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*Aspects of Literacy and Educational Attainment in the Philippines**

D. C. BENNETT

The attainment of a high degree of literacy and the gradual upgrading of educational levels are commonly accepted goals of virtually all developing nations. The Philippines is, by most indices, considered a developing nation even though the educational achievements of the people are considerably above those of most other developing nations. With an average literacy of 72 percent for those 10 years and older in 1960 the Philippines ranked just under Mexico on a world scale of adult literacy and was above any other Southeast Asian nation in this respect.¹

A second distinctive feature of the Philippine educational pattern is that women have approximately the same opportunities as men. This is in marked contrast to other Asian nations, even those that are more economically modernized, such as Japan or Taiwan.²

An aspect of the Philippine educational system that has received relatively little examination is the extent to which educational attainment varies geographically within the country. Facilities are never provided equally to all regions, at whatever scale of analysis, a situation that applies to education as well as to any other goods and services. Commuting to schools necessarily costs more to some users in terms of cash, time, or convenience than to others. In the Philippines, where there are great differences in transportation networks and where there is no free public bus service for children, it can be expected that there will be large variations in literacy and other indices of educational attainment.

Within the context of geographic variation the differing educational opportunities that rural and urban populations have are generally recognized.

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¹ Ginsburg, Norton, *Atlas of Economic Development*, Univ. of Chicago Press, 1961, p. 38.

² Fisher, Marguerite J., Higher Education of Women and National Development in Asia, *Asian Survey*, Vol. VIII, #4, April, 1968, p. 264-65.

Urban populations are usually more literate and have a higher grade attainment than their rural counterparts. A thorough appreciation of the resulting advantages of an urban environment in the Philippines for educational opportunities has been hindered by the generally recognized inadequate definition of the urban population employed by the data collecting agencies. This paper uses Bureau of the Census data but identifies the urban population on the basis of criteria other than municipal density and minimum population.³

Gross Geographic Variations in the Philippines

A common characteristic of both developed and developing nations is that literacy and educational attainment may vary markedly from one region to another as well as from rural to urban areas. In the Philippines, provincial variation in literacy ranges from a low of 28 per cent in Sulu province to over 90 per cent in Manila and adjacent Rizal provinces. There is no pronounced mode in the frequency distribution of literacy among the 55 provinces—only a rather even spread from 60 to 90 per cent. When the data are mapped there is a clearly defined concentration of the provinces with the highest literacy rates in the vicinity of Manila and the adjacent bread basket area of Central Luzon. Likewise, the provinces of lowest literacy rates tend to be grouped regionally in the southernmost section of the country or Mountain province, where the largest concentrations of tribal peoples in the Philippines live.

³ These are the two criteria used by the Bureau of the Census to identify urban areas and populations. Census data reflect the political-administration organization of the country. The basic enumerative units in ascending order are the barrio, municipality and the province. Each municipality is composed of a number of barrios, most of which are rural and may be thought of as villages. Usually, at least one barrio, called the poblacion, is urban in character. It is the seat of government and the major shopping center of the municipality. As an urban center grows it may well come to include several barrios which are adjacent to or near the poblacion. Since there are no maps which identify the shape, size or location of barrios in a municipality the Bureau of the Census has been unable to realistically identify the built up or urbanized area in a municipality. Lacking this fundamental data it has relied upon either the population size of the poblacion or the overall density of population of the entire municipality, as determinants of urban existence and size. Our study determined urban places and their size by identifying all barrios which possessed both an urban housing density and a predominantly non-agricultural population. For further details see Bennett, D. C. "The New Official Definition of the Urban Population in the Philippines: a critique," *The Philippine Geographical Journal*, Vol. IX, nos. 1-2 (January-June, 1965), pages 3-10.

It is instructive to examine geographic variations of literacy within a province, i.e., at the municipality level, in order to achieve a clearer view of the significance of location in educational attainment. Several provinces exhibit very large differences in literacy among their municipalities and there is a statistically significant ($P = .05$) negative relationship obtaining between the provincial rate of literacy and the range of literacy among municipalities within the province. When we look at the municipalities in each province which have the highest literacy rates we find a 30 percentage point range while a similar comparison of the municipalities in each province having the least literacy rates shows the range to be 86 percentage points. In even the least developed provinces there is at least one municipality which has a population that is two-thirds literate. On the other hand, there are municipalities in 1960 that had literacy rates as low as 2 per cent.

Literacy and Educational Attainment in Central Luzon

The provinces of Central Luzon have been identified as among those few having the highest rates of literacy and school attendance and the least amount of intra-provincial variation in literacy rates. This is quite clearly the region of the Philippines which is most advanced in providing education to the populace. For this reason it will be instructive to examine the area in greater detail in order to determine variations in educational attainment at the local level. Barrio or village level census data, the most detailed available, are used to examine literacy and grade attainment in 59 municipalities in the five provinces of Central Luzon,⁴ just north of Manila.

Literacy

There are apparent differences in the attainment of literacy according to a) the municipality environment one resides in, b) his or her sex, and c) whether or not he resides in an urban or rural environment. Of greatest importance is the particular municipality one lives in. There are 30 per cent points difference between the least and the most literate municipality in this 5 province region. Somewhat less important is an urban or rural environment. Urban

⁴ The Provinces are Bulacan, Pampanga, Tarlac, Nueva Ecija, and Pangasinan. The 67 municipalities which formed the sample are the areas for which unpublished data were available from the Bureau of the Census and are so distributed that they represent the entire Central Luzon region.

residents are more literate than rural residents by an average of 8 percent. Finally, gender is of least importance, there being a 5 percentage points difference between males and females. In the average municipality urban males are the most literate, followed in order by urban females, rural males and rural females. (Table 1.)

Literacy rates vary more for the rural than the urban populations. Table 1, listing the coefficients of variability, shows this. For the rural males, literacy rates ranged from 65 to 91 per cent, for rural females the range was from 59 to 88 per cent. Thus rural females have both the lowest rates of literacy and the greatest amount of geographic variation.

Grade Attainment

Levels of grade attainment are an even better source of information than literacy by which to judge the educational achievement of the population. Before examining this, a few remarks about the system are in order. The Philippines has a ten year program: elementary for grades 1-6 and high school for 7-10. In virtually all regions there is a mixture of public and private schools. The largest and most extensive private system is that of the Roman Catholic Church which offers a curriculum from first grade through graduate study. A circumstance more special to the Philippines is the large role which is played by private investors. This is a form of business, the provision of education for a profit. The profit schools are especially important in the higher grades—high school and college. They dominate the service-commercial-industrial skills education such as hair dressing, business, and electronics and are important in the professions and liberal arts as well.

Data on grade attainment are found in the *1960 Census of Population and Housing* but there are certain difficulties encountered when the attempt is made to group the data into rural and urban categories. The data which could be used to compare urban and rural populations (i.e., barrio data) do not distinguish sex and age; that which distinguishes sex and age is only available at the provincial level and hence does not distinguish the urban-rural groups. Further, the Census age categories do not conform to the grade attainment categories; hence no direct correlations of educational attainment and age are possible except at the provincial level. To circumvent these problems we have used provincial age data available at one-year intervals, and aggregated them to conform to the educational attainment levels data provided at the municipality level. This does not give the precision that one would like, but it does provide a usable approximation of the population into age, sex and rural-urban subgroups.

Table 1
 Variations of Literacy and
 Grade Attainment in Central Luzon,* 1960

	Min.	Max.	Range	Mean	Standard Deviation	Coefficient of Variability
% of the Urban Pop. with no grade	28	46	18	33.6	3.4	.101
% of the Urban Pop. with grades 1-5	24	43	19	31.5	4.5	.143
% of the Urban Pop. with grades 6-9	17	26	9	22.0	2.4	.109
% of the Urban Pop. with grades 10+	6	23	17	12.9	4.2	.318
% of the Rural Pop. with no grade	31	47	16	39.9	3.7	.092
% of the Rural Pop. with grades 1-5	29	53	24	38.6	4.7	.121
% of the Rural Pop. with grades 6-9	11	24	13	17.0	3.3	.194
% of the Rural Pop. with grades 10+	1	9	8	4.4	1.6	.364
<hr/>						
% of males which are literate	67.3	92.6	25	83.4	5.5	.064
% of Urban males which are literate	68.4	98.4	30	89.2	5.9	.064
% of Rural males which are literate	65.2	92.1	26	81.0	6.2	.074
% of females which are literate	61	89	28	77.9	5.5	.067
% of Urban females which are literate	63.5	93.2	29.7	84.0	6.0	.070
% of Rural females which are literate	59.2	88.4	29.2	75.5	6.3	.082

*n = 59 municipalities

+v = $\frac{\text{St. dev.}}{\text{mean}}$

The geographic patterns of grade attainment are different for the urban and rural populations. There is only a weak statistical correlation among the four grade levels in the rural areas but a strong correlation among the urban centers. The evidence is that a number of municipalities have exceptionally high rates of lower grade attainment among their rural populations which then drop off appreciably at the upper grades. A number of factors could account for this. The absence or remoteness of schools beyond certain grades would have an obvious negative effect. So would an attitude that a few years of education may be very worthwhile but beyond literacy there is little need for continuing. Again, as a child becomes older, his labor becomes more valuable especially in some areas. Also, there is no tuition for the elementary grades; there sometimes is for the upper grades. In contrast, there are strong correlations among the four levels of grade attainment in the urban areas as stated above. Coefficients of over .800 exist among all levels. In the towns and cities, a school system appears to be consistently unusually successful of not throughout the 10 + years. Much of this is undoubtedly related

to the fact that there are high statistical correlations among grade attainment at all four levels and the population size of the city.

There is still a significant part of the population in Central Luzon that has had no formal schooling. (Table 2.) While only a fourth of the study population was below school age, a third of the urban and 40 per cent of the rural people had never attended school. A large part of the unschooled persons who are above school age are the elderly, especially women, over 55 years of age. For that age group, women have had far less educational opportunity than men.

An attainment level of no more than five years of schooling has been achieved by a third of the urban and 39 per cent of the rural population. Since only 14 per cent of the population is in the age groups 7-11, those representing normal achievement for these grades, it is evident that about a fifth of the urban and a fourth of the rural population has discontinued school at some point during their first five years, a very high level of drop-out.

At a still higher or intermediate educational level, there is not a large difference between the urban and rural populations in terms of those who complete the grades between 6 and 9. Only a tenth of the population is of this age level, ages 12 to 15, but about twice that number have terminated their education at that level.

Finally, only a very small part of the potential population has continued as far as the high school graduate and college levels, grades 10 and over. While half of the population is old enough for these grades, only 13 per cent of the urban and 4 per cent of the rural have in fact achieved this level. Not unexpectedly it is at this level that the largest differences between the rural and urban groups are observed.

Table 2
Grade Attainment by age groups of the Urban and Rural
Populations, Central Luzon, 1960

Age Groups		Grade Attainment %			Potential Grade Attainment % of the age group that has achieved the maximum level	
Ages	%	level	urban	rural	urban	rural
0-6	23	no grade	34	40		
7-11	14	gr 1-5	32	39	67	60
12-15	10	gr 6-9	22	17	35	21
16 plus	53	gr. 10+	13	4	13	4
	100		100	100		

From a somewhat different angle, the attainment levels of the urban and rural populations in Central Luzon indicate that an average urban dweller has over three times as much chance of achieving a high school diploma or more than his rural counterpart; his chance of having gone as far as grade 6 are almost twice as good and finally, his chances of having attended school at all are 61 per cent better than his rural cousin.

In summary, a person with a grade 6 education was among the upper half of the urban and the upper third of the rural population; one with a grade 10 education or more was counted among the upper fourth in the urban areas and the upper 10% in the rural. From these data there is no question but that urban centers are providing significant education advantages to their limited populations.

This actual grade attainment level as compared to the potential for the urban and rural populations is shown in Table 3, right column. By 1960, the urban areas were providing an elementary education to virtually all of their population and 93% had attended at some time.

Both literacy and grade attainment may be presumed to be affected by the distance from residence to school. Since the upper grades, more especially high schools and colleges are markedly concentrated in the largest urban centers, we can hypothesize that there will be a decline in grade attainment with distance from these centers. A correlation analysis substantiates this view. There is a progressively declining negative coefficient of correlation, (r), associated with the relationships between urban grade attainment and distance to the largest urban place in the province. For grades 10 +, the $r = -.224$; for grades 6-9, the $r = -.283$; for grades 1-5, the $r = -.311$. This indicates that the proportion of the population that has a specific grade attainment decreases the further one lives from the provincial capital and also, that the lower grades are more affected than the higher grades. However, the low r 's indicate that the degree of association is not very high.

The strongest impact of any city is that associated with Manila. This huge metropolitan area draws part of its labor force from within the study area and the population within the commuting radius is considerably better educated than that beyond. When mapped, there is a marked concentration of municipalities having especially high literacy rates within the commuting zone. Elsewhere in Central Luzon, the high rate municipalities are scattered. The rates of female literacy are particularly high in the hinterland of Manila.

Table 3

Grade Attainment by age groups of the Urban and Rural Populations, Central Luzon, 1960
(Expressed in Cumulative terms)

Age Groups		Grade Attainment			Potential Grade Attainment % of the age group that has achieved the maximum level	
Ages	%	Level	Urban	Rural	Urban	Rural
16 and older	53	at least grade 10	13	4	25	8
12 and older	63	at least grade 6	35	21	56	83
7 and older	77	at least grade 1	67	60	93	84

Summary

The unrealistic definition of "urban" areas used by data collecting agencies in the Philippines has significantly hindered an understanding of the differences in literacy and educational attainment that obtain between rural and urban areas. By field observation and interview the urban places of Central Luzon were identified and 1960 census data were aggregated to reflect this identification. For both literacy and grade attainment, highest levels have been achieved by urban males, followed in order by urban females, rural males and rural females. With the exception of the greater Manila area, Central Luzon is the region which has the highest levels of both literacy and grade attainment in the nation. Within this area, the greatest variations of achievement are associated with place (30 percentage points), next with a rural or urban environment (8 points), and least between the size of an urban place and the educational achievement of its population. While the urban populations have a rate of high school graduates three times as high as the rural areas, only a fourth of those of sufficient age has completed high school.