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8 San Francisco, California 94111-3305
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Attorneys for Defendant State of California

8 SUPERIOR COURT OF THE STATE OF CALIFORNIA

9 CITY AND COUNTY OF SAN FRANCISCO

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ELIEZER WILLIAMS, et al.,) Case No. 312 236
)
Plaintiffs,) Date Action Filed: May 17, 2000
)
vs.)
)
STATE OF CALIFORNIA, DELAINE)
EASTIN, State Superintendent)
Of Public Instruction, STATE)
DEPARTMENT OF EDUCATION, STATE)
BOARD OF EDUCATION,)
)
Defendants.)
)
_____)
STATE OF CALIFORNIA)
)
Cross-Complainant,)
)
vs.)
SAN FRANCISCO UNIFIED SCHOOL)
DISTRICT, et al.,)
)
Cross-Defendants.)
)
_____)

EXPERT WITNESS DECLARATION RE HERBERT J. WALBERG, Ph.D.

1 I, Paul B. Salvaty, declare as follows:

2

3 1. I am an attorney with the law firm of O'Melveny & Myers
4 LLP, counsel of record herein for defendant State of California
5 ("the State").

6

7 2. The State has provided a list of persons whose expert
8 opinion testimony the State intends to offer at trial of this
9 action, either orally or by deposition testimony. The list
10 includes Professor Herbert J. Walberg, to whom this declaration
11 refers.

12

13 3. Professor Walberg has agreed to testify at trial.

14

15 4. Professor Walberg will be sufficiently familiar with
16 the pending action to submit to a meaningful oral deposition
17 concerning the specific testimony, including any opinions and
18 their bases, that Professor Walberg is expected to give at trial.

19

20 5. Professor Walberg's fee for providing deposition
21 testimony, consulting with the State, conducting research and
22 other activities undertaken in preparation of the attached report
23 is \$250 per hour.

24

25 6. Pursuant to Section 2034(f)(2)(A) of the California
26 Code of Civil Procedure, attached hereto as Exhibit A and
27 incorporated herein by reference is a *curriculum vitae* providing
28 Professor Walberg's professional qualifications.

Curriculum Vitae Herbert J. Walberg

Research Professor of Education and Psychology
University of Illinois at Chicago
College of Education
1040 West Harrison St.
Chicago, IL 60607.
Phone: (312) 996-8133
Fax: (312) 951-4857
E-Mail: hwalberg@uic.edu

Distinguished Visiting Fellow, Stanford University Koret K-12 Education Task Force (1999-2005)

Member, Palo Alto Group on Youth Problem Prevention. Center for Advanced Study in the Behavioral Sciences (1999-2001)

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Biographical Notes

American Men and Women of Science

Contemporary Authors

Dictionary of International Biography (England)

Leaders in Education

Who's Who in Frontier Science and Technology

Who's Who in Psychology

Who's Who in America

Who's Who in the World

Profiled as "Learning Society Scorekeeper" by Dr. Bernard R. Gifford, Vice President for Education, Apple Computer Inc., Education Week, November 6, 1991, p. 12.

Profiled with B.F. Skinner, J. Piaget, and others by Norman A. Sprinthall, Richard C. Sprinthall, and Sharon N. Oja, Educational Psychology: A Developmental Approach. (New York, NY.: McGraw-Hill, 1994, p. 324).

Interviewed on subject "Are Standardized Tests Contributing to Social Stratification?" The Long Term View: A Journal of Informed Opinion, September-October, 1993, vol. 1, no. 4, 40-47.

Profiled and interviewed by Robert J. Kirschenbaum, Gifted Child Today, July-August, 1993, vol. 16, no. 4, 40-45.

Herbert J. Walberg, "Setting Goals." In Allan Ornstein (Editor), Strategies for Effective Teaching. New York: McGraw-Hill, 1994. (part of a series autobiographical sidebars on major ideas by scholars).

Harold Henderson, "Keeping Score on the Schools," The Reader, 1994. An account of national and local educational activities.

Interviewed on the subject of effective teaching for a tape prepared for the National Association for Staff Development—professionals who design and conduct workshops for teachers and other educators to make their work more effective.

Personal Notes

Born: Chicago, December 27, 1937

Wife: Madoka B. Walberg

Son: Herbert J. Walberg III, former varsity debater for Oak Park-River Forest High School, who, in 1983 and 1985, participated in the Harvard University and Redlands University invitational high school debates on arms sales to foreign countries and American unemployment; now graduate student, University of Illinois at Chicago

Hobbies: reading biographies and books about the natural sciences and foreign countries, international travel; recreational computing; swimming, jogging; and playing guitar

Foreign travel on education assignments: Australia (0), Europe (21), Japan (3), Southeast Asia (3), South America (2) (number of trips as of 1991 in parentheses)

Education

Chicago State University, B.E., 1959, Education and Psychology

University of Illinois, M.E., 1960, Counseling and Guidance

University of Chicago, Ph.D., 1964, Educational Psychology in the Division of the Social Sciences; major field professors—Bruno Bettelheim, Benjamin Bloom, Allison Davis, Fred Lighthall, Philip Jackson, Jacob Getzels, Bertrand Masia, Herbert Thelen, and Benjamin Wright; areas of concentration—social psychology, individual differences, measurement, evaluation, and statistical analysis; former member, Alumni Educational Development Committee and "Friends of Judd." Founder of the Helen B. Walberg Prize for Scholarly Distinction.

Harvard University, informal course on emergency medicine for travelers and explorers, 1967, while on faculty

Academic Positions

Chicago State University

Instructor in Psychology, 1962-63; taught undergraduate courses in educational and social psychology
Assistant Professor of Psychology, 1964-65; taught graduate courses in measurement and evaluation and social psychology; sat on 15 master's thesis committees

Rutgers University

Lecturer in Education, 1965-66; taught graduate course in theories of learning

Harvard University

Assistant Professor of Education, 1966-69; taught graduate courses in social psychology of education and measurement; sat on seven doctoral dissertation committees

University of Illinois at Chicago

Associate Professor of Education, 1970-71; teaching appointment in Learning Studies Division; full graduate standing;
Professor of Education, 1971-84; taught advanced educational psychology and educational research;
Research Professor of Education, 1984-
Representative (at request of UIC central administration), Urban Education Committee, National Association of State Universities and Land Grant Colleges, Washington
Research Professor of Education and Psychology, 1996; member President's Council (donor group)

External Examiner for Ph.D. dissertations

Monash University (Australia), 1974 and 1976
Australian National University, 1977
University of Chicago, 1981
University of Stockholm, 1989

Other Employment

Dishwasher, Chicago Osteopathic Hospital, 1952-1955 (while in high school)
Tractor Operator, Illinois Central Railroad, 1955-57 (while in college)
Laboratory Technician, United States Steel, 1957-59 (while in college)
Substitute Teacher, Chicago Public Schools, 1960-62 (while in graduate school)
Research Assistant on behavioral science computer analysis, University of Chicago, 1960-61
Guitarist, Chicago clubs and coffee houses, 1960-63 (while in graduate school)
Consultant in Evaluation, Ford Foundation Great Cities Drop-out Project, 1962-65
Director of Institutional Research and Examinations, Chicago State University, 1962-65
Supervisor of Chicago Testing Center, National Teacher Examinations, Educational Testing Service,

1963-65

Associate Research Psychologist, Educational Testing Service, Princeton, New Jersey, 1965-66
Evaluation consultant, Harvard Project Physics, 1966-69
Educational consultant, Council on Social Work Education, New York, 1968-70
Research consultant, Educational Development Center, Newton, Massachusetts, 1968-72
Founder and principal, TDR Associates, Inc., Newton, Massachusetts, 1969-73; technical consultant, 1973-79
Research Associate, University of Wisconsin Research and Development Center for Cognitive Learning, 1969-70
Research consultant, Metropolitan Council Educational Opportunity, Boston and its surrounding suburbs, 1967-69
Research Associate, Office of Evaluation Research, University of Illinois, Chicago, 1970-83
Editor, educational research and psychology, McCutchan Publishing, Berkeley, 1974-
Educational consultant, Chicago United (a group comprised of the 15 largest and the 15 largest minority-owned, corporations aimed at improving socioeconomic conditions in the metropolitan area), 1972-
Chief psychological consultant, National Dairy Council, nation-wide nutrition education curriculum, 1975-78
Designer and coordinator, world-wide series of radio broadcasts on education in the United States, Voice of America, Office of the President of the United States, 1975-79
Member, Board of Directors, and External Principal Investigator, Institute for Research on Teaching, sponsored by the National Institute of Education, at Michigan State University, 1979-86
Member, Advisory Board, Center for Educational Research and Evaluation, Biological Sciences Curriculum Study, Boulder, Colorado, 1979-82
Member, Committee on Educational Grants, March of Dimes-The National Foundation, White Plains, New York, 1979-; Chair, 1982-
Evaluation and Psychological Consultant, Prime Time School Television, Chicago, 1977-83

Public Service

Chair

Committee to investigate "the reading anomaly" in the National Assessment of Educational Progress, U.S. National Center for Educational Statistics
U.S. Representatives, Organization for Economic and Cooperative Development Conference on Education Reform, Paris
Visiting Evaluation Committee, Research for Better Schools, Philadelphia
Research Advisory Council to the General Superintendent of the Chicago Public Schools.
Chicago visit of First Deputy Minister of Education, U.S.S.R., and Head of Pedagogical Section, National Ministry of Education, Institute of International Education
Plenary Session, Conference on Cross National Education Indicators, U.S. Department of Education, and Organization for Economic Cooperation and Development, Washington, 1987.
Chicago host, visiting professors and ministerial officials from Australia, Federal Republic of Germany, Great Britain, Israel, Japan, and Taiwan
Co-Chair, National Society for the Study of Education Commission on Contemporary Educational Issues.
Co-Chair, (with Maynard C. Reynolds and Margaret C. Wang), second national conference on the general education initiative for special education held at Wingspread
Scientific Advisory Group on Education Indicators, Organization for Economic and Cooperative Development, meetings in Paris, Vienna, Sonoma, Calif., and Washington, DC.

Technical Methodological Committee, National Assessment Governing Board, National Assessment of Educational Progress
Scientific Advisory Group, Project on Education Indicators, Organization for Economic and Cooperative Development, Paris
Design and Analysis Committee, National Assessment Governing Board, Washington, DC
Design and Analysis Committee of the National Assessment Governing Board
Evaluation Panel for large-scale use of integrated computer-assisted instruction in public schools in the Bronx, New York public schools, with Chester Finn, Floralyn Stevens, and Daniel Stufflebeam
Chairman of the Board, Heartland Institute, a public policy institute providing reports to 8,000 legislators and news people, 1996-

Consultant and Advisory Service

American Friends Service Committee, Project on Public Education in Chicago
Bureau of the Educationally Handicapped, Project on Re-Entry into Mainstream Education, Washington, D.C.
Central staffs of public schools of Boston, Brookline, Lexington, and Newton, Massachusetts; Chicago, Park Forest, and Elgin, Illinois; Santa Clara County, California on evaluation research
Chicago Economic Development Commission, on opportunities in the metropolitan area for business-education cooperation
City of Chicago, Department of Development and Planning, Project on Human Resources
National Study of Low-Income Families in Catholic Schools, National Catholic Educational Association.
Co-convener (with Margaret Wang and Maynard Reynolds), Wingspread Conference on the integration of children with special needs in regular education
Far West Laboratory, Project on Development, Dissemination, and Evaluation of Educational Media, Berkeley
Funding priorities, Science Education Directorate, National Science Foundation, Washington, D.C.
Gallup Poll of Public Attitudes toward Education, Phi Delta Kappa International Study of Educational Achievement in Science, Australian Council for Educational Research, 1979
Ministries of education of Great Britain, Japan, Singapore, and Sweden
Mr. Kenneth Baker, British Secretary of State for Education and Science, on national educational policy
National Assessment of Educational Progress, Educational Testing Service, Princeton, NJ, on design of non-cognitive assessment items
National Science Foundation, Office of General Counsel, on research by commercial firms
National Academy of Sciences, human-capital indicators
National Catholic Education Association on effects on achievement and religiosity
National Institute of Education, Program on Teaching and Curriculum, Washington, D.C.
Office of Educational Evaluation, New York City, on organization for research
Presidents and Academic Deans of the Chicago City Colleges on curriculum development and evaluation
Santa Clara County Public Schools, on educational effectiveness
School Health Curriculum Evaluation, Abt Associates, Cambridge, Massachusetts, 1982-83
Search Institute, on planning and analysis of national surveys of Catholic school students
U.S. Secretary of Education and Assistant Secretary for Educational Research and Improvement
U.S. National Center for Educational Statistics, on national and international statistics to be collected
U.S. Secretary of Education, on federal research priorities and educational policy
U.S. General Accounting Office, bilingual education evaluation.
U.S. Secretary of Education's National Commission on Excellence in Education
Association for Supervision and Curriculum Development, on educational standards and retention policy and on at-risk children
Kettering Foundation Project on Innovations in Education, Colgate University, New York, on research design and statistical analysis
Consultant, Chicago Consortium of Colleges and Universities on

Keynote speaker, The Network for Educational Development, St Louis area school superintendents, on educational productivity

Nominating Committee, Division D, AERA

Respondent to request from Chairman Augustus F. Hawkins, U.S. House Committee on Education and Labor, on priorities for improving the American education system

National Catholic Education Association Study of Impact of Schools on Low-Income Children.

U.S. Navy Personnel Research and Development Center, "What Works" in training programs

U.S. Secretary of Education, on assessment requested by the President of U.S. education five years after A Nation at Risk: study group on productivity and draft review group

Study of Mathematically Precocious Youth. Keynote speaker (with Sandra Scarr and Julian Stanley), Iowa State Conference on Intellectual Precocity.

Advisory Panel, U.S. Congressional Office of Technology Assessment, Effects of Computer-Assisted Instruction on Learning.

U.S. Secretary of Education, 1986-88, Consultant on Educational Policy

Cities in Schools Project, MidAmerica Leadership Foundation

Consultant, framework for the preparation of principals, National Association of Secondary School Principals

Research advisor, Search Institute, studies of public and private schools, Minneapolis, MN

MacArthur Foundation, inter-generational transfer of literary and cognitive abilities

World Bank, school science for developing countries

Herbert J. Walberg (interviewee with James S. Coleman), "Parents as Partners in Schools," videotape, Academic Development Institute, Chicago, 1991.

Member, Advisory Committee, Longitudinal Study of American Youth, National Science Foundation

Member, International Program Council, International Center for the Advancement of Scientific Literacy, Chicago Academy of Sciences

Scientific Advisory Group, Project on Education Indicators, Organization for Economic and Co-operative Development, Paris

Design and Analysis Committee, National Assessment Governing Board, Washington, DC

Member, International Advisory Committee, "Science Education in Developing Countries: From Theory to Practice Conference," Israel Ministry of Culture and Education

Advisor, Educate America, on advisability and feasibility of a national examination system for high school seniors

Design and Analysis Committee of the National Assessment Governing Board

Member, Educational Advisory Committee, New American Schools Development Corporation, founded at the request of President Bush to award \$200 million in corporate funds for 30 of 700 proposals from 49 states to create "break-the-mold" schools.

Host to J.T.H.M. Reuten, (Dutch) Chief Inspector of Education.

Member, National Panel of Experts, School Year 2000, Florida Department of Education and Florida State University.

Member, Special Advisory Board, "Assessment of Learning and Instruction," European Association for Research in Learning and Instruction.

Advisor, British Broadcasting Corporation, on television series on educational reform

Content Area Consultant Bank Member, National Research Center on the Gifted and Talented, Connecticut, Georgia, Virginia, and Yale Universities, sponsored by U.S. Department of Education.

Invited participant, American Psychological Association Wingspread Conference, "Assessing Learning and Educational Achievement," Racine Wisconsin

Appointed Governor, Heartland Institute of Illinois, one of Chicago's think tanks

Member, Program Planning Committee, Illinois Initiatives, State Board of Education

Member, Research Advisory Committee, Chicago Panel on Public School Finance

Member, Survey Agenda Committee, Consortium on Chicago School Research, University of Chicago

Adviser, National Commission for the Principalship, on defining performance standards and certification

design criteria

- Grant reviewer, U.S. Secretary of Education Fund for Innovation in Education
- Member, Research Agenda Task Force, Consortium on Chicago School Research, University of Chicago and other local universities
- Moderator, policy discussion of university experts including James S. Coleman of community and home aspects of education as related to the re-design of Chapter 1 policy and legislation for U.S. Congressional staffers and Department of Education policy makers
- Founding member and permanent secretary, International Academy of Education, 1985
- Member, Advisory Committee, Longitudinal Study of American Youth, National Science Foundation
- Member, International Program Council, International Center for the Advancement of Scientific Literacy, Chicago Academy of Sciences
- Advisor on planning, Chicago Botanic Garden, under National Endowment for the Humanities Grant
- Member, Educational Advisory Committee, New American Schools Development Corporation, founded at the request of the U.S. President to award \$200 million in corporate funds to 11 of 700 applicants from 49 states to create "break-the-mold" schools.
- Member, Special Advisory Board, "Assessment of Learning and Instruction," European Association for Research in Learning and Instruction.
- Content Area Consultant Bank Member, National Research Center on the Gifted and Talented, Connecticut, Georgia, Virginia, and Yale Universities, sponsored by U.S. Department of Education.
- Appointed Member, Advisory Committee, National Study of School Evaluation, on the national reformation of high school accreditation standards and indicators
- Advisor on planning, Chicago Botanic Garden, under National Endowment for the Humanities Grant
- Member, Educational Advisory Committee, New American Schools Development Corporation, founded at the request of the U.S. President to award \$200 million in corporate funds to 11 of 700 applicants from 49 states to create "break-the-mold" schools.
- Advisor on early childhood education programs, the Organization for Economic Cooperation and Development, Paris, France.
- Content Area Consultant Bank Member, National Research Center on the Gifted and Talented, Connecticut, Georgia, Virginia, and Yale Universities, sponsored by U.S. Department of Education.
- Advisory board member (awards merit-based scholarships to recipients mostly to Ivy League universities), Scholarship Foundation of America
- Interviews on radio on the subject of student homework research mentioned in "USA Today," "Education Week," "Washington Post," and "American Teacher"
- Advisor to the Chicago Board of Education Committee on Instruction, Student Achievement, and Educational Environment; reported on the evaluation of a project that brings some 60 professors at local universities into 160 low-achieving schools in poverty areas of the Chicago to improve learning.
- Reported to the annual conferences of the Association for Supervision and Curriculum Development on progress of a project being carried out by 29 national scholarly and professional organizations to synthesize voluminous research on educational effectiveness into a concise policy manual for legislators, policy makers, and practitioners.

Expert Witness Testimony

- Local court, on the efficacy of bilingual and general education programs, Berkeley, California
- State courts involving educational finance and productivity in Kansas, Missouri, New Jersey, New York, and Texas
- Federal district courts in education litigation involving Benton Harbor, Michigan; Baton Rouge, Louisiana; Woodland Hills, Pennsylvania; Kansas City and St. Louis, Missouri; Little Rock, Arkansas (twice); Richmond, Virginia; Oklahoma City, Oklahoma; DeKalb County, Georgia; Milwaukee,

Wisconsin, Wilmington, Delaware; and Topeka, Kansas (continuation of Brown v. Board of Education)

Served as expert witness on effective education for three federal district court cases being considered by the U.S. Supreme Court in 1991, Brown v. Board (Topeka, Kansas, sometimes referred to as the "educational case of the century"), Freeman v. Pitts (DeKalb County, Georgia), and Board of Education v. Dowell (Oklahoma City, Oklahoma).

Grant Advisor

National Heart, Lung and Blood Institute
United States-Israel Bi-National Science Foundation
Canada Council; Humanities and Social Science Division. Assessment of Research Project Proposal, Ottawa, Canada
March of Dimes-The National Foundation, Chair, Educational Committee
National Science Foundation
U.S. Department of Education Office of Educational Research and Improvement
Albertson Foundation

Study Groups and Boards

Council on Foreign Relations Conference "The United States and Japan: Changing Societies in a Changing Relationship," San Francisco.
At-risk youth conference, annual retreat of the Council of Chief State School Officers
National Academy of Education Annual Meetings: participant 1971, 1982, 1985; speaker, 1983
Invited nominator (and nominee), the Grawemeyer Award in Education (the "Nobel Prize of education")
Keynote speaker, Principals' Center Seminar, Board of Jewish Education of Metropolitan Chicago, on what can be learned from educational research.
Blue Ribbon Government Policy Task Force, Chicago
Advisory Committee, American School Health Curriculum Evaluation, U.S. Center for Disease Control
Review committee of excepted service employees, Office of Educational Research and Improvement, U.S. Department of Education
Technical Committee, International Association for the Evaluation of Educational Achievement; member, U.S. Advisory Committee
Policy group, American Standards of Teaching and Teacher Education
Illinois State Board of Education Committee on Assessment
Curriculum Council, National Association of Secondary School Principals
Site Committee, National Science Foundation Project on evaluation of Man-A Course of Study
Board of Trustees, Educational Excellence Network, (directed by Chester Finn and Diane Ravitch)
Testing Advisory Committee, Illinois State Board of Education Board of Directors and Research Advisors (with Ralph W. Tyler and James S. Coleman), Family Study Institute.
Education Core Committee, Chicago United.
U.S. Secretary of Education's Study Group on Special Education.
Design Advisory Committee, National Assessment of Educational Progress, Educational Testing Service, Princeton.
National Association of State Universities and Land Grant Colleges Committee on Urban Affairs
Policy Analysis Committee, Association for Supervision and Curriculum Development; Resolutions Committee.
Advisory Committee, American School Health Curriculum Evaluation, sponsored by U.S. Center for Disease Control.

COLON Education Subcommittee for U.S.-Japan Cooperative Study of Education Board, National Program for Personal Excellence, directed by Admiral James Watkins, for Former Chief of Naval Operations, U.S. Navy.

Research Advisory Committee, Evaluation of Teenage Health Teaching Model, Center for Disease Control

Site Committee, University of California, Berkeley, Lawrence Hall of Science Evaluation Committee, Philadelphia

Urban Policy Forum on Education and Economic Development, TRUST ("To Reshape Urban Systems Together"), a public-interest metropolitan reform conference

National computer-network appearance, AERA Educational Research Forum

Orientation speaker for ministerial and other educational officials from Africa and Asia on a one-month study tour of the U.S., sponsored by the U.S. Information Agency Institute of International Education.

International Academy of Education-International Association for the Evaluation of Educational Achievement, producing an "International What Works."

Harvard University working group on research synthesis and public policy

National Assessment of Educational Progress, Policy Analysis and Use Panel, 1987-88; Governing Board, 1987- Chair, Technical Methodology Committee, 1988

Selection Committee for Whitman Award for Excellence in Educational Management

Research advisor, Study of Programs for Retaining the Benefits of Early Childhood Education for Disadvantaged Children, RMC Research, Hampton, NH for U.S. Department of Education Office of Planning, Budget, and Evaluation

Reviewer, "Recommended Principles for Appraising International Comparative Study Proposals" and "Framework for International Comparative Studies," National Academy of Sciences

Co-Chairman, International Academy of Education Task Force on Australia

Advisor, "Schools, Kids, and Measurement: Technologies of Assessment," Office of Technology Assessment, Congress of the United States

Reviewer, "Chicago Principals: Changing of the Guard," research analysis by Designs for Change

Member, Advisory Panel, Urban Middle School Network, Association for Supervision and Curriculum Development, Alexandria, Virginia

Member, National Advisory Board, National Center for Developmental Education

Member, National Advisory Committee, National Science Foundation Longitudinal Study of American Youth

Grant referee, Smith Richardson Foundation, New York, NY

Member, Advisory Board, Center for Urban Educational Research and Development

Member, International Advisory Committee, "Science Education in Developing Countries: From Theory to Practice Conference," Israel Ministry of Culture and Education

Member, Research Advisory Committee, Chicago Panel on Public School Finance

Advisor, Educate America, on advisability and feasibility of a national examination system for high school seniors

Participant, Curriculum Research Advisory Meeting, Association for Supervision and Curriculum Development

Chair, evaluation panel for massive use of computer-assisted instruction in public schools in the Bronx, New York public schools, Chester Finn, Floralyn Stevens, and Daniel Stufflebeam

Member, Research Agenda Committee, Consortium on Chicago School Research

Member, advisory panel, Family Education Study, U.S. Department of Education conducted by Abt Associates

Adviser, National Commission for the Principalship, on defining performance standards and certification design criteria

Member, advisory panel, National Study of Preschool-to-School Transition, U.S. Department of Education and RMC

Grant reviewer, U.S. Secretary of Education Fund for Innovation in Education

Chair, Consultative Group of the Organization for Economic Cooperation and Development Educational Indicators Group in Mollymook, Australia.

Chair, Design and Analysis Committee of the National Assessment Governing Board

Invited testimony, the U.S. House Subcommittee on Elementary, Secondary, and Vocational Education the National Assessment of Educational Progress, on the National Assessment of Educational Progress

Presenter, "Potential Benefits of Longitudinal Studies in Education" U.S. Department of Education Symposium, Washington, DC

Invited speaker, on U.S. educational accountability and reforms to a visiting delegation of Japanese educators

Interviews, with reporters from the Dutch educators' magazine "Didactief" about the organization and funding of U.S. educational research and its dissemination to educational practitioners, and from the U.S. journal "Gifted Children" on the psychology, development, and nurturing of talent

Participant, White House invitational conference on plans to improve American schools led by President Bush, Secretary of Education Lamar Alexander, six Democratic and Republican governors, chief France concerning two books on educational indicators to be published by the Paris-based Organization for Economic Cooperation and Development

Chair, Design and Analysis Committee of the National Assessment Governing Board which is to report on U.S. students' achievement in relation to educational goals of the President and Governors

Member (with James Coleman and Hans Lodewijks of Holland), Board of Directors, (Israel) National Center for Assessment in Education.

University Committees

Harvard University

Committee on Lectures and Publications, 1966-69
 Curriculum Committee for Human Development and Educational Psychology, 1966-69

University of Illinois at Chicago

Search Committee, Dean of Faculties, 1972-73
 University Advisory Committee (to the Dean of Faculties) on Promotions and Tenure, 1972-; Chairman of Sub-Committee (on about half the cases), 1973-74
 Graduate Social Sciences Area Committee: Vice-Chairman; 1973-74; Chairman, 1975-75
 University Committee on Public Service, 1973-74
 Computer Policy Committee, 1972-75
 Search Committee, Dean of the College of Education, 1977-78, 1983-1984
 Chair, work group on development of a Ph.D. program in education 1970-74
 Graduate Committee, College of Education, 1970-78; Chair, 1976-78 Senate Judiciary Committee, 1981-83; Chair, 1982-83
 Council on International Programs and Activities, 1982-; Chair, Policy Sub-Committee, 1985-
 College of Education Ethics and Human Subjects Committee, 1983-85
 University Committee on Graduate Education and Research, 1984-85
 Co-Chair, Senate Committee on Academic Freedom and Tenure, 1984-1985
 Co-Chair, College of Education, Grievance Committee, 1984-85
 Representative, College of Education, to Washington Intern Program, 1985-
 Chief Evaluator, Ranking Study of Departments, Colleges, and Other Units of the University of Illinois at Chicago (for Chancellor), 1986-87

UIC Department of History Review Five-Year Committee
 Member, UIC Department of History or Art and Architecture Five-Year Review Committee
 Member, College of Education Grievance Committee
 Member, Search Committee, Educational Administration, College of Education
 Member, Advisory Board, Center for Urban Educational Research and Development
 Chairman, External Advisory Committee, College of Education
 Member, Evaluation Task Force, UIC Great Cities Neighborhood Initiative
 Presenter, Summer Institute for Principals, UIC Center for Urban Educational Research and Development
 Contributor of lead article, "Assessing Educational Programs for Parents" Partners in Education, UIC College of Education.
 Member, UIC Faculty Working Group on School-Family-Community Relations and Urban Children's Development
 Chair, Search Committee, Measurement and Statistics Position, College of Education
 Member, International Activities Committee, UIC Great Cities Initiative
 Lecturer, UIC Principals Academy Summer Workshop, on educational effectiveness

University of Illinois System

Technical Committee on Testing, 1971-74, 1979-80, 1985, 1990-
 Technical Panel of the Survey Research Laboratory, 1973-75 University of Illinois, on educational research at the Chicago Campus, 1977
 Presidents Council (a group of recognized donors)

Memberships, Fellowships, and Awards

American Association for the Advancement of Science:
 Member, 1967-
 Fellow, 1979
 American Educational Research Association:
 Invited addresses, 1976 and 1978
 Member, Program Committee various years
 Chair, Award Committee for Outstanding Review Article, 1981
 Founding Chair, Special Interest Group on National Assessment of Educational Progress, 1982.
 Founding Chair, Raymond B. Cattell Research Award Committee
 Prize for Best Paper Translating Research into Practice, 1986, "Improving the Productivity of America's Schools"
 Nominating Committee, Division D, 1987
 American Psychological Association:
 Member, 1967-
 Fellow, 1976-
 Invited addresses, 1978, 1983
 Division 15: Committee on Test Standards Review Committee, 1983
 American Psychological Society, founding fellow
 Association for Supervision and Curriculum Development
 Member, various years
 Task Force Member, Retention Policy Analysis, Resolutions, At-Risk Children, and Urban Schools
 British Educational Research Association, 1977-
 National Association for Research in Science Teaching, Prize for Outstanding Convention Paper, 1985

Member, Editorial Board, Journal of Educational Computing Research, 1990-
 Founding chairman of editorial board, International Journal of Educational Research, 1985-97
 Manuscript reviewer:
 American Educational Research Journal
 American Journal of Education
 American Psychologist
 American Sociological Review
 Canadian Journal of the Behavioral Sciences
 Child Development
 Educational Evaluation and Policy Analysis
 Educational Leadership
 Elementary School Journal
 Human Relations
 Interchange
 International Journal of Educational Psychology
 Journal of Educational Measurement
 Journal of Educational Psychology
 Journal of Educational Statistics
 Journal of Research in Mathematics Education
 Psychometrika
 Psychological Bulletin
 Professional School Psychology
 Reading Research Quarterly
 Review of Educational Research
 Science
 School Review
 Sociology of Education
 Sociology of Work and Occupations: An International Journal
 Studies in Educational Evaluation
 Teaching and Teacher Education
 Statistical reviewer, Learning Disabilities Research, 1985-
 Manuscript reviewer, University of Chicago Press and Harvard University Press
 Advisory Editor, Review of Educational Research, 1988-1992
 BBS Associate, Brain and Behavioral Sciences, 1988-
 Editorial Board, Review of Educational Research, 1988-93
 Advisory Board, Journal of Developmental Education, 1988-92
 Consulting editor, volumes 1-3, Teaching and Teacher Education, 1985-91
 Advisor on design, Handbook of Educational Psychology, American Psychological Association
 Advisory Editor, Gifted Child Quarterly, 1986-90
 Advisory Council, Educational Excellence Network, Vanderbilt University, Washington, DC, 1988-97
 Founder and editor, annual book series, Advances in Educational Productivity, 1989-97
 Advisory Editor, Contemporary Psychology, 1986-90
 Founding editorial board member, School Community Journal, 1997-
 Editorial Consultant, Journal of Educational Measurement, Educational Foundations, Educational
 Evaluation and Policy Analysis
 Editor for evaluation, The International Encyclopedia of Education: Research and Studies. Oxford, Eng.
 Second Supplement and Second Edition
 Special consulting editor, International Journal of Educational Reform
 Editorial Board, Mid-Western Educational Researcher
 Board of Editors, Journal of Research in Childhood Education.
 Appointed to Editorial Board, Journal of Creative Behavior
 Appointed to Editorial Board, A Just and Caring Society.

Appointed Editorial Advisor, International Features Section, Educational Leadership, Association for Supervision and Curriculum Development.

Convention Papers

American Association for the Advancement of Science (3)
American Educational Research Association (81)
American Educational Studies Association (1)
American Psychological Association (18)
American Public Health Association (2)
International Society for Behavior Development (2)
National Association for Research on Science Teaching (6)
Society for the Scientific Study of Religion (1)

Invited Addresses

University of Wisconsin School of Education Conference on Educational Evaluation, "Process Evaluation" De Paul University School of Education, "Quality in Urban Education: Concepts and Measurement"
American Psychological Association Convention, "Learning Environments Reconsidered"
Northwestern University Center for the Study of the Teaching Professions, "Open Education in England and the United States"
University of Kentucky School of Education, "The Nature of Open Education"
University of Minnesota, "Synthesis of Research on Teaching and the Learning Environment"
Professors of Curriculum Annual Meeting, Minneapolis, "Research on Urban Educational Achievement"
Institute for Humanistic Research, Aspen, Colorado, Sponsored by the Asia Society and Stanford University, "Measuring Educational Environments"
Invited talks on current research given at the University of Illinois at Champaign-Urbana Program on Open Education, University of Illinois at Chicago Department of Political Science and Survey Research Laboratory, Northwestern University Medill School of Journalism and National Program on Educational Leadership, University of Chicago Department of Geography, Michigan State University, University of Minnesota, University of Georgia, Rutgers University, Loyola University, and University of Wisconsin
Australian Educational Research Association 1975 Convention, Adelaide, Keynote speaker on a psychology of educational productivity
University of Chicago, "Perspectives" television series, on educational reinforcement and eminence
Michigan State University Institute for Research on Teaching, "Environments for Learning" and "A Theory of Educational Productivity"
Northwestern University Department of Psychology, "Educational Process Evaluation"
Chicago Conference for Urban School Administrators, on declining test scores and educational accountability
U.S. Senate Committee on the Judiciary, on the educational research activities of the Civil Rights Commission
Eighth Annual Food Writers' Conference, on the role of education in nutritional choice
Keynote speaker, Georgia Educational Research Association Annual Conference, on educational productivity
Discussion participant, Center for the Study of Democratic Institutions, on critical problems of youth, mastery learning, national policy directions, and other topics
Speaker, National Association for Neighborhood Schools and U.S. Civil Rights Commission, National Public Broadcast System program, Washington D.C.

American Psychological Association, invited addresses on learning environments and on psychological theory of educational productivity

University of Illinois, Phi Kappa Phi, initiation address on "Childhood and Eminence"

University of Wisconsin, Conference on Reading Expository Materials

Keynote speaker, top-management retreat, Chicago Public Schools, on improving educational productivity

Concluding speaker, U.S. Department of Education Conference, "The Role of Value Inquiry in Business/Education Partnerships."

International Reading Association, St. Louis, on the social psychology of reading

Institute for Child Development and Behavior, University of Illinois at Champaign-Urbana, on motivation theories and research synthesis

State of Georgia Department of Education, expert witness on televised court hearings on school standards

Keynote speaker, University of Wisconsin, conference on motivation and learning

Invited speaker, Edward Begle Memorial Lecture, First Series, International Congress on Mathematical Education, sponsored by the

National Academy of Sciences and the University of California, Berkeley

Invited speaker, Indiana University, Conference on Qualitative and Quantitative Research Methods

Invited speaker, National Institute of Education Conference on Private and Public Schools on "What Makes Schooling Effective?"

Invited speaker, University of Wisconsin, Conference on Families and Learning

Keynote speaker, Southwest Educational Research Association, on research synthesis

Invited testimony, U.S. Senate Committee on the Judiciary, on Improving Educational Productivity

Invited speaker, Japan Psychological Association, on cross-cultural language learning

Public Health Service, Bethesda, Maryland, National Institutes of Health, on family environments

Keynote address, Australian Association for Research in Education, on educational productivity

Invited speaker, Brigham Young University, on family influences on educational productivity

Invited speaker, University of Pittsburgh, on research synthesis

Keynote speaker, Southwest Educational Research Association, Houston, Texas, on educational productivity

Keynote speaker, Midwest Educational Research Association, Chicago, on educational productivity

Keynote speaker, American Association of Colleges of Teacher Education, Detroit, Michigan, on the improvement of teacher education

Invited speaker, Museum of Science and Industry, Chicago, on science education in Japan

Invited speaker, International Society for the Study of Behavior Development, Munich, FRG, on research synthesis

Invited speaker, Stanford Center for Advanced Study in the Behavioral Sciences, on education in Japan and the United States

Invited speaker, Spring Hill Conference, on financing excellence and equity in education

Speaker, National Academy of Education Annual Meeting, on science education

Keynote speaker, Chicago United, on education for economic growth

Invited Speaker, U.S. House of Representatives Committee on the Budget and Joint Committee on Education and Employment, on American education productivity

Keynote speaker, Joint meeting of Dutch Association for Educational Research and Netherlands Ministry of Education, Enschede

Keynote speaker, Singapore Ministry of Education

Keynote speaker, National Association of School Psychologists, Las Vegas

Keynote speaker, Chicago Board of Jewish Education annual meeting

Keynote speaker, Pennsylvania Education Research Association

Speaker, International Symposium on Education Reform, Kyoto, Japan, representing the U.S. at the Secretary of Education's request.

Speaker, American Federation of Teachers Annual Conference, Washington

Keynote speaker, Institute for Educational Leadership, "Silicon Valley," California
 Speaker, Wingspread Conference on the Education of Special Needs Children, sponsored by U.S.
 Department of Education and Johnson Foundation
 Keynote speaker, Association for Supervision and Curriculum Development
 Special Conference on Big-City Education, Tucson
 Keynote speaker, (National) Suburban Superintendents Conference
 Keynote speaker, Tel Aviv Conference on Excellence and Equality
 Keynote speaker, National Institute of Aging Conference on Social Environment
 Speaker, Public Interest Law Center, Philadelphia
 Keynote speaker, Illinois Department of Education, Springfield
 Keynote speaker, Chicago Public Schools, groups of teachers
 Keynote speaker, Methods of Achieving Parent Partnerships Conference, Indianapolis
 Distinguished Lecturer, Association for Supervision and Curriculum Development, Chicago
 Keynote speaker, Netherlands Educational Research Association, Enschede
 Speaker, Graduate Colloquium, DePaul University, on learning research by doing it
 Invited lecturer, U.S.-Japan Economic Discussion Group, Chicago
 Invited speaker, Swedish Ministry of Education
 Keynote speaker, Midwest Association for the Teaching of Educational Psychology
 Speaker, Illinois Association of School Boards, on school district size and effectiveness
 Speaker, University of Chicago, International Studies Forum
 Speaker, U.S. Secretary of Education's Study Group on Elementary Education, Washington
 Speaker, Illinois School Boards Association annual conference, on parental partnership programs
 Speaker, New York State Council of School Superintendents, annual conference, on educational
 productivity
 Orientation lecturer to visiting African and Asian ministerial education officials, Institute of International
 Education, Washington
 Keynote speaker, Fort Bragg Schools, annual retreat of administrators, on educational effectiveness
 Speaker, Institute of Economic Affairs, London, on educational productivity
 U.S. Representative (with C. Finn), U.K. conference on educational performance indicators and
 education reform, home of Robert Maxwell, Pergamon Press, Oxford
 US Representative (with U. Bronfenbrenner), Conference on Comprehensive Schools in England,
 France, and Sweden, Max Planck Institute, Berlin
 Head, U.S. Delegation, Organization for Economic Cooperation and Development, Conference on
 International Curriculum Reform, Paris, 1987.
 Speaker, U.S. Department of Education Office of Educational Research and Improvement, on
 educational productivity.
 Speaker, Office of Catholic Education, Archdiocese of Chicago Annual Conference for Teachers, on the
 subject of family influences on learning.
 Speaker, Youth 2000: A Call to Action, National Association of Business, Washington, DC, invited by
 U.S. Labor Secretary William Brock.
 Speaker, Council of Chief State School Officers, annual retreat, on educational effectiveness for children
 at risk
 Lunch speaker, Rotary Club of Chicago, on U.S. education in international perspective
 Invited speaker, German Educational Research Association, annual meeting, Sabruken, on educational
 productivity
 Keynote speaker, Council of Chief State School Officers meeting on educational indicators
 Speaker, Phoenix, Arizona conference for state legislators, educators, and business people, on
 educational productivity
 Keynote speaker, Oak Park Public Schools, parent conference, on the "curriculum of the home"
 Invited lecture, Florida State University, on educational productivity
 Invited speaker, the College Board, annual meetings, on Japanese education
 Keynote speaker, Fall Training Institute for Special Education Directors, North Carolina Department of

Education, on effective educational programs
 Keynote speaker, conference on business sponsorship of parent involvement programs, Harvard Club, New York City
 Speaker, U.S. Department of Education Conference on Effects of Television on Children's Learning
 Speaker, U.S. Public Health Service, Bethesda, MD. on educational and other environmental influences on behavior and development
 Invited address on cooperative educational programs for parents to improve learning, Harvard Club of New York, sponsored by Work in America Institute and the MacArthur Foundation
 Colloquium on Educational Productivity, University of Illinois at Urbana Center for the Study of Reading
 Invited speaker, Florida State University, on synthesis of educational productivity studies
 Participant, Communications Innovation Seminar, Pergamon Press, Oxford, Eng.
 Paper co-authored with Reynolds, M.C., Wang, M.C., and Herbert J. Walberg, *Integrating Special and Regular Education* (presented by Reynolds), Beijing, China
 Invited lectures on educational productivity and research synthesis, Max Planck Institute for Education and Human Development
 Speaker, Italian National Seminar on Quality Indicators of Educational Systems, Bologna, Italy
 Participant, 29th General Assembly, International Association for the Evaluation of Educational Achievement, Villa Falconieri, Rome, Italy
 Speaker, National Academy of Sciences Panel on International and Comparative Studies, on OECD indicators project, U.S.-Asian comparative studies, and international and U.S. national assessment, University of California, Berkeley
 University of Illinois at Urbana radio broadcast on education reform
 Speaker, Heritage Foundation, Conference on Business and Education, Washington
 Keynote speaker, The Network for Educational Development, St Louis area school superintendents, on educational productivity
 Speaker, Meridian House International conference on U.S. language policies, on promoting U.S. youth literacy
 Banquet speaker, American Federation of Small Businesses, on U.S. education in international perspective, Chicago
 Keynote speaker, Third Annual Conference on Effective Education, Tel-Aviv, Israel, on measuring results of effective education
 Speaker, Connecticut State Board Conference on At Risk Students
 Keynote speaker, Chicago Rotary Club, on U.S. education in international perspective
 University of Illinois at Urbana radio broadcast on education reform
 Testimony, Illinois House Committee on Elementary and Secondary Education, on school reform legislation to create a Department of Public Accountability and institute school and district incentive programs
 Participant, White House Conference on Choice in Education
 Speaker, Philanthropic Round table, on new directions in child welfare policy, New York
 Keynote speaker, Illinois Association for Educational Research and Evaluation
 Keynote speaker, Chicago Public Schools-DePaul University conference on educational accountability
 Banquet speaker, American Federation of Small Businesses, on U.S. education in international perspective, Chicago
 Blurp (with Senator Bill Bradley, Governor Rudy Perpich, President Mary Hatwood Futrell) for Dorothy Rich's book on parent education *MegaSkills: How Families Can Help Children in School and Beyond*. Boston, MA.: Houghton Mifflin, 1988.
 Chairman, AERA symposium, International Educational Indicators
 Presenter on educational productivity, Maine School Superintendents Association Leadership Symposium
 Chairman of symposium, "Educational Models for Students with Special Needs," Third European Conference on Learning and Instruction

Speaker on international comparisons and educational productivity, legislative conference, "Assessing the Impact of Florida's Academic Reforms," Florida State University

Chairman of symposium, "Educational Models for Students with Special Needs," Third European Conference on Learning and Instruction

Keynote speaker on educational productivity and restructuring, Australian National Council for Independent Schools Association, Hobart, Tasmania

Speaker on international comparisons and educational productivity, legislative conference, "Assessing the Impact of Florida's Academic Reforms," Florida State University

Colloquium speaker on effective educational methods, University of Haifa, Israel

Keynote speaker, on educational programs for diverse student needs, Illinois Association for Educational Research and Evaluation

Keynote speaker, on promoting talent, Purdue University and Indiana Department of Education

Speaker, on educational choice and student learning, U.S. Secretary of Education's conferences on choice, Minneapolis, MN and Richmond, CA

Speaker, on educational programs for the inner city, Pi Lambda Theta, The University of Chicago Chapter

Speaker on effective educational methods, American Bar Association conference "Perspectives on Law-Related Education in the Year 2000"

Speaker, on the effects of spending on academic achievement, Education Task Force and Public Policy Committee, Chicago United (large and minority-owned business coalition)

Keynote speaker, Chicago Academy of Sciences conference of universities, schools, and museum staff on improving community and school science education

Keynote speaker on constructive educational reforms, American Legislative Exchange Council, Chicago

Speaker, on causes of school learning, Advisory Council of the National Center for Educational Statistics, Washington, DC

Leader, staff seminar on educational indicators, Organization for Economic Cooperation and Development, Paris

Speaker, Royal Swedish Academy of Sciences on 250th anniversary celebration, on science education, Stockholm

Keynote speaker, Inter-University Centre for Educational Evaluation, on educational indicators for educational improvement

Speaker, National Center for Educational Statistics, Advisory Council on Educational Statistics on variables with high explanatory power

Keynote address, Alliance for Achievement, Academic Development Institute, on the potential of parent-school connections

Speaker, Why Schools of Choice Excel, Illinois Advisory Committee on Non-Public Schools

Keynote speaker, Alliance for Achievement Network, Chicago, on home and school relations

Luncheon speaker, Illinois Manufacturers' Association Board of Directors

Speaker, Conference, Chicago School Reform: National Perspectives and Local Responses

Invited testimony, the U.S. House Subcommittee on Elementary, Secondary, and Vocational Education the National Assessment of Educational Progress, on the National Assessment of Educational Progress

Presenter, "Potential Benefits of Longitudinal Studies in Education" U.S. Department of Education Symposium, Washington, DC

Keynote speaker, Governor's Conference on School Reform, Samford University, Birmingham, Alabama

Speaker and participant, press seminar, U.S. Department of Education National Center for Educational Statistics, on NAEP trends, "Educational Risk and Five Remedies"

Speaker, National Alliance of Business/Education Forum, Cincinnati, Ohio

Keynote speaker, Wheaton Franciscan Services Conference on Deliberate Experimentation, Deerfield, Illinois

Invited speaker, Chapter 1 Assessment Independent Review Panel, on parent involvement issues

Keynote speaker, Superintendent Institute, Effective Schools Institute, Traverse City, Michigan, on

Encyclopedia

Herbert J. Walberg and Geneva D. Haertel (Editors), International Encyclopedia of Educational Evaluation. Oxford, Eng.: Pergamon Press, 1994.

Books

- Louis Lowy, Leonard M. Blokesberg, and Herbert J. Walberg, Integrative Teaching and Learning in Schools of Social Work: A Study of Organizational Development in Professional Education. New York, NY: Council on Social Work Education and Association Press, 1971.
- Herbert J. Walberg and Andrew T. Kopan (Eds.), Rethinking Urban Education. San Francisco: Jossey-Bass, 1972. A Festschrift for Robert Havighurst sponsored by Phi Delta Kappa.) Co-author of general overview and overviews of each part—Psychological, Evaluation, Sociological, Systems, Historical, Philosophical, and Concluding Perspectives.
- Louis Lowy, Leonard M. Blokesberg, and Herbert J. Walberg, Teaching Records: Integrative Learning and Teaching Project. New York: Council on Social Work Education and Association Press, 1973.
- Herbert J. Walberg (Ed.), Evaluating Educational Performance: A Source Book of Instruments, Methods, and Examples. Berkeley, CA: McCutchan, 1974. Author of "Evaluating Educational Performance," "Learning Environments" (with B.A. Anderson) (excerpt reprinted J. H. McMillan and S. Schumacher, Research in Education: A Conceptual Introduction. Glenview, IL.: Scott, Foresman, 1989.), "Course Evaluation" (with W. W. Welch), "School Equality" (with M. Borgen), "School Performance" (with M. Borgen), "Urban Spatial Models" (with M. Borgen), and "Optimization Reconsidered."
- Andrew T. Kopan and Herbert J. Walberg (Eds.), Rethinking Educational Equality. Chicago: National Society for the Study of Education, and Berkeley, CA: McCutchan, 1974. Author, "Equality in Chicago."
- Bernard Spodek and Herbert J. Walberg (Eds.), Studies in Open Education. New York, CA: Agathon, 1974). Author of two chapters with Susan Thomas—"An Analytic Review of the Literature" and "An Operational Definition." Translated into Japanese by M. Kurita, Tokyo, and Meiji Publishing, 1976.
- Brian Berry and others and Herbert J. Walberg, Chicago: A Metropolis Transforms Itself. Cambridge, Massachusetts: Ballinger Press and American Geographical Association, 1976.
- Daniel J. Amick and Herbert J. Walberg (Eds.), Introductory Multivariate Analysis for Educational, Psychological, and Social Research. (Berkeley: McCutchan, 1975). Author of three chapters—Introduction and Overview (with Daniel J. Amick), Generalized Regression Analysis (with Andrew Ahlgren) and Canonical Variate Analysis (with Richard Darlington and Sharon Weinberg)
- Bernard Spodek and Herbert J. Walberg (Eds.), Early Childhood Education: Issues and Insights. Chicago: National Society for the Study of Education, and Berkeley: McCutchan, 1977.
- Ralph Scott and Herbert J. Walberg (Eds.), Beyond Busing: Some Constructive Alternatives. Washington, DC: American Education Legal Defense Fund, 1971. Author, Preface and Accountability: Bottom Lines for Schools.
- Penelope L. Peterson and Herbert J. Walberg (Eds.), Research on Teaching: Concepts, Findings, and Implications. Berkeley, CA: McCutchan, 1979. Co-author, Introduction and Overview.
- Herbert J. Walberg (Ed.), Educational Environments and Effects: Evaluation, Research, and Policy. Berkeley, CA: McCutchan, 1979. Author, Introduction and Overview, and Achievement in 50 States.
- Herbert J. Walberg (Ed.), Education in the United States: Research and Diversity. Washington, DC: Voice of America, Office of the President of the United States, International Communication Agency, 1979. Author, Introduction and Overview.
- Herbert J. Walberg and Edward Haertel (Eds.), Research Synthesis, a special issue of Evaluation in Education: International Progress, 1980, 4, 1-144.

- William J. Genova and Herbert J. Walberg, A Practitioner's Guide for Achieving Student Integration in City High Schools. Washington, DC: U.S. Department of Education, National Institute of Education, U.S. Government Printing Office, 1980.
- Herbert J. Walberg (Ed.), Improving Educational Productivity and Standards: The Research Basis. Berkeley, CA: McCutchan, 1982.
- John J. Lane and Herbert J. Walberg (Eds.), Effective School Leadership. Berkeley, CA: McCutchan, 1987.
- Herbert J. Walberg and Diane Schiller (Eds.), Improving the Productivity of Science Education. (Washington, DC: National Association for Research in Science Teaching, in press).
- Margaret C. Wang and Herbert J. Walberg (Eds.), Adapting Instruction to Individual Differences. Berkeley, CA: McCutchan, 1985. Author, "Instructional Theories and Research Evidence."
- Herbert J. Walberg and other contributors, Toward a Prosperous, Compassionate, and Efficient Chicago. Chicago, IL: Mayor's Transition Team and Blue Ribbon Committee, 1983.
- Tommie Tomlinson and Herbert J. Walberg (Eds.), Academic Work and Educational Excellence. Berkeley, CA: McCutchan, 1986. Co-author, "Introduction and Overview" and "A Nation at Risk in Retrospect."
- Margaret C. Wang, Maynard C. Reynolds, and Herbert J. Walberg (Eds.), Handbook of Special Education (four volumes: Vol. 1: Learner Characteristics and Adaptive Education, 1987; Vol. 2: Mildly Handicapped Conditions, 1988; Vol. 3: Low Incidence Conditions, 1989; Vol. 4: Other Conditions, 1990). London: Pergamon, 1987). Co-author, "Preface," "Introduction and Overview," and "Effective Educational Practices and Provisions for Individual Differences."
- Herbert J. Walberg, (Ed.), Research Synthesis in Special Education, special issue, Journal of Special Education; author, "Introduction and Overview," 1986. Author, "Introduction and Overview" and "Computer-Assisted Instruction for Special-Needs Children: A Quantitative Synthesis."
- Herbert J. Walberg-major advisor, contributor, and vetter (and participant in White House press conference), What Works: Research about Teaching and Learning. Washington, DC: U.S. Department of Education, 1986. Won Presidential Design Award, 1989
- Herbert J. Walberg and James W. Keefe, Rethinking Reform: The Principal's Dilemma. Reston, Virginia: National Association of Secondary School Principals, 1987. Distributed to about 38,000 members.
- Robert Leestma and Herbert J. Walberg (Editors), Japanese Educational Productivity. Ann Arbor, Michigan: University of Michigan Center for Japanese Studies, 1992. Foreword by U.S. Secretary of Education Lamar Alexander.
- Barry Fraser and Herbert J. Walberg (Editors), Educational Environments: Evaluation, Antecedents, and Consequences. Oxford, England: Pergamon Press, 1991.
- Boyd, William L. and Herbert J. Walberg (Eds.), Choice in Education: Opportunities and Problems. Berkeley, CA.: McCutchan and Chicago, IL.: National Society for the Study of Education, in press. Co-author, "Introduction and Overview."
- Herbert J. Walberg and John J. Lane, Organizing for Learning: Toward the 21st Century. Reston, VA. National Association of Secondary School Principals, 1989. Distributed to 41,000, nearly all middle and high school principals in the U.S.
- Herbert J. Walberg, Advances in Educational Productivity, annual book series for JAI Press, began 1990.
- Hersholt Waxman and Herbert J. Walberg, Effective Teaching: Current Research. Berkeley, CA.: McCutchan, 1991
- Herbert J. Walberg, Michael J. Bakalis, Joseph L. Bast, and Stephen Baer, We Can Save Our Children: The Cure for Chicago's Public School Crisis. Chicago, IL.: Heartland Institute and Ottawa, IL.: Green Hill Publishers, 1988. Basis of bold reform legislation for Chicago Public Schools
- Herbert J. Walberg and Geneva D. Haertel (Eds.), The International Encyclopedia of Educational Evaluation. Oxford, Eng.: Pergamon Press, 1989.
- Herbert J. Walberg, editor for evaluation, The International Encyclopedia of Education: Research and Studies. Oxford, Eng. Second Supplement and Second Edition, 1993
- Wang, Margaret C., Reynolds, Maynard C., and Herbert J. Walberg (Editors), Special Education: Research and Practice: Synthesis of Findings. Oxford, Eng.: Pergamon Press, 1990

- Herbert J. Walberg and Norberto Botanni (Editors), OECD Indicators of Educational Progress. Paris, France: Organization for Economic Cooperation and Development, in preparation
- Herbert J. Walberg and Barry J. Fraser (Editors), School Science: The Research Basis for Practices Stockholm, Sweden: The International Academy of Education, in preparation
- David Chapman and Herbert J. Walberg (Editors), International Perspectives on Educational Productivity. Greenwich, CT.: JAI Press, 1992.
- Patricia First and Herbert J. Walberg (Editors), School Boards: Changing Local Control. Chicago, IL.: National Society for the Study of Education, and Berkeley, Calif.: McCutchan, 1992.
- Marshall Sashkin and Herbert J. Walberg (Editors), School Leadership and Culture. Chicago, IL.: National Society for the Study of Education, 1992, in preparation
- James Keefe and Herbert J. Walberg (Editors), Teaching for Thinking. Reston, VA.: National Association of Secondary School Principals, 1992, in press.
- Herbert J. Walberg (Editor), Analytic Methods for Educational Productivity. Greenwich, CT.: JAI Press, 1993.
- W. Steven Barnett and Herbert J. Walberg (Editors), Cost-Effectiveness in Education. Greenwich, CT.: JAI Press, 1994, in press.
- Barry J. Fraser and Herbert J. Walberg, (in process) Science Education: Effective Policies and Practices in International Perspective. Stockholm, Sweden: International Academy of Education, in process.
- Contributor and Reviewer, Testing in American Schools: Asking the Right Questions. Washington, DC.: U.S. Congress Office of Technology Assessment, 1992.
- Herbert J. Walberg and Lorin W. Anderson (Editors), Timepiece: Extending Productive Learning Time Reston, VA.: National Association of Secondary School Principals, 1992, in press. To be distributed to 58,000 principals.
- W. Steven Barnett and Herbert J. Walberg (Editors), Cost Analysis for Education Decisions. Greenwich, CT.: JAI Press, in press.
- Benjamin Levin, William F. Fowler, and Herbert J. Walberg (Editors), Organizational Influences on Educational Productivity. Greenwich, CT.: JAI Press,
- W. Steven Barnett and Herbert J. Walberg (Editors), Cost Analysis for Education Decisions. Greenwich, CT.: JAI Press, 1995
- Herbert J. Walberg and Norberto Botanni (Editors), OECD International Education Indicators A Framework for Analysis Paris, France: Organization for Economic Cooperation and Development, 1994.
- Herbert J. Walberg (contributing author with five others) Reform on Four Fronts. Alexandria, VA.: Association for Supervision and Curriculum Development, 1994, in press.
- Chester E. Finn and Herbert J. Walberg, Radical Education Reforms. National Society for the Study of Education. Berkeley, CA.: McCutchan, 1994.
- Herbert J. Walberg, Geneva D. Haertel, and Suzanne Gerlach-Downie, Assessment Reform: Challenges and Opportunities. Bloomington, Indiana: Phi Delta Kappa, 1994. Parts reprinted in Network News and Views, February, 1985, 14 (2), 12-20.
- Barry J. Fraser and Herbert J. Walberg (Eds.), Improving Science Education. Chicago: distributed by the University of Chicago Press, 1995. Sponsored by International Academy of Education (Liege, Belgium) and the National Society for the Study of Education (Chicago, Illinois). Author □ Introduction and Overview □ and (with Avi Hofstein) □ Instructional Strategies
- Herbert J. Walberg and Geneva D. Haertel (Eds), Psychology and Educational Practice. Berkeley, California: McCutchan, 1997.
- John M. Jenkins, Karen Seashore Louis, Herbert J. Walberg, and James W. Keefe (Editors), World Class Schools: An Evolving Concept. Reston, VA: National Association of Secondary School Principals, 1994. Author □ Introduction and Overview. □
- Benjamin Levin, Herbert J. Walberg, and William F. Fowler, Jr. Organizational Influences on Educational Productivity. Greenwich, CT.: JAI Press, 1995.
- Wang, M. C., Reynolds, M. C. & Walberg, H. J. (1995) Handbook of special and remedial education: Research and practice (2nd ed.) London: Elsevier Science.

- Hersholt C. Waxman and Herbert J. Walberg (Editors), New Directions for Teaching Practice and Research. Berkeley, CA.: McCutchan Publishing, 1999.
- Arthur J. Reynolds and Herbert J. Walberg (Editors), Evaluation Research for Educational Productivity. Greenwich, CT. JAI Press, 1998
- Margaret C. Wang, Geneva D. Haertel, and Herbert J. Walberg, Building Educational Resilience. Bloomington, Indiana: Phi Delta Kappa Press, Spring, 1998.
- Herbert J. Walberg and Sue Paik (1999, in press) Effective Practices. Geneva, Switzerland: International Bureau of Education.
- Elliot Judd, Lihua Tan, and Herbert J. Walberg (Commissioned and in process, 1999) Teaching English to Foreigners. Geneva, Switzerland: International Bureau of Education.
- Margaret C. Wang and Herbert J. Walberg (1999), Education in Cities: What Works and Doesn't? Account of national conference held at Wingspread Conference Center, Racine, Wisconsin.
- Hersholt Waxman and Herbert J. Walberg (Editors) (1999), New Directions for Teaching Research and Practice. Berkeley, CA.: McCutchan Publishers.
- Margaret C. Wang and Herbert J. Walberg (Editors) (1999, in press) Parent Choice vs. Best Practices. (National conference held at Wingspread Conference Center, Racine, Wisconsin) San Diego, CA.: Earlbaum Associates, in press.
- Margaret C. Wang and Herbert J. Walberg (Editors) (In press, 2000) New Teachers for a New Century. Berkeley, Cal. McCutchan Publishing, Also to be distributed by the American Association of Colleges of Teacher Education.
- David Monk, Margaret C. Wang, and Herbert J. Walberg (Editors) (In press, 2000) School Finance for a New Century. Berkeley, Cal.: McCutchan Publishing. In process
- Arthur J. Reynolds, Roger Weissberg, Herbert J. Walberg (Editors) (1999) Promoting Positive Outcomes. Washington, DC. Child Welfare League of America.
- Arthur J. Reynolds, Margaret C. Wang, and Herbert J. Walberg (Editors) (Commissioned in 1999 and ready for publisher April 2000) Early Childhood Learning: Programs for a New Century. Washington, DC. Child Welfare League of America.
- Rachel Gordon (UIC Sociology and UI Institute of Governance and Public Affairs) and Herbert J. Walberg (Editors) (Commission and in process 2000) Changing Welfare Policy. Washington, DC. Child Welfare League of America.
- Anthony Biglan and Herbert J. Walberg (Editors) (Commissioned and in process 2000) Preventing Youth Problems. Sponsored by the National Institute of Health and the Stanford Center for Advanced Study in the Behavioral Sciences. Washington, DC.: Child Welfare League of America.

Special Issues of Journals

- Guest Co-Editor (with Lascelles Anderson), Journal of Negro Education, special book-length issue on children's' coordinated services, forthcoming.
- Guest Co-Editor (with Larry Nucci) and co-author "Introduction," special issue on children's justice and care, Journal of Just and Caring Education, January, 1996, 2, (1), 3-65.

Chapters

- Herbert J. Walberg, "Training Educational Researchers for the Future," in James Counelis (Ed.), To Be a Phoenix: The Educational Professorate. Bloomington, Indiana: Phi Delta Kappa, 1970.
- Herbert J. Walberg, "Transactional Evaluation in Professional Education." In R. M. Rippey (Ed.), Studies in Transactional Evaluation. Berkeley: McCutchan, 1972.
- Herbert J. Walberg, "An Overview of Social Psychology," in Jack Culbertson et al. (Eds.), Social Science Content for Educational Leaders. (Columbus, Ohio: Charles Merrill Press, 1973). Sponsored by the

University Council on Educational Administration.

- Herbert J. Walberg, "Educational Process Evaluation," in Michael W. Apple et al. (Eds.), Educational Evaluation: Analysis and Responsibility. Berkeley: McCutchan, 1974.
- Herbert J. Walberg, "Psychological Theories of Educational Individualization," In Harriet Talmage (Ed.), Systems of Individualization Education. Berkeley: McCutchan Publishing Co., and National Society for the Study of Education, 1975.
- Herbert J. Walberg and Kevin Marjoribanks, "Social Environment and Cognitive Development: Toward a Generalized Causal Model." In Kevin Marjoribanks (Ed.), Environments for Learning. London: National Foundation for Educational Research, 1974. Distributed in U.S. by Humanities Press, Hilary House, Atlantic Highlands, New Jersey.
- Kevin Marjoribanks and Herbert J. Walberg, "Social Class, Family Size, and Cognitive Performance." In K. F. Riegel (Ed.), The Developing Individual in a Changing World. The Hague: Mouton, 1977.
- Herbert J. Walberg, Victoria Chow Hare, and Cynthia Pulliam, "Social-Psychological Perceptions and Reading Achievement." In John T. Guthrie (Ed.), Comprehension and Teaching. (Newark, Delaware: International Reading Association, 1981). Reprinted in William S. Gray Research Collection. New York: ATB Institute, 1983.
- Herbert J. Walberg and Margaret Uguroglu, "Motivation and Educational Productivity: Theories, Results, and Implications." In Leslie J. Fyans, Jr. (Ed.), Achievement Motivation: Recent Trends in Theory and Research. New York: Plenum, 1979.
- Larry Nucci and Herbert J. Walberg, "Psychological Theories of Educational Growth." In Frank H. Farley and Neal Gordon (Eds.), Psychology and Education. Chicago: National Society for the Study of Education, 1981.
- Herbert J. Walberg, "A Psychological Theory of Educational Productivity," in Farley and Gordon (see last item).
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**K-12 School Outcome Accountability:
State of the Art and the State of Practice in California**

Expert Witness Report

Herbert J. Walberg

For Consideration in
Eliezer Williams et al., vs. State of California et al.
Superior Court of the State of California, San Francisco

April 2003

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I. Summary of Opinions

In free societies, people elect their governors and legislators to represent their interests within the law. Through such representation, public education is what citizens rather than experts determine it should be. The California legislature has initiated a K-12 accountability system that is near the state of the art as indicated by independent evaluations and by its effective, cost-effective, balanced, and comprehensive features. In accord with the successful precedents of other states and nations, the State (here meaning the Legislature, Governor, and California Department of Education) sets forth achievement standards, devolves considerable operational authority to local districts and schools, holds them accountable for progress on outcomes, and has the authority to provide incentives and sanctions to advance progress in achievement. The federal legislation, precedents of such policies in other states, citizen and student opinion, and much research support such policies.

The plaintiffs' experts seek to turn back the clock to a failed system of testing and a failed top-down scheme of close regulation of operations, burdensome reporting, and costly monitoring of the policies and practices of districts and schools—this at a time when the State of California is severely pressed financially and educators are in the midst of enacting the carefully planned accountability system. Plaintiff experts call—not for minor policy adjustments—but radical, “systemic” changes and mandates that fit their preferences but hold little promise for effectively raising achievement.

If enacted, plaintiffs' experts' proposals would blithely cast aside hard-won consensus and legislation. They would lead to costly, unnecessary, and even harmful changes even though plaintiffs' experts themselves complain of unending policy changes. The plaintiffs' reports, moreover, contain major internal contradictions and lack coverage of evidence that refutes the advisability of their policy preferences.

In my view, the State should not modify its present accountability system in the radical, costly, untested, and possibly disruptive ways urged by plaintiffs. Experience in other states with successful accountability systems suggests that they require five or more years to have substantial positive effects.

Suppose solid evidence showed in the future that the present system harms children and youth in any way, or fails to improve achievement substantially. If so, the State can then make mid-course legislative corrections. Similarly, given such evidence, even without legislative changes, the Department of Education has many already legislatively enacted options, and it can make administrative changes in the way the legislation is implemented and emphasize the most effective elective choices more than others.

II. Introduction

A. Background and Qualifications

Awarded a Ph.D. by the University of Chicago in 1964 and having been a professor for 38 years at Harvard University and the University of Illinois at Chicago, I retired two years ago, but I retain a part-time appointment as Emeritus University Scholar and Research Professor of Education and Psychology and I supervise doctoral dissertations and edit my university's book series on children and youth. I am also presently Distinguished Visiting Fellow at the Stanford University Hoover Institution

and a trustee of the California-based Foundation for Teaching Economics that educates high school teachers and students in the United States and Europe about economic principles.

I serve on several not-for-profit boards that advance educational achievement including the Chicago International Charter School that serves 3,200 Chicago students, largely minority and in poverty. I have advised Chicago Public School superintendents for three decades, lectured to groups of state school superintendents, and written extensively about K-12 district and state reforms. I am a Fellow of the American Association for the Advancement of Science, the American Psychological Association, the American Psychological Society, the Royal Statistical Society, and the Brussels-based International Academy of Education for which I am Vice President.

My long-standing research interests are in conditions, policies, programs, and practices that promote learning in school. I have been editor or author of about 50 books related to this topic and have written more than 300 articles mostly for scholarly journals but also for magazines and books for policy makers and educators. Since my interests in policy began about two decades ago, I have written editorials for the *Chicago Tribune*, *Wall Street Journal*, *Washington Post*, *Reason*, *New Republic*, *Weekly Standard*, and other newspapers and magazines.

As a Stanford fellow, I recently edited two books *School Accountability and Testing Student Learning*, *Evaluating Teaching Effectiveness* and contributed the chapter "Achievement in American Schools" to *A Primer on America's Schools*. Among my other recent books are the *International Encyclopedia of Educational Evaluation and Psychology and Educational Practice*.

I have gained practical experience in visiting hundreds of schools in the U.S. and abroad and have served as an expert witness in federal and state court cases in educational litigation in about a dozen states, including three cases in California, and most recently in a dispute between New York City plaintiffs and State defendants regarding the City's school budget of more than \$10 billion. In all these cases, my testimony concerned the best policies and practices to promote learning.

In addition to the two current California appointments mentioned above, I advised pro bono the California Board of Education on testing and accountability policy. With two Californians, I wrote *Assessment Reform: Challenges and Opportunities* distributed nationally by Phi Delta Kappa, an honorary education society.

I have presented K-12 perspectives to U.S. Congressional committees, and presented and discussed research and policy with education leaders in Australia, Belgium, China, England, France, Germany, Israel, Japan, the Netherlands, South Africa, Sweden, Taiwan, and Venezuela. I chaired the scholarly task force for the Paris-based Organization for Economic and Cooperative Development ("OECD") that developed indicators of education processes, conditions, and outcomes for Western Europe, North America, and economically advanced Asian countries, and I currently edit a series of pamphlets on effective educational practices, which the United Nations Educational, Scientific, and Cultural Organization ("UNESCO") distributes in about 150 countries in hard copy and on the Internet.

Federal agencies have called upon me for advice and to carry out projects. For the U.S. Department of Education and the National Science Foundation, I carried out comparative research in Japanese and American schools. For the U.S. Department of State and the White House, I organized a worldwide Voice of America radio series and book about American education distributed in 74 countries.

I served as a founding member along with governors, state legislators, chief state school officers, and others in the Congressionally-created National Assessment Governing Board, referred to as "the national school board" given its mission to set

education standards for U.S. students and measure progress in achieving them. Its National Assessment of Educational Progress ("NAEP") provides information on causes of and changes in educational achievement in the U.S. as well as comparisons of individual states. The federal legislation No Child Left Behind requires all states to administer NAEP mathematics and reading tests to third through eighth grade students to measure the progress of school reforms and to help hold states, districts, and schools accountable for their progress.

B. Nature of Expert Request

In the present case, I was asked to review the plaintiffs' experts' reports, particularly the synthesis report by Jeannie Oakes and the reports of Michael Russell and Heinrich Mintrop. I was further asked to describe the background and reasons of K-12 school accountability and to comment on the reports from these perspectives. Defendant attorneys referred me to the plaintiffs' Internet site and the Plaintiffs' Liability Disclosure Statement, which I also reviewed.

C. Information and Materials Used

For the present case, I reviewed the several expert reports mentioned in B. and, because they are related to my interests, the expert reports of Norton Grubb and Laura Goe, William Koski, Thomas Sobol, and the detailed report by Jeannie Oakes "Access to Textbooks, . . ." As noted in the subsequent text, I reviewed previous scholarly writings, including some of my own, on issues pertinent to the reports.

III. Standards-Based Education

Plaintiffs challenge the State of California's standards-based accountability program for K-12 education and urge the Court to mandate highly centralized detailed regulations on the California Department of Education, districts, and schools. Yet much evidence supports the positive effects of standards-based reform. At least three independent groups, moreover, recognize California's state of the art standards and accountability system. This section describes standards-based education and reviews of research on its effects.

A. Origins: *A Nation at Risk*¹

The 1983 report to the U.S. Secretary of Education *A Nation at Risk* showed American students lagged those in other countries, and it gained wide attention in the U.S. and other countries. The report argued that the best jobs and industries of greatest growth required general knowledge, language mastery, and mathematical, scientific, and technical skills. It seemed obvious that voting, serving on juries, and other forms of citizenship require such knowledge and skills as well as mastery of American history, civics, and geography.

To meet the crisis of mediocrity, legislators and school boards continued to spend substantially more money on schools, and educators reformed policies and practices. But ever more pointedly, legislators, citizens, and parents increasingly asked how much students were actually learning. They wanted accountability for outcome results.

¹ National Commission on Excellence in Education (Washington: U.S. Department of Education, 1983)

B. The Need for Increased K-12 Productivity²

Despite substantially increased spending, achievement remained stagnant since the 1980s as shown in Chart 1. Huge federal expenditures on students in poverty failed to close or even diminish the poverty gap in achievement. Despite more than \$130 billion and current annual rates of about \$8 billion on federally sponsored programs for children in poverty, the “poverty gap,” as exemplified in Chart 2, remained largely unchanged. Chart 3 illustrates that since 1920, citizens steadfastly spent substantially greater amounts of money on each K-12 student.

As shown in Table 1, only small percentages of students in recently surveyed states rose to proficient levels as measured by their state standards. Even smaller percentages rose to national standards of proficiency.

A Nation at Risk underestimated the achievement problem because we now know that American students fall further behind others the longer they remain in U.S. schools even though, when they begin school, they are just as able as students in other countries. Chart 4, for example, shows the mathematics achievement gains made by students between fourth and eighth grades. Of the students in the 17 countries that participated in the international survey, those in the U.S. made the smallest gains.³ Even so, as shown in Chart 5, U.S. expenditures per student in elementary education were third highest among advanced countries surveyed.

Failed schools have debilitating effects on the economy: An estimated 78 percent of our nation’s institutions of higher learning offer remedial courses for first-year students who are not ready for college work. About half of American firms provide training to make up for inadequate schooling, perhaps a considerable fraction of the estimated annual \$55 billion budget for employee training. A U.S. Department of Labor study estimated that illiteracy in one year cost eight southern states \$57.6 billion in lost productivity, substandard work, unrealized taxes, unemployment claims, and social problems.⁴

Thus, both large-scale U.S. and international achievement surveys corroborate the findings of economists that additional K-12 spending is not the solution to improving achievement. Poor U.S. achievement despite high levels of spending relative to other countries and stagnant American achievement despite substantially higher spending over three decades confirm many economic studies showing no linkage between spending and achievement,⁵ which has given rise to nationwide interest and federal and state legislation to increase K-12 accountability for the attainment of achievement standards.

² This section is adapted from my chapter “Achievement in American Schools” in Terry M. Moe, editor, *A Primer on American Schools: An Assessment by the Koret Task Force on K-12 Education* (Stanford, CA.: Stanford University Hoover Institution Press, 2001), pp. 43-68.

³ Actually and technically, these are “synthetic cohort gains,” that is, the differences between fourth and eighth graders both surveyed at the same single point in time.

⁴ Milton Goldberg and Susan L. Traiman, “Why Business Backs Education Standards,” in *Brookings Papers on Education Policy 2001*, ed. Diane Ravitch (Washington, DC: Brookings Institution, 2001), 81-90.

⁵ Eric A. Hanushek, “The Economics of Schooling: Production and Efficiency in Public Schools,” *Journal of Economic Literature* 24 (1986): 557-577.

C. Impetus for Standards-Based Education

In 1989, the National Governors' Association "Education Summit" with then President George Bush and business leaders gave impetus to business-style accountability for schools. "Systemic reform," as recommended by summiteers, means aligning the chief parts of school systems with one another, specifically fitting state tests and curricula with state standards and making examinations results widely known.

Like the accountability of business boards and executives, school accountability requires simultaneous centralization and decentralization, centralization of standards at the state level and decentralization of operational responsibilities to the district or school level. State policymakers set goals and measure progress, but, unlike in the past, encourage local school districts and schools to plan and execute effective practices. State officials can set high targets for achievement and maintain more objectivity in evaluating the results than when they determine both goals and means. Without this division of labor, local districts might set easy-to-reach, unmeasurable, or obfuscated goals.

As discussed below, leading authorities on accountability contributed to a conference and book on the subject to assess the last decade's progress. As the editor pointed out,⁶ concern for achievement and the recognition of the need for standards is bipartisan. Surveys show that the public strongly supports objective testing, higher standards, and greater specificity about what students should learn. Large-scale research on school accountability discussed in this section shows positive accountability effects on achievement demonstrated in the U.S. and other countries.

D. Evidence for Positive Effects of Standards-Based Reform

1. Psychological Studies of Goal Setting

Perhaps confirming the obvious, psychological studies support the idea of setting national, state, and local achievement goals. Laboratory and field studies in a wide variety of organizations confirm the effects of setting goals on task performance. Nearly all studies showed that setting specific, challenging goals led to higher performance than setting easy goals, "do your best" goals, or no goals.

"Goals affect performance by directing attention, mobilizing effort, increasing persistence, and motivating strategy development. Goal setting is most likely to improve task performance when the goals are specific and sufficiently challenging . . . feedback is provided . . . the experimenter or manager is supportive, and assigned goals are accepted by the individual."⁷

So psychology proves common sense, but plaintiffs seem to doubt it. Evidence shows, moreover, that goal setting, standards, and accountability actually work in K-12 education as the next several sections show.

⁶ Diane Ravitch, ed., "Introduction," Brookings Papers on Education Policy 2001 (Washington, DC: Brookings Institution, 2001), 1-8; see p. 4.

⁷ Edwin A. Locke, K. N. Shaw, L. M. Saari, and G. P. Latham, "Goal Setting and Task Performance," *Psychological Bulletin* 90 (1981): 125-152; quote on p. 125. See also the more recent Edwin A. Locke, editor, 2000) *Handbook of Principles of Organizational Behavior*. (Oxford, UK: Blackwell Publishers, 2000)

2. Curriculum-Based External Examinations

Cornell University economist John Bishop and others have studied the effects of curriculum-based external examination effects on achievement. The examinations have the common elements of being externally composed and geared toward agreed-upon subject matter students are to learn within a nation, state, or province. Often given at the end of courses, they have substantial positive effects on learning.⁸ Made publicly available, the examinations allow citizens, policymakers, educators, parents, and students to assess and compare achievement standings and progress.

Positive achievement effects of such examinations have been found for the (U.S.) Advanced Placement program, the New York State Regents, and U.S. state and Canadian provincial systems. Curriculum-based external examinations employed in Asian and European countries appear to give them an advantage over American students.

The largest and most sophisticated international comparative analysis of national achievement yet conducted corroborates Bishop's and related findings.⁹ Using data from 39 countries that participated in the Third International Study of Science and Mathematics Study, a Kiel [Germany] Institute of World Economics study found that nations where students learned most employed external, curriculum-based examinations, and policymakers closely monitored the results.

How and why should such examinations yield striking effects? Though there are variations in their design, the examinations cover uniform subject matter in humanities, sciences, and other courses. Since the exams are graded by educators other than the students' own teachers, students have little incentive to challenge their teachers about course content and standards. Rather students and teachers work together toward the common goal of meeting examination standards. Because the exams and courses are uniform, teachers can concentrate—not on what to teach—but how to teach, and the students' subsequent teachers can depend on what students have been taught.

3. Benefits of Standards for Migrating Poor and Minority Students

Uniform curricula, standards, and examinations can have particularly beneficial effects on poor and minority children since studies suggest that they move from school to school more often than white children and children of higher socioeconomic status. A uniform system makes it more likely that teachers in schools know what new students have been taught and that children who switch schools can build upon their past learning.

Not only are we a nation of immigrants but of repetitive migration within our borders. According to the General Accounting Office,

The United States has one of the highest mobility rates of all developed countries; annually, about one-fifth of all Americans move. Elemen-

⁸ For a summary, see John H. Bishop, "The Impact of Curriculum-Based External Examinations on School Priorities and Student Learning," *International Journal of Educational Research* 23 (1996): 653-752.

⁹ Ludger Woessmann, "Why Students in Some Countries Do Better," *Education Matters*, Summer 2001, 65-74. Employing delegation of means or division of labor, highly achieving nations allowed teachers considerable discretion over instructional methods but held them accountable for results.

tary school children who move frequently face disruption to their lives, including their schooling.¹⁰

From a national survey of about 15,000 students, the GAO estimated that 17 percent of American third graders had changed schools three or more times since beginning school; another 24 percent had changed schools twice. Black, Hispanic, and Native-American students were more likely to change schools frequently than Asians and whites. Inner city and low-income children were also more likely than others to change frequently. Regardless of income, frequent changers were more likely to repeat grades and score below grade level on standardized tests.

GAO case studies in two school districts also showed "spillover effects," that is, harmful educational consequences of moving on children in receiving schools. Teachers were typically not given advance notice of newcomers nor prior student records for placement; students were typically assigned to classrooms with the most empty seats rather than by careful consideration of optimal educational placement. Teachers' time on instruction declined because they had to find extra books, supplies, and other accommodations and to determine the best placement in ability groups. Their classes were more often interrupted, and instruction was delayed.

Data on several tens of millions of children ages 8 to 17 years old in the national 1970 census revealed below-grade placement associated with interstate migration. Migrant children were especially likely to be below grade if their parents were not college graduates. (For children of college graduates, frequent interstate migration was associated with a reduction of grade skipping.) The report explained these effects as consequences of necessary adjustments to new curricula, school facilities, teachers and teaching practices, school practices and regulations, and peers.¹¹

A study of Census Bureau data on 3,334 15- and 16-year olds whose families had recently moved showed that about 30 percent of students were limited in academic development relative to the grade level normally expected for their age. Parental education, however, mitigates adverse effects of migration on grade placement, and the children of highly educated parents were less often set back in grade.¹²

Thus, all three studies came to the same conclusion about migration harming children's academic performance, particularly those of lower socioeconomic status. It seems likely that one reason school districts, states, and nations that have national curricula and examination systems do better is that students who move do not suffer the setbacks that entirely new systems cause.

4. Benefits of Standards for Minorities and Poor Students

Large-scale state and national surveys show large achievement gaps between children from middle-class and poor homes, and between majority white and minority African American and Hispanic students. Yet effective education policies and teaching practices have enabled more than 4,500 high-poverty and high-minority schools in 47

¹⁰ General Accounting Office, *Elementary School Children: Many Change School Frequently, Harming Their Education*, GAO/HEHS-94-45, Feb. 1994, p.1.

¹¹ L. H. Long, "Does Migration Interfere with Children's Progress in School?" *Sociology of Education*, 1975, 45, 369-381.

¹² B. C. Straits, "Residence, Migration, and School Progress," *Sociology of Education*, 1987, 60, 34-43.

states and the District of Columbia to perform among the top one-third of schools in their states, often outperforming predominantly white schools in advantaged communities. These schools educate about 1,280,000 low-income students and somewhat overlapping 564,000 African American students and 660,000 Latino students.

How do such gap-reducing schools do it? When surveyed, the principals in the nation reported their schools employed the following practices, many of which are based on accountability, testing, and standards:

“Use state standards extensively to design curriculum and instruction, assess student work, and evaluate teachers. A full 80% of the high-performing, high-poverty schools reported using standards to design instruction. Similarly, the successful schools in this study were using standards to assess student work and evaluate teachers.

Increase instructional time in reading and math in order to help students meet standards. A 78% majority of top performing, high poverty schools reported providing extended learning time for their students. This time was primarily focused on reading and math.

Devote a larger proportion of funds to support professional development focused on changing instructional practice. Changes in the 1994 law require schools to provide for thorough professional development for teachers in high poverty schools. The schools in this study seem to be moving faster than their less successful counterparts to comply with this provision. As important is that the focus of professional development seems to be centered on helping students meet specific academic standards.

Implement comprehensive systems to monitor individual student progress and provide extra support to students as soon as it's needed. Four out of five of the top performing, high poverty schools had systematic ways to identify and provide early support to students in danger of falling behind in their instruction.

Focus their efforts to involve parents on helping students meet standards. In these schools, traditional roles for parents as fund-raisers are giving way to activities that address parents' knowledge of standards, encourage their involvement in curriculum, and involve them in reviewing students' work.

Have state or district accountability systems in place that have real consequences for adults in the schools. Nearly half of the principals in these schools were subject to some kind of sanctions if their students fail to show measurable academic improvement.”¹³

¹³ Craig D. Jerald, *Dispelling the Myth Revisited* (Washington, DC.: The Education Trust, 2001; The Education Trust, *Dispelling the Myth: High Poverty Schools*

These policies and practices do not necessarily cost more money. Following common sense, such states make better use of existing programs, and re-allocated money from ineffective to cost-efficient ones. They undoubtedly result from the motivation and determination of school and district leaders and staff as well as state-level accountability.

Similar standards-based practices were revealed by an analysis of six school districts that serve large numbers of low-income students and yet sharply reduced the achievement gap. The districts had superintendents and other leaders that:

1. nurtured high expectations and focused on achievement results;
2. decentralized budgeting and management to the school level;
3. aligned curricula and instruction to state standards and tests;
4. initiated and sustained evidence-based practices; and
5. provided frequent testing, practice, and reteaching for students in need of it.¹⁴

A decade ago, few states specified what students should know and be able to do, but 49 states now do so, and the number of states with adequate academic standards has increased. The more sustained and comprehensive the accountability system, moreover, the better states' learning progress appears. A study commissioned by the National Educational Goals Panel revealed the reasons that North Carolina and Texas made the largest gains among states on the National Assessment of Educational Progress:

1. grade-by-grade standards with aligned curricula and textbooks,
2. expectations that all students would meet the standards,
3. statewide assessments linked to the standards,
4. accountability for results with rewards and sanctions for performance,
5. deregulation and increased flexibility in ways the standards can be met, and
6. computerized feedback systems and achievement data for continuous improvement.¹⁵

5. California's Highly Ranked Accountability, Standards, and Assessment

Exceeding Expectations (Washington, DC: Author, 1999), quotes from pp. 2-3; emphasis in original.

¹⁴ Gordon Cawelti and Nancy Protheroe, *High Student Achievement: How Six School Districts Changed into High-Performance Systems*. Arlington, VA: Educational Research Service, 2001.

¹⁵ The authors also attributed the gains in the two states to the intensity and stability of business support for the reforms but not to per-pupil spending, pupil/teacher ratios, proportion of teachers with advanced degrees, and average of teacher experience. See David Grissmer and Ann Flanagan, *Exploring Rapid Achievement Gains in North Carolina and Texas* (Washington, DC: National Educational Goals Panel, 1998) and also the authors' "Searching for Indirect Evidence for the Effects of Statewide Reforms" in *Brookings Papers on Education Policy 2001*, ed. Diane Ravitch (Washington, DC: Brookings Institution, 2001), 181-229.

Policy analysts have begun rating the states for both standards and accountability, which to be most effective, must presumably go together. Good standards are rigorous, clear, written in plain English, communicate what is expected of students, and can be assessed. Good accountability systems are aligned with the standards and include school report cards, ratings of schools, rewards for successful schools, authority to reconstitute failing schools (for example, by replacing the staff), and the actual exercise of such legislated consequences. Table 2 shows that only five states—Alabama, California, North Carolina, South Carolina, and Texas—have solid standards and strong accountability systems.¹⁶

Not only did California make the state standards and accountability “honor roll” in the Brookings study, it ranked 9th among 50 states in its overall grades from the widely noted *Education Week* survey.¹⁷ Among the State of California’s exemplary features noted were:

1. Standards adopted for core subjects,
2. Clear, specific, standards grounded in content,
3. Tests that have undergone external alignment review,
4. Participation in the National Assessment of Educational Progress,
5. School-level report cards disaggregated by race, poverty, English language proficiency, and disabilities,
6. Statewide student identification system under development,
7. Underperforming schools identified,
8. Assistance to low performing schools,
9. Accountability system includes sanctions for failing schools including closure, reconstitution, chartering, and permitting student transfers.

Employing standard economic principles, legislators and state school boards also are designing increasingly refined accountability systems and tying incentives to test results.¹⁸ For example, states increasingly “disaggregate” test scores to be sure that various groups are well served. Texas, for instance, reports separate results for boys and girls, and for Anglos, Blacks, and Hispanics. Similarly, the National Assessment of Educational Progress reports percentages of students that meet Advanced, Proficient, Basic, and Below Basic standards, which encourages improvement at all levels rather than on only a single standard that is too easy for some students, schools, and districts and too challenging for others.

By a large margin and including strong support from Democrats and Republicans, the U.S. Congress recently passed the No Child Left Behind (“NCLB”) legislation that will extend features of the North Carolina and Texas accountability-reform principles to all 50 states. Table 3 shows eight of its chief provisions. All the provisions are mandated, and states that do not comply risk of losing federal funds particularly those in special education, migrant education, bilingual education, and the huge Chapter 1 program particularly for students in poverty.

¹⁶ Chester E. Finn and Marci Kanstoroom, “State Academic Standards,” *Brookings Papers on Education Policy 2001*, ed. Diane Ravitch (Washington, DC: Brookings Institution, 2001), 131–180.

¹⁷ *Education Week*, January 9, 2003, p. 84.

¹⁸ Julian R. Betts and Robert M. Costrell, “Incentives and Equity under Standards-Based Reform,” in *Brookings Papers on Education Policy 2001*, ed. Diane Ravitch (Washington, DC: Brookings Institution, 2001), pp. 9–74.

For three reasons, California is in an enviable position with respect to accountability: 1.) It has a system of standards and testing that is near the state of the art, as indicated by the research discussed in this section. 2.) As discussed below, three independent analyses of accountability systems rank California in the top several among the 50 states. 3.) California's system, as also discussed below, emphasizes achievement results and other state-of-the-art accountability features such as value-added progress that are reasonably compatible with the federal NCLB requirements, unlike the top-down procedural regulation and monitoring emphasized by plaintiffs,

6. Standards Motivate Students

Motivation itself is closely associated with how much students learn. Multivariate analysis of surveys and control-group studies show its causal influence.¹⁹ Perhaps the most exciting demonstration of motivational effects is the Dallas, Texas O'Donnell Foundation Advanced Placement ("AP") Incentive Program. The AP examinations are comparable in rigor to those in Asian and European secondary schools. They have a long history of enabling advanced high school students to demonstrate mastery and gain credit for university-level courses.

The O'Donnell program showed that, given sufficient motivation, inner-city high school students are capable of much more than is ordinarily expected of them. The Foundation paid both teachers and students \$100 for each Advanced Placement examination passed. In the nine participating Dallas public schools, sharply increasing numbers of boys and girls of all major ethnic groups took and passed the AP exams. The annual number of students passing rose more than twelve fold from 41 the year before the program began to 521 when it ended in 1994-95. After termination, the program continued to have carryover effects: In the 1996-97 school year, two years after the program ended, 442 students passed, about 11 times more than the number in the year before the program began.²⁰

This massive effect sharply contradicts the prevalent idea among some education theorists that learning must be intrinsically motivated for its own sake. Some education theorists deny the role of incentives and hold that true or superior learning only takes place when it is valuable for its own sake rather than for a future purpose. But little evidence suggests that students are unaffected by long- and short-term external incentives. Even if they were unaffected, they need preparation for adult work, which generally employs merit pay, that is, it rewards results.

Another program combining standards and incentives was carried out by the Chicago Public Schools. Students who lagged behind national grade-level standards were given the choice of being retained in grade or succeeding in an intensive, academic summer school program. In the first year of the program, between 38 and 50 percent of

¹⁹ Herbert J. Walberg and Jin-Shei Lai, "Meta-Analytic Effects for Policy" in *Handbook of Educational Policy*, ed. Gregory J. Cizek (San Diego, CA: Academic Press, 1999), pp. 419-454.

²⁰ Herbert J. Walberg, "Incentivized School Standards Work," *Education Week*, 4 November 1998, 48. Some education theorists deny the role of incentives and hold that "authentic," true or superior learning only takes place when it is intrinsically valuable to the student. But compelling evidence suggests that students are as affected by long- and short-term incentives as are other humans. Even if they were unaffected, they need preparation for adult life, and, in most adult occupations and professions, excellent accomplishment is rewarded monetarily or by other means such as fame and honor.

the students in various grades succeeded. Perhaps because they wanted to proceed to high school, the highest pass rate was for eighth graders. The program was highly effective, time-efficient, and cost-effective since the succeeding students gained between .5 and 1.0 grade-equivalent years during the brief summer. Follow-up studies showed the effects were sustained.²¹

7. Recent Evidence of Positive Effects of Standards

To review and extend the previous discussion of research findings, let us please consider the most definitive recent evidence for accountability effects yielded by a U.S. and an international study. In the most rigorous U.S. accountability study to date, Stanford University economists Martin Carnoy and Susanna Loeb²² examined the relation of scores on the National Assessment of Educational Progress to their estimate of the strength of state accountability systems. Nine states were in the upper ranks of accountability—Alabama, California, Florida, Kentucky, Maryland, New Jersey, New Mexico, New York, and Texas. They had had extensive testing, school report cards, high-school exit examinations, and consequences for school staff.

Among the states, stronger accountability led to higher NAEP score gains, particularly those of African American and Hispanic students. Contrary to prevalent hand wringing, stronger accountability did not reduce promotion and dropout rates but raised measures of both “lower-order” achievement and advanced proficiency.

The largest study and most comprehensive analysis of national causes of achievement ever conducted also revealed positive effects on achievement. Analysis of data from 39 rich and poor countries that participated in the Third International Study of Science and Mathematics Study showed that four factors consistently promote learning:

1. External, curriculum-based examinations and close, outside monitoring of achievement progress
2. School autonomy over personnel and operations
3. Teacher discretion over teaching methods
4. Competition from privately governed schools.

As the next section documents, these very factors are being successfully implemented in California, and are nearly the opposite of what plaintiff experts²³ prefer. For now, consider why these factors yield striking effects. With respect to Point 1, examinations cover uniform subject matter knowledge and skills and have other advantages pointed out in a previous section. In addition, parents, citizens, and legislators can judge the results. If the means are within the bounds of the law, budgets,

²¹ Julian R. Betts and Robert M. Costrell, “Incentives and Equity under Standards-Based Reform,” in *Brookings Papers on Education Policy 2001*, ed. Diane Ravitch (Washington, DC: Brookings Institution, 2001), pp. 9–74.

²² Martin Carnoy and Susanna Loeb, Does External Accountability Affect Student Outcomes? A Cross-State Analysis, *Educational Evaluation and Policy Analysis*, in press; rankings on pp. 24-25.

²³ As indicated in my description above of the State’s request of me, my primary focus is on the Oakes synthesis and the Russell and Mintrop reports, and my secondary focus is on the reports of Norton Grubb and Laura Goe, William Koski, and Thomas Sobol.

propriety, and humaneness, they need not concern themselves primarily with the details of how they are produced.

Points 2 and 3, contrary to plaintiff experts, establish that successful schools are autonomous over personnel, operations, and teaching methods. Compliance with bureaucratic regulation is the opposite of professional discretion; no wonder that able, autonomous people often leave minutely regulated public schools. Finally, as in the case of the choice of California's many charter schools, competition among publicly funded, privately governed schools introduces healthy innovation and competition. The very reason for the large and quickly growing number of charter schools in California and in other states is their freedom from onerous, arbitrary, rules and their focus on learning by principled means of their own devising and that they can make choices most suitable for their students.

E. Cost-Effectiveness of Standards-Based Reform

Many states, including California, face financial shortfalls. They need to consider not only what is effective but what obtains the greatest value for money spent among the many policy choices they face. After years of substantial and increased expenditures for K-12 education that have shown little effect, legislators are realizing that money is not the solution. Rather, all 50 states and the federal government are turning to managerial accountability for results, not only because it is effective, as shown by research described above, but because it is cheap.

Though some educators have protested the costs of accountability systems, their costs are surprisingly small and represent a minuscule percentage of school budgets. The payments to commercial firms for standardized testing, standard setting, and accountability in year 2000 was \$234 million, which was less than one-tenth of one percent of K-12 school costs and amounted to \$5.81 per American student. For the 25 states with available information, the total costs per student run between \$1.79 and \$34.02, higher on average than commercial costs alone, since some states develop their own tests, develop their own standards, and run their own accountability systems. Even so, the total costs are tiny fractions of average per-student spending of \$8,157.²⁴

Few elements of schooling, perhaps none, can produce such big benefits for students and the nation. The costs, moreover, will undoubtedly decline in the longer run since they were estimated in the midst of states' development of accountability systems; after development and initial revision, much of the activity can be routinized at much lower costs

F. The Role of Tests in K-12 Standards-Based Reform

1. The Value of Tests in Promoting Achievement

Plaintiff experts express various reservations about tests, which are addressed in a subsequent section. This section considers the reasons that three recent presidents of both parties, Congress, state legislators, governors, the public, and many educators support a central role for testing in standards-based reform.

First, if students are to meet world standards, policy makers and educators need to measure their progress and find out what works best. Reading achievement tests, for example, enabled the National Reading Panel to conclude that phonics instruction,

²⁴ Caroline M. Hoxby, *The Cost of Accountability* (Washington, DC: National Bureau of Economic Research, March, 2002).

though insufficiently used in schools, helps provide young students with a solid foundation for acquiring reading skills.²⁵

Second, systematic testing provides useful information. School boards should hold educators accountable for the results they produce; they should examine educators' progress compared to that of others in attaining well-defined achievement standards. When board members concentrate on initiating programs and practices, they may lose their objectivity when evaluating educators' progress in attaining results.

Weekly or even more frequent examinations, moreover, help provide teachers with information about what students are learning. Based on this knowledge, teachers need to plan their lessons accordingly. In addition, frequent quizzes encourage students to be prepared for classes. Good tests can be a source of learning; requiring regular essays and providing feedback, for example, helps students not only comprehend the subject matter but also become better writers.

Third, national surveys indicate that teachers are much less enthusiastic about tests than citizens, parents, and even students. Few professionals or other workers want to be held accountable; but, in education, our nation's welfare and students' lives are at stake. Tests help boards and educators concentrate on their primary responsibility, which is learning. Regrettably, boards and educators have taken on responsibilities, such as driver education, for which they are not chiefly responsible and for which they may lack competence. Tests help teachers concentrate on what parents and the public expect children to accomplish. For children in poverty and related conditions, schools provide the best or only opportunity to rise above their circumstances.

Finally, tests are cheap. As documented above, their costs are miniscule even though standards-based policies are widely supported and produce beneficial effects.

2. Standardized Tests for Standards-Based Reform

Whether commercial tests or not and whether aligned well or not, standardized, objective tests, typically composed of multiple-choice items requiring students to choose the correct answer, are most often and increasingly used in large-scale international, national, state, and local district surveys. Why?

It should, of course, be acknowledged that good tests of all kinds, as suggested previously, are highly conducive to classroom learning. Frequent testing with essay questions, short answer, and multiple-choice tests leads to higher achievement.²⁶ Students prepare more regularly, and frequent tests provide more information to both teachers and students about their strengths and weaknesses. Teachers may also observe and rate their students' performance in class. They may assign, for example, physical measurements in geometry and essays in history and literature. They may judge or rate the quality of the resulting work. For additional assessment and feedback, teachers may

²⁵ National Reading Panel, *The National Reading Panel Report: Teaching Children to Read* (Washington, DC: U.S. Department of Health and Human Services, Public Health Service, National Institute of Health, National Institute of Child Health and Human Development, 2000).

²⁶ Herbert J. Walberg and Jin-Shei Lai, "Meta-Analytic Effects for Policy" in *Handbook of Educational Policy*, ed. Gregory J. Cizek (San Diego, CA: Academic Press, 1999), pp. 419-454.

also check their students' homework and either grade or comment upon it. Such assessments may be termed "teacher-aligned" or integrated with instruction because they correspond to content of the immediate lessons being taught.

For several reasons, subjective teacher assessments do not serve well in large-scale surveys of achievement intended to provide information on how students, schools, districts, and states compare with one another, how they compare with established standards, and how achievement is changing over time. Tests intended for this purpose are "standardized" in that the conditions and timing of the tests are nearly identical for all students.

Standardized tests can widely sample the subject matter. In this respect, they are like national voter and consumer surveys that sample, say, a thousand people, to provide information on the entire adult population with a probable sample error of less than a few percentage points. Sample surveys provide information quickly, efficiently, and cheaply about a larger population. So, too, can 30 to 60 multiple-choice questions provide information about what a student knows about a broad subject constituted by thousands of facts and ideas. So that aspects of the subject may be sampled in short time, achievement surveys generally employ multiple-choice examinations. Thirty items may be administered in as much time as would be required to answer a single essay question. Multiple-choice questions afford a much larger sample of students' knowledge and skills than do long essay questions. They are also fairer to students since their scores do not depend heavily and arbitrarily on whether they happened to have concentrated or not on only one narrow aspect of the subject.

In addition, multiple-choice tests are preferred in large-scale achievement surveys since "constructed response" tests requiring essays, laboratory equipment, calculators, and the like are less technically reliable and usually add little information value to students' scores on objective tests. The score on the multiple-choice test often serves as a better predictor of an essay grader's mark than another essay grader's mark of the same examination. So, the large extra cost of essay examinations is usually unwarranted by the marginal information they may provide (except, as pointed out above, possibly when educators want to encourage and measure essay writing as separate from knowledge and skills in a subject such as history, literature, or science).²⁷

G. The Public, Civic Leaders, and Students but not Education Theorists Support Standards-Based Reforms

1. Public Views

As pointed out above, the last two presidents, Congress, state legislators, and strongly support standards-based reform. Those who elected them do as well. The following are views of a large random sample of citizens and parents:²⁸ They illustrate the strong citizen and parent preferences for higher standards with high-stakes consequences yet (in the last point) a strong preference for the American heritage of local control of school operations.

²⁷ For additional perspectives on tests in assessment reform, see Herbert J. Walberg, Geneva D. Haertel, and Suzanne Gerlach-Downie, *Assessment Reform: Challenges and Opportunities* (Bloomington, Indiana: Phi Delta Kappa, 1994).

²⁸ Public Agenda Online, Internet site: <http://www.publicagenda.org/issues/majprop.cfm?issuetype=education>. It should be noted that the public sees some limitations of current systems of accountability and testing.

| Statement | Percentage Favoring Policy |
|---|----------------------------|
| Parents: Children do not take too many standardized test | 89 |
| Parents: Continuing the standards effort or make some adjustments to raise academic standards | 89 |
| Parents: Requiring a basic skills or more challenging test before graduating from high school | 88 |
| Public: Favor the federal government providing more alternatives for parents who want to send their children to private or charter schools ²⁹ | 63 |
| Public: Providing federal money for local school districts to use as they see fit | 80 |
| Public: Requiring students to meet standards in order to be promoted | 94 |
| Public: Requiring teachers to pass competency tests | 89 |
| Public: Scores on statewide tests are useful for schools to evaluate students, for parents to evaluate schools, for parents to evaluate their children's progress, and for schools to evaluate teachers | 75-85 |
| Public: Teachers' salaries should be tied (to various degrees) to their students' achievement | 72 |
| Public: Using standardized tests to measure student achievement | 73 |

2. Conflicting Views Among Students, Educators, and Education Theorists

Despite the decidedly positive views of the public, parents, and civic leaders, some influential education theorists, particularly those in schools of education, and some educators oppose accountability, standards, and testing. Not only do their preferences run counter to the research on standards-based reform discussed above, but they also maintain such opposition even when students themselves advocate higher standards and consequences for poor performance.

A Public Agenda national survey, for example, showed that three-fourths of high school students believe stiffer examinations and graduation requirements would make students pay more attention to their studies. Three-fourths said schools should promote only students who master the material. Almost two-thirds reported they could do much better in school if they tried. Nearly 80 percent said students would learn more if schools

²⁹ Percentages of citizens favoring school choice are even greater when asked if children should be able to transfer out of failing schools.

made sure they were on time and did their homework. More than 70 percent said schools should require after-school classes for those earning Ds and Fs.³⁰

In these respects, most educators differ sharply from students and the public. Interviews with a national representative sample of elementary- and secondary-school educators and students revealed the following percentages agreeing with the degree of academic challenge in their schools:³¹

| Statement | Principals | Teachers | Students |
|---|------------|----------|----------|
| School has high academic standards | 71 | 60 | 38 |
| Classes are challenging | 67 | 48 | 23 |
| Teachers have high expectations of students | 56 | 39 | 25 |

The apparently slack standards of many practicing educators may derive from views prevalent in schools of education they have attended. A 1997 Public Agenda survey of education professors showed that 64 percent thought schools should avoid competition. More favored giving grades for team efforts than favored grading individual accomplishments. Only 12 percent thought it essential for teachers to expect students to be neat, on time, and polite, compared to 88 percent of the public. Only about a fifth agreed with the public that teachers should stress correct spelling, grammar, and punctuation. Only 37 percent thought it essential for teachers to learn how to maintain an orderly classroom.

Teacher educators also differ from employers and other professions on measuring standards or even employing them at all. Employers use standardized examinations for hiring. So do selective colleges and graduate and professional schools for admission decisions. Such examinations are required in law, medicine, and many other occupations for licensing or hiring, because they are objective, efficient, and reliable. In the case of teachers, it would seem that knowledge of the subject matter is prerequisite to teaching it. Indeed, indicators of academic mastery, including objective examination results and completion of rigorous courses, appear influential on their students' achievement, at least in technical fields such as mathematics. Yet 78 percent of teacher educators wanted less reliance on objective examinations.³²

Nearly two-thirds of teacher educators admitted that their programs often fail to prepare candidates for teaching in the real world, and only 4 percent reported that their programs typically dismiss students found unsuitable for teaching. Thus, even starting with their undergraduate education, many prospective educators are exposed to disparaging views of standards, incentives, and individual accomplishments.

³⁰ Ann Bradley, "Survey Reveals Teens Yearn for High Standards," *Education Week*, 12 February 1997, 1, 38-39; Jean Johnson and Steve Farkas, *Getting By: What American Teenagers Really Think about Their Schools* (New York: Public Agenda, 1997).

³¹ Harris Interactive, *The MetLife Survey of the American Teacher 2001: Key Elements of Quality Schools* (New York: Harris Interactive, 2001).

³² Steve Farkas and Jean Johnson, *Different Drummers: How Teachers of Teachers View Public Education* (New York: Public Agenda, 1997).

3. Research Supports Civic Leaders', the Public's, and Students' Views

As documented in previous and subsequent sections, research on what promotes achievement supports the views of president Clinton, both presidents Bush, both parties in Congress, governors, state legislators, the public, parents, and students that generally and strongly favor higher standards, measurement of results, and consequences for performance. As documented in subsequent sections, plaintiff experts seem to think none of what has already been accomplished can even be accomplished. Instead, they favor highly centralized minute regulation of local operations rather than holding educators and students accountable for their accomplishments.

Teachers, moreover, may actually have better morale when they have clear goals, testing, and accountability.³³ Data on roughly 330,000 teachers in New York State revealed that the introduction of testing in connection with the State's standards and accountability system reduced teacher turnover rates.

IV. Flaws in the Arguments and Evidence of Plaintiff Experts

This section reviews the Russell and Mintrop reports in detail, and, in less detail, the Grubb-Goe and Sobol reports and the Oakes Synthesis and report on textbooks, instructional materials, equipment, and technology ("Oakes 2"). The reports are referred to by the last names of the authors with page references to their writings for the court.

The first two subsections discuss flaws in argumentation and evidence contained in more than one report concerning the overall plaintiff contentions, and accountability and testing recommendations. The remaining sections discuss specific flaws of each of the seven reports. The first subsection begins with overall flaws of plaintiff experts' reports.

A. Overall Flaws in Plaintiff Expert Reports

1. The Call for Numerous, Disruptive, Unsupported, and Premature Changes in State Accountability Policy

Despite the exemplary features of California's highly regarded system of standards-based accountability, plaintiff experts urge that the State make massive changes in the California laws and their enforcement. The plaintiffs themselves, however, complain of the many legislative changes that have already taken place which educators find difficult to accommodate.

Russell, for example, writes,

"As I describe in detail below, California's attempt to establish an educational accountability system over the past decade has been tumultuous. Setting aside the several proposed and implemented versions of the current PSAA, California has put into place five distinct systems within a ten year period. The current PSAA itself keeps changing. Recently, one of the "key components" of the PSAA system,

³³ Donald Boyd, Hamilton Lankford, Susanna Loeb, and James Wyckoff, *Do Mandatory Tests Affect Teachers' Exit and Transfer Decisions: The Case of the 4th Grade Test in New York State* (Stanford, CA.: Center for Educational Research at Stanford, July 2002).

Teacher Bonuses, was targeted for elimination by the Governor due to a budget shortfall and the State Board of Education is changing vendors for the state testing program. This change is expected to result in the replacement of the SAT-9 with California Achievement Test 6th Edition ("CAT 6").³⁴

Similarly, at p. 2, Grubb and Goe wrote:

Conceptions of equity changed in subtle ways: the notion of equality of educational opportunity emerged, and long debates ensued about whether the differences among children and the variation in their vocational goals required the same education or a differentiated education . . .

And again at p. 58,

"The last twenty five years have seen a remarkable array of changes, some of them large and cataclysmic (like Proposition 13 and the recent development of an accountability system), some of them smaller in their effects, like the development of many categorical programs including such "reforms du jour" as AB 1275. The instability of state policy — particularly when laid on top of instability in district policies, instability in all revenue sources, the mobility of district and school personnel in urban districts, and the extreme mobility of low-income students in particular — has created conditions in which schools limp along from year to year, adjusting as they can to new mandates (including ones that come without adequate funding), with teachers justifiably cynical about the "reform du jour" and happiest when they can close their doors and leave the noise and confusion behind. Under these conditions the prospect of long-run reform — of carefully identifying the reforms necessary in a school, getting teachers (and parents and students) to accept these reforms, making the necessary changes and then institutionalizing them so they don't vanish when personnel turn over — is a fantasy. "

And on the same page,

"It would be worth a great deal, under these conditions, for state policy to develop some rational and reasonable approaches to equity, and then to stay with these approaches for long enough to institutionalize them. Whether politics in California is up to the challenge of stability remains unclear."

³⁴ When asked about aspects of Connecticut's and Rhode Island's accountability systems that make them good models on p. 429 of his deposition, Dr. Russell first says about Connecticut, "it's a system that been in place for a long time. There's been a long-term commitment to maintaining stability within the system." If this is so, how can even more sweeping changes in the fundamental emphasis of California's system now be justified?

2. The Insistence on Massive “Systemic” Changes

The changes plaintiff experts wish to add are not only numerous but also massive and radical—“systemic” in the plaintiffs’ terms. For example, at p. 58 of the Oakes synthesis, is,

“What Remedies are Needed? Specific Policy Changes and Systemic Reforms that Enable the State to Prevent, Detect, and Correct the Underlying Causes of Current Inadequacies and Inequalities.”

And again at p. 2,

“To rectify the more systemic problems, systemic reforms are required.”

And again at p. 66,

The conditions that are the subject of this litigation require systemic reform that recognizes and corrects for the structural impediments that have led to these problem and, without correction, would be likely to give rise to them again

Sobol, at p. 10, writes,

“[W]e need a new commitment by all participants to doing whatever it takes and making whatever changes are necessary to bring about the desired educational results.”

Mintrop at p. 24 writes,

“The agency [he proposes] would train external evaluators who can distinguish between site-internal, district, and state barriers and identify systemic problems related to districts and the state. Districts are evaluated when systemic performance problems are identified.”

Such massive changes would launch burdensome, costly, unproven, and highly detailed bureaucratic and difficult-to-enforce regulations of school facilities, staffing, instructional materials, and operations. Such regulation would divert funds, time, effort, and attention from the present highly precedented, carefully planned system of outcome accountability supported by research in other states and nations. Such changes would be highly disruptive of current county, district, and school efforts focused on complying with the present legislation. It is unclear from plaintiffs’ expert reports whether they want a complete dismantling of the current system and a repeal of current legislation, or whether they simply want to impose additional rules and obligations on top of those that exist. Either way, the state would be required to radically alter its current educational program.

Plaintiff experts seem unable to recognize that the State is comprised of duly elected and appointed officials that try to accommodate the preferences of the electorate

and seek advice of experts in formulating legislation. Plaintiff experts, instead, want to substitute their own highly debatable policy preferences.

3. Lack of Concern with Achievement Benefits, Costs and Trade-Offs

Like many other states, California faces deep spending cuts:

“Governor Gray Davis offered a grim \$62.8 billions budget that would bring pain to virtually every Californian through tax increases and cuts in almost every state program. Faced with a \$35 billion budget gap, Mr. Davis is seeking \$8.3 billion in tax increases and more than \$20 billion in spending cuts for the fiscal year beginning July 1. . . . Public school financing would be cut by more than \$4 billion.”³⁵

Former president of the California Board of Education,

“Stanford Professor of Education Michael Kirst, a leading expert in the field of state education policy, said that they [the cuts] would harm the state’s education system but were nonetheless unavoidable. Even bigger cuts must come for the next two years to balance the budget. . . . Elementary and secondary [schools] will increase class sizes and cut high school electives in the first round of cuts.”³⁶

Given such cuts, plaintiff experts cavalierly recommend radical and costly regulations that could draw funds away from successful programs already in place, particularly standards-based reform. Such fundamental changes would also distract attention of the CDE as well as local districts and schools to enact.

Drawing on the other expert reports, for example, the Oakes synthesis calls for “a school funding system based on the actual cost of providing essential resources and conditions” (p. 66), “non-negotiable baselines” (p. 67), “the ‘new’ approach to school finance” (p. 67), and additional burdensome responsibilities for the CDE, the districts, and schools such as the English inspectorate system and “inspection volunteers,” “which “is not a completely untried idea” (p. 71).

Yet, the Oakes synthesis declares that “a funding system designed in this way would not necessarily require greater overall levels of spending” (p. 68) though the next two sentences acknowledge “it is unlikely that current education levels are sufficient” and,

“without a systematic accountability system, described below, it is impossible to pinpoint the extent of the current shortfalls, and the specific areas where the new spending may be needed may be problematic.”

Similarly, the Oakes synthesis urges even more radical changes in state government. It declares,

³⁵ John M. Broder, “Californians Hear Grim Budget News,” *New York Times*, January 11, 2003, p. 1.

³⁶ Ali Alemozafar, “State Schools Face \$10.2 billion cut,” *Stanford Daily*, January 8, 2003, pp. 1-2.

“Holding State officials accountable requires a restructured State governance system that establishes clear lines of State authority over various aspects of educational policy and practice” (p. 70).

Despite similar urging for mandated budgetary allocation and new policies, plaintiff experts Grubb and Goe admit that there is little agreement on what resources and conditions best promote achievement:

“Resources might matter under some conditions—though it isn’t clear what these conditions are” (p.27).

Though Grubb and Goe provide no less than six formulas illustrating how resources and other factors might affect achievement, they provide no estimates of the size of the effects, their costs, nor how to measure such things as “student engagement” and “motivation” (p. 38). Later, they admit, “[T]hese equations may be more useful as metaphors” (p. 40).

If the state were to mandate the budget for textbooks and instructional media for all schools plaintiff experts argue, it would amount to a lavish and unpromising experiment on some six million California children and youth since the effects and costs are unestimated. Aside from the uncertain benefits and clear harms of such a radical change, Grubb and Goe undermine their own and other plaintiffs’ witness’s idea of commanding uniform resource policies:

“There’s no reason to think that patterns of allocating resources and of generating instructional conditions are the same in all schools. The conversion of resources into instructional conditions, in equation (4), is a process that principals under site-based management, or parent or school-level councils, can in theory influence. Similarly, the use of resources to affect student motivation and ability to learn, in equation (5), may vary from school to school, or at least from district to district as different programs to motivate students are attempted.” (p. 38).

The plaintiffs’ experts fail to quantify the possible benefits and provide no cost estimates for what they propose. They apparently feel free to add considerable difficulties to the present challenge of fully enacting the California standards legislation in the face of the acute budget crisis. In their advocacy of the “new” finance and input mandates, they apparently dismiss or ignore the positive evidence for standards-based accountability in California and elsewhere. Without citation, for example, Grubb and Goe, grudgingly admit,

“The process of developing these [California] standards has been widely cited as beneficial because it required many different participants to convene and agree on what should be learned in California schools. In theory such standards promote coherence and consistency throughout the state’s enormous and complex system of education ensuring that students in every corner of the state can learn the same material, promoting a sensible progression of subject matter from grade to grade, and aligning teacher in K-12 education with the requirements in the state’s colleges. In practice, however ...” (p. 16).

By p. 41, Grubb and Goe characterize “the current efforts that we (and the British) call ‘naming and shaming,’” as if such a rhyming slogan proves the case. But they ignore evidence cited in previous sections that shows that goal setting and accountability work well. Unlike operational mandates preferred by plaintiffs, moreover, California’s standards-based accountability is compatible with the substantial requirements of new federal No Child Left Behind act. Emphasizing operational mandates, as plaintiffs urge, would jeopardize billions of federal dollars that are California’s share of federal funds for children in poverty, a group whose interests plaintiffs claim to represent.³⁷

4. Violation of Local Control

California and other states have long traditions of local boards’ and educators’ autonomy and decision-making about local matters within the framework of the law. With knowledge of local needs and preferences, board members feel they can choose programs and expend funds in the best interests of the students in their communities for whom they are responsible. It is human nature or at least American nature for citizens to crave discretion over decisions about their own personal lives, their families, and their communities. Their elected representatives that serve on boards expect the same discretion in planning and evaluating local programs and operations.

To be sure, as documented in a previous section, most citizens ardently want outcome standards and higher achievement, whether guided, required, or not by states, but that does not mean they want the state to mandate and closely regulate the detailed means of accomplishing these goals. Such close governmental regulation is antithetical to our American heritage.³⁸

5. Violation of Educators’ Professional Discretion

Similarly, educators seek, not to be bureaucratic functionaries, but to be professionals that seek and provide the optimal circumstances, programs, and teaching methods. To the extent that educators are professionals, they may have a special calling and special knowledge and skills and devote themselves, often full-time, to their work. Imposing the detailed, uniform regulation on all of them—regardless of whether their students are performing well or not—would lead to alienation and a lack of creativity entrepreneurship, as it would in other professions. It seems likely to encourage the most innovative professionals to leave the system.

6. Undermining Superintendents and Principals

If anything, educational leaders, even now, appear to have less autonomy than they should to improve achievement. A national survey of 853 public school superintendents and 909 principals showed that large majorities of superintendents (76 percent) and principals (67 percent) said they need more autonomy to reward outstanding teachers. Almost the same percentages said they need more autonomy to remove ineffective teachers. Nearly all superintendents (96 percent) and principals (95 percent) said making it much easier to remove bad teachers—even those with tenure—

³⁷ On p. 113 of his deposition, plaintiffs’ witness Dr. Russell admits that Maine, whose system he characterizes as “very good,” “may need to seriously revise their system in light of No Child Left Behind.”

³⁸ For evidence on the positive achievement effects decentralized control in public and private institutions and in particular schools see Herbert J. Walberg and Herbert J. Walberg III, “Losing Local Control,” *Educational Researcher*, June/July 1994

would be somewhat or very effective.³⁹ Removing still more discretion over their buildings, instructional media, and choice of teachers can only further inhibit their effectiveness.

7. Resistance to Standards and Tests

Plaintiffs ignore or seem unaware of the evidence and beliefs of citizens and legislators, discussed in previous sections, that standards-based reform leads to higher achievement. And they grossly mischaracterize the nature and purpose of accountability systems such as that which has been implemented in California. On p. 29, for example, Oakes Synthesis characterizes as flawed the State's

“... reliance on a test-based accountability system that assumes that the low student achievement results exclusively from insufficient teacher and student motivation rather from a lack of resources and capacity.”⁴⁰

And again, at p. 44,

“Unfortunately, the State's chosen paradigm for responding to these crises has been test-based accountability.⁴¹ Test-based accountability is grounded in the wrongheaded assumption that the problem of low and unequal achievement is attributable primarily to the lack of motivation exhibited by students, teachers, school districts, and parents. The State's theory is that testing, through competition, rewards, and punishments, and public exposure of success and failure, will spark levels of motivation high enough to overcome all manner of obstacles. Indeed, many State officials claim that there are now (or will be very shortly) enough resources and investment in the system to deliver an education to all students, once testing has leveraged sufficient motivation across the State.”

And again, at p. 54,

“[A] test-based system presumes that adequate resources and conditions are present in the system and available to all students. This presumption makes it possible to view unsatisfactory performance as a product of either a lack of motivation or flawed decisions about how to deploy resources effectively.”

³⁹ Steve Farkas, Jean Johnson, Ann Duffett, Tony Foleno, and Patrick Foley, *Trying to Stay Ahead of the Game: Superintendents and Principals Talk about School Leadership* (New York: Public Agenda, 2001).

⁴⁰ Actually, as emphasized in previous sections and represented in legislation, the State legislation does not assume that standards-based accountability alone increases achievement. Rather raising achievement depends, for example, on performance consequences as emphasized in the California legislation.

⁴¹ Again, the State's overall plan does not depend solely on test-based accountability. Plaintiff experts' reports themselves dwell at length on assistance, rewards, and sanctions in State legislation.

Similarly, Grubb and Goe at p. 47 misleadingly denounce standards-based accountability:

“Will the shaming process motivate students to work harder, or will it demoralize them too? Unless these kinds of questions can be answered unambiguously, it's hard to see how “naming and shaming” can lead to the improvement of instructional conditions within schools and classrooms—, and these questions have rarely been posed, much less answered.”⁴²

Even so, plaintiff expert Mintrop, at p. 7, appears to rebut his fellow experts' enmity toward standards as motivators and gives citations to research studies:

“It is widely accepted among researchers on work motivation that goals and rewards motivate workers to the degree that they are perceived as attainable and controllable through work effort (Odden & Kelley, 1997). This is true for individuals as well as work groups, such as schools (Mohrman, Mohrman, & Odden, 1996). Teacher work motivation is a key component of accountability systems that control work effort indirectly through outcomes and incentives attached to these outcomes.”

Similarly, Russell at p. 30 writes about the rationality of accountability of employing accountability to raise motivation and defends tests in measuring knowledge:

“State educational leaders establish test-based accountability systems to motivate teachers and schools, to improve student learning and to encourage schools and teachers to focus on specific types of learning. Some observers have raised concerns that this encouragement to focus on specific types of learning too often translates into “teaching to the test.” As Shepard notes, however, teaching to the test means different things to different people. In many cases, state and local educational leaders, as well as classroom teachers, interpret this phrase to mean “teaching to the domain of knowledge represented by the test” (Shepard, 1990, p. 17) rather than teaching only the specific content and/or items that are anticipated to appear on the test.”

Finally, as pointed out in a previous section, tests serve many useful purposes in the overall effort to improve achievement, aside from school accountability. Among other virtues, frequent examinations help provide teachers with information about what students are learning, and they encourage students to be prepared for classes. Good tests can be a source of learning; requiring regular essays and providing feedback, for example, helps students not only comprehend the subject matter but also become better writers. Finally, tests are cheap especially in relation to their constructive effects.

⁴² As indicated in previous notes, plaintiff experts speciously imply that the State relies on accountability, standards, and tests alone to improve achievement.

8. Romantic Pedagogy

Several of the plaintiff experts espouse “constructivism,” a peculiar and evidentiary unsupported view of pedagogy (defined below), which generally opposes accountability, which research supports, and, as noted in a previous section, opposes what citizens, parents, and legislators want to see in their schools. Consider some codeword examples: At p. 10, Oakes describes plaintiff expert witness Fine’s views,

“Schools ‘are intimate places where youths *construct identities*, build a sense of self, read how society views them, develop the capacity to sustain relations, and forge the skills to initiate change. These are the contexts where youth grow or they shrink.” [emphasis added]

In this conclusory view, no allusion appears to mastery of knowledge and skills in the subjects of civics, history, geography, mathematics, science, and literature that citizens and legislators expect to be subjects of study.

Similarly, at p. 50, Grubb and Goe refer positively to “the introduction of effective teaching practices including *constructivist methods*” (emphasis added). At p. 3, Mintrop refers to his research on “conditions for *constructivist teaching* in teacher education programs and schools” (emphasis added). What does constructivism mean?

1. an insistence that students should discover or “construct” their own understanding rather than being taught,
2. a devaluing of knowledge (since “you can always look it up”),
3. an indifference or hostility to specifying objectives and measuring results,
4. a dismissal of motivation⁴³ as an incentive to learn and teach in preference to “authentic learning” only arises from “intrinsic motivation” in which student preferences rather than curriculum and course requirements dominate the choice of what and how to learn,
5. a holding that children cannot learn until the “teachable moment” or until the “developmentally appropriate” time, and
6. the idea that comprehension must be “socially constructed” in peer groups rather than individually acquired.⁴⁴

These views contrast with those of “instructivists,” those who want to impart knowledge and skills and employ well-defined goals, definite subject matter, and explicit assessment of student progress to hold them accountable.

⁴³ On the dismissal of motivation, see, for example, Oakes synthesis at p. 42: “The state has chosen to rely on a test-based accountability system that assumes that low student achievement results exclusively from insufficient teacher and student motivation rather than from a lack of resources and capacity.” This statement is patently false since, aside from sanctions and financial incentives, state legislation provides for special programs and technical assistance for failing schools.

⁴⁴ The philosophical underpinnings of such views are described in E. D. Hirsch, *The Schools We Need and Why We Don't Have Them* (New York: Doubleday, 1996), and John E. Stone, “Developmentalism: An Obscure but Pervasive Restriction on Educational Improvement,” *Education Policy Analysis Archives* 4, no. 8 (1996), available from <http://olam.ed.asu.edu/epaa/v4n8.html>.

Moreover, according to two eminent cognitive psychologists and a Nobel Laureate in economics, the evidentiary basis of such constructivist theory consists largely of theorizing proponents who cite one another's values and opinions. In their opposition to direct instruction, education theorists criticize student practice of knowledge and skills as

“drill and kill,” as if this pejorative slogan provided empirical evaluation. . . . Nothing flies more in the face of the last twenty years of research than the assertion that practice is bad. All evidence, from the laboratory and from extensive case studies of professionals, indicates that real competence only comes with extensive practice. By denying the critical role of practice, one is denying children the very thing they need to achieve competence.⁴⁵

B. Flawed Accountability and Testing Recommendations in the Mintrop and Russell Reports

Plaintiff experts Mintrop and Russell are critical of the State's testing and accountability system and urge that it be changed to suit their policy preferences. Their criticisms of California's system, however, are largely invalid, and many of their recommendations are flawed. Russell holds that,

California's attempt to establish an educational accountability system over the past decade has been tumultuous. Setting aside the several proposed and implemented versions of the current PSAA, California has put into place five distinct systems within a ten year period.

Yet neither Russell⁴⁶ nor Mintrop hesitate to urge radical changes in the present system, which, as documented below and in previous sections, is highly ranked among the 50 states and has great potential under present legislation to continue improving.

⁴⁵ John R. Anderson, Lynne M. Reder, and Herbert A. Simon, “Radical Constructivism and Cognitive Psychology,” in *Brookings Papers on Educational Policy*, ed. Diane Ravitch (Washington, DC: Brookings Institution, 1998), 227–255; quote on p. 241.

⁴⁶ When asked if he considered the feasibility of implementing his sweeping recommendations for revising California's accountability system, Dr. Russell said (deposition, p. 110): “I didn't do any kind of cost analysis but I considered it, and given that many of the things I was suggesting existed in some form in other places it seemed reasonable that they could be implemented in California as well.” Without careful cost estimates and feasibility studies, and deep knowledge of the distinctive characteristics of California and its K-12 system, even minor suggestions would seem ill-founded.

Similarly, Russell is harshly critical of California's emphasis on a single summary score for achievement success, but on p. 503 of his deposition, he admits that in this respect California's system is “consistent with what's done in nearly all states.” In view of the near universality of such practice, it would seem that, rather than Californians, Dr. Russell has the burden of proof, especially given the wide recognition among Presidents, legislators, citizens, parents, and students for the pressing need for California-style emphasis on results rather than inputs or processes.

1. Flaws of the Mintrop Report: The English Inspectorate

Heinrich Mintrop favors the English Inspectorate system, in which inspectors visit schools, read reports about them, and render their own reports about how “inputs” should be changed. Even so, Mintrop at p. 5 admits,

“This uncertainty [about educational inputs] has resulted in debates among researchers about the effect of specific inputs on measured achievement.”

If this is so (and nearly all observers would agree), Mintrop not only concedes his main point but the plaintiffs’ basis for their pleading to regulate inputs.

Mintrop’s argument for an English-style inspectorate for accountability is flawed in other ways. International surveys of achievement show that England does not rank well. The countries that consistently rank highest are Japan, Korea, and Singapore that have strong outcomes-standards-based accountability systems similar to what Congress and the most states, including California, have begun.⁴⁷

England itself, moreover, has in recent years begun a system of national testing to hold schools accountable after a quarter century of “constructivist teaching” favored by several of the plaintiffs’ witnesses as previously noted. The system of English inspectorate and English teaching is referred to by the *Economist*,

“as a disaster responsible for generations of ruined lives. Even though the last ten years have seen some return to sanity in the form of a new emphasis on [outcome] standards and, in many instances, a revival of more traditional and proven teaching methods.”⁴⁸

2. The Chief Inspector Sees Failure of Inspections

The last Chief Inspector of Schools Chris Woodhead himself declared the system a failure. In a 2002 seminar at Stanford University in which I participated, he declared the inspectorate system deeply flawed because of its unscientific, subjective nature. He was well qualified by experience to judge since he had been a teacher, head teacher, for eight years the equivalent of a district superintendent before serving for six years as Chief Inspector under both Liberal and Labor governments. Quotes from Woodhead’s book illustrate the failings of English constructivist teaching and the Inspectorate:

“Why do a quarter of eleven-year-olds transfer to secondary school unable to read?

Why does education remain such a lottery?

Why don’t we have the school parents want and business needs?

Why have millions of pounds of taxpayers’ money been wasted on initiatives that have sunk teachers in a morass of paperwork and unnecessary bureaucracy?

⁴⁷ See the annual reports of the Paris-based Organization for Economic and Cooperative Development titled *Education at a Glance* for the last decade.

⁴⁸ “Bagehot,” *Economist*, January 25, 2003, p. 56.

I resigned as Chief Inspector partly because I could no longer stomach the fact that millions of pounds of taxpayers' money were being wasted on misconceived initiatives that added to the bureaucratic burdens and distracted teachers and head teachers from their proper responsibilities.

The question was one I had been asked hundreds, if not thousands of times before: 'Mr. Woodhead, how can you justify a system of school inspection which is demoralizing the entire teaching profession?'

The whole life of the school stops for weeks in the run-up to an inspection. Scores of documents have to be written to satisfy the bureaucratic demands.

Hardly a week went by in the six years I was Chief Inspector without some horror headline or critical article.

Officials and politicians alike seek to exert influence over the supposedly independent inspectorate in a variety of ways."⁴⁹

3. Other Flaws of the Mintrop Report

Even though he and other plaintiff experts want to have inputs regulated, Mintrop also makes huge concessions to those who favor standards-based outcome accountability. At p. 7, for example, he concludes that

"it is widely accepted among researchers on work motivation that goals and rewards motivate workers to the degree that they are attainable and controllable through work effort."

Since massive surveys, discussed in previous sections, have shown that students, including minorities and those in poverty, do well under standards-based systems, rather than regulating inputs in the ways plaintiffs prefer, why shouldn't the State employ such motivation?

Mintrop apparently also misunderstands the structure of the U.S. school system and yet proposes a radical restructuring. At p. 8, he refers again to England in advocating a "reciprocal system," in which the State, Inspectorate, and schools are accountable to one another. In the U.S., with the exceptions of Hawaii, which has only a state board and no local school districts, school districts are "creatures of the state," that is, they are created by state legislation and can be abolished. So, the state is hardly accountable to local districts much less to an Inspectorate, which is not a part of the American heritage.

At p. 9, Mintrop dismisses outcome accountability as "naming and shaming." But isn't it reasonable to identify schools that fail children? Indeed, making public information concerning school performance is critical to holding schools and districts accountable for their performance.

At p. 12 and elsewhere, Mintrop complains that not all failing schools are served at once. But he doesn't allow for the years of process that successful states have

⁴⁹ Chris Woodhead, *Class War: The State of Education* (London, Eng.: Little, Brown, 2001); quotes from p. 5, 94, 105, 107, and dust cover.

undergone. Nor, does he estimate the monetary and other costs of serving all schools at the same time nor of the proposed Inspectorate nor what programs would be cut—all of which are critical in view of the State's huge deficit.

At p. 17, Mintrop writes,

“The State's Capacity to Intervene in Schools Failing to Make Sufficient Progress is Doubtful.”

If so, how can the State take on the untried Inspectorate system that is incompatible with the State's present system and the federal No Child Left Behind act? How can the State take on the other burdens of input regulation that plaintiffs urge? ⁵⁰

C. Flaws of the Russell Report

Michael Russell matches Heinrich Mintrop in the great number of changes he urges, and, like Mintrop, he provides no calculations of the possible benefits, costs, and difficulties of adding to the present system or substituting what he prefers. Nor does he provide empirical evidence for several of his key assumptions. On p. vii, for example, he concludes,

“By requiring all schools to consider the relationship between inputs and outputs, improvements are more likely to occur in low- as well as—high-performing schools.”

Instead of supporting this assertion with empirical evidence or citation, he simply goes on to another point.

1. Russell's Flawed Assessment of California Assessment

On p. v, Russell asserts what the board already knows, that the SAT-9 test was initially aligned imperfectly with the State frameworks. Even so, he acknowledges that the alignment is improving with time, and points out on p. 35 that the majority of teachers agree that their district's curriculum is aligned with the State testing system. As in the exemplary states North Carolina and Texas, the process of getting the standards, curricula, and tests aligned takes time, perhaps five or more years. This explains why the State is wise in gradually phasing in the “carrots and sticks” consequences for poor performance and not putting all schools on immediate “probation.”

On the same page, Russell complains about teaching to the test and “inferior, test-centered teaching practices.” Previous sections provide evidence of the superior performance of states and nations that employ test-based standards and accountability. Such tests can measure highly challenging material, and, for this reason, are routinely used for admission to college, graduate, and professional schools.

⁵⁰ A reminder of the U.K. Chief Inspector's complaint, quoted above, that “taxpayers' money were being wasted on misconceived initiatives that added to the bureaucratic burdens and distracted teachers and head teachers from their proper responsibilities.” In addition, plaintiff witness Dr. Russell on pp. 102-106 acknowledges the difficulties he would have in measuring such inputs as parental involvement and the learning environment. How much more difficult would school staff find to devise, employ, and analyze such measurements.

Also on p. v, Russell dismisses California's increases in tested achievement on the SAT-9, but the Stanford Achievement Test is a highly regarded and highly reliable achievement test used in school districts throughout the United States. Its publisher describes it as,

"A combination of multiple-choice and open-ended subtests helps you obtain a more complete picture of both the breadth and depth of your students' educational achievement. Enhanced multiple-choice items in Stanford 9 have the following characteristics:
They are framed within classroom or real-life situations.
They often elicit actual performance from a student.
Many of them measure strategies or processes.
They integrate process with knowledge."⁵¹

If the SAT-9 measured merely low-level knowledge and skills, it would not be one of the top three examinations used in American schools. It was perfectly reasonable for the State to employ it to get the accountability system moving forward until better-aligned tests and items can be developed and evaluated.

On p. vi, Russell writes,

"My main argument in this report is that California's accountability system, because it fails to measure the inputs that determine the outputs it does measure, cannot provide information that will allow the State to exercise the leadership required to provide all students with the educational opportunities they are entitled to."

But neither local districts nor the State has the technical expertise or the present or future resources to take on the huge task that would be required to determine the determination of outputs by inputs. As Mintrop emphasizes (see previous section), there are big debates about economic input-output relations. On the other hand, the State, districts, and schools can draw upon published psychological studies of classroom practices, curriculum alignment, and other topics that have considerable scholarly consensus rather than taking on huge and difficult research projects that might further distract them from their chief responsibility of raising achievement. In any case, they are just as unlikely to turn into Russell's research agencies as they are to rely on Mintrop's English-style inspectors.

2. The Value of Value-Added or Progress Scores

On p. vii, Russell complains about less than perfect reliability of the calculated scores measuring gains, progress, or value added from year to year. But he does not make clear that the reliability can be improved considerably by averaging the Academic Performance Index scores over several subjects and over two or more years. In addition, API scores have several advantages. They measure gains over one or more years so that schools can be recognized for progress and sanctioned for failure. Such gain scores are more fair to high-poverty schools since they can do well if they make progress. High-poverty schools measured only on one occasion would be unfairly disadvantaged with non-value-added scores since they are apt to do poorly because of their lower socioeconomic levels rather than the hard effective work of their staff. Similarly, low-

⁵¹ Internet site: <http://www.hemweb.com/trophy/achvtest/sat9view.htm>

poverty schools measured only once could coast since, other things being equal, their students are likely to do well.

On p. viii, Russell complains further about school-level API scores and urges of grade-by-grade criteria. But the purpose of the accountability system is to hold schools—not teachers, grades, or students accountable. Identification of school success and failure allows the State to direct technical and financial resources to deserving schools. As time goes on and the system is perfected, the State, within the law, can take more drastic action such as closing persistently failing schools or converting them to charter schools.

3. Whom and What Should Be Assessed

On p. vii, Russell advocates “matrix sampling,” that is, giving some students one test and other students, within the same class, other tests at the same time. Russell does not describe, however, the technical complications of administering matrix sampling nor does he point out the purpose of the State’s standards program is to hold schools accountable for general progress, which is more efficiently and reliably measured with conventional tests since a single test permits ready comparability and a complete sample provides a better estimate of the school achievement. Generating many, many items for a matrix test would add greatly to the development, administration, scoring, and analysis costs of the test. For accountability purposes, it is unnecessary to have indications of progress on all possible aspects of achievement. Nearly all modern standardized tests *sample* content just as pollsters analogously sample less than 3,000 Americans in public opinion surveys.

On p. viii, Russell advocates a list of background or input factors he thinks should be added to California assessments. He does not, however, mention the difficulty and expense of developing measures of such input variables nor the “response burden” (the time and difficulty of obtaining the information) and the distraction for school staff to complete an obviously complex form.

4. Three Independent Surveys Rank California’s Accountability System Near the Top

On p. xxi, Russell offers Rhode Island as California’s model for accountability and assessment.⁵² The *Education Week* state survey of standards and accountability ranked Rhode Island 43rd (a grade of D+) whereas California’s was ranked 9th with a grade of B+). California was ranked much higher than Rhode Island. Rhode Island was ranked eighth from the bottom because it did not as fully meet the criteria.⁵³

⁵² Dr. Russell at first stands by this judgement in his deposition: At p. 111, is the following passage: “Yeah, I think there are states that have effective and educationally beneficial accountability systems?” Question: “What states are those?” Answer: “I mean in the report I talk at length about Rhode Island.” He repeats the point on p. 113, but later on p. 137 characterizes Rhode Island and Maine as merely “adequate.”

⁵³ *Education Week*, January 9, 2003, p. 84-87. See previous section of this report on the rankings, which employed such criteria as standards adopted for core subjects, clear, specific, standards grounded in content, tests that have undergone external alignment review, participation in the National Assessment of Educational Progress, school-level report cards disaggregated by race, poverty, English language proficiency, and disabilities, statewide student identification system under development, underperforming schools identified, assistance to low performing schools, and accountability systems that include sanctions for failing schools including closure, reconstitution, chartering, and permitting student transfers.

As discussed earlier, Table 2 shows that, in another survey of state standards and accountability systems, Rhode Island was listed as one of the “Irresponsible States” and California’s was on the “honor role” of the top five. In this survey, good standards were defined as rigorous, clear, written in plain English, communicating what is expected of students, and capable of being assessed. Good accountability systems are aligned with the standards and include school report cards, ratings of schools, rewards for successful schools, authority to reconstitute failing schools (for example, by replacing the staff), and the actual exercise of such legislated consequences.

Yet, another study rated California in the top nine states in the strength of accountability. Confirming the two other major independent rankings, Rhode Island was given the lowest possible rating.⁵⁴

In his deposition at pp. 137-139, Dr. Russell was asked to name any states that had adequate or exemplary accountability systems. In addition to his favored Rhode Island, he named only Maine, which is ranked as “irresponsible” in the Brookings survey, 16th from the bottom in the Education Week survey, and the lowest possible ranking in the Stanford survey. In sum, Dr. Russell’s low ranking of California’s system as “near the bottom” and Rhode Island, and Maine as adequate or exemplary are nearly the opposite of three careful, independent, large-scale surveys.

5. Dr. Russell’s Insistence on a Failed System

On p. 4, Russell notes that the previous 1991-93 California Learning Assessment System (“CLAS”) employed “open-ended (or supply) test items” and

“California was able to produce a complex, valid, and reliable testing system . . . a product of a concerted, focused, and determined effort made by leaders within the Department of Education and in collaboration with several external agencies.”

Coming to a different conclusion was the Select Committee report on CLAS to the Superintendent. In a cover letter to the report, eminent Stanford University psychologist Lee Cronbach employed the following summary language,

“Problems arose in carrying out the 1993 plan. In this innovative measurement, traditional formulas and modes of thinking break down; other major assessments are encountering similar difficulties . . . Those developing the plan made unreasonably optimistic estimates as to the accuracy that the resulting school reports would have. Even if perfectly executed, the plan would have produced unreliable reports for a great number of schools . . . The operational problems bespeak the difficulty of managing such a complex project.”⁵⁵

⁵⁴ Martin Carnoy and Susanna Loeb, *Does External Accountability Affect Student Outcomes? A Cross-State Analysis*, (Stanford, CA. Center for Educational Research at Stanford, January 2002), data on pp. 24-24; also *Educational Evaluation and Policy Analysis*, in press.

⁵⁵ Lee J. Cronbach, Norman M. Bradburn, and Daniel G. Horvitz, *Sampling and Statistical Procedures Used in the California Learning Assessment System* (July 25, 1994, a report to the Acting State Superintendent of Public Instruction).

For this and other reasons, the California State Board, contrary to Russell's preferences, received clear advice from its technical Advisory Committee of test experts as follows,

"The Advisory Committee stated that the test should have a single purpose and should be simple, reliable, and valid. The Committee stated that student higher order thinking skills can be measured with multiple choice questions and that multiple choice questions are the most reliable tests questions. The Committee believes that every student needs to be tested every year for accountability purposes. The State Board might have to consider using new items each year in the augmented sections of the STAR test. . .

The Committee stated that there are three basic problems with the Matrix test: 1) if there is no individual student score for parents, students will not take the test seriously; 2) obtaining scores for small schools of less than 30 students per grade level; and 3) schools with small numbers of grades—some schools are k-2—would not be assessed by the Matrix test. . .

A test that features open-ended questions with multiple answers and multiple performance standards cut points will be very complicated to develop and score and will be very expensive."⁵⁶

Other states have encountered similar problems with innovations Russell advocates. Essay examinations, live performances, portfolios of students' works, laboratory exercises, and other "constructed-response" examinations can provide insights for classroom teachers about what their students have learned, and they give students practice on valued skills. But leading psychometrists conclude they do not work well for purposes of large-scale accountability such as those now being used in California and in most other states' accountability programs.

Former president of the National Council of Measurement in Education William Mehrens concludes that constructed-response or "performance assessments" are problematic in providing useful information for holding educators accountable. They require students to "construct" answers rather than to choose the best answers as on multiple-choice tests. He points out that performance assessments usually do not meet technical standards of reliability, validity, and objectivity and are subject to legal challenge when used for purposes of accountability. They are far more expensive and more subject to bias, and breaches of security than multiple-choice tests, which have a long record of measuring student knowledge and skills effectively, efficiently, and objectively.⁵⁷

In the concluding sections of his report Russell audaciously calls "What Must Be Done," "Blueprint for California," and "Learning from Other States," Russell offers Rhode Island, Connecticut, and Massachusetts as models for California to follow. Table 2 shows the independent Brookings Institution report ranked the accountability and

⁵⁶ California State Board of Education, Public Session Minutes, February 1, 1999, p. 3.

⁵⁷ William A. Mehrens, "Using Performance Assessment for Accountability Purposes," *Educational Measurement: Issues and Practice*, 1992, vol. 11, no. 1, 3-9, 20.

standards of Connecticut and Rhode Island as “irresponsible” and Massachusetts as having “unrealized potential.” As Russell admits, moreover, the proposed Massachusetts system is yet to be funded. Since the Brookings report put California on the “honor roll” of the top five states, perhaps the three states Russell cites as exemplary should be learning from California instead of inspiring a “blueprint.”

V. Conclusion: California’s State of the Art Standards-Based Accountability System

Individuals and states can rarely have and do everything they want all at once. Such overreach usually means failure. They must work within a budget, or they risk not only failing but also bankrupting themselves, losing their autonomy, and damaging those around them. To take on new difficult tasks, moreover, in the midst of a deficit of unprecedented size would seem nearly certain to be self-defeating, particularly given no evidence-based prospects for positive effects and no estimates of costs in financial, psychological, and organizational terms of the new task.

Yet, that is precisely what plaintiff experts urge the State to do: Take on burdensome, costly, unproven, and unpromising budgetary and operational regulations while the State has been putting in place a state-of-the-art system based on legislation, research, and successful precedents in other successful states, namely, the feature-rich standards-based accountability system.

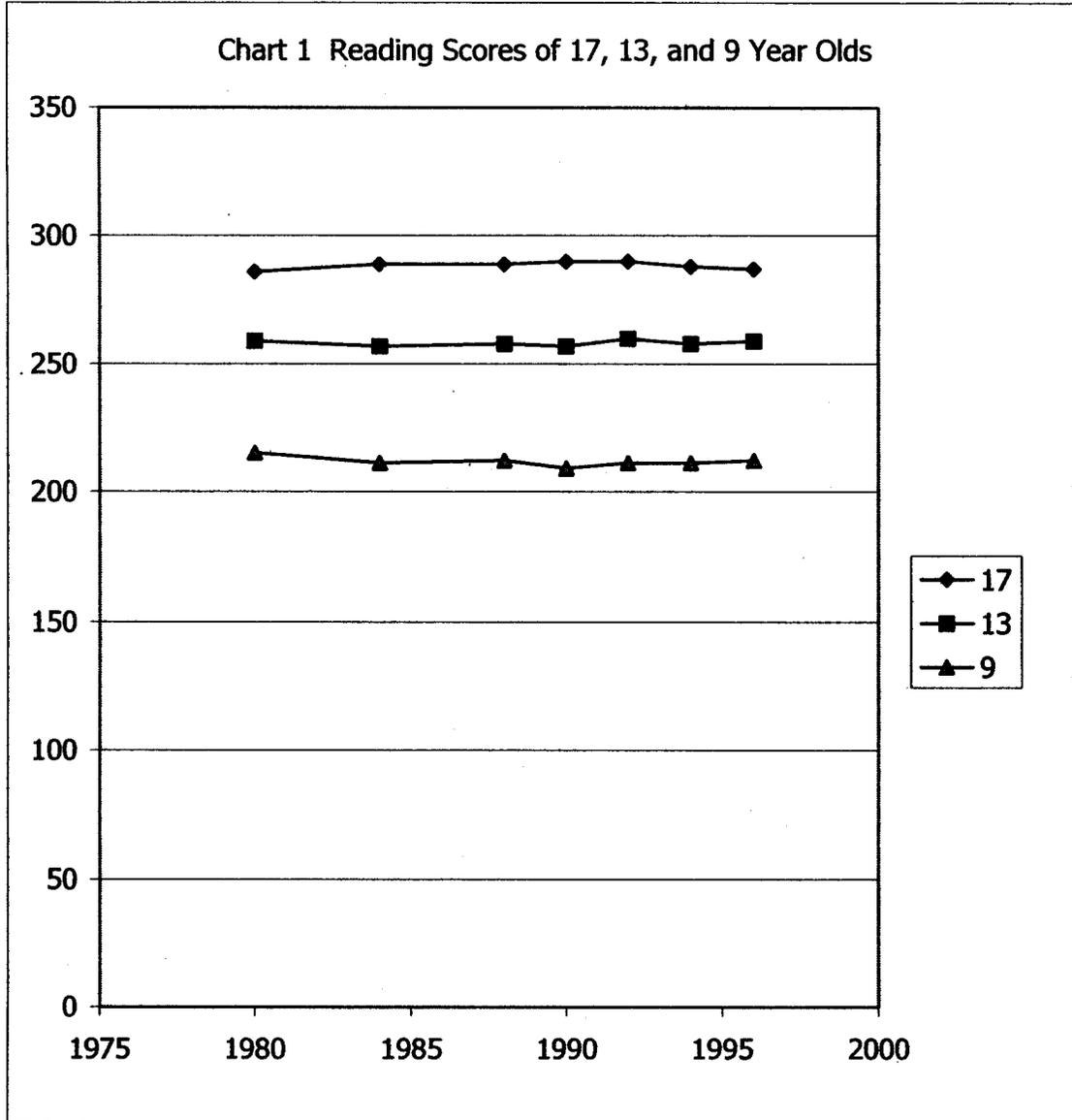
In the meantime, while the State faces daunting prospects of an unprecedented shortfall in its budget, it faces an equally daunting the challenge of the far-reaching federal No Child Left Behind Act, which is far more compatible with the State’s outcome accountability system than the plaintiffs’ radical proposals for operational and budgetary accountability. Their proposals, moreover, would deny the local control and professional discretion now targeted toward meeting state standards and which incorporates substantial remedies for failing schools.

Scholarly research, reviewed in previous sections, supports California’s standards-based approach, and independent analyses shows California ranks among top states in the nation in the quality of its standards and in its accountability provisions. Moreover, compared with the total costs of K-12 schools or to the plaintiff proposals, test-based accountability is not only effective but cost-effective—a crucial consideration in a state running a huge deficit.

In addition, California’s State system, like that increasingly adopted by other states, provides for an appropriate division of labor. The State sets the standards but leaves the precious American heritage of local control to school boards and the professional autonomy of educators. If districts or schools underperform, the State has many legislated means of recourse. As the testing system is perfected, it can help in the exercise of the important provisions of the legislation such as technical assistance, closing persistently failing schools, and converting them to charter schools with new independent governing boards.

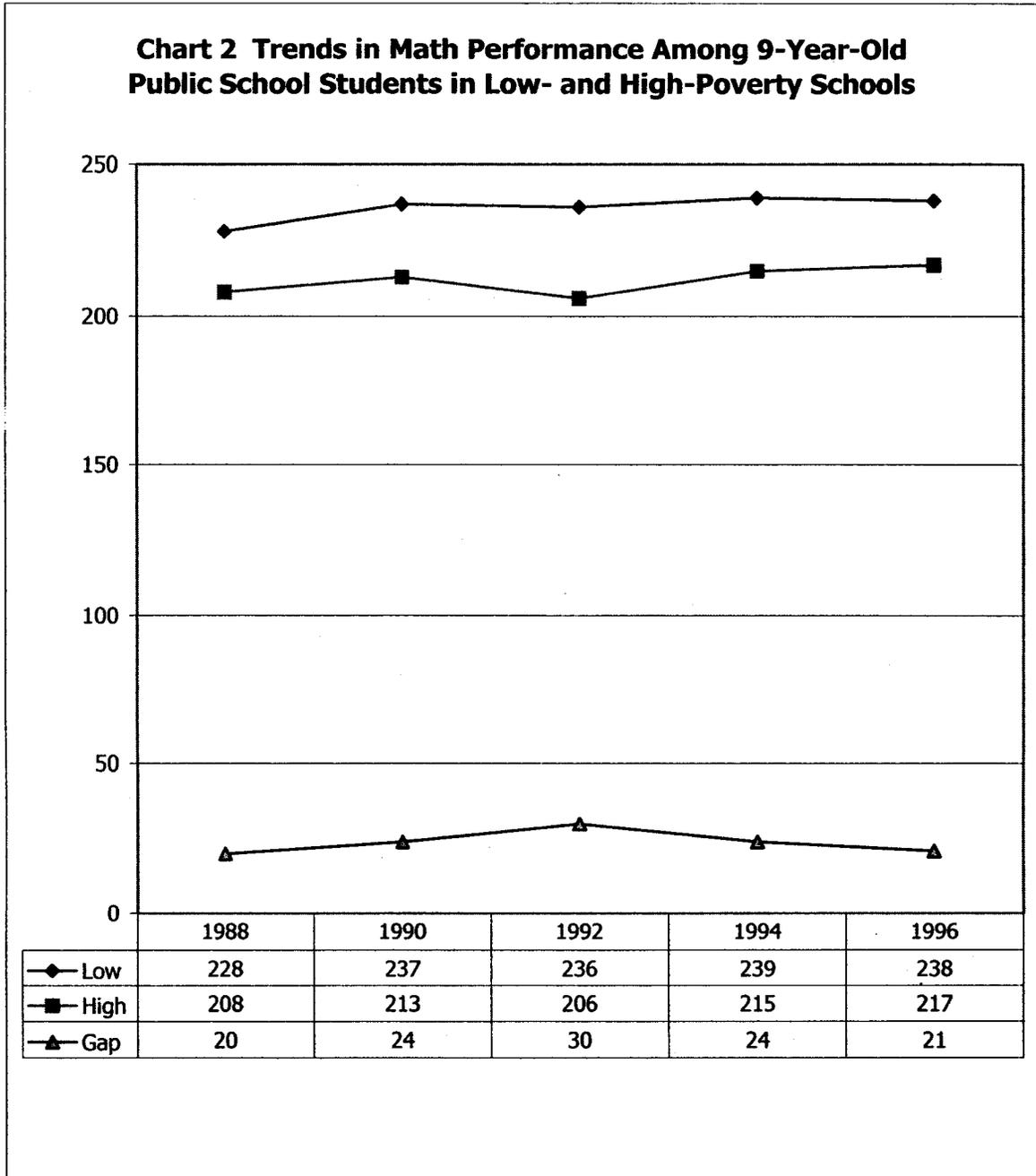
Finally, as the State gains further experience with the accountability system, it can choose to emphasize the most promising or proven legislated remedies. If experience shows the legislative provisions prove less satisfactory, legislators can modify them as informed by California’s experience as well as that of other states.

V. Charts and Tables



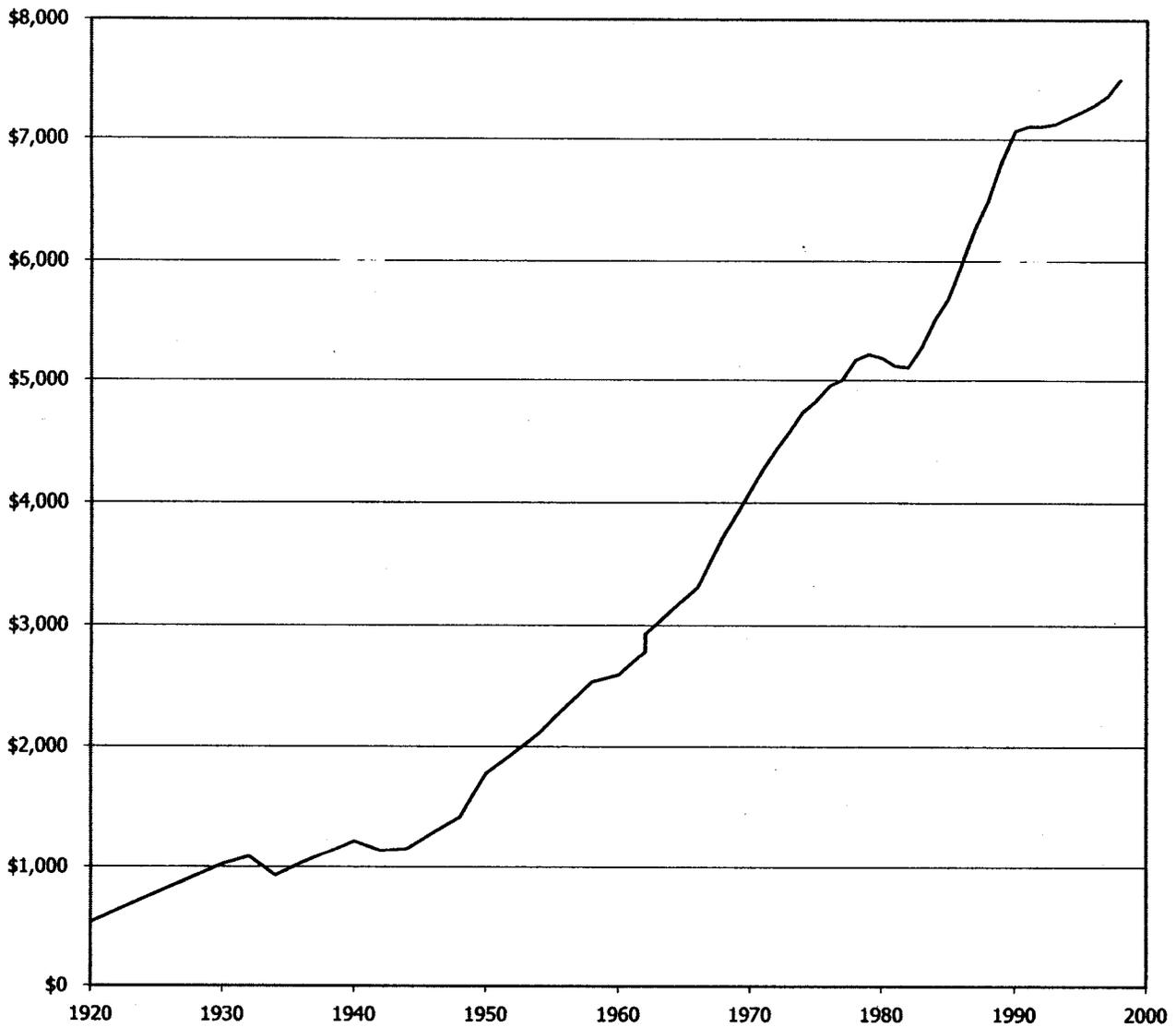
Source: U.S. Department of Education, *Digest of Education Statistics 1998*. (Washington, DC., 1999), p. 129. b

Source: Office of Planning and Evaluation Service, *Promising Results, Continuing*

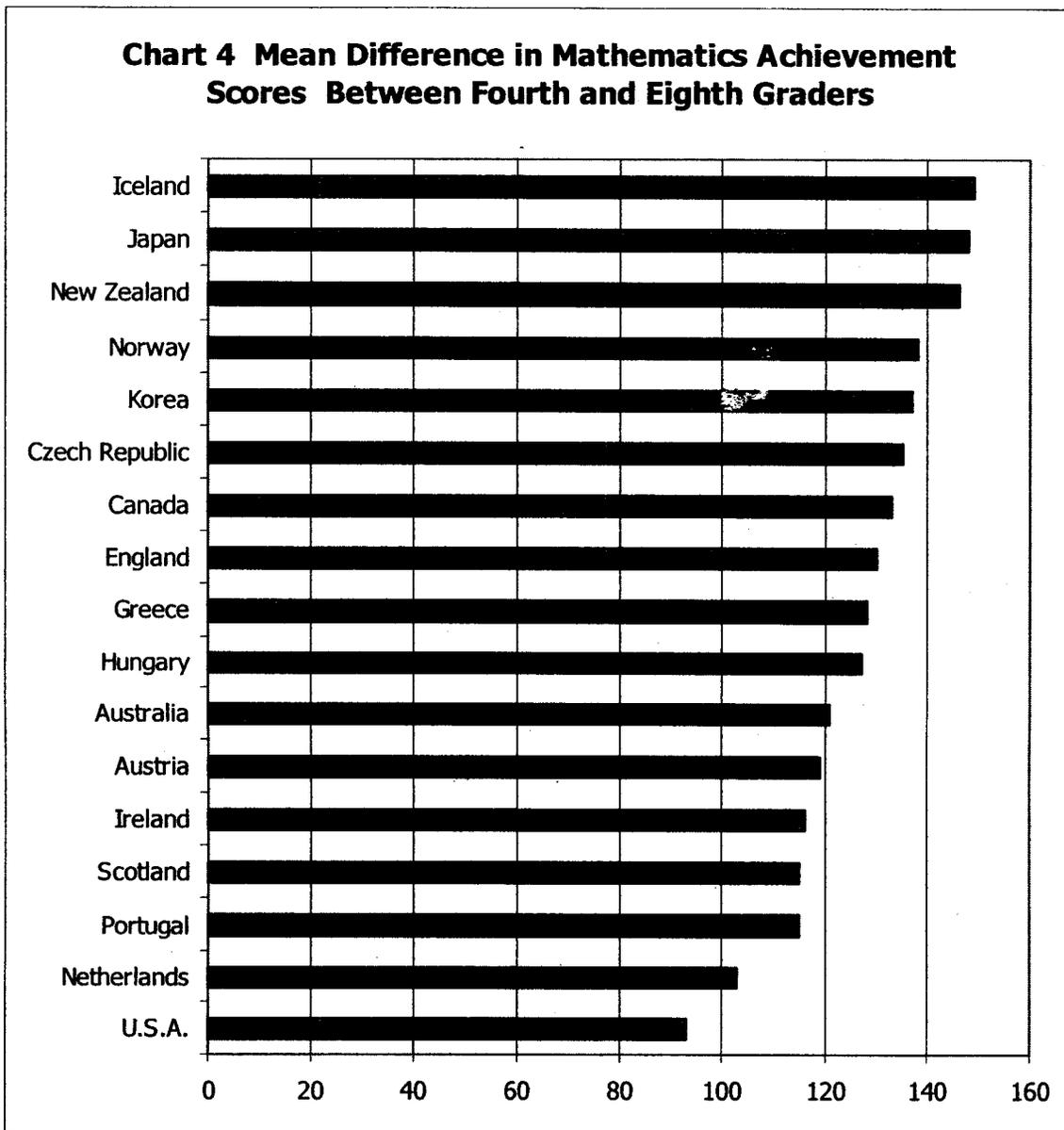


Challenges: The Final Report of the National Assessment of Title I. (Washington, DC: U.S. Department of Education Office of the Under Secretary 1999), p. 6. The scale ranges from 0 to 500; high poverty schools had 76-100% students eligible for free lunch, low-poverty 0-25%.

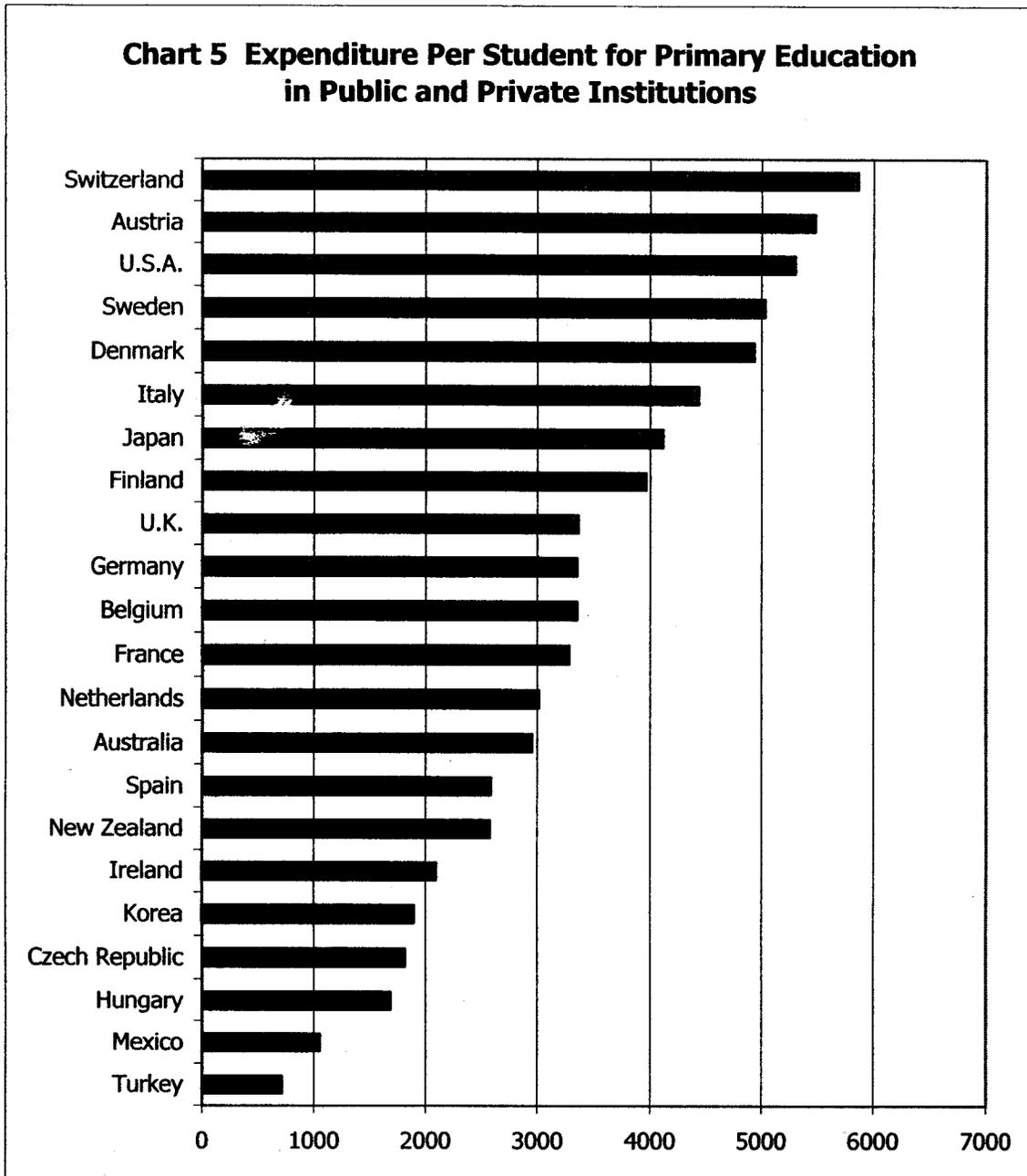
**Chart 3 Total Per Pupil Expenditures in Public Elementary and Secondary Schools 1919 to 1998
in Constant 1997-1998 Dollars**



Source: U.S. Department of Education, *Digest of Education Statistics 1998*, p. 35



Source: Organization for Economic Cooperation and Development, *Education at a Glance* (Paris: OECD, 1997), p. 101.



Source: Organization for Economic Cooperation and Development, *Education at a Glance* (Paris: OECD, 1997), p. 306

| Table 1 | | | |
|--|-------|----------|------------|
| Percentages of Students Meeting State and National Proficiency Standards for 8 th Grade Mathematics | | | |
| | State | National | Difference |
| Connecticut | 55 | 34 | 21 |
| Massachusetts | 34 | 32 | -2 |
| Oregon | 49 | 32 | 17 |
| Vermont | 32 | 32 | 0 |
| Indiana | 64 | 31 | 33 |
| North Carolina | 81 | 30 | 51 |
| Maryland | 50 | 29 | 21 |
| Idaho | 15 | 27 | -12 |
| Illinois | 47 | 27 | 20 |
| New York | 40 | 26 | 14 |
| Virginia | 61 | 26 | 35 |
| Wyoming | 32 | 25 | 7 |
| Rhode Island | 20 | 24 | -4 |
| Texas | 26 | 24 | 2 |
| Missouri | 14 | 22 | -8 |
| Kentucky | 25 | 21 | 4 |
| Georgia | 54 | 19 | 35 |
| Oklahoma | 71 | 19 | 52 |
| South Carolina | 20 | 18 | 2 |
| Tennessee | 40 | 17 | 23 |
| Arkansas | 16 | 14 | 2 |
| Louisiana | 8 | 12 | -4 |

Source: Education Week, February 20, 2002; Internet www.edweek.org.ew/newstory.cfm?slug=23profchrt2.h21 .

Table 2

States Classified by Quality of Standards and Accountability

| Accountability/ Standards | Solid Standards A or B | Mediocre Standards C | Inferior Standards D or F |
|------------------------------|---|--|--|
| Strong Accountability | <p>The Honor Role:</p> <p>Alabama, California, North Carolina, South Carolina, Texas</p> | <p>Shaky Foundations</p> <p>Florida, Illinois, Indiana, Kansas, Maryland, Nevada, New York, Oklahoma, Virginia, West Virginia</p> | <p>Trouble Ahead:</p> <p>Kentucky, New Mexico</p> |
| Weak Accountability | <p>Unrealized Potential:</p> <p>Arizona, <i>Massachusetts</i>, South Dakota</p> | <p>Going through the Motions:</p> <p>Delaware, Georgia, Louisiana, Mississippi, Nebraska, New Hampshire, Ohio, Utah, Wisconsin</p> | <p>Irresponsible States:</p> <p>Alaska, Arkansas, Colorado, <i>Connecticut</i>, Hawaii, Idaho, Iowa, Maine, Michigan, Minnesota, Missouri, Montana, New Jersey, North Dakota, Oregon, Pennsylvania, <i>Rhode Island</i>, Tennessee, Vermont, Washington, Wyoming</p> |

Source: Chester E. Finn and Marci Kanstoroom, "State Academic Standards, in Diane Ravitch (Ed.), *Brookings Papers on Education Policy, 2001* (Washington, DC.: Brookings Institution Press, 2001, pp. pp. 131-180; table from p. 51; emphasis added.

Table 3
No Child Left Behind Act:
State Provisions, Requirements, and Recent State Status

| Provision | Mandated | Consequences | Recent (2000-2002) State Status |
|---|----------|--------------|--|
| State Academic Standards and Student Achievement Standards in Reading, Mathematics, and Science | Yes | Yes | All states but Iowa have Reading and Mathematics standards; most states have Science standards |
| Adequate Yearly Progress | Yes | Yes | At least 22 states have analytic methods; the other states were adopting methods |
| Annual Student Testing of Grades 3 through 8 | Yes | Yes | Between 7 and 24 states have at least one or various combinations of Reading, Mathematics, and Science assessments for one or more grades |
| Participation in Biennial NAEP in Grades 4 and 8 Reading and Mathematics | Yes | Yes | Between 36 and 40 states have recently participated in each examination |
| State Report Cards | Yes | Yes | Many states do not report at the state, district, and school level; 32 states report graduation rates and 8 the number or percentage of certified teachers; the number of states vary in the number reporting separate results by ethnicity, gender, economic disadvantage, English language learners, disability, and migrant status. |
| Consequences for Low-Performing Schools/School Improvement | Yes | Yes | Between 5 and 25 states sanctioned schools, districts, or both including required improvement plans, dis-accreditation, funding withdrawal, imposed staff dismissals or reorganization, and takeovers |
| School Support | Yes | Yes | Between 3 and 13 states provide support to schools, districts, or both. |
| School Recognition | Yes | Yes | Nine states reward districts for performance; 20 reward schools. |

Adapted from Education Commission of the States; Internet posted February 2002 as <http://www.ecs.org/ecsmain.asp?page=/search/default.asp>.

received
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Bita Rahimi