1	MARK D. ROSENBAUM (BAR NO. 59940) CATHERINE E. LHAMON (BAR NO. 192751)	
2	PETER J. ELIASBERG (BAR NO. 189110) ACLU Foundation of Southern California	
3	1616 Beverly Boulevard Los Angeles, California 90026	
4	Telephone: (213) 977-9500	
5	JACK W. LONDEN (BAR NO. 85776) MICHAEL A. JACOBS (BAR NO. 111664)	
6	MATTHEW I. KREEGER (BAR NO. 153793) LEECIA WELCH (BAR NO. 208741)	,
7	J. GREGORY GRÒSSMAN (BAR NÓ. 209628) Morrison & Foerster LLP	
8	425 Market Street San Francisco, California 94105-2482	
9	Telephone: (415) 268-7000	
10	ALAN SCHLOSSER (BAR NO. 49957) KATAYOON MAJD (BAR NO. 211756)	
11	ACLU Foundation of Northern California 1663 Mission Street, Suite 460	
12	San Francisco, California 94103 Telephone: (415) 621-2493	
13	JOHN T. AFFELDT (BAR NO. 154430)	
14	Public Advocates, Inc. 1535 Mission Street	
15	San Francisco, California 94103 Telephone: (415) 431-7430	
16	Attorneys for Plaintiffs ELIEZER WILLIAMS, etc., et al.	
17	SUPERIOR COURT OF THE STATE OF CALIFORNIA	
18	COUNTY OF SAN FRANCISCO	
19	ELIEZER WILLIAMS, a minor, by SWEETIE	No. 312236
20	WILLIAMS, his guardian ad litem, et al., each individually and on behalf of all others similarly	DECLARATION OF LEECIA WELCH
21	situated,	IN SUPPORT OF PLAINTIFFS' DESIGNATION OF REBUTTAL
22	Plaintiffs,	EXPERT WITNESS HEINRICH MINTROP
23	v.	MINIKOI
24	STATE OF CALIFORNIA, DELAINE EASTIN, State Superintendent of Public Instruction,	D
25	STATE DEPARTMENT OF EDUCATION, STATE BOARD OF EDUCATION,	Date Action Filed: May 17, 2000
26	Defendants.	
27		
28		

- 1 I, LEECIA WELCH, hereby declare as follows:
- 1. I am an attorney licensed to practice law in the State of California. I am an associate
- 3 at the law firm of Morrison & Foerster LLP, counsel of record for plaintiffs Eliezer Williams, et al.
- 4 ("plaintiffs") in this action. I have personal knowledge of the facts stated herein and could testify
- 5 competently to them if called to do so.
- 6 2. Plaintiffs have provided a list of the persons whose expert opinion testimony the
- 7 plaintiffs intend to offer on rebuttal at trial of this action, either orally or by deposition testimony.
- 8 The list includes Heinrich Mintrop, to whom this declaration refers.
- 9 3. Dr. Mintrop has agreed to testify at trial.
- Dr. Mintrop will be sufficiently familiar with the pending action to submit to a
- meaningful oral deposition concerning the specific testimony, including any opinions and their bases,
- that he is expected to give at trial.
- 5. Dr. Mintrop's fee for providing deposition testimony and for consulting with the
- 14 attorneys for plaintiffs is \$300 per hour. This rate did not apply to the research and other activities
- undertaken in the preparation of the attached rebuttal expert report.
- 6. Attached to my declaration as Exhibit A and incorporated by this reference is a
- 17 curriculum vitae providing Dr. Mintrop's professional qualifications, pursuant to
- section 2034(f)(2)(A) of the California Code of Civil Procedure.
- 7. Attached to my declaration as Exhibit B and incorporated by this reference is
- 20 Dr. Mintrop's rebuttal expert report. The following is a brief narrative statement of the general
- 21 substance of the testimony that Dr. Mintrop is expected to give at trial, pursuant to
- section 2034(f)(2)(B) of the California Code of Civil Procedure. Dr. Mintrop rebuts opinions offered
- 23 in the expert reports of State experts Eric Hanushek, Herbert Walberg, Margaret Raymond, Caroline
- Hoxby, and John Kirlin. In particular, Dr. Mintrop addresses the limitations of production function
- analyses relied on by some of the State's experts; he finds that the models are not substantively fine-
- grained enough to capture the intricacies of input-output relationships in education and have therefore
- been of little practical policy relevance. Dr. Mintrop also addresses some of the State's expert
- opinions regarding the impact of remedies proposed by plaintiffs. In addition, Dr. Mintrop addresses

1	the State's expert opinions that California's current outcome-based accountability system is working	
2	and need not be modified to ensure equal access to basic learning conditions. Dr. Mintrop concludes	
3	that the current outcome-based accountability system must be complemented with input standards to	
4	ensure that all California schools operate under decent school conditions and that all students have a	
5	chance to succeed in this system. Finally, Dr. Mintrop addresses the State's expert opinions relating	
6	to research relied on by plaintiffs' experts and to claims by some experts that plaintiffs' proposals are	
7	out of touch with our American heritage. The foregoing statements are only a general summary of	
8	the issues and conclusions discussed and documented more fully in Dr. Mintrop's rebuttal expert	
9	report, attached as Exhibit B.	
10	I declare under penalty of perjury under the laws of the State of California that the foregoing	
11	is true and correct.	
12	Executed at San Francisco, California, this 15th day of September, 2003.	
13		
14	TX U	
15	Leecia Welch	
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		
28		

EXHIBIT A

CURRICULUM VITAE

Heinrich Mintrop

827 Levering Ave., Apt. 802

Los Angeles, CA. 90024

(310) 267-7534

Los Angeles

Graduate School of
Education
and Information
Studies
3335 Moore Hall
University of California,

(310) 794-7477

EDUCATION

Stanford University, School of Education.
Ph.D. in Social Science and Educational Practice (SSEP), completed
Jan. 1996; minor in Sociology; 1990 to 1996.

Freie Universität Berlin, Germany. M.A. in Political Science and German Studies, emphasis on National Socialism, German political parties after 1945, literature of the Weimar Republic; minor in Philosophy and Education, teaching credential for college-preparatory secondary schools; 1971 to 1978.

DISSERTATION

Change Work: Institutional, Interactional, and Instructional Changes in Eastern German Schools in the Transition from Socialism. An Exploration of Teacher Beliefs, Attitudes and Practices in Social Contexts of Teaching.

Reading committee:

Prof. Hans Weiler, advisor

Prof. Larry Cuban

Prof. Milbrey McLaughlin

Prof. David Tyack

PROFESSIONAL EXPERIENCE IN THE UNITED STATES

University:

Assistant Professor in the Urban Schooling Division of the Graduate School of Education and Information Studies, University of

California, Los Angeles; 2000 to date.

Assistant Professor in the Education Policy and Leadership Department, College of Education, University of Maryland, College Park; 1997 to 2000.

Special Consultant for the International Steering Committee of the Second IEA Civic Education Study; 1998 to present.

Director of research project on "Fostering Communities of Learners" (Principal Investigator Prof. Lee Shulman); fall 1995 to fall 1996.

Principal research assistant in the "Project on Educational Change in Germany," Director Prof. Hans Weiler, funded by the Spencer Foundation and the Fritz-Thyssen-Stiftung; 1991 to Aug. 1995.

Researcher and consultant for the evaluation of the educational reform portfolio of the San Francisco Foundation, Director Prof. Milbrey McLaughlin; fall 1994-summer 1995.

Instructor in the Teacher Education and International and Comparative Education Programs in the School of Education, Stanford University; 1995-96.

Supervisor in the Stanford Teacher Education Program; 1992.

Consultant for SPICE (Stanford Program for International and Cross-cultural Education), assisted in curriculum development; 1991.

Public schools:

Teacher of Social Studies, English, ESL, Latin in middle school and high school in the San Francisco Unified School District (1985-90), Mentor teacher 1986-90, master teacher 1987-89.

Member of SFUSD curriculum development committee for the 6th, 7th, and 9th grades in Social Studies (World History and Civilizations), contributed to district curricular framework; 1987-88.

Chair of SFUSD curriculum development committee for Civics (12th grade), wrote district curricular framework; 1989-90.

In-service instructor, designed teaching units with a focus on global education and conducted many in-service workshops for

teachers and administrators on those units and cooperative learning strategies; 1986-90.

Member of the Joint District/Union Committee for School Restructuring and Professionalization" in the SFUSD, appointed by the president of the teacher union, designed district plan and facilitated restructuring efforts at school sites in San Francisco; 1989-90.

PROFESSIONAL EXPERIENCE IN GERMANY

Researcher /guest at Max Planck Institute for Educational Research, Berlin, Sep. to Dec. 1992 and Sep. 1993 to July 1994.

Teacher of German and Social Studies in comprehensive school, college-preparatory Gymnasium, and adult school in Berlin, Germany; 1978-81 and 1983-84.

Counselor for after-school drug prevention program and independent youth center; 1983-84.

PUBLICATIONS

Refereed Articles

Mintrop, H. & MacLellan, A. (2002) The Effect of High-Stakes Accountability on Persistently Low-Performing Schools: The Utility of School Improvement Plans. The Elementary School Journal, vol. 102, no. 4.

Mintrop, H., MacLellan, A. & Quintero, M. (2001). The Design of School Improvement in Schools on Probation - A Comparison of Three State Accountability Designs. Educational Administration Quarterly, vol. 37, no. 2, pp.197-218.

Mintrop, H. (2001). Educating Student and Novice Teachers in a Constructivist Manner -- Can It All Be Done? Teachers College Record, vol. 103, no. 2, pp. 207-239.

Mintrop, H., Gamson, D., McLaughlin, M., Wong, P. & Oberman, I.

(2001). Design Cooperation: Strengthening the Link Between Organizational and Instructional Change in Schools." *Educational Policy*, vol. 15, no. 4, pp.520-546.

Mintrop, H. (1999). Changing Core Beliefs and Practices Through Systemic Reform: The Case of Germany After the Fall of Socialism. Educational Evaluation and Policy Analysis, vol. 21, no. 3, pp. 271-296.

Mintrop, H. (1997). Retracking on a Grand Scale: Policy and Pedagogy in the Reform of Eastern German Secondary Schools After the Fall of Socialism: Journal of Educational Policy, vol. 12, no. 5, pp.333-354.

Mintrop, H. (1996). Die Reform des ostdeutschen Schulsystems aus der Sicht der amerikanischen Schulforschung. Tertium Comparationis. Zeitschrift für Internationale Bildungsforschung. vol. 2, no. 2, pp. 1-19.

Mintrop, H. (1996). Teachers and Changing Authority Patterns in Eastern German Schools. Comparative Education Review, vol 40, no. 4, pp. 358-376.

Reprinted in N. McGinn, E. Epstein, eds. (2000). Comparative Perspectives on the Role of Education in Democratization, Part II, Frankfurt: Peter Lang.

Mintrop, H. & Weiler, H.(1994). The Relationship between Educational Policy and Practice: the Reconstitution of the College-preparatory Gymnasium in Eastern Germany. Harvard Educational Review, vol. 64, no. 3, pp. 247-277

Book

Weiler, H., Mintrop, H. & Fuhrmann, E. (1996). Educational Change and Social Transformation: Schools and Universities in Eastern Germany. London: Falmer Press, 1996.

Book Chapters

Mintrop, H. (in press). Teachers and Civic Education in Cross-National Comparison. Findings from the Case Studies. In: G. Steiner-Khamsi (ed.) The Second IEA Civic Education Study, Vol II: Comparing Cases. Dordrecht, NL: Elsevier.

Mintrop, H. (in press). The Role of Sanctions for Improving Persistently Low-Performing Urban Schools - Early Findings of Policy Effects in the Maryland Accountability System. In: J. Cibulka & W. Boyd, Reforming Urban School Governance. Responding to the Crisis of Performance. Greenwood/Ablex.

Losito, B. & Mintrop, H.(2001). The Teaching of Civic Education. In Torney-Purta, J., Lehmann, R., Oswald, H. & Schulz, W., Citizenship and Education in Twenty-eight Countries. Amsterdam, NL: International Association for the Evaluation of Educational Achievement. (Chapter 9 of the Report on the Second IEA Civic Education Study).

Mintrop, H (2000). Towards an Understanding of School Reconstitution as a Strategy to Educate Children Placed At-Risk. In: M. Sanders (ed.) Schooling Students Placed At-Risk: Research, Policy, and Practice in the Education of Poor and Minority Adolescents. Mahwah, N.J.: Erlbaum (pp. 231-260).

Under Review

Mintrop, H. & Nishio, M. (under review). Schools on Probation: Pressure, Meaning, Capacity and the Improvement of Schools. (American Educational Research Journal).

Mintrop, H (under review). The Bleeding Edge of School Accountability: Schools on Probation in High-Stakes Accountability Systems (book manuscript).

Non-Refereed Article

Mintrop, H. (1994). On the Path to Democratization. Global Pages, vol. 11, no. 1, pp. 7-20

Book Review

Mintrop, H. (2001). Education Contested: Changing Relations between State, Market and Civil Society in Modern European Education. Edited by J. Peschar & M. v.d. Wal. Swets and Zeitlinger: Lisse (NL). Comparative Education Review, vol. 45, no. 3, pp. 423-425.

Research Reports

Mintrop, H. and Associates (2001). Schools on Probation. Technical Report, Office of Educational Research and Improvement, U.S. Department of Education. Washington, DC., vols. 1-3.

Mintrop, H., MacLellan, A. & Pitre, P. (2001). The Bridge Project: Strengthening K-16 Transition Policies. Phase II - Student, Parent, and School Responses. Center for Education Policy and Leadership, University of Maryland.

Mintrop, H. (1999). The Amalgamated Discipline of Social Studies -- Disciplinary Perspectives on Fostering Communities of Learners. In: L. and J. Shulman, eds., Fostering Communities of Teachers as Learners. Technical Report, vol III, Stanford University/ WestEd.

Mintrop, H. (1998). Pitfalls of Constructivist Instructional Reform: Reflections on a Design Experiment. In: L. and J. Shulman, eds., Fostering Communities of Teachers as Learners. Technical Report, vol IV, Stanford University/ WestEd.

Mintrop, H. (1998). Fundamental Necessities and Incremental Possibilities in Mentoring for Constructivist Teaching. In: L. and J. Shulman, eds., Fostering Communities of Teachers as Learners. Technical Report, vol IV, Stanford University/ WestEd., 1998.

Mintrop, H. (1997). Educating Student and Novice Teachers in a Constructivist Manner — Can It All Be Done? In: L. and J. Shulman, eds., Fostering Communities of Teachers as Learners. Technical Report, vol I, Stanford University/ WestEd.

Mintrop, H., Wong, P., McLaughlin, M., Gamson, D. & Oberman, I. (1995). Evaluation of the San Francisco Foundation School Reform Portfolio. Stanford University.

CONFERENCE PAPERS

Mintrop, H. & Nishio, M. (2001). Individual Performance Motivation in Schools on Probation: Findings from a Study of Eleven Schools on Probation in Maryland and Kentucky. Paper presented at the Annual Conference of the American Educational Research Association Conference, Seattle.

Mintrop, H., Curtis, K., King, B., Plut-Pregelj, L. & M. Quintero (2001). Organizational Responses to Probation. Findings from a

Study of Eleven Schools on Probation in Maryland and Kentucky. Paper presented at the Annual Conference of the American Educational Research Association Conference, Seattle.

Mintrop, H. & Buese, D. (2001). Probation and Instructional Change. Findings from a Study of Seven Schools on Probation in the State of Maryland. Paper presented at the Annual Conference of the American Educational Research Association Conference, Seattle.

Mintrop, H. (2001). The Teaching of Civic Education in Twenty-Eight Countries. Findings from the Second IEA Civic Education Study. Paper presented at the Annual Conference of the Comparative and International Education Society, Washington, DC.

Mintrop, H., MacLellan, A. & Pitre, P. (2000). Systemic Reform and the Bridge between High School and College. An Analysis of Student and Parent Responses in the State of Maryland. Paper presented at the Annual Conference of the Association for the Study of Higher Education (ASHE), Sacramento.

Mintrop, H. (2000). Individual and Organizational Responses to Probation: The Case of School Accountability in the State of Maryland. Paper presented at the Annual Meeting of the American Educational Research Association Conference, New Orleans.

Mintrop, H. (2000). Accountability Systems in Two Countries - Framing A Comparative Analysis of the American and German Approach to Accountability. Presentation at the Annual Meeting of the Comparative and International Education Society Conference, San Antonio, TX.

Mintrop, H., MacLellan, A. & Quintero, M. (1999). The Design of School Improvement in Schools on Probation: A Comparison of Three Accountability System Designs. Paper presented at the Annual Conference of the University Council for Educational Administration, Minneapolis.

Mintrop, H. & MacLellan, A. (1999). The Design of School Improvement in Schools on Probation. A Content Analysis of School Improvement Plans. Paper presented at the Annual Meeting of the American Educational Research Association Conference, Montreal.

Mintrop, H. (1998). Towards an Understanding of School Reconstitution: Hard Cases and Low Stakes. Paper presented at the Annual Research Conference of the Association for Public Policy Analysis and Management, New York.

Mintrop, H. (1998). Teachers and Civic Education Instruction in Cross-National Comparison: Discussing Findings and Instruments from the Second IEA Civic Education Study. Paper presented at the Annual Meeting of the American Educational Research Association Conference, San Diego.

Mintrop, H. (1997). Fostering Communities of Learners in the Amalgamated Discipline of Social Studies. Paper presented at the Annual Meeting of the American Educational Research Association Conference, Chicago.

Mintrop, H. (1997). Fundamental Necessities and Incremental Possibilities in Mentoring for Constructivist Teaching. Paper presented at the Annual Meeting of the American Educational Research Association Conference, Chicago.

Mintrop, H. (1997). The Pitfall of Constructivist Instructional Reform - Reflections on a Design Experiment. Paper Presented at the Annual Meeting of the American Educational Research Association Conference, Chicago.

Mintrop, H. (1997). Retracking on a Grand Scale: Policy and Pedagogy in the Reform of Eastern German Secondary Schools After the Fall of Socialism. Paper presented at the Annual Meeting of the Comparative and International Education Society Conference, Mexico City.

Mintrop, H. (1996). Systemic Reform -- Lessons from a Cross-National Perspective. Paper presented at the Annual Meeting of the American Educational Research Association Conference, New York. Mintrop, H. (1996). The Relationship Between Classroom and Whole-School Change and the Problem of Scaling Up: Core Reform through Design Repertoires. Paper presented at the Annual Meeting of the American Educational Research Association Conference, New York.

Mintrop, H. (1995). Teachers and Changing Authority Relationships in the Transition from Socialism. Paper presented at the Annual Meeting of the Comparative and International Education Society Conference, Boston.

Mintrop, H., Wong, P. & Imaz, C. (1994). Teachers and the Democratization of Schools in Comparative Perspective: East

Germany, Mexico, and Brazil. Paper presented at the Annual Meeting of the American Educational Research Association, New Orleans.

Christensen, G., Mintrop, H. & Yee, G. (1994). The Impact of School Reform on Teaching Practice: Three School Reforms and Change in Teaching Practice: A Cross-Case Study of Restructuring, Accelerated Schools, and Models of Teaching. Paper presented at the Annual Meeting of the American Educational Research Association, New Orleans.

Mintrop, H., Wong, P. & Imaz, C. (1994). Education and Collective Consciousness: in Search for Solidarity. Paper presented at the Annual Meeting of the Comparative and International Education Society, San Diego.

Mintrop, H. & Weiler, H. (1993). Democratization from Above or Below: Teachers and the State in Eastern Germany. Paper presented at the Annual Meeting of the American Educational Research Association, Atlanta.

Fuhrmann, E., Mintrop, H. & Weiler, H. (1993). Assimilation Versus Differentiation: Curriculum Reform in Eastern Germany. Paper presented at the Annual Meeting of the American Educational Research Association, Atlanta.

Weiler, H. & Mintrop, H. (1992). The Scale of Governance and the Micro-politics of Educational Change: Education and Politics in the New Germany. Paper presented at the Annual Meeting of the American Educational Research Association, San Francisco; and at the Annual Meeting of the Comparative and International Education Society, Annapolis, MD.

PRESENTATIONS AND GUEST LECTURES

Schools on Probation. Lecture at the U.S. Department of Education. Office of Educational Research and Improvement, Washington, DC, (May 2001).

Findings from the Study of Schools on Probation in Maryland and Kentucky. Invited presentation at the House of Delegates, Maryland State Legislature. A forum on the Maryland school accountability system organized by Chairman Piet Rawlings and Advocates for Children and Youth, (Feb. 2001).

The Study of School Accountability. Week-long seminar at the University of Capetown, South Africa, (July 2000)

The Challenge of Citizenship in Comparative Perspective. Discussant of a panel at the Annual Meeting of the Comparative and International Education Society Conference, San Antonio, TX, 2000.

Accountability Systems as Moving Targets. Discussant of a panel at the Annual Conference of the University Council for Educational Administration, Minneapolis 1999.

School Effects of State Policies. Discussant at a paper session at the Annual Meeting of the American Educational Research Association Conference, Montreal 1999.

High-Stakes Accountability and Schools on Probation. Invited presentation at the National Education Association Headquarters, Washington, DC, May 1999.

"Die Reform des pädagogischen Kernbereichs von Schule in vergleichender Perspektive." [The Reform of the Technical Core of Schools in Comparative Perspective.]. Invited lecture at Max-Planck-Institut für Bildungswesen, Berlin, Germany, Jan. 1998.

" A School within a School: Team Teaching, Professional Community, and Small Group Instruction in Large West German Comprehensive Schools." National QuEST Conference of the American Federation of Teachers, Washington, D.C., August 1989, and at the Regional QuEST Conference, San Francisco, Oct. 1988

AWARDS

"The Politics and Practice of School Performance Accountability in the United States and Germany: Learning from Common Challenges and Different Paths." Carnegie Corporation Scholar, 2002-2004 (\$ 100,000).

RESEARCH GRANTS

"The Effect of School Reconstitution on Educational Improvement."

Office of Educational Research and Improvement, U.S. Department of Education, co-principal investigator of a three-year grant. A study of high-stakes accountability policies in Maryland, Kentucky, and California,

co-principal investigator with James Cibulka, 1997 to present (\$680,000).

Second IEA Civic Education Study, analysis of qualitative Phase I data and design of teacher questionnaire, 1997 to 2001.

K Through 16 Partnership/ The Bridge Between High School and University. Pew Foundation, Maryland P.I., (Michael Kirst, National P.I), 1999 to present (\$ 61,000).

Stanford-Freie Universität Exchange Scholar 1993-94 (one Stanford student chosen per year, \$ 20,000).

Mellon Foundation grant (awarded by the Center for European Studies at Stanford: \$ 500).

Funded as research assistant, consultant, collaborator, or director:

"Teacher Learning Communities." Office of Educational Research and Improvement, U.S. Department of Education, National Partnership for Excellence and Accountability in Teaching (NPEAT), collaborator in 1997-98.

Fostering Communities of Teachers as Learners, Mellon Foundation, Lee Shulman, P.I., 1995-97.

Evaluation of the San Francisco Foundation School Reform Portfolio. San Francisco Foundation, Milbrey McLaughlin, P.I., 1994-95

Educational Transformation in Germany. Hans Weiler, P.I., supported by Spencer Foundation, Chicago, and August-Thyssen-Stiftung, Germany. 1992 to 95.

REVIEWS

Reviews for:

Educational Evaluation and Policy Analysis

Educational Policy

Comparative Education Review

Historia Paedagogica

National Science Foundation ("Role" Panel 2000, 2001; IERI Panel 2001)

AERA Division L and Division K proposals

Assistant Editor of Comparative Education Review (2001 to date)

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

American Educational Research Association

Comparative and International Education Society

University Council for Educational Administration

EXHIBIT B

WILLIAMS et al. versus STATE OF CALIFORNIA

Response to Defendants' Experts

Heinrich Mintrop

September 9, 2003

After having written an expert report titled "State Oversight and the Improvement of Low-performing Schools in California" in April 2002, I was asked to review expert reports written for the defendants. Some of these experts make reference to my earlier report, but also discuss other experts' reports consulted by plaintiffs. I have looked at reports by Eric Hanushek, Caroline Hoxby, John Kirlin, Margaret Raymond, and Herbert Walberg. I will discuss these reports in a summary fashion as these reports are thematically rather close and seem to be written by a group of researchers that is connected either by way of association with Professor Hanushek or the Hoover Institute, except for the report by Kirlin.

I have followed some of these authors' work over the years and I respect them as researchers even though I disagree with their conclusions and do not believe that they make a credible case regarding this specific lawsuit.

The Limits of Production Functions

One overarching theme is the rejection of plaintiffs' expert reports based on production function research. This is research that, for the last thirty years or so, has tried to tease out causal effects of educational inputs on outputs with ever more sophisticated statistical models. There is an on-going debate about the significance of findings from this research that boils down to methodological issues of secondary data analysis with one side claiming that inputs, such as per pupil expenditure, class size and the like, cannot be ruled out to have effects, and the other side stressing inconsistent effects across studies. (See the exchange between Hanushek and Hedges that is mentioned in many of the plaintiffs' expert reports, including my original report at p. 5.) The upshot of this research, in my view, is a sense that the input-output relationship for schools is rather contingent. This is useful because it tells us that merely "throwing money" at the ills of schooling won't do the job. But beyond telling us what not to do, this line of research, considered by the defendants' expert reports as methodologically superseding all others, has contributed very little in telling us substantively what to do. That is the question we need an answer to in designing good public policy confronting a dire social problem.

It would be nice to have models that show clear and statistically significant effects of various inputs on outputs, but despite its statistical sophistication, this line of research has been unable to deliver. The models are substantively not fine-grained enough to capture the intricacies of input-output relationships in education and have therefore been of little practical policy relevance, beyond the point that a blanket approach to educational inputs to optimize outputs seems not very promising. Public policies need to be sophisticated enough to reflect the contingent nature of educational production. California experienced this phenomenon in its recent class size reduction initiative. While class size reduction has been shown to be beneficial in some cases (Nye, Hedges, Konstantopoulos (1999)), in California, it interacted with space, supply of qualified teachers, and the teacher labor market in such a way that it increased educational inequalities (Bohrnstedt & Stecher, 1999). To reiterate, just because production function models cannot show a stable causal relationship between various inputs and outputs, this does not necessarily mean they do

not exist. It may very well mean that the models are simply not good enough to measure these relationships.

Public policy is not designed according to the status hierarchy of academic journals (a consideration that Hoxby makes so much of in her report). When researchers cannot identify causal agents for a dire social problem with reliability, responsible policy makers do not sit back and do nothing; they use second-best evidence. Second-best evidence in Hoxby's terms would be correlational relationships that show associations, but require qualitative data, human experience, professional judgment, or prior theories to make the case of causality. For the design of public policy, these sources of evidence are legitimate, especially given the failure of methodologically superior models to provide answers. The field of public health provides some good examples. When authorities in various Asian countries were confronted with the outbreak of SARS symptoms, they began large-scale screening of travelers from other countries at airport checkpoints for increased body temperature before the causal agent of SARS was identified, upon realizing that there was a correlation between SARS and fever symptoms. Likewise during the AIDS crisis, needle exchanges were begun before HIV was identified as a causal agent of AIDS upon realizing (or even speculating on) correlations between symptoms and risk group behavior. In education, an example of correlations producing a sweeping policy shift is the Nation at Risk manifesto of 1983 to which some of defendants' experts refer approvingly. This document, seen by many as the birth certificate of the standards movement, reasoned its policy recommendations on the assertion of a correlation between high quality education and high economic wealth. primarily as evidenced by the educational and economic ascendancy of competitor countries in Asia. The current accountability systems, supported by many of defendants' experts, may not have seen the light of day without this public urgency, perceived on the basis of correlations rather than causality (Levin, 1998).

This lawsuit is, in my view, about a matter of public policy of great urgency. It is not an immediate life and death issue like AIDS or SARS, but is of grave consequence for the individual students and social groups affected. Plaintiffs' expert reports and produced evidence point to a plethora of data that show a strong correlation between abject educational conditions in some of California's schools and the high likelihood that these conditions are being endured by children from disadvantaged, poor, and ethnic minority backgrounds — the very groups that struggle the most to keep up with the rest of the state in their educational achievement (see the data reported in plaintiffs' reports, especially by Gandara & Rumberger as well the reports by Oakes, and the reports by Cheng, California Teachers Association, Wasserman et al., cited in my original report, p. 10). "Savage inequalities," as Kozol (1992) describes them vividly, are a daily experience of many students, parents, and teachers who put up with schools that are severely overcrowded, devoid of instructional materials, and shunned by more experienced teachers (for the latter point see data from the state of New York in Hamilton, Loeb & Wyckoff (2002)). These conditions severely impair standards of human and educational decency and limit basic educational opportunities for students affected by them. The crude statistical indicators we have available to describe these conditions (e.g., teaching credential) do not always do justice to the reality on the ground and do not all show up neatly in regression

equations with strong direct effects on test scores. Some conditions, such as overcrowding (see Wasserman et al. (2001)) do appear in these equations, but these conditions are nevertheless measured statistically both in terms of descriptive and correlational data and are widely reported in more qualitative studies (see reports above).

Neglected schools are a reality in this state, but they are not only a public policy problem because of their association with low achievement. These schools violate essential standards of human decency and the provision of basic equal opportunity. While for Raymond, "the case advanced by plaintiffs has almost unassailable appeal" (p.3) (emphasis added), roofs that do not leak, clean bathrooms, a book for each student, and a qualified teacher in every classroom have universal appeal and would garner 100% approval ratings by the public — approval ratings that, in all likelihood, would be much higher than the high approval ratings for testing and accountability cited by Walberg as evidence for the unassailability of the current outcome-based system.

In Raymond's view, the appeal of these essentials is "assailed" because plaintiffs have not "developed a reliable production function for education that highlights the factors at issue in this case" (p. 6). I have already discussed the fruitlessness of that line of research to inform educational policy in general but, for this case, production functions are of even more limited use. It is surprising how all of the reviewed experts can only perceive of education through the lens of one central metaphor, that of a production facility — a factory, if you will, of measurable educational outcomes. Or perhaps it is not surprising, since the majority of the reports I review here come out of a narrow circle of economics-inspired thinkers. The fact that the production metaphor has a strong influence on current debates on educational reform does not make it any less limiting, though I do not doubt its usefulness for some purposes. As Kirlin elegantly points out, public policy is about the balancing of "equity, efficiency, security, and liberty" (p.38), and a balancing of these values is perhaps better accomplished by also applying other lenses that use different metaphors, for example the one of schools as extensions of families, a metaphor that parents concerned about the well-being of their children are apt to apply.

Human experience and extant research would predict that a child growing up successfully needs food and shelter, care or love, and positive stimulation. Decent schools do nothing different: they provide a safe place for children in adequate facilities, care by qualified and motivated teachers, and stimulation with child-appropriate materials. Most of us have known families in which care and stimulation went a long way in raising children even when resources for food and housing were in short supply. It is no different in schools. But we also know that when food and housing is in precarious shortage, care for children tends to become diverted to other ends, and stimulation goes in the wrong direction. Similarly, some experience of care or love is indispensable for children to grow up successfully, and material resources and stimulation cannot compensate for its absence. The same is true for the relationship of stimulation with the other two factors. This is also no different in schools. A production function would ask how much a unit of care, facilities, or stimulation contributes to the child's growing up successfully relative to the other factors, and what mix of factors has the most optimizing effect on the child. Busy parents employ a kind of production function intuitively when they juggle jobs, family

dinners, and soccer practice, and they make trade-offs. But, at some point, parents know that all three — food and shelter, care, and stimulation — have to be there in some minimally sufficient quality and quantity. Otherwise their child will be unhappy, will act up, or be stunted. This is what this lawsuit is all about. It is not about trade-offs of the sort defendants' experts talk about (i.e. how many "units" of material resources can be saved if units of care (i.e. teacher effort) are increased, or which one of the three in what quantity has the optimal effect on a child's upbringing), rather the lawsuit tries to foster the establishment of a baseline of decent school facilities, stimulation by materials, and care by qualified teachers that needs to be there for a child to be reasonably happy, well behaved, and learning.

Defendants' experts conclude from the inconclusiveness of production function research that the internal workings of a school are an unknowable black box for policy makers and the state should take a hands-off approach, steering schools with "incentives," "information," and a "relatively equal level of resources" (Raymond, p.3). Rather than hoping for these indirect measures to remedy indecent schools, this lawsuit aims at a different, more pro-active approach that is mindful of the severity of the problem and urgency for action. In the logic of schools as educating children in extension of the family, it makes recourse to those elements of schooling for which there is broad consensus among California citizens on what it takes to raise children. There is "no quibble" (Raymond, p.11) about decent facilities, qualified teachers, and textbooks as essentials of schooling because people know from their own experience in family and school that it takes decent shelter, care, and stimulation to grow up successfully. It is actually very simple. As production function research fails us, plaintiffs' experts assert that if you try to avoid using the bathroom when you need to go, when you do not have a book, nor a teacher who knows her material, learning is compromised.

Accountability Limited to Outcomes Is Not Sufficient

Several of the reviewed reports state that the current outcome-based accountability system is working in California (for example Kirlin, p.39; Walberg, p.12; Raymond, p.19), and that we should await for that system to run its course and show its mettle. But the evidence these reports provide is not very convincing. Walberg cites the favorable ratings California received from various attempts (Education Week, Finn and Kanstoroom, Walberg, p.13) to rate state systems. These kinds of ratings capture to what degree states have implemented various design features of *outcome-based* systems (e.g., standards, assessments, incentives, sanctions, etc.), with the implication that the more these features are implemented, the better. These ratings are not very helpful here because they say nothing about the effectiveness of the system and remain within the logic of a restrictive outcome-based approach, not unlike a statistic that would show the best "separate, but equal" system, but would not go beyond that frame.

Walberg's evidence (p.15) of positive effects of standards is not convincing. He mentions the recent study by Carnoy and Loeb (2002). This study found an effect of accountability systems on NAEP test score gains. Let alone that there are other studies which dispute

this point (Amrein & Berliner, 2002; Klein et al., 2000), Carnoy's study did not deal specifically with California, and it actually contradicts Walberg's "state of the art" claim. It shows an overall positive effect in NAEP score gains with increasing strength of accountability up to a certain point. For states that have the highest accountability scores, i.e. the ones that are most "high stakes," effects become rather erratic. There is no clear relationship between the number of implemented features or stages and test score gains. Moreover, Walberg commends five states as having solid accountability systems (p. 13) and refers to findings from the Third International Math and Science Study (TIMSS), though a citation is missing. Allusions to TIMSS are to be suggestive of the superiority of outcome-based accountability systems (p.15). Madaus & Clarke (2001) list 14 states in their work that would have been in the same top performance category as the highest performing Asian countries on TIMSS, but none of the states Walberg commends are among them. If anything, these high-performing states tend to be those that have deemphasized the most stringent forms of outcome-based accountability of the Texas or North Carolina version.

Raymond gives no evidence in her report as to why she thinks the current accountability system in California will deliver decent schools in due time. She merely points to her particular theory of management and the state's "statutory authority" in focusing on outcomes alone. The outcome focus is justified, it seems, because it "is consistent with the legislation" (p.20). Kirlin provides more California-specific data on the actual performance of schools. He cites the recent EdSource report (p. 42) that I myself have avidly read for hopeful signs. He states that the lowest-performing schools have had higher point gains than the highest-performing schools. This is a common phenomenon in most testing systems that hardly deserves mention as a badge of quality for a particular system (Linn, 2000). His next point is that about one third of all elementary schools have met the system's growth targets for all three years. He concedes that middle and high schools were less successful. In my own calculations, no middle or high school in the lower 5 performance percentiles was able to meet growth targets for three years. This is hardly a splendid record. A recent evaluation by Just et al. of the system's lowperforming schools program II/USP (http://www.cde.ca.gov/ope/eval/reports/ PSAAyear3.pdf, retrieved on Sep. 3, 2003) shows that schools enrolled in this program improved about the same as similar schools not enrolled in the program. As I have stated elsewhere (Mintrop, 2003), I suspect that these low-performing schools programs may be able to arrest the worst decline, but their effects are not strong enough to close the achievement gap between higher and lower performing schools.

With PSAA and the construction of the API, the state has committed itself to quality and equity goals that it intends to achieve with outcome-based incentives and additional grants for enrolled low-performing schools. In order for achievement gaps to close in the allotted time period, schools will have to accomplish their API growth targets year after year. We already saw that the picture does not look rosy for this prospect as far as all schools are concerned. But what about schools that are in the II/USP program, i.e. schools that are under more stringent incentives, if not pressure, and receive fresh grant money? Phillips, whose report I reviewed solely for her discussion of II/USP, gives the following figures (see appendix in her report): Of the 430 cohort I schools that were

accepted in the program, only 75 managed to meet their API targets that qualified for exit in the original construction of the program. Thus these 75 managed to achieve growth needed to close the achievement gap. As I pointed out in my original report, the state shrank back from its original high equity goals and decided to focus on merely 24 schools for further intervention that showed no growth; 262 schools who had shown at least some growth at some time during their II/USP period were let off the hook. But many of these schools did not post the kind of growth needed to close the achievement gap in a reasonable time frame.

Whether one looks at the low percentages of II/USP schools meeting their growth targets, high failure rates on the California High School Exit Exam, or the recent identification of about half of California schools not meeting federal "adequate yearly progress," the state's problem with low-performing schools and the prospect of solving the problem with the current system are dim. In my original report, I showed that the state approached this problem in a rather haphazard way. Have things changed in the meantime? As far as II/USP schools are concerned, in addition to downgrading growth expectations and terminating an even cursory review of the schools' action plans (discussed in the last report), the CDE has now also terminated its list of approved External Evaluators (www.cde.ca.gov/iiusp/, retrieved on Sep. 14, 2003), giving up on any semblance of quality control in that program and relying fully on local compliance without monitoring. The fate of a fourth cohort of II/USP appears to be uncertain at this point.

The state (CDE) seems to have focused on the next intervention stage, the state's assistance and intervention teams (SAIT). For this stage, the state selects external providers based on a written application, a week-long provider training, and instruments of systematic school program review. I have not done face-to-face research on SAIT, but the documents that I reviewed demonstrate an approach that I already pointed out for the first stage of the II/USP process described in the original expert report. Not unlike this earlier instance, the SAIT process has a strong focus on curriculum and instruction (limited to Mathematics and English) and, in my reading, tends to ignore other conditions that may impinge on school quality (www.cde.ca.gov/iiusp/rfa.html). This is surprising given the experience the CDE could have gained from its intervention in the initial Program Improvement Schools of 2001.

In reading through the Scholastic Audit Team Reports from the fall of 2001 conducted in these first-generation intervention schools under the auspices of CDE, the state could have learned that there was a lot more remiss in these intervention schools than problems with curriculum and instruction. For example, year-round operations and overcrowding are key barriers for performance at Roosevelt High School and Fremont High School; "inadequate instructional resources" are a key barrier at Horace Mann Middle School; the paucity of credentialed and experienced teachers is problematic at Gompers Middle School; at Sun Valley Middle School the campus is "unsanitary, unsafe, and hazardous;" at Woodrow Wilson High School there is "limited and unequal access to materials, textbooks, and technology" and "facilities are not properly maintained;" and Locke High School "lacks formal systems in essential areas for a functioning high school." All quotes are from the CDE Scholastic Audit Team Reports. These evaluations were conducted

with a template that did not even explicitly focus evaluators on school learning conditions outside of management, curriculum and instruction, and school culture. There are good reasons for SAIT's to focus on Math and English instruction. Interventions proximal to the classroom have shown to be effective to raise test scores, but it is unrealistic to expect these schools to improve substantially and stabilize these improvements unless the overall precariousness of whole school operations is addressed. Nor will schools become decent places if improvement strategies are limited to Math and Reading. The net must be cast wider than curriculum and instruction and beyond those factors that are directly under the control of schools. At minimum, the SAIT process needs to focus as well on basic learning conditions.

I am not aware of SAIT-like interventions by CDE that would focus, for example, on the 24 worst performing districts whose dire conditions I documented in the original expert report. SAIT, like II/USP, seems to be destined to ignore the importance of the most basic stability in school operations and the contribution of state and district policies that have either produced or not prevented the abject conditions under which some of these schools must function. We need to keep in mind that the number of schools where the state has even attempted to intervene more forcefully is very small considering the large number of schools in the state that are eligible for the low performance designation (see my original report). In light of the staggering numbers of schools and students (mentioned above) that do not seem to meet the state's performance expectations, the intervention steps taken by the state seem rather inadequate. In my view and experience as a researcher and educator who has worked in big city schools since 1977, it is naïve to believe that incentives, information, and the regular school budget, the three elements cited by Raymond, could do the job of creating decent schools out of the poor conditions in which so many of the California schools find themselves.

I do not doubt that outcome-based accountability will have some effect on schools, but a more forceful strategy that complements outcome-based accountability is urgently called for because the state accountability system is not a mere goal setting undertaking, such as the federal Goals 2000 panel that promised to have made America first in the world in Math and Science by now. The state has committed to goals that are attached to serious consequences for people. Students and teachers are classified with labels of underperformance; for some graduation becomes doubtful, for others the job next year. Employees of private companies can leave their work place when management places unreasonable demands on them without providing the resources to fulfill them. But the great majority of teachers and students are subjected to a state monopoly that is inescapable for them. It is a simple act of fairness on the part of the democratic state to see to it that minimal opportunities for success are guaranteed before judgments are meted out. Plaintiffs' suggested remedies are one way of doing that. The state's Six-Year Plan for Development, approvingly cited by Raymond (p.21) as an important document that supposedly lays out the state's further steps, is so utterly silent on the issue at hand, i.e. policies to create decent schools that are stable in their core, that I wonder why Raymond cited the report as relevant in this context.

The Glasshouse of Centralization

A recurring theme in most of the reports is that the remedies proposed by plaintiffs' expert reports — most notably standards for basic learning conditions, the collection of information on conditions in schools and districts, the implementation and monitoring of remedies when shortcomings are detected, and consequences for actors who fail to take action — constitute acts of harmful centralization. All of these steps are, of course, standard elements of good management and would by themselves find justification in the management literature on which defendants' seem to rely, but as these steps deal with schooling inputs they appear to become odious to defendants' experts. Raymond states that "plaintiffs' argument is founded on a view of centralized control that runs deeply counter to the current organization of education in the United States" (p.5). Walberg says that plaintiffs want "close governmental regulation that is antithetical to our American heritage" (p. 26), the disenfranchising of parents and local boards is feared; and the stunting of innovative management on the part of schools and districts is predicted.

Centralization is indeed something that has happened in public schooling for quite some time, in California as well as across the United States. Local school boards have been consolidated, public financing of education has been concentrated in state hand, and state policy and state and federal categorical programs have reached deeply into regulating what schools can lawfully do. Of all recent policy initiatives, accountability systems have probably had the most far-reaching centralization effect because they now concentrate in state hand control over the substance of education, i.e. the content that counts as certifiable knowledge and performance. And the federal No Child Left Behind (NCLB) Act has made that sort of centralization a mandatory feature across the United States. While in schools attended by higher-performing children of the middle class, test-driven curriculum and instruction may be a mere part-time concern (for example in the Texas system, praised by defendants' experts, middle-class Anglo schools tend to top out of the testing system), in schools attended by students from poor and minority backgrounds that are now categorized as "underperforming," test-driven curriculum becomes a full-time occupation. As the pressures of raising test scores ripple through the system, local districts faced with underperforming schools and limited capacities have begun to standardize minutely what teachers and principals are to do. According to my own research, scripted curricula, detailed pacing plans, and close monitoring are increasingly becoming a reality in urban classrooms. Consultants, specialists, and evaluators are becoming a stronger presence. Here is not the place to discuss the merits of this kind of standardization.

What should be mentioned, however, is that proponents of high-stakes outcome-based accountability systems, such as the experts reviewed here, should be careful about what stones to throw. High stakes accountability systems are not *centralization light* as some of the reviewed reports seem to imply, rather such systems powerfully redistribute control from lower levels to higher levels of the educational system. The present federal NCLB accountability regime, that has now topped the standards movement, would have been unthinkable just thirty years ago and would have been considered "antithetical to our American heritage." Being that the act has brought an unprecedented role of the

federal government in education, it runs deeply counter to organizational principles that guided education from Horace Mann onward. But organizational principles were adapted and the American heritage once again showed its malleability in the face of a national urgency, for better or worse. By comparison, plaintiffs' experts speak of a much more modest approach: a check-up on safe and clean buildings, distribution of textbooks and availability of credentialed teachers seems hardly the billy club of centralization that the reviewed reports make them out to be.

I have been criticized by Walberg and others for advocating a central inspection agency akin to the English inspectorate "which is not a part of the American heritage" (Walberg, p.32). This is what I wrote:

Ultimately, an agency is needed that develops, systematizes, and oversees external evaluations, interventions, and support for schools and districts. Such an agency would identify absence or presence of essential inputs with objective indicators. Given limited resources, this agency ought to concentrate its efforts on schools and districts with serious performance deficiencies (emphasis added)....[The agency] would also be involved in the improvement of education. In this capacity, it would shun the bureaucratic approaches (such as compliance reviews) that often characterize state and district interaction with schools. Rather it would attract a cadre of first-rate educators that can inspire other educators to search for pedagogically sensible solutions. Thus, such an agency should mediate between principles of public administration (e.g., standardization, formalization) and education (e.g., personalization)....The work of evaluation would focus on discovery of "improvement potential" rather than judgment as in the case of the English inspectorate. (p. 24)

What I was proposing, as the quoted passage makes clear, is not a duplication of the English inspectorate system. I looked at this system for some ideas of what to do about failing schools. Rather, I proposed an agency that systematizes and makes more effective the various ways of intervention and support, some of which already exist in California in inchoate form (for example various CDE departments, FCMAT, CCR, SAIT, External Evaluators). Just as the California Coastal Commission in the early to mid-seventies was chartered by the voters and the legislature to protect the precious coastal zone, such an agency would protect California children who must learn under inadequate conditions. It would become active in low-performing schools and districts or wherever unhealthful conditions occur. It would look at these schools and districts in a comprehensive way by understanding their troubles in the interplay of learning conditions and educator effort, and it would have the standing to make policy-relevant suggestions in "state of the schools" reports. It would facilitate parent and community advocacy for good schools. It is my understanding that such an agency could indeed find room as "part of the American heritage."

I agree with defendants' experts on the principle of subsidiarity that leaves all those functions to the discretion of citizens or lower levels of the system that can adequately be fulfilled by them. Hoxby points out that the majority of schools are adequately managed,

and I agree that, for them, oversight can be minimal. But when school operations fall outside the bounds of "propriety and humaneness," even Walberg (p.16) suggests that a closer look is in order. I fail to see how the implementation and monitoring of schools' adherence to basic standards regarding facilities, textbooks, and teacher quality could be such a tremendous burden. Building inspections are not a novelty in education, and the current form of compliance reviews for the plethora of categorical programs requires schools and districts to demonstrate the presence of the minutest program features. An emphasis on the essentials of school operations (such as a textbook and a qualified teacher in each classroom) that goes to the core of a school's quality could go a long way to relieve schools presently bogged down documenting peripheral program implementation. If attention to adequate facilities, instructional materials, and teacher qualifications is such a burden for schools, why is it that administrators, teachers, evaluators, etc. in low-performing schools consistently mention them as pressing problems and areas that are important to be looked at (see the analysis of II/USP Action Plans in the original reports; see also the above mentioned Scholastic Audit Reports).

The Feasibility and Benefit of Input Standards

Defendant experts complain that plaintiffs' concept of input standards is ill-defined. Raymond (p. 11) writes: "There is no quibble that the three proposed solutions — sufficient textbooks, quality teachers and adequate facilitators — play a role in the production of good education. But the definitions of what is 'sufficient', 'quality' and 'adequate' are elusive and highly subjective." Raymond doubts that consensus could ever be achieved on these standards (p.7). I agree and disagree.

In previous decades, defining input standards would have been difficult indeed since there was no consensus on expected outputs of the system. And without consensus on what to accomplish one cannot gauge what it takes to get there. Now that the state has committed itself to particular educational performance outcomes and has defined what it considers adequate or proficient, it is not so difficult to establish a baseline of inputs, that helped average or high performers across the state to reach these goals. This should certainly be possible for the most basic kind of schooling, facilities, textbooks, and qualified teachers. What is required, however, is determination from the state to get there and to come up with authoritative input baseline standards that match the authoritatively set outcome standards. To ensure that all California schools, in fact, operate under decent conditions and all students have a chance to succeed in the current accountability system, these input standards are essential, just as output standards are essential to set goals toward which educators and students should strive.

As somebody who has been interested in educational policy across various countries for the last 25 years, I am struck by defendant experts' counter-arguments against input standards: they are said to be a central dictate, do not take varied local conditions into account, and cannot be consensual. Every single one of these arguments was leveled against outcome-based accountability, the vehicle favored by defendants' experts. Yet the state leaped forward, set authoritative goals and even decided to test students with one-

size-fits-all tests regardless of the language students normally converse in. The system was phased in with the Stanford 9, a norm-referenced off-the-shelf test, for which not even the most ardent supporters of outcome-based accountability claimed that it covered all the essential academic goals teachers should pay attention to. But it appeared to have been an expedient way to launch a new approach to school improvement despite the test's severe limitations as a good indicator of academic learning.

I will refrain from discussing this further since this lawsuit is not about the merits of outcome-based accountability per se, rather about some steps the state ought to take to ensure baseline or minimum conditions in schools now subjected to high-stakes outcomes. But, it should be noted that, at the beginning of the so-called standards movement when accountability systems were first pioneered in states such as Texas, Kentucky, or Maryland — long before they became the reigning orthodoxy, practically no research had been done on them. At that time, conjectures of effectiveness relied on the potential applicability of business models to education and the urgency of the problem propelled actors forward. And, last but not least, equity lawsuits in states had been filed and won that opened opportunities for more sweeping systemic reform. I see this lawsuit in this tradition, as a quest to make accountability systems evolve in a way that balances the values of equity and efficiency better than has heretofore been accomplished. It may very well be California, the largest and most diverse state in the nation, that may lead the way in this endeavor, just as Texas led the way in the outcomebased approach. Defendants' experts suspect right (see above all Kirlin) that neither one of these states can rely on a model. They can learn (not cherry-pick) from design features that have been tried in other states or countries, but the system as a whole must be theirs. and the leadership must be innovative, rather than emulative.

One must see the remedies advanced by plaintiffs in this evolutionary frame. Facilities, textbooks, and qualified teachers do not encompass all there is to educational quality and decency. It is patently obvious that a school that is housed in a good building, has a textbook for every student, and 100 percent credentialed teachers is not necessarily a decent place if teachers are without empathy, for example. Many factors make up the quality of schools and the quality of learning conditions. Some are more easily accessible to public policy (such as credentialing, buildings, materials); others are much harder to reach, such as teachers' empathy. One should see the three areas privileged by this lawsuit as some basic conditions that are highly consensual, common-sensical, and cover a lot of territory in ensuring the decency of a place of learning. As the state commits to the formulation of a broader basket of input adequacy standards, and as structures are built up that combine more effectively the concern for adequate inputs with the concern for satisfactory output (see my original report), these three areas will be embedded into a larger picture, and more contingent solutions can be crafted for individual schools and districts. But, in the initial evolutionary step when input adequacy standards are phased in alongside already established output standards, a certain simplification takes place.

If one reads accounts of educational historians, American schools traditionally have had goals that transcend academic learning. Democratic citizenship, love of learning, and personal self-expression and well-being are the more important ones among them. Yet

the designers of accountability systems boldly prioritized and simplified educational production with a test-driven regime that supersedes all other concerns. Many educators, among them some of plaintiffs' experts, deplore this approach deeply; and educators' critical sentiments towards standards and accountability, disapprovingly reported by Walberg (p.19), may have their explanation in these constrictions. Others, for example the Education Trust in Washington DC, see these systems, despite their inherent constrictions, as strategic opportunities to advance an equity agenda. Even strong proponents of accountability may embrace a broader set of educational goals, but find a narrower set of measurable goals necessary to jump-start the system's improvement. The initial Stanford 9 was not the most preferred indicator of academic learning when the state phased in outcome-based accountability, nor is a teaching credential an ideal indicator of teacher quality in my view, but it is the only one we have and the state provides. To speak with Walberg, the teaching credential has shown some beneficial effect in studies, it is cheap, and it is expedient for the purpose of phasing in a system of input standards and their monitoring.

Ways of Impeaching Expert Opinion

In reading the reports I reviewed I am struck by the subtle and overt ways with which defendants' experts try to impeach plaintiffs' expert testimony. The two most common devices are claims that the research plaintiffs rely on is "below-acceptable" (most strongly Hoxby, p.3) or that their proposals are out of touch with American sentiment or American heritage (most strongly Walberg). These claims are not justified by the authors' own reports and ultimately, in my view, betray a rather ideological bent.

I have already discussed above that production function models, the ones that seem to garner Hoxby's high quality rating, are unfortunately rather inconsistent and of little help in making public policy decisions. I also suggested that policy makers are compelled to use various sources of evidence to help them make decisions. But after all of Hoxby's strident rejection of those sources as inferior, when she criticizes plaintiffs' expert reports, I am struck by the sources on which she bases her own analysis. It could very well be, as it is the case for all of us experts, that considerations of space or audience made us curtail the presentation of some of our analyses. But I must wonder how Hoxby draws causal inferences from the data she presented on centralization of inputs and test scores. As I understand her charts on pages 18 and 19 of her report, she shows a bivariate relationship between a state's centralization index and NAEP scores. Not surprisingly, given traditions across the U.S., most of the states with a centralization index above 50 or so are Southern or Southwestern. These states do not look particularly promising on test scores or test score gains. She concludes that centralization of educational inputs is not helpful for achievement. However, nowhere could I find a discussion of other variables that could explain this relationship such as prior student achievement (not as important in the analysis of gains), the context of education in these states, their particular legacy and so on. Notwithstanding Hoxby's own admission that her evidence does not showcase the kind of acceptable research needed for causal relationships, she nevertheless devotes a good portion of her report on such belowacceptable evidence. She draws some strong conclusions about the detriment of state input centralization on outcomes from this evidence: "States with historically high levels of centralization have had worse student achievement" (p. 14), as though centralization could be the only explanatory factor for this phenomenon. Such a conclusion would have to be considered an unsupported, below acceptable claim according to her own logic. Though I found her research interesting, I consider it rather irrelevant for the substance of this lawsuit.

Secondly, she provides an analysis of "school management effects" and again she produces a chart. She defines the school management effect as a measure of "how much better or worse a school's students do than very similar students in schools with very similar resources in neighborhoods with very similar characteristics" (p.6). In school effectiveness research (see for example Scheerens and Bosker, 1997), this is usually the definition of school effects. If Hoxby failed to conduct further analyses that parse out school management effects from these general school effects by using variables related to schools, classrooms, teaching methods, conditions of buildings, school culture, management and so on, she conflated school effects with school management effects, attributing all school effects to management (controlled for the background factors she lists). I bet that if she submitted these analyses to the first-rate journals she mentioned, reviewers would send her piece back as "revise and resubmit." Again I find her data interesting even with these questions in mind, but neither surprising, nor particularly pertinent for this case, since, in my view at least, this case is about the very schools that in her graph would be found out of bounds (i.e. in the tails of her distribution).

Walberg's strategy of impeaching plaintiffs' experts baffled me. Before even discussing the "flaws" in the Mintrop and Russell reports, ideological camps are created. In Walberg's world, there are the opinions and sentiments of office holders, leaders, and the public. All of these strongly favor standards, challenging work, testing and accountability. They belong to the camp of realists and "instructivists" who believe in practice as an essential of learning. Then there are the educationists, among them plaintiffs' experts, one must assume, who are wholly out of touch with the sentiments of the nation. According to Walberg, they dismiss knowledge, hang on to romantic notions of learning and are called the "constructivists." As evidence for my membership in the camp of constructivists, Walberg cites an article I wrote about the conditions for constructivist teaching in teacher education programs whose title he found in my CV. Apparently if one writes about it, one must be a disciple. For the record, I learned my multiplication tables when I was seven and English when I was twenty-seven. I did it with practice, and I valued the experience. I am an instructivist who believes that students also need to construct their knowledge. I support high standards and accountability, but believe for reasons of fairness and productivity that outcome-based measures and incentives need to be more broadly constructed and complemented by input standards that can at least ensure basic equity. I believe that the urgency of the situation, which I experience frequently through direct contact with urban schools, does not allow us to be purists and ideologues. But apparently, I must be located in a camp.

Another strategy of impeachment is the frequent mention in the reviewed reports that my analysis and conclusions, and consequently the thrust of plaintiffs' case, are not American, that I misunderstand the U.S. system and American heritage. An example: Walberg charges that, in advocating reciprocal accountability, an idea that I quote from Richard Elmore of Harvard University, I "misunderstand the structure of the U.S. school system" (Walberg, p. 32). I quote Walberg: "In the U.S....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 part of the American heritage" (Walberg, p. 32).

This is what I wrote in the original report, perhaps not as elegantly as I would have wished:

Accountability in a democratic state flows from top to bottom, but also in reverse. Accountability systems are two-way lines of communication. Communication of performance expectations and oversight over adequate performance and learning conditions flow from top to bottom. From bottom to top, *information* flows to craft effective policies that address systemic shortcomings on the local or state level. [An inspection agency would be able to] summarize policy-relevant findings from the many school and local inspections.

...Accountability also means that the top (the state) is held accountable by communities and citizens for the adequate and equitable provision of education. Data collected through school inspections and compiled in authoritative reports facilitate the information of concerned citizens who can utilize state complaint procedures with more facility. (Mintrop, p. 8, emphasis added.)

Having experienced this country for over 20 years, it had been my impression that these normative statements about accountability in the democratic state are well within the bounds of what is possible in this country.

In most of the reports I reviewed (for example Kirlin, p.37; Raymond, pp. 5, 18; Walberg, p. 26), defendants' experts diagnose plaintiffs' reports with a democracy deficit. They charge the suit was filed to push through policies that would not be successful at the ballot box. Plaintiffs are said to want to circumvent established democratic channels to have their capricious will. Citizens, it seems, have their say by way of elections, and once officials are elected they hold sway and determine the direction the state government is taking. This is a truly narrow concept of democracy, one that is conveniently advanced by those who believe they have the ear of the powerful. In my conception of American democracy, independent courts allow for individuals or groups to claim their constitutional rights, and it is a civic virtue to use these channels when basic rights of humaneness are violated and preempted by the sentiments of a majority. Moreover, in my view of American democracy, the democratic state *voluntarily* develops new participant structures when established political channels cannot articulate strongly voiced concerns or when established administrative channels cannot render adequate services (*see e.g.*, Schmitter (1999)). Neighborhood advisory committees or

Title I parent representatives would be examples, as are FCMAT, the Coastal Commission, or a conceivable child protective agency. In fact, from a European perspective, American democratic structure has always been marvelously adaptive to the voices of concerned citizens or the discovery of state malfunctioning.

All this is excluded from defendants' expert reports. Instead we hear this: "Our electoral process is designed to provide the ultimate form of accountability – job loss for poor performers" (Raymond, p. 20). It is true that the experts whose reports I reviewed, are for the most part not political scientists by training, and neither am I (at least not beyond a masters). But does Raymond really believe in her small-shopkeeper model of democracy in which dissatisfied clients buy their beef elsewhere the next time? What governor or president has ever lost his job over tolerating urban slums and their schools, slums that can only be considered, what Richard Rorty (1998) calls, "unnecessary immiseration" by international standards of developed capitalist economies. While this country has had leaders who lost their lives for doing the right thing, representing the interests of the disenfranchised — and it is those groups that tend to send their children to indecent schools — has been a truly tortured road that has all too rarely succeeded by majority assent, but from time to time has had its day in court.

References

Amrein, A., & Berliner, D. (2002). High stakes testing, uncertainty, and student learning. *Education Policy Analysis Archives*, 10(18).http://epaa.asu.edu/epaa/v10n18/

Carnoy, M., and S. Loeb, (2002). "Does external accountability affect student outcomes? A cross-state analysis." *Educational Evaluation and Policy Analysis* 24, no. 4 (Winter) pp. 305-331.

Bohrnstedt, G. & Stecher, B., Eds. (1999). Class size reduction in California: Early evaluation findings, 1996-98. Palo Alto, CA: CSR Research Consortium.

Hamilton, L., Loeb, S. & Wyckhoff, J. (2002). Teacher sorting and the plight of urban schools: A descriptive analysis. *Educational Evaluation and Policy Analysis*. 24 (1), 37-62.

Klein, S., Hamilton, H., McGaffrey, D, Stecher, B. (2000). *Issue Paper: What Do Test Scores in Texas Tell Us.* Santa Monica, CA: Rand.

Kozol, J. (1992). Savage inequalities: children in America's schools. New York: Harper Perennial.

Levin, H. (1998). Educational performance standards and the economy. *Educational Researcher*, 27 (4), 4-10.

Linn, R. (2000). Assessment and accountability. Educational Researcher, 29(2), 4-16.

Madaus, G. & Clarke, M. (2001). "The adverse impact of high-stakes testing on minority students: Evidence from one hundred years of test data." Ornfield, G. & M.L. Kornhaber (Eds.), Raising standards or raising barriers? Inequality and high-stakes testing in public education. New York, NY: Century Foundation.

[http://ericir.sunsite.syr.edu/plweb-cgi/fastweb?getdoc+ericdb-adv+ericdb+1051939+0+wAAA+%28madaus%29%26%3AAuthor%26AND%26%28TI MSS%29]

Mintrop, H. (2003). The limits of sanctions in low-performing schools. *Educational Policy Analysis Archives*, 11 (3) [http://epaa.asu.edu/epaa/v11n3.html]

Nye, Barbara A., Hedges, L. & Konstantopoulos, S. (1999). "The long-term effects of small classes: A five-year follow-up of the Tennessee class size experiment." *Educational Evaluation and Policy Analysis* 21(2), 127-42.

Rorty, R. (1998). Achieving our country. Cambridge, Mass. : Harvard University Press.

Scheerens, J. & Bosker, R. (1997). The foundations of educational effectiveness. Oxford, U.K.: Pergamon.

Schmitter, P. (1999). "The Limits of Horizontal Accountability." Schedler, A., L. Diamond and M. Plattner (Eds.), *The Self-Restraining State: Power and Accountability in New Democracies*, Boulder: Lynne Reinner.

Wasserman, R., Papazian, R., & Connor, K. (2001). Determinants of academic performance at California's public elementary, middle and high schools (Or why do some schools expected to do poorly actually do quite well?) (Draft). Sacramento: California Senate Office of Research.