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Population Growth and Agricultural Employment in Latin America, with Some U.S. Comparisons

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Population Growth and Agricultural Employment in Latin America, with Some U.S. Comparisons*

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Policy makers usually assume that the industrial sector will expeditiously absorb the growth of the labor force. But urbanization in Latin America is so far ahead of industrialization that continued advocacy of the type of agricultural modernization that encourages speedy off-farm migration may merely add to urban unrest. The hacienda system seems to be near the root of the problem and it has an institutional parallel in the sharecropper South of the United States. The campesino and the cropper are, in some sense, analogous; and evidence is presented to show that latifundia-type farming systems are not as able as family farms to (1) provide security of employment or adequate income necessary to keep workers in farming until a late enough stage of development, and (2) support an educational system that is capable of developing the skills needed for urban employment or for upgrading the rural labor force. The seriousness of the current movement to the cities in Latin America is accentuated since slums—the outward manifestation of underemployment and idleness—are growing faster than ours ever did. An agrarian reform policy of "contrived dualism" is briefly outlined; it may be the most inexpensive way to provide employment and increase effective demand, thus "buying time" for the industrial sector to catch up.

BENJAMIN HIGGINS once summarized the major problem of under development in three words: "too many peasants" [14, p. 120]. Many social scientists agree and believe the problem can be solved only by a massive rural-to-urban transfer of labor.

Formulating the issue in this manner suggests a familiar sequence of prescriptions: (1) push investment in industry to attract farm people to city jobs; (2) substitute mechanization for displaced workers in agriculture to improve labor productivity; (3) improve production per land unit. While this statement of basic strategy is oversimplified, its gross outline has been followed—often unconsciously, sometimes with planning—in many currently developed countries.

Without disputing the necessity of industrialization and the inevitablity of internal migration, we shall argue that in at least some parts of Latin America stopgap policies should be designed to create more jobs for campesinos in farming. This employment should provide greater security and higher income earning potential than farm workers now realize as hired

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hands on large estates. The agrarian reform proposal to be suggested should also give these farm people in situ an opportunity to develop some basic skills needed to raise their productivity in agriculture—or for urban life—while providing some demand stimulus to the nonfarm sectors.

Higgins echoes many contemporary social scientists as he argues against a "more-farm-jobs" development program: ". . . the solution may not be to retard the movement to the cities by making conditions more attractive in the countryside—a policy which is in itself anti-developmental—but rather to accelerate the rate of industrialization and consequently the rate of employment creation outside the agricultural sector" [14, p. 136]. But this point of view leaves several questions unanswered: Who will supply the effective demand to provide impetus for industry, considering that 60 to 80 percent of the Latin American farm population has a yearly cash family income of less than $500 [7, p. 6]?[1] Where will the relatively large amounts of capital come from to create needed jobs in industry and to invest in related social and economic infrastructure? How will industry employ the huge work force that will enter the labor market in the seventies, considering that it has not even been able effectively to absorb smaller increases in the past? What will be the socioeconomic consequences of more unemployment and underemployment in Latin American cities where many thousands are now without productive work?

Employment, Population Growth, and the Latin American City

Slightly over half of the population of Latin America now lives in rural areas and slightly under half of the work force is employed in agriculture [41, Table 1–13, p. 63 and Table IV–16, p. 37]. The rate of over-all population growth between 1950–52 to 1963–65 was 2.8 percent per year [41, Table IV–16, p. 37]. The population growth rate for cities in this period was a phenomenal 4.6 percent, representing a rise from the 3.8 percent rate that prevailed between 1940 and 1950 [41, Add. 3, p. 36]. Between 1925 and 1960 the urban work force tripled, while the economically active farm population increased by 50 percent [42, p. 36].

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[1] Alexander comments on the need for effective demand when import-substituting manufacturing is a primary focus of development policy, as it has been of late in Latin America: "Sooner or later the import-substitution strategy reaches a point of exhaustion. A point is reached at which an economy has installed virtually all those kinds of industries which can produce commodities formerly imported. At this juncture, the nature of the development problem changes. Instead of being the largely physical one of mounting industries for which there is already a market, it becomes one of amplifying existing markets—if the process of development and growth is to continue. . . . [There] are a few Latin American countries—notably Brazil, Chile, Mexico, and Argentina, as well perhaps as Venezuela, Colombia, and Peru—which have completely or nearly exhausted import-substitution possibilities, at least as a major impetus to further development" [1, pp. 305 and 307].

Growth of the urban labor force is caused by the "population explosion" coupled with massive internal migration. Still, off-farm migration has not been sufficient to offset natural increase. To stabilize the agricultural population, the initial annual rate of population growth in the nonfarm sector would have to be about 5.6 percent, approximately one percentage point higher than at present.[2] To reduce farm population in Latin America would require increasing the rate of farm-to-city migration above this figure or reducing the birth rate.

But even at the present rate, internal migration has strained the facilities of the Latin American city. Approximately 5 million families now live in urban shantytowns and slums. This "marginal" population is estimated to be growing at about 15 percent per year—a rate over 10 percentage points higher than the city population as a whole [7, p. 4].[3] And whether the birth rate will slow down in the immediate future in Latin America is an open question. T. Lynn Smith shows that population growth in Latin America between 1950 and 1960 was unprecedented; he believes that there will be some over-all reduction of this rate in the sixties [32]. This contention seems to be borne out by estimates of birth and death rates for a more recent period than the one he examined. Comparing Smith's birth and death rate calculations for 1959–61 with those of the United Nations for 1962–65, one discovers that the crude birth rate in nearly half of the Latin American countries is dropping somewhat faster than the crude death rate.[4] Thus, for the 15 countries Smith analyzed, one finds a drop of between .3 and .6 of a percentage point in natural increase in five countries; a drop of .1 of a percentage point in five countries; a constant rate in three countries; and a rise of between .1 and .2 of a percentage point in two countries.[5]

These data, coupled with Bogue's forecast that "it is probable that by the year 2000 each of the major world regions will have a population growth that is either zero or is easily within the capacity of its expanding economy to support" [5, p. 11], provide some grounds for cautious optimism about the ability of Latin America to cope with its population explosion. But we must remember the speculative quality of these assertions in view of the provisional nature of intercensal data.

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[2] If agricultural population were to remain stable, nonagricultural population would have to increase at a rate equal to the rate of population growth multiplied by the quotient that results when total population is divided by nonagricultural population. This rate would, of course, be variable over time [8].

[3] Both Manaster [21, p. 25], and Mangin [22, p. 21] estimate the number of urban squatters alone at 25 percent of the population of Lima in 1966. In Rio de Janeiro the comparable *favela* percentage is about 16 [26, p. 50]. Similar percentages could be cited for most Latin American cities.

[4] Compare [32, Table III, p. 21] with [43].

[5] Computed from Ibid.

Moreover, it is sobering to consider that a rapid and immediate decline in the birth rate would have little impact on the size of the labor force for 15 years. Myrdal has further suggested, "Especially since any decrease in the birth rate in an underdeveloped country will ordinarily be a slow and gradual process, we can safely predict that, till the end of the present century and perhaps longer, the labor force . . . in the Latin American countries [will increase] by around three percent . . ." [27, pp. 894–95].

Supplying more jobs in Latin America will be a formidable task. The economically active population in Latin America more than doubled between 1925 and 1960, a 35-year period in which the average rate of population growth was much slower than presently. An increase in the labor force on a similar scale in the United States took the 60 years of high average annual economic growth between 1900 and 1960 [42, p. 35].

Thus, whether Latin American economic policy in the foreseeable future succeeds or fails will depend both on increasing average per capita income and on the related (but sometimes quite distinct) matter of creating adequate employment.

Slow Absorption of Workers in Industry

Economists intuitively look to industry and, more particularly, manufacturing as the major job source in the course of economic growth. But it appears that more employment will be needed than Latin America's secondary sector can possibly provide in the short run. Even its manufacturing component has employed labor at a lethargic pace. Myrdal explains the slow absorption of labor early in the contemporary development process by noting that where manufacturing implies rationalization of earlier and more labor-intensive firms, the new factories ". . . will out-compete craft and traditional production and the net effect on labor demand will be negative . . ." [27, p. 895].

This is an overstatement—but not a gross one—of the recent Latin American situation. In 1950, 7.4 percent of the labor force worked in artisan crafts; by 1965 the figure had dropped to 6.3 percent. This slump more than canceled the slight percentage increase in factory employment, so that the manufacturing sector as a whole (factory work plus artisan industries) employed about 14 percent of the work force in 1950 and only 13.7 percent in 1965. Numbers engaged in manufacturing increased at an annual rate of 2.4 percent from 1950 to 1965, but the rate slowed to 2.1 percent at the end of the period (1960–65) [47, pp. 28 and 29; 41, Table 1-13, p. 63].

The participation of manufacturing in nonagricultural employment sharply illustrates the failure of this sector to utilize the labor force moving into urban centers. Between 1925 and 1960, manufacturing was able

to absorb only a little over 5 million of the 23 million added to the urban labor force [42, p. 35]. Put differently, an estimated 35.4 percent of a relatively small nonagricultural labor force were engaged in manufacturing in 1925; but by 1960, as urbanization advanced, the percentage had dropped to 27.1 [47, p. 26]. In most developed countries, the ratio of manufacturing jobs to urban employment remained essentially constant over long periods of time—and at a much higher level.[6]

In sum, a 5.6 percent average annual increase in manufacturing output was associated with a 2.1 percent average annual growth in employment between 1960 and 1965.[7] While it is hoped that investment and effective demand can remain high enough to increase both rates, the output-to-labor ratio will probably become more unfavorable to employment in the future. From a technological standpoint, manufacturing in Latin America is likely to become less rather than more labor intensive. It may be possible to foster economically justifiable policies that retard this trend in a few industries from time to time, but it is difficult to see how enough jobs can be created thereby. For example, income redistribution policies should shift the demand structure for manufactures (in the short run) away from its current emphasis on intermediate and even heavy lines to more labor intensive consumer nondurables, for which markets are presently exhausted in most Latin American countries. This development would also ease balance of payments difficulties. Even so, Barraclough explains, "A new factory in Medellín or São Paulo will generally adopt the labor saving technology of industries in present-day Detroit or Pittsburgh, not that of 19th century Birmingham or Manchester" [2, p. 19].[8]

The picture is not much brighter in the industrial sector as a whole

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[6] Experience in industralized nations points to two basic features: (1) a relatively high percentage of urban employment is engaged in manufacturing, and (2) this percentage persists over long periods. "Thus, for example, it has been shown that the percentage in the United Kingdom in 1951 (51.9 percent) was practically the same as in 1901 (51.1 percent); in Italy, after a slight decline during the twenties, the percentage remained little below that for the beginning of the century (59.5 percent in 1901; 56.6 percent in 1939; and 53.5 percent in 1954). . . . In the United States the percentage has been lower, but has also shown very little tendency to decline over the long term (47 percent in 1870; 44 percent in 1900; 45.4 percent in 1920; and 42.3 percent in 1950)" [42, p. 36].

[7] Computed from [41, Tables 1–11 and 1–13, pp. 50 and 63].

[8] Glade [11] argues that in the initial push toward import substitution in the '40's and '50's, manufacturing activity was concentrated in nondurable consumer goods many of which were, relatively speaking, quite labor intensive. By the mid-fifties, however, major dynamism had gone out of these fields, and the focus of industrialization shifted to consumer durables and basic industrial goods that are less labor intensive. Miller [24] shows that employment stabilization policies and, by inference, some other kinds of social legislation have contributed to a decline in employment opportunities and increasing substitution of capital for labor in the secondary sector. See also [42].

(mining, manufacturing, construction, and associated technological services). In 1950–55, it employed 44 percent of the addition to the nonfarm labor force; in 1955–62, only 36 percent [39, p. 40].

Because the nonfarm goods-producing sectors have not absorbed a substantially larger percentage of a growing labor force lately, more workers are drifting to the tertiary sector ("other services") and to what the United Nations has called "unspecified activities"—mainly disguised unemployment. In absolute numbers, 1965 employment in these subsectors was nearly double that for 1950—a growth that does not seem to be in line with the need for services engendered by the region's slow rate of economic growth [47, p. 29; 40, p. 62 and Table 1–13, p. 63].

The Economic Commission for Latin America recently elaborated on the oversimplified assumption that "other services" and "unspecified activities" provide the only refuge for the nonfarm underemployed by observing that all sectors seem to have high-, medium-, and low-productivity subsectors. It estimates, for example, that in manufactures, construction, and technological services, the work force allocated to each productivity subsector would be about 20, 60, and 20 percent, respectively. As urbanization proceeds at a rate faster than industrialization, new in-migrants—if they are absorbed at all—are employed in the low-productivity subsector [47, pp. 30–31]. It stands to reason that if the economies of Latin America do not grow much faster and if rural-to-urban migration continues at the present pace, the capacity of this subsector to provide jobs will become saturated, raising open unemployment to very high levels [44; 47, pp. 32–35].

One can conclude, therefore, that industrialization must be given as much impetus as scarce resources allow, but that unless Latin America is willing to suffer the massive social unrest that idleness and underemployment may well spark, agriculture must be relied upon not to repel workers to the extent it has in the past. This is not because of any inherent advantages of farm employment, but because the capacity of industry to utilize labor in Latin America is not as rapid as necessitated by the high rate of in-migration.

Farm Financed Social Welfare: the U.S. North, the South, and Latin America

Even though there are indications that much privately owned farm land is not used to capacity, given present technology [16], agriculture in most of Latin America does not now provide an adequate haven for underemployed and jobless people. One reason is to be found in the manner in which farming is organized. Large estates (plantations or haciendas) encompass most of the best land—except in Mexico, Bolivia, and Cuba—

and are worked by large numbers of hired laborers who have little or no bargaining power.

When farming is structured in this manner, it: (1) does not provide either the security of employment or adequate income necessary to keep workers in farming until a late enough stage of development and (2) does not permit a viable community organization to flourish that would support an educational system capable of developing basic literacy and the skills and attitudes needed for urban employment or for upgrading the rural labor force.

When management is separated from the more-than-ample supplies of poorly-organized labor, as in the estate system in Latin America, resource owners can offer an extremely low wage and are freer than in a family farm system to discharge workers who have few employment alternatives.

On the other hand, while an owner-operator may sell out when the situation becomes acute, he cannot fire himself or his family labor when he is caught in a cyclical cost-price squeeze. Consequently, in a system dominated by the family farm a large proportion of surplus labor takes the form of involuntary underemployment in the countryside rather than involuntary unemployment in town. Even today U.S. agriculture harbors a surprisingly large amount of surplus labor.

As Owen has argued, farming in the United States has thus performed a self-financed social welfare function: redundant labor resources have not only funded their own sustenance, they have also been expected to cover a substantial percentage of their schooling costs and to support a large portion of other necessary social overhead capital [29, p. 62].

With each passing year, U.S. agriculture performs this function less adequately. By relying too heavily on farm-financed social welfare, our affluent country has consistently overlooked its rural poor [30]. While liberals may abhor this neglect, they must admit that the "agrarian dualism" which developed throughout this century had some important advantages: one subsector of farming has provided immense production, while the other afforded a stopgap matrix of jobs that retarded premature cityward migration. Through primarily locally financed schools, agricultural communities have helped to prepare farm people to be more productive in agriculture if they remained, and in urban employment if they migrated.

U.S. agricultural dualism has not been static; land in the welfare subsector constantly "moves" into the growth subsector in response to the dynamic functioning of the market. Labor-saving capital has now become so cheap relative to labor that for the past several decades farming has been caught in an accelerated combination of farm units accompanied by a release of labor. Labor has not always benefited from these land and capital

"flows." That some entire communities have been "left behind" is but one indication that farm-financed social welfare has not worked altogether smoothly; this implies that supplementary policies to cope with rural poverty in the United States are long overdue.

But in some parts of our country—notably much of the South—farm-financed social welfare never was a part of the institutional framework. To the degree that the southern sharecropping system separated ownership-management from labor (that had little countervailing power) and discouraged the education of the farm work force, it can, albeit roughly, be compared to the Latin American hacienda or plantation. Indeed, the southern cropper may be considered as one U.S. analogue of the Latin American hacienda worker.[9]

These farming systems seem to have serious urban repercussions. In the United States, the problems of today's ghetto are not due to racial prejudice alone (in boom periods, Negro unemployment in cities does drop somewhat). They are at least partly due to the release of an unskilled and even illiterate labor force that could not be fully hired by industry at the stage of development it was passing through. Kain and Persky conclude:

> The North's biggest cities attract large numbers of rural Negroes from the Core South. Smaller Northern areas draw disproportionately large numbers of Appalachian whites. Ironically, it is these groups that are relatively the worst prepared for coping with the complexities of the industrial, metropolitan North. The educational achievement of each is inferior to the majority of the Southern population from which they came. Negroes of the Core South are especially disadvantaged in this respect. In analyzing the distribution of poverty in the North Central region of the country, we found that a substantial fraction of the metropolitan North's poor were born and educated in the South. . . . Finally, we have found no evidence to support the widely held view that rural Southern migration to the North will soon abate [17, pp. 73–74].

And if the central city problem here has some roots in a remnant plantation system, which represents only a small fraction of U.S. agriculture, one cannot but be alarmed at the potential for social unrest in most Latin American countries where the preponderance of the land is organized along similar lines and where slum settlements are growing faster than ours ever did.

As the campesino was deprived of land from colonial times, so was his U.S. counterpart—especially if he was black. Even the Homestead Act benefited the black little; his pleas for "40 acres and a mule" after the

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[9] There are other analogues, like the "company town" poor white from Appalachia and the blacks of the central cities who live in absentee-owned slum units and may be victimized by high rents as well as lack of community control.

Civil War largely went unheeded [23].[10] Recent commentators have noted of the immediate *post bellum* period: "The planters still owned the land but they needed a labor supply to farm it. As a result, a new kind of partnership—sharecropping—was formed. The landowners supplied land and work stock and the newly freed Negroes supplied the labor to continue farm production in much the same pattern as before . . ." [20, p. 11].

Movement of blacks out of the South was slow in the late nineteenth century because of adequate employment possibilities in agriculture and a great deal of competition for northern industrial jobs by recent immigrants—mainly of European stock. But during the early 1920's, "The enormous growth of northern industry, the increasing demand for unskilled labor, and the relatively high wages offered by business enterprise, and above all the curtailment of European and Asiatic immigration multiplied the opportunities available . . ." [4, p. 26]. Subsequently, World War II created unprecedented demand for labor and encouraged a much larger out-migration of farm workers. Now, higher welfare payments in the North than in the South seem to provide an additional attraction.

But out-migration also had its "push" aspects—employment possibilities on large cotton farms began to decline in the '20's: "For a few years the boll weevil caused great panic as millions of acres of cotton were severely damaged and production fell . . . thousands of Negroes emigrated as the landlords turned to livestock and dairying" [3, p. 164]. Soil depletion and erosion were the other major problems, especially in the Piedmont country of Georgia and South Carolina, and impelled thousands to leave. The depression, when "the bottom dropped out of the cotton market," seems to have had similar effects [3, p. 164]. In later decades mechanized planting and subsequently mechanized harvesting of cotton discharged more southern workers at a time when the labor market was unable to absorb them in sufficient numbers [6]. And in the sixties, as yet uncounted numbers have been pushed off the farm by reductions in cotton allotments [45, p. 52], and by employers' response to the 1966 extension of the minimum farm wage legislation [30, p. 22].

Had the sharecrop system supported adequate schooling, more blacks doubtless would have gotten urban jobs despite the scourge of discrimination. But at the same time that former sharecroppers were being released from southern farms in ever larger numbers, the ratio of skilled-to-unskilled labor required by industry began to rise in accelerated fashion.[11]

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[10] Any description of the plantation-sharecropping system sounds strikingly like that of a hacienda in, say, Peru or Chile. See, for example, [31] and compare this description to one of a latifundia in [16].

[11] The latter day manifestation of this is particularly serious to the U.S. economy. "In [the] word 'skill' lies the answer to the seeming paradox of 3,000,000 unemployed

Describing the inadequacy of the rural southern educational system to prepare workers for these jobs, one commentator [3, p. 188] has noted:

> In 1960, the average years of schooling completed by the nonwhite farm population 25 years old and over was 5.7 years, compared with 8.9 years for the white farm population and 11.1 years for the total urban population.

This says nothing of the comparable quality of schools educating blacks and whites. Nicholls places blame for this situation squarely on the planters:

> In striking contrast to most of the Middle West, the South has been dominated by power groups who, shunning the public schools in the education of their own children, see little reason to tax themselves in order to finance the education of the less privileged classes . . . [28, pp. 110–11 and 113].

Poor farmers who remain today in the planter-dominated parts of the rural South are often nearly destitute and are permitted to remain—in houses they do not own, on land which is not theirs—only because of the paternalistic spirit of large holders. And a high percentage of those who migrated are today living in the ghetto where unemployment—or subemployment—is high.[12] If jobs in the industrial era of our history have become progressively more scarce for the unskilled, one cannot but be alarmed at what this implies for the dawning technotronic age.

Several Tentative Hypotheses

While retrospective conjecture may result in highly inaccurate representations of history, we may pose several plausible but tentative and overlapping hypotheses from our experience with direct relevance for contemporary Latin America: Had a land tenure system that was labor absorptive over the long run been established in the rural South after the Civil War, recent out-migration would not have been as rapid. When it occurred it would have represented a more genuine response to viable economic opportunities. And if that tenure system had fostered farm-fi-

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and a concurrent shortage in manpower. The unemployed are chiefly those who are, in various ways, unskilled. It is our national shame that a very large part of the unemployed are Negroes in slum ghettos who have neither the education nor the training in a specific skill to get a job . . ." [35, p. 8].

[12] In early 1968, unemployment was as low as it has been in the past decade and a half, 3.5 percent of the labor force. But this rate was twice as high among Negroes and higher still among young Negroes living in the nation's slums. In addition to those who are looking for work and cannot find it—the unemployed—the slums hold those who do not have jobs and are not looking for them and those who are looking for full-time jobs and can find only part-time jobs. When all of these groups are combined, the "subemployment rate" reached 24.2 percent in Boston's Roxbury; 28.6 percent in Harlem; and 34.2 percent in Philadelphia, for example [19].

nanced social welfare, laborers would have reached the urban labor market more adequately prepared for urban life.

Evidence bearing on this speculation is scanty. But when all rented and sharecropped units in the South—as well as those that are partially or fully owned—are counted as farms, in all but four census periods from 1900 to 1964 either (1) numbers of farms operated by blacks disappeared more rapidly than farms operated by whites, or (2) numbers of Negro units declined while numbers of white units increased (Table 1). Differences in the opposite direction in the four exceptional periods were slight. Thus, it

Table 1. Percent increase or decrease in number of farms: the U. S. South[a]

Census period	Percent increase or decrease of nonwhite farms[b]	Percent increase or decrease of white farms	Percentage points of difference
1900–10	20.2	17.4	+ 2.8
1910–20	3.7	3.5	+ 0.2
1920–25	− 9.9	0.7	−10.6
1925–30	6.0	1.8	+ 4.2
1930–35	− 7.5	11.3	−18.8
1935–40	−16.6	−10.7	− 6.1
1940–45	− 2.2	− 4.8	+ 2.6
1945–50	−16.0	− 5.5	−10.5
1950–54	−17.1	−11.4	− 5.7
1954–59	−42.7	−25.6	−17.1
1959–64	−32.0	−13.5	−18.5

[a] Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, and Virginia.

[b] Farms include the full array of tenure types from full ownership to cropper, including all rented land; the "nonwhite" census designation approximately equals "bi :k" in the South.

Source: *1959 Census of Agriculture*, Vol. II, General Report: Statistics by Subject, Table 5, pp. 1032–33. 1959–64 data calculated from *1964 Census of Agriculture*, Vol. II, General Report, Ch. 8, Table 3, p. 756.

appears that through most of this century the institutional framework of Negro agriculture has been less able than the white system to hold labor and that this situation becomes steadily more unfavorable to the black as the century wears on.

Looking only at farm consolidation one may, on balance, understate the amount of Negro off-farm migration that occurred. Since rural blacks have families that are larger than the families of rural whites, there are proportionally more people who must leave for other work at some time in their life cycle—even when the family head is not fired. Each 1,000 nonwhite farm women 40–44 years old in 1960 had given birth to an average of 5,618 children; each 1,000 rural white women in this age bracket had borne an average of 2,873 children [45, pp. 52–53].

The issue becomes somewhat clearer when race is distinguished from

tenure type. Table 2 omits all tenants but croppers, the tenure type most intimately associated with the remnant plantation system. In each census period after 1925–30, farm owners in the South (the majority, of course, family farmers) have been far more able than the croppers—whether white or black—to remain in agriculture. Some croppers became hired farm labor in mid-century, but on the average only one hired hand was engaged for each three or four croppers that were discharged [45, p. 51]. It should be noted that there is more similarity in the trends within the "owner" and the "cropper" categories than within those of "white" and

Table 2. Percent increase or decrease in number of owned and cropper farms: The U. S. South.

Census period	Farm owner		Cropper	
	Percent increase or decrease of nonwhite farms	Percent increase or decrease of white farms	Percent increase or decrease of nonwhite farms	Percent increase or decrease of white farms
1910–20	1.9	6.3		
1920–25	−10.6	− 4.4	3.2	11.0
1925–30	−12.0	−10.5	14.1	24.5
1930–35	6.8	13.3	− 6.2	− 7.7
1935–40	− 5.5	− 0.3	−18.8	−24.4
1940–45	13.4	13.7	− 9.6	−17.5
1945–50	−12.1	− 5.8	−26.7	−22.3
1950–55	− 8.2	− 9.8	−19.1	−22.8
1955–59	−30.9	−25.2	−54.2	−54.8

Source: *1959 Census of Agriculture*, Vol. II, General Report: Statistics by Subjects, Table 5, pp. 1032–33.

"black." Thus, the plantation sharecrop "system" seems to have contributed importantly to reducing the job opportunities in agriculture; it seems less able than family farming to maintain employment in the face of adverse prices (the '30's) or mechanization (the '40's and '50's).

Race is a lesser complication in much of Latin America, but the hacienda system seems no more viable than the sharecrop system in providing adequate educational facilities or a stopgap matrix of jobs.

Absorption of Labor in Agriculture in Latin America

Like the remnant southern plantation, the hacienda is not noted for its ability to absorb labor. The set of studies by the Inter-American Committee on Agricultural Development [16; summarized in 41, Add. 4], which focuses on seven Latin American countries with a traditional agrarian structure, shows that production per acre is inversely related to farm size; and while latifundios are 400 times larger than *minifundios* on the average, they employ only 15 times more workers.

As in the U.S. South, a variant of noblesse oblige has been some substi-

tute for self-financed rural welfare on family farms—owners who feel responsibility for their workers' protection have not fired resident labor even after the factor is in surplus [28]. But in Latin America, as in southern United States, this spirit is no longer widespread.

More serious than the issue of resident labor, proportionally fewer seasonally hired workers (who make up the bulk of the rural labor force) are now being contracted. A noticeable shift in some countries is being made from cash crops—which require a substantial amount of labor—to livestock. Then, too, pressures for the adoption of labor-saving farm technology in Latin America are similar, if not yet as pervasive, as those in industry. Minimum agricultural wage legislation is making labor more expensive in relation to capital. In some countries, notably Venezuela, those who mechanize are often able to obtain machinery at relatively low cost with cheap credit and long term repayment arrangements. While sometimes necessary to increase product per unit of land, the effect of mechanization on production—which is primarily labor displacing—is usually not as great as would be equivalent expenditures on yield-increasing inputs such as fertilizers, hybrid seeds, and protective chemicals.

Even if land taxes that cannot be evaded are utilized as a means to modernize agriculture, large landowners may find it profitable—at least as long as inflation continues—to dislodge workers and substitute capital for labor to meet this new fixed cost, instead of selling out.

Education of the Rural Labor Force in Latin America

Landlords who dominate Latin American economies and politics usually send their children to urban schools. Hence, those with investable funds have little interest in improving rural education. In Chile, generally considered to have one of the most progressive school systems in Latin America, only four of ten urban first graders ever advance through the sixth and final elementary grade; of every ten rural students who enter primary school, only one is graduated. The dropout rate is higher in the countryside than in town because of longer distances to school, more illness, greater labor needs at home, poorer facilities, and fewer books. Most dropouts leave before they learn to read and write [46; 47, pp. 43–48].

Primary school graduates are only slightly better off. The curriculum in the grades is largely unrelated to the background of the students or to the occupational role they might play if they migrated to town. Furthermore, teachers are usually poorly prepared. For example, in Brazil there are 90,000 employed teachers who have not finished their primary education [12, p. 15]. In Colombia, 41 percent of the urban primary teachers, but 78 percent of the rural, have no more than a primary education [13]. Needless to say, if the products of this system migrate to town, they are ill-equipped to even take unskilled jobs.

By contrast, in Mexico, where the hacienda system has been abolished, one observer [18, p. 52] recently noted:

> There is an upsurge in the literacy level among the young and there are some signs of improvement among the older generation as well. . . . It is not easy to estimate how far the investment in human resources will go, but the course has been charted and the vision of the future quoted below [by Frank Tannenbaum in 1950 from a conversation with President Calles] may not prove to be an idle dream: "in the past Mexico was divided into *latifundios*, with a big house (*casco*) in the center; in the future we will organize it around the village, with a school in the center."

Citing the experience in Bolivia since haciendas were broken up as part of the revolution of 1952, Hobsbawm states, "The first thing any peasant community does when it can is to build a school" [15, pp. 54–45]. In 1964, Mexico allocated nearly a quarter of her annual budget to education, a figure exceeded only by Costa Rica among the 19 Latin American republics. Bolivia spent 17.9 percent of her budget in education; only the aforementioned and El Salvador, Panama, and Honduras had better records [40, p. 39].

Implications for Agricultural Development Policy in Latin America

Unless other policies intervene, one impact of agricultural "modernization" now occurring in most of Latin America may be that workers will leave the farms for cities at an increasing rate in the next decade. This argument implies that a concerted effort should be made to slow the rate of farm-to-city migration until industry is able to absorb labor at a faster rate. Unfortunately, colonization of new lands in Latin America may be too slow and expensive and some measure of land reform may be the only alternative for the task at hand, in spite of the understandable opposition of the landed.[13]

To partially meet immediate employment needs, "contrived dualism," which has parallels in the historic development of agriculture in our North and West, might be considered by development planners in Latin American countries with a traditional land tenure structure:[14]

(a) *Subsector that emphasizes growth in marketable surplus.* It would seem as though the progressively managed large farm and plantation subsector should be stimulated to greater productivity through the application of more yield increasing inputs, since these are the farms that feed

[13] Especially since the writings of Ragnar Nurkse, the possibility of a capitalistic system providing the rural underemployed with productive work through rural public works projects has been recognized. See a late advocacy of this position in [25, pp 64–66]. The present author does not argue with the desirability of this policy alternative but doubts that it is sufficient for the task at hand.

[14] The following points are detailed in [36] and [37].

the city and provide export earnings. At the same time, as much employment and income security as possible should be encouraged in this subsector without creating disincentives for management.

(b) *Subsector that emphasizes growth in employment.* The existing subsector of very small farms can probably continue to absorb some population increase until development-created employment begins to catch up with population growth. If technology can be adapted to their needs (as in Japan and Taiwan) and if markets and credit can be made available to them, these small farms might employ even more people and make a greater contribution than presently to marketable surplus.

Programs to provide secure and legal title for present occupants may be inexpensive and are of great importance in some areas. Most Latin American countries have farmers who are "squatters" on [illegible] lands; there are several hundred thousand farmers who do not have title to the land they farm [38]. This is not conducive to employment stability, nor does it offer the security required for long-term investments in agriculture.

Since underutilized and poorly managed land on traditional large-scale farms contributes little to production, and since its absentee ownership and paternalistic labor patterns are vulnerable to labor unrest and consequent worker eviction, it should be transformed into new peasant farms. Past performance gives no indication that large investments in the traditional subsector of agriculture would result in either enough increased production or rural employment to meet the needs of the growing population.

As with existing small farms, attempts should be made to move reform-created farms as rapidly as possible toward commercial agriculture with limited mechanization, more use of yield-increasing inputs, and improved extension-type services. Given the exceedingly scarce supply of resources available, however, this may need to be regarded as a long-term goal rather than a present possibility. Even if, for the time being, reform does no more than provide sustenance for large numbers of rural people, it will contribute to economic and political stability and buy time for industrial development to catch up with population growth. As the labor market tightens, land and capital should be freed for the "primarily marketable surplus" subsector. That this will happen only over the long run because of the current high rate of population growth should not surprise us.

A high cost colonization program will be counterproductive; if it costs more to settle farmers on the land than to secure a job in manufacturing (as unfortunately it has in some countries), land reform will soon grind to a halt. If "agrarian reform" actually displaces labor—as it also may have done in some countries—it will not have fulfilled its prime objective [34]. Whatever program is adopted, settlement cost per family must be low.

Furthermore, the need is for flexible agrarian policies and more research on an exceedingly complex situation. Doctrinaire and ideological solutions are inappropriate, not only because conditions vary from country to country, but also because the policy needs of a given country vary over time. Thus, the post-reform tenure system may or may not take the form of the family farm.[15] In general, however, the emphasis should be on increasing production at low cost through yield-increasing technology along with maximum employment and employment security. A cue—but no recipe—can be taken from U.S. history, and emphasis should be placed on creating a milieu in which farm-financed social welfare can become part of the institutional fabric.

If the current population growth rate continues for several decades, no stopgap expedient of agricultural employment will be able to provide enough jobs to accommodate the burgeoning work force.[16] And only a completely unprecedented rate of economic growth will be able to provision it.

Even if the birth rate should fall in the seventies or eighties, if little or no land reform takes place in the meantime, it is likely that by the nineties or even sooner social scientists will be studying ways to reconstruct after a complete institutional breakdown in Latin American cities.

References

[1] ALEXANDER, ROBERT J., "The Import-Substitution Strategy of Economic Development," *J. Econ. Issues* 1:297–308, Dec. 1967.

[2] BARRACLOUGH, SOLON, "Rural Development and Employment Prospects in Latin America," prepared for the Second Conference on Urbanization and Work in Modernizing Areas, St. Thomas, Virgin Islands, Nov. 2–4, 1967, mimeo.

[3] BEALE, CALVIN L., "The Negro in American Agriculture," in *The American Ne-*

[15] Even though a type of cooperative farming known as the *asentamiento* is being utilized in the early stages of the current Chilean reform, research on eight such farms the year after incorporation into the program [10] shows that both employment and production practically doubled from the pre-reform situation. Whether this type of organization is too expensive relative to output, whether it will be viable over the long run, whether it is adversely influencing the existing commercial subsector of agriculture, and even whether it can survive the serious 1968 drought are matters for further research and observations. Over time, it is conceivable the asentamiento may have the problems that have plagued the proportional profit farm in Puerto Rico. Relieving unemployment had been one avowed intent of this land tenure arrangement. Now, 16 unions bargain with the Land Authority, the government agency vested with most management functions. They have pursued a militant wage policy, coupled with featherbedding techniques that have increased operating expenses and caused consistent negative profits on some farms [9, 33].

[16] Absorbing labor until industry was ready to provide employment was one avowed goal of the Mexican reform. Even though the Mexican industrial sector is now the most dynamic in Latin America, population growth continues high. Numbers of landless workers are increasing rapidly and there is little more land available to accommodate them. In this context, one cannot fall back on the agricultural sector for additional stopgap employment. Continued high rates of population growth, it seems, will eventually thwart all possibilities of providing the work force with jobs.

gro Reference Book, ed. John P. Davis, Englewood Cliffs, New Jersey, Prentice-Hall, Inc., 1966, pp. 161–204.

[4] BEARD, CHARLES A., AND MARY R., *The Rise of American Civilization*, New York, The Macmillan Company, 1930.

[5] BOGUE, DONALD J., "The End of the Population Explosion," *The Public Interest* 7:11–20, Spring 1967.

[6] DAY, RICHARD H., "The Economics of Technological Change and the Demise of the Sharecropper," *Am. Econ. Rev.* 57:427–49, June 1967.

[7] DOMIKE, ARTHUR, "Industrial and Agricultural Employment Prospects in Latin America," prepared for the Second Conference on Urbanization and Work in Modernizing Areas, St. Thomas, Virgin Islands, Nov. 2–4, 1967.

[8] DOVRING, FOLKE, "The Share of Agriculture in a Growing Population," *Monthly Bulletin of Agricultural Economics and Statistics*, FAO, Rome, 8:1–11, Aug.-Sept. 1959.

[9] FAO, "Puerto Rican Land Reform," Documents of the World Land Reform Conference, Rome, 1966.

[10] FAO-ICIRA, *Evaluación Preliminar de los Asentamientos de la Reforma Agraria de Chile*, Santiago, Ediciones ICIRA, 1967.

[11] GLADE, WILLIAM P., "The Employment Question and Development Policies in Latin America," paper prepared for discussion at the Conference on Population Problems and Latin American Development, Madison, May 1968, mimeo.

[12] *O Globo*, "Noventa Mil Profesôres Não Concluiram Primário," Rio de Janeiro, Dec. 22, 1967.

[13] HAVENS, A. EUGENE, "Education in Rural Colombia: An Investment in Human Resources," Research Paper No. 8, Madison, Land Tenure Center, [illegible] 1965, mimeo.

[14] HIGGINS, BENJAMIN, "The City and Economic Development," in *The Urban Explosion in Latin America: A Continent in Process of Modernization*, ed. Glenn H. Beyer, Ithaca, Cornell University Press, 1967, pp. 117–155.

[15] HOBSBAWN, E. J., "Peasants and Rural Migrants in Politics," in *The Politics of Conformity in Latin America*, ed. Claudio Veliz, London, Oxford University Press, 1967, pp. 43–65.

[16] Inter-American Committee for Agricultural Development, *Land Tenure Conditions and Socio-Economic Development of the Agricultural Sector* for Argentina, Brazil, Chile, Colombia, Guatemala, Ecuador, and Peru, Washington, D.C., 1966.

[17] KAIN, JOHN F., AND JOSEPH J. PERSKY, "The North's Stake in Southern Rural Poverty," Harvard University-M.I.T. Joint Center for Urban Studies, Program on Regional and Urban Economics, Discussion Paper No. 18, May 1967.

[18] LADEJINSKY, WOLF, "Traditional Agriculture and the Ejido," unpublished manuscript, Washington, Oct. 1966.

[19] LISSNER, WILL, "The Negro as a Victim," in *The City in Crisis*, ed. Irwin Isenberg, New York, The H. W. Wilson Co., 1968, pp. 42–44.

[20] MADDOX, JAMES G., et al., *The Advancing South: Manpower Prospects and Problems*, New York, The Twentieth Century Fund, 1967.

[21] MANASTER, KENNETH A., "The Problem of Urban Squatters in Developing Countries: Peru," *Wisconsin Law Rev.*, 1:23–61, 1968.

[22] MANGIN, WILLIAM, "Squatter Settlements," *Scientific American* 217(4):21–29, Oct. 1967.

[23] MCPHERSON, JAMES M., "Land for the Landless," in *The Negro's Civil War*, New York, Random House, 1965, pp. 293–300.

[24] MILLER, RICHARD U., "Statutory Wages and Employment Stabilization in Developing Countries: Some Observations on Latin America," paper prepared for the Conference on Population Problems and Latin American Development, Madison, May 1968, mimeo.

[25] MILLIKAN, MAX F., AND DAVID HAPGOOD, *No Easy Harvest*, Boston, Little, Brown & Co., 1967.

[26] MORSE, RICHARD M., "Recent Research on Latin American Urbanization: A Se-

lective Survey with Commentary," *Latin American Res. Rev.*, 1:35–74, Fall 1965.

[27] MYRDAL, GUNNAR, "The United Nations, Agriculture, and the World Economic Revolution," *J. Farm Econ.*, 47:889–99, Nov. 1965.

[28] NICHOLLS, WILLIAM H., *Southern Tradition and Regional Progress*, Chapel Hill, University of North Carolina Press, 1960.

[29] OWEN, WYN F., "The Double Developmental Squeeze on Agriculture," *Am. Econ. Rev.* 56:43–70, Mar. 1966.

[30] President's National Advisory Commission on Rural Poverty, *The People Left Behind*, Washington, D.C., 1967.

[31] RUBIN, MORTON, *Plantation County*, Chapel Hill, The University of North Carolina Press, 1951.

[32] SMITH, T. LYNN, "The Growth of Population in Central and South America, 1940 to 1970," prepared for the Select Commission on Western Hemisphere Immigration, June 1967, mimeo.

[33] STAHL, JOHN EMERY, "Economic Development Through Land Reform in Puerto Rico," unpublished Ph.D. thesis, Iowa State University, 1966.

[34] STERNBERG, M. J., "Agrarian Reform and Employment, with Special Reference to Latin America," *Inter. Labour Rev.*, 95:1–26, Jan.-June 1967.

[35] TEBBEL, JOHN, "People and Jobs," *Sat. Rev.*, 50:8–12, 42, Dec. 30, 1967.

[36] THIESENHUSEN, WILLIAM C., AND MARION R. BROWN, "Problems of Agriculture," a study prepared at the request of the Subcommittee on American Republics Affairs of the Committee on Foreign Relations, U.S. Senate, Dec. 1967.

[37] THIESENHUSEN, WILLIAM C., MARION R. BROWN, AND PETER DORNER, Testimony before the Subcommittee on American Republics Affairs, "Survey of the Alliance for Progress," Hearings before the Committee on Foreign Relations, U.S. Senate, February 27, 1968, pp. 3–57.

[38] THOME, JOSEPH R., *Title Problems in Rural Areas of Colombia*, Centro Interamericano de Reforma Agraria, Mimeografiado Num. 3, Bogotá, Oct. 1965.

[39] United Nations Economic Commission for Latin America, *Economic Survey of Latin America*, 1964, E/CN. 12/711/Rev. 1, 1966.

[40] ——, *Economic Survey of Latin America*, 1965, E/CN. 12/752/Rev. 1, 1967.

[41] ——, *Economic Survey of Latin America*, 1966, E/CN. 12/767, presented at the Twelfth Session ECLA meetings, Caracas, Venezuela, May 2–13, 1967.

[42] ——, *The Process of Industrial Development in Latin America*, E/CN. 12/716/Rev. 1, New York, 1966.

[43] ——, *Statistical Bulletin for Latin America*, IV, No. 1:31–32, Feb. 1967.

[44] ——, "Structural Changes in Employment Within the Context of Latin America's Economic Development," *Economic Bulletin for Latin America*, 10:163–187, Oct. 1965.

[45] U.S. Department of Agriculture, *Rural People in the American Economy*, ERS Agr. Econ. Rep. 101, Washington, D.C., Oct. 1966.

[46] WOLF, MARSHALL, "Education, Social Structure and Development in Latin America," IV World Congress of Sociology, Evian, Sept. 1966, mimeo.

[47] ——, "Social Trends in Latin America," Economic Commission for Latin America, Social Affairs Division, June 1967, draft.