Improving Educational Productivity and School Finance

ALLAN ODDEN WILLIAM CLUNE

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The education productivity problem historically has been rising resources with flat or only slowly rising student achievement. In the period 1960–1990, inflation-adjusted revenues per pupil rose by slightly more than 200% (National Center for Education Statistics, 1994). However, despite a number of positive performance indicators, student achievement in core subject areas during the same period rose only modestly (Mullis et al., 1994; Odden, 1991). The future productivity problem is producing much higher student achievement, the goal of current education reform, with stable resources, because education resources have been flat for the past 5 years and are unlikely to do much better in the near future (Odden, 1994c). Both education programs and finance structures will need to be restructured to accomplish these productivity challenges.

Of course, we recognize that low student performance may be due in part to declining social and economic conditions of children and their families, lack of hard work by students, and lack of parental support for schools and children (Casserly & Carnoy, 1994; Odden & Odden, 1995, chapter 2). Indeed, there is considerable truth to the proposition that maintaining levels of student achievement in a period of decline in the conditions of children would be a significant accomplishment (Bracey, 1994; Casserly & Carnoy, 1994). But our research focused on what schools controlled and could do to improve student achievement and thus productivity.

Factors Behind Low Productivity

There are a number of possible reasons for low productivity. We can dismiss two at the outset: Analysis of the data does not support the common assertions that wasteful administration or high teacher salaries are to blame. Other reasons merit more scrutiny.

Poor Resource Distribution. In the United States, the overall national investment in public schools is distributed quite unequally across states, districts, schools, and students. Differences in base funding for education can vary by as much as three to one across states, greater across districts within states (Hertert, Busch, & Odden, 1994), and substantially across schools within districts (Cooper, 1993; Hertert, 1993). Furthermore, mechanisms for distributing education dollars often provide more money to socioeconomically advantaged and higher-achieving areas (Alexander & Salmon, 1995). These resource distribution practices can be challenged on effectiveness and productivity grounds, in addition to traditional equity grounds (Odden & Clune, 1995).

Unimaginative Use of Money. Shortcomings in distribution of dollars are exacerbated at the district and school levels by unimaginative and unproductive resource allocation and use practices (Odden, Monk, Nakib & Picus, 1995). Many studies of how education dollars are used by states, districts, and schools have been conducted in the past few years (Barro, 1992; Cooper, 1993; Hartman, 1994; Hertert, 1993; Lankford & Wyckoff, 1995; Monk & Roellke, 1994a, 1994b; Nakib, 1994, in press; Picus, 1993a, 1993b; Picus & Bhimani, 1993; Picus, Hertert, & Tetreault, 1995; Raimondo, 1994).

The major findings are that dollars are not used in ways that directly raise student achievement. Districts tend to use most of any increased revenues to hire more teachers, typically to to reduce class size or provide more out-of-classroom services. Neither strategy boosts student achievement very much (Allington & Johnston, 1989; Odden, 1990; Slavin, Karweit & Madden, 1989).

Districts also use new dollars to increase teacher salaries, but these funds have not been used strategically to enhance teacher professional expertise (Lankford & Wyckoff, 1994; Odden, in press). Another portion of increased revenues is used to expand services for special student populations, but there is little evidence that services have boosted achievement (Independent Review Panel, 1993).

Use of funds in states undergoing school finance reform reflects the same pattern of traditional resource use. Studies in Kentucky, New Jersey, and Texas showed that poor districts used relatively few of their additional dollars to improve the regular school program. Typically, these districts chose to improve their overall environment—constructing or improving facilities, buying books and supplies, funding health and social services—before ad-

ALLAN ODDEN *is Professor of Educational Administration in the School of Education, University of Wisconsin-Madison, and Director of the Finance Center of the Consortium for Policy Research in Education (CPRE) in the Wisconsin Center for Education Research, 1025 West Johnson Street, 7th Floor, Madison, WI 53706-1796. His areas of specialization are education policy, school finance, education policy implementation, and teacher compensation.*

WILLIAM CLUNE *is Voss-Bascom Professor of Law at the University of Wisconsin-Madison Law School, and his address is Consortium for Policy Research in Education (CPRE), University of Wisconsin-Madison, 1025 West Johnson Street, Suite 753, Madison, WI 53706. His areas of specialization are education law, policy, and finance.*

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