



Review: [Untitled]

Reviewed Work(s):

Politics, Markets and America's Schools by J. E. Chubb; T. M. Moe
Harvey Goldstein

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on a teaching practice. When they asked what I felt about the book, I said that I found the patronising tone somewhat off-putting and that I was interested that they had not remarked upon this. Their response was one which should perhaps be taken to heart by all those who teach and write for students and young teachers: “Perhaps we are just so used to being patronised that we take it for granted!”

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Politics, Markets and America’s Schools

J. E. CHUBB & T. M. MOE, 1990

Washington, DC, The Brookings Institute

\$34.95 (hardback), \$14.95 (paperback), 336 pp.

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Introduction

Since its publication this book has been quoted extensively in public debate in the USA to justify the movement towards establishing a free market economy in schooling. Many of the arguments will be familiar to people in Britain, although this country has not had a comparable academic exercise designed to legitimate policies of parental ‘choice’ and self-management of schools. The thesis of this book is as follows.

The USA’s public (i.e. state) schools tend to suffer from high levels of external bureaucratic control which has an adverse affect on the effectiveness of the schools’ organisational structures, which in turn depresses student achievement. Private schools, by contrast, have less such control, and are far more responsive to parental pressures, that is from the consumers in the educational market-place. This reduction in external bureaucratic influence is in turn responsible for enhanced student achievement. The conclusion is that by creating a free market economy based on parental choice in the public sector and freeing schools from the control of local boards and state bureaucracies, educational achievement will be enormously enhanced. The novelty of this book is that the authors seek the principal justification for their conclusions through the empirical analysis of a large data set, namely the High School and Beyond study of the early 1980s.

On p. 175 of this book the authors note that, after allowing for other factors, there is no substantial association between the bureaucratic constraints on a school and gains in student performance. If this is taken at face value, then their thesis collapses! How, then, is it possible for the authors to reach the opposite conclusion?

In the following sections I will attempt to show how a mixture of faulty logic and technical incompetence has led the authors astray, and I will try to draw some more general conclusions about the conduct of empirical research.

Data

That part of the High School and Beyond study data used by the authors consists of test scores of a cohort of students at grades 10 (sophomore) and 12 (senior) together with social background information and information on the teachers and schools derived from questionnaires. The authors produce a number of indices, among others of student achievement, school organisation and external bureaucratic constraints. These are formed by averaging over individual test scores or questionnaire responses. They justify the averaging of test scores (p. 71) by claiming that since these are highly correlated, they are all tapping a single ‘ability’ and hence can be averaged. The possibility of differential effectiveness for different areas of learning, found in many other studies, is not discussed. Likewise their justification for forming a composite measure of school ‘organisation’ is that schools function “as a total entity”. What they overlook, however, is that by making the separate measures composite, it becomes impossible to study precisely *which* factors are the influential ones. They are also very confused about the logic of the joint regression modelling of related factors since they seem to think that this requires the factors to be independent (p. 121).

Analyses

The first really interesting set of analyses is based upon the average senior achievement score in relation to a number of student and school factors, adjusting for sophomore achievement score. Thus, the analyses

are concerned with progress over this 2 year period and their results cannot be generalised beyond this stage of schooling. Actually, the authors go through an elaborate procedure of calculating difference scores between the post- and pre-test scores before regressing these difference scores on pre-test scores. They do not seem to appreciate that this is numerically equivalent to regressing post- on pre-test scores directly, and quite unfairly claim (p. 117) that their procedure is a methodological improvement upon other analyses of the same data! Most of their analyses are based upon a logarithmic transformation of the difference score, which gives similar results.

The analyses of student achievement produce some curious results. The gender and ethnic origin of the students is not included in the analyses since, the authors claim, they were not statistically significant in preliminary analyses. Yet other analyses of the same data set show clear ethnic origin and gender effects (see for example Bryk & Raudenbush, 1988). Moreover, the ethnicity effect has been found to vary from school to school, a result which the analyses in this book are unable to reveal. These other analyses have not aggregated the test scores, however, and this may partly explain the differences—which is another reason for not aggregating the scores. The statistical model used is a very basic application of multiple regression analysis. The explanatory variables, pre-test score, school organisation, social status etc. are entered additively. No attempt is made to study interactions, for example between school organisation and pre-test score and no account is taken of any measurement errors in these explanatory variables. Furthermore, it has been known for some time that such analyses of school data tend to overestimate significance, and the accepted procedures are those based upon hierarchical or multilevel models (Aitkin & Longford, 1986; Goldstein, 1987). For these reasons, all the results of the analyses presented in this book should be regarded with caution.

Having analysed student progress the authors go on to carry out analyses at the school level, using measures of school organisation, bureaucratic influence, parent involvement, school type etc. As with the student measure, the construction of the various measures deserves some comment. School organisation is derived from 10 indicators, including the school principal's stated motivation in directing school policies, staff harmony, percentage of sophomores in an academic stream or track (used in the analyses of achievement but dropped for later analyses), amount of homework assigned and time devoted to school administration. This somewhat curious mix of measures is actually assembled by studying how each one separately relates to student achievement, choosing those which have a strong relationship and then combining them. Not surprisingly, the composite index turns out to be strongly related to student achievement! Such tautological reasoning can be found elsewhere in the school effectiveness literature, in particular in the influential study by Rutter *et al.* (1979) (see Tizard, 1980 for a critique). It is difficult to take seriously the authors' labelling of this measure as 'organisation'.

The composite measure of bureaucratic influence includes measures of union, state and school board influence, derived from questioning the school principal. The analysis finds, among other things, that "less well organised" schools tend to have more external bureaucratic influence. This is interpreted causally as if the latter was responsible for the former, although there is no evidence from the data that supports such an interpretation rather than the reverse.

The main argument now runs as follows. More bureaucratic influence or control 'causes' poorer organisation within schools; poorer school organisation 'causes' lower student achievement; hence more bureaucratic influence causes lower student achievement. Leaving aside the invalidity of inferring causality from correlational patterns, this line of reasoning is based upon the results of two separate analyses. It does not follow, therefore, that bureaucratic control is associated with student achievement. To study that possibility, we would need to relate the measure of bureaucratic control directly to student achievement. Now for the relevance of p. 175 where the authors state that bureaucratic control is only weakly related to academic achievement. A mere 10 pages earlier the authors state that "bureaucratic influence is an important enough cause of school organisation that it can make or break school performance all by itself"!

The final set of analyses look at the relationship between sector (public, private) and bureaucratic influence. The authors find that private schools have lower levels of such influence than public schools. They then go on to add another link to their chain of causality by relating the free market model of private schooling to low levels of external bureaucratic control which in turn is related to better 'organisation' which is related to higher achievement.

In the final chapter they develop their vision of a free market version of public school education. They invoke familiar notions of 'true choice' and voucher mechanisms constrained, it should be noted, by political decisions about the relative values of vouchers for different types of students. In fact, there is little real discussion of how choice would work and the emphasis seems to be on the choices open to *schools* who would "admit as many or as few students as they want, based on whatever criteria they think relevant—intelligence, interest, motivation, behaviour, special needs—and they must be free to

exercise their own informal judgements about individual applicants". As far as parents are concerned, their role is that of applicant, but little indication is given of how parents would be empowered to make sensible choices. Good comparative information about schools is notoriously difficult to produce, yet without such information the reality of parental choice becomes severely constrained. The authors provide no evidence to support the efficacy of their proposals, nor do they even attempt to speculate upon the likely social and educational consequences.

Lessons

Work such as that described in this book sadly tends to bring the activities of the research community into disrepute. In reality, this book is an ideological treatise masquerading as serious empirical research using sophisticated statistical techniques. Its authors, on the evidence presented, have paid scant regard to established canons of research propriety, to the extent of allowing mutually incompatible conclusions to coexist.

The publication in book form of research findings avoids the usual screening procedure required for publication, namely peer refereeing. Any conclusions, therefore, can be used by politicians and others who generally will be unable to assess the validity of the findings. The only corrective appears to lie with reviews, but these tend to appear much later when the damage may have been done. Nor is this problem confined to the political right, as the Rutter *et al.* (1979) research showed.

Two general procedures to deal with this problem seem worth considering. The first is to try to enforce some kind of peer review prior to publication, via circulation of drafts, and holding of seminars. Where public bodies fund research they could indeed insist upon this as part of the grant conditions, and the Economic and Social Research Council has, on occasion, done this. The second procedure is for publishers to insist upon proper peer review as part of a contract. Both these possibilities seem to be worth pursuing and the relevant professional bodies should be urged to give them consideration.

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