

# **A Workforce Basic Skills Norming Study of Iowa's JTPA and PROMISE JOBS Target Populations**

## **Executive Summary**

Prepared for  
Iowa's Community College Adult Basic Education Program by  
the Comprehensive Adult Student Assessment System (CASAS)

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### **Overview**

A Workforce Basic Skills Norming Study of Iowa's JTPA and PROMISE JOBS Target Populations provides critical information about the basic skills levels required for Iowa's target populations to successfully pursue employment and further education (i.e., taking and passing the GED) and enter vocational/technical training programs. Basic skills norming information from this study can also be used by instructors, counselors, and employers to determine whether, and to what extent, individuals need basic skills instruction. This study is the third in a series of three reports prepared by the Comprehensive Adult Student Assessment System (CASAS) for Iowa's community college adult basic education program. Reflecting the increased importance being placed on the role of workforce preparation as an integral component of Iowa's economic development emphasis, the three reports provide the foundation for a statewide adult basic education accountability system with a strong business and industry focus.

The CASAS studies were commissioned as part of Iowa's effort to address the literacy needs of its citizens. While Iowa's adults have higher levels of literacy, on average, than adults nationwide, their basic skills levels are similar to those of adults in other Midwestern states. The Iowa State Adult Literacy Survey (IASALS) found that 22 to 26 percent of Iowa's adult population lack basic workforce skills (Jenkins and Kirsch, 1994).

### **Goals and Objectives**

The overall purpose of the norming study, in conjunction with the first two studies in this series, is to provide the state of Iowa with the information it needs to establish a statewide adult basic education accountability system with a strong business and industry focus. The first study, The Iowa Adult Basic Skills Survey (IABSS), determined the basic skills needed in the workforce. The second study, Assessment of Basic Skills Competencies in Iowa's Employment and Workforce Programs, provided the tools for measuring individuals' abilities vis-a-vis these skills. This third and final study, A Workforce Basic Skills Norming Study of Iowa's JTPA and PROMISE JOBS Target Populations, provides instructors, counselors, and employers with information to determine whether individuals are job ready (i.e., possess the basic skills needed in the Iowa workforce) or need additional basic skills instruction.

The objectives of the norming study were to:

Provide accurate and reliable norms that reflect the reading and math performance levels of Iowa's youth and adults engaged in workforce preparation and employment training for basic skills.

- Provide reference tables to show the relationship between:
  - CASAS scaled scores and educational levels; and
  - CASAS scaled scores and probable GED passing levels.
- Provide accurate and reliable information on score cut-off points to enable:
  - Learners to make important and realistic education and career decisions based on their own basic skills levels;
  - Instructors to plan training with learners, including determining the possible length of study time needed; and
  - Employers to make employment decisions and determine if their workforce needs additional basic skills training.
- Enable programs to report levels of educational functioning based on CASAS scaled scores for Iowa's Annual Performance Report for the Adult Education State-Administered Program.
- Collect the necessary data about reading and math skills levels for future development of a customized Iowa appraisal instrument to assess competency areas identified by the Iowa Adult Basic Skills Survey (IABSS).
- Develop a preliminary database for all agencies involved in employability basic skills assessment and/or instruction.

## **Methodology**

### **Sampling**

The study population for A Workforce Basic Skills Norming Study included participants from the JTPA (Job Training Partnership Act) and PROMISE JOBS (Iowa's Job Opportunities and Basic Skills) programs from 11 of Iowa's 15 community colleges. The objective of both JTPA and PROMISE JOBS is to bring participants into unsubsidized and self-sustaining employment. JTPA and PROMISE JOBS participants are eligible for basic skills training programs at Iowa community colleges as part of preparation to help them acquire the necessary workforce skills to obtain and maintain employment.

### **Data Collection**

Participants were asked to complete a background information sheet and take an assessment of their basic reading and math skills. Participants provided background information on such items as: 1) program type (JTPA and/or PROMISE JOBS), 2) gender, 3)

age, 4) ethnicity, 5) native language, and 6) level of education. The assessment measured their basic reading and math skills within the context of employment and adult life skills, and covered a high percentage of the employability competencies identified as “top” or “high” priorities by key stakeholders in Iowa.

## **Study Response**

In sum, 819 individuals participated in the study, ranging from 15 at Northwest Iowa Technical College to 147 at Indian Hills Community College.

## **CASAS Employability Competency System (ECS) Appraisals**

Seven hundred five (86%) of the respondents were assessed with CASAS ECS Appraisal Form 130, while 114 (14%) were assessed with ECS Appraisal Form 400. Both instruments are part of the CASAS Employability Competency system and were developed, scaled, and normed according to CASAS’ rigorous standards. The two instruments utilize a common scoring scale, enabling a combined analysis of the results. Results from the ECS Appraisals (as well as other CASAS assessment instruments) are reported on a common, five-level scale, ranging from A (Pre-Literacy) to E (Advanced Adult Secondary), that reports learners’ literacy levels within the context of employment and adult life skills.

Table I - CASAS Basic Skills Levels

| CASAS Level | Scaled Scores | Description  |
|-------------|---------------|--|
| <b>A</b>    | = 200         | <b>Pre-Literacy:</b> Very limited ability to read or write. People at the upper end of this score range can read and write numbers and letters and simple words and phrases related to immediate needs. Can provide very basic personal identification in written form such as on job applications. Can handle routine entry-level jobs that require only basic written communication.   |
| <b>B</b>    | 201 to 210    | <b>Beginning Basic Skills:</b> Can fill out simple forms requiring basic personal information; write a simple list or telephone message; calculate a single simple operation when numbers are given; make simple change. Can read and interpret simple sentences on familiar topics. Can read and interpret simple directions, signs, maps, and simple menus. Can handle entry-level jobs that involve some simple written communication.  |
|             | 211 to 220    | <b>Intermediate Basic Skills:</b> Can handle basic reading, writing, and computational tasks related to their life roles. Can read and interpret simplified and some authentic materials on familiar topics. Can interpret simple charts, graphs, and labels; interpret a basic payroll stub; follow basic written instructions and diagrams. Can complete a simple order form and do calculations; fill out basic medical information forms and basic job applications; follow basic oral and written instructions and diagrams. Can handle jobs and/or job training that involve following basic oral or written instructions and diagrams if they can be clarified orally.  |
| <b>C</b>    | 221 to 235    | <b>Advanced Basic Skills:</b> Can handle most routine reading, writing, and computational tasks related to their life roles. Can interpret routine charts, graphs, and labels; read and interpret a simple handbook for employees; interpret a payroll stub; complete an order form and do calculations; compute tips; reconcile a bank statement; fill out medical information forms and job applications. Can follow multi-step diagrams and written instructions; maintain a family budget; write a simple accident or incident report. Can handle jobs and job training situations that involve following oral and simple written instructions and diagrams. Persons at the upper end of this score range are able to begin GED preparation. |
| <b>D</b>    | 236 to 245    | <b>Adult Secondary:</b> Can read and follow multi-step directions; read and interpret common legal forms and manuals; use math in business, such as calculating discounts; create and use tables and graphs; communicate personal opinions in written form; write an accident or incident report. Can integrate information from multiple texts, charts, and graphs as well as evaluate and organize information. Can perform tasks that involve oral and written instructions in both familiar and unfamiliar situations.   |
| <b>E</b>    | 246 +         | <b>Advanced Adult Secondary:</b> With some assistance, people at this level are able to interpret technical information, more complex manuals, and materials safety data sheets (MSDS). Can comprehend some college textbooks and apprenticeship manuals.  |

CASAS, 1996

CASAS has a 15-year history of successfully assessing the basic skills of adults within a functional context and is used extensively throughout the United States in adult basic education, employment training, welfare reform, and workplace literacy programs. The CASAS system has been nationally validated and approved for national dissemination by the U.S. Department of Education's National Diffusion Network in the area of adult literacy. CASAS has also contributed its expertise to major state and national research projects as both a validated assessment system and an educational data collection and research organization.

The CASAS system's national validation is based on 15 years of assessment data from more than two million adult and youth learners. The numerical scale, with its corresponding competency descriptors, has become a standard means of reporting learning outcomes at local, state, and national levels.

In addition to reporting results on the CASAS scale, this study crosswalks the CASAS scale with one created for the 1993 National Adult Literacy Survey (NALS). The NALS scale, based on a survey of more than 26,000 adults, classifies basic skills at five levels (1 to 5) along three scales: prose, document, and quantitative.

## **Findings**

The following are the key findings from the norming study:

### **Population Results**

The mean reading scaled score for the entire 819 subjects was 238, which is in the Level D score range. The mean math scaled score for the total population was 224, which is in the Level C score range. This pattern of higher reading than math skills is repeated when the percentage of individuals in each level is studied.

The largest percentage (62%) of participants scored in Level D or E in reading, including 25 percent of all participants who scored in Level E. Very few (8%) scored in Level B or A in reading. In contrast, only 19 percent scored in Level D or E in math, while 38 percent scored in Level B or below. The highest percentage (43%) scored in Level C in math.

### **Program Results**

Of the 819 subjects, 291 were enrolled only in JTPA, 314 only in PROMISE JOBS, and 214 in both programs. JTPA participants scored higher in math and lower in reading than either the participants from the PROMISE JOBS program or participants involved in both programs.

### **Gender Results**

The study sample included 637 females and 173 males (nine individuals did not report gender). The mean reading score for females (238.6) was nearly four points higher than that for males (234.8).

### **Age Results**

Respondents' ages ranged from 14 to 75. The mean reading score of the 18 and younger age group was lower (at a statistically significant level) than that of all other age groups except those who were 50 or older. There were no statistically significant differences among the reading scores for the 19 to 25, 26 to 29, and 30 to 39 year-old age groups. Participants who were 60 or older had lower reading scores (at a statistically significant level) than all except the 18 and younger age group. The mean math scores of those 19 to 25 years old were higher than those 18 and younger, and those 40 to 49.

## **Ethnicity Results**

The preponderance (84%) of the Iowa study population was White (non-Hispanic). Blacks (non-Hispanic) accounted for nine percent and Hispanics four percent of the population. In both reading and math, White (non-Hispanic) participants scored higher than both Black (non-Hispanic) and Hispanic participants; White (non-Hispanic) participants scored an average of nearly seven points higher than other ethnic groups in reading, and almost eight points higher in math.

## **Native Language Results**

The predominant native language of the participants was English, with more than 96 percent reporting this as their first language. The mean reading score for the native English speakers (238.0 - Level D) was nearly nine points higher than that of the non-native speakers (229.2 - Level C).

There was no statistically significant difference between the mean math scores for native English speakers and nonnative speakers (224.0 and 220.2 respectively).

## **Educational Level Results**

The highest educational grade completed by the participants ranged from one through 21. The most frequently reported highest grade completed was twelfth, which more than one-third of the participants selected. Eleven percent of participants completed 13 or more years of schooling, and 12 percent completed eight or fewer years.

In general, a greater percentage of the participants who had completed more years of school scored higher in reading and math than those who had completed fewer years of school. Mean scaled scores in reading increased progressively as the highest grade completed increased, although there was no statistically significant difference between the mean reading scores of those who had completed nine and ten or ten and 11 years of schooling.

The mean math score of those with ten years of education (224.1 - Level C) was higher than that of those with less previous education, but was not different (at a statistically significant level of .05) from the score of those who had completed 12 years of education (226.3 - Level C). Participants with 13 or more years of education had an average mean math score (233.6 - Level D) that was higher than that of any other group.

Of the 819 participants in the Iowa study, almost half (46 percent) had not completed any degree. Approximately 45 percent had earned a high school diploma or its equivalency, and eight percent had earned another type of degree. Both reading and math mean scaled scores were consistently higher for those who had completed any degree than for those who had not.

## Applications

The results of this norming study can be used in a variety of ways, including: Reporting, when required, program results in terms of educational achievement;

- Predicting performance on the GED (General Educational Development);
- Establishing study programs for the GED;
- Measuring progress toward Iowa's Benchmarks for Adult Basic Education; and
- Conducting program planning, counseling, and referral.

## Educational Achievement Reporting

Many agencies are required to report program results in terms of grade level equivalents (GLEs). The scaled scores developed and used by CASAS are more accurate for adults in life skills and employability programs, and more valuable for employers reviewing participants' skills than are grade level equivalents. To help these agencies meet their reporting requirements, this report compares the number of years of schooling Iowa's JTPA and PROMISE JOBS participants had completed with their scores on the CASAS ECS Appraisals. This comparison generates the information needed to report the grade level corresponding to particular CASAS test results.

Table II - Relationship of CASAS Scores to Educational Achievement

| <b>Educational Achievement</b>                                | <b>CASAS Reading Score</b> | <b>CASAS Math Score</b> |
|---|----------------------------|-------------------------|
| <b>= 8 years of schooling</b>                                 | = 230                      | = 218                   |
| <b>9 - 11 years of schooling</b>                              | 231 - 240                  | 219 - 225               |
| <b>12 years of schooling, a high school diploma, or a GED</b> | 241 - 245                  | 226 - 232               |
| <b>Vocational/technical training or some college</b>          | 246 +                      | 233 +                   |

CASAS, 1996

## GED Prediction

Two studies have been completed to determine the relationship between CASAS scaled scores and passing the GED. In 1986 and 1987, Rickard and Stiles (1987) collected data from instructors of GED preparation programs to determine the relationship between CASAS scaled scores and GED Practice Test scores. In 1995, Bakken conducted a study of incarcerated male youth to determine the level of prediction of performance on the GED by the ECS Appraisal Form 130. Both studies showed that CASAS assessment results were significant predictors of results on GED Practice Tests. This norming study builds on the Bakken research to develop expectancy tables relating math and reading scores on the ECS Appraisal Form 130 to: 1) predicted average GED scores, 2) GED writing skills scores, 3) GED social studies scores, 4) GED science scores, 5) GED literature and the arts scores, and 6) GED math scores.

To pass the GED, Iowa currently requires that individuals obtain a minimum standard score of 35 on each of the five subject tests, and have an overall average standard score of 45. Effective January 1, 1997, individuals will have to score a minimum of 40 on each of the five subject tests to comply with the new minimal score requirements established by the Commission on Educational Credit and Credentials.

To have a better than 50/50 chance of meeting the average standard score requirement, individuals would have to have a reading score of 245 (Level D) or above on the ECS Appraisal Form 130 assessment. Far lower reading scores on the ECS Appraisal, however, would suggest that individuals could meet the minimum scores for the five subject tests. A reading score of only 231 or above would indicate that an individual would have a better than 50/50 chance of scoring a 40 or above on the writing, social studies, science, literature and the arts, or mathematics tests.

Table III - Probability of Meeting GED Requirements  
by Performance on the ECS Form 130 Reading Appraisal

| <b>CASAS Level</b> | <b>ECS Form 130 Reading Appraisal Score</b> | <b>Probability of Meeting the Following GED Requirements:</b> |                           |                                  |                           |   |                        |
|--------------------|---|---|---------------------------|----------------------------------|---------------------------|---|------------------------|
|                    |   | <b>Average Score (45)</b>                                     | <b>Writing Score (40)</b> | <b>Social Studies Score (40)</b> | <b>Science Score (40)</b> | <b>Literature and the Arts Score (40)</b> | <b>Math Score (40)</b> |
| <b>A/B/C</b>       | = 230                                       | 6%  | 40%                       | 34%                              | 42%                       | 32%                                       | 20%                    |
|                    | 231 - 235                                   | 16%   | 71%                       | 70%                              | 78%                       | 65%                                       | 55%                    |
| <b>D/E</b>         | 236 - 240                                   | 22%   | 87%                       | 72%                              | 88%                       | 85%                                       | 50%                    |
|                    | 241 - 244                                   | 46%   | 73%                       | 80%                              | 73%                       | 73%                                       | 60%                    |
|                    | 245 +                                       | 61%   | 76%                       | 81%                              | 87%                       | 76%                                       | 71%                    |

CASAS, 1996

A math score of 231 or above on the ECS Appraisal Form 130 assessment would also indicate that an individual would have a better than 50/50 chance at scoring a 40 or above on the GED math test.

Table IV - Probability of Meeting GED Requirements  
by Performance on the ECS Form 130 Math Appraisal

| <b>CASAS Level</b> | <b>ECS Form 130 Math Appraisal Score</b> | <b>Probability of Meeting Math Score Requirement (40)</b> | <b>Probability of Attaining Average Score Required over All GED Tests (45) on the Math GED Test</b> |
|--------------------|--|---|---|
| <b>A/B/C</b>       | = 230                                    | 31%   | 12%   |
| <b>C/D/E</b>       | 231 +                                    | 73%   | 43%   |

CASAS, 1996

While scores of 40 on each subject test would not result in a high enough overall average to pass the GED, individuals with lower than average scores on some subject tests could balance these with higher than average scores on other tests, and still pass the GED.



A 1995 American Council on Education (ACE) and Educational Testing Service (ETS) study compared National Adult Literacy Survey (NALS) scores to GED Test performance. This study found that higher scores on the NALS literacy assessments corresponded to higher scores on the GED Tests. Those who score above Level 1 on any of the NALS literacy scales have a better than 50/50 chance of passing the GED, while those who score above Level 2 have a better than 80/20 chance.

## **GED Study Guidelines**

Individuals who score below 246 on the CASAS reading assessment or below 230 on the CASAS math assessment, or in Levels 1 or 2 on any of the NALS scales generally require some basic skills instruction in order to pass the GED. Experience over time, using CASAS assessments with similar populations, has shown that participants gain an average of five points after completing 100 hours of instruction. The following guidelines are provided based on this experience:

- Those who score 230 or below in reading are likely to require more than 300 hours of basic skills instruction, including GED preparation, in order to pass the GED.
- Those who score between 231 and 240 in reading are likely to require 100 to 300 hours of basic skills instruction, including GED preparation, in order to pass the GED.
- Those who score between 241 and 245 in reading are likely to need fewer than 100 hours of basic skills and GED preparation instruction in order to pass the GED.
- Those who score 230 or below in math are likely to require either short or long term basic skills instruction in math in order to pass the GED math section.
- Those who score 231 or higher in math may be ready to take the math subtest of the GED with limited or no preparation.

## **Measuring Progress toward Benchmarks**

The published report entitled Benchmarks for Adult Basic Education Programs in Iowa's Community Colleges (1996) presents detailed benchmarks for measuring progress toward adult basic education program goals through the year 2005. The findings from this norming study can be used to help adult basic education programs in Iowa meet a number of their core benchmarks, specifically those related to educational gains, target populations, and basic skills instruction.

## **Educational Gains**

- Benchmark 2 - Percentage of adults 18 years and over who have attained a high school or equivalent diploma.
- Benchmark 3 - Percentage of Iowa's GED candidates who pass the General Educational Development (GED) Examinations by Iowa state standards.

- Benchmarks 6, 7, and 8 - Percentage of adults 16 years and over functioning at the five levels of Prose/Document/Quantitative Literacy.

A CASAS reading score of 241 or above, and a CASAS math score of 226 or above would indicate that an individual probably had the skills to attain a high school diploma. A CASAS reading score of 244 or above and a CASAS math score of 228 or above would indicate that an individual probably had the skills to attain a GED diploma and to function at NALS Level 3 or higher.

## **Target Populations**

- Benchmark 28 - The percentage of priority target population(s) served statewide.
- Benchmark 29 - The percentage of target population(s) completing or continuing in the program.

Iowa has identified six priority target populations for adult basic education and vocational training services. (Beder, 1995). These six groups are as follows:

- Persons for whom English is their second language (ESL) (1.4% of the Iowa adult population).
- Least educated school dropouts (LoDRP) who dropped out at grade ten or before (1.7% of the Iowa adult population).
- At-risk youth (ARY), ages 16 to 21, who have not completed high school and are not currently enrolled in school (.6% of the Iowa population age 16 and over).
- Dropouts with relatively high educational (HiDRP) attainment who dropped out during eleventh grade (3.1% of the Iowa adult population).
- Able-bodied welfare recipients (AWR) (7.4% of the Iowa adult population and 75% of those receiving welfare in Iowa).
- Low-wage earners (LWW) who have not received public assistance (8.4% of the Iowa adult population).

Collectively, these priority target populations comprise 22.6 percent of Iowa's adult population. Individuals for whom English is their second language are likely to score in Levels A, B, or C on the CASAS reading assessment and in Levels A or B on the CASAS math assessment. Dropouts with only ten or fewer years of schooling are likely to score in Levels A, B, or C on the CASAS reading assessment and the CASAS math assessment.

Welfare recipients, at-risk youth, and dropouts with more than ten years of schooling are likely to score in Level D on the CASAS reading assessment and Level C on the CASAS math assessment. There are no data on CASAS scores for low wage earners, but their likely NALS level suggests that they might score in Level E on the CASAS reading assessment and Levels C, D, or E on the CASAS math assessment.

These data suggest that most of Iowa's target populations would benefit from basic skills instruction, and confirm the need to include adult basic education instruction in any comprehensive delivery plan designed to assist them.

## **Basic Skills Instruction**

- Benchmark 1 - Percentage of adult basic education students whose educational progress will be measured in terms of competency based outcomes.
- Benchmark 17 - Percentage of Iowa's ABE programs that have a method in place which correlates curriculum/instructional materials with assessed skills levels.
- Benchmark 18 - Percentage of Iowa's ABE programs that, as evidenced by course outlines, target priority Iowa Adult Basic Skills Survey (IABSS) competencies in concert with basic skills.

The CASAS system helps programs to respond to Benchmark #1 by allowing students' progress to be measured in terms of competencies. Many of the competencies assessed using CASAS are the priority competencies identified in the IABSS study. These same competencies should be emphasized in instruction in order to meet the goal of Benchmark #18. The CASAS Curriculum Material Guide helps instructors identify instructional resources that are linked to competencies and coded to skills levels. It provides a means to respond to Benchmark #17.

### **Program Planning, Counseling, and Referral**

Agencies and policy makers can use the norms from this study to help shape programs and policies. Specifically, the norms can be used for: planning for block grants at the state and local level;

- developing descriptors that articulate basic skills functioning of adults in work, family, and community contexts;
- coordinating one stop planning teams to communicate basic skills outcomes across agency lines;
- defining student gains for policy, program, and legislative initiative planners;
- building individual student basic skills certification systems;
- implementing student portfolios;
- facilitating student movement across and through levels; and
- informing adult learners of educational progress.

Career counselors and other staff at one-stop career centers and in other career counseling settings, including rehabilitation, can also use information from this study effectively. The information provides clear outcome levels for: youth and adult basic education and job training programs;

- entry-level guidance for specific vocational training programs;
- guidelines for referrals to jobs and training;
- benchmarks for learners to help clarify their short-term and long-term career goals; and
- realistic information for employers to guide hiring decisions.

Tables V and VI combine CASAS levels and scores with information on NALS levels, education and degree attainment, and instructional requirements to help program counselors and other staff make placements and referrals into basic skills and GED instruction based on a learner's assessed CASAS scaled scores.

Table V - Summary Reading Referral Guidelines

| <b>CASAS Level</b> | <b>CASAS Reading Score</b> | <b>Approximate NALS Level</b> | <b>Highest Education Level or Degree Completed</b> | <b>Estimated Basic Skills Instruction to Complete Level D*</b>                  | <b>GED Study Requirements</b>  |
|--------------------|----------------------------|-------------------------------|--|---|--|
| <b>A/B/C</b>       | = 230                      | 1                             | = 8  | More than 300 hours   | Not ready for GED preparation  |
| <b>C/D</b>         | 231 - 240                  | 2                             | 9 - 11   | 100 - 300 hours   | Ready to begin GED preparation   |
| <b>D</b>           | 241 - 245                  | 2                             | 12th grade; high school; GED                       | Fewer than 100 hours  | Ready to test in some areas based on GED Practice Test results; need limited GED preparation |
| <b>E</b>           | 246 +                      | 3                             | Vocational/ technical training; some college       | Additional specific basic skills instruction needed depends on educational goal |  |

\* Estimate based on 5 points gain for 100 hours of instruction  
CASAS, 1996

Table VI - Summary Math Referral Guidelines

| <b>CASAS Level</b> | <b>CASAS Math Score</b> | <b>Approximate NALS Level</b> | <b>Highest Education Level or Degree Completed</b> | <b>Estimated Basic Skills Instruction to Complete Level D</b> | <b>GED Study Requirements</b>                       |
|--------------------|-------------------------|-------------------------------|--|---|---|
| <b>A/B/C</b>       | = 230                   | 1/2                           | 12th grade; high school; GED                       | Short or long term  | May be ready to begin GED preparation               |
| <b>C/D/E</b>       | 231 +                   | 3                             | Vocational/ technical training; some college       | Limited or none   | Ready to test; need limited GED preparation in math |

CASAS, 1996

## Recommendations

The results of this norming study provide policy makers and practitioners with a basis for advancing adult basic education practices in Iowa.

### **Recommendation One**

The CASAS ECS appraisal instrument should be used in Iowa's Workforce Development Centers as the common appraisal instrument for gaining an initial indication of the functional literacy of the six priority populations targeted for adult basic education and vocational training services. The ECS Appraisal was the instrument used with the norming study, and measures most of the priority basic skills competencies identified by the business and industry sector in the IABSS study. Iowa adult education practitioners can use the CASAS appraisal to determine whether individuals need basic skills instruction, should be assessed in more detail, or are ready to move directly into vocational education or employment.

A score of under 241 (Levels A, B, C, and part of D) in reading and under 231 (Levels A, B, and part of C) in math would identify those who should be referred to the community college adult education program for further evaluation and instruction.

Reading scores between 241 and 245 (Level D), and math scores between 231 and 235 (Level C) would identify those individuals who should be assessed further and counseled about the best program of education and training for meeting their career goals.

A score of 246 or above (CASAS Level E) on the reading and 236 or above (CASAS Levels D and E) on the mathematics section of the appraisal would identify those individuals whose literacy proficiency would enable them to function effectively in the workforce.

### **Recommendation Two**

Iowa policy makers and adult education practitioners should use the information in this report to begin a dialogue on setting levels for granting certifications based on competency attainment of basic skills. The CASAS Levels A through E, presented in this report, provide a reasonable model for certification levels. Iowa's adult basic education program may want to adopt these levels as presented here, or modify them based on particular conditions and objectives in Iowa.

### **Recommendation Three**

Further study should be done with individuals in the workplace, in order to determine the level of reading and math skills that is required for success. Such studies would serve to validate the cutoff scores established in the norming study.

### **Recommendation Four**

Iowa policy makers and adult education practitioners should conduct research that would enable them to set certification levels in areas other than reading and mathematics, including communication, writing, and pre-employment skills.

## Summary

The three studies in the IABSS series provide a key to developing a high performance education and training system that can provide effective, targeted instruction, raise overall achievement, and provide new opportunities for all Iowans. These studies provide a clear direction for: 1) targeting resources, 2) focusing new curriculum development, 3) developing assessments that directly measure high priority skills, and 4) ensuring clear accountability for programs and learners. This third study provides a snapshot of JTPA and PROMISE JOBS participants and enhances understanding of the employment and basic skills needs of these members of Iowa's future workforce. It also contains critical information about the basic skills levels required for students to successfully pursue employment and further education and enter vocational/technical training programs. Counselors, instructors, and employers can use information from this study to make key training and employment decisions, including determining learners' and employees' needs for additional basic skills training.

The long range goal for Iowa's adult basic education program is to provide professional services, accountable to all stakeholders, that meet the changing needs of the state's adult learners within the existing community college adult basic education delivery system. The comprehensive research studies and data for moving toward this goal are now available. It's time to move from this strong research base to an action plan.