Differences between Developed and Developing Countries: Comment on Simmons and Alexander's "Determinants of School Achievement"*

From a library search 4 years ago, confined to the results of production functions, Simmons and Alexander conclude that "the determinants of student achievement appear to be basically the same in both developing and developed countries." This is unfortunate. Either a more recent review or a less restrictive selection would not have reached this conclusion.

One difference between developed and developing countries is the variation in impact of economic status and school influences. Given the Coleman and most other findings from the United States, even Simmons and Alexander admit that "home circumstances" appear to be less influential than was anticipated in the Tunisian, Iranian, Puerto Rican, and Chilean studies, and that student backgrounds in both primary and secondary schools "account for less variation in student performance in developing countries." This observation would have been even more pronounced had the authors reviewed Kifer's findings from 18 countries or those of Bulcock, Clifton, and Beebe, and Shuluka from India.

* My views do not necessarily represent those of the World Bank.


4 Edward Kifer, "A Cross-cultural Study of the Impact of Home Environment Variables on Academic Achievement and Affective Traits" (paper presented at the annual meeting of the American Educational Research Association, New York City, April 1977); Jeffrey W. Bulcock, Rodney A. Clifton, and Mona J. Beebe, "Reading
Economic Development and Cultural Change

Shuluka presents data on science and reading comprehension among 10-year-olds which show that the proportion of achievement variance explained by preschool influences (SES, sex, and age) is 90% less than the median for the other (mostly developed) IEA (International Association for the Evaluation of Educational Achievement) countries, and that the contribution of the Indian school is from three to four times more. As predictors, socio-economic status and other preschool influences at age 10 are seven times more powerful in the United States than they are in India.

Also not included was a review which placed the IEA (science) findings alongside a methodologically similar exercise performed in Uganda. Preschool influences were consistently found to have less impact in non-industrialized societies. Between explained variance attributable to pre- (primary) school influences and a country’s per capita income, the correlation was .56 ($P<.05, \ N=18$); between explained variance attributable to influences internal to the primary school and the proportion of a country’s children in secondary school, the correlation was $-57 (P<.01, \ N=18)$. School achievement in poor countries is less influenced by preschool influences and more influenced (though not consistently) by characteristics internal to the school. 

Considering evidence other than production functions would also have been enlightening. We now have nine studies from less industrialized societies which have concluded that wealthy school children do not perform better to any meaningful degree. There are three from Uganda, three from Kenya, one (among Africans) from Rhodesia, one from Ghana, one from Papua, New Guinea, and those (cited above) from India.


tion, there are two more from evaluations of World Bank education
projects, one from Somalia, one from Kenya.

So prevalent are these un-Coleman-like anomalies from the LDCs
that had Simmons and Alexander included any of the current debate
from sociology, they would have asked not whether the findings were consistent
between developed and developing societies, but why they were not. As far
as I am aware there are basically three theories.7 Bulcock, Clifton, and
Beebe are investigating the transfer of SES influence through language.
On the basis of data from India and England they conclude that language
(and not economic material resources) is the reason why "home back-
ground" predicts school achievement in industrial societies.8 In less indus-
trial societies, because the richness in language may not differ as markedly
between a wealthy and a less wealthy child, the average difference in
school achievement may be less.

Kifer is exploring the influences of "process variables" which are
consistent between the expectations from the home and the expectations
from the school—for example, parental demands that students study
hard. As we would (now) expect, he finds that the predictive power of
parental economic status differs dramatically between LDCs and industrial
societies, but the strength of these "process variables" remains constant.9

My own theory is parallel with those just given. Evidence that the
differences in language, schooling value, and self-confidence are smaller
between poor and privileged children in some LDCs points to the time
that it takes for an economically privileged group within an industrializing
society to evolve into a social class.10 This "time element" in the process
of social class formation has been mentioned by Foster and has already
been pursued in two dissertations on academic achievement.11

Southern Africa 1973: Papers From the First Congress of the Association for Sociologists
in Southern Africa, ed. Association for Sociologists in Southern Africa (Durban:
Education in Ghana: Private Enterprise and Social Selection," Sociology of Education
Background as a Determinant of Success in a Papua, New Guinea High School (Papua:
Educational Research Unit, University of Papua, June 1974).

7 Differences in the impact on achievement are not due to a paucity of variance in
SES (see Stephen P. Heyneman, "Children of the Great and of the Unknown: A Dis-
cussion of Class, Socioeconomic Status and Academic Achievement in a Non-Indus-
trialized Society" [paper presented to the American Sociological Association, New York
City, August 1976], and "Why Impoverished Children Do Well in Ugandan Schools,
Comparative Education 15 [June 1979]: 175-85).

8 Bulcock, Clifton, and Beebe, A Language Resource Model of Scientific Achie-

vement.

9 Kifer.

10 Stephen P. Heyneman, Planning the Equality of Educational Opportunity
Heyneman, "Why Impoverished Children Do Well in Ugandan Schools."

11 Philip Foster, "Education and Social Differentiation in Africa: What We
Know and What We Think We Ought to Know" (paper prepared for the Social Science
Simmons and Alexander are correct to conclude that individual school variables which predict achievement are not sufficiently consistent to draw single-minded investment policy decisions, and that class size and some teacher variables (as presently measured) seem to emerge with similarly inconsistent results in both industrial and less industrial societies. They are also correct in calling for more experimentation.

But their review would have profited from including the findings above with respect to socioeconomic and other preschool influences. Moreover, they may wish to look at the results of Currie's study. She finds that performance in school appears to be the single most important predictor of success in the Ugandan labor market. Given this, there is reason to take seriously what Cummings says as a result of his 4-year study on schooling in Japan: Outside the industrial West we may find the opposite of what Jencks and others say is true for the United States. Why is another question. But whatever theory eventually emerges, this much remains certain: It is simply not true that the determinants of school achievement are basically the same in both developing and developed countries.

STEPHEN P. HEYMENMAN

World Bank


