In re Delaware Public Schools Litigation

C.A. No. 2018-0029-VCL
State Track

Rebuttal to Expert Report of Dr. Matthew Springer

Dr. Jesse Rothstein

May 2020

Dr. Matthew Springer submitted an expert report in the above referenced case, dated March 13, 2020. This rebuttal addresses a portion of Dr. Springer's report, pages 37-41, in which he calculates what he refers to as "equity statistics" (41) for Delaware and for other states. He concludes "that Delaware is generally in the middle of the national distribution and that school funding equalization is more favorable than the national average."[1] He relies for this on measures of equity that were commonly used in school finance analyses decades ago, but are not relevant to the current case.

The specific measures that Springer uses are the Federal Range Ratio (37-38), the Gini Coefficient (38-39), the coefficient of variation (39-40), and the McLoone Index (40-41). These are all different ways of measuring how much a given measure, in this case per-pupil expenditures, varies across units, in this case school districts. These are inappropriate here for several reasons.

First, Delaware has many fewer school districts than do other states. These measures are most useful when there are many units, at least several dozen and more commonly hundreds, thousands, or millions. For example, the Gini Coefficient is often used to measure how unequal incomes are across families or individuals in the nation, a calculation for which there are many millions of units. None of these measures is very useful for assessing variation among the small number of school districts in Delaware. This is particularly so because enrollment varies widely across Delaware districts, with the largest district having more than ten times as many students as the smallest. Springer's measures treat all districts equally, so they will show just as much of a contribution to inequity when a small district's expenditures deviate from the others as when a large district's do.

Second, these measures do not consider equity across schools, but only equity across districts. They are entirely insensitive to differences in resources among schools within the same district.

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[1] I do not repeat my qualifications, which are listed in my initial expert report for this case.

Third, these measures pertain to a limited conception of equity that is not relevant for current policy. Dr. Springer discusses “two distinct concepts” of equity, “horizontal equity and vertical equity” (6). “Horizontal equity refers to the equal treatment of equals, or simple fairness. Vertical equity posits that differently situated students should be treated differently. Students with special needs, by way of example, should receive additional resources given their respective and relative needs. Horizontal equity is obviously the simpler approach, in that everyone should receive the same treatment. Vertical equity acknowledges that individuals in different situations should be treated differently. To obtain equitable results, higher need students may require more resources” (6). The measures in question solely measure horizontal equity. They do not distinguish whether any unevenness in spending across units favors the students with greater needs, which would tend to reduce vertical inequity, or those with fewer needs, which would magnify vertical inequity.

Over the history of school finance policy in the United States, the emphasis has shifted.[2] In the 1970s and 1980s, there were many legal challenges to state school finance systems and many reforms focused on what Springer calls horizontal equity. Expert analyses in these cases often relied on measures like the ones in question. However, beginning around 1990, policy and jurisprudence have shifted from a focus on horizontal equity to one on vertical equity.[3] Measures of horizontal equity are not useful if one is interested in vertical equity. Indeed, many reforms “have aimed at *higher* spending in low-income than in high-income districts,”[4] an arrangement that is horizontally inequitable, so would score poorly on Dr. Springer’s measures, but vertically equitable.

Dr. Springer’s measures are not useful for assessing the issues at stake in modern school finance policy. Even if they could be used to construct reliable measures in a state with as few school districts as Delaware, they simply do not speak to the question of whether schools serving disadvantaged students receive adequate funding.

Signed on May 26, 2020

Jesse Rothstein

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[2] Koski, William S., and Jesse Hahnel (2015), “The past, present, and possible futures of educational finance reform litigation,” in *Handbook of Research in Education Finance and Policy* (Helen F. Ladd and Margaret E. Goertz, eds.), New York: Routledge. See also the discussion in Julien Lafortune, Jesse Rothstein, and Diane Whitmore Schanzenbach (2018), “School finance reform and the distribution of student achievement,” *American Economic Journal: Applied Economics* 10(2), April.

[3] Most authors date the change to the *Rose v. Council for Better Education* (790 SW 2d 186) decision in Kentucky in 1989.

[4] Lafortune, Rothstein, and Schanzenbach (2018), p. 5 (emphasis in original).