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### Small Education Experiments Do Not Shed Much Light on Large Education Reforms

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# *It's Elementary*

A Monthly Column by EFAP Director John Yinger  
August 2006

## **Small Education Experiments Do Not Shed Much Light on Large Education Reforms**

According to an article in *The New York Times* on August 23, 2006,

Fourth graders in traditional public schools did significantly better in reading and math than comparable children attending charter schools, according to a report released on Tuesday by the Federal Education Department.\*

It is tempting, but incorrect, to draw conclusions about a major educational reform (placing a large share of students in charter schools) from this evidence about a relatively small-scale experiment (fewer than 2 percent of students currently attend charter schools). The same problem arises in many other cases. Some studies of small voucher programs have found, for example, that students who receive vouchers to attend private schools perform somewhat higher than comparable students who do not. Does this evidence prove that a large-scale voucher program would boost student scores? The answer is “no.”

The analysis of any educational reform must begin, of course, with the analysis of a small-scale intervention. This is already a challenging job. Any analysis of this type must overcome difficult methodological obstacles, and different scholars may interpret the evidence in different ways. The above-cited evidence about charter schools and vouchers, for example, is controversial and would not be accepted by all scholars. For the purposes of this column, however, let us suppose that these methodological obstacles have been overcome and that most scholars agree that the impacts of a small-scale experiment have been correctly measured. Can these correctly-measured impacts be used to make inferences about the impacts of a large-scale reform? The answer is still “no.”

This conclusion flows from two further considerations. First, educational outcomes for a given student depend not only on the characteristics of that student and the educational programs he or she encounters but also on the characteristics of the students with whom he or she attends school. This relationship has been documented by dozens, if not hundreds of academic studies. To take one recent example based on New York State data, Bill Duncombe and I find that, holding spending and other factors constant, a 10 percentage point increase in the share of students eligible for a free and reduced price lunch would lower test scores by about 6 percent.

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\* Diana Jean Shemo, “Study of Test Scores Finds Charter Schools Lagging,” *The New York Times*, August 23, 2006.

Second, most large-scale education reforms, unlike small-scale reforms, would dramatically alter the distribution of student disadvantages across schools. Some reforms would make this distribution much more even, with approximately the same share of disadvantaged students in every school, and others would make it even less even than it already is, with extensive separation of students from high- and low-income families. Because small-scale reforms do not have much impact on the distribution of student disadvantages, they cannot shed light on the consequences of any redistribution that would occur if the same reforms were implemented on a large scale.

Consider two schools, each with 1,000 students, but one with all high-income students and the other with all students from poor families. If 10 students are taken out of the low-income school and placed in the high-income school, using vouchers, for example, their school environment will change significantly and, all else equal, their performance is likely to rise. But this experiment does not require the high-income school to fundamentally alter its programs and policies to address the concerns of low-income students, and it would have little impact on the low-income school. A large-scale reform that created two 1,000 pupil schools each with 500 low-income students would result in fundamentally different environments in both schools. The impacts of any given programs and policies would now be different in each school, and the schools might select different programs and policies than they would under the previous scenario. Thus, there is no reason to expect outcomes from the 10-student small-scale experiment to carry over to a more dramatic reform.

The inability to extrapolate from small-scale to large-scale reforms applies regardless of the nature of the small-scale evidence. The quotation at the beginning of this column indicates that the evaluation of the nation's current small-scale experiment with charter schools finds no effect on student performance. Even if this conclusion is correct, it does not prove that large-scale reforms using charter schools could never be effective. Perhaps the current charter schools have relatively high rates of concentrated poverty and an alternative situation which charter schools served a much larger share of the student population but were not so disadvantaged would find positive charter-school effects. Similarly, even if some existing small-scale voucher programs do boost the performance of participants, it does not follow that a large scale voucher program would boost student performance, too. The existing voucher programs may place a few disadvantaged students into high-income schools, but a voucher program might not be able to serve a large number of disadvantaged students without fundamentally altering the concentration of disadvantage in public or private schools that receive students with vouchers—and perhaps in the schools these students previously attended.

Scholars do not yet know very much about the impact on student performance of changes in the distribution of disadvantaged students. Until they do, everyone should be leery of attempts to extrapolate from the results of small-scale experiments to the impacts of large-scale reforms.