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ABSTRACT

This guide presents a model for evaluation of educational outcomes appropriate for use with all students (with and without disabilities). It addresses specific post-school outcomes, associated indicators, and possible sources of data for the indicators. The model identifies seven measurable outcome domains and three to five outcomes per domain. The seven domains are as follows, with sample outcomes in parentheses: (1) presence and participation (individual is employed); (2) physical health (individual makes healthy lifestyle choices); (3) responsibility and independence (individual functions independently); (4) contribution and citizenship (individual votes and pays taxes); (5) academic and functional literacy (individual demonstrates competence in communication); (6) personal and social adjustment (individual gets along with other people); and (7) satisfaction (individual reports satisfaction with current status). For each of the outcomes, one to seven possible indicators are then identified (for example, percent of individuals in the workforce). Finally, steps toward identifying sources of data for indicators are suggested, with such examples as informed respondent interviews, individual surveys, observation records, parent reports, and supervisor ratings. (DB)

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ED 359 691

Educational Outcomes and Indicators for Individuals at the Post-School Level



NATIONAL
CENTER ON
EDUCATIONAL
OUTCOMES

The College of Education
UNIVERSITY OF MINNESOTA

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May, 1993

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ordered for \$8.00.
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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.

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Educational Outcomes and Indicators for Individuals at the Post-School Level

The current emphasis on educational reform and accountability reflects the public's desire to know the results of education for all of America's students. There is great interest in identifying the important outcomes of education and the best indicators of those outcomes.

The **National Center on Educational Outcomes** (NCEO) is working with federal and state agencies to facilitate and enhance the collection and use of data on educational outcomes for students with disabilities. In doing so, it has taken an inclusive approach, identifying a conceptual model of outcomes that applies to all students, not just to students with disabilities. Hundreds of educators, administrators, policymakers, and parents have participated in a consensus building process using this model as a framework to identify key indicators of important educational outcomes for all students.

The purpose of this document is to present the model of post-school outcomes and the indicators of these

outcomes for all individuals who have left today's schools. Post-school can be defined in a number of appropriate ways, including one year after completing school, five years after completing school, and so on. In the pages that follow, you will find:

- A conceptual model of domains and outcomes
- Possible indicators for each outcome
- Steps toward identifying sources of data for indicators

We at the National Center on Educational Outcomes are indebted to many groups and individuals who provided feedback to us (see Contributors listed at the end of this document). We believe that the model and indicators for post-school outcomes presented here will serve as a point from which to extend discussion as policymakers, states, and local school districts identify the important outcomes of education.

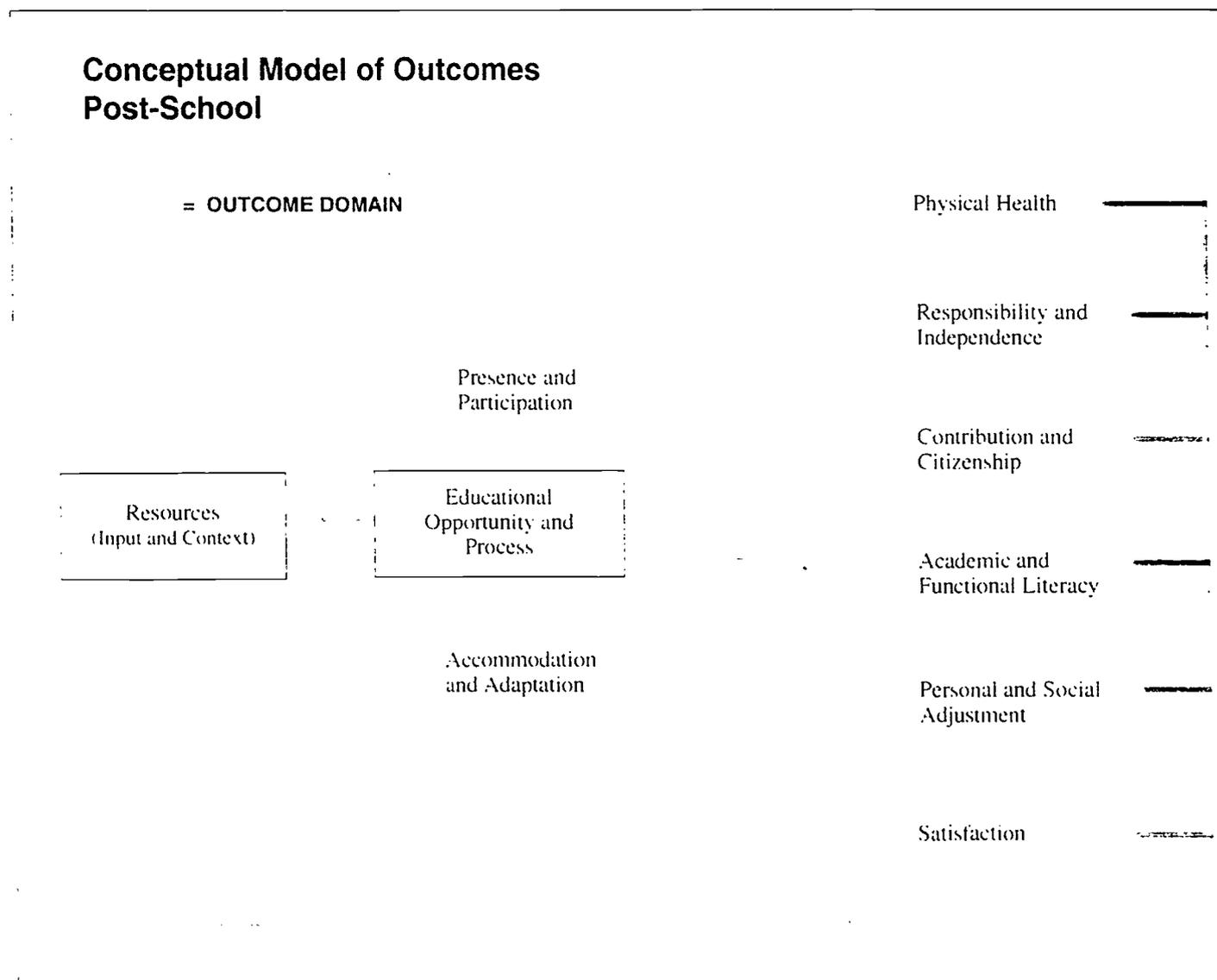
Conceptual Model of Domains and Outcomes

The conceptual model depicted below shows the complete educational model, with Educational Resources (Inputs and Contexts) influencing Educational Opportunity and Process. These, in turn, influence the Outcome Domains (the shaded areas), which have a return influence on both the resources and opportunity/ process.

One of the shaded domains, Presence and Participation, is placed next to Educational Opportunity and Process. This placement reflects the continued controversy about whether this is a true outcome, part of the process of education, or some type of mediating variable. Yet, generally there is consensus that Presence and Participation needs to be measured.

At the Post-School level, outcomes in the Accommodation and Adaptation domain were viewed by stakeholders as integrated within all other domains. The . indicates that this domain is not measured separately at the Post-School level.

Throughout this document, all domains (indicated by ♦) will be treated equally as outcome domains.



The conceptual model is extended by identifying outcomes, indicators of the outcomes, and finally, sources of data for the indicators. **Outcomes are the results of interactions between students and the educational system. Indicators are numbers or other symbolic representations that can be used to determine whether desired outcomes are achieved.** The relationships among these components are shown below for the

Presence and Participation domain. Throughout this document outcome domains are represented by shaded diamonds, outcomes are represented by shaded circles and indicators are represented by shaded triangles. Sources of data, represented below as small dots, are not fully developed for the domains in this document.

Outcomes for the domains are presented on pages 4 and 5. Indicators

are listed for each outcome within outcome domains on pages 8-15. Sample sources of data for the Responsibility and Independence outcome domain are presented on page 17.

Within this document, outcome domains, outcomes, and indicators are assigned letters and numbers to help in referencing them. These letters and numbers do not imply a hierarchical order of any kind.

| OUTCOME DOMAIN | OUTCOME | INDICATOR | SOURCE OF DATA |
|--|-----------|---|---|
| <p style="text-align: center;">A</p> <p>Presence and Participation</p> | A1 | a | <ul style="list-style-type: none"> • • • |
| | | b | <ul style="list-style-type: none"> • |
| | | c | <ul style="list-style-type: none"> • • |
| | A2 | a | <ul style="list-style-type: none"> • |
| | | b | <ul style="list-style-type: none"> • • |
| | | c | <ul style="list-style-type: none"> • • • |
| d | | <ul style="list-style-type: none"> • | |
| e | | <ul style="list-style-type: none"> • | |

OUTCOME DOMAIN

OUTCOME

**A
Presence and Participation**

- A1** Is in community
- A2** Participates in community
- A3** Is employed

**B
Accommodation and
Adaptation**

Stakeholders indicated that it is not important to measure outcomes in this domain at the post-school level. The domain is listed here to show consistency across developmental levels.

**C
Physical Health**

- C1** Makes healthy lifestyle choices
- C2** Is aware of basic safety, fitness, and health care needs
- C3** Is physically fit

**D
Responsibility and
Independence**

- D1** Gets about in the environment
- D2** Is responsible for self
- D3** Functions independently

**E
Contribution and Citizenship**

- E1** Complies with community rules
- E2** Votes
- E3** Volunteers
- E4** Pays taxes

OUTCOME DOMAIN

OUTCOME

F
Academic and Functional Literacy

- F1** Demonstrates competence in communication
- F2** Demonstrates competence in problem-solving strategies and critical thinking skills
- F3** Demonstrates competence in math, reading and writing skills used in daily life
- F4** Demonstrates competence in other academic and nonacademic skills
- F5** Demonstrates competence in using technology

G
Personal and Social Adjustment

- G1** Copes effectively with personal challenges, frustrations, and stressors
- G2** Has a good self image
- G3** Respects cultural and individual differences
- G4** Gets along with other people

H
Satisfaction

- H1** Individual's satisfaction with current status
- H2** Parent/guardian satisfaction with current status of individual
- H3** Community satisfaction with current status of individual

Possible Indicators for Post-School Outcomes

Indicators are numbers or other symbolic representations of outcomes. They can be viewed over time to gather information on trends. At the national and state levels, indicators usually are presented as percentages or rates.

State and local district personnel who are interested in specific students can easily translate the indicators presented here into individually-based indicators. A guide to these translations is included in the supporting document entitled

State and School District Development of Educational Outcomes and Indicators: A Guide for Self Study (see p. 25).

Lists of possible indicators for the post-school outcomes, which were identified through the consensus-building process, are presented on the next eight pages, one outcome domain per page. It is important to think of these as a framework within which outcomes, indicators, and sources of data can be generated.

= OUTCOME

A
DOMAIN

= INDICATOR

Presence and Participation

A1 Is in community

a

Percent of individuals living in regular community settings (differentiated by type -- living with parents/family of origin, semi-independent residence, independently)

b

Percent of individuals in postsecondary schooling (differentiated by type -- 4 year college, 2 year college, vocational training, adult basic education)

A2 Participates in community

a

Percent of individuals regularly participating in community-based activities, groups, and organizations

A3 Is employed

a

Percent of individuals in the workforce (differentiated by full-time, part-time, homemaker)

b

Percent of individuals whose employment is partially subsidized by non-employer funds

= OUTCOME

B
DOMAIN

= INDICATOR

Accommodation and Adaptation

Outcomes and indicators in this domain were considered during the consensus-building process. Participants recommended that no separate outcomes be identified in this domain at the Post-School level. Rather, outcomes and indicators reflecting accommodation and adaptation should be incorporated within other domains.

This domain was considered very important at earlier developmental levels. For example, at the School Completion level stakeholders identified two important outcomes in this domain:

- Makes adaptations, accommodations, or compensations necessary to achieve outcomes in each of the major domains
- Demonstrates family support and coping skills

Readers should refer to the document entitled *Educational Outcomes and Indicators for Students Completing School* to see the kinds of indicators stakeholders identified in this domain.

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= OUTCOME

C
DOMAIN

= INDICATOR

Physical Health

C1 **Makes healthy lifestyle choices**

- a** Percent of individuals who make good nutritional choices
- b** Percent of individuals who have abused alcohol or drugs in the past year
- c** Percent of individuals who indicate they have had unprotected sex in the past year
- d** Percent of individuals who regularly participate in sports, recreational, exercise and/or leisure activities

C2 **Is aware of basic safety, fitness, and health care needs**

- a** Percent of individuals who are aware of basic safety precautions and procedures
- b** Percent of individuals who are aware of basic fitness needs
- c** Percent of individuals who are aware of basic health care needs
- d** Percent of individuals who know when, where, and how to access health care
- e** Percent of individuals who are aware of first aid and emergency health care procedures

C3 **Is physically fit**

- a** Percent of individuals who are physically fit

BEST COPY AVAILABLE

= OUTCOME

D
DOMAIN

= INDICATOR

Responsibility and Independence

| | | | | |
|----|-------------------------------|-------|---|---|
| D1 | Gets about in the environment | _____ | a | Percent of individuals who can get to and from a variety of destinations |
| | | | b | Percent of individuals who know how to access community services (e.g., rehabilitation, counseling, employment, health, etc.) |
| | | | c | Percent of individuals who complete transactions (shopping, banking, drycleaning, etc.) in the community |
| D2 | Is responsible for self | _____ | a | Percent of individuals who can prioritize and set goals and persevere toward them |
| | | | b | Percent of individuals who manage personal care and safety |
| | | | c | Percent of individuals who effectively advocate for themselves |
| D3 | Functions independently | _____ | a | Percent of individuals who make their own choices or exercise self-determination |
| | | | b | Percent of individuals who obtain basic life necessities (e.g., housing, food, work, social relationships) |
| | | | c | Percent of individuals who are engaged in productive daily activities (e.g., hold job, perform community service) |

BEST COPY AVAILABLE

= OUTCOME

E
DOMAIN

= INDICATOR

Contribution and Citizenship

| | | | |
|----|--------------------------------------|---|--|
| E1 | Complies with community rules | a | Percent of individuals convicted in the criminal justice system or courts |
| E2 | Votes | a | Percent of individuals who vote |
| E3 | Volunteers | a | Percent of individuals who volunteer time to help others and improve community resources through school, civic, community, or nonprofit activities |
| E4 | Pays taxes | a | Percent of individuals who pay taxes |

BEST COPY AVAILABLE

= OUTCOME

F
DOMAIN

= INDICATOR

Academic and Functional Literacy

| | | | |
|----|--|---|---|
| F1 | Demonstrates competence in communication | a | Percent of individuals who use and comprehend language that effectively accomplishes the purpose of the communication |
| | | b | Percent of individuals who demonstrate competence in listening and comprehending language necessary to function in their home, school, work, and community environments |
| F2 | Demonstrates competence in problem-solving strategies and critical thinking skills | a | Percent of individuals who demonstrate problem-solving and critical thinking skills |
| F3 | Demonstrates competence in math, reading and writing skills used in daily life | a | Percent of individuals who demonstrate competence in math necessary to function in their current home, school, work, and community environments |
| | | b | Percent of individuals who demonstrate competence in reading necessary to function in their current home, school, work, and community environments |
| | | c | Percent of individuals who demonstrate competence in writing necessary to function in their current home, school, work, and community environments |
| | | d | Percent of individuals who read the newspaper |
| F4 | Demonstrates competence in other academic and nonacademic skills | a | Percent of individuals who demonstrate home management skills |
| | | b | Percent of individuals who demonstrate money management skills |
| | | c | Percent of individuals who demonstrate employability skills |
| | | d | Percent of individuals who demonstrate ability to deal with community agencies |
| | | e | Percent of individuals who identify, organize, and allocate non-monetary resources effectively (e.g., time, materials, space, human resources) |
| F5 | Demonstrates competence in using technology | a | Percent of individuals who currently apply technology to enhance functioning in home, school, work, and community environments |

= OUTCOME

G
DOMAIN

= INDICATOR

Personal and Social Adjustment

| | | |
|-----------|--|--|
| G1 | Copes effectively with personal challenges, frustrations, and stressors | <p>a Percent of individuals who cope effectively with personal challenges, frustrations, and stressors</p> <p>b Percent of individuals whose behavior reflects an acceptance of the consequences for behavior (e.g., makes restitution)</p> <p>c Percent of individuals who exercise self-control</p> |
| G2 | Has a good self image | <p>a Percent of individuals who perceive themselves as worthwhile</p> <p>b Percent of individuals who perceive themselves as competent</p> |
| G3 | Respects cultural and individual differences | <p>a Percent of individuals whose behavior demonstrates acceptance of diversity</p> |
| G4 | Gets along with other people | <p>a Percent of individuals who have friends and are a part of a social network</p> <p>b Percent of individuals who demonstrate skill in interacting in social situations</p> <p>c Percent of individuals who engage in productive group work in home, school, work, and community environments</p> <p>d Percent of individuals who demonstrate skill in managing interpersonal conflict</p> <p>e Percent of individuals who relate effectively to authority figures</p> <p>f Percent of individuals who relate effectively to peers</p> <p>g Percent of individuals who interact with parents or other family members on a regular basis</p> |

= OUTCOME

H
DOMAIN

= INDICATOR

Satisfaction

H1 Individual's satisfaction with current status

- a** Percent of individuals who are satisfied with their current status and life experiences (e.g., general well being)
- b** Percent of individuals who are satisfied with what was provided in postsecondary school experiences
- c** Percent of individuals who are satisfied with their current employment experience
- d** Percent of individuals who are satisfied with their current living arrangements
- e** Percent of individuals who are satisfied with their social network
- f** Percent of individuals who are satisfied with community services available
- g** Percent of individuals who are satisfied with their level of involvement in leisure activities

H2 Parent/guardian satisfaction with current status of individual

- a** Percent of parents/guardians who are satisfied with individual's current status (e.g., general well being)

H3 Community satisfaction with current status of individual

- a** Percent of community (employers, general public, service agency personnel, and policymakers) who are satisfied with the individual's current status

Steps Toward Identifying Sources of Data for Indicators

NCEO staff and advisors are currently in the process of identifying possible sources of data for each of the indicators that has been identified through the consensus building process. Examples of

possible sources of data for six of the nine indicators within the Responsibility and Independence domain are provided on this page. These were generated by NCEO staff. Before listing the possible sources of

data for all outcome indicators in the NCEO model, experts will be asked to provide their ideas about the best data sources.

**D
DOMAIN**

Responsibility and Independence

| OUTCOME | INDICATOR | POSSIBLE SOURCE OF DATA |
|----------------------------------|---|--|
| D1 Gets about in the environment | a Percent of individuals who can get to and from a variety of destinations | • Informed respondent interviews |
| | b Percent of individuals who know how to access community services | • Individual surveys • Health examination scores |
| | c Percent of individuals who complete transactions in the community | • Observation records |
| D2 Is responsible for self | a Percent of individuals who can prioritize and set goals and persevere toward them | • Scores on independence self assessment • Parent reports |
| | b Percent of individuals who manage personal care and safety | • Supervisor ratings |
| | c Percent of individuals who effectively advocate for themselves | • Informed respondent interviews |

Identifying and Defining the Important Outcomes of Education

The model and lists of domains, outcomes, and indicators that have been presented in this document are viewed as providing a framework and examples. From these examples, states, districts, and schools can begin to identify and define the important outcomes of

education for all of their students.

This document is a summary of the results of consensus-building exercises focused on the time of *post school* only. NCEO is using the same consensus building process to identify outcomes

and indicators for the developmental levels indicated in the figure below.

These will be available in the same format as the Post-School outcomes and indicators.

| OUTCOME DOMAIN | DEVELOPMENTAL LEVELS | | | | | |
|--|----------------------|---------|---------|---------|-------------------|---------|
| | 3 Years | 6 Years | Grade 4 | Grade 8 | School Completion | |
| A Presence and Participation | - - ● | - - ● | - - ● | - - ● | - - ● | - - ● |
| B Accommodation and Adaptation | - - ● | - - ● | - - ● | - - ● | - - ● |) - - ● |
| C Physical Health | - - ● | - - ● | - - ● | - - ● | - - ● |) - - ● |
| D Responsibility and Independence | - - ● | - - ● | - - ● | - - ● | - - ● | - - ● |
| E Contribution and Citizenship | - - ● | - - ● | - - ● | - - ● | - - ● | - - ● |
| F Academic and Functional Literacy | - - ● | - - ● | - - ● | - - ● | - - ● | - - ● |
| G Personal and Social Adjustment | - - ● | - - ● | - - ● | - - ● | - - ● | - - ● |
| H Satisfaction | - - ● | - - ● | - - ● | - - ● | - - ● | - - ● |

Contributors to the Development of Post-School Outcomes

Many individuals contributed to the development of the conceptual model, outcomes, and indicators presented here. Stakeholders participated in an intensive process of consensus

building using a computerized multiattribute analysis procedure. Other contributors, including NCEO's Advisory Committee members, read and reacted to various working

papers, model prototypes, and questionnaires. With extreme gratitude we recognize and thank these contributors.

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Supporting Documents

The following documents are available for the reader who is interested in additional information on the model and its underlying assumptions, the process through which the current model and indicators were developed, or how states and school districts apply the model to meet their needs.

A Conceptual Model of Educational Outcomes for Children and Youth with Disabilities (Working Paper 1) July, 1991.

This paper discusses terminology and assumptions underlying the development of a model of outcomes for children and youth with disabilities. It presents alternative models, identifies unresolved issues, and represents a preliminary statement of models and issues.

Responses to Working Paper 1: Conceptual Model of Educational Outcomes for Children and Youth with Disabilities (Synthesis Report 3) June, 1992.

This paper is a synthesis of the responses from a large number of individuals who were invited to react to the educational outcomes model and the assumptions, definitions, and unresolved issues presented in Working Paper 1. Patterns in responses to specific issues including support, concerns, suggested refinements, and sample comments are included.

An Evolving Conceptual Model of Educational Outcomes for Children and Youth with Disabilities (Working Paper 2) August, 1992.

This paper is an extension of Working Paper 1, with revised definitions and assumptions, and an updated model

of educational and enabling outcomes for students with disabilities. An initial list of indicators of each outcome domain is included.

Steps and Activities in the Development of a Conceptual Model of Educational Outcomes and Indicators (June, 1993).

This paper summarizes the steps and processes used in developing NCEO's conceptual model, indicators, and sources of data.

The Development of Educational Outcomes and Indicators for Students at the Post-School Level: Report on the Consensus Process (in preparation).

This paper details the consensus process used by NCEO and the results of a final consensus meeting on outcomes and indicators at the time of school completion.

State and School District Development of Educational Outcomes and Indicators: A Guide for Self Study (in preparation).

This guide provides state and district personnel with information on how to use NCEO's model in developing a set of outcomes and indicators.

Information on these materials can be obtained by calling NCEO Publications (612-626-1530) or by writing:

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