

ED 369 228

EC 302 958

AUTHOR Ysseldyke, James E.; And Others  
 TITLE Availability of Data on School Completion Outcomes and Indicators. Technical Report 8.  
 INSTITUTION National Association of State Directors of Special Education, Alexandria, VA.; National Center on Educational Outcomes, Minneapolis, MN.; Saint Cloud State Univ., MN.  
 SPONS AGENCY Special Education Programs (ED/OSERS), Washington, DC.  
 PUB DATE Jan 94  
 CONTRACT H159C00004  
 NOTE 45p.  
 AVAILABLE FROM Publications Office, National Center on Educational Outcomes, University of Minnesota, 350 Elliott Hall, 75 East River Rd., Minneapolis, MN 55455 (\$12).  
 PUB TYPE Reports - Research/Technical (143)

EDRS PRICE MF01/PC02 Plus Postage.  
 DESCRIPTORS Citizen Participation; Daily Living Skills; \*Data Collection; \*Disabilities; Educational Assessment; \*Educational Objectives; \*Graduation Requirements; High Schools; Literacy; National Surveys; \*Outcomes of Education; Physical Health; Program Evaluation; Research Problems; Satisfaction; Social Adjustment; State Standards; Student Adjustment; Student Participation; Student Responsibility

## ABSTRACT

This study examined the extent to which data are available for 77 indicators for all students, including students with disabilities, at the school completion level. Data managers from 36 states or territories reported that data are available for indicators in the Presence and Participation domain and the Contribution and Citizenship domain, but little data is available for the remaining six areas (Accommodation and Adaptation, Physical Health, Responsibility and Independence, Academic and Functional Literacy, Personal and Social Adjustment, and Satisfaction). Only 17 of the 77 indicators could be reported by at least seven states with minimal effort. Tables document the availability of data for each of the 77 indicators; the indicators for which at least seven states currently have data, could easily locate data, or could locate data with considerable effort; and each state's response concerning the level of availability of each indicator. It appears that new instruments and data collection systems will have to be established in order to document the extent to which students are reaching the outcomes valued by educators and parents. (JDD)

\*\*\*\*\*  
 \* Reproductions supplied by EDRS are the best that can be made \*  
 \* from the original document. \*  
 \*\*\*\*\*

ED 369 228

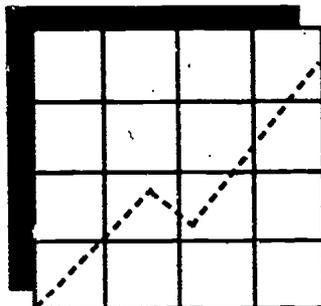
U.S. DEPARTMENT OF EDUCATION  
Office of Educational Research and Improvement  
EDUCATIONAL RESOURCES INFORMATION  
CENTER (ERIC)

This document has been reproduced as  
received from the person or organization  
originating it

Minor changes have been made to improve  
reproduction quality

• Points of view or opinions stated in this docu-  
ment do not necessarily represent official  
OERI position or policy

## Technical Report 8



# Availability of Data on School Completion Outcomes and Indicators

National Center on Educational Outcomes

The College of Education  
UNIVERSITY OF MINNESOTA

in collaboration with

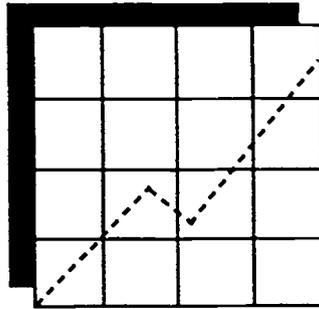
St. Cloud State University  
and

National Association of State Directors of Special Education

EC 302958

BEST COPY AVAILABLE

Technical Report 8



# Availability of Data on School Completion Outcomes and Indicators

Prepared by:  
James E. Ysseldyke, Mike Vanderwood and Blake Reschly

National Center on Educational Outcomes

The College of Education  
UNIVERSITY OF MINNESOTA

January, 1994

The National Center on Educational Outcomes (NCEO), established in 1990, works with state departments of education, national policy-making groups, and others to facilitate and enrich the development and use of indicators of educational outcomes for students with disabilities. It is believed that responsible use of such indicators will enable students with disabilities to achieve better results from their educational experiences. The Center represents a collaborative effort of the University of Minnesota, the National Association of State Directors of Special Education, and St. Cloud State University.

The Center is supported through a Cooperative Agreement with the U.S. Department of Education, Office of Special Education Programs (H159C00004). Opinions or points of view do not necessarily represent those of the U.S. Department of Education or Offices within it.

**NCEO Core Staff:**

Robert H. Bruininks  
Ron Erickson  
Patricia Grafstrom  
Kevin S. McGrew  
Dorene L. Scott  
James G. Shriner  
Gail E. Spande  
Martha L. Thurlow, assistant director  
James E. Ysseldyke, director

Additional copies may be ordered for **\$10.00**.  
Please write:

**Publications Office**  
NCEO  
350 Elliott Hall  
75 East River Road  
University of Minnesota  
Minneapolis, MN 55455

### Abstract

There has been a recent shift by educational policymakers from an examination of the process of education to an examination of the results or outcomes of schooling. The National Center on Educational Outcomes has developed a model of outcomes and indicators that contains eight domains or content areas. This study examined the extent to which data were available for 77 indicators at the school completion level. Data managers from 36 states or territories reported that data are available for indicators in the Presence and Participation and Contribution and Citizenship domains, but few data are available for the remaining six areas. It appears that new instruments and data collection systems will have to be established in order to document the extent to which students are reaching the outcomes valued by educators and parents.

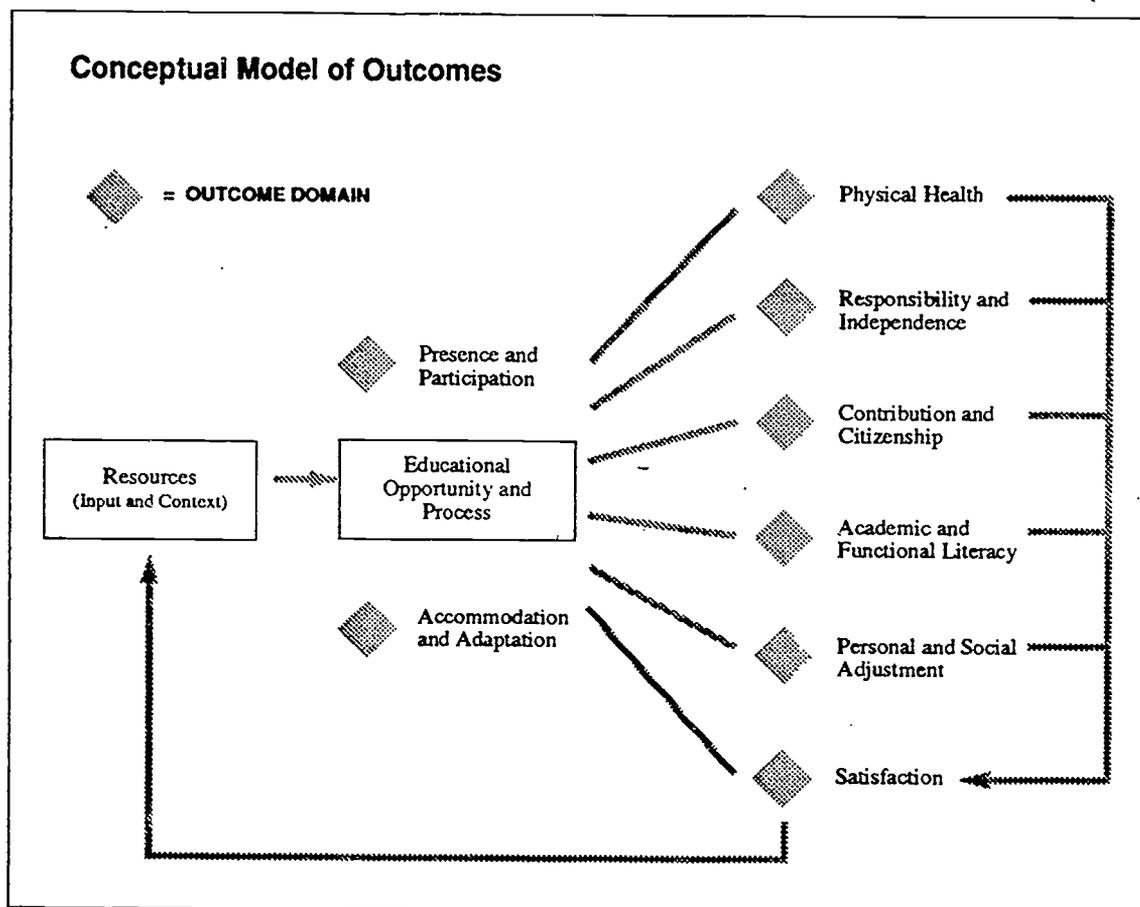
---

## Availability of Data on School Completion Outcomes and Indicators

In the past decade there has been a clear shift by educational policymakers from an emphasis on the process of education to concerns about the desired outcomes of schooling. School reform and restructuring efforts in general and special education are, with increasing frequency, recognizing the need to document the results of their efforts. Federal, state and local agencies are being asked to identify the important outcomes of education and indicators of those outcomes. In this context, the National Center on Educational Outcomes (NCEO) was created to work with federal and state agencies to facilitate and enrich the development and use of indicators of educational outcomes for all students, including students with disabilities. An underlying assumption of these efforts is that responsible use of such indicators will enable students to achieve better results from their educational experiences.

One of the major activities of NCEO has been the development of a conceptual model of educational outcomes and indicators that can be used in making policy decisions, improving student instruction, providing information to parents, and providing accountability information (Ysseldyke & Thurlow, 1993). We have developed national consensus among stakeholders on valued outcomes and indicators for the school completion (Ysseldyke, Thurlow, & Gilman, 1993d) and post-school levels (Ysseldyke, Thurlow, & Gilman, 1993c), and for the early childhood levels at age 3 (Ysseldyke, Thurlow, & Gilman, 1993a) and age 6 (Ysseldyke, Thurlow, & Gilman, 1993b). The current model (see Figure 1) contains eight outcome domains. Depending on the developmental level, each domain contains two to four specific outcomes and several indicators of the outcomes. Several logical questions have arisen since the outcomes and indicators were identified. Some of these are:

- Do data on the indicators exist?
- How hard is it to gather the data?
- Can measures be developed to obtain the data that are currently not available?



We decided that the individuals responsible for tracking special education accountability data for each state, the data managers, could best answer these questions. The purpose of this study was to explore the extent to which information is already available, or could be made available on each of the school completion indicators.

### Method

Data managers from 50 states and 9 territories who were attending a national conference were asked to complete a survey that included a list of 77 school completion indicators. They were asked to indicate on a 5 point Likert response scale the extent to which the data for each indicator are available or might be made available. Data managers who were not present were sent the survey and given the same directions as those at the conference. Thirty-six data managers (61%) responded from 33 states and 3 territories. Two data managers refused to complete the survey, while the remaining simply did not respond.

### Results

We report our findings in several ways. First, we list each of the 77 school completion indicators and show for each indicator the number of states reporting each degree of availability. Second, we report those indicators for which at least seven data managers said information was currently reported or could be reported with minimal effort. The number seven is an arbitrary cutoff that, in this case, represents approximately 20 % of the responding states. We also identify those indicators for which at least seven data managers said that data could be obtained with considerable effort. In addition, we identify those states giving each availability rating to the indicators. This provides a picture of states with data that might be included in a report or compilation of data.

Frequency counts for the five possible responses were tabulated for each of the 77 indicators. These are presented in Table 1. Half of the indicators in the Presence and Participation domain currently are reported by at least 10 of the states that responded to the survey. Most data managers reported that data concerning the remaining half of the indicators in the Presence and Participation domain are not available, but measures could be developed to collect the information. The Contribution and Citizenship domain was the only other area that has an indicator that is

Table 1

Numbers of States Giving Different Availability Ratings to NCEO Indicators

Domain and Indicator	Availability Ratings				
	1	2	3	4	5
<b><u>Presence and Participation</u></b>					
Absenteeism rate during last year of school (differentiated for reasons of suspension, medical/health, truancy, and other)	7	3	14	9	1
Percent of students excluded from their typical school placement	6	5	9	10	4
Percent of students attending residential settings (in and out of state), separate schools, separate classes	27	7	0	0	2
Percent of time students participate in general education classrooms during last year of school	10	10	7	7	2
Percent of time students participate actively in community activities during last year of school	1	1	2	26	5
Percent of time students participate actively in extracurricular activities during last year of school	3	1	1	24	4
Percent of students who participate in district, state, and national testing programs	3	3	10	14	3
Percent of students who have had employment experience (through school programs) before leaving school	2	4	10	16	2
Percent of students who graduate with a diploma	24	9	1	2	0
Percent of students who earn a certificate of completion/attendance	19	10	0	3	3
Percent of students who earn a GED diploma	11	8	6	9	0
Percent of students who drop out	25	9	2	0	0
<b><u>Accommodation and Adaptation</u></b>					
Percent of students who demonstrated adaptation/accommodation/compensation skills required to move about in their environments	2	0	3	26	3
Percent of students who demonstrate adaptation/accommodation/compensation skills required to communicate	2	0	3	26	3
Percent of students who demonstrate adaptation/accommodation/compensation skills required to read	2	1	4	25	2
Percent of students who demonstrate adaptation/accommodation/compensation skills required to participate in activities in home, school, and community environments	1	1	2	27	4
Percent of students who demonstrate adaptation/accommodation/compensation skills required to manage personal needs in home, school, and community environments	1	0	3	27	4
Percent of families prepared to cope with student's needs after student leaves school	1	0	1	23	11
Percent of families knowledgeable about community resources and programs needed by student	1	0	1	27	6
Percent of families participating in the education of their children	2	1	5	21	6

Table 1 - continued

Numbers of States Giving Different Availability Ratings to NCEO Indicators

Domain and Indicator	Availability Ratings				
	1	2	3	4	5
<b><u>Physical Health</u></b>					
Percent of students who indicate that they use tobacco products	2	1	3	22	5
Percent of students who make good nutritional choices	1	1	2	22	8
Percent of students who have abused alcohol or drugs in the past year	2	1	4	21	6
Percent of students who indicate they have had unprotected sex in the past year	2	1	4	21	5
Percent of students who elect to participate in sports, recreational, and/or exercise activities	4	2	1	24	3
Percent of students who are aware of basic safety precautions and procedures	2	1	1	24	5
Percent of students who are aware of basic fitness needs	2	1	2	24	5
Percent of students who are aware of basic health care needs	2	1	2	24	5
Percent of students who know when, where, and how to access health care	2	1	4	23	4
Percent of students who are physically fit	1	1	5	23	3
<b><u>Responsibility and Independence</u></b>					
Percent of students who can get to and from a variety of destinations	1	1	4	24	4
Percent of students who know how to access community services (e.g., rehabilitation, counseling, employment, health, etc.)	4	0	2	26	3
Percent of students who complete transactions (shopping, banking, dry-cleaning, etc.) in the community	3	1	3	23	4
Percent of students with a driver's license	1	5	7	18	3
Percent of students who can prioritize and set goals and persevere toward them	0	1	3	17	12
Percent of students who manage personal care and safety	1	0	1	24	8
Percent of students who effectively advocate for themselves	0	0	1	20	12
Percent of students who are likely to engage in lifelong learning	1	0	1	20	11
<b><u>Contribution and Citizenship</u></b>					
Percent of students who have been suspended or subjected to other disciplinary actions	10	4	8	10	2
Percent of students who have been repeatedly suspended or subjected to disciplinary actions	5	4	12	9	4
Vandalism rate and magnitude	2	2	6	16	8
Crime rate and magnitude	3	3	5	18	5
Percent of students who know the significance of voting	0	0	3	21	6
Percent of students who know the procedures necessary to register and vote	1	1	3	24	4

Table 1 - continued

Numbers of States Giving Different Availability Ratings to NCEO Indicators

Domain and Indicator	Availability Ratings				
	1	2	3	4	5
Percent of students who volunteer time to school, civic, community, or nonprofit activities	1	2	3	22	6
<b><u>Academic and Functional Literacy</u></b>					
Percent of students who use and comprehend language that effectively accomplishes the purpose of the communication	3	0	4	23	4
Percent of students who demonstrate problem-solving and critical thinking skills	3	2	4	23	2
Percent of students who demonstrate competence in math necessary to function in their current home, school, work, and community environments	2	6	8	16	2
Percent of students who demonstrate competence in math necessary to function in their next environment	2	3	7	19	3
Percent of students who demonstrate competence in reading necessary to function in their current home, school, work, and community environments	4	5	8	16	2
Percent of students who demonstrate competence in reading necessary to function in their next environment	3	5	6	17	3
Percent of students who demonstrate competence in writing necessary to function in their current home, school, work, and community environments	5	4	9	15	2
Percent of students who demonstrate competence in writing necessary to function in their next environment	3	5	6	17	3
Percent of students who demonstrate competence in other academic and nonacademic skills necessary to function in their current home, school, work, and community environments	4	3	5	19	2
Percent of students who demonstrate competence in other academic and nonacademic skills necessary to function in their next environment	3	4	5	17	3
Percent of students who currently apply technology to enhance functioning in home, school, work, and community environments	1	4	4	21	3
Percent of students who demonstrate competence in using technology to function in their next environment	1	2	4	21	4
<b><u>Personal and Social Adjustment</u></b>					
Percent of students who cope effectively with personal challenges, frustrations, and stressors	1	0	1	21	10
Percent of students whose behavior reflects an acceptance of the consequences for behavior	1	1	1	23	7
Percent of students who perceive themselves as worthwhile	2	0	0	24	7
Percent of students who perceive themselves as competent	2	0	1	23	7
Percent of students whose behavior demonstrates acceptance of cultural and individual differences	2	1	2	20	7
Percent of students who have friends and are a part of a social network	3	1	1	23	4

Table 1 - continued

Numbers of States Giving Different Availability Ratings to NCEO Indicators

Domain and Indicator	Availability Ratings				
	1	2	3	4	5
Percent of students who demonstrate skill in interacting and in making decisions in social situations, including during interpersonal conflict	1	0	1	24	6
Percent of students who engage in productive group work	2	0	2	24	6
<b>Satisfaction</b>					
Percent of students who are satisfied with level of achievement	1	0	1	26	6
Percent of students who are satisfied with what was provided in school	1	1	2	26	4
Percent of students who are satisfied with high school experience	2	2	2	24	4
Percent of students who are satisfied with progress toward achieving educational outcomes	2	1	2	23	5
Percent of parents/guardians who are satisfied with level of achievement	1	1	3	24	5
Percent of parents/guardians who are satisfied with what was provided in school	1	2	2	25	3
Percent of parents/guardians who are satisfied with high school experience	0	2	3	24	4
Percent of parents/guardians who are satisfied with progress toward achieving educational outcomes	0	2	2	25	5
Percent of parents/guardians who are satisfied with the extent to which student is prepared to live in society	0	2	2	26	4
Percent of community (teachers, policymakers, employers, general public) satisfied with students' level of achievement	0	3	0	26	5
Percent of community (teachers, policymakers, employers, general public) satisfied with what was provided in school	0	4	1	24	5
Percent of community (teachers, policymakers, employers, general public) satisfied with students' progress toward achieving educational outcomes	0	3	1	25	5

\* Total number of states = 34. Ratings are:

- 1 = Our state has a report which includes this information.
- 2 = The data are collected in our state, are available, and could be reported with minimal effort.
- 3 = The data are available (in our department or other agencies), could be reported, but only with considerable resource commitment.
- 4 = The data are not available, but measures could be developed (by someone, not necessarily SEA personnel) to collect the data.
- 5 = The data could never be made available.

currently reported by more than four states. For the remaining six domains, a large percentage of states reported that the data are not available, but measures could be developed to gather data concerning all the indicators in these areas.

Table 2 is a list of indicators for which at least seven states reported that data are currently available. Seven of the eight indicators in the table are from the Presence and Participation domain, while the remaining indicator is part of Contribution and Citizenship.

The list of indicators in Table 3 include those from the previous table, plus indicators for which at least seven states reported that the data were currently available or could be made available with minimal effort. Additional indicators from the Presence and Participation, and Contribution and Citizenship domains were included, along with several indicators from the domain of Academic and Functional Literacy.

Table 4 is a list of the Table 3 indicators and those indicators that at least seven states indicated that data could be located, either with considerable or minimal effort, or the data were already available. Most of the indicators in this table are from the Academic and Functional Literacy, and Presence and Participation domains, although a few indicators from the Accommodation and Adaptation, Physical Health, Responsibility and Independence, and Contribution and Citizenship domains are also included.

Table 5 lists the 77 indicators and the abbreviations of states that responded at each level of availability rating. In this table, it is obvious that Iowa, Minnesota, and Texas are among the states frequently listed at level 5 (data could never be made available). At the other end, where it was indicated that a state report existed with the information in it, Arizona and Kentucky were frequently mentioned.

Table 2

Indicators For Which At Least Seven States Report Data Currently Are Available

---

**Domain and Indicator**

---

**Presence and Participation**

Absenteeism rate during last year of school (differentiated for reasons of suspension, medical/health, truancy, and other)

Percent of students attending residential settings (in and out of state), separate schools, separate classes

Percent of time students participate in general education classrooms during last year of school

Percent of students who graduate with a diploma

Percent of students who earn a certificate of completion/attendance

Percent of students who earn a GED diploma

Percent of students who drop out

**Contribution and Citizenship**

Percent of students who have been suspended or subjected to other disciplinary actions

---

Table 3

Indicators For Which At Least Seven States Report that the Data Either Are Available Currently or Could Be Obtained with Minimal Effort

---

**Domain and Indicator**

---

**Presence and Participation**

Absenteeism rate during last year of school (differentiated for reasons of suspension, medical/health, truancy, and other)

Percent of students excluded from their typical school placement

Percent of students attending residential settings (in and out of state), separate schools, separate classes

Percent of time students participate in general education classrooms during last year of school

Percent of students who graduate with a diploma

Percent of students who earn a certificate of completion/attendance

Percent of students who earn a GED diploma

Percent of students who drop out

**Contribution and Citizenship**

Percent of students who have been suspended or subjected to other disciplinary actions

Percent of students who have been repeatedly suspended or subjected to disciplinary actions

**Academic and Functional Literacy**

Percent of students who demonstrate competence in math necessary to function in their current home, school, work, and community environments

Percent of students who demonstrate competence in reading necessary to function in their current home, school, work, and community environments

Percent of students who demonstrate competence in reading necessary to function in their next environment

Percent of students who demonstrate competence in writing necessary to function in their current home, school, work, and community environments

Percent of students who demonstrate competence in writing necessary to function in their next environment

Percent of students who demonstrate competence in other academic and nonacademic skills necessary to function in their current home, school, work, and community environments

Percent of students who demonstrate competence in other academic and nonacademic skills necessary to function in their next environment

---

Table 4

Indicators For Which At Least Seven States Report Data Are Available, Could Be Obtained, Or Could Be Reported

---

**Domain and Indicator**

---

**Presence and Participation**

Absenteeism rate during last year of school (differentiated for reasons of suspension, medical/health, truancy, and other)

Percent of students excluded from their typical school placement

Percent of students attending residential settings (in and out of state), separate schools, separate classes

Percent of time students participate in general education classrooms during last year of school

Percent of students who participate in district, state, and national testing programs

Percent of students who have had employment experience (through school programs) before leaving school

Percent of students who graduate with a diploma

Percent of students who earn a certificate of completion/attendance

Percent of students who earn a GED diploma

Percent of students who drop out

**Accommodation and Adaption**

Percent of students who demonstrate adaptation/ accommodation/compensation skills required to read

Percent of families participating in the education of their children

**Physical Health**

Percent of students who have abused alcohol or drugs in the past year

Percent of students who indicate they have had unprotected sex in the past year

Percent of students who elect to participate in sports, recreational, and/or exercise activities

Percent of students who know when, where, and how to access health care

Percent of students who are physically fit

**Responsibility and Independence**

Percent of students who complete transactions (shopping, banking, dry-cleaning, etc.) in the community

Percent of students with a driver's license

Table 4 - continued

---

**Domain and Indicator**

---

**Contribution and Citizenship**

Percent of students who have been suspended or subjected to other disciplinary actions

Percent of students who have been repeatedly suspended or subjected to disciplinary actions

Vandalism rate and magnitude

Crime rate and magnitude

**Academic and Functional Literacy**

Percent of students who use and comprehend language that effectively accomplishes the purpose of the communication

Percent of students who demonstrate problem-solving and critical thinking skills

Percent of students who demonstrate competence in math necessary to function in their current home, school, work, and community environments

Percent of students who demonstrate competence in math necessary to function in their next environment

Percent of students who demonstrate competence in reading necessary to function in their current home, school, work, and community environments

Percent of students who demonstrate competence in reading necessary to function in their next environment

Percent of students who demonstrate competence in writing necessary to function in their current home, school, work, and community environments

Percent of students who demonstrate competence in writing necessary to function in their next environment

Percent of students who demonstrate competence in other academic and nonacademic skills necessary to function in their current home, school, work, and community environments

Percent of students who demonstrate competence in other academic and nonacademic skills necessary to function in their next environment

Percent of students who currently apply technology to enhance functioning in home, school, work, and community environments

Percent of students who demonstrate competence in using technology to function in their next environment

---

Table 5

Lists of States in Each Availability Rating by NCEO Indicator

Domain and Indicator	Availability Ratings*				
	1	2	3	4	5
<b>Presence and Participation</b>					
Absenteeism rate during last year of school (differentiated for reasons of suspension, medical/health, truancy, and other)	AR, KY, NC, OH, TN, TX, CNMI	FL, IN, OK	AZ, CA, DC, GA, ID, MD, MA, MI, MN, NJ, SC, SD, WV, PR	AL, CO, DE, IL, NE, NV, RI, UT, GM	IA
Percent of students excluded from their typical school placement	AR, WA, ID, KY, NJ, PR	DE, KS, NM, OH, OK	AZ, IN, MD, MA, MI, SC, TN, CNMI, GM	AL, CA, CO, GA, NV, NC, RI, SD, UT, WV	IL, IA, MN, TX
Percent of students attending residential settings (in and out of state), separate schools, separate classes	AL, AZ, AR, CA, CO, DC, FL, GA, ID, IL, IN, KY, MD, MA, MI, MN, NJ, NM, NC, OH, RI, SC, TN, TX, UT, CNMI, PR	DE, KS, NE, NV, OK, SD, WV			IA, GM
Percent of time students participate in general education classrooms during last year of school	CA, DC, MD, MI, MN, NM, RI, TX, CNMI, PR	DE, FL, GA, KS, KY, NV, NM, OH, OK, GM	AZ, AR, IN, MA, SC, TN, UT	AL, ID, IL, IN, MA, NJ, SD, WV	IA, NE
Percent of time students participate actively in community activities during last year of school	CNMI	KS	AZ, MN	AL, AR, CA, CO, DE, DC, FL, GA, ID, IN, KY, MD, MA, MI, NV, NJ, NC, OK, RI, SD, SC, TN, UT, WV, GM, PR	IL, IA, NE, OH, TX
Percent of time students participate actively in extracurricular activities during last year of school	DC, OH, CNMI	AR	ID	AZ, CA, CO, DE, FL, GA, IN, KY, MD, MA, MI, MN, NV, NJ, NC, OK, RI, SC, SD, TN, UT, WV, GM, PR	IL, IA, NE, TX
Percent of students who participate in district, state, and national testing programs	NC, OH, RI	AR, MI, SC	AL, AZ, CA, ID, KY, MD, NJ, NM, OK, TN, GM	CO, DC, FL, IL, IN, MA, MN, NE, NV, SD, UT, WV, PR	DE, IA, TX

Table 5

Lists of States in Each Availability Rating by NCEO Indicator

Domain and Indicator	Availability Ratings*				
	1	2	3	4	5
Percent of students who have had employment experience (through school programs) before leaving school	DC, CNMI	AR, MD, MI, OH	AZ, CA, DE, ID, IN, KY, MN, UT, WV, PR	AL, CO, FL, GA, MA, NE, NV, NJ, NC, OK, RI, SC, SD, TN, GM	IA, TX
Percent of students who graduate with a diploma	AL, AR, CA, CO, DE, DC, FL, GA, IL, IN, IA, MD, MA, MI, MN, NJ, NM, NC, OH, RI, TX, UT, CNMI III, PR	AZ, ID, KS, KY, NV, OK, SC, TN, WV	NE	SD, GM	
Percent of students who earn a certificate of completion/attendance	AL, AR, CA, CO, DE, DC, FL, GA, IL, IN, IA, MI, NM, NC, OH, OK, TX, UT, CNMI	AZ, ID, KY, MD, NE, NV, RI, SC, TN, PR		SD, WV, GM	KS, MA, MN
Percent of students who earn a GED diploma	CO, DC, IL, IA, MN, NC, OK, RI, TX, UT, PR	AR, DE, FL, KY, MD, NM, SC, TN	AZ, ID, MI, NJ, WV	AL, CA, GA, IN, MA, NV, OH, SD, GM	
Percent of students who drop out	AL, AR, CA, CO, DE, DC, FL, GA, ID, IL, IN, IA, KY, MA, MI, MN, NM, NC, OH, OK, RI, CNMI	KS, MD, NE, NV, NJ, SC, SD	AZ		
<b>Accommodation and Adaptation</b> Percent of students who demonstrated adaptation/ accommodation/compensation skills required to move about in their environments	DC, CNMI		AZ, OH, GM	AL, AR, CA, CO, FL, GA, ID, IL, IN, KS, KY, MD, MA, MI, NE, NV, NJ, NC, OK, RI, SC, SD, TN, UT, WV, PR	IA, MN, TX

Table 5

## Lists of States in Each Availability Rating by NCEO Indicator

Domain and Indicator	Availability Ratings*				
	1	2	3	4	5
Percent of students who demonstrate adaptation/ accommodation/compensation skills required to communicate	DC, CNMI	AZ, OH, GM	AL, AR, CA, CO, FL, GA, ID, IL, IN, KS, KY, MD, MA, MI, NE, NV, NJ, NC, OK, RI, SC, SD, TN, UT, WV, PR	IA, MN, TX	
	DC, CNMI	AZ, IL, RI, GM	AL, AR, CA, CO, FL, GA, ID, IN, KS, KY, MD, MA, MI, MN, NE, NV, NJ, NC, OK, SC, SD, TN, UT, WV, PR	IA, TX	
Percent of students who demonstrate adaptation/ accommodation/compensation skills required to read	CNMI	AZ, OH	AL, AR, CA, CO, DC, FL, GA, ID, IL, IN, KS, KY, MD, MA, MI, NE, NV, NJ, NC, OK, RI, SC, SD, TN, UT, WV, PR	DE, IA, MN, TX	
	CNMI	AZ, OH, GM	AL, AR, CA, CO, DC, FL, GA, ID, IL, IN, KS, KY, MD, MA, MI, NE, NV, NJ, NC, OK, RI, SC, SD, TN, UT, WV, PR	DE, IA, MN, TX	
Percent of families prepared to cope with student's needs after student leaves school	CNMI	NM	AZ, AR, CA, CO, FL, ID, IL, IN, KS, KY, MD, MA, MI, NV, NJ, NC, OK, SD, TN, UT, WV, GM PR	AL, DE, DC, GA, IA, MN, NE, OH, RI, SC, TX	
	CNMI	NM	AZ, AR, CA, CO, DC, FL, GA, ID, IL, IN, KY, MD, MA, MI, NV, NJ, NC, OK, SD, TN, UT, WV, GM PR	AL, DE, IA, MN, OH, TX	
Percent of families knowledgeable about community resources and programs needed by student	CNMI	NM	AZ, AR, CA, CO, DC, FL, GA, ID, IL, IN, KY, MD, MA, MI, NV, NJ, NC, OK, SD, TN, UT, WV, GM PR	AL, DE, IA, MN, OH, TX	

Table 5

## Lists of States in Each Availability Rating by NCEO Indicator

Domain and Indicator	Availability Ratings*				
	1	2	3	4	5
Percent of families participating in the education of their children	GA, CNMI	GM	AR, NM, TN, WV, PR	AZ, CA, CO, DE, DC, FL, ID, IN, KY, MD, MA, MI, NE, NV, NJ, NC, OK, RI, SC, SD, UT	AL, IL, IA, MN, OH, TX
<b>Physical Health</b>					
Percent of students who indicate that they use tobacco products	IA, MN	WV	ID, SD, UT	AR, CA, CO, DE, FL, GA, IL, IN, KY, MD, MA, MI, NE, NV, NJ, NC, OK, RI, SC, TN, GM, PR	AL, AZ, DC, OH, TX
Percent of students who make good nutritional choices	CNMI	WV	SD, UT	AR, CA, CO, DC, FL, GA, ID, IN, KY, MD, MA, MI, MN, NE, NV, NJ, OK, RI, SC, TN, GM, PR	AL, AZ, DE, IL, IA, NC, OH, TX
Percent of students who have abused alcohol or drugs in the past year	IA, MN		ID, SD, GM	AL, AR, CA, CO, DE, DC, FL, GA, KY, MD, MA, MI, NV, NJ, NC, OK, RI, SC, TN, WV, PR	AZ, IL, IN, NE, OH, TX
Percent of students who indicate they have had unprotected sex in the past year	IA, MN	WV	ID, SD, UT, GM	AR, CA, CO, DE, DC, FL, GA, IL, IN, KY, MD, MA, MI, NE, NV, NJ, OK, RI, SC, TN, PR	AL, AZ, NC, OH, TX
Percent of students who elect to participate in sports, recreational, and/or exercise activities	AR, DC, MN, CNMI	GM, PR	RI	AL, AZ, CA, CO, DE, FL, GA, ID, IN, KY, MD, MA, MI, NE, NV, NJ, NC, OH, OK, SD, SC, TN, UT, WV	IL, IA, TX

Table 5

## Lists of States in Each Availability Rating by NCEO Indicator

Domain and Indicator	Availability Ratings*				
	1	2	3	4	5
Percent of students who are aware of basic safety precautions and procedures	DC, CNMI	IL	UT	AL, CA, CO, DE, FL, GA, ID, IN, KY, MD, MA, MI, NE, NV, NJ, NC, OK, RI, SC, SD, TN, WV, GM, PR	AZ, IA, MN, OH, TX
Percent of students who are aware of basic fitness needs	DC, CNMI	IL	AR, UT	AL, CA, CO, DE, FL, GA, ID, IN, KY, MD, MA, MI, NE, NV, NJ, NC, OK, RI, SC, SD, TN, WV, GM, PR	AZ, IA, MN, OH, TX
Percent of students who are aware of basic health care needs	DC, CNMI	IL	AR, UT	AL, CA, CO, DE, FL, GA, ID, IN, KY, MD, MA, MI, NE, NV, NJ, NC, OK, RI, SC, SD, TN, WV, GM, PR	AZ, IA, MN, OH, TX
Percent of students who know when, where, and how to access health care	DC, CNMI	IL	AR, NC, UT, PR	AL, CA, CO, DE, FL, GA, ID, IN, KY, MD, MA, MI, NE, NV, NJ, OH, OK, RI, SC, SD, TN, WV, GM	AZ, IA, MN, TX
Percent of students who are physically fit	CNMI	RI	AR, DE, DC, ID, UT	AL, AZ, CA, CO, FL, GA, IL, KY, MD, MA, MI, NE, NV, NJ, NC, OK, SC, SD, TN, WV, GM, PR	IA, MN, TX
<b>Responsibility and Independence</b>					
Percent of students who can get to and from a variety of destinations	CNMI	GM	AR, MD, UT, PR	AL, AZ, CA, CO, DE, DC, FL, GA, ID, IL, IN, KY MA, MI, NE, NV, NJ, OH, OK, RI, SC, SD, TN, WV	IA, MN, NC, TX

Table 5

Lists of States in Each Availability Rating by NCEO Indicator

Domain and Indicator	Availability Ratings*				
	1	2	3	4	5
Percent of students who know how to access community services (e.g., rehabilitation, counseling, employment, health, etc.)	DC, MI, TX, CNMI		NM, UT	AL, AZ, AR, CA, CO, DE, FL, GA, ID, IL, IN, KY, MD, MA, NE, NV, NJ, NC, OH, RI, SC, SD, TN, WV, GM, PR	IA, MN, OK
Percent of students who complete transactions (shopping, banking, dry-cleaning, etc.) in the community	DC, MI, CNMI	GM	AR, MD, UT	AL, CA, CO, DE, FL, GA, ID, IL, IN, KY, MA, NE, NV, NC, OH, OK, RI, SC, SD, TN, WV, PR	AZ, IA, MN, TX
Percent of students with a driver's license	MI	AR, MN, RI, UT, GM	DE, GA, KY, NE, NM, NC, SD	AL, AZ, CA, CO, FL, ID, IL, IN, MD, MA, NV, NJ, OH, OK, SC, TN, WV, PR	DC, IA, TX
Percent of students who can prioritize and set goals and persevere toward them		GM	AR, MI, WV	CA, CO, FL, ID, IL, IN, KY, MD, MA, NV, NJ, OH, RI, SD, TN, UT, PR	AL, AZ, DE, DC, GA, IA, MN, NE, NC, OK, SC, TX
Percent of students who manage personal care and safety	CNMI		MI	AL, AR, CA, CO, FL, ID, IL, IN, KY, MD, MA, NE, NV, NJ, OH, OK, RI, SC, SD, TN, UT, WV, GM, PR	AZ, DE, DC, GA, IA, MN, NC, TX
Percent of students who effectively advocate for themselves			MI	AZ, AR, CA, CO, FL, ID, IN, KY, MD, MA, NE, NV, NJ, RI, SD, TN, UT, WV, GM, PR	AL, DC, GA, IL, IA, MN, NC, OH, OK, SC, TX
Percent of students who are likely to engage in lifelong learning	CNMI		MI	AZ, AR, CA, CO, DE, ID, IN, KY, MD, MA, NV, NJ, RI, SC, SD, TN, UT, WV, GM, PR	AL, DC, FL, GA, IL, IA, MN, NC, OH, OK, TX

Table 5

## Lists of States in Each Availability Rating by NCEO Indicator

Domain and Indicator	Availability Ratings*				
	1	2	3	4	5
<b>Contribution and Citizenship</b>					
Percent of students who have been suspended or subjected to other disciplinary actions	AR, CA, DC, FL, IL, KY, MN, NC, OH, CNMI	MA, SC, TN, GM	DE, GA, ID, MI, NE, NJ, SD, PR	AL, AZ, CO, IN, MD, NV, OK, RI, UT, WV	IA, TX
Percent of students who have been repeatedly suspended or subjected to disciplinary actions	AR, DC, KY, OH, CNMI	CA, MI, TN, GM	DE, GA, ID, IL, MD, MA, NJ, NC, SC, SD, WV, PR	AL, AZ, CO, FL, IN, NV, OK, RI, UT	IA, MN, NE, TX
Vandalism rate and magnitude	CNMI, PR	AR, NM	CA, GA, MI, OK, WV	AZ, CO, FL, ID, IL, KY, MD, MA, NE, NV, NC, RI, SC, TN, UT, GM	AL, DE, DC, IN, IA, MN, SD, TX
Crime rate and magnitude	DC, CNMI, PR	AR, KY, NM	GA, MI, MN, NJ, OK	AL, AZ, CA, CO, FL, ID, IL, MD, MA, NE, NV, NC, RI, SC, TN, UT, WV, GM	DE, IN, IA, SD, TX
Percent of students who know the significance of voting			AR, MI, UT	AL, CA, CO, DC, FL, GA, ID, IN, KY, MD, MA, NE, NV, OK, RI, SC, SD, TN, WV, GM, PR	AZ, IL, IA, MN, NC, TX
Percent of students who know the procedures necessary to register and vote	MI	AR	DC, OH, UT	AL, CA, CO, DE, FL, GA, ID, IL, IN, KY, MD, MA, NE, NV, NJ, NC, OK, RI, SC, SD, TN, WV, GM, PR	AZ, IA, MN, TX
Percent of students who volunteer time to school, civic, community, or nonprofit activities	CNMI	DC, MI	AR, OH, UT	AL, CA, CO, DE, FL, GA, ID, IN, KY, MD, MA, NE, NV, NJ, OK, RI, SC, SD, TN, WV, GM, PR	AZ, IL, IA, MN, NC, TX

Table 5

Lists of States in Each Availability Rating by NCEO Indicator

Domain and Indicator	Availability Ratings*				
	1	2	3	4	5
<b>Academic and Functional Literacy</b>					
Percent of students who use and comprehend language that effectively accomplishes the purpose of the communication	DC, KY, CNMI	IL, RI	AR, GA, MI, GM	AL, AZ, CA, CO, DE, FL, ID, IN, MD, MA, MN, NE, NV, NJ, OH, OK, RI, SC, SD, TN, UT, WV, PR	IL, IA, NC, TX
Percent of students who demonstrate problem-solving and critical thinking skills	AR, KY, CNMI	IL, RI	GA, MI, SC, GM	AL, AZ, CA, CO, DE, DC, FL, ID, IN, MD, MA, MN, NV, NJ, NC, OH, OK, SD, TN, UT, WV, PR	IA, TX
Percent of students who demonstrate competence in math necessary to function in their current home, school, work, and community environments	AR, KY	GA, IL, NJ, NC, OH, RI	CA, DE, KS, MD, MI, SC, UT, GM	AL, AZ, CO, DC, FL, ID, IN, MA, MN, NE, NV, OK, SD, TN, WV, PR	IA, TX
Percent of students who demonstrate competence in math necessary to function in their next environment	AR, KY	GA, IL, NJ	DE, KS, MI, OH, SC, UT, GM	AL, AZ, CA, CO, DC, FL, ID, IN, MD, MA, MN, NV, NC, OK, RI, SD, TN, WV, PR	IA, NE, TX
Percent of students who demonstrate competence in reading necessary to function in their current home, school, work, and community environments	KY, NC, RI, CNMI	AR, DC, GA, IL, NJ	AL, CA, KS, MI, OH, SC, TN, GM	AZ, CO, DE, ID, IN, MD, MA, MN, NE, NV, OK, SD, UT, WV, PR	IA, TX
Percent of students who demonstrate competence in reading necessary to function in their next environment	AR, KY, CNMI	DC, GA, IL, NJ, NC	KS, MI, OH, SC, TN, GM	AL, AZ, CA, CO, DE, FL, ID, IN, MD, MA, MN, NV, OK, SD, UT, WV, PR	IA, NE, TX
Percent of students who demonstrate competence in writing necessary to function in their current home, school, work, and community environments	AR, KY, NC, RI, CNMI	DC, GA, IL, NJ	CA, DE, KS, MI, OH, SC, TN, GM	AZ, CO, FL, ID, IN, MD, MA, MN, NE, NV, OK, SD, UT, WV, PR	IA, TX



Table 5

## Lists of States in Each Availability Rating by NCEO Indicator

Domain and Indicator	Availability Ratings*				
	1	2	3	4	5
Percent of students who demonstrate competence in writing necessary to function in their next environment	AR, KY, CNMI	DC, GA, IL, NJ, NC	DE, KS, MI, OH, SC, GM	CA, CO, FL, ID, IN, MD, MA, MN, NV, OK, SD, TN, UT, WV, PR	IA, NE, TX
Percent of students who demonstrate competence in other academic and nonacademic skills necessary to function in their current home, school, work, and community environments	AR, KY, NC, CNMI	DC, GA, IL, NC	MI, SC, TN, GM	AL, AZ, CA, CO, FL, ID, IN, MD, MA, MN, NE, NV, NJ, OK, RI, SD, UT, WV, PR	IA, TX
Percent of students who demonstrate competence in other academic and nonacademic skills necessary to function in their next environment	AR, KY, CNMI	DC, GA, IL, NC	MI, OH, SC, TN, GM	AL, AZ, CA, CO, FL, ID, IN, MD, MA, MN, NV, NJ, OK, SD, UT, WV, PR	IA, NE, TX
Percent of students who currently apply technology to enhance functioning in home, school, work, and community environments	KY	DC, IL, NC, OH	AR, MI, RI, GM	AZ, CA, CO, DE, FL, GA, ID, IN, MD, MA, MN, NE, NV, NJ, OK, SC, SD, TN, UT, WV, PR	AL, IA, TX
Percent of students who demonstrate competence in using technology to function in their next environment	KY	DC, IL	AR, MI, NC, GM	AZ, CA, CO, DE, FL, GA, ID, IN, MD, MA, MN, NV, NJ, OH, OK, SC, SD, TN, UT, WV, PR	AL, IA, NE, TX
<b>Personal and Social Adjustment</b>					
Percent of students who cope effectively with personal challenges, frustrations, and stressors	KY		MI	AR, CA, CO, DC, FL, ID, IN, MD, MA, MN, NV, NJ, NC, RI, SC, SD, TN, UT, WV, GM, PR	AL, AZ, DE, GA, IL, IA, NE, OH, OK, TX

Table 5

Lists of States in Each Availability Rating by NCEO Indicator

Domain and Indicator	Availability Ratings*				
	1	2	3	4	5
Percent of students whose behavior reflects an acceptance of the consequences for behavior	KY	IL	MI	AL, AR, CA, CO, DC, FL, ID, IN, MD, MA, MN, NE, NV, NJ, NC, RI, SC, SD, TN, UT, WV, GM, PR	AZ, DE, GA, IA, OH, OK, TX
Percent of students who perceive themselves as worthwhile	KY, MN			AR, CA, CO, DE, DC, FL, ID, IN, MD, MA, MI, NE, NV, NJ, NC, OK, RI, SC, SD, TN, UT, WV, GM, PR	AL, AZ, GA, IA, IL, OH, TX
Percent of students who perceive themselves as competent	KY, MN		AR	CA, CO, DE, DC, FL, ID, IN, MD, MA, MI, NE, NV, NJ, NC, OK, RI, SC, SD, TN, UT, WV, GM, PR	AL, AZ, GA, IA, IL, OH, TX
Percent of students whose behavior demonstrates acceptance of cultural and individual differences	KY, CNMI	DC	AR, MI	AL, CA, CO, FL, ID, IN, MD, MA, MN, NE, NV, NJ, NC, SC, SD, TN, UT, WV, GM, PR	AZ, GA, IL, IA, OH, OK, TX
Percent of students who have friends and are a part of a social network	KY, MI, CNMI	DC	GM	A, AZ, AR, CA, CO, FL, ID, IN, MD, MA, MN, NE, NV, NJ, NC, OH, OK, SC, SD, TN, UT, WV, PR	GA, IL, IA, TX
Percent of students who demonstrate skill in interacting and in making decisions in social situations, including during interpersonal conflict	KY		MI	AL, AR, CA, CO, DC, FL, ID, IN, MD, MA, MN, NE, NV, NJ, NC, OH, RI, SC, SD, TN, UT, WV, GM, PR	AZ, GA, IL, IA, OK, TX

Table 5

Lists of States in Each Availability Rating by NCEO Indicator

Domain and Indicator	Availability Ratings*				
	1	2	3	4	5
Percent of students who engage in productive group work	KY, CNMI		MI, SC	AZ, AR, CA, CO, DC, FL, ID, IN, MD, MA, MN, NE, NV, NJ, NC, OH, OK, RI, SD, TN, UT, WV, GM, PR	AL, DE, GA, IL, IA, TX
<b>Satisfaction</b>					
Percent of students who are satisfied with level of achievement	CNMI		DC	AZ, AR, CA, XO, FL, ID, IL, IN, KY, MD, MA, MI, MN, NE, NV, NJ, NC, OK, RI, SC, SD, TN, UT, WV, GM, PR	AL, DE, GA, IA, OH, TX
Percent of students who are satisfied with what was provided in school	CNMI	DE	DC, PR	AL, AZ, AR, CA, CO, FL, ID, IL, IN, KY, MD, MA, MI, MN, NE, NV, NJ, NC, OK, RI, SC, SD, TN, UT, WV, GM, PR	GA, IA, OH, TX
Percent of students who are satisfied with high school experience	MI, CNMI	DE, MD	DC, PR	AL, AZ, AR, CA, CO, FL, ID, IL, IN, KY, MA, MN, NE, NV, NJ, NC, OK, RI, SC, SD, TN, UT, WV, GM	GA, IA, OH, TX
Percent of students who are satisfied with progress toward achieving educational outcomes	MI, CNMI	GM	DC, PR	AL, AZ, CA, CO, FL, ID, IN, KY, MD, MA, MN, NE, NV, NJ, NM, NC, OK, RI, SC, SD, TN, UT, WV	GA, IL, IA, TX
Percent of parents/guardians who are satisfied with level of achievement	CNMI	GM	DC, MI, PR	AL, AZ, AR, CA, CO, FL, ID, IN, KY, MD, MA, MN, NE, NV, NJ, NM, NC, OK, RI, SC, SD, TN, UT, WV	GA, IL, IA, OH, TX

Table 5

## Lists of States in Each Availability Rating by NCEO Indicator

Domain and Indicator	Availability Ratings*				
	1	2	3	4	5
Percent of parents/guardians who are satisfied with what was provided in school	CNMI	MI, GM	DC, PR	AL, AZ, AR, CA, CO, FL, ID, IL, IN, KY, MD, MA, MN, NE, NV, NJ, NM, NC, OK, RI, SC, SD, TN, UT, WV	GA, IA, TX
Percent of parents/guardians who are satisfied with high school experience		MI, CNMI	DC, GM, PR	AL, AZ, AR, CA, CO, FL, ID, IN, KY, MD, MA, MN, NE, NV, NJ, NM, NC, OK, RI, SC, SD, TN, UT, WV	GA, IL, IA, TX
Percent of parents/guardians who are satisfied with progress toward achieving educational outcomes		DE, CNMI	DC, GM	AL, AZ, AR, CA, CO, FL, ID, IN, KY, MD, MA, MI, MN, NE, NV, NJ, NM, NC, OK, SC, SD, TN, UT, WV, PR	GA, IL, IA, RI, TX
Percent of parents/guardians who are satisfied with the extent to which student is prepared to live in society		DE, CNMI	DC, PR	AL, AZ, AR, CA, CO, FL, ID, IN, KY, MD, MA, MI, MN, NE, NV, NJ, NC, NM, OK, RI, SC, SD, TN, UT, WV, GM	GA, IL, IA, TX
Percent of community (teachers, policymakers, employers, general public) satisfied with students' level of achievement		DE, DC, CNMI		AZ, AR, CA, CO, FL, ID, IL, IN, KY, MD, MA, MI, MN, NE, NV, NJ, NM, NC, OK, SC, SD, TN, UT, WV, GM, PR	AL, GA, IA, RI, TX
Percent of community (teachers, policymakers, employers, general public) satisfied with what was provided in school		DE, DC, MI, CNMI	AR	AZ, CA, CO, FL, ID, IL, IN, KY, MD, MA, MN, NE, NV, NJ, NM, NC, OK, SC, SD, TN, UT, WV, GM, PR	AL, GA, IA, RI, TX

Table 5

Lists of States in Each Availability Rating by NCEO Indicator

Domain and Indicator	Availability Ratings*				
	1	2	3	4	5
Percent of community (teachers, policymakers, employers, general public) satisfied with students' progress toward achieving educational outcomes		DE, DC, CNMI	AR	AZ, CA, CO, FL, ID, IL, IN, KY, MD, MA, MI, MN, NE, NV, NJ, NM, NC, OK, SC, SD, TN, UT, WV, GM, PR	AL, GA, IA, RI, TX

\* Ratings are:

- 1 = Our state has a report which includes this information.
- 2 = The data are collected in our state, are available, and could be reported with minimal effort.
- 3 = The data are available (in our department or other agencies), could be reported, but only with considerable resource commitment
- 4 = The data are not available, but measures could be developed (by someone, not necessarily SEA personnel) to collect the data.
- 5 = The data could never be made available

Note: GM = Guam, CNMI = Commonwealth of North Mariana Islands, PR = Puerto Rico

### Discussion

There are few indicators for which data are currently reported by seven or more states. These are restricted to data on presence (attendance, graduation, dropout) and suspensions or other disciplinary actions. There also are very few indicators for which only minimal effort would be required to gather data concerning them. Only 17 of the indicators could be reported by at least seven states with minimal effort.

For the most part (as shown in Tables 2-4), data on physical health, independence and responsibility, satisfaction, accommodation and adaptation, and personal and social adjustment are unavailable. Data managers report that some data on physical health could be made available with considerable effort. There is significant disparity between the kinds of data stakeholders (policy makers, teachers, parents, legislators, advocates, etc.) say are needed for purposes of improving instruction and educational outcomes and the data that are currently available or could be made available.

NCEO will begin compilation of the limited data available on indicators of educational outcomes for students completing school. However, NCEO also is identifying possible sources of data for all of the indicators. Although it was originally hoped that data already existed, this does not appear to be the case. States and local education agencies must begin to consider more carefully the benefits and costs associated with the collection of additional outcomes data.

## References

- Ysseldyke, J. E., & Thurlow, M. L. (1993). Development of a comprehensive model of educational outcomes and indicators for students with disabilities. Minneapolis: University of Minnesota, National Center on Educational Outcomes.
- Ysseldyke, J. E., Thurlow, M. L., & Gilman, C. J. (1993a). Educational outcomes and indicators for early childhood (Age 3). Minneapolis: University of Minnesota, National Center on Educational Outcomes.
- Ysseldyke, J. E., Thurlow, M. L., & Gilman, C. J. (1993b). Educational outcomes and indicators for early childhood (Age 6). Minneapolis: University of Minnesota, National Center on Educational Outcomes.
- Ysseldyke, J. E., Thurlow, M. L., & Gilman, C. J. (1993c). Educational outcomes and indicators for individuals at the post-school level. Minneapolis: University of Minnesota, National Center on Educational Outcomes.
- Ysseldyke, J. E., Thurlow, M. L., & Gilman, C. J. (1993d). Educational outcomes and indicators for students completing school. Minneapolis: University of Minnesota, National Center on Educational Outcomes.