needed by voluntary students?**

Table 6, Student Outcomes: Voluntary vs. Mandatory Students, shows that 18-25% of mandatory students achieve their goals of earning a HS diploma or GED, reading better, or finding a new/improving old job. No mandatory student achieved any of the other goals. On average mandatory students achieve their goals in 160 contact hours.

Possible Answers to Scenario #4

In general, a greater percentage of voluntary students achieve their indicated goals. Voluntary students also tend to achieve their goals with fewer contact hours.

6. **What other tables or data would you like to have to examine this issue further?**

Other information that would be useful in examining this issue further include advancement and outcome information broken out for each category of mandatory participation. Also, information data on the amount of time each type of mandatory student is required to attend the program would be helpful.

7. **What conclusions and program changes might you suggest based on these data?**

The conclusions that might be of most concern to a program administrator come from Table 6, Student Outcomes: Voluntary vs. Mandatory Students. Relatively speaking the same proportion of mandatory students achieves each goal or outcome as voluntary students. However the amount of time, measured by average contact hours, is much greater for mandatory students than for voluntary students. Though mandatory students are required to attend for a certain number of hours the program administrator might be concerned that more mandatory students are not achieving each goal or outcome given their extended number of contact hours. The program administrator might want to investigate the factors that cause mandatory students to achieve outcomes at about the same rate as voluntary students despite the fact that they have significantly higher levels of contact hours.

Scenario #5

Developing Your Own Research Questions

The Scenario

You have just returned home from a training conference your state has sponsored on how to use your program data. Your program director, convinced of the importance of using data to understand student and needs and to improve the program, has invested in a new comprehensive student record system to allow student data to be kept and analyzed. She asks you to apply what you have learned by developing a plan to use the data the system will collect for program improvement. She also wants to know whether there is any critical information that is missing from the system.

The Task

Develop a plan for using the information in your new data system. Your plan can identify topics to examine for program improvement efforts, to understand the type of students enrolled, to improve instruction, to identify staff development needs or to assess student performance, for example. You start by looking at the forms that will be used to report the data, which contain all of the information collected on students. (*NOTE: These are forms Oregon uses for its TOPS system.*)

The following steps may assist you in developing this plan.

1. Make a list of six questions you would like to know about your students or your program's performance.
2. List the information you will need to answer three of these questions.
3. Review the data forms to identify which data items you would need to answer these questions.
4. Is there any information missing from the data system that you need to answer your questions? If so, is there another way to obtain the data or another source that can provide this information?
5. Design the tables you will need to output the information from your computer system.
6. What will you look for in these tables that will help you answer your questions?
7. How could you use the information you get from your planned analyses?

TOPS PRO Form

TOPS PRO Form

TOPS PRO Form

TOPS PRO Form

TOPS PRO Form

Possible Answers to Scenario #5

1. **Make a list of six questions you would like to know about your students or your program's performance.**
 - a. What does student retention look like in our programs? What factors contribute to retention?
 - b. What level of progress are students making? How long does it take to make this level of progress?
 - c. Are students placed in the appropriate levels when they enroll?
 - d. How successful are students in reaching their goals? Which students are most successful? What factors contribute to success?
 - e. Do students have the skills necessary to enter the workforce?
 - f. How does the progress of TANF students compare to voluntary students?

2. **List the information you will need to answer three of these questions.**
 - a. What does student retention look like in our programs? What factors contribute to retention?
 - Number of hours of instruction by student characteristics
 - b. What level of progress are students making? How long does it take to make this level of progress?
 - Number and percent of students at each instructional level, date of entry, current date
 - c. Are students placed in the appropriate levels when they enroll?
 - Instructional level assigned at intake and test scores
 - Instructional level assigned at intake and instructional level assigned on update
 - d. How successful are students in reaching their goals? Which students are most successful? What factors contribute to success?
 - Progress by student characteristics
 - Reason for enrollment, learner results, and student characteristics
 - e. Do students have the skills necessary to enter the workforce?
 - Pre-employment work maturity skills and workforce readiness

Possible Answers to Scenario #5

- f. How does the progress of TANF students compare to voluntary students?
- Personal status and progress
 - Personal status and learner results
3. **Review the data forms to identify which data items you would need to answer these questions.**
- a. What does student retention look like in our programs? What factors contribute to retention?
- Entry record—sex, date of birth, number of years of school completed, highest diploma or degree earned, ethnicity, native language
 - Update record—hours of instruction
- b. What level of progress are students making? How long does it take to make this level of progress?
- Entry record—instructional level
 - Update record—instructional level
- c. Are students placed in the appropriate levels when they enroll?
- Entry record—instructional level
 - Update record—instructional level
- d. How successful are students in reaching their goals? Which students are most successful? What factors contribute to success?
- Entry record - sex, date of birth, number of years of school completed, highest diploma or degree earned, ethnicity, race, native language, reason for enrollment
 - Update record - learner results
- e. Do students have the skills necessary to enter the workforce?
- Workforce supplemental entry record - workforce readiness
 - Workforce supplemental update record - workforce readiness
- f. How does the progress of TANF students compare to voluntary students?
- Entry record—reason for enrollment, personal status, instructional level
 - Update record—instructional level and progress

Possible Answers to Scenario #5

4. **Is there any information missing from the data system that you need to answer your questions? If so, is there another way to obtain the data or another source that can provide this information?**

No. All information needed can be derived from data obtained.

5. **Design the tables you will need to output the information from your computer system.**

- a. What does student retention look like in our programs? What factors contribute to retention?

Table 1. Student Hours by Sex, Age, Education, Ethnicity, and Native Language

| | Total Contact Hours | Number of Students | Average Contact Hours/Student |
|--|---------------------|--------------------|-------------------------------|
| Total | | | |
| Sex | | | |
| Male | | | |
| Female | | | |
| Age Group | | | |
| 18-25 | | | |
| 26-35 | | | |
| 36-45 | | | |
| 46-55 | | | |
| 56-65 | | | |
| 65 and Higher | | | |
| Education | | | |
| 0-3 years | | | |
| 4-6 | | | |
| HS or GED | | | |
| Technical Certificate | | | |
| A.A./A.S. Degree | | | |
| 4 Yr College Grad | | | |
| Graduate Studies | | | |
| Other | | | |
| Ethnicity | | | |
| Hispanic or Latino | | | |
| White | | | |
| Asian | | | |
| Black or African American | | | |
| Native Hawaiian or Other Pacific Islander | | | |
| Filipino | | | |
| American Indian Alaska Native | | | |
| Native Language | | | |
| English | | | |
| Spanish | | | |
| Vietnamese | | | |
| Chinese | | | |
| Hmong | | | |
| Cambodian | | | |
| Tagalog | | | |
| Korean | | | |
| Lao | | | |
| Russian | | | |
| Farsi | | | |
| Other | | | |

Possible Answers to Scenario #5

- b. What level of progress are students making? How long does it take to make this level of progress?

Table 2. Advancement by Level (ABE)

| | Basic Skills (ABE) Students | | | |
|--------------------------|--|--|---|-------------------------------|
| | Number of Students Initially Placed in Level | Number of Students Advancing to Next Level | Percentage of Students Advancing by Level | Average Contact Hours/Student |
| Beginning Literacy | | | | |
| Beginning | | | | |
| Intermediate | | | | |
| Advanced | | | | |
| Adult Secondary | | | | |
| Advanced Adult Secondary | | | | |

Table 3. Advancement by Level (ESL)

| | ESL Students | | | |
|--------------------|--|--|---|-------------------------------|
| | Number of Students Initially Placed in Level | Number of Students Advancing to Next Level | Percentage of Students Advancing by Level | Average Contact Hours/Student |
| Beginning Literacy | | | | |
| Beginning Low | | | | |
| Beginning High | | | | |
| Intermediate Low | | | | |
| Intermediate High | | | | |
| Advanced | | | | |

- c. Are students placed in the appropriate levels when they enroll?

Table 4. Student Placement by Level (ABE)

| | Basic Skills (ABE) Students | | |
|--------------------------|------------------------------------|-------------------------------------|--|
| | Number of Students Placed in Level | Number of Students Scoring in Level | Students Placed in Level Minus Students Scoring in Level |
| Beginning Literacy | | | |
| Beginning | | | |
| Intermediate | | | |
| Advanced | | | |
| Adult Secondary | | | |
| Advanced Adult Secondary | | | |

Possible Answers to Scenario #5

Table 5. Student Placement by Level (ESL)

| | ESL Students | | |
|--------------------|------------------------------------|-------------------------------------|--|
| | Number of Students Placed in Level | Number of Students Scoring in Level | Students Placed in Level Minus Students Scoring in Level |
| Beginning Literacy | | | |
| Beginning Low | | | |
| Beginning High | | | |
| Intermediate Low | | | |
| Intermediate High | | | |
| Advanced | | | |

Possible Answers to Scenario #5

- d. How successful are students in reaching their goals? Which students are most successful? What factors contribute to success?

Table 6. Student Educational Goals and Outcomes by Sex, Age, Education, Ethnicity, and Native Language

| | Number of Students Indicating "H.S. Diploma/GED" as Primary Reason for Enrollment at Intake | Number of Students Indicating "H.S. Diploma/GED" as Primary Reason for Enrollment AND Earned a HS Diploma or Completed GED at Update | Percent of Students Reaching Indicated Goal |
|---|---|--|---|
| Total | | | |
| Sex | | | |
| Male | | | |
| Female | | | |
| Age Group | | | |
| 18-25 | | | |
| 26-35 | | | |
| 36-45 | | | |
| 46-55 | | | |
| 56-65 | | | |
| 65 and Higher | | | |
| Education | | | |
| 0-3 years | | | |
| 4-6 | | | |
| HS or GED | | | |
| Technical Certificate | | | |
| A.A./A.S. Degree | | | |
| 4 Yr College Grad | | | |
| Graduate Studies | | | |
| Other | | | |
| Ethnicity | | | |
| Hispanic or Latino | | | |
| White | | | |
| Asian | | | |
| Black or African American | | | |
| Native Hawaiian or Other Pacific Islander | | | |
| Filipino | | | |
| American Indian | | | |
| Alaska Native | | | |
| Native Language | | | |
| English | | | |
| Spanish | | | |
| Vietnamese | | | |
| Chinese | | | |
| Hmong | | | |
| Cambodian | | | |
| Tagalog | | | |
| Korean | | | |
| Lao | | | |
| Russian | | | |
| Farsi | | | |
| Other | | | |

Possible Answers to Scenario #5

Table 7. Student Employment Goals and Outcomes by Sex, Age, Education, Ethnicity, and Native Language

| | Number of Students Indicating "Get a Job" as Primary Reason for Enrollment at Intake | Number of Students Indicating "Get a Job" as Primary Reason for Enrollment AND Got a Job or Got a Subsidized Job at Update | Percent of Students Reaching Indicated Goal |
|---|--|--|---|
| Total | | | |
| Sex | | | |
| Male | | | |
| Female | | | |
| Age Group | | | |
| 18-25 | | | |
| 26-35 | | | |
| 36-45 | | | |
| 46-55 | | | |
| 56-65 | | | |
| 65 and Higher | | | |
| Education | | | |
| 0-3 years | | | |
| 4-6 | | | |
| HS or GED | | | |
| Technical Certificate | | | |
| A.A./A.S. Degree | | | |
| 4 Yr College Grad | | | |
| Graduate Studies | | | |
| Other | | | |
| Ethnicity | | | |
| Hispanic or Latino | | | |
| White | | | |
| Asian | | | |
| Black or African American | | | |
| Native Hawaiian or Other Pacific Islander | | | |
| Filipino | | | |
| American Indian | | | |
| Alaska Native | | | |
| Native Language | | | |
| English | | | |
| Spanish | | | |
| Vietnamese | | | |
| Chinese | | | |
| Hmong | | | |
| Cambodian | | | |
| Tagalog | | | |
| Korean | | | |
| Lao | | | |
| Russian | | | |
| Farsi | | | |
| Other | | | |

Possible Answers to Scenario #5

e. Do students have the skills necessary to enter the workforce?

Table 8. Students' Skills at Intake and Update

| | Intake | | Update | |
|----------------------|---|--|---|--|
| | Number of Students Possessing Skill at Intake | Percent of Total Student Body Possessing Skill | Number of Students Possessing Skill at Update | Percent of Total Student Body Possessing Skill |
| Communications | | | | |
| Thinking Skills | | | | |
| Learning to Learn | | | | |
| Personal Qualities | | | | |
| Resources | | | | |
| Interpersonal Skills | | | | |
| Information | | | | |
| Systems | | | | |
| Technology | | | | |

f. How does the progress of TANF students compare to voluntary students?

Table 9. Student Progress by Level: TANF vs. Voluntary Students

| Initial Level | Number of TANF Students | Number of TANF Students Advancing to Next Level | Percent of TANF Students Advancing to Next Level | Number of Voluntary Students | Number of Voluntary Students Advancing to Next Level | Percent of Voluntary Students Advancing to Next Level |
|--------------------------|-------------------------|---|--|------------------------------|--|---|
| Beginning Literacy | | | | | | |
| Beginning | | | | | | |
| Intermediate | | | | | | |
| Advanced | | | | | | |
| Adult Secondary | | | | | | |
| Advanced Adult Secondary | | | | | | |

Table 10. Student Progress: TANF vs. Voluntary Students

| | TANF | | Voluntary | |
|--|--|---|--|---|
| | Number of Students in Each Level of Progress | Percent of Students in Each Level of Progress | Number of Students in Each Level of Progress | Percent of Students in Each Level of Progress |
| Retained in Program at Same Level | | | | |
| Retained and Completed Level and Moved to a Higher Level | | | | |
| Left Before Completing Personal Goal or Level Entered | | | | |
| Left After Completing Personal Goal or Level Entered | | | | |
| No Show or Did Not Attend At Least 12 Hours | | | | |

Possible Answers to Scenario #5

6. **What will you look for in these tables that will help you answer your questions?**
- a. What does student retention look like in our programs? What factors contribute to retention?
 - Look at average hours of instruction per student and compare by various learner characteristics to determine if certain characteristics are correlated with higher instructional hours
 - b. What level of progress are students making? How long does it take to make this level of progress?
 - The percentage of students advancing by level will indicate how students in each level are progressing. Comparing this with the average number of instructional hours per student will indicate how long it takes for students to make this level of progress.
 - c. Are students placed in the appropriate levels when they enroll?
 - Students placed in level minus students scoring in level will indicate whether staff place students appropriately compared to students' placement scores on the test. Higher numbers in this column will indicate a larger discrepancy between the staff placement and test placement.
 - d. How successful are students in reaching their goals? Which students are most successful? What factors contribute to success?
 - Percent of students reaching indicated goal gives information on the level of success achieved by the students. This is broken down by various learner characteristics to determine if certain characteristics are linked with higher levels of success among students.
 - e. Do students have the skills necessary to enter the workforce?
 - The percent of total student body possessing column will indicate which skills students have and which skills they are lacking.
 - f. How does the progress of TANF students compare to voluntary students?
 - There are two ways available in the TOPS form of measuring progress. The first is using advancement in levels. The percent of TANF students advancing to next level can be compared to percent of voluntary students advancing to next level to determine if TANF students do better or worse than voluntary students. The second is using the progress indicated in the update form which simply indicates whether a student has moved a level, dropped out, or is retained at the same level.

Possible Answers to Scenario #5

7. **How could you use the information you get from your planned analyses?**

Information from these analyses could be used in the following ways:

- For program design and improvement, including curriculum development, class planning, deciding when and where to offer classes, and developing new course offerings;
- To justify budget requests to the state or to other funders;
- To complete performance reports;
- To conduct community needs assessments;
- To develop marketing plans and strategies;
- To plan professional development activities;
- To determine the characteristics of the students who attend a program; or
- As the basis of general program evaluation activities.

Possible Answers to T-9 Guidelines for Data Collection and Use

| Principles | Example |
|--|--|
| 1. Current situation and needed change(s) | <ul style="list-style-type: none"> • Need to pick winning horse • Instructors want to attend professional development |
| 2. Questions to be answered. (in measurable terms) | <ul style="list-style-type: none"> • Fastest horse? Best jockey? • Student gains? Do teachers use professional development? Any relationships? |
| 3. Sources of information | <ul style="list-style-type: none"> • Racing Form • MIS and Survey and Observations |
| 4. Collect data needed to answer questions | <ul style="list-style-type: none"> • e.g., past performance • e.g., student learning gains and full- and part-time teachers. |
| 5. Plan for analysis of data. (Continuous/categories? Statistical/comparative? Graph/chart/measure?) | <ul style="list-style-type: none"> • Categories: Speed—past performance • Categories: Gains—Participate in professional development—Observation of use of strategies learned in professional development activities |
| 6. Interpret the data: (Orig. Q) (Patterns/difference?) (Other findings?) | <ul style="list-style-type: none"> • Pick Best Bet • Patterns—appears to be relationships between professional development and reading gains • May be related to full-time teachers • Need larger sample |
| 7. *Determine use of data: (Instruction? Program? Community? State/Federal?) | <ul style="list-style-type: none"> • Make bet • Send teachers for professional development—Insist they use successful strategies • Inform—(Identify entities) |
| 8. New questions? (Need answers?) | <ul style="list-style-type: none"> • Larger sample—male-female students? male-female instructors? day/evening students? |

* **Note:** An elaboration of Principle 7 can be found in the Box on S-11. Examples may be useful to answer questions or to illustrate points. Use the example judiciously as presentation time is limited.

Uses of Data

State/Federal Reporting Requirements

1. The Government Performance and Review Act (GPRA) requires that programs receiving Federal funds demonstrate their effectiveness.
2. The 1998 Adult Education and Family Literacy Act requires states to develop outcome-based performance standards for adult education programs as one means of determining the effectiveness of the program's instruction.

Program Improvement

1. Use data to link learning gains, participation in training and further education, and certification to adult education program activities.
2. Make changes in programs as indicated by the data (e.g., professional development for staff, changes in intake or testing procedures, changes in instructional activities, support services, scheduling).

Instructor Feedback

1. Key element in the educational process is instructional activities.
2. Test data provide feedback to instructors on how well students understand materials and areas for remediation.
3. Instructors spend time completing forms but do not know what happens to the data. Providing data back to instructor invests instructors in the system.

Community Networks

1. Learning gains and other outcome data reported back to the community allow community members to know how well programs are operating and may serve as a way of marketing programs.
2. Increasing community linkages through collaborative groups brings the community more directly into the planning and use of instructional endeavors. Business and industry expect data that will justify their investment of time and money.

Student Population and Collection Time for Core Outcome Measures

| Core Outcome Measure | Student Population to Include | Time Period to Collect Measures |
|--|---|--|
| Entered employment | Learners unemployed at entry with employment goal | First quarter after exit quarter* |
| Retained employment | Learners unemployed at entry with employment goal who obtain a job during first quarter after exit; and learners employed at entry with a goal of retained or improved employment | Third quarter after exit quarter |
| Placement in postsecondary education or training | Learners with a goal of entering postsecondary education or other training | Any time during program year |
| Receipt of secondary diploma or GED | Learners with a goal of obtaining a secondary diploma or passing GED tests | Any time during program year |

*Exit quarter is the quarter when the learner completes instruction or has not received instruction for 90 days and has no instruction scheduled.

Force-Field Analysis

Possible Barriers and Solutions to Collecting Follow-up Data at the Local Level

| Barriers ¹ | Solutions |
|--|--|
| Finding staff: part-time or volunteer instructors, instructors unionized | Use administrative funds to hire staff |
| Confidentiality issues if you hire other students in the program to conduct survey | Provide training to survey administrators. Stress importance of confidentiality. Do not ask students to administer the survey. |
| Language barriers | Translate surveys. |
| Learner not home | Phone multiple times of day. Telephone in evening. |
| Inability to contact students, no forwarding addresses; no telephones | Use combination of telephone and mail surveys with self-addressed envelope; at intake obtain the name and phone number or address of a contact who could be reached. |
| Learners do not want to respond | Advise students at intake about follow-up procedures. Purpose is to make the program better. |
| Program is large and staff do not know who to sample | Develop guidelines for sampling. |
| Staff untrained to conduct surveys | Make protocol simple; provide training on protocol. |

¹ Facilitator may want to prioritize barriers. This may be done according to those that are the most important or by those whose solutions are easiest to accomplish.

Possible Answers to Follow-up Survey Questions

1. What inferences can you draw from the data about students' participation in the adult education program and their employment data?

A: Several graphs provide evidence that the program has helped students improve their employment circumstances.

- The total number of students employed between intake and follow-up rose from 110 to 130. Figure D-3 shows that 110 students (53%) were employed at intake. Figure D-6 shows that 16% of these (18 students) are currently unemployed, which means that 92 students who had a job at intake continued to have a job at follow-up. In addition, Figure D-5 shows that of the 56 students who were looking for work at intake, 68% (or 38 students) found work. Adding this figure to the 92 who continued to be employed, shows that 130 total students are employed at follow-up.
- 68% (38) of students looking for work found work since they enrolled in Adult Education classes (Figure D-5).
- Figure D-2 shows that 35% (15) of the students who received some form of Public Assistance at intake were no longer receiving that assistance at follow-up. This might be attributable to improved employment circumstances attributable to participation in this Adult Education program.
- Figure D-6 shows that 22% (24 students) of those who were employed at intake have found new (and possibly better) jobs.

2. What other information would you want to collect to gain a more comprehensive picture of the relationship between program participation and employment status?

A: There is a great deal of additional information that might be helpful for these purposes. Specifically, programs may be interested in:

- Finding out more about the characteristics of the new jobs that students obtained. Of the 110 students who were employed, Figure D-6 shows that 22% (24 students) obtained new jobs. Programs may want to know if these new jobs provided students with new or better responsibilities, more salary, or required more skills than the students' old jobs. They may also be interested in finding out if similar improvements were experienced by those students who retained their old jobs;
- Finding out why students maintained or ceased their public assistance receipt (i.e., whether their benefits were reduced because of improved earnings or for some other reason); or

Possible Answers to Follow-up Survey Questions

- Conducting more detailed analysis of this or other data, including conducting more formal statistical analysis of students' employment characteristics over time (e.g., demographic information related to employment changes).

3. How can the results of the survey be used by:

- Program administrators?
- Program staff (e.g., professional development staff, data facilitators)?
- Instructors?
- Community members?

A: The survey findings might be used as follows:

- *Program administrators*—Program administrators could take the positive employment outcomes and use it in recruiting new students. They may want to change student perception that the program has no role in helping them maintain their employment (from Figure D-4). Administrators might implement program changes that focus more on employment activities, including creating more specific classes on job skills, changing their advertising to focus on students' employment outcomes after program participation, and encouraging instructors to incorporate more job-related instruction into existing classes. Administrators could investigate the specific reasons for students' perception that the program does not help them maintain employment, including any disconnect between student expectations and program offerings.
- *Adult education staff* (e.g., professional development staff, data coordinators, etc.)—Professional development staff could design training to help instructors adopt or incorporate teaching strategies that make the connection between classroom activities and the workplace more obvious. Data coordinators might want to design data collection efforts to investigate the student perception that the program doesn't help them maintain a job, including why it exists and whether or not program changes have any effect on it. Additionally, they may want to track specific information about students' employment changes (including places of employment, types of work in which students are engaged, reasons for changing jobs, etc.).
- *Classroom instructors*—Instructors could focus their lessons on employment—related issues. They could incorporate job-related examples in their instructional activities and demonstrate how skills learned in the classroom transfer directly or indirectly to the workplace.
- *Community members*—Community members may use this information to bring pressure on their political leaders to attract more businesses to further improve

Possible Answers to Follow-up Survey Questions

employment prospects. Community members could also demand better funding for adult education so that this program could provide more employment-related services. Finally, community members could assist this Adult Education program in changing students' perceptions by providing specific information on how they are valued in the community.

Model Procedures for Conducting the Local Follow-up Survey

This section describes model procedures for conducting a telephone survey designed to collect the NRS follow-up measures. The model is offered as guidance to states in designing and conducting the follow-up survey. *These procedures are not required, however, and states may develop their own procedures for conducting the survey, as long as they meet NRS requirements, conform to accepted scientific practice in the conduct of surveys and result in a sample size sufficient to make meaningful inferences.*

The crucial activities to a conducting a telephone survey that produces valid data are to:

1. Draw a sample of students that reflects the students who attend your program with one or more of the four core outcomes as main or secondary goals;
2. Reach the students sampled and obtain the information from a large majority of them so as not to invalidate the sample; and
3. Train telephone interviewers so that all interviewers ask the survey questions correctly and reliably.

Selecting the Sample

The number of students in the survey—the sample size—and the procedure used to select them, are key to obtaining valid survey data. The NRS allows programs to sample students with whatever procedure desired, as long as scientifically valid procedures are followed and the resulting sample is sufficient to make meaningful inferences about each outcome measure. The procedures below present a method for randomly selecting a five percent sample of all students who left the program.

1. Generate a list from your database of names, with telephone numbers and contact information, of all students who have at least one of the four core follow-up measures as a main or secondary goal and who have left the program. You should also have the exit quarter for students with employment goals. You may use separate lists for each of the four follow-up measures or a single list with all students.
2. Go through the list to identify any individuals who do not have a telephone number or any contact information. Cross these names off your list.
3. Since we want a five percent sample, we want to select one out of every 20 students. This number, 20, is the *sampling fraction*. (Sampling fraction for other sample sizes or percentages is computed by dividing the total number of students to be sampled by the desired sample size).
4. From your list, count down the number of students determined by the sampling fraction and include that student in the sample and continue this way throughout the entire list. For example, in this example the sampling fraction is 20, so include the 20th student on the list and every 20th student thereafter. When you are finished, you will have approximately a five percent sample of students. This is your *primary* sample.
5. Create a *backup* sample of 50 percent more students than your primary sample. Randomly select the backup sample in the same way as the original sample. Compute the sampling fraction by dividing the number of students you need by the number of students remaining on the list. Use this number to select every n^{th} student from the list. Make sure you have a backup sample sufficient for each of the four core outcome measures. The backup sample is used to replace students from the primary sample who cannot be reached after four attempts (see below). If there are fewer students

Model Procedures for Conducting the Local Follow-up Survey

remaining on your list than you need for the backup sample after you have selected your primary sample, all of these students will be included in the backup sample.

Survey Procedures

Once you have your sample, you can begin calling students and administering the survey. Call each person on your primary sample list. You can survey students with employment goals separately or survey all students with a single survey. If you cannot reach a person despite your best efforts, replace that student with a student from the backup sample.

As you conduct the survey, it is very important to the integrity of the data collected to know how many people in the sample were not reached, how many refused to participate, and what the reasons for refusal were. For this reason, maintain a calling log during the conduct of the survey. Entries in the log should contain the date and time of each call, the name of the caller, and information about the call, including: the name of the respondent, whether the person was reached, messages left, whether the interview occurred, and explanations for why it did not. The logs should be checked daily to identify respondents who need to be re-called. They should also be checked against the list of learners in the sample to make sure all members of the sample are being called and contacted. Callers should promptly make a log entry for every telephone call they make, whether or not the adult learner was reached. Appendix B includes a sample calling log.

The validity of the survey depends on reaching all or at least a majority of the students in the sample. There will be many difficulties, however, in reaching all of the students in the sample. The following section describes some of the most common difficulties in reaching people for a telephone survey and guidance on how to resolve these problems.

Problems Reaching Learners on the Telephone

In most data collection activities, there are predictable kinds of problems that may be encountered. Interviewers may be unable to reach the correct person, the learner may not want to speak to the caller, or they may have a protective family. Additionally, learners may not want to answer some or all survey items; they may be hostile, confused, or just harried. Further, callers may be required to answer questions that they are not equipped to answer.

Interviewers should have a resource person available who can assist with difficult interviews or respondents, and complicated questions. This person should have thorough familiarity with the NRS and the procedures used to conduct telephone interviews. She or he should monitor interviewer telephone logs, provide general oversight during the interviewing process, and could also be responsible for the training.

Accommodation for other languages. Since the sample may include ESL students and other non-native English speakers, interviewers are likely to encounter a language barrier in the course of data collection. Every effort must be taken to collect information from all non-English speakers included in the sample. Accomplishing this may require the program to translate the survey and use interviewers who are fluent in the languages that may be encountered during the interviews. The NRS has Spanish and Vietnamese versions of the model survey, available on request.

When the student cannot be reached immediately. A gatekeeper is a person or situation that stands between you and the person with whom you need to talk. Common gatekeepers are family members, and even answering machines.

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Reaching a family member or other person

- Leave a message. The message should be as follows:
 - Interviewer's name
 - Calling from (name of program)
 - Calling in reference to the adult education program the person attended
 - Interviewer will call back at another time.
- Ask a few questions:
 - When is the learner expected back?
 - What and when is the best way to reach her/him?
- Wait for no more than two days between callbacks.
- If multiple messages (more than 3-4) have been left, but the learner has not been contacted, the learner should be officially listed as a non-respondent on the calling log sheet and replaced from the backup sample.

Reaching voice mail or an answering machine

- Leave a message. The message should be as follows:
 - Interviewer name and where interviewer is calling from (name of program)
 - Calling in reference to the adult education program the person attended
 - Interviewer will call back at another time
- Wait for no more than two days between callbacks.
- If multiple messages (more than 3-4) have been left, but the learner has not been contacted, the learner should be officially listed as a non-respondent on the calling log sheet and replaced from the backup sample.

Reaching a non-working number or a number that just rings

- Non-working number should be noted on the calling log sheet as not working.
- If the number just rings, the day and time the interviewer called should be noted on the log sheet, and the learner should be called at a different time. If multiple calls (more than 3-4) are made at different times of the day, and there is still no answer, the learner should be officially listed as a non-respondent on the calling log sheet and replaced from the backup sample.

Model Procedures for Conducting the Local Follow-up Survey

Dealing with refusals. The goal of telephone interviews is to obtain information from all the people contacted. However, some interviewees may be initially reluctant to participate in the survey. The interviewer should try to “convert” refusals whenever possible; callers should, however, never become belligerent or upset or insist that a person complete the survey.

The best way to handle a refusal is for the caller to present himself or herself as confident and proud of the work they are doing. The interviewer should indicate that this survey is an important way of providing information to the State Department of Education and the adult education program, and decisions about adult education will be made based on this information.

There are several points in the interview when callers may encounter refusals or reluctance. The following examples provide ways to handle this.

Initial refusal. When learners are first reached, they may not be prepared to speak with the interviewer. They may be very busy. If this is the case:

Ask about the timing: I’m sorry we reached you at a bad time. When might be a more convenient time to reach you? Possible solutions include offering to call them a week later, a month later, etc., as long as this is recorded so that the follow-up call is made.

When the learner has been reached, but absolutely refuses to participate, a complete description should be recorded on the calling log and given to the resource person for further attempts.

Confusion-based refusal. Adult learners who are contacted may be confused or wary about how the information collected in the interview will be used. For this reason, they may refuse to take part in the interview.

If the learner wants to know why the survey is being conducted, the interviewer should explain the purpose of the study, emphasizing that the information collected has important implications for the national adult education program, as well as for the program she or he attended.

If the learner wants to know how their information will be used, the interviewer should assure the learner that the data will be compiled to find out how well adult education programs are performing throughout the country and to improve program services. Further, all of the answers that the learner gives will be kept confidential and that no names or other identifying information will be associated with their answers. Learners should also be assured that they were chosen randomly from the pool of adult learners in the state.

Time or burden-based refusal. This type of refusal can occur early in the interview, or at a later point. Interviewees may be pressed for time and may try to terminate the interview. If this is the case:

The interviewer should point out that the survey will only take 10-15 minutes, acknowledge that the learner’s time is really important, and tell them that their responses to the survey questions would be really helpful: I understand that your time is important. We really appreciate your input on this issue. It is important to get the perspective of adult education students.

The interviewer should tell them about the sampling process: Of the [number] students that attended the adult education program, you have been selected as one of only [number] to represent the program. Your help is important to us.

Model Procedures for Conducting the Local Follow-up Survey

If the respondent is still reluctant, one other strategy may be helpful:

The interviewer should try to arrange an alternate time: Might there be a better or more convenient time to contact you?

If none of these strategies is successful, the interviewer should NOT try to persuade the learner further. The learner should be thanked for their patience, and told that the caller appreciates all the demands on their time. The interviewer should then record a complete description on the calling-log contact sheet and the student should be replaced from the backup sample.

Training

Staff members who will be conducting the telephone interviews should be trained to ensure the integrity of the data collected. To collect valid and reliable data, interviewers must be thoroughly familiar with both the process of interviewing and the materials to be used for collecting data. The actual training, therefore, can be characterized as having two components: the process of conducting telephone interviews and the purpose and structure of the NRS. This section provides suggestions on appropriate training activities.

Focus of Training

Regardless of the survey, any errors, biases, or inconsistencies on the part of the interviewer result in some degree of survey error. It should be a goal to minimize this error. Trained interviewers are much more likely to accomplish this goal. The desired result is high quality data, so that data are comparable from one interview to another, as well as from one state to another. The following guidelines should help minimize survey error, and should thus be conveyed to the interviewers during their training.

1. The interviewing process should be standardized. To ensure that this occurs, interviewers must read the questions exactly as written and follow the instructions on the survey instrument.
2. Interviewers should avoid biasing answers by not showing criticism, surprise, approval, disapproval, and/or annoyance at a response; recording answers promptly and accurately; and probing for clarification when necessary.
3. Interviews should be completed in the time promised to the respondents. The interview is designed to take about 10 minutes.
4. Interviewers must be familiar with the material, including the meaning of individual questions and the definitions of words and phrases contained in the survey instrument.
5. Administrative issues should be attended to as soon as possible, including making a record of EVERY call made, even if the interviewers reached a wrong number, if nobody answered, or if a message was left.
6. Interviewers should have a thorough understanding of the purpose and structure of the NRS and the pilot, as explained in this manual.

Model Procedures for Conducting the Local Follow-up Survey

Conducting the Training

Training interviewers can take many forms, including workshops and meetings. There are, however, a few techniques which will make the training more meaningful, and thus make the data collected more useful and comparable between states. Among these techniques are:

Going over the protocol question-by-question. This will give interviewers a familiarity with the questions and answers they are likely to get during their telephone calls. It will also allow them to become comfortable with the decisions that must be made as the interview begins.

Conducting mock interviews with adult education office staff or teachers. This simulates real world conditions, giving interviewers valuable practice on how to conduct interviews. It also allows adult education office staff to identify issues that were not made clear earlier in the training process and to identify problems with the data collection procedures in place.

Conducting a mini-pilot test with students not included in the official NRS sample in the state. This activity will identify previously unconsidered issues and provide the most realistic training for the interviewers. It is an excellent last step prior to officially collecting data.

Examples of Effective Professional Development

| Principle | Example |
|---|--|
| 1. Targets a real need | To obtain accurate follow-up data on learners. |
| 2. Is spaced over time or continuous | Sample in-person and telephone interviews are tried-out and refined during and between a series of workshops. |
| 3. Relates to mission and program goals | A program goal is to improve data collection on learners exiting the program to meet NRS requirements. |
| 4. Provides theory and research | Professional development includes sample instruments, role-plays, and prior research findings. |
| 5. Involves effective presenters who use practical, hands-on, how-to-activities | Participants complete forms, carry-out role-plays and brainstorm revisions based on their experience. |
| 6. Provides for practice and feedback | Other participants give feedback on practice; participants then try out practices during interviews between workshops. |
| 7. Results in learning gains or improved practice | Results of new interview procedures show dramatic increase in follow-up data. |