Examined in this paper are some of the major consequences for rural education of recent Cuban efforts to favor the rural population, to achieve a rural transformation, and to operationalize the revolutionary ideology. Sources used in this case study include Cuban primary and secondary materials and government publications, recent social science research studies by students of the Cuban revolution, and personal observations made by the author during a 3-week visit to Cuba in December 1970. Section 1 of the paper examines the extent and nature of prerevolutionary rural education programs and their functionality in an unevenly developed plantation economy powerfully influenced by the United States. Section 2 describes and evaluates major innovative efforts after 1959 to harness rural education to national goals for ideological, political, and economic development. Section 3 examines current planning efforts to remedy past failures and draw up a new strategy for rural education that will place it at the very center of efforts to create the new socialist society. It is concluded that Cuba's effort to find a way out of poverty, underdevelopment, and dependency can best be realized through the involvement of all youth in work-study programs that are functionally linked with production. (HBC)
CUBAN RURAL EDUCATION: A NEW STRATEGY FOR REVOLUTIONARY DEVELOPMENT*

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March 1973

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What was Cuba? An insignificant whorehouse for the West, a country known only for its sugar and the delights of the flesh, a country of simple blacks and tropicales, and now we are trying to create the "new man."¹

Cuban efforts since 1959 to break out of underdevelopment, to create the socialist "new man," and to achieve a more just, egalitarian society have all placed a high priority on rural education. With the triumph of the guerrillas, rural education programs for youths and adults, both in the formal school system and in the non-formal, out-of-school educational sector, have experienced a radical transformation. Under the Batista dictatorship, the scant, impoverished, and generally neglected rural educational programs clearly indicated the investment priorities of urban commercial and political elites and their power and dominance over the rural masses. As in most of Latin America yet today, the peasantry or rural working class was integrated into national society in a way that largely denied them access to institutions and knowledge essential for economic advancement and social mobility.

In this paper, I will examine some of the major consequences for rural education of recent Cuban efforts to favor the rural population, to achieve a rural transformation, and to operationalize the revolutionary ideology. Organization of the paper will be in three parts. The first will examine something of the extent and nature of pre-revolutionary rural education programs and their functionality in an unevenly developed plantation economy powerfully influenced by the United States. The second section describes and evaluates major innovative efforts after 1959 to harness rural education to national goals for ideological, political, and economic development. Section three looks to the future; it examines current planning efforts to remedy past failures and draw up a new strategy for rural education that will place it at the very center of efforts to create the new socialist society.

As a case study of rural education and the Cuban development model, the paper also speaks to a number of theoretical concerns of social scientists seeking to understand better problems and strategies for national development. To wit, is, as Latin American Marxists claim, neo-capitalistic

domination the major constraint on development in poor backward countries such as Cuba? (See, for example, Quijano, 1971) Or, on the other hand, as numerous North American liberal social scientists profess, is Latin America kept underdeveloped by dysfunctional attitudes and behaviors, by essentially cultural constraints? (Hutchinson, 1968) Cuba offers an interesting test of these competing theoretical frames. The country has broken out of capitalistic domination but yet remains, at least in the short run—and quite understandably, relatively underdeveloped in economic terms. Powerful and persistent efforts continue, nevertheless, to replace still prevalent personalistic, authoritarian, and exploitive "macho" behaviors with greater social consciousness, to create a new Latin American who will view the world in collectivistic rather than egocentric perspective and be ever ready to sacrifice selfish interests for social improvement.

Cuban documents define urban areas as "any population center with over 2,000 inhabitants," and the rural population is, accordingly, defined here as those living in population centers of less than 2,000 population. As all Cuban data on the rural sector are gathered on this basis alone, the definition of rurality embodied in official statistics is unidimensional and unfortunately fuzzy. Rural education is defined here as structured learning activities in rural areas. These may be offered as part of the national, articulated formal school system, or they may take place in non-formal, out-of-school settings on the job, in the fields, or in the community. Participants may come from the rural area where instruction is offered, from other rural areas, or from urban centers. The more visible is formal schooling offered in rural primary or secondary schools. These schools, although they share a common national curriculum, are geographically distant from their urban counterparts as is the case throughout most of Latin America. Less apparent and frequently only superficially understood, non-formal educational

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1 Although Cuba's three universities at Habana, Las Villas, and Oriente are urban in location, their growing efforts to prepare agricultural specialists and to involve students in agricultural extension and surface extraction activities will be treated as rural education here because of the degree to which instruction is located on the job in rural settings. At the University of Habana, for example, 12,000 students are directly involved in productive work, largely rural, for half of their time. This releases some 12,000 farmers and workers for half-time study in special workers' facilities. See Fidel Castro's speech, "The Large-Scale Application of Study and Work in all Three of Our Universities is Undoubtedly a Historic Step." Granma Weekly Review (December 17, 1972), p. 9.
programs for adults and out-of-school youth comprise the "parallel school system," the second major component of Cuba's educational complex in rural areas.¹

Sources used include Cuban primary and secondary materials and government publications, recent social-science research studies by students of the Cuban revolution, and personal observations of rural educational programs made during a three-week visit to Cuba in December 1970. These materials are listed in a bibliography at the end of the work.

Gunnar Myrdal has astutely suggested that objectivity in social research is enhanced by explicitly stating the value premises upon which a study is based. As this is rarely done, one might question the utility of a good bit of the literature on social problems and change processes. Be that as it may, my biases favor efforts such as Cuba's to break dehumanizing bonds of dependence, to place the social welfare of the nation over the material welfare of individuals, to give all individuals access to knowledge and institutions, and to define development as improvement in which no one is left behind.

Part One: Rural Education and Underdevelopment before 1959

There has been a good deal of, for the most part, descriptive research on the so-called "dysfunctional" aspects of rural education in Latin America. The problem has been generally viewed as lack of such educational resources as schools, books, teachers on the one hand, and "irrelevant" curriculum, ill-prepared teachers, etc., on the other. The line of reasoning follows that shortcomings of rural education could be largely eliminated with greater material inputs from the Ministry of Education and greater motivational inputs by teachers, parents, and youth in the countryside. As the litany goes, if rural students would only stay in school and stay on the finca, or farm, then rural education would become more "functional," and rural development would become more innovative, entreprenurial, and democratic.

¹ See "Cuba: Education." Latin America, Vol. 6, No. 24 (June 16, 1972), p. 189. See also: Santiago Cardosa Arias, "Far from the Walls of the University." Granma Weekly Review (November 14, 1971), p. 6, which describes efforts by student volunteers of agronomical engineering at the University of Las Villas to create "the first school of cattle-raisin engineering in the Escambray Mountains... and to put into practice Fidel's idea to universalize universities and locate them in development projects, in factories, in research centers."
Unfortunately, neither the scholarly study of rural development problems, nor the intervention programs of national and international organizations seeking to ferment rural educational development during the past several decades have come to grips with structural obstacles to induce these so-called "more functional behaviors." As the conditions of rural education and rural life deteriorate in much of Latin America, explanations have focused on what are viewed by interventionists as dysfunctional aspects, on behavioral constraints that have kept the recipients of technical assistance from becoming more like the grantors.

It would seem to me, that if we really seek to understand outcomes of attempts to induce change in a sub-system, in this case the rural sector, we must more diligently and honestly seek to understand not only "how did it not work," but "how it did work," how was, or is, rural education, for example, highly functional within the larger national context of, as Harold Laswell has asked, "Who gets what, where, when, and why?"

An understanding of the modus operandi of pre-revolutionary rural education in Cuba is especially pertinent in this regard if we are to view it as an indicator of deliberate rural deprivation and underdevelopment. Before looking at how Cuban rural education worked under a plantation economy largely dominated by capital from the United States and Europe, it may be instructive to first briefly examine several theoretical frameworks that help to explain how institutions function in the type of plantation society found in Cuba before 1959, and still prevalent today in many of the Central American republics, in Northeast Brazil, and throughout much of the impoverished Third World.

In a study of plantation economies, Beckford has persuasively argued that structural factors inherent in the plantation system retard the process of development and introduce what he calls a dynamic process of underdevelopment. He views the persistent poverty of plantation societies, despite their frequently long exposure to so-called "modern" influences, as a direct consequence of the institutional environment, i.e., the nature of their economic, social, political, and not least, educational organization. This means that in attempts to understand how institutions such as rural education work, we must examine them in terms of their historical legacy and from a political-economy point of view in studies which attempt to synthesize human activity in holistic analysis.

1 Underdevelopment is viewed here not as a stage or a condition, but as a process.
What might be called "the underdevelopment biases" induced by plantation systems are easily identified. They are plural social orders divided by race, class, and caste and characterized by dissenus, societies which are to use M. G. Smith's term, "pregnant with conflict." In such settings of continuous social instability and tension, there is a tendency for the privileged to invest in land, while the underprivileged, when possible, invest in education for their children; assets which can survive protracted conflict. (Beckworth, 205) Plantation societies are socially integrated along the lines of economic production for export markets. All social groups seek to emulate the lifestyle of the planter class, while interpersonal rivalry to win favor with plantation owners makes cooperative effort difficult to mobilize and keeps social cohesion weak. Absence of local government also tends to undercut efforts to mobilize local resources for community-development projects. Interpersonal relations clearly reflect the authority structure of the plantation. Those at the top of the social hierarchy with most of the power, as well as those at the bottom who are virtually powerless, all characteristically exercise what power they possess over others in an exploitive, authoritarian manner.

Beckford has also noted the negative influence of plantation systems on attempts to motivate and mobilize people for change, to provide sufficient incentives and rewards, and, in sum, to establish the concrete social requirements of development:

On the whole the plantation has a demoralizing influence on the community. It destroys or discourages the institution of the family and so undermines the entire social fabric. It engenders an ethos of dependence and patronage and so deprives people of dignity, security, and self-respect. And it impedes the material, social, and spiritual advance of the majority of people. In these circumstances we could hardly expect to find a highly motivated population displaying the kinds of characteristics that development demands. The energies of most people are spent in trying to beat the system in one way or another. (206)

Although all plantation societies do not in the same degree share the same values, there are pronounced similarities in their traditions, attitudes, and behaviors, and in the extent to which the values of much of the population coincide with those of the elite planter class. Hutchinson's study of the Brazilian Northeast suggests in this regard that:
The sum of these value orientations in the Northeast plantation context does not add up in a way which promises modernization... Starting with a rejection of nature as a viable partner, the rejection of innovation, the rejection of cooperation, and a rejection of long-range planning, they add up to a continued tradition and to a continued cycling of crises. (88)

Evidence of the social economy of underdevelopment in the United States' South as well has been presented by Nicholls in his study, Southern Tradition and Regional Progress. He argues that:

Southern traditions that have seriously impeded economic progress are a rigid social structure dominated by the aristocratic ideal of the planter class; a spirit of extreme individualism, and a tradition of leisure which discouraged enterprise; a subordination of the rural middle class; dominant agrarian values that are a legacy of the slave plantations which have impeded balanced and broadly based regional progress; an undemocratic political structure dedicated to white supremacy at whatever cost; the weakness of social responsibility resulting in inadequate support for public education. This has kept the majority of the population in relative ignorance and encouraged a continued belief that low-income groups in society are poor because they are innately inferior, thus preventing action towards improvement of the social and economic organization; and, among others, that conformity of thought and behavior in the Southern tradition has created a general intolerance of intellectualism and encouraged an acceptance of violence as an ultimate weapon against non-conformity and dissent. (Nicholls, 157-63)

In rural areas of Latin America devoted not to plantation but to subsistence agriculture and tenant farming, the mechanism of dominance has been usually one of internal colonization, i.e., the internal colonization of rural areas by urban centers and elites. Although this pattern has not, to a significant degree, been present in Cuba, it is prevalent in much of Andean America and is equally detrimental to efforts at mobilization, participation, and the development of rural education. The theory of internal colonization has been elaborated in detail in the works of Rodolfo Stavenhagen, Julio Cotler, and, among others, Dale Johnson. (Stavenhagen, 1970; Cockcroft, 1972)
As pre-revolutionary Cuban rural education took place primarily in the plantation sector of the rural economy (i.e., children in the isolated peasant sector went, for the most part, unschooled), we might examine in a general way how the plantation system tends to introduce underdevelopment biases in education before examining the specific Cuban case.

Traditionally plantation societies have been slave societies with education available only to children of the planter and managerial class. During the colonial period, these children would usually return to the colonial metropole for schooling; with independence, schooling in the metropolis or national capital replaced study abroad. Non-formal or on-the-job training was limited to the mechanic or artisan class and disseminated knowledge directly related to the requirements of plantation production. With independence and the increase in size and influence of the middle sectors, national agencies, usually ministries of education, began to provide public schooling that was patterned on urban institutions but located in provincial areas. It has only been in this century, however, that the ex-slaves, the field hands, have gained some degree of access to free public schooling. In the past several decades, growth of social demand for schooling among rural working-class adults and youth has been a key factor in what has come to be called “the world education crisis.” Receiving at best several years of primary schooling, these children are systematically exposed to the elite value system embedded in the national curriculum. As has been described by Illich and others, they are thus taught not only the legitimacy of the existing rigid social structure, but the correctness of carrying the blame for their failure to rise in the educational and social system. This experience demonstrates that for plantation workers, and similarly dominated groups, a little education is not necessarily a “dangerous” thing. Quite the contrary, if it is offered in such a way that the majority of students will fail and assume the responsibility for their failure, then rural education can function as a powerful device to legitimize privileged elites and gross inequalities in power, consumption, and life chances.

In 1958, the Cuban class structure was made up of a small upper class of landowners, owners of large ranches, and manufacturers; a middle group of some 18 percent of the population comprised of small businessmen, tradesmen, manufacturing, and the agricultural middle class; a group of non-farm wage and salary workers in public and private employment made up for about one-half of the labor force, and agricultural wage workers who were, for the most part, unionized plantation workers comprised about 22 percent of the total, while small farmers and tenants accounted for perhaps ten percent, or so, of the population. (O’Connor, 55)
The large agricultural population, although they had achieved certain minimal services, lived in another world and another century when compared to the rapidly modernizing urban sector. A study of rural living conditions by the Catholic University in Habana in 1956 gives a picture of cultural domination and rural neglect that might be found throughout much of Latin America today. A representative sample of 1,000 households distributed throughout Cuba's 126 municipalities was selected to represent the universe of some 400,000 rural families in Cuba at that time. The survey shows that while an imported cultural life flourished among the upper classes of Habana, over 43 percent of the adult rural population were illiterate. Housing conditions were little better. Over 60 percent of all rural families lived in palm-thatched huts with earthen floors, two-thirds had no toilets, and only one house in 14 was electrified. As O'Connor has observed:

Poor housing was matched by deficient diets; only four percent of all rural families consumed meat regularly; rice furnished 24 percent of the average diet; beans, 23 percent; and root crops, 22 percent. For the health of Cuba's country people, diets and living conditions had terrible implications: 13 percent of the population had had a history of typhoid, 14 percent of tuberculosis, and over one-third had intestinal parasites. Of Cuba's social resources, country people consumed a tiny share.

Although rural consumption of educational service at the same time also lagged far behind urban standards, the discrepancy, at least at the level of primary schooling was not as notable as in matters of housing, diet, and health.

Part Two: Revolutionary Change in Rural Education after 1959

As a mass movement seeking to implant a new egalitarian value system and create a new more just society, the Cuban revolution has placed a high priority on eradicating inequalities and giving all Cubans opportunities to participate in the institutions and processes of national life. The rural population, more than any other group, has received special attention in this regard. Castro, on taking power, began a number of "crash" assistance programs to redistribute land, to organize, and to educate the formerly isolated and exploited rural agricultural population and to link them to national society and the ongoing process of attempted socio-cultural change.

A two-stage land reform in 1960 and 1963 turned 35 to 40 percent of all land over to small tenant farmers, and rent disappeared as a means of pumping out the surplus product of peasants for the benefit of urban elites.
The second land reform in 1963 eliminated all private holdings over 165 acres and put vast numbers of unemployed laborers to work on idle land previously held as reserve by the large foreign corporations. (Aranda, 1969)

In a number of ways, the agricultural population has been singled out for preferential treatment by the revolution. They are now assured employment throughout the year; schools, hospitals, and other human services are available, in many cases for the first time, and free to all. They receive the same ration of food and clothing as the urban population and are usually able to supplement it with their own production. They participate in mass organizations such as trade unions, the Communist Party, Committees for the Defense of the Revolution, Peoples' Courts, and the like. In sum, their lives have been radically altered for the better, and they are, for the most part, fervent supporters of the Revolution. (Jacoby, 1969)

Most favored of groups in the rural sector, indeed of all Cubans, have been the ex-tenant peasant farmers. They comprise some 40 percent of the agricultural population and work about 30 percent of the agricultural area, largely as tobacco farmers in Pinar del Río. With average holdings of 50 acres, this peasant sector produces only for the government and in exchange receives fixed prices, credit, and labor supplies. Laborers supplied by nearby state farms work on an equal footing with peasant owners, and everyone is addressed as compañero, or comrade.

As rural youth are caught up in the Cuban revolution through their formal and non-formal educational activities and through participation in voluntary organizations, and as the income gap between agricultural workers and peasant farmers narrows, the landowning peasant class is rapidly contracting. For largely ideological reasons, increasing numbers of peasant children are declining to succeed their fathers: Thus, as members of the old generation raised in the pre-revolutionary society die, their farms are now, for the most part, acquired by the government and added to state farms. This change presents significant evidence of how the new value system emphasizing collectivistic over individualistic behaviors has become woven into the very fabric of life, culture, and politics in the Cuban countryside. (Jacoby, 30)

Simultaneous with basic change in rural structures in the early 1960's, large numbers of youth were recruited in urban areas to teach in rural areas. Thousands of police and military buildings became improvised schools and for the first time in Cuban history, primary schools became available to all. The Frank País Brigade, for example, has taught in the most remote mountainous areas as "shock troops of the revolution" who, by their very presence, make their revolutionary message credible and vibrant to the peasants and farmers, who, through their support, had done much to make the guerrillas' success possible. (See Figure 1)
Cuban educational programs continue to be divided, as in pre-revolutionary times, into urban schooling oriented towards higher education, and rural schools oriented toward agricultural life and production. (Cuba, Planeamiento, 1969) That the obvious contradictions of a dual school system in a society professing equal opportunities have been painfully apparent to educational decisionmakers, there can be little doubt. The choices, given a continuing teacher shortage and heavy investment in education (18.8 percent of the national budget in 1967), have been to expand the existing formal school system, to modify its more inequitable aspects through the scholarship program, and to complement it with a wide range of non-formal activities outside the school. Many intellectually able and ideologically dedicated rural youth are sent with full scholarships to board and study in urban schools both at the primary and secondary levels. In 1972 the total number of such scholarship students totaled well over one-quarter million. (Castilla, 1971) At the same time, all urban secondary-school students have for a number of years been required to spend some 45 days per year in a program of rural encampments called "Schools to the Countryside." This period is principally devoted to a minimum of classwork and a maximum of working with state farms, private farmers, and the military in the production of such agricultural products as sugar cane, coffee, tobacco, citrus fruits, vegetables, and others. (Aguilera, 1971) Benefits of the program for students and teachers claimed by the author include the development of a "producer's mentality," greater understanding of agricultural problems, new organizational and self-leadership skills, new relations between students and teachers, as well as economic contributions. In 1969-70, 85.2 percent of all secondary basic students participated; in 1970-71, the number of students dropped to 80 percent.

Efforts to provide basic educational services for rural youth and to give all rural adults the equivalence of a sixth-grade education during the past decade have been less dramatic and exciting than the initial literacy campaigns, but, nevertheless, impressive in their scope and evidence of commitment. (See Figure 2) The government's strategy of making Cuba,
FIGURE 2
PERCENTAGE OF PROVINCIAL POPULATION (OVER TEN YEARS OLD)
ILLITERATE IN 1953 AND 1962

<table>
<thead>
<tr>
<th>Province</th>
<th>Illiteracy 1953</th>
<th>Illiteracy 1962</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pinar del Río</td>
<td>30.8</td>
<td>5.1</td>
</tr>
<tr>
<td>Habana</td>
<td>9.2</td>
<td>1.4</td>
</tr>
<tr>
<td>Matanzas</td>
<td>19.2</td>
<td>3.2</td>
</tr>
<tr>
<td>Las Villas</td>
<td>24.8</td>
<td>3.9</td>
</tr>
<tr>
<td>Camagüey</td>
<td>27.3</td>
<td>5.5</td>
</tr>
<tr>
<td>Oriente</td>
<td>35.3</td>
<td>5.2</td>
</tr>
</tbody>
</table>

Source: Valdés, 1972, p. 43.

In Castro's words, "one big Revolutionary School" has been to adapt and reorientate existing school programs so as to implement better new development priorities and, when necessary, to create new structures, organizations, and programs largely in the non-formal educational sector.

Part Three: Plans to Revolutionize Rural Education

Cuban efforts to make six years of primary schooling available to all rural children have been impressively successful. Even the most isolated villages accessible only by mule path have their schools and teachers in residence. At the secondary level, the pre-revolutionary situation where secondary schools were, for the most part, located in urban centers continues much to the chagrin of educational authorities. True, deserving rural teenagers now have access to these schools through full scholarships, or becas, from the government. Also technical training and volunteer youth education and service programs give rural youth widespread and significant opportunities to learn new skills and use them in the ongoing struggle to extend, mechanize, and rationalize agriculture.

The data clearly indicate that although the rural population as a percent of the total population continues to decline, the relative percentages of schools, teachers, and students in rural primary education have significantly increased after 1959. (Ministerio, 1969) In three years the total number of primary schools increased 61 percent between 1959 and 1961, while the increase for rural schools is almost 100 percent. During this time period urban schools actually decreased in number from 2,678 in 1959 to 2,026 1960 as many middle-class school teachers fled the revolution, mostly to Miami. At the same time, other primary teachers and a vast army of volunteers drew upon urban educational resources to
open and staff new schools in oackward rural areas that had previously never seen a school teacher. By the late 1960's this contemporary effort fueled by idealism and a practical revolutionary concern to draw the campesinos into the nation and the revolution had been largely accomplished. After 1962, the extremely rapid growth in rural school construction and conversion began to level off, while the decline in urban primary establishments has been reversed and their number has remained fairly constant despite considerable enrollment increases.

Data on numbers of teachers and enrollments in rural primary schools also indicate the enormous quantitative explosion that took place during the revolution's first years. Clearly, rural education has been powerfully favored, frequently at the expense of the urban educational sector, in the area of educational inputs. The results of this revolutionary shift of national education priorities to favor the rural sector might very roughly be evaluated in terms of attempts to put all children in school and to secure fundamental behavioral changes. If we examine the first goal, it is apparent that the internal efficiency of rural primary schooling, and urban as well, is low and little different from other poor but non-revolutionary Latin American countries. Cuba is different primarily because the schools and teachers are available to all; the majority of students, nevertheless, continue to drop out at an early age to work or, as Castro has claimed, simply to loaf. (Castro, May 1971) Over 300,000 youth in the six-to-15 age bracket have left school, while within the educational system, between the first and sixth grades, over 620,000 school children have fallen behind one or more grades, and only some 40 percent of those who begin primary grade one complete grade six. The corresponding number of "average" students for the seventh to the tenth grades is some 77,000, while in the eleventh, twelfth, and thirteenth grades the number is still relatively high, 4,600. (Castro 1972). These students are viewed as a cause for grave concern in a society that is seeking to raise traditionally low rural educational achievement to national norms. The enormity of this goal is indicated in the continuation of an exceeding steep-sided educational pyramid. Although the base has been expanded, i.e., some 99.8 percent of all children at least enroll in primary education if only for a short period (See Figure 3), the percentage of the age cohort enrolling in intermediate-level courses in 1972 is only 12.6 percent, and in higher education 1.6 percent. (Cuba, July 1971)

Perhaps the second most critical goal of education in rural settings after schooling of rural youth is the attempt to teach urban youth in rural educational programs seeking ideological development and agricultural
FIGURE 3
PERCENTAGE OF AGE COHORT ATTENDING
PRIMARY SCHOOL IN 1965/66

<table>
<thead>
<tr>
<th>Age</th>
<th>Percentage Attending</th>
<th>Number not in School</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>99.8</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>97.5</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>94.5</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>86.9</td>
<td>20,804</td>
</tr>
<tr>
<td>14</td>
<td>76.7</td>
<td>35,428</td>
</tr>
<tr>
<td>15</td>
<td>55.7</td>
<td>68,042</td>
</tr>
<tr>
<td>16</td>
<td>39.8</td>
<td>91,239</td>
</tr>
</tbody>
</table>

(Incomplete Total) 215,513

Source: Castro, 1972

Production. Although evaluation of results in this regard is even more difficult and informal, a number of recent official comments on these programs provide some qualitative insight into their aims, operation, and outcomes. At the recent First National Conference on Education and Culture, for example, efforts in the compulsory Schools to the Countryside Program and in voluntary work in agricultural production were indirectly criticized as follows: (1) the goals of the activity were not clear, and the encampments consequently lack organization directed at specific outcomes; (2) the time lost from formal-school programs in urban settings has serious effects on the academic programs of students preparing for higher education; (3) urban students make few meaningful contacts with campesinos and largely maintain attitudes of urban superiority vis-a-vis their rural countrymen; (4) the productivity of students is generally low, leadership is lacking in the camps, while the activity has often been poorly integrated into the formal-school program and viewed with suspicion by many secondary-school teachers. The program has recently been cut back to five weeks, and it now appears that the entire effort to carry urban schools to the countryside for short encampments will be replaced during the next few years by a bold new strategy to locate all general secondary programs, beginning at the junior-high school level, in rural areas and link them with agricultural production. (Aguilera, 1971)
Prime Minister Castro's speech to the Second National Congress of the Young Communist League (Castro, 1972) discussed in detail current failings of the formal school system, presented a plan to build a massive new secondary system of boarding schools in rural areas, and gave the League a charge to implement the task in concert with "the mass organization, the labor movement, the Party, and all the people."^1

Because Castro's critique and the global solution he proposed will very likely shape the direction and content of Cuban rural education for at least the next several decades, it is important to ascertain his view of rural education today, as well as its potential for revolutionary development. His blistering criticisms of the shortcomings of Cuba's educational system, and especially that part in the rural sector, confirm the data on low efficiency presented in Figure 3. They also indicate that problems in creating the new socialist man through education have recently grown more critical and are now viewed as threatening to the very survival of the revolutionary state. During the first years of the revolution, problems of illiteracy and lack of educational facilities were rightly viewed as part of Cuba's colonial heritage. They were attacked as intolerable social ills and largely eradicated. By mobilizing the masses and changing spending priorities, the revolution's first educational battles were conspicuously won. And if the outcomes were costly in terms of manpower utilization, production losses, and other efficiency criteria, they were imperative at almost any cost if one used ideological criteria. But as vastly increased numbers of youths entered schools and educational costs skyrocketed, problems of efficiency in the educational system, and of its relevance to national production goals have greatly intensified. Now, 13 years after Castro's victory, several basic educational problems are being critically assessed as indicators of educational-system failures.

The first major problem is that over half of the children in primary schools, some 1,759,167 in 1972, are overage grade repeaters. There are, for example, over 400,000 students in the first grade, over "double the amount that should be registered if the system were functioning as it

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1 Created in 1962 from the Association of Young Rebels, the League is a "Marxist-Leninist organization based on the principle of selectivity whose main mission will be to provide the moral and ideological education of the new generation leading it to participate in all revolutionary activities and prepare it to live in a classless society." The League also works with farmers and their organizations to promote "their social and political development." See "Final Declaration of the Second Congress of the Young Communist League."

should, if the graduation rate were what it should be, and if the students entered school at the required age. " (Castro, 1972) In all, some 720,000 primary students are two or more years behind their grade level. Of these about 130,000 are in the first grade and 115,000 in the second grade. With barely 60 percent passing, the fourth grade has the greatest number of repeaters.

The problem of school leavers, the majority found in rural schools, is equally critical. " Castro notes that the following percentages of age cohorts attend school: Using the data from the 1965-66 school year, which would seem to indicate that the problem is little changed today, Castro explained that 387,000 students registered in the first grade, and some 124,000 in the sixth grade; but that only 82,300, or 21.2 percent, graduated. Moreover, in comparison to the national rate of 21.2 percent, graduation rates for urban schools were 34.2 percent. In rural elementary schools, they were only 11.7 percent. (Castro, 1972)

The educational pyramid grows even steeper at the junior-high school level where, in the 1966-67 school year, 59,300 students enrolled in seventh grade, but only 17,213 reached tenth grade. Of these only 8,073 passed. This figure represents a 13.6 percent graduation rate, a figure in large part understandable in light of Cuba's underdevelopment, rurality, and lack of trained teachers, but nevertheless totally unacceptable in a country desperately short of technicians. Consequences of low internal efficiency viewed as most serious are the nearly one-fourth million youth who neither work nor study, and the low enrollment in technical-education programs. Of the 23,960 students in these crucial training programs, 16,203 study industrial subjects, while only 7,757 study agriculture. At the university level as well, the number of students selecting agricultural sciences has been equally discouraging. (See Figure 4)

For a poor agricultural country seeking to mechanize the agro-industrial sector, these figures indicate a serious lack of student interest in technical studies. Castro laments that, "There are few young people who are thinking about getting agricultural or industrial training... There are agricultural and industrial technological institutions that are empty. " In marked contrast,

... there are 24,033 people studying languages. That's fine. We should be glad that so many people realize the importance of studying foreign languages. But who is going to produce the material goods in the future, and how? How will we be able to introduce technology in agriculture and industry? (Castro, 1972)
FIGURE 4
UNIVERSITY ENROLLMENT IN AGRICULTURAL SCIENCES,
1959 TO 1969

<table>
<thead>
<tr>
<th>Year</th>
<th>Agricultural Sciences</th>
<th>Agronomy</th>
<th>Veterinary</th>
<th>Animal Husbandry</th>
</tr>
</thead>
<tbody>
<tr>
<td>1959</td>
<td>1,202</td>
<td>948</td>
<td>254</td>
<td>-</td>
</tr>
<tr>
<td>1960</td>
<td>1,359</td>
<td>1,150</td>
<td>209</td>
<td>-</td>
</tr>
<tr>
<td>1961</td>
<td>851</td>
<td>704</td>
<td>147</td>
<td>-</td>
</tr>
<tr>
<td>1962</td>
<td>886</td>
<td>689</td>
<td>197</td>
<td>-</td>
</tr>
<tr>
<td>1963</td>
<td>880</td>
<td>592</td>
<td>237</td>
<td>51</td>
</tr>
<tr>
<td>1964</td>
<td>1,194</td>
<td>908</td>
<td>262</td>
<td>24</td>
</tr>
<tr>
<td>1964/65</td>
<td>1,617</td>
<td>1,236</td>
<td>1,236</td>
<td>29</td>
</tr>
<tr>
<td>1965/66</td>
<td>1,300</td>
<td>923</td>
<td>923</td>
<td>21</td>
</tr>
<tr>
<td>1966/67</td>
<td>1,857</td>
<td>1,449</td>
<td>1,449</td>
<td>-</td>
</tr>
<tr>
<td>1967/68</td>
<td>2,908</td>
<td>2,083</td>
<td>2,083</td>
<td>-</td>
</tr>
<tr>
<td>1968/69</td>
<td>2,203</td>
<td>1,667</td>
<td>1,667</td>
<td>-</td>
</tr>
</tbody>
</table>

In the 1967/68 academic year, approximately ten percent of Cuban university enrollment was in agricultural sciences. The figure appears to have fallen off in recent years. See Juceplan, Compendio Estadístico de Cuba, 1968. La Habana, 1968, pp. 34-35; and Paulston, "Education," 1971, p. 390.

The Prime Minister also criticized Cuban education for its continued overemphasis on theory and intellectual preparation, for the poor study habits of students, and for their resistance to work and study programs in rural areas. In this regard, he acknowledged the problem of motivation faced by all rural educators:

Who wants to go work in the countryside? The countryside is rough, it's poor. Moreover that rough, poor countryside doesn't change from one year to the next, and we'll be having a rough, poor countryside for years to come. All these factors have a bearing on each other and give rise to certain attitudes of evasion.

Even more critical has been the ineffectiveness of educational and rural service experiences such as the Schools to the Countryside and voluntary labor programs, seeking to internalize the new value system. Castro frankly stated that, "We still don't have the new man, and we
no longer have the old one." He sees Cuba living through a difficult transitional period between the old plantation system under capitalism and the new socialist society.

The new man doesn't exist yet.... The irresponsible fellow that destroys equipment, who doesn't work or study is not yet a new man. The old man who lived under capitalism knew how hard it could be to find a job. He learned how to handle a bulldozer or a centrifugal in a sugar mill by working ten years as an apprentice. He learned about discipline because life, the factory, and hunger imposed it upon him. When you arrive at a sugar mill today, you do not see this discipline. The discipline of the old man is gone, and we don't have the new man with the corresponding discipline--self-discipline and awareness of his obligations and tasks. (Castro, 1972)

Interestingly, Castro views non-formal education programs in the army during compulsory military service and in the "Voluntary" Centennial Youth Column as the "two key factors that have instilled discipline.... in the mass of males who could not be won over and forged by the formal educational system...who didn't study or work and hadn't learned a skill or a trade." (See Santié, 1970) He also observed that because girls have not participated in either of these activities, they have even fewer opportunities to "learn a skill, to develop work habits, and elements of discipline.... This is a serious problem, and even more so in a country where there are old traditions that women shouldn't work." (Castro, 1972)

Empty agricultural and industrial technological institutes and failure to produce the much vaunted "new man" lead Castro to warn that the danger signals have been put out for education. He underscored that, "There is not the slightest doubt that all things point to the need for effecting a true educational revolution." His strategy for radical reformation of the educational system is based on a "full-scale application of the principle of combining work and study. This is to be done at all levels of education: elementary school, junior- and senior-high school, and the university." (Castro, 1972) This new revolutionary offensive is to begin in 1972 first in Camagüey, Cuba's most rural and backward province, under the leadership of the Young Communist League and in collaboration with the closely allied Ministry of Education and the ministries of the armed forces and interior.

Primary schools where fourth-, fifth-, and sixth-grade students work two hours a day in agricultural production exist now only in one or two localities, but Castro is enthusiastic about developing this kind of
school in the countryside. In reference to the primary school at Meneses, he claims that students now supply "the fruits of their labor" not only to meet school-feeding needs, but also to the workers' dining rooms. "And it wouldn't be a surprise if they could supply the town itself with some of the things they have grown. And all with working only two hours a day." (Castro, 1972) Counterpart urban schools combining work and study are yet to be developed because of difficulties finding truly useful activity for fourth to sixth graders "at the industrial level." Rather, junior-high schools will be the first target institution.

Ten rural secondary schools have been constructed since 1970 using standardized pre-fabricated concrete construction. With 500 boys and girls boarded at each school, some 5,000 youth are presently enrolled in junior-high school programs and working three to four hours a day in agricultural production. (Martinez, 1972) Ambitious plans call for construction of 300 more junior-high schools a year of the Celba 1 type in 1973, 1974, and 1975. In September 1972, 40 of these junior-high schools with a combined capacity of 20,000 students are scheduled to be inaugurated on the same day at the same time. Construction is organized on a brigade model. Over 80 construction brigades were at work on this program in early 1972 using labor inputs from the construction sector, the army, from volunteer workers' "minibrigades," and others. After 1975, increased output of cement and steel rods will permit the implementation of a second stage of school construction to locate all senior-high schools, normal schools, and technological institutes as well, either in rural areas or close to a factory. Cuba's 150 sugar mills are, for example, each to have a polytechnic school, a plan that would involve 75,000 youth in the production of sugar while learning agro-industrial skills.

Special primary schools in the countryside are also viewed as the solution to the problem of "backward students in our schools." Thirteen- to 15-year-old grade repeaters will be isolated in these institutions and offered remedial studies and productive labor experiences "just like the ones in junior-high schools." Overaged 16- and 17-year-olds in the seventh- and eighth-grade programs will be sent to the new polytechnic schools. Thus, notes Castro, "our schools will be divided according to educational level and age level." (Castro, 1972) This proposal to create a dual system of remedial and regular schools would appear to be a surprisingly elitist solution for what is undoubtedly an egalitarian society. It indicates the surprising degree to which Cuban schooling continues to practice traditional concepts of grade promotion and individualistic competition.
The cost of creating a new system of boarding schools in largely rural settings has not been made public. One might observe, however, that Cuba's admittedly inefficient educational system in 1972 cost somewhere in the vicinity of 400 million pesos. Even if the cost of school expansion and relocation increased to the 1,000 million mark, to quote Castro, the value of youth labor "should easily pass the 1,000 million mark." The expectations are clear: students will pay for the new schools with their labor and in the process internalize revolutionary norms of sacrifice, solidarity, and service.

With 40 new Ceiba-type junior-high schools to be opened in 1972, and "at least 120 in 1973," where will teachers, already scarce, be found? With each school requiring a staff of at least 40 teachers, Cuba must launch a crash teacher-training program to match the coming explosion of educational facilities in rural areas. The plan is to encourage junior-high school graduates (there were some 10,000 of these tenth graders in 1972) to volunteer for teaching positions in the rural junior-high schools. Student organizations such as "the guerrillas of education" movement, the Young Communist League, and others are to encourage tenth-grade graduates to stay on as teacher trainees and receive pedagogical training on the job. Castro concludes that "at present there simply isn't any other formula except to go to our tenth graders and recruit at least 2,000 of them this year and at least 5,000 next year, and so on." (Castro, 1972) Little has been said, however, about the fact that only 25,000 of Cuba's 80,000 teachers have been professionally prepared. The need to improve the quality of the teaching corps has at times been recognized, but the task is arduous and time-consuming. Rather than enter into a massive in-service training program, it would seem that Castro is largely counting on enthusiasm and ideological commitment on the part of teachers, student teachers, and the League of Young Communists to prepare the new teachers required by the plan.

The facts that Cuban youth do not all equally share in the tasks of the revolution is viewed as a matter of great potential danger. Some youth study, for example, and are exempt from military service, in which only about one-third of all 16- and 17-year-olds serve three years. Others volunteer for work in agriculture or construction, others don't. (Cuba is "Colonizing" Isle, 1972) Current plans call for an extension of compulsory schooling from 16 to 18 years of age so that all Cuban youth will be required to work and study in the new schools in the countryside. In this way, Castro claims, "we'll get a more mature, better trained, and more knowledgeable young person." (Castro, 1972)
The need for 16- to 18-year-old youths in rural high schools, especially in the sparsely populated cane-producing province of Camagüey, might also be interpreted as a necessary step to insure semi-skilled manpower for sugar production. As previously noted, pre-revolutionary Cuba had a dominant plantation sector that demanded large numbers of seasonal workers. During the long "dead season," canecutters barely survived either through small-plot subsistence farming or through supplemental occupations outside the cane industry. Whatever the alternative, it had to be compatible with the need for workers to be available to the sugar producers for the next harvest season. (Hicks, 1972)

With the social revolution and a basic change in the ecology of sugar-cane production in Cuba, an alternative structural response has developed, i.e., non-sugar workers are made temporarily available for harvest-season labor. Volunteers from urban centers, farm labor, the military, foreign volunteers as well as forced labor have all been used in varying degrees.¹ (The Venceremos Brigade, 1971) It will appear now, however, that future plans will increasingly call for rural secondary schools to provide year after year a significant labor contribution to the cane-harvest season.

Conclusions

In sum, rural education in Cuba is increasingly viewed as the basic strategy for accomplishing key revolutionary objectives in the areas of economic production, ideological formation, and educational preparation. The need to involve all youth in work-study programs, functionally linked with production, has been established as the number-one priority of the revolution in the years to come. Previous revolutionary offensives in Cuba have sought to mobilize the masses and involve them in efforts to achieve moral victories—often at great material cost. (Edel, 1970) The rural education offensive now getting underway is no exception to this pattern. It is an audacious, frontal attack on the still-traditional formal-school system and continuing

¹ See, for example, Fernando G. Dávalos, "Youth in the Development of Agriculture and Construction Work in the Countryside." Granma Weekly Review (April 2, 1972), p. 5. The author reports that in Oriente province alone 8,500 volunteers are cutting cane, 2,300 are building dairies, 500 are installing electric power lines, 1,000 more are aiding in the tobacco harvest in Pinar del Río, while thousands more are working on other agricultural and construction projects.
attitudes of urban superiority and elitism. It is, moreover, indicative of a belief that the new socialist man with his attributes of dedication to collective rather than individual interests will be best formed in rural settings where youth can supposedly be removed from ego-enhancing family and urban influences. In a larger sense, Cuba's attempts to seek salvation through schooling and rural development provide a revealing indication of both cultural continuities and discontinuities in what must be Latin America's most ambitious effort to find a way out of poverty, underdevelopment, and dependency.
REFERENCES


