

Testimony of Eric A. Hanushek in Lobato et al. vs. State of Colorado

The expert testimony of Eric A. Hanushek will cover his opinion on several aspects of the case. His opinions are based on his own research and that of others who have contributed to the scholarly development of the area. He has worked in the area for over forty years and has written extensively on school finance and school policy more broadly. His testimony (along with key publications) will cover, but not be limited to, the following areas.

He will testify that promoting and maintaining high levels of achievement are very important for Colorado and for the nation ("How much do educational outcomes matter in OECD countries?"). At the same time, many popular policies have not proved to be effective in leading to high achievement.

He will testify that there is no consistent relationship between school resources and student achievement. There are several aspects to this conclusion, each based on strong research evidence. First, from the national trends it is clear that spending has risen dramatically in the U.S. over the past half century. At the same time student performance, as measured by the National Assessment of Educational Progress, has remained essentially constant. Charts from published U.S. data of the U.S. Department of Education will show this. Second, research into the determinants of achievement shows that there is no consistent relationship between student achievement and pupil-teacher ratios, teacher experience, and teacher advanced education. This research will be summarized by tables and charts and is based on the analysis in his book (*Schoolhouses, Courthouses, and Statehouses*, chapters 2 and 3) and in his article, "The Failure of Input-based Schooling Policies." Third, the evidence on class size reduction, including that in Project STAR, provides little reason to expect significant achievement gains from lowering class sizes. There have been dramatic reductions in pupil-teacher ratios nationally without commensurate achievement gains; the statistical evidence does not indicate potential achievement gains ("The Failure of Input-based Schooling Policies."); and the results of the STAR experiment show at best very small and isolated impacts ("Some findings from an independent investigation of the Tennessee STAR experiment and from other investigations of class size effects."). These conclusions are based on his research and his evaluation of other analyses and will be summarized in a series of charts.

He will testify that "costing-out" studies are inherently unscientific and unreliable and that they cannot provide a guide to the spending required to meet state standards. Each of the four common approaches to costing-out studies (professional judgment, successful schools, evidence-based, and statistical) suffers from fatal flaws that make them inappropriate for use in determining spending levels. These conclusions are based on his extensive research and evaluation into costing-out studies, described in detail in his several publications regarding them (*Schoolhouses, Courthouses, and Statehouses*, chapter 7; "Pseudo-science and a sound basic education: Voodoo statistics in New York"; "The Alchemy of 'Costing Out' an Adequate Education"; *Courting Failure*, chapters 3-8; and, "Science Violated: Spending Projections and the 'Costing Out' of an Adequate Education").

He will testify that teacher quality is very important ("Teachers, schools, and academic achievement"; "Generalizations about using value-added measures of teacher quality"). More effective teachers have a large economic impact ("The Economic Value of Higher Teacher Quality"). However, because salaries and measurable characteristics of teacher (such as teacher experience and teacher education) are unrelated to effectiveness in the classroom, the decisions on teachers to hire and to retain must be made at the local district level where the impact on student achievement can be observed. Additionally, local districts have the authority to negotiate teacher contracts and to set hiring and placement rules. As part of this testimony, he will also discuss the economic value of higher quality schooling. This testimony will include charts and tables that summarize his research on the economic value of effective teachers and of higher achievement.

He will testify that historical experience with court ordered funding increases had not yielded beneficial results for achievement. The courts in Wyoming, Kentucky, and New Jersey have ordered aggressive increases in spending. When the results in terms of student achievement are considered, one finds that these remedies have been very ineffective. The analysis of these situations can be found in *Schoolhouses, Courthouses, and Statehouses*, Chapter 6. The analysis will be updated from that book and direct comparisons to Colorado school performance will be provided. These analyses will be summarized in a series of presentational charts.

He will provide direct analysis of the effect of funding and other factors on achievement across Colorado districts. This testimony will use Colorado performance data and will show that the results in Colorado mirror those in the rest of the nation. The pattern of achievement across Colorado districts, similar to that in the nation, bears little relationship to spending differences. This analysis will be summarized in a series of presentational charts.

He will testify that reforms in Colorado that promote innovation, choice, and the use of data show considerable promise. These programs, however, have yet to be fully implemented, and they must be evaluated further. These reforms are consistent with the outlines of an improved finance and policy system contained in his book *Schoolhouses, Courthouses, and Statehouses*, chapters 8 and 9. They are made stronger by having local district decision making that is student achievement oriented and that is supported by state accountability. He will testify that it is very important to have a robust data system and to use information about student achievement growth in making decisions. He will testify that encouraging school choice with charter schools and other programs is an important element of reforming the school system.

He will provide rebuttal testimony related to the testimony of plaintiff witnesses that falls within his areas of expertise. The scope of this testimony will depend upon the expert depositions and trial testimony as they are available.

Testimony references:

- Hanushek, Eric A. 1999. "Some findings from an independent investigation of the Tennessee STAR experiment and from other investigations of class size effects." *Educational Evaluation and Policy Analysis* 21, no. 2 (Summer): 143-163.
- Hanushek, Eric A. 2003. "The failure of input-based schooling policies." *Economic Journal* 113, no. 485 (February): F64-F98.
- Hanushek, Eric A. 2005. "Pseudo-science and a sound basic education: Voodoo statistics in New York." *Education Next* 5, no. 4 (Fall): 67-73.
- Hanushek, Eric A. 2006a. "Science Violated: Spending Projections and the "Costing Out" of an Adequate Education." In *Courting Failure: How School Finance Lawsuits Exploit Judges' Good Intentions and Harm Our Children*, edited by Eric A. Hanushek. Stanford: Education Next Books: 257-311.
- Hanushek, Eric A. 2007. "The alchemy of 'costing out' an adequate education." In *School Money Trials: The Legal Pursuit of Educational Adequacy*, edited by Martin R. West and Paul E. Peterson. Washington: Brookings: 77-101.
- Hanushek, Eric A. 2011. "The Economic Value of Higher Teacher Quality." *Economics of Education Review* 30, no. 3 (June): 466-479.
- Hanushek, Eric A., ed. 2006b. *Courting Failure: How School Finance Lawsuits Exploit Judges' Good Intentions and Harm Our Children*. Stanford: Education Next Books.
- Hanushek, Eric A., and Alfred A. Lindseth. 2009. *Schoolhouses, courthouses, and statehouses: Solving the funding-achievement puzzle in America's public schools*. Princeton, NJ: Princeton University Press.
- Hanushek, Eric A., and Steven G. Rivkin. 2010. "Generalizations about using value-added measures of teacher quality." *American Economic Review* 100, no. 2 (May): 267-271.
- Hanushek, Eric A., and Ludger Woessmann. 2011. "How much do educational outcomes matter in OECD countries?" *Economic Policy*.
- Rivkin, Steven G., Eric A. Hanushek, and John F. Kain. 2005. "Teachers, schools, and academic achievement." *Econometrica* 73, no. 2 (March): 417-458.