

## **CORRELATES OF HIGH SCHOOL SENIORS' SCORES ON THE NATIONAL COLLEGE ENTRANCE EXAM: IMPLICATIONS FOR THE LIFE CHANCES OF DISADVANTAGED RURAL YOUTH**

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The topic of this year's convention — "the Filipino Peasant" — is a theme which immediately evokes consideration of the grave inequalities between agricultural and non-agricultural workers in the country. In thinking about this theme, however, it is perhaps of equal importance to focus on inequalities among the generation approaching adulthood as it is to analyze the disparities found among their parents. For the most part, Filipino peasants find themselves "locked in" to a pre-existing system of social stratification which inhibits their chances of attaining a high level of living. Many may have already given up much hope of personal advancement as far as their own careers are concerned. The one dream to which they can still cling is that their children will fare better than they did, hopefully by doing well in school and obtaining a college degree. As Castillo (1979: 175) has put it,

. . . one generalization which can be made about the Philippines without fear of successful contradiction is the high value which Filipinos place on education, particularly higher education. . . . To farmers, for example, college education is their children's way out of farming, a way out of a poor and difficult life. Education is believed to be an avenue to a good job and carries prestige within itself. To the poor, higher education is their source of social equality with the rich, for he who possesses a college degree is almost never lower class. . . .

These aspirations are perhaps functional for staving off the feelings of apathy and

alienation that are said to accompany a life of poverty in a capitalist society (cf. Lewis, 1966). Whether they are in any way a reflection of reality, however, is another question. What really are the life chances of the children of the Filipino peasant? In particular, how likely is it that they can earn the college degree in which both they and their parents seem to place so much hope?

To answer these questions would take a crystal ball, a tool which social scientists unfortunately do not possess. One potentially helpful indicator, however, is the score achieved by high school seniors on the National College Entrance Exam, or the NCEE. A student's ranking on the NCEE reveals a number of useful things about his or her chances for future social mobility. In the first place, the NCEE score gives an indication of the student's chances of going to college, since those ranking below the 35th percentile in 1980 were forbidden by law from enrolling in an academic college or university. In the second place, the score tells something about the student's chances of enrolling in a high prestige university, since these generally require higher than average NCEE scores among their incoming freshmen.<sup>1</sup> This can be an important determinant of subsequent social mobility since, as Ruperto Alonzo (1976: 27) has shown, persons obtaining degrees from high quality universities tend to be earning higher incomes a few years after their graduation than graduates of less prestigious schools. Finally, scores on the test probably tell something about the likelihood that a

student will actually graduate from college, since it is considered a "scholastic aptitude" test and was designed to predict college performance. In short, it seems fair to say that students who do poorly on the exam have a low probability of ever attaining an upper to middle-class position in the national system of stratification.

For these reasons, it is of more than merely theoretical interest to investigate how such factors as rural/urban residence, social class origins and type of school attended affect a student's NCEE score. Moreover, it is also crucial to see how the implementation, in 1972 of the National College Entrance Exam may be altering the social, economic and geographical composition of college students in the country. Concepcion and Smith (1977: 55), for example, present statistics from the 1973 National Demographic Survey of the Philippines which appear to show "the remarkable fact that chances of college entrance have not been highly unequal between urban and rural sectors." If one assumes, for now, that rural high school graduates score somewhat lower on the NCEE than do urban youths (a point which will be empirically assessed in this paper), it would seem plausible to argue that the surprisingly egalitarian pattern noted by Concepcion and Smith may be on the way out.

The purpose of this paper will be to examine empirically the relationship between "environmental" (home and school) factors and student scores on the National College Entrance Exam. A model summarizing the effect of such factors will be constructed and then tested, using multiple regression analysis and multiple classification analysis. Implications of the findings for the life chance of disadvantaged rural youth will then be discussed.

#### *Theoretical model*

Eliminating for now such social psychological factors as attitudes towards

studying or perceived benefits from doing well in school, one can immediately focus on two main "environmental" factors. These are, first, variables connected with the student's background, such as the educational attainment of his parents or his region of residence; and second, variables connected with the school(s) he or she has attended. A practical reason for making this dichotomy is that school-related factors may often be more susceptible to manipulation *via* government programs and policies than are background variables.

Among the various possible background factors worthy of inclusion in the model, one must first point to the socioeconomic status of the high school student's family of orientation. Large-scale studies conducted in both the United States (Coleman et al. 1966) and Great Britain (Central Advisory Commission for Education 1967) have found this variable to be the best single predictor of scores on standardized achievement tests. As might be expected, the relationship between socioeconomic status and test scores is direct in nature, with students from the lower classes doing less well on the average than those coming from higher status homes. Such finding was also obtained in each of the twenty countries which participated in the World School Survey (Havighurst and Neugarten 1975:149), thus indicating that this relationship may also hold in the less developed world.

Attempts by sociologists to account for these findings have generally focused on class-linked differences in socialization patterns. As a result of these variations, lower class children are said to differ from students born into higher status homes in terms of both personality structure and acquired attitudes and values: they suffer from lowered self-esteem and a less adequate sense of environmental control, their linguistic patterns are less functional for the classroom setting, they have a shorter attention span and greater difficulty with abstract reasoning, they are less

able to defer immediate gratification, and the like (cf. Squibb 1975, for a review of the literature).

More tangible aspects of social stratification, though often ignored by investigators in the field, may also play an important role in the process of lower-class underachievement. Banks (1968: 69), for example, argues that :

. . . there are several ways in which extreme poverty might be expected to exert an influence on school performances. Malnutrition and poor living conditions are bound to have an influence on the health of the child, and so directly or indirectly on his ability to learn. . . . Poverty can also have an influence indirectly, by limiting the family's ability to forego adolescent earnings. . . . Poor housing and overcrowding can not only seriously impede the child's homework but even his opportunity for reading and constructive play.

It would thus seem to be important, not only to include socioeconomic status in our model of NCEE score determinants, but also to measure a number of separate dimensions of this concept. Educational attainment of the parents, for example, would seem to be an important factor, given that this variable can be expected to be closely related to socialization patterns and attitude formation. Following the line of reasoning suggested by Banks, however, it would also seem to be important to include a measure of familial wealth or income in the model, especially given the fact that "extreme poverty," "malnutrition" and "poor living conditions" are a fact of life for a considerable proportion of Filipino youth.

For a number of reasons we would also expect that residence in a rural or an urban area might also correlate strongly with NCEE scores. In the first place, the relatively more traditional and isolated rural context might serve as a barrier to learning the skills, such as facility in the English language, that are tested

by the exam. Thus, a number of studies have shown rural students in the developed world to score lower on I.Q. tests than their urban counterparts (Sewell 1964). Competition between labor on the family farm and school work may also diminish the scholastic achievement of rural youth. Finally, the rural school may suffer from many disadvantages when compared to schools in the urban setting. Speaking of the American context, for example, Smith and Zopf (1970: 329-330) note that rural schools are often characterized by low teacher salaries, less academic specialization, less adequate physical facilities, shorter school terms, rapid turnover of teachers, urban-formulated curricula that seem irrelevant to the needs of rural students, and a lack of supplementary materials such as library books and teaching aids. Many of these same problems are likely to plague rural schools in the Philippines, thus working to reduce the NCEE scores of the rural youth.

A number of other "background variables" are also included in the model. The first of these factors is family size (number of siblings). A study of Floud, Halsey and Martin (1956) in England found family size to be significantly related to test scores on a college entrance exam, with students from smaller homes scoring higher than those with a large number of brothers and sisters (cf. also Wray 1971: 424-429). Second is a measure of the frequency with which the student's mother and father read books or newspapers. This variable, a measure of parental "role modeling," refers to the extent to which habits (such as frequent reading) which are conducive to a successful performance in the student role may be passed on from parents to children. A final background variable in the model is the student's sex, though it is not immediately clear as to whether boys or girls might be expected to do better on the exam.

Turning now to factors connected with the school, one notes the presence of an interesting theoretical debate in the literature. According to data from a major American

study on the topic, school-input factors such as teacher quality, library facilities or even per pupil expenditures have virtually no ability to explain variation in test scores once background factors associated with the respondent have been taken into account (Coleman et al. 1966; Jencks et al. 1972). As one set of authors (Bredemeier and Bredemeier 1978: 125), in summarizing the results of this study, put it, "nothing except family background seems to make very much of a difference for anyone" (cf. also Hodgson 1975).

Somewhat similar results have been reported for secondary students in Great Britain (cf. Banks 1968: 71-72). However, it is doubtful whether such findings can be generalized to the less developed world. One can take, for comparative purposes, the case of a barangay high school in a small town as contrasted to a prestigious private school located in Manila or Cebu City. Given the marked discrepancies in school quality which exist, or at least are commonly believed to exist, between such educational settings, one suspects that some specific school-related effects may appear in the data. Fortunately, this speculation is susceptible to empirical verification.

#### *Data and methods of analysis*

The bulk of the data analyzed in this paper was gathered during the course of a survey, conducted in early 1980, of 780 high school seniors from the provinces of Cebu, Misamis Oriental and Camiguin. Besides asking a number of questions on the background of each student, the survey instrument was chiefly designed to elicit information on the educational and occupational plans of the respondents. In the course of the study, information was also collected from the Ministry of Education and Culture (MEC) on the NCEE scores of the students.<sup>2</sup>

The sample was selected in the following manner. First, four ecological settings were

chosen for observation. These were Cebu City, Cagayan de Oro City, rural municipalities in Misamis Oriental province and municipalities in the small, and somewhat isolated, island province of Camiguin. It was anticipated that these four settings would represent distinct points along a rural/urban continuum, with the Cebu City students being most urbanized and those from Camiguin being least urbanized. Secondly, lists of all secondary school seniors registered to take the National College Entrance Exam were obtained from the provincial and city MEC offices. Cross checks with sample school registration data showed these lists to be over 98 percent complete with regard to currently enrolled seniors. Finally, simple random samples of 195 respondents were chosen within each region, thus producing a total sample size of 780 cases.<sup>3</sup> All interviews were conducted by trained interviewers in Visayan, the dialect spoken in the region.<sup>4</sup>

Two measures of socioeconomic status which were derived from the data collected in the course of this survey will be utilized in the following analysis. The first is the educational attainment of the respondent's father, as measured in terms of highest grade completed. Second is a measure of the standard of living enjoyed by the respondent's family which was also desired for inclusion in our model, for reasons described earlier. Since the findings of a pretest had indicated that most students had little or no idea about the income of their parents, the survey instrument was designed to gather detailed information on consumer goods found in the home. Questions were asked about the possession of twenty such items, ranging from an umbrella to an automobile. The total number of such consumer goods owned by the respondent's parents was then used as our index of the level of living found in the student's home. Urban/rural residence was categorized using the four ecological settings (i.e. Cebu City as most urban, followed by Cagayan de Oro City, rural Misamis Oriental, and Camiguin) discussed above. Family size was measured in

terms of the number of living brothers and sisters of the respondent, whether or not these siblings were still residing at home. A measure of parental role modeling was based on questions about the perceived frequency with which the mother and father of the respondent read books or newspapers,<sup>5</sup> while the type of school attended by the student was measured in terms of four categories: (1) public (national or provincial level), (2) public (city, municipal or barangay level), (3) private-sectarian, and (4) private-nonsectarian. A sufficiently large number of cases were obtained for each of these categories to allow for multivariate analysis. Finally, all NCEE scores used in the study were expressed in terms of the student's percentile ranking on the exam. Thus, NCEE scores varied between 0 and 99.

In addition to multiple regression, multiple classification analysis (MCA) was used in analyzing these data. This technique represents a variation on multiple regression, whereby all independent variables are transformed to dummy variables (i.e. "classifications") before being entered into the regression equation. While it is possible to use multiplicative multiple classification models, the present analysis restricts itself to examining a simple additive linear model of the effect of our independent variables upon NCEE scores.

One of the advantages of multiple classification analysis is that it allows for the effect of each variable to be expressed in terms of deviations from the sample mean. This can be helpful since it is easier for policy makers to understand the meaning of adjusted mean scores, as opposed to the beta coefficients produced by a regression analysis. Multiple classification analysis also allows for a unique solution to equations containing a number of nominal scale predictor variables. This advantage is lost with the dummy variable regression approach which will produce varying coefficients according to which category of each dummy variable is eliminated from the equation.

The multiple classification model used in the present analysis can thus be represented by the equation:

$$Y_{ijklmnp} = Y + a_j + b_j + c_k + d_l + f_m + g_n + h_p + e_{ijklmnp}$$

where  $Y_{ijklmnp}$  is the mean score for students in the  $i$ th category of father's education, the  $j$ th category of ownership of consumer goods, the  $k$ th category of sex, the  $l$ th category of residence, the  $m$ th category of family size, the  $n$ th category of parental role modeling and the  $p$ th category of school type. This statistic is the *adjusted* within group mean and is expressed as a deviation from the overall group mean,  $\bar{y}$ . The MCA coefficients in the model ( $a_j$  through  $h_p$ ) refer to the effect on the student's NCEE score of membership in any specific category of the seven independent variables utilized in the analysis. Finally,  $e_{ijklmnp}$  is the error term in the model.

The MCA coefficients are computed directly from unstandardized dummy variable regression coefficients (cf. Hodge 1979, and Costello 1981, for a description of the technique). These represent the influence of the various home and school factors on the student's NCEE score after adjustments for any association between the predictor variables have been made.

### Findings

Table 1 presents the mean scores on the NCEE exam achieved by students in different categories of our seven predictor variables. With the exception of the sex variable, all differences are in what would seem to be the expected direction. That is, students coming from families of higher social status and from urban areas score higher on the exam, as do students with fewer siblings and those who have parents who read more frequently. Also, school type appears to be an important factor, with students from locally-funded (city, municipal and barangay) public high schools doing quite poorly in comparison to those

Table 1: *Mean (unadjusted) scores on the National College Entrance Exam by various background and school characteristics: Senior year high school students in South-Central Philippines, 1980*

	<i>Mean Score</i>	<i>Standard Deviation</i>	<i>Number of Cases</i>
<b>I. Educational Attainment of Father</b>			
None or Some Primary	31.48	25.33	145
Primary Graduate	37.49	24.99	145
Some Secondary	40.52	26.56	134
Secondary Graduate	48.98	29.33	127
Some College	59.59	27.30	92
College Graduate or Higher	73.50	25.50	119
<b>II. Ownership of Consumer Goods</b>			
Owns 0-6 Goods	31.84	22.78	135
Owns 7-9 Goods	33.09	25.19	188
Owns 10-13 Goods	46.28	26.56	213
Owns 14-20 Goods	68.60	27.54	226
<b>III. Residence</b>			
Camiguin	33.58	24.96	190
Rural Misamis Oriental	38.72	25.56	186
Cagayan de Oro City	49.76	26.21	191
Cebu City	65.61	31.91	195
<b>IV. Sex</b>			
Male	46.49	29.85	359
Female	47.62	30.01	403
<b>V. Parental Role Modeling Index</b>			
0-5 (Reads never or infrequently)	39.78	26.07	286
6-8 (Reads occasionally)	39.52	27.53	249
9-11 (Reads frequently)	64.59	29.80	227
<b>VI. Number of Siblings</b>			
6 or more	41.94	28.52	409
4-5	51.42	31.44	203
0-3	55.26	28.97	150
<b>VII. High School Type</b>			
Public – locally funded	26.07	21.48	179
Public – nonlocally funded	50.18	27.83	186
Private, sectarian	56.21	30.88	237
Private, nonsectarian	53.48	27.92	160
<b>TOTAL</b>			
	47.09	29.92	762
		No response	18
		Total N	780

studying in more privileged settings. In fact the *average* grade among students from local public high schools is only 26.1, which is *below failing level* on the exam.

However, it should be noted that the data presented in Table 1 are the *unadjusted* mean scores of the students. That is, the effect of all variables in the model have not been controlled in producing these figures. The need to institute such controls is clear, given that fairly high levels of intercorrelation are present among many of the predictor variables. For example, 64 percent of the students attending locally funded public high schools are the children of fathers who had never attended school beyond the primary grades, as compared to only 30 percent of the students from private sectarian schools. Thus, simultaneous controls for all of the predictor variables are needed in order to guard against the possibility of spurious correlations. This necessary step is affected by the MCA technique.

Table 2 presents the results of the multiple classification analysis as well as of the dummy variable regression analysis upon which the MCA findings are based. The regression results show a strong correlation between predictor variables and NCEE scores, with an  $R^2$  for the regression equation of .4007. This means that approximately 40 percent of the variance in student scores on the exam can be accounted for by the seven independent variables included in our model. This figure is, of course, highly significant statistically  $F_{19,742} = 26.11, p < .001$ .

Statistical tests of significance may also be made for the influence of each predictor variable by computing an F-test for the corresponding subset of dummy variables. These figures, which are given at the bottom of each panel in Table 2, show that the most important determinants of NCEE scores are socioeconomic status (both education of the father and ownership of consumer goods),

residence, and type of secondary school attended by the student. All of these variables are significantly related to NCEE scores in the expected direction at the .001 level of probability. Parental role modeling is significant at the .05 level, but contains one inversion from the expected pattern insofar as students who perceive their parents as reading books and newspapers quite infrequently score slightly *higher* on the exam than those who see their parents as reading occasionally. Thus, the significance of this factor as a determinant of NCEE scores is somewhat suspect. The same may be said for the family size variable which is related to exam scores without any inversions from the expected pattern but which barely misses statistical significance at the .05 level of probability. Finally, whether the student is male or female appears to be irrelevant as far as NCEE scores are concerned.

The coefficients obtained during the course of the dummy variable regression analysis are given in the first column of Table 2. These are of little intrinsic interest since they are expressed relative to the category excluded from the analysis and are thus subject to change depending on which category was dropped. These can, however, serve as the basis for deriving a set of MCA coefficients which can then be used to compute adjusted mean NCEE scores.

The MCA coefficients and adjusted mean score values, as shown in the second and third columns of Table 2, give a profile of the differential impact of home and school factors upon NCEE scores. For example, students from poorer backgrounds, as measured in terms of ownership of consumer goods have scores which average six to seven points below the mean for the whole sample, while those in the highest ownership category score 9.3 points above the average. Similarly, the average adjusted score for students from Camiguin is but 38.6 (only 3.6 points above passing level) as compared to the adjusted average of 57.0 obtained by students living in

Table 2: *Dummy variable regression coefficients, MCA coefficients, adjusted mean scores and F-tests, for score on National College Entrance Exam by various background and school characteristics: Senior year high school students in South Central Philippines, 1980*

	B Coefficient	MCA Coefficient	Adjusted Mean Score
<b>I. Educational Attainment of Father</b>			
None or Some primary	-17.65	- 6.53	40.56
Primary Graduate	-12.47	- 1.35	45.74
Some Secondary	-15.53	- 4.41	42.68
Secondary Graduate	-10.62	0.50	47.59
Some College	- 7.37	3.75	50.84
College Graduate or Higher	<i>a</i>	11.12	58.21
$(F_{5,742}) = 5.50, p < .001$			
<b>II. Ownership of Consumer Goods</b>			
Owens 0-6 Goods	-15.83	- 6.52	40.57
Owens 7-9 Goods	-16.47	- 7.16	39.93
Owens 10-13 Goods	- 8.74	0.57	47.66
Owens 14-20 Goods	<i>a</i>	9.31	56.40
$(F_{3,742}) = 11.27, p < .001$			
<b>III. Residence</b>			
Camiguin	-18.43	- 8.50	38.59
Rural Misamis Oriental	-11.14	- 1.21	45.88
Cagayan de Oro City	-10.44	- 0.51	46.58
Cebu City	<i>a</i>	9.93	57.02
$(F_{3,742}) = 13.27, p < .001$			
<b>IV. Sex</b>			
Male	- 0.14	- .07	47.02
Female	<i>a</i>	.07	47.16
$(F_{1,742}) = .01, n.s.$			
<b>V. Parental Role Modelling Index</b>			
0-5 (Reads never or infrequently)	<i>a</i>	0.58	47.67
6-8 (Reads occasionally)	- 3.95	- 3.37	43.72
9-11 (Reads frequently)	2.37	2.95	50.04
$(F_{2,742}) = 3.77, p < .05$			
<b>VI. Number of Siblings</b>			
6 or more	<i>a</i>	- 1.74	45.35
4-5	2.72	0.98	48.07
0-3	5.14	3.40	50.49
$(F_{2,742}) = 2.70, p < .07$			
<b>VII. High School Type</b>			
Public locally funded	- 6.63	-10.01	37.08
Public, nonlocally funded	8.33	4.95	52.04



Table 2 (continued)

	<i>B</i> Coefficient	<i>MCA</i> Coefficient	<i>Adjusted</i> Mean Score
Private, sectarian	9.34	5.96	53.05
Private, nonsectarian	<i>a</i>	- 3.38	43.71
$(F_{3,742}) = 17.46, p < .001$			
$R^2 = .4007$			

<sup>a</sup>Dropped from the equation during the dummy variable regression analysis.

Cebu City. School type, too, appears to be of considerable importance with students at private sectarian schools averaging 16 points higher on the exam, even when all other factors had been taken into account, than those from local public high schools.

A convenient way of showing the potential impact of background and school factors upon NCEE scores is to compare cumulatively students from the most privileged environments with those coming from less fortunate circumstances. This has been done in Figure 1. The numbers in the middle section of this figure represent the adjusted mean scores on the NCEE for students coming from the extreme categories of each variable found to be statistically significant. Thus, students from the least propitious backgrounds (i.e., students attending a locally funded public high school in Camiguin, who have parents who are poor, not well educated and who rarely read books or newspapers) average only about 16.1 points on the exam. In contrast, students who are attending a private sectarian school in Cebu City, and whose parents are college graduates, financially well off and frequent readers obtain an adjusted average score in the 86th percentile. Clearly the latter group is headed towards successful college careers and the subsequent attainment of high-status occupations. For the former group, however, life is fast becoming a "dead end street."

#### *Summary and Discussion*

This paper has been concerned with

investigating the correlates of students scores on the National College Entrance Exam. Using data from a survey of 780 secondary school seniors in the southern Philippines, the authors constructed and tested a model describing the influence of various background and school characteristics upon NCEE scores. The major predictive factors included in the model were the level of living experienced by the parents of the students, father's education, residence (i.e. level of urbanization), type of school attended, sex, family size and parental role modeling, as measured in terms of the frequency with which the student's parents read books and newspapers. The model was able to account for 40 percent of the variance in the NCEE scores obtained by the sample, with the most important predictive factors being parental level of living, father's education, residence and school type. Multiple classification analysis was then used to show the powerful cumulative impact of these factors upon NCEE scores, with students from more advantageous backgrounds scoring up to 70 percentile points higher on the average, than those from less fortunate circumstances.

These findings are of considerable import for the theme of this year's conference. As is well known, the standard of living experienced by rural people in the Philippines is markedly lower than that found among urbanites (Castillo 1979, Chapter 1). Undoubtedly, many of the papers presented at this conference will involve variations on this theme. The disturbing fact implied by the data presented in this paper, however, is that

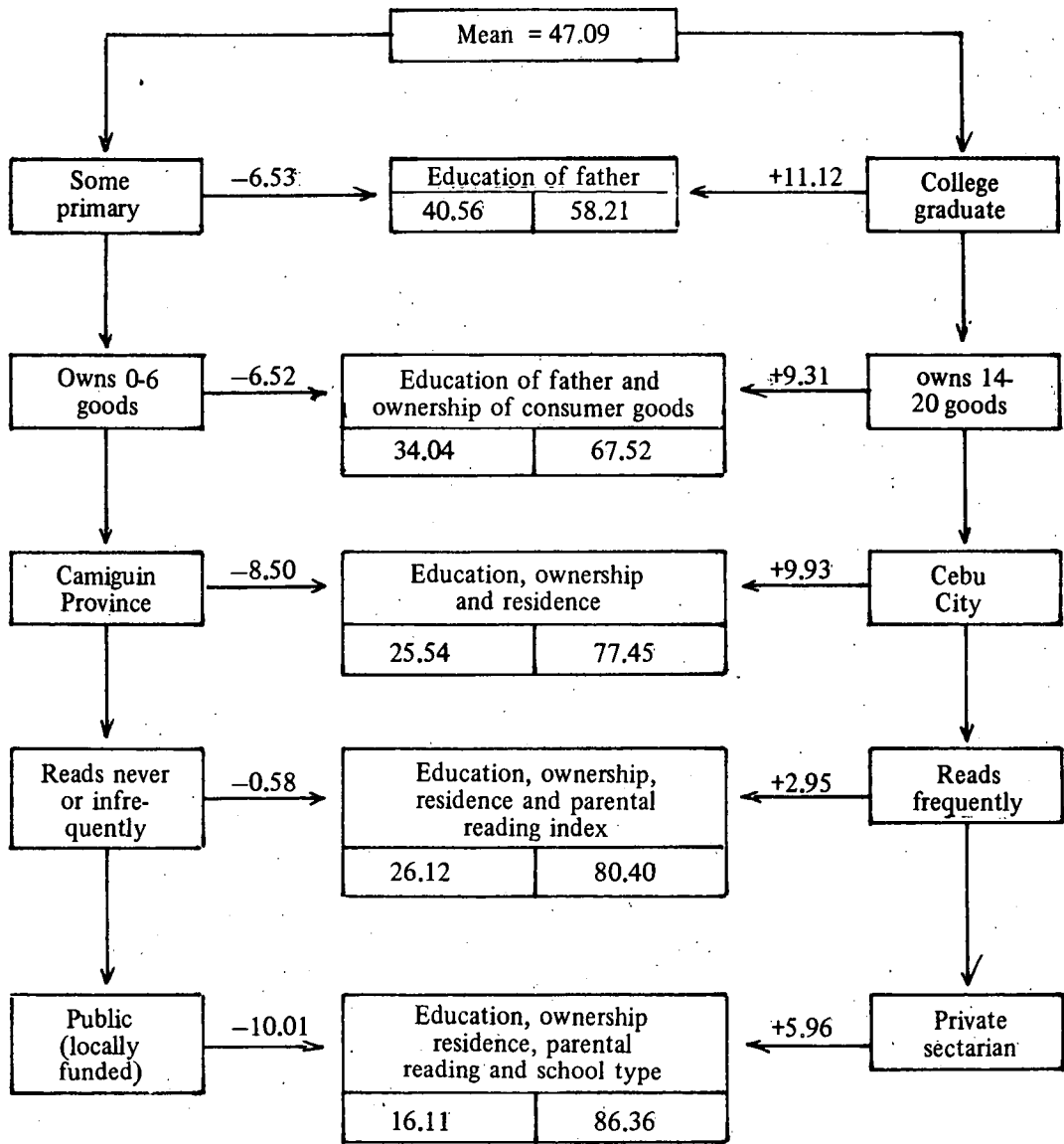


Figure 1: Cumulative results (adjusted mean score) of background and school variables on NCEE scores: Senior year high school students in South Central Philippines, 1980

the foundation has already been laid for the perpetuation of these inequalities well into the Twenty-first Century. Young people who can barely read or understand simple mathematical problems are never going to be very successful in life, no matter how many social welfare programs are instituted to raise their standard

of living. Similarly, the chances for social mobility among high school seniors who are denied entrance to college by virtue of their low NCEE scores are slim at best. And it is clearly the children of the Filipino peasant who are falling disproportionately into this category of ill-educated and non-admitted

adolescents. Thus, poor students who come from rural areas of Misamis Oriental or Camiguin and who attended a locally funded public high school (surely a profile of a typical child of Filipino peasant parentage) are scoring an average of only about 15 to 22 percentile points on the National College Entrance Exam — a mark which is not only well below the minimum score permissible for entrance to college but which is also prophetic of the dismal chances for future social mobility faced by this group. Thus the vicious cycle of poverty is passed on from one generation to the next.

One important implication of our findings is that the implementation of the National College Entrance Exam is probably serving to restrict the mobility chances of disadvantaged rural Filipino youth. As noted earlier, Concepcion and Smith have argued that relative equality was existing in the early 1970s between rural and urban areas in terms of college enrolments. With the new requirement that a student must obtain a passing grade on the NCEE before being allowed to enroll in an academic college or university, it is likely that this earlier egalitarian pattern will be replaced by a situation in which the higher-scoring urban students become over-represented in each new class of college freshmen. This, of course, may be for the better if it keeps ill-educated rural students from wasting their parents' money in the pursuit of a nonmarketable degree from a third rate college. Nevertheless, the apparent barrier represented by the NCEE to the future social mobility of lower status groups is worthy of further investigation. This is particularly so since the test, which places a heavy emphasis upon knowledge of the English language, may be seriously biased in favor of urban, middle class students (for evidence on this point, see Panganiban 1974).

A final policy implication implicit in our data is that, in the southern portion of the country at least, schools really do "make a difference." More specifically, locally funded

(city, municipal and barangay) public high schools are producing students that score significantly lower on the NCEE exam in comparison to other types of schools. Moreover, this test score gap is by no means merely a function of the disadvantaged backgrounds that are found more predominantly among students enrolled in local-level public high schools. Even when such factors as socioeconomic status, residence, and family size are controlled, the relationship between school type and NCEE scores is still highly significant statistically. It thus seems clear that any attempt to ensure "equality of opportunity" must begin by upgrading local public high schools. Of course, the financial cost of such a task is likely to be high. How much higher, though, is the human cost — in terms of the undeveloped talents and unfulfilled aspirations of an entire generation of lower class youth — of letting the present system prevail!<sup>6</sup>

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#### *Notes*

<sup>1</sup>Among the high school seniors in our sample who were planning to attend an academic college or university, a highly significant relationship between a student's score on the NCEE and the prestige ranking of the school which he or she planned to attend was obtained (Costello and Palabrica-Costello, 1981, pp. 98-101).

<sup>2</sup>We would like to express our appreciation to the National Testing Center of the Ministry of Education and Culture for granting permission to use the NCEE data.

<sup>3</sup>NCEE scores were not available for 18 students, thus reducing the total sample size to 762 cases.

<sup>4</sup>A few interviews were conducted in English, as requested by the student.

<sup>5</sup>The questions read as follows: "about how often on the average do you see your father reading a book or a newspaper?" and "about how often on the average do you see your mother reading a book or a newspaper?" Answers to these two questions were added together to produce a summary index score.

<sup>6</sup>A further policy implication along these lines is the inadvisability of government measures designed to undermine the private school system. Our data show the private schools, or at least the sectarian-related private schools, to be having a positive impact on NCEE scores. Should these enterprises be forced out of business, it seems doubtful that the already overburdened public school system could do an equivalent job with the new students who would be transferring from defunct private sectarian schools.

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