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RURAL LABOR IN LATIN AMERICA

by

Alain de Janvry, Elisabeth Sadoulet, and Linda Wilcox

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Alain de Janvry
Elisabeth Sadoulet
Linda Wilcox

Department of Agricultural and Resource Economics
University of California, Berkeley, Ca. 94720

Introduction

The status of rural labor and the performance of rural labor markets in Latin America have changed markedly in recent years under the combined pressures of rapid urban-industrial development, modernization of agriculture, changing land tenure patterns and labor laws, and increasing integration of the rural and urban labor markets. Yet, studies of Latin American agriculture have focused on other subjects which have been dictated by changes in the dominant issues and reforms of the moment. Thus, agrarian studies have concentrated on the distribution of landownership and on patterns of land use in the context of the land reform programs of the 1960s, on the diffusion of modern technologies in the context of the technological changes brought about by the Green Revolution in the late 1960s, on the status of the peasantry in the context of the rural development programs initiated in the early 1970s, and on the role of multinational agribusiness in the context of the increasing internationalization of capital in the late 1970s. In contrast to the Asian literature, relatively little is known in Latin America of the status of rural labor and the performance of labor markets. Yet, the levels of landlessness are extremely high in Latin America, the peasantry is highly dependent on wage earnings for its survival and its size has not declined in its share of the

agricultural economically active population, surplus labor in agriculture remains unabatedly high, and the rural sector is the principal reservoir of poverty in spite of the gradual displacement of marginality toward the urban areas. It is thus important that greater attention be given to Latin American rural labor, both in terms of the economic performance of agriculture and the welfare of rural workers and peasants. It is the purpose of this report to provide a broad characterization of the recent transformations of labor relations in Latin American agriculture since the 1950s and to explain the causes of some of the observed changes. The empirical basis is principally the agricultural and population censuses; the research of the International Labor Office and the Regional Employment Program for Latin America and the Caribbean (PREALC) for the region; data transmitted by informants for Mexico, Brazil, and Chile; and a large number of case studies dispersed in the Latin American literature, more often than not in unpublished form. The report is only a first approximation of a vast and multifaceted subject with scattered and incomplete information.

The report is structured in five parts that address (1) the changes in the rural and agricultural populations and the patterns of rural-urban migration; (2) the structure of employment and the importance of wage employment in agriculture; (3) the evolution of agricultural wages and surplus labor; (4) the nature of labor contracts in agriculture; and (5) the levels of household income and the magnitude of rural poverty. We begin with a summary of the major findings documented in the report.

1. There has been a continuous rapid decline in both the share of rural population in total population and the share of agricultural economically active population (EAP) in total EAP. For Latin America as a whole (19

countries), these shares declined respectively from 50 percent to 34 percent and from 49 percent to 32 percent between 1960 and 1980. Thus, no longer does agriculture employ the majority of Latin Americans. Higher per capita-income countries have markedly lower shares of the total gross domestic product (GDP) originating in agriculture and lower shares of rural population and of agricultural EAP. The observed rapid decline in these two shares can thus be expected to continue as economic growth progresses.

The share of rural population has, in general, declined only slightly more slowly than the share of agricultural EAP, with a 1 percent decline in the latter associated with a 0.73 percent decline in the former. This indicates a generally weak ability on the part of the Latin American economies, with their current highly concentrated patterns of urban-industrial development, to generate nonagricultural employment opportunities in their rural sectors and, thus, to retain larger shares of their EAPs in the rural areas. This ability to generate nonagricultural employment in the rural sector is, however, greater in the higher per capita-income countries, suggesting greater abilities of doing so in the future as economic growth continues.

2. Rural-urban migration rates have been generally exceptionally high by international standards during the last 30 years. Migration rates tend to increase with overall economic growth and with growth of nonagricultural activities, indicating that migration rates will likely continue to increase as economies grow and industrialize. Migration rates also increase with growth in agricultural GDP per capita, stressing the laborsaving and land-concentrating nature of agricultural growth in Latin America. Pull factors, however, tend to dominate among determinants of migration rates. This is confirmed by the observed negative correlation between the share of the

peasantry in agricultural EAP and migration rates: When pull factors are weak, migration opportunities are reduced, and the relative size of the peasantry increases as a refuge sector of surplus population.

3. In spite of a rapidly falling share of agricultural EAP in total EAP, the size of the peasant sector has increased in most countries in both absolute number and in share of agricultural EAP (with Mexico as the most significant exception). We thus observe a high resiliency of the peasantry to economic growth. The increase in the share of the peasantry in agricultural EAP tends to respond positively to growth of GDP per capita but negatively to growth in agricultural GDP per capita. In general, growth in the modern agricultural sector has created little new employment, and the overall size of the proletarian work force in Latin American agriculture has remained relatively constant over the last 30 years. Since the number of peasants has increased and their dependency on wage income also seems to have increased, total proletarianization (full and semiproletarianization) should have increased.

For the economy as a whole, total marginality (rural plus urban) has only declined from 47 percent of total EAP in 1950 to 42 percent in 1980, indicating the failure of the Latin American growth models to generate significant employment in their modern sectors. The absolute number of marginals has increased by no less that 91 percent during the 30-year period. In addition, marginality has been increasingly displaced from the rural to the urban sectors, with the share of the urban sector in total marginality increasing from 28 percent in 1950 to 46 percent in 1980.

Over time, the ability of economic growth to absorb the marginal sectors seems to be declining, presaging that large sectors of marginal populations will remain a feature of the Latin American economies for many years to come unless these economies adopt alternative styles of economic development.

4. The structure of labor absorption by farm size indicates that the peasantry tends to be a residual sector that expands faster during periods of slow economic growth and slower during periods of rapid growth when urban migration accelerates. This observation confirms the interpretation of the peasantry as a refuge sector of surplus population and not as an economically superior form of productive organization.

5. Changes over time in the distribution of land across farm sizes indicate that the number of small farms has increased in almost every country and that the average size of these small farms has declined over time. While the peasantry has thus grown in absolute number, its qualitative nature has changed as it increasingly loses its producer status and must rely on off-farm income sources to compensate for the loss of productive resources.

6. The level of landlessness among the rural population is extremely high in most Latin American countries, and this percentage seems to have increased over time on the basis of the limited information available. Since landlessness is higher in the countries with lower shares of agricultural GDP in total GDP, the level of landlessness can be expected to further increase in the future as economic growth reduces the share of agriculture in total GDP.

7. The rural and urban labor markets have become increasingly integrated, with both an increasing share of the agricultural EAP which is urban based and an increasing share of the rural EAP which is employed in nonagricultural activities. Urbanization of the agricultural labor force has generally been accelerated by changes in labor laws and in land tenure patterns which have led to the dismissal of permanent workers, their relocation in rural towns, and their replacement by temporary workers. This phenomenon is particularly advanced in specific regions of Brazil, Chile, and Mexico. An important

consequence of this increased integration of the two labor markets is the marked decline in the gap between agricultural and nonagricultural wages, with the first still well below the second. Another consequence is the deskilling of the farm labor force as temporary farm work increasingly acquires the features of a secondary labor market. Finally, town-based agricultural labor--which is easier to mobilize on a temporary basis, often with the mediation of labor contractors--increasingly competes for employment with semiproletarian labor of peasant origin. In the areas where there is a well-organized labor market for town-based agricultural laborers and a close integration between farm and urban employment opportunities, the peasantry loses its traditional function as a reservoir of cheap temporary labor.

8. Real wages in agriculture have fallen in a majority of countries between 1965 and 1980, and this has worsened in the 1980s due to sharply rising rates of inflation. Urban wages have, however, fallen even more, resulting in a tendency for a convergence between agricultural and urban wages. In spite of this, agricultural wages were still in 1980 some 50 percent to 75 percent lower than urban wages for unskilled labor.

Agricultural wages tend to be sensitive to overall economic growth more than to growth of the agricultural sector. This reinforces the observations that (1) agricultural growth has not been employment creating, (2) pull factors are the main determinants of migration, and (3) integration of the rural and urban labor markets affects the determination of wages in agriculture.

Finally, countries with larger shares of peasantry in the agricultural EAP and with lower levels of full proletarianization in agriculture tend to have

lower levels of agricultural wages. This supports the interpretation of the peasantry as a reservoir of cheap labor able to sustain low levels of wages since semiproletarian peasant labor is partially subsidized by subsistence production of household labor categories with low or zero opportunity cost.

9. Wages paid to temporary workers are higher than wages paid to permanent workers to compensate for greater flexibility on the employer's side and greater irregularity of work on the worker's side. Wages of temporary workers tend to be more unstable than those of permanent workers, increasing and falling more as employment opportunities fluctuate.

10. Rates of unemployment in agriculture have been increasing throughout the 1970s and especially the 1980s. This is true of both open unemployment, which remains low in agriculture, and underemployment which reaches levels of 17 percent in Chile, 29 percent in Brazil, 47 percent in El Salvador, and 61 percent in Peru. Seasonality in employment seems to increase in the less-advanced regions where mechanization of the labor process is still only partial and to subsequently decrease in the more-advanced regions as the full annual cycle of tasks becomes mechanized.

11. Implicit remuneration of family labor in home-plot activities is only a fraction of the wage of permanent agricultural workers for large percentages of the farm population on small farms. This discrepancy can be used as a measure of surplus labor on these farms which is thus seen to be high and not significantly declining over time. While absolute implicit income levels have improved on small farms, household members on large farms have benefited substantially more. The result has been a decline in absolute poverty but an increase in inequality in the distribution of farm income.

12. Due to changes in technology and in labor laws on the demand side and to rising landlessness and a growing town-based agricultural labor force on the supply side, there has been a rapid shift in the structure of employment from permanent to temporary workers. With mechanization occurring simultaneously, the substitution of permanent by temporary workers was often accompanied by a fall in total employment [Argentina, Mexico, and Chile (Region IV)].

13. There has been a rapid decline in labor payments under the form of land rights or in kind. Only in the more marginal areas, dominated by peasant farming, do payments in food and drink remain of some importance. Cash remuneration is, thus, the main form of wage payment. Social security benefits and profit sharing still represent only minimal complements to the cash wages received.

14. Data on sources of income show a high level of dependency on nonfarm income for a large percentage of farm households, with wages providing, by far, the largest source of off-farm income. The Latin American peasantry is, thus, highly semiproletarianized. More than rural development programs directed at increasing yields in peasant farming systems, access to employment opportunities, the level of wages paid, and the degree of integration between rural and urban labor markets are thus key to permanence on the land for large percentages of small farmers.

15. Even though the real implicit incomes of small holders have increased and the gap between rural and urban wages has narrowed, rural poverty remains extreme in Latin America, eventually affecting as much as 62 percent of rural households. The percentage of households below the poverty line that are in the rural sector declines sharply with GNP per capita, principally due to the urban shift of populations. In spite of rising per capita incomes in the

country, as a whole, and of relocation of marginality towards the urban sector, the share of population below the poverty line is increasingly in agriculture. The rural sector thus remains the ultimate reservoir of poverty. Direct antipoverty interventions on behalf of the rural population are thus required if poverty in that sector is to be reduced to the level of other sectors of the economy.

Part I

Evolution of Agricultural and Rural Populations

Agricultural and Rural Populations

1. While the average annual growth rates of population and of total EAP for Latin America (19 countries) between 1960 and 1980 were both high and about equal to 2.6 percent, the growth rate of the rural population was only 0.65 percent and that of EAP in agriculture was 0.43 percent (Table 1A). This reflects an intense migratory flow toward the urban sector and the weak employment-generating capacity of agriculture and the rural economy relative to population growth.

2. Even though the growth rates of rural population and agricultural EAP have been positive, the share of both rural population in total population and of agricultural EAP in total EAP have continued to decline rapidly. The first declined from 50.2 percent (1960) to 34.3 percent (1980) and the second from 48.7 percent to 31.7 percent. With respect to the level of these shares (Figure 1), three groups of countries can be distinguished:

a. Highly urbanized countries with low shares of both rural population and agricultural EAP--Argentina, Chile, Uruguay, and Venezuela.

b. Industrializing countries with intermediate shares of both rural population and agricultural EAP--Brazil, Colombia, Costa Rica, Ecuador, Mexico, Panama, and Peru.

c. Agrarian economies with high shares of both rural population and agricultural EAP--Bolivia, Dominican Republic, El Salvador, Guatemala, Haiti, Honduras, Nicaragua, and Paraguay.

Table 1A - Agricultural and Rural Population

	Total pop	Rural pop	Total EAP	Ag EAP	Rural/ Tot pop	Ag EAP/ Tot EAP
	millions	millions	millions	millions	%	%
Argentina						
1950	17.085		7.070	1.778		25.1
1960	20.611	5.441	7.887	1.592	26.4	20.2
1970	23.748	5.130	9.055	1.486	21.6	16.4
1980	27.740	4.882	10.068	1.314	17.6	13.1
Bolivia						
1950	3.019		1.387	1.009		72.7
1960	3.428	2.605	1.180	0.752	76.0	63.7
1970	4.325	3.110	1.387	0.745	71.9	53.7
1980	5.570	3.097	1.782	0.886	55.6	49.7
Brazil						
1950	51.973		17.689	10.572		59.8
1960	72.594	39.128	23.089	12.030	53.9	52.1
1970	95.847	42.269	29.944	13.655	44.1	45.6
1980	118.332	38.340	42.801	12.992	32.4	30.4
Chile						
1950	6.058		1.148	0.674		58.7
1960	7.585	2.442	2.479	0.744	32.2	30.0
1970	9.368	2.323	2.935	0.699	24.8	23.8
1980	11.104	2.154	3.581	0.583	19.4	16.3
Colombia						
1950	11.330		3.847	2.182		56.7
1960	15.754	8.161	4.689	2.410	51.8	51.4
1970	21.266	8.549	6.193	2.347	40.2	37.9
1980	25.892	9.399	7.509	1.937	36.3	25.8
Costa Rica						
1950	0.859		0.293	0.167		57.0
1960	1.236	0.785	0.361	0.186	63.5	51.5
1970	1.732	1.044	0.512	0.215	60.3	42.0
1980	2.279	1.290	0.765	0.219	56.6	28.6
Dom Rep						
1950	2.136		0.794	0.331		41.7
1960	3.047	2.127	0.895	0.592	69.8	66.1
1970	4.006	2.392	1.339	0.726	59.7	54.2
1980	5.431	2.661	1.815	0.890	49.0	49.0
Ecuador						
1950	3.231		1.316	0.841		63.9
1960	4.422	2.901	1.454	0.841	65.6	57.8
1970	5.962	3.607	1.803	0.920	60.5	51.0
1980	8.354	4.628	2.342	0.814	55.4	34.8
El Salvador						
1950	1.922		0.670	0.442		66.0
1960	2.542	1.568	0.825	0.508	61.7	61.6
1970	3.398	2.059	1.171	0.657	60.6	56.1
1980	4.540	2.674	1.565	0.790	58.9	50.5
Guatemala						
1950	2.791		0.989	0.679		68.7
1960	3.966	2.657	1.229	0.820	67.0	66.7
1970	5.353	3.442	1.608	0.981	64.3	61.0
1980	7.262	4.437	1.639	0.946	61.1	57.7
Haiti						
1950			1.769	1.052		59.5
1960	3.630	3.064	1.973	1.557	84.4	78.9
1970	4.235	3.392	2.297	1.641	80.1	71.4
1980	5.009	3.632	2.717	1.997	72.5	73.5
Honduras						
1950	1.372		0.472	0.338		71.6
1960	1.943	1.500	0.610	0.428	77.2	70.2
1970	2.639	1.882	0.783	0.521	71.3	66.5
1980	3.691	2.377	1.107	0.693	64.4	62.6

(Continued on next page.)

TABLE 1A--continued.

	Total pop	Rural pop	Total EAP	Ag EAP	Rural/ Tot pop	Ag EAP/ Tot EAP
	millions	millions	millions	millions	%	%
Mexico						
1950	26.282		8.201	4.983		60.8
1960	37.073	18.240	10.705	5.898	49.2	55.1
1970	51.176	20.982	13.933	6.298	41.0	45.2
1980	69.393	23.108	18.893	6.726	33.3	35.6
Nicaragua						
1950	1.133		0.374	0.233		62.3
1960	1.411	0.827	0.484	0.301	58.6	62.2
1970	1.836	0.969	0.527	0.264	52.8	50.1
1980	2.672	1.424	0.767	0.327	53.3	42.6
Panama						
1950	0.795		0.282	0.158		56.0
1960	1.095	0.643	0.350	0.178	58.7	50.9
1970	1.464	0.766	0.484	0.201	52.3	41.5
1980	1.835	0.839	0.555	0.175	45.7	31.5
Paraguay						
1950	1.397		0.491	0.274		55.8
1960	1.778	1.145	0.599	0.337	64.4	56.3
1970	2.290	1.440	0.743	0.391	62.9	52.6
1980	2.982	1.807	1.019	0.458	60.6	44.9
Peru						
1950	8.217		2.889	1.519		52.6
1960	9.665	5.190	3.223	1.678	53.7	52.1
1970	12.833	5.197	3.829	1.770	40.5	46.2
1980	16.610	5.780	5.126	2.029	34.8	39.6
Uruguay						
1950	2.193		0.493	0.211		42.8
1960	2.538	0.505	0.970	0.191	19.9	19.7
1970	2.808	0.503	1.083	0.197	17.9	18.2
1980	2.908	0.465	1.122	0.121	16.0	10.8
Venezuela						
1950	5.035		1.718	0.403		23.5
1960	7.632	2.549	2.354	0.793	33.4	33.7
1970	10.709	2.549	3.133	0.803	23.8	25.6
1980	14.930	2.493	4.368	0.786	16.7	18.0
LA (19 countries)						
1950	146.828		51.892	27.846		53.7
1960	201.950	101.478	65.356	31.836	50.2	48.7
1970	264.995	111.605	82.759	34.517	42.1	41.7
1980	336.534	115.487	109.541	34.683	34.3	31.7

Source: Population in World Bank, World Tables, 1976 and 1983;
EAP in ECLA, Statiscal Yearbook for Latin America, 1983.

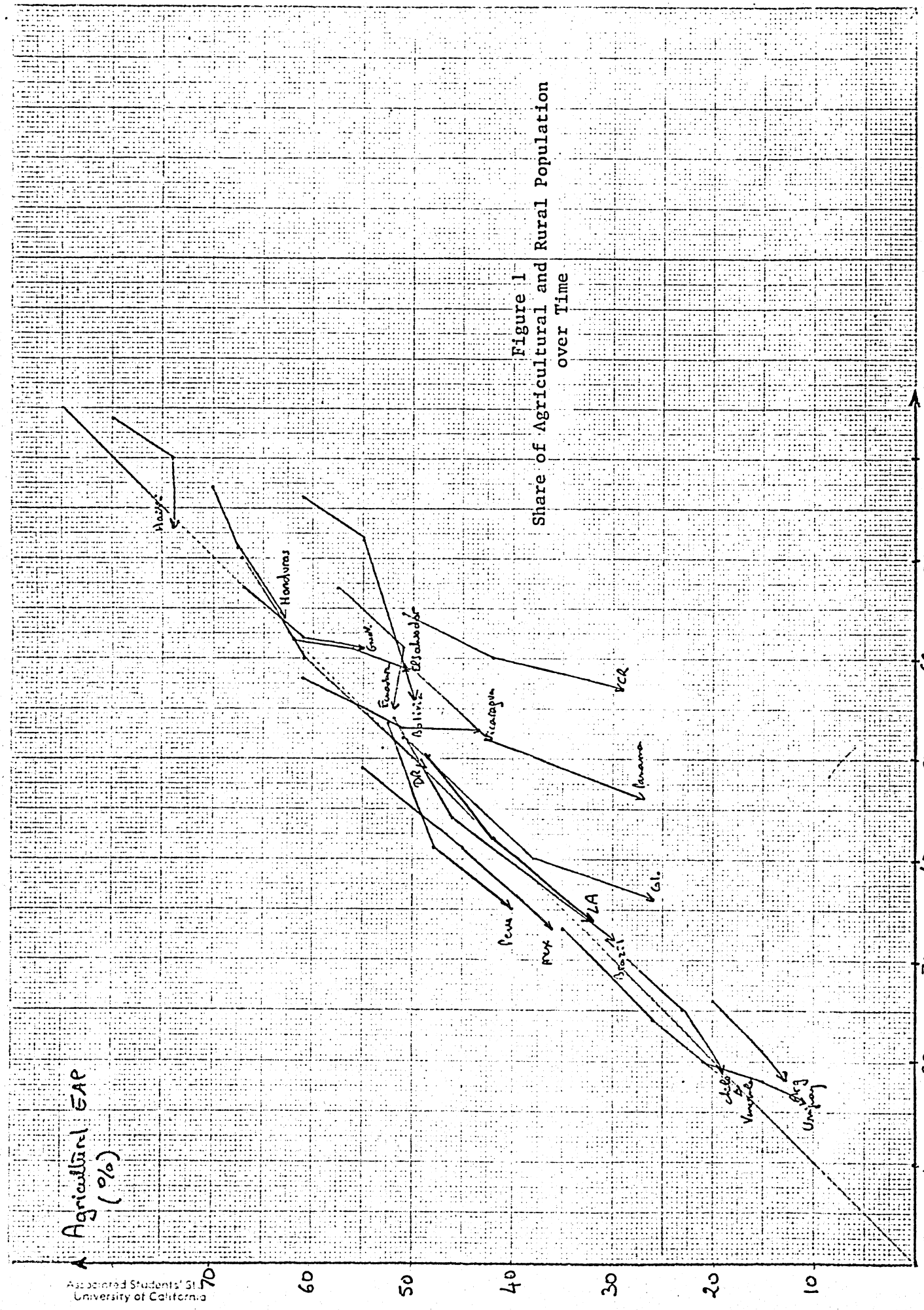

Figure 1
Share of Agricultural and Rural Population over Time

Associated Students' Store
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1980	Group 1	Group 2	Group 3
GDP per capita	1,075	829	354
Agricultural GDP as percent of GDP	8.4	12.9	23.0
Rural population as percent of total population	17.6	34.4	59.5
Agricultural EAP as percent of total EAP	14.7	31.9	56.3
Ratio of share of rural population to share of agriculturl EAP	1.20	1.08	1.06

The GDP per capita declines from group 1 to group 3, while the share of agricultural GDP in total GDP increases. The ratio of rural population in total population over agricultural EAP in total EAP decreases, indicating that the richest and less agrarian economies are the ones where nonagricultural employment in the rural sector is relatively more plentiful. As economic growth occurs, we can thus expect to see a greater ability of the rural economy to retain population in nonagricultural activities.

3. A comparison of the country-specific relative declines in the shares of rural population and EAP in agriculture (Table 1C) shows that in 13 countries the latter declined faster than the former, while in the other 6 countries the converse was true. Four of the six countries with slower declines in the share of EAP in agriculture were in the agrarian group, while the majority of the fastest relative declines occurred in countries in the industrializing group. For all countries combined, the share of EAP in agriculture declined slightly faster than the share of rural population (2.0 percent faster per decade). An unweighted regression of the share of rural population on the share of EAP in agriculture for the three years (1960, 1970, and 1980) combined, confirms the overall trend of a slightly faster relative decline

TABLE 1B-- Basic Economic Indicators

	GDP US$ (millions)	GDP per capita US$	Ag. GDP US$ (millions)	Ag. GDP per capita US$	Ag. GDP as % of GDP	Average annual Growth rate of: GDP per capita	Ag. GDP per capita	Manuf. GDP per capita	Total popn.
Argentina									
1950	11576	678							
1960	15179	736	2543	123	16.7	0.8			1.9
1970	23311	982	2834	119	12.2	2.9	0.4	4.2	1.4
1980	29616	1068	3470	125	11.7	0.3	0.9	-1.5	1.6
Bolivia									
1950									
1960	667	195	141	41	21.1				2.2
1970	1042	241	189	44	18.1	2.8	0.6	3.0	2.4
1980	1613	290	259	46	16.1	1.8	0.3	2.7	2.6
Brazil									
1950	12973	250							
1960	25185	347				3.8			3.1
1970	45734	477	3722	39	8.1	2.6	-0.9	6.9	2.8
1980	104702	885	6378	54	6.1	5.6	3.1	6.6	2.1
Chile									
1950	3650	602							
1960	5419	714	461	61	8.5	1.8			2.2
1970	8200	875	558	60	6.8	2.3	1.0	3.4	2.1
1980	10504	946	686	62	6.5	0.4	1.3	8.2	1.7
Colombia									
1950	2689	237	971	86	36.1				
1960	4234	269	1318	84	31.2	1.5	0.0	3.4	3.1
1970	7068	332	1857	87	26.3	2.1	0.5	2.7	3.0
1980	12433	480	2925	113	23.5	3.7	2.8	3.8	1.9
Costa Rica									
1950									
1960	547	443	129	104	23.6				3.7
1970	985	569	222	128	22.5	3.1	2.3	7.2	3.4
1980	1705	784	287	126	16.8	2.4	-0.4	4.3	2.8
Dominican Republic									
1950	516	242							
1960	905	297	280	92	30.9	2.2			3.6
1970	1486	371	345	86	23.2	1.6	-0.8	2.1	2.9
1980	2900	534	483	89	16.7	3.3	0.2	3.1	3.0
Ecuador									
1950									
1960									2.9
1970	1674	281	401	67	24.0	1.4	0.7	1.9	3.0
1980	3917	469	545	65	13.9	5.2	-0.5	7.4	3.4

(Continued on next page.)

TABLE 1B--continued.

	GDP US$ (millions)	GDP per capita US$	Ag. GDP US$ (millions)	Ag. GDP per capita US$	Ag. GDP as % of GDP	Average annual Growth rate of: GDP per capita	Ag. GDP per capita	Manuf. GDP per capita	Total popn.
El Salvador									
1950	400	208							
1960	613	241	199	78	32.5	1.6			2.8
1970	1029	303	292	86	28.4	2.9	0.1	5.9	2.9
1980	1413	311	394	87	27.9	0.3	-0.2	-0.6	2.9
Guatemala									
1950	767	275	254	91	33.1				
1960	1114	281	338	85	30.3	0.8	-0.1	1.6	3.0
1970	1904	356	520	97	27.3	2.6	1.3	5.2	3.0
1980	3300	454	820	113	24.8	2.4	1.2	2.8	3.1
Haiti									
1950									
1960	385	106	171	47	44.4				1.6
1970	394	93	159	37	40.4	-1.4	-2.2	-1.7	1.6
1980	576	115	189	38	32.8	1.7	-0.6	5.9	1.7
Honduras									
1950	331	241	129	94	39.0				
1960	447	230	135	69	30.2	-0.2	-2.8	3.7	3.3
1970	723	274	212	80	29.3	2.2	2.7	1.4	3.1
1980	1132	307	281	76	24.8	1.0	-1.1	2.6	3.4
Mexico									
1950	9827	374							
1960	17007	459	2634	71	15.5	2.5			3.1
1970	35542	694	4330	85	12.2	4.3	1.2	6.8	3.3
1980	67348	970	6056	87	9.0	3.4	0.3	4.0	3.1
Nicaragua									
1950	239	211							
1960	397	281	99	70	24.9	2.8			2.4
1970	777	423	193	105	24.8	4.7	5.2	8.8	2.6
1980	845	316	238	89	28.2	-3.1	-1.1	-1.1	3.9
Panama									
1950	294	370	68	85	23.1				
1960	475	434	88	80	18.5	2.0	-0.4	5.9	2.9
1970	1021	697	149	102	14.6	4.9	2.9	7.6	2.9
1980	1715	935	178	97	10.4	2.2	-0.3	0.4	2.3
Paraguay									
1950	296	212							
1960	390	219				0.2			2.6
1970	595	260	191	83	32.1	1.6	-0.5	2.3	2.6
1980	1358	455	361	121	26.6	6.2	4.4	5.5	2.6

(Continued on next page.)

TABLE 1B--continued.

	GDP US$ (millions)	GDP per capita US$	Ag. GDP US$ (millions)	Ag. GDP per capita US$	Ag. GDP as % of GDP	GDP per capita	Ag. GDP per capita	Manuf. GDP per capita	Total popn.
Peru						Average annual Growth rate of:			
1950	2472	301	571	69	23.1				
1960	4224	437	751	78	17.8	2.9	0.2	5.4	2.6
1970	6902	538	1129	88	16.4	2.0	0.8	2.8	2.9
1980	9471	570	1081	65	11.4	0.5	-2.2	0.3	2.6
Uruguay									
1950	1604	731	200	91	12.5				
1960	1968	775	200	79	10.2	0.8	8.6	2.6	1.3
1970	2452	873	268	95	10.9	0.7	0.9	0.5	1.0
1980	3292	1132	291	100	8.8	2.7	0.8	3.0	0.4
Venezuela									
1950	2956	587							
1960	6373	835	483	63	7.6	4.0			4.0
1970	11629	1086	826	77	7.1	2.6	2.4	3.0	3.4
1980	17498	1172	1127	75	6.4	1.1	0.0	1.9	3.4

Note: All at constant 1970 prices.

Source: World Bank, World Tables, 1983

Note: Growth is average annual for the decade up to and including year listed (for the 1980 growth rate, the period is 1970-81).

of the share of EAP in agriculture, with a 1 percent decline in share of EAP in agriculture being associated with a decline of 0.73 percent in share of population in rural areas. However, apart from a few countries, such as Colombia, Costa Rica, Ecuador, and Uruguay which all had relative declines in agricultural EAP of more than 15 percent per decade, the data indicate a weak employment-generating capacity in the rural sector of Latin American economies. This apparent correspondence in the declining shares of agricultural EAP and rural population, however, masks two complementary shifts in the labor markets: More agricultural labor is coming from urban areas and more non-agricultural activities are located in rural areas. This increasing integration of the rural and urban labor markets will be analyzed in Table 7.

4. As observed by Kuznets, there exists a close relationship between GDP per capita and the share of EAP in agriculture (Figure 2). The share of EAP in agriculture (1980 figures) ranges from 74 percent in Haiti to 13 percent in Argentina and 11 percent in Uruguay, while GDP per capita ranges from $114 in Haiti to $1,132 in Uruguay and $1,172 in Venezuela (see Table 1B for the Basic Economic Indicators on the Latin American countries). Regressions of the share of EAP in agriculture on GDP per capita for the years 1960, 1970, and 1980 confirm this negative relationship. However, the coefficient on GDP per capita declines over time in absolute value (-0.068 to -0.042) indicating that recent growth does not have as much capacity to absorb agricultural EAP as before. The share of GDP originating in agriculture was included as a second explanatory variable in these regressions. The coefficient of this variable was insignificant for the individual years (possibly due to multicollinearity with GDP per capita) but was significant when the data were pooled. The elasticity of the share of EAP in agriculture with respect to the share of GDP

Figure 2

Share of EAP in Agriculture by Income Level

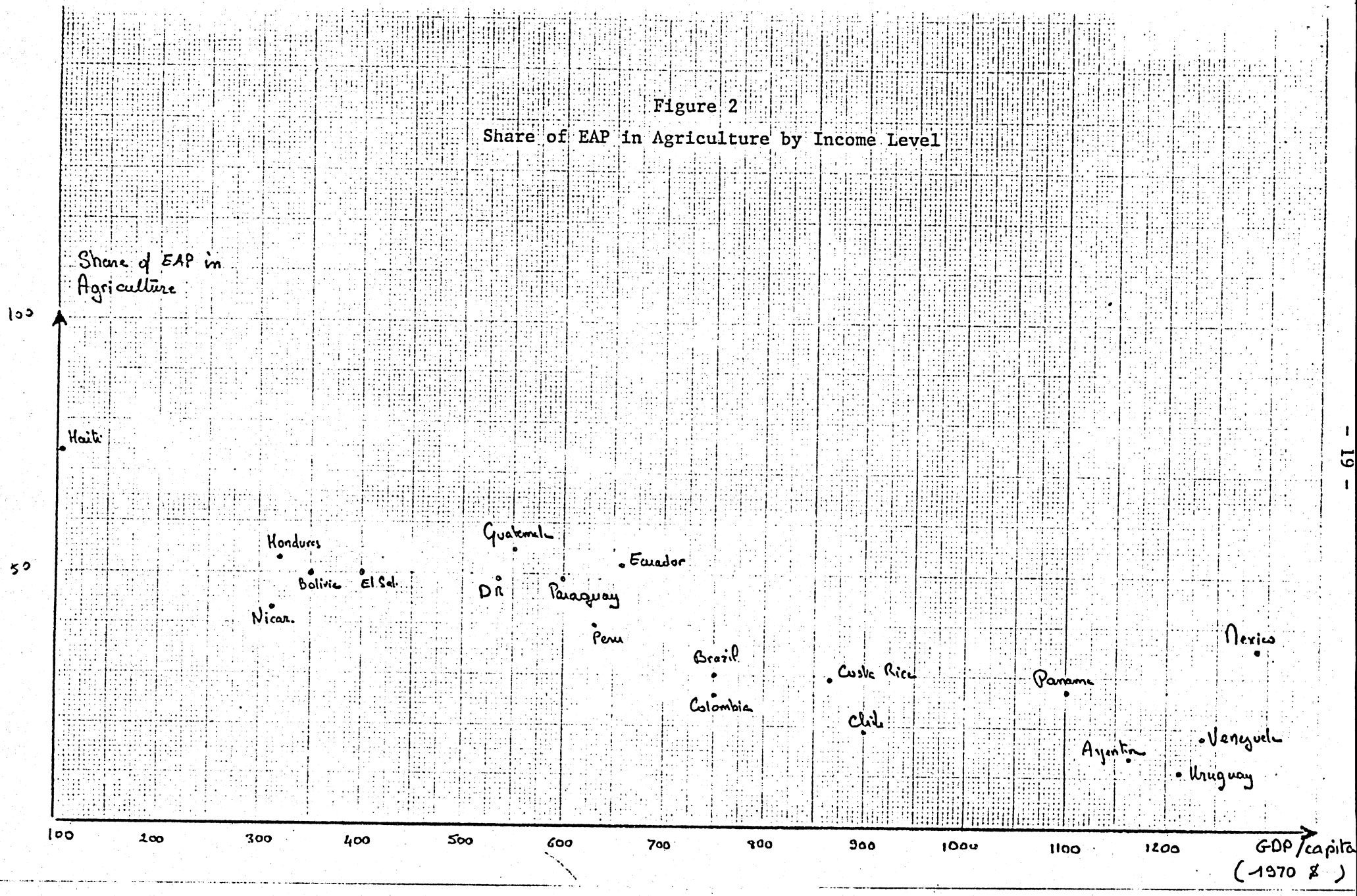

Table 1C - Relative decline of agricultural and rural populations 1960-1980

Country	Growth rate of share of rural popn. in total popn. (% per decade)	Growth rate of share of ag. EAP in total EAP (% per decade)	Growth rate of ratio of share of rural popn. to share of ag. EAP (% per decade)
Argentina	-18.3	-19.4	1.1
Bolivia	-14.4	-11.7	-2.8
Brazil	-22.4	-23.6	1.2
Chile	-22.3	-26.3	3.9
Colombia	-16.3	-29.2	12.9
Costa Rica	- 5.6	-25.5	19.9
Dominican Republic	-16.2	-13.9	-2.3
Ecuador	- 8.1	-22.4	14.4
El Salvador	- 2.3	- 9.4	7.2
Guatemala	- 4.5	- 6.9	2.4
Haiti	- 7.3	- 3.4	-3.9
Honduras	- 8.7	- 5.5	-3.2
Mexico	-17.7	-19.6	1.9
Nicaragua	- 4.6	-17.2	12.6
Panama	-11.7	-21.3	9.6
Paraguay	- 3.0	-10.7	7.7
Peru	-19.5	-12.8	-6.7
Uruguay	-10.3	-25.9	15.6
Venezuela	-29.2	-26.9	-2.4
LA(19 countries)	-17.3	-19.3	2.0

originating in agriculture was found to be as low as 0.11 in the latter case. However, the share of GDP originating in agriculture also declines as GDP per capita increases. Continued sharp declines in the share of EAP in agriculture can thus be expected to occur if the Latin American countries pursue their current styles of development which are highly biased toward a geographically concentrated urban-industrial sector and labor-saving technology in modern agriculture.

Rural-Urban Migration

Rural-urban migration has been a very important demographic phenomenon in Latin America over the past three decades. As other studies show (e.g., United Nations, 1980), migration rates are higher in Latin America than in other developing countries--the Asian countries, in particular. Table 2A reveals significant variations in both levels and trends in migration rates across countries. While the rates have been high and increasing for most countries, Argentina and Uruguay have high but decreasing rates, and Ecuador, El Salvador, Guatemala, and Paraguay all have low and decreasing rates.

Correlation coefficients of both migration rates for the 1960s and 1970s and the change in migration rates from the 1960s to the 1970s with various economic and demographic indicators are given in Table 2B. For the group as a whole, the variables most highly correlated with migration rates are initial GDP per capita and initial proportion of population in urban areas. Thus, a pull effect appears to be the dominant motivating force for migration. This is further corroborated by the positive coefficients for growth rate of manufacturing GDP per capita, growth rate of nonagricultural GDP per capita, and the difference between manufacturing and agricultural GDP per capita growth rates.

TABLE 2A. RURAL MIGRATION

	migration rates			Share of urban pop in 1975	Rate of natural increase in rural areas 1970s
	1950s	1960s	1970s		
Argentina	3.25		2.29	80.5	2.26
Brazil	1.94	2.27	4.48	60.7	2.43
Chile	2.69	2.89	3.98	78.5	1.61
Colombia	1.77		4.56	65.4	2.24
Dom. Rep.	.99	1.55	2.29	45.8	3.00
Ecuador	.88	.85	.68	41.9	3.48
El Salvador	.46	.52	.07	39.9	3.20
Guatemala		.55	.26	37.0	3.26
Mexico		1.93	3.07	63.0	3.16
Nicaragua	.77		1.59	50.2	3.48
Paraguay		.64	.49	37.9	3.69
Peru		2.44	3.28	62.8	2.57
Uruguay		.25	2.67	83.0	.30
Venezuela	3.67	3.47	3.06	80.2	3.44

Note: Urban population is defined as the population of cities over 100,000 inhabitants in 1960. Migration rates are net rural outmigration as a percentage of average rural population over the decade.

Source: Data for 1950s and 1960s are from U.N., Patterns of Urban and Rural Employment, 1980. For 1970s, rural and urban rates of natural increase were estimated using the 1960s ratios of urban to rural natural increase, and the average urban share of population in 1970 and 1980. Net rural migration is then calculated by comparing this urban rate to the growth rate of urban population during the decade. Data and estimations of urban population were taken from U.N, Patterns..., total population from World Bank, World Tables, 1983.

Table 2B. Correlations between migration rates and change in migration rates and selected economic and demographic variables.

	Migration Rates				Change in migration rates		
	1960s	1970s			1960s to 1970s		
	Total	Total	Group1	Group2	Total	Group1	Group2
Initial GDP per capita	0.499	0.442			0.339		
Growth rate of GDP p.c.	0.359	0.035	0.590	0.905	0.149	0.568	0.982
Growth rate of ag. GDP p.c.	0.336	0.119	0.554	0.154	0.147	0.531	0.501
Growth rate of manuf. GDP p.c.		0.122					
Growth rate of non-ag. GDP p.c	0.241				0.170		
Initial % of pop. in urban	0.444	0.647			0.557		
Lagged urban unemployment %		0.322			-0.609		
% of ag. EAP in traditional		-0.017			-0.311		
Growth rate of manuf. GDP p.c. - growth rate of ag. GDP p.c.		0.196			0.202		
Rate of natural increase in rural areas		-0.514	-0.044	0.443			

Note: Group1 consists of Argentina, Brazil, Chile, Dom. Rep., Mexico, Nicaragua, Peru, Uruguay and Venezuela.
Group2 consists of Ecuador, El Salvador, Guatemala and Paraguay.

Growth rate of GDP per capita is fairly strongly correlated with migration rate in the 1960s (coefficient of 0.359) but not in the 1970s. However, ranking the countries according to both the level of GDP per capita in 1970 and the migration rate provides an almost perfect division into a high GDP per capita, high migration group (1), and a low GDP per capita, low migration group (2).[1] The correlation coefficients of migration rate with growth rate of GDP per capita for the two groups are 0.590 for group 1 and 0.905 for group 2, while for migration rate with growth rate of agricultural GDP per capita, the coefficients are 0.554 and 0.154, respectively. For change in migration, the coefficients are 0.568 and 0.982 with growth rate of GDP per capita, and 0.531 and 0.501 with growth rate of agricultural GDP per capita, for groups 1 and 2, respectively. Thus, for group 2 (which consists of relatively agrarian countries), although migration rates are low, both the rate and the change in the rate respond very closely to increases in the growth rate of GDP per capita, while the low positive association of migration rate with the growth rate of agricultural GDP per capita suggests that growth in the agricultural sector has been rather neutral with respect to labor absorption. In contrast, agricultural growth has been fairly stongly associated with migration in the group 1 countries, probably due to a combination of the increased use of labor-saving technology and land concentration.

The correlations of migration rate and change in migration with lagged urban unemployment show that, while urban unemployment does not act as a deterrent to migration in absolute terms, it does slow down its rate of increase. This is consistent with the Harris-Todaro theory that rural-urban migration is a function of expected urban wages.

The share of the peasantry in agricultural EAP is negatively correlated with both migration rate and the change in migration (although the former coefficient is very small in absolute value), suggesting that the peasantry is effective as a buffer sector, particularly with respect to slowing down the rate of increase in migration. But causality in this correlation can more meaningfully be read the other way around, namely, that rather than the successful expansion of the peasantry lowering the migration rate, it is the lack of migration opportunities (weak pull factors) that lead to an accumulation of surplus population in the peasant sector.

The rate of natural increase of the population in rural areas is negatively correlated with the migration rate, as a whole, but rather different results are obtained when the two groups of countries are analyzed separately. For group 1, the correlation is still negative but very small in absolute value (-0.044), while for group 2 the correlation is fairly stongly positive (0.443). Thus, population pressure appears to act as a push factor among group 2 countries but not for group 1 countries which have a lower average rate of natural increase than in group 2.

In addition to high levels of rural-urban migration, there is an increasing incidence of rural-rural migration in the form of seasonal labor markets, a phenomenon that is well documented in Mexico (Pare, 1977; Astorga Lira and Commander, 1983). These seasonal labor markets are based on regional disparities and the development of areas of advanced commercialized agriculture which, because of crop specialization and partial mechanization of the labor process, require large numbers of casual workers for short periods of time. The development of one such migrant labor market in the northern states of Sinaloa and Sonora complements the more traditional migrant labor market of the southern coffee and sugarcane regions.

These migrant labor markets draw on the large pool of landless laborers and those ejidatarios and minifundistas who can afford to be away from their plots for long periods of time. Local labor markets, which increasingly offer more sporadic and casual employment than before as specialization and mechanization invade all regions of the country, draw more and more on women and children and small holders who live nearby. This off-farm employment is a necessary complement to the production of many small holders who cannot support a household from their plots.

As can be seen in Table 11, the implicit remuneration to family labor on small farms has eroded relative to the minimum wage. Those who can secure a sufficient number of days of wage work (perhaps, by joining a migrant labor stream) are probably well off compared to those small holders who are tied to the land and pick up whatever casual employment they can in the local labor market.

The results of Table 2B corroborate at a regional level what has been found in a study of all developing countries (United Nations, 1980). In that study, the net flow of migrants from rural areas increases with the rate of natural increase of rural population, with growth in agricultural productivity, and with a higher share of urban population. Using regression analysis, these variables were found to explain most of the wide range of migration rates that are observed across the different regions.

A specific analysis of rural migration in Latin America (Shaw, 1974) also suggests that the land tenure system is an important factor in explaining rural migration rates since it conditions employment opportunities in agriculture. A more concentrated land-tenure system acts as a push factor, while a large small-farm sector allows, as we have seen, a retention of population in agriculture and a reduction in migration rates.

While the limitation of correlation analysis must be noted,[2] the major conclusion to be drawn is that pull factors appear to be more important than push factors as causes of migration, although population pressure does appear to be important for the small group of low migration, relatively agrarian countries.

Footnotes

[1]Colombia has been omitted from the subgroup analysis as it was the only country with inconsistent rankings of GDP per capita and migration rate.

[2]Due to the small number of countries for which various data were available, regression analysis was infeasible.

Part II

Structure of Employment and Importance of Wage Employment in Agriculture

Employment Structure in the Rural and the Urban Sectors

Table 3A is constructed on the basis of data compiled by PREALC (1982) on the shares of the economically active population in the traditional agricultural, modern agricultural, and traditional urban sectors. The data are based on population censuses but have been adjusted by PREALC to derive a more exact measurement of EAP. The EAP in traditional activities in both the agricultural and the urban sectors is defined as including workers on own-account and nonpaid family members. In the urban sector, paid domestic services were also included in the traditional sector. The modern agricultural sector includes agricultural workers, employers, professionals, and technicians. Because the population censuses tend to underestimate the importance of women in the agricultural EAP, the data on the number of unpaid family members and agricultural workers were adjusted on the basis of comparisons with the agricultural censuses to correct this deficiency. PREALC only reports the resulting shares of EAP in the traditional rural and urban sectors, and they are included in Table 3A. In order to compute the absolute number of workers in the different categories, adjusted total EAP and agricultural EAP were estimated by taking the difference between the shares of agricultural EAP given in Table 3A and Table 1A. This difference was attributed to traditional agriculture. The size of population in the traditional agricultural sector increases relative to the population census data of Table 1A in all countries except Chile in 1950, the Dominican Republic in 1980, Guatemala, Honduras in 1970 and 1980, Mexico in 1960, Nicaragua in 1980, Panama in 1950, 1960, and 1970, and Uruguay in 1950.

TABLE 3A

Employment Structure in the Rural and Urban Sectors

	EAP in Tradit. Agr.				EAP in Modern Agr.			EAP in Trad. urban		EAP in Traditional Activities					
	in Tot EAP %	in Ag EAP %	numbers millions	Index 1950=100	in Tot EAP %	numbers millions	Index 1950=100	in Tot EAP %	numbers millions	in Tot EAP %	numbers millions	Index 1950=100	ratio urb/ag %	Adj. EAP millions	Adj. Ag EAP millions
Argentina															
1950	7.6	27.6	0.555	100.0	19.9	1.453	100.0	15.2	1.109	22.8	1.664	100.0	200.0	7.299	2.007
1960	7.7	35.3	0.620	111.7	14.1	1.135	78.1	14.2	1.143	21.9	1.763	105.9	184.4	8.050	1.755
1970	6.7	37.4	0.618	111.3	11.2	1.033	71.1	15.6	1.438	22.3	2.056	123.5	232.8	9.219	1.650
1980	6.3	41.7	0.650	117.1	8.8	0.907	62.5	19.4	2.000	25.7	2.650	159.2	307.9	10.311	1.557
Bolivia															
1950	53.7	73.9	0.744	100.0	19	0.263	100.0	15	0.208	68.7	0.951	100.0	27.9	1.385	1.007
1960	55.1	81.0	0.737	99.1	12.9	0.173	65.6	17	0.227	72.1	0.964	101.4	30.9	1.338	0.910
1970	53.5	86.6	0.899	120.9	8.3	0.139	53.0	19.6	0.329	73.1	1.229	129.2	36.6	1.681	1.039
1980	50.9	90.7	1.039	139.7	5.2	0.106	40.3	23.2	0.474	74.1	1.512	159.0	45.6	2.041	1.145
Brazil															
1950	37.6	62.6	6.707	100.0	22.5	4.013	100.0	10.7	1.909	48.3	8.615	100.0	28.5	17 837	10.720
1960	36.1	69.2	8.352	124.5	16.1	3.725	92.8	15.4	3.563	51.5	11.915	138.3	42.7	23.136	12.077
1970	33.4	72.8	10.056	149.9	12.5	3.764	93.8	14.9	4.486	48.3	14.543	168.8	44.6	30.109	13.820
1980	27.6	73.8	13.143	196.0	9.8	4.667	116.3	16.9	8.047	44.5	21.190	246.0	61.2	47.618	17.809
Chile															
1950	8.9	27.8	0.062	100.0	23.1	0.161	100.0	22.1	0.154	31.0	0.216	100.0	248.3	0.697	0.223
1960	12.1	39.0	0.304	490.4	18.9	0.475	295.1	20.5	0.515	32.6	0.820	379.3	169.4	2.514	0.779
1970	9.3	34.2	0.286	460.4	17.9	0.550	341.4	16.7	0.513	26.0	0.799	369.6	179.6	3.071	0 835
1980	8.8	38.6	0.342	550.9	14	0.544	337.6	20.1	0.781	28.9	1.122	519.4	228.4	3.883	0.885
Colombia															
1950	33	55.7	1.347	100.0	26.2	1.069	100.0	15.3	0.624	48.3	1.971	100.0	46.4	4.081	2.416
1960	25.3	47.5	1.235	91.7	28	1.366	127.8	17.1	0.834	42.4	2.069	105.0	67.6	4.880	2.601
1970	22.3	52.2	1.497	111.1	20.4	1.369	128.1	17.7	1.188	40.0	2.685	136.2	79.4	6.712	2.866
1980	18.7	54.2	1.591	118.1	15.8	1.344	125.7	22.3	1.897	41.0	3.488	177.0	119.3	8.507	2.935
Costa Rica															
1950	20.4	35.4	0.061	100.0	37.3	0.111	100.0	12.3	0.037	32.7	0.097	100.0	60.3	0.298	0.172
1960	20.1	38.7	0.073	120.3	31.8	0.116	104.1	12.7	0.046	32.8	0.119	122.5	63.2	0.364	0.189
1970	18.6	43.6	0.096	158.7	24.1	0.125	112.4	12.9	0.067	31.5	0.163	167.6	69.4	0.518	0.221
1980	14.8	43.0	0.123	202.7	19.6	0.163	146.8	12.4	0.103	27.2	0.226	232.4	83.8	0.832	0.286

(Continued on next page.)

TABLE 3A--continued.

	EAP in Tradit. Agr.				EAP in Modern Agr.			EAP in Trad. urban		EAP in Traditional Activities					
	In Tot EAP %	In Ag EAP %	numbers millions	Index 1950=100	InTot EAP %	numbers millions	Index 1950=100	In Tot EAP %	numbers millions	In Tot EAP %	numbers millions	Index 1950=100	ratio urb/ag %	Adj. EAP millions	Adj. Ag EAP millions
Dom Rep															
1950	58.4	81.5	0.955	100.0	13.3	0.218	100.0	8.5	0.139	66.9	1.095	100.0	14.6	1.636	1.173
1960	50.7	76.2	0.459	48.0	15.8	0.143	65.7	14.1	0.128	64.8	0.586	53.5	27.8	0.904	0.601
1970	36.6	67.4	0.491	51.4	17.7	0.237	109.1	15.5	0.208	52.1	0.699	63.9	42.3	1.341	0.728
1980	24.6	59.6	0.388	40.6	16.7	0.263	120.9	16	0.252	40.6	0.640	58.5	65.0	1.576	0.651
Ecuador															
1950	39	58.7	0.551	100.0	27.4	0.387	100.0	11.7	0.165	50.7	0.717	100.0	30.0	1.414	0.939
1960	38.6	62.1	0.626	113.5	23.6	0.383	98.8	18.4	0.298	57.0	0.924	129.0	47.7	1.622	1.009
1970	41.2	70.1	0.883	160.2	17.6	0.377	97.4	23.7	0.508	64.9	1.391	194.1	57.5	2.143	1.260
1980	37.9	73.4	1.197	217.0	13.7	0.433	111.7	25.4	0.802	63.3	1.998	278.8	67.0	3.157	1.629
El Salvador															
1950	35	51.9	0.246	100.0	32.5	0.228	100.0	13.7	0.096	48.7	0.342	100.0	39.1	0.702	0 474
1960	24.9	39.4	0.214	87.4	38.3	0.330	144.7	14	0.121	38.9	0.335	98.1	56.2	0.861	0 544
1970	28	48.4	0.342	139.2	29.9	0.365	160.1	16.6	0.203	44.6	0.545	159.4	59.3	1.221	0.707
1980	30.1	57.4	0.490	199.6	22.3	0.363	159.2	18.9	0.308	49.0	0.798	233.5	62.8	1.628	0.853
Guatemala															
1950	44.8	65.4	0.441	100.0	23.7	0.233	100.0	16.2	0.159	61.0	0.600	100.0	36.2	0.984	0.674
1960	39	61.2	0.439	99.7	24.7	0.278	119.3	17.6	0.198	56.6	0.638	106.2	45.1	1.127	0.718
1970	37	61.6	0.581	131.9	23.1	0.363	155.6	17.3	0.272	54.3	0.853	142.1	46 8	1.571	0 944
1980	33.1	59.7	0.514	116.7	22.3	0.347	148.6	17.8	0.277	50.9	0.791	131.7	53.8	1.554	0.861
Honduras															
1950	50.3	62.5	0.346	100.0	30.2	0.208	100.0	7.5	0.052	57.8	0.397	100.0	14.9	0.687	0.553
1960	49.7	69.8	0.314	90.9	21.5	0.136	65.5	11.7	0.074	61.4	0.388	97.7	23.5	0.632	0.450
1970	40.3	62.9	0.294	85.1	23.8	0.174	83.7	13.8	0.101	54.1	0.395	99.4	34.2	0.730	0.468
1980	32.5	57.1	0.312	90.3	24.4	0.234	112.9	17.2	0.165	49.7	0.477	120.2	52.9	0.961	0.547
Mexico															
1950	44	68.3	3.977	100.0	20.4	1.844	100.0	12.9	1.166	56.9	5.143	100.0	29.3	9.039	5.821
1960	27.6	52.1	2.823	71.0	25.4	2.598	140.9	13.5	1.381	41.1	4.204	81.7	48.9	10 228	5 421
1970	24.9	53.2	3.574	89.8	21.9	3.143	170.4	18.2	2.612	43.1	6.185	120.3	73.1	14.352	6.717
1980	18.4	48.9	3.588	90.2	19.2	3.744	203.0	22	4.290	40.4	7.877	153.2	119.6	19.498	7.331

(Continued on next page.)

TABLE 3A--continued.

	EAP in Tradit. Agr.				EAP in Modern Agr.			EAP in Trad. urban		EAP in Traditional Activities					
	in Tot EAP %	in Ag EAP %	numbers millions	index 1950=100	in Tot EAP %	numbers millions	index 1950=100	in Tot EAP %	numbers millions	in Tot EAP %	numbers millions	index 1950=100	ratio urb/ag %	Adj. EAP millions	Adj. Ag. EAP millions
Nicaragua															
1950	25.9	37.6	0.117	100.0	42.9	0.194	100.0	11.7	0.053	37.6	0.170	100.0	45.2	0.452	0.311
1960	28.5	46.0	0.137	117.3	33.5	0.161	83.2	15.1	0.073	43.6	0.210	123.6	53.0	0.482	0.299
1970	26	50.1	0.142	121.5	25.9	0.142	73.0	20.7	0.113	46.7	0.255	150.3	79.6	0.547	0.284
1980	23.8	56.9	0.180	153.7	18	0.136	70.2	28.3	0.214	52.1	0.394	231.8	118.9	0.756	0.316
Panama															
1950	47	88.3	0.125	100.0	6.2	0.016	100.0	11.8	0.031	58.8	0.156	100.0	25.1	0.265	0.141
1960	41.5	82.5	0.144	115.3	8.8	0.030	185.4	13.1	0.045	54.6	0.189	121.3	31.6	0.346	0.174
1970	31.7	78.9	0.150	120.5	8.5	0.040	244.9	15.8	0.075	47.5	0.225	144.3	49.8	0.473	0.190
1980	24.6	73.0	0.141	113.2	9.1	0.052	317.5	20.9	0.120	45.5	0.261	167.4	85.0	0.573	0.193
Peru															
1950	39.4	64.3	1.395	100.0	21.9	0.775	100.0	16.9	0.598	56.3	1.993	100.0	42.9	3.540	2.170
1960	40.5	71.9	1.432	102.7	15.8	0.559	72.1	17.9	0.633	58.4	2.065	103.6	44.2	3.535	1.990
1970	37.7	78.5	1.493	107.0	10.3	0.408	52.6	20.7	0.820	58.4	2.312	116.0	54.9	3.960	1.901
1980	32	80.0	1.652	118.4	8	0.413	53.3	23.8	1.228	55.8	2.880	144.5	74.4	5.162	2.065
Uruguay															
1950	4.7	21.4	0.017	100.0	17.3	0.063	100.0	14.5	0.052	19.2	0.069	100.0	308.5	0.362	0.080
1960	5.9	28.6	0.058	340.7	14.7	0.144	230.6	15.6	0.153	21.5	0.211	303.9	264.4	0.981	0.202
1970	6.9	36.7	0.075	443.1	11.9	0.130	207.6	16.8	0.183	23.7	0.259	372.5	243.5	1.091	0.205
1980	8	45.7	0.097	571.2	9.5	0.115	184.3	19	0.231	27.0	0.328	471.9	237.5	1.213	0.212
Venezuela															
1950	22.5	49.1	0.546	100.0	23.3	0.565	100.0	16.4	0.398	38.9	0.944	100.0	72.9	2.426	1.111
1960	21.3	62.1	0.506	92.7	13	0.309	54.6	20	0.475	41.3	0.981	104.0	93.9	2.376	0.815
1970	19.9	73.4	0.636	116.5	7.2	0.230	40.7	22.4	0.716	42.3	1.352	143.2	112.6	3.196	0.866
1980	15.1	77.4	0.672	123.1	4.4	0.196	34.6	16.4	0.730	31.5	1.402	148.5	108.6	4.450	0.868
LA (17 countries)															
1950	34.3	60.7	18.190	100.0	22.2	11.801	100.0	13.1	6.951	47.3	25.141	100.0	38.2	53.103	29.991
1960	29.1	60.5	18.473	101.6	19.0	12.061	102.2	15.6	9.908	44.8	28.381	112.9	53.6	63.376	30.534
1970	27.0	63.7	22.113	121.6	15.4	12.589	106.7	16.9	13.832	43.9	35.945	143.0	62.5	81.936	34.702
1980	23.0	65.1	26.117	143.6	12.3	14.027	118.9	19.3	21.918	42.2	48.035	191.1	83.9	113.720	40.143

Note: Traditional sector in Agriculture includes workers on own account and non-paid family members, excluding professionals and technicians. Urban Traditional includes workers on own account and non-paid family members in non-agricultural activities, excluding professionals and technicians, and domestic services.

Sources: Shares of EAP in traditional agriculture, in modern agriculture and in traditional urban in PREALC, Mercado de Trabajo en Cifras, 1950-80 (Geneva, ILO: 1982); Adjusted EAP and Agricultural EAP: authors' calculations (see text).

The total size of the marginal sector, defined as the sum of the EAPs in the rural and the urban traditional sectors, shows only a minimal decline in percentage of the total EAP over 30 years--from 47 percent in 1950 to 42 percent in 1980. Marginality is thus a highly resilient structural feature of the Latin American societies. In absolute number of EAP, the marginal sector increased by no less than 91 percent--from 25.1 million in 1950 to 48.0 million in 1980.[1] This dramatic increase in the number of marginals shows the failure of recent modern sector economic growth to create productive employment in spite of rapid overall rates of industrialization and economic growth.

This resiliency of marginality is confirmed by the results of the regressions of the share of marginality in total EAP on the level and growth of per capita income (Table 3B). For each individual year (1960, 1970, and 1980), the level of marginality across countries decreased significantly with the level of GDP per capita and with the level of agricultural GDP per capita. Rich countries have less marginality than poor ones so that, over the long run, economic growth has induced growth of wage employment. When comparing these results across years, however, one sees that the impact of per capita income on marginality decreases (the regression coefficients decline from .049 in 1950, to .033 in 1970, and to .029 in 1980). Economic growth thus appears to be increasingly less labor absorbing over time, presaging a continued existence of large marginal sectors in spite of eventually successful economic growth.

Between 1950 and 1980, there has been a marked displacement in marginality away from the agricultural sector toward the urban economy as indicated by an increase in the ratio of traditional urban to traditional rural EAP from

TABLE 3B

Regression Results for Share of Total EAP in Traditional Sectors

Year	Gross domestic product per capita	Growth rate of gross domestic product per capita	Agricultural gross domestic product per capita	Growth rate of agricultural gross domestic product per capita	Concentration ratio	R^2
1960	-0.049 (-3.602)[b]	3.540 (1.417)			0.257 (1.041)	0.573
1970	-0.033 (-3.526)	0.853 (0.313)	-0.269 (-2.062)	1.556 (0.715)	0.083 (0.386)	0.658
1980	-0.029 (-4.405)	1.375 (1.286)	-0.232 (-2.684)	-1.673 (-0.934)	0.029 (0.175)	0.788

[a]Concentration ratio is the share of total urban population in the largest city (excepting Brazil where the two largest cities were used).

[b]Figures in parentheses are t-ratios.

38 percent to 84 percent. This urbanization of marginality occurred in all 17 countries for which data are available, except Uruguay.

Regressions of this ratio on the level of GDP per capita and the growth rate of GDP per capita and on agricultural GDP per capita yielded significant results for the first two variables (Table 3C). The GDP per capita is positively related to the ratio of traditional urban EAP to traditional rural EAP, with the impact again diminishing over time. Likewise, the growth rate of GDP per capita is negatively significant, with a decreasing effect from 1960 to 1980. Thus, countries with higher levels of GDP per capita have a higher proportion of marginal population in the urban sector, reflecting the fact that growth has induced migration and urbanization and displaced marginality to the cities, though the strength of this relation decreases over time. In addition, the higher the growth rates of GDP per capita, the less the increase in the urban share of marginality, indicating that high growth rates are successful in drawing urban marginals into the economy, although the impact of this effect also diminishes with time. Growth of agriculture has not been employment creating and has contributed to increase the displacement of marginality toward the urban sector.

In spite of the fact that the percentage of total EAP in agriculture declined from 32 percent in 1950 to 20 percent in 1980, the percentage of agricultural EAP in the traditional sector increased from 60.7 in 1950 to 65.1 in 1980; and the absolute number of EAP in traditional agriculture increased by 43.6 percent over the 30-year period. The share of peasantry in agricultural EAP increased in all countries, except five, all located in Central America and the Caribbean. The absolute number of peasants increased in all countries except Mexico, the Dominican Republic, and Honduras. This indicates that,

TABLE 3C

Regression Results for Ratio of EAP in Traditional Urban to Traditional Rural Sectors

Year	Gross domestic product per capita	Growth rate of gross domestic product per capita	Growth rate of agricultural gross domestic product per capita	R^2
1960	0.28 (5.78)[a]	-23.48 (- 2.66)		0.770
1970	0.19 (4.82	-21.34 (- 1.84)	3.22 (0.37)	0.671
1980	0.15 (3.53)	-19.85 (- 2.75)	19.35 (1.68)	0.622

[a]Figures in parentheses are t-ratios.

despite rapid urban migration and the displacement of marginality toward the cities, the peasantry remains a large refuge sector for surplus population and a labor reserve for modern agriculture.

The results of regressions of the change in the share of agricultural EAP in the traditional sector from one decade to the next on the growth rates of GDP and agricultural GDP per capita are reported in Table 3D. While results are not significant for 1960-1970, they indicate, for 1970-80, that higher growth rates in GDP per capita slow the growth of the share of peasantry in agriculture. This confirms the interpretation that comes back repeatedly in this report that the peasantry in Latin America tends to be a residual sector of surplus population whose relative size declines under the pull effect of growth in the rest of the economy that enhances migration opportunities. Agricultural growth, by contrast, has been laborsaving and contributes to increase the relative size of the peasantry.

Modern agricultural sector employment increased by only 19 percent in 30 years in spite of an average annual percentage growth in agricultural GDP of 3.3 percent, or a total increase of 85 percent over the period. A 1 percent increase in agricultural GDP thus only contributed to a 0.2 percent increase in modern sector employment. The result is that the share of agricultural EAP working in modern agriculture declined slightly from 39 percent in 1950 to 35 percent in 1980. While countries with low agricultural growth (less than 2.8 percent annually) had absolute losses in modern agricultural sector employment (Argentina, Chile, Peru, and Uruguay with a 36 percent employment loss and an average growth rate of 2.4 percent), high growth countries had a mixed employment performance (Ecuador, Bolivia, Colombia, Brazil, and Nicaragua had an average growth rate of 3.9 percent but an absolute employment loss of

TABLE 3D

Regression Results for the Share and Change in the Share of Agricultural EAP in the Traditional Sector

Dependent variable	Year	Growth rate of gross domestic product per capita	Growth rate of agricultural gross domestic product per capita	R^2
Change in share of agricultural EAP in traditional sector	1960-1970	-3.077 (-0.941)[a]	1.294 (0.529)	0.059
Change in share of agricultural EAP in traditional sector	1970-1980	-2.799 (-2.131)	3.063 (1.499)	0.254

[a]Figures in parentheses are t-ratios.

17 percent, while the Dominican Republic, Panama, Mexico, Honduras, Guatemala, El Salvador, and Costa Rica had an average growth rate of 3.2 percent and a modern sector employment gain of 113 percent). It must thus be concluded that the employment performance of modern agriculture has on the whole been highly unsatisfactory and that higher growth rates in agricultural output would not necessarily improve this performance if the current patterns of laborsaving technological change and land concentration are followed.

The results thus show that a higher level of GDP per capita, which is fundamentally determined by nonagricultural GDP, induces rural-urban migration and a displacement of EAP out of agriculture. It should both reduce total marginality and displace it to the urban centers. In rural areas, however, the share of marginality in agricultural EAP remains high as increasing agricultural growth fails to generate enough employment; and in urban areas, the share of marginality in total EAP increases rapidly with GDP per capita and remains absolutely constant as a share of total urban EAP (for Latin America as a whole, it remains at 30 percent between 1950 and 1980), following a Todaro-type migratory effect.

It is distressing to observe that the very rapid economic growth that has characterized the last decade is not as employment creating as earlier growth, thus reducing the expected positive effect of higher incomes on marginality. It is for this reason that the share of total marginality in EAP has kept relatively constant in spite of rapid growth. In the recent period, modern nonagricultural employment has only been able to compensate for the inability of the growth of modern agriculture to generate employment.

Structure of Employment by Farm Size

The decade of the 1960s exhibits very different patterns from the 1970s in the evolution of employment in the agricultural sector in Brazil (Table 4).

1. In the 1960s, one sees a 50 percent increase of family labor together with a substantial decline in the absolute number of wage earners. The rise in family labor is due to an increase of the small peasantry, as can be seen from the fact that family employment was mostly generated in the small-farm sector and that the number of these farms also increased dramatically during this decade as will be seen in Table 5. This phenomenon can be explained by changing labor laws which in 1963 introduced regulations and minimum wages for wage earners. This induced the expulsion of resident workers from the fazendas as their costs became higher and noncompetitive for employers. At the same time, unfavorable economic conditions meant a lack of employment opportunities in the urban areas for these workers and, hence, the reconstitution of a semisubsistence peasantry outside the fazendas.

2. In the 1970s, the economic situation was quite different, with rapid growth in both the agricultural and nonagricultural sectors. In this decade, there was an increase in wage earner employment, in particular on large farms, with a greater increase in numbers of temporary workers than permanent. The slow growth of employment of family labor corresponds to a decrease following 1975 of the number of small farms as will be seen in Table 5 and, hence, a relative decline of the small peasantry. Again, this transformation can be explained by economic conditions outside the peasant sector itself. The booming industrial economy provided opportunities for small peasants in the urban areas. At the same time, agricultural growth and technological change raised land prices, affecting purchase prices even more than rental prices. Small

TABLE 4

Structure of Employment by Farm Size

BRAZIL

Farm size	Family members		Permanent workers		Temporary workers		Sharecroppers & others		Total
				1960					
<10 ha	3112128	81.4	85084	2.2	473756	12.4	152740	4.0	3823708
10-100 ha	3667616	64.5	376047	6.6	1141074	20.1	498297	8.8	5683034
>100 ha	850277	27.0	750148	23.8	1033049	32.8	513347	16.3	3146821
Total	7630021	60.3	1211279	9.6	2647879	20.9	1164384	9.2	12653563
				1970					
<10 ha	5448205	93.2	70631	1.2	257051	4.4	71368	1.2	5847255
10-100 ha	4907311	79.7	294523	4.8	609841	9.9	345720	5.6	6157395
>100 ha	1043894	39.0	710652	26.5	590249	22.0	332314	12.4	2677109
Total	11399410	77.6	1075806	7.3	1457141	9.9	749402	5.1	14681759
				1980					
<10 ha	5729838	90.7	102500	1.6	444552	7.0	42996	0.7	6319886
10-100 ha	5276780	73.9	519646	7.3	1093996	15.3	248139	3.5	7138561
>100 ha	1257097	31.7	1334123	33.6	1160789	29.3	213096	5.4	3965105
Total	12263715	70.4	1956269	11.2	2699337	15.5	504231	2.9	17423552
			Percent change 1960-70						
<10 ha	75.1		-17.0		-45.7		-53.3		52.9
10-100 ha	33.8		-21.7		-46.6		-30.6		8.3
>100 ha	22.8		-5.3		-42.9		-35.3		-14.9
Total	49.4		-11.2		-45.0		-35.6		16.0
			Percent change 1970-80						
<10 ha	5.2		45.1		72.9		-39.8		8.1
10-100 ha	7.5		76.4		79.4		-28.2		15.9
>100 ha	20.4		87.7		96.7		-35.9		48.1
Total	7.6		81.8		85.2		-32.7		18.7

MEXICO

	Producers & Family memb.	Permanent workers	Temporary workers	Sharecroppers	Total
			1950		
Ejidos	2331959	n.a.	517766	n.a.	
Priv. <5ha	966000	n.a.	209716	n.a.	
Priv. >5ha	850000	237309	732169	165866	1985344
Total	3297959		1459651		
			1960		
Ejidos	2870115	n.a.	674995	n.a.	
Priv. <5ha	1805000	n.a.	300000	n.a.	
Priv. >5ha	995442	143096	956700	117396	2212634
Total	5670557		1931695		
			1970		
Ejidos	3711432	159814	1239688	n.a.	
Priv. <5ha	867538	89058	234263	n.a.	
Priv. >5ha	723057	184846	627241	n.a.	1535144
Total	4578970	248872	1473951		
	Percent change 1950-60				
Ejidos	23.1		30.4		
Priv. <5ha	86.9		43.1		
Priv. >5ha	17.1	-39.7	30.7	-29.2	11.4
Total	71.9		32.3		
	Percent change 1960-70				
Ejidos	29.3		83.7		
Priv. <5ha	-51.9		-21.9		
Priv. >5ha	-27.4	29.2	-34.4		-30.6
Total	-19.3		-23.7		

ECUADOR : 1974

Farm size	Total labor available (millions)	Family Labor: On-farm employment	Family Labor: Off-farm employment	Surplus labor	Hired Labor: Permanent	Hired Labor: Temporary	Ayuda*
		(% of family labor)			(% of farm employment)		
<1 ha	98139	23	43	34	0.2	2.1	1.6
1-5 ha	122381	29	29	42	0.7	8.9	3.3
5-20 ha	52007	35	17	48	1.1	25.6	2.9
>20 ha	17981	44	13	43	15.5	50.7	0.7

*Ayuda: system of non-monetary labor exchange

Sources: Brazil: Agricultural censuses
Ecuador: S.Commander and P. Peek, Oil Exports, Agrarian Change and the Rural Labour Process:The Ecuadorian Sierra in the 1970s, ILO working paper WEP 10-6/WP63, 1983
Mexico: Censos Agricola, Ganadero y Ejidal 1950, 1960, 1970, and Centro de Investigaciones Agrarias, Estructura agraria y desarrollo agricola en Mexico, Mexico: FCE,1974.

farmers and landless workers were thus strongly motivated to leave their situations. Migration data confirm this accelerating flow from the rural areas (Table 2A). In fact, more detailed studies of migration show that small farmers often used their capital to migrate to the frontier where they acquired larger plots, while the landless migrated to the cities. This is a special feature of Brazil due to its expanding frontier possibilities.

Thus, the case of Brazil, with an increase of the peasantry in periods of depressed economic conditions and its decline in periods of rapid economic growth, supports the thesis of a residual peasantry which acts as a refuge for marginal labor.

In Mexico, the ejidal sector exhibits a markedly different experience from the private sector. The private sector suffered dramatic declines in both family- and hired-labor employment in the decade from 1960 to 1970. For the small private farms, this decline reflects the increasing marginality of smallholder production and the decreasing ability to support a household on a small private plot.

By contrast to small private farms, labor absorption in the ejidos increased during the 1960s. Although many ejidal plots are found in the most marginal areas of the country, ejidatarios have access to forms of government assistance to which marginal private farmers do not. In addition, many ejidatarios with larger irrigated plots are not marginal producers at all and, in fact, resemble large private producers in many ways.

In general, the high growth rates of agricultural production and GDP in the 1960s seemed to work in conjunction to decrease employment in the private sector. On the one hand, high growth rates in the industrial sector were attracting migrants to the cities while, on the other hand, the tremendous

increases in agricultural production were accompanied by high levels of mechanization and the rise in cultivation of Green Revolution crops, such as wheat, which demand little labor.

Government support for irrigation and credit programs for the ejidos, though relatively weak, probably kept many peasants from abandoning their hard-earned plots. The increases in employment of both family and hired labor in the ejidal sector, however, were not accompanied by similar rises in income levels for ejidatarios. As can be seen in Table 11, implicit remuneration to family labor in the ejidal sector rose very little in real terms from 1950 to 1970 and, in fact, declined relative to wage-labor employment.

Commander and Peek (1983) point out an interesting change in the labor process on small farms. Although the peasantry absorbs marginalized populations, its capacity to generate productive employment is limited since farm size is small and labor intensity is already high. Data from Ecuador, based on man-days of employment, show both a high level of surpus labor on all farms and that small-farm households spend more time working off the farm than on the farm. At the same time, temporary workers are hired precisely to enable family labor to seek these off-farm opportunities.

Number and Average Size of Small Farms Over Time

The data on the number and average size of small farms over time confirm the observation of a growing peasantry in absolute number. Of the 17 countries for which there are data on the number of small farms over time (Table 5), 15 have an increasing number of small farms while that number decreases in only two (Panama and Venezuela). A Latin American aggregate of the number of small farms, based on linear extrapolations for the years 1950 and 1980, indicates a growth of 92 percent, corresponding to an annual compound growth rate of 2.2 percent. It is thus clear that the peasantry did increase

TABLE 5

Number and Average Size of Small Farms Over Time

Country	Years	Maximum farm size	Number of farms	Percent of farms	Percent of area	Average farm size
				percent		hectares
Argentina	1914	25 hectares	100,836	33.0	1.0	9.6
	1947		161,452	34.3	1.0	10.9
	1952		235,953	41.8	1.1	9.2
	1960		181,404	38.5	1.0	9.7
	1969		226,065	42.0	0.9	8.9
Bolivia	1950	5 hectares		59.3	0.2	
Brazil	1940	5 hectares		21.8	0.5	
	1950		458,676	22.2	0.5	2.6
	1960		1,029,336	30.8	1.0	2.5
	1970		1,800,243	36.6	1.3	2.2
	1975		1,911,730	38.3	1.2	2.1
	1980		1,838,196	36.6	1.1	2.1
	1950	10 hectares	710,934	34.4	1.3	4.3
	1960		1,495,020	44.4	2.3	4.0
	1970		2,519,630	51.2	3.1	3.6
	1975		2,601,860	52.1	2.8	3.5
	1980		2,598,019	50.4	2.5	3.5
Chile	1955	10 hectares	75,627	61.0	0.8	2.9
	1965		156,769	62.0	1.4	2.8
	1965	5 BIH	189,529	81.0	9.7	
	1972			79.0	9.7	
	1976			71.0	9.7	
	1979	5.1 BIH	254,925	75.0	14.6	
Colombia	1954	10 hectares	648,115	71.0	6.9	2.9
	1960		925,750	77.0	8.8	2.6
	1970		859,884	73.0	7.2	2.6
Costa Rica	1955	10.5 hectares	25,575	54.0	5.2	3.8
	1963		34,038	53.0	4.8	3.8
	1963	10 hectares	30,377	50.0	5.0	4.1
	1973		29,927	48.0	4.0	3.9
Dominican Republic	1971	5 hectares	235,000	77.1	12.9	1.5
	1981		314,700	81.7	12.2	1.0
Ecuador	1954	5 hectares	212,153	82.0	11.0	1.6
	1974		298,965	77.0	13.0	1.3
Ecuador Sierra	1954	10 hectares	234,596	90.0	16.0	2.1
	1974		280,974	87.0	18.0	1.9
El Salvador	1950	5 hectares	140,473	80.7	12.4	1.4
	1961		193,298	85.3	15.5	1.3
	1971		234,941	86.9	19.6	1.2
Guatemala	1950	7 hectares	308,000	88.0	14.0	2.5
	1964		364,879	88.0	19.0	2.5
	1979		547,574	90.0	16.0	1.8
Haiti	1971	5 hectares	593,325	96.0	78.0	1.1
Honduras	1952	5 hectares	88,997	57.0	8.0	2.3
	1966			47.0	6.0	
	1974		124,781	64.0	9.0	1.9
Jamaica	1969	5 hectares		91.3	26.5	

(Continued on next page.)

TABLE 5--continued.

Country	Years	Maximum farm size	Number of farms	Percent of farms	Percent of area	Average farm size
				percent		hectares
Mexico	1950	5 hectares, private[a]	1,020,747	39.2	7.6	1.5
	1960		928,717	34.2	6.1	1.6
	1970		678,214	25.2	5.0	1.7
	1950	4 hectares, ejido[a]	569,866	21.9	6.1	2.1
	1960		668,162	24.6	5.9	2.1
	1970		951,878	35.6	8.6	2.1
Nicaragua	1952	7 hectares	17,943	34.8	2.3	3.0
	1963		51,936	50.8	3.5	2.6
	1971		37,500	43.8	2.2	3.5
	1978				2.0	
	1983				5.4	
Panama	1950	5 hectares	44,442	52.0	8.3	2.2
	1961		43,692	45.7	5.3	2.2
	1971		41,307	45.4	3.7	1.8
Paraguay	1943	5 hectares	45,426	48.1	8.0	2.7
	1956		68,714	45.9	1.0	2.4
	1961		74,559	46.4		
Peru	1961	5 hectares	699,427	82.9	5.2	1.3
	1972		1,083,775	77.9	6.6	1.4
Uruguay	1951	20 hectares	35,841	42.0	1.8	8.3
	1961		39,829	45.8	1.9	8.0
Venezuela	1950	5 hectares	125,990	54.7	1.2	2.1
	1961		155,617	49.3	1.4	2.3
	1971		121,778	42.3	1.0	2.2
Latin America[b]	1950	Small farms	4,134,000			2.4
	1980		7,949,000			2.1

[a]Refers to cultivated land.

[b]Based on linear extrapolations from the nearest two censuses and excluding Paraguay and Uruguay for which recent information is not available.

Source: Agricultural Censuses, various years.

significantly in number, even if the qualitative nature of that peasantry changed over time.

Another clear direction of change over time is the decline in the size of small farms that accompanied the growth in their numbers. In the 16 countries for which there is information (Table 5), 11 have declining peasant farm size while it increased in only three, the other two showing no significant change. An aggregate for the 14 countries on which there is recent information (Table 5), using extrapolations for 1950 and 1980, shows that the average size of peasant farms declined from 2.4 to 2.1 hectares, an annual compound growth rate of -0.4 percent. This observation confirms the interpretation of the peasantry as a cornered sector of population, increasingly dependent on nonfarm sources of income but unable to find sufficient employment opportunities to either migrate and abandon the agricultural sector or to fully depend on wage earnings for its subsistence. Thus, while the peasantry grows quantitatively, it undergoes significant qualitative changes away from being pure farm producers and toward increasing integration in the labor market.

The data on percentage of peasant farms in the total number of farms and on percentage of land they occupy show greater diversity across countries but indicate that, in a majority of cases, these two percentages increased--the first more frequently than the second. This, again, supports the interpretation of a peasantry growing more in share of farms than in share of land and being thus dispossessed of its productive resources and forced to rely on alternative sources of income.

Extent of Landlessness

The concept of landlessness is generally not measurable through census data since a large number of those workers who appear as hired workers in the agricultural EAP also have plots of land which are not sufficient to support their households. Thus, the extent of landlessness must be estimated through household surveys or by other means which often lead to widely varying estimates.

In Table 6, data on the extent of landlessness have been compiled from a variety of case studies. Data over time are available only for Nicaragua and El Salvador; and these data, which come from different sources, are spotty and often inconsistent. In addition, the data for Brazil and El Salvador refer to rural instead of agricultural households and thus overestimate landlessness in the agricultural labor force. They both indicate an increase in landlessness over time. In Nicaragua, the share of agricultural EAP that is landless increased from 31 percent in 1965-1970 to 32-40 percent in 1978. In El Salvador, the proportion of landless rural households increased dramatically from 12 percent in 1961 to 41 percent in 1975.

While data are otherwise not available over time, we notice (1) the high levels of landlessness that exist in all cases and (2) the relatively higher levels of landlessness in countries, such as Brazil, Chile, and Costa Rica, with low shares of agricultural GDP in total GDP compared to agrarian countries, such as Guatemala, Honduras, and Nicaragua, with high shares of agricultural GDP in total GDP. On this basis, one can expect that the current high level of landlessness will further increase in Latin America as its pattern of economic growth reduces the share of agricultural GDP in total GDP as GDP increases.

TABLE 6

Extent of Landlessness

Source	Country	Year	Basis	Percentage of basis
(1)	Brazil	1972	Rural households	61.3
(2)	Chile	1965	Agricultural EAP	36.1
(3)	Costa Rica	1965/1970	Agricultural EAP	2.0
(3)	El Salvador	1965/1970	Agricultural EAP	17.0
(4)	El Salvador	1961	Rural households	12.0
(4)	El Salvador	1971	Rural households	29.0
(4)	El Salvador	1975	Rural households	41.0
(3)	Guatemala	1965/1970	Agricultural EAP	7.0
(3)	Honduras	1965/1970	Agricultural EAP	26.0
(3)	Nicaragua	1965/1970	Agricultural EAP	31.0
(5)	Nicaragua	1978	Agricultural EAP	39.6
(6)	Nicaragua	1978	Agricultural EAP	31.5
(7)	Nicaragua	1970	Rural households	32.5

(Continued on next page.)

TABLE 6--continued.

Sources:

(1) Graziano da Silva, J. et al. Estructura Agraria e Producao de Subsistencia na Agricultura Brasileira. Sao Paulo, Brazil: Editora Hucitec, 1890, pp. 60-63.

(2) Marchetti, P. "Reforma Agraria y la Conversion Dificil," Estudios Rurales Latinoamericanos, Vol. 4, No. 1 (January-April, 1981).

(3) Barraclough, S., and P. Marchetti. "Agrarian Transformation and Food Security in the Caribbean Basin." In Irvin and Goriostiaga (eds.), Toward an Alternative for Central America and the Caribbean. London: George Allen and Urwin, 1985.

(4) Klein, E. "Pauperizacion Campesina," Nueva Antropologia, Vol. IV, (1980), pp. 13-14.

(5) International Fund for Agricultural Development. Informe de la Mision Especial de Programacion a Nicaragua. Rome, 1980.

(6) Peek, P. "Agrarian Reform and Poverty Aleviation," WEP Working Paper. Geneva: International Labor Office, 1984.

(7) Hintermeister, A. "El Empleo Agricola en Una Estructura en Transformacion", Estudios Rurales Latinoamericanos, Vol. 6, Nos. 2 and 3 (May-December, 1983).

Structure of Employment in Agriculture and Rural Sectors

The similarity in the evolution over time of the rural population and of the agricultural labor force shown in Table 1A could erroneously be interpreted as indicating a stable commitment of the rural population to agriculture. This is not the case. Deep transformations have occurred over the last 20 years which have led to an increasing integration of the agricultural and urban labor markets. The agricultural labor force has become more and more urbanized (mainly town based) and the rural labor force increasingly works in nonagricultural activities.

The increased integration of the urban and rural labor markets can be seen in Table 7 by examining two distinct, yet complementary processes: The share of the agricultural EAP which is urban based has increased and the share of the rural EAP which is employed in nonagricultural activities has increased as well. For every country in Table 7, the share of agricultural EAP which is urban based has increased, with Puerto Rico and Brazil experiencing the greatest percentage increases. At the same time, the proportion of rural EAP employed in nonagricultural activities increased in every country except Peru, with the greatest percentage increases occurring in Mexico and Brazil. In most cases, the magnitudes of these two patterns of change was quite dramatic. For example, Mexico's nonagricultural share of rural EAP increased from 23 percent in 1970 to 42 percent in 1980.

It is important to note that census data tend to overestimate nonagricultural employment in rural areas. This is due to the fact that peripheral urban areas are often still classified as rural areas. Although most of their residents work in the urban areas, they are classified as rural workers. The overestimation is particularly high in those countries where migration to the urban periphery has been extensive.

Table 7

Structure of Employment in Agricultural and Rural Sectors

Country	Year	Share of agricultural EAP of urban origin	Share of rural EAP working in nonagriculture
		percent	
Brazil	1970	12.3	15.2
	1980	17.7	23.4
Pernambuco	1970	13.1	a
	1980	16.3	
Sao Paulo	1970	26.6	
	1980	38.0	
Costa Rica	1963	5.4	29.1
	1973	6.2	41.2
Ecuador	1962	6.5	19.3
	1974	6.8	26.4
Mexico	1970	23.8	23.1
	1980	26.0	42.4
Nicaragua	1963	11.0	12.8
	1971	11.7	20.0
Peru	1961	18.3	20.1
	1972	23.7	18.8
Puerto Rico	1960	6.5	56.1
	1970	11.8	80.8

[a]Blanks indicate no data available.

Note: Census definition of urban is as follows: Brazil (unspecified); Costa Rica (administrative centers of cantons); Ecuador (capitals of provinces and cantons); Mexico (center of population with at least 2,500 inhabitants); Nicaragua (administrative centers of departments and municipios); Peru (populated centers with 100 or more occupied dwellings; Puerto Rico (center of population with at least 2,500 inhabitants and employed persons only).

Sources:

For Mexico, Censo General de Poblacion y Vivienda, 1970 and 1980.

For Brazil, Demographic Censuses, 1970 and 1980.

For other countries, United Nations, Department of International Economic and Social Affairs, Patterns of Urban and Rural Growth: Population Studies No. 68, 1980.

The origin of the urbanization of the agricultural labor force can, in many cases, be traced to the introduction of new agricultural labor laws (Chile and Brazil) which led to the expulsion of resident workers from the large farms, their relocation in urban towns, and the generalization of the practice of contracting nonresident workers on a temporary basis (in Brazil, in particular), often through the mediation of labor contractors. In Chile, labor legislation forced employers, in 1970, to substitute payment in kind (land usufruct against payment of land in labor services) by 100 percent payment of minimum wage in cash, inducing landlords to replace permanent workers (inquilinos) by temporary workers. In 1979, labor laws restricted union activity to farms with more than 15 permanent workers, further inducing landlords to reduce their staff of permanent workers and to shift to temporary farmhands. Land concentration and the resulting increase in landlessness also accelerated rural outmigration in most countries.

This labor force of landless workers had a tendency to concentrate in the neighborhoods of small rural towns, especially in the areas of temporary employment in agriculture, where labor contractors can easily mobilize them. Klein (1984) argues that, where this has happened, the town-based rural labor force increasingly displaces the traditional peasantry from employment opportunities since it is easier to mobilize on a temporary basis and does not have employment conflicts with the labor needs of their own farms as peasants often do in the critical weeks of harvest. The traditional peasantry then becomes increasingly disconnected from the labor market and is forced to migrate to the towns if it cannot subsist on its small plots of land.

In Chile, between 1970 and 1982, the rural population increased at an annual average rate of 0.2 percent and the population of the large cities by

2.8 percent, while that of small towns increased by 3.6 percent (Rivera and Cruz, 1984). Living in these urban areas and working in agriculture principally on temporary contracts induced this labor force to also participate in the urban labor market and contributed to the greater integration of the two markets. For Chile, in 1982, Rivera and Cruz thus show that the structure of household income for residents of small rural towns was as follows:

	Percent
Agricultural temporary labor	33
Agricultural permanent labor	10
Urban temporary labor	11
Urban permanent labor	7
Public minimum employment programs	6
Self-employment	3

An important consequence of this increased integration of the two labor markets is the necessary decrease in the gap between agricultural and nonagricultural wages. As will be seen in Tables 8A, 8B, 8C, and 9, this is particularly true in periods of rapid growth of the economy when competition of the nonagricultural sector with agriculture for access to temporary urban-based labor increases.

For Brazil, Rezende observed a decline in the qualification of temporary workers in agriculture due to the increasing integration of markets. Jobs in agriculture usually have less desirable attributes, such as instability, interruptions, lack of social security rights, and weak enforcement of labor legislation, compared to employment on the urban labor market. Because of this, agriculture does not attract the more competitive workers. Data reveal an increased participation of unskilled workers, the handicapped, women, old men, and children in this urban-based agricultural labor force. Thus, the market for temporary agricultural labor increasingly acquires the characteristics of a secondary labor market.

Competition between this new urban-based labor force and the peasantry for complementary temporary work can, indeed, in many circumstances turn against the semiproletarianized peasantry. While the economic structure of peasant households, with family labor generating income from the home plot, allows them to compete for lower levels of wages than a fully proletarianized labor force (the theory of functional dualism), as can be seen from the analysis of data in Tables 8A, 8B, and 8C, the competition between its own labor needs and the needs of employers in periods of peak seasonal employment will play against the peasants. Urban-based workers (once plentifully available due to sufficient dispossession of the peasantry through changing labor laws and reduced access to land) are, by contrast, more flexibly accessible, and the concentration of urban dwellings facilitates and cheapens access to workers by labor contractors.

While the traditional semiproletarianized peasantry remains the bulk of the labor reserve for the modern agricultural sector in most countries, we increasingly witness a weakening of this role with the emergence of a landless town-based labor force that gravitates with great fluidity among temporary employers in agriculture and among agricultural and urban employment opportunities. The rural and urban labor markets are thus increasingly integrated, and wages paid on the two markets tend to converge, except for differences in labor skills, with agriculture acquiring the features of a secondary labor market.

Footnotes

[1]There is no exact correspondence between traditional and marginal sectors, particularly in the urban area where the traditional sector includes self-account workers such as shopkeepers and owners of repair shops, many of whom are not marginals. The traditional sector, as measured here, thus somewhat overestimates the true size of the marginal sector.

Part III

Agricultural Wages

Evolution of Agricultural and Nonagricultural Wages

Table 8A shows the evolution of agricultural and nonagricultural wages from 1965 to 1980 for permanent, unskilled workers in 15 Latin American countries. For most countries, only a minimum wage is available for agricultural workers and, when this is the case, it is compared with the minimum urban wage. When an average wage is reported, it is compared with the average wage of construction workers (when available) and, otherwise, with that of manufacturing workers. Agricultural and nonagricultural wages in the early 1980s are similarly compared in Table 8B.

In these tables, data are kept in their original undeflated form to avoid the cumulation of errors that might come from the utilization of price indices for which different sources give information which is rarely consistent and often highly contradictory, particularly in periods of hyperinflation. On the other hand, most of the discussion that follows and the analysis reported in Table 8C are based on the computation of real wages (Table 8D) by using as a deflator the CPIs reported in Tables 8A and 8B.

1. The first striking observation is that it is only in a few countries that the real agricultural wage (either minimum or average) is substantially higher in the 1979-80 period than in 1965-66 period. These countries are Mexico (where it is 60 percent higher); Ecuador (52 percent higher than in 1968); Colombia (47 percent); Brazil, Chile, and Costa Rica (40 percent); and Panama (30 percent). Note, however, that a 40 percent increase over a 15-year period corresponds to an average annual increase of only 2.3 percent. In all the other countries, real wages in 1980 are either at the same level as

TABLE 8A

Evolution of Agricultural and Nonagricultural Nominal Wages, 1965-1980

	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
Argentina																
Constr. w	153	201	262	280	306	358	488	710	1262	1675	5914	17132	46569	108011		
Agr. w	88	117	153	163	182	228	350	500	898	1282	3366	10058	25517	61857		
CPI	41	55	70	82	88	100	135	213	342	425	1202	6539	18050	49729	129051	259090
GDP/cap	3.27	3.25	3.28	3.38	3.60	3.71	3.79	3.80	3.88	4.04	3.95	3.87	4.05	3.84	4.06	4.03
Brazil																
Constr. w					146	175	221	252	295	383	519	762	1152	1645	2413	4435
Agr. w		49	64	75	88	107	136	164	223	324	435	601	893	1286		
CPI	29.8	42.0	54.6	66.8	81.6	100.0	120.2	139.9	171.4	218.9	282.4	400.7	575.7	798.5	1219.3	2228.9
GDP/cap	1.76	1.80	1.83	1.94	2.06	2.19	2.40	2.60	2.90	3.10	3.19	3.44	3.56	3.66	3.84	4.06
Chile																
Urban min w	0.21	0.26	0.31	0.37	0.48	0.62	0.83	1.27	4.51	34.1	163.4	565	1279	2265	2996	4056
Agr min w	0.09	0.12	0.14	0.18	0.22	0.36	0.60	1.15	4.43	24.7	130.5	534	1243	1814	2399	3248
CPI	31.4	38.6	45.6	57.7	75.5	100.0	126.7	263.8	1461	8733	41850	139278	297776	446665	595811	804994
GDP/cap	27.9	29.2	29.2	29.3	29.6	30.2	32.4	31.4	29.2	29.0	24.8	25.3	27.3	29.0	30.9	32.7
Colombia																
Urban min w	364	364	364	364	371	450	450	460	572	802	1040	1066	1601	2045	2298	3900
Manuf w	759	863	952	1050	1149	1394	1499	1527	1860	2207	2674	3284	4175	5443	7229	9260
Agr min w	234	234	234	234	236	260	260	267	338	622	885	906	1363	1756	1979	3640
Agr w	311	371	384	405	494	502						1710	2581	3244	3926	5070
CPI	61.9	74.2	80.3	85.0	93.6	100.0	109.0	124.6	152.9	190.3	239.2	280.8	365.1	429.5	532.4	681.0
GDP/cap	5.44	5.55	5.60	5.76	5.93	6.13	6.33	6.67	7.05	7.24	7.46	7.65	7.87	8.41	8.67	8.86
Costa Rica																
Urban min w	310	310	311	318	341	350	375	385	415	501	585	661	734	838	937	1100
Constr w						495	523	565	616	724	883	1008	1166	1360	1561	1780
Agr min w	230	230	230	236	253	259	278	288	320	422	504	600	679	799	899	
Agr w							388	400	445	533	629	750	963	1118	1330	1573
CPI	88.2	88.4	89.4	93.0	95.6	100.0	103.1	107.8	124.2	161.6	189.5	196.2	204.4	216.6	236.5	279.4
GDP/cap	2.61	2.70	2.82	2.99	3.16	3.22	3.35	3.53	3.71	3.82	3.80	3.90	4.12	4.25	4.33	4.23
Ecuador																
Urban min w				600	600	600	750	750	750	1000	1167	1500	1500	1500	2000	4000
Agr min w				450	450	450	450	450	450	700	750	960	960	960	1350	2500
CPI	79.4	82.6	85.8	89.5	95.2	100.0	108.4	117.0	132.1	163.0	188.0	208.1	235.2	262.6	289.6	327.3
GDP/cap	9.57	9.51	9.76	9.97	10.11	10.55	10.86	11.99	14.53	14.94	15.25	16.11	16.59	17.10	17.38	17.62
El Salvador																
Urban min w	90	90	96	96	96	96	96	96	123	153	186	186	186	210		
Agr min w	68	68	68	68	68	68	68	68	74	86	93	108	113	128	156	156
CPI	94.8	93.7	95.1	97.5	97.3	100.0	100.3	102.0	108.5	126.8	151.1	161.7	180.8	204.8	230.9	271.1
GDP/cap	9.25	9.59	9.81	9.79	9.87	10.10	10.29	10.54	10.76	11.13	11.41	11.52	11.88	12.23	11.70	9.19

(Continued on next page.)

TABLE 8A--continued.

	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
Guatemala																
Urban min w	47	47	47	47	47	47	47	47	48	57	57	57	57	57	57	99
Manuf w	90	93	96	99	104	104	104	105	105	106	110	119	127	144	165	169
Agr min w										34	34	34	34	34	34	75
Agr w									25	29	33	34	34	38	42	40
CPI	92.8	93.4	93.9	95.6	97.7	100.0	99.5	100.1	114.4	132.7	150.1	166.0	187.0	201.9	225.0	250.1
GDP/cap	2.81	2.90	2.96	3.15	3.23	3.35	3.43	3.57	3.70	3.81	3.77	3.93	4.11	4.18	4.25	4.28
Honduras																
Urban min w										104	104	104	104	106	125	137
Agr min w										52	61	65	65	66	78	95
CPI	91.8	92.0	93.1	95.5	97.2	100.0	102.3	105.8	110.6	124.8	135.1	141.8	153.9	162.7	177.0	210.3
GDP/cap	4.66	4.75	4.84	4.97	4.85	5.00	5.11	5.10	5.13	4.96	4.72	4.94	5.18	5.36	5.48	5.60
Mexico																
Urban min w	559	650	650	735	735	832	831	988	988	1427	1647	2045	2767	3119	3589	4240
Agr min w	384	454	453	523	523	610	610	721	764	1037	1198	1556	1986	2327	2837	3572
CPI	84.1	87.7	90.3	92.0	95.2	100.0	105.4	110.7	124.0	153.5	176.8	204.7	263.9	310.1	366.5	463.3
GDP/cap	10.59	10.95	11.25	11.75	12.07	8.68	7.62	9.20	9.65	9.92	10.14	10.27	10.33	10.86	11.52	12.13
Nicaragua																
Urban min w	317	317	317	317	317	317	317	325	347	403	459	487	552	585	815	938
Agr min w	243	243	243	243	243	243	243	268	291	329	354	365	429	462	584	709
CPI	87.9	91.3	92.3	96.5	97.7	100.0	101.5	104.8	133.1	150.8	162.3	166.8	185.8	194.2	287.8	389.5
GDP/cap	10.25	10.19	10.74	10.50	10.78	10.95	11.16	11.09	11.21	12.16	11.95	12.08	11.73	10.50	7.50	8.19
Panama																
Urban min w	83	83	83	83	83	83	83	104	104	111	114	114	114	114	121	143
Agr min w	39	39	39	39	39	39	39	65	65	75	78	78	78	78	85	104
CPI	92.3	92.5	93.7	95.3	97.0	100.0	101.8	107.4	114.7	134.1	141.4	147.1	153.7	160.3	173.0	196.9
GDP/cap	5.60	5.84	6.15	6.39	6.72	6.98	7.48	7.64	7.87	7.89	7.84	7.80	7.70	8.27	8.45	9.34
Paraguay																
Urban min w	5850	5850	5850	5850	5850	5850	6240	6430	8150	9057	9340	9340	9340	10740	10740	13275
Agr min w		5201	5272	5310	5429	5603	5814	6053	6900	8100	8200	9020	9014	12139	14202	18882
CPI	93.9	96.7	98.0	98.6	100.9	100.0	105.0	114.7	129.3	161.9	172.8	180.5	197.4	218.4	279.9	342.7
GDP/cap	62.62	61.81	64.22	65.54	66.62	68.89	70.36	72.53	75.80	80.00	82.95	86.54	95.17	102.94	111.17	120.85
Peru																
Urban min w	938	1200	1275	1500	1500	1860	1980	2225	2400	2850	3270	4020	4875	6475	11063	19675
Agr min w	730	730	751	864	982	1055	1253	1318	1483	1576	2017	2593	3121	3884	8607	13771
CPI	63.0	68.6	75.3	89.6	95.2	100.0	106.8	114.5	125.4	146.5	181.2	241.8	333.9	527.0	883.7	1406.9
GDP/cap	25.76	26.68	26.62	25.92	26.25	27.48	28.07	27.75	28.14	29.42	0.03	29.80	29.08	28.25	28.73	29.13
Uruguay																
Constr w (index)			37	69	91	100	158	243	497	897	1424	1942	2659	3639	5459	8494
Agr w		1.5	3.3	8.1	12.8	15.6	19.6	26.9	44.0	88.6	163.2	233.6	359.7	562.4	859.0	1274.3
CPI	9.6	16.7	31.5	71.1	85.9	100	124	219	431	763	1384	2086	3299	4769	7957	13007
GDP/cap	8.76	8.94	8.47	8.49	8.90	9.21	9.21	9.05	9.07	9.34	9.87	10.21	10.27	10.75	11.35	11.94

Note: Wages are monthly wages in national currency unless otherwise mentioned. GDP/cap is Gross Domestic Product in constant market prices per capita, in thousands of national currency, except for Panama (in 100 Balboas) and Uruguay (in 100 new Pesos); Base years for prices are 1958 for Guatemala, 1966 for Costa Rica and Honduras, 1970 for Argentina, Brazil, Mexico and Panama, 1973 for Peru, 1975 for Ecuador and El Salvador, 1977 for Chile, Colombia and Paraguay, 1978 for Uruguay and 1980 for Nicaragua

Sources: Wages and CPI: PREALC, Mercado de Trabajo en Cifras, 1950-80 (Geneva, ILO: 1982); GDP/cap: World Bank, World Tables, 1976 and 1983

TABLE 8B

Agricultural and Nonagricultural Wages, 1980-1984

	1980	1981	1982	1983	1984
Brazil					
non-ag aver w*	100	198	398	807	2347
ag aver w	4293	9058	18145	40594	122079
CPI growth rate	95.3	91.2	97.9	179.2	203.3
GDP/c gr rate		-4.2	-.9	-4.9	2.5
Chile					
non-ag min w**	100	115.9	116.6	93.9	80.2
ag min w**	100	120.0	121.5	97.9	83.6
CPI growth rate	31.2	9.5	20.7	23.6	23.0
GDP/c gr rate	6.2	3.6	-14.4	-2.1	4.5
Colombia					
non-ag min w	3900	4940	6422	8008	9802
ag min w	3640	4602	6084	7592	9646
manuf aver w	9260	12059	15519	19585	24403
ag aver w	5070	6266	7384	8996	10426
CPI growth rate	26.5	27.5	24.1	16.5	18.3
GDP/c gr rate	1.9	0.1	-1.1	-1.0	1.4
Costa Rica					
non-ag min w**	100	90.5	85.7	99.3	104.5
ag min w**	100	90.7	87.5	101.3	
non-ag aver w**	100	88.2	70.9	78.1	84.7
ag aver w**	100	92.0	81.2	89.8	
CPI growtg rate	17.8	65.1	81.7	10.7	17.3
GDP/c gr rate	-2.1	-5.0	-9.7	-0.4	3.4
Ecuador					
non-ag min w	4000	4000	4100	5100	6600
ag min w	2500	2500	2617	3550	4400
CPI growth rate	14.5	17.9	24.3	52.5	25.1
GDP/c gr rate	1.9	0.8	-1.8	-4.4	1.7
El Salvador					
non-ag min w	310	330	330	330	370
ag min w	156	156	156	156	156
CPI growth rate	18.6	11.6	13.8	15.5	9.8
GDP/c gr rate	-11.3	11.0	8.4	-3.8	-1.5

	1980	1981	1982	1983	1984
Guatemala					
non-ag min w**	100	107.5	107.5	102.5	99.1
ag min w**	100	109.5	106.3		
CPI growth rate	9.1	8.7	-2.0	15.4	5.2
GDP/c gr rate	0.9	-1.8	-6.1	-5.5	-2.4
Honduras					
non-ag min w*	135	155	168	168	168
ag min w*	179	228	256	256	256
CPI growth rate	15.0	9.4	9.4	8.6	2.4
GDP/c gr rate	-.8	-2.3	-5.1	-3.8	-1.4
Mexico					
non-ag min w*	136.6	178.9	275.6	418.0	658.8
ag min w*	134.2	178.9	275.6	418.0	658.8
CPI growth rate	29.8	28.7	98.8	80.8	59.2
GDP/c gr rate		5.4	-2.6	-7.6	0.9
Nicaragua					
manuf aver w*	84.7	100	113.1	136.6	150.7
ag aver w*	74.8	100	115.1	125.2	151.1
CPI growth rate	24.8	23.2	22.2	32.9	50.2
GDP/c gr rate	2.0	-4.4	1.7	-4.8	-5.9
Panama					
non-ag min w**	100	93.2	89.4	89.6	86.0
ag min w**	100	93.2	89.4	86.2	101.1
CPI growth rate	14.4	4.8	3.7	2.0	0.9
GDP/c gr rate	10.5	1.7	2.7	-2.2	-2.5
Paraguay					
non-ag min w*	100	117.7	123.0	129.2	155
ag min w*	100	117.8	123.2	129.3	155.1
manuf aver w*	100	120.3	122.7	128.4	153.5
ag aver w*	100	111.8	119.7	137.0	133.4
CPI growth rate	8.9	15.0	4.2	14.1	29.8
GDP/c gr rate	7.9	5.4	-3.9	-5.9	-0.1
Uruguay					
non ag min w**	100	103.4	104.6	94.2	89.9
ag min w**	100	99.2	97.0	79.8	80.3
CPI growth rate	42.8	29.4	20.5	51.5	66.1
GDP/c gr rate	5.3	0.3	-11.3	-6.5	-1.9

Note: Wages are nominal wages in national currency, monthly, except otherwise noticed.
* nominal wage indices
** real wage indices

Sources: - Wages - Brazil: Agr. wage of permanent workers: Foundation Getulio Vargas, Agropecuaria, precios medios, revisao e atualizaçao da serie 1966-1984, and update issue (Rio de Janeiro, 1985); FIESP index of industrial wages: Conjuntura Economica, Aug. 85; Mexico: Comision Nacional de los Salarios Minimos, Memoria de Labores, Mexico, 1964-1985; Colombia, Ecuador, El Salvador, Honduras, Nicaragua and Paraguay: CEPAL, Estudios Economico de Americana y el Caribe, August 85; Chile, Costa Rica, Guatemala, Panama and Uruguay: Ag. real wages: PREALC, unpublished document; Non-agr. wages: CEPAL, unpublished document.

- CPI and GDP/capita growth rates: CEPAL, Notas sobre la economia y el desarrollo, 1984 and 1985.

TABLE 8C

Comparison of Agricultural and Nonagricultural Real Wages

Periods of economic growth

Mid-sixties to mid-seventies

	Period	Annual growth rate of GDP/c %	CPI %	non-ag w %	ag w %	1970 ag wage US$	type	change in ratio non ag/ag wages
Argentina	65-74	2.6	28.3	0.1	3.6	60.4	aver	+
Brazil	67-74	8.0	21.3	-0.5[a]	3.3	23.3	aver	+
Colombia	65-73	3.3	10.4	-4.6	-6.1	13.0	min	≈
				0.9	0.5[b]	25.2	aver	≈
Costa Rica	65-74	4.4	5.7	-0.7	0.2	39.1	min	≈
				-2.2[c]	-4.2[d]	54.7[e]	aver	*
Ecuador	65-73	4.5	6.3	-1.8	-7.2	21.5	min	-
El Salvador	65-78	2.0	6.1	1.3	-1.1	27.2	min	-
Guatemala	65-77	3.2	12.9[g]	-11.2[f]	-11.7[f]		min	≈
				-6.9[g]	-4.9[g]		aver	+
Mexico	65-69	3.4	3.0	3.8	4.7	48.8	min	≈
	72-77	2.2	18.6	4.3	4.0			≈
Panama	65-73	4.5	2.6	0.1	3.6	39.0	min	*
Paraguay	65-76	3.1	6.4	-1.2	-1.1[h]	44.5	min	≈

Late seventies

	Period	Annual growth rate of GDP/c %	CPI %	non-ag w %	ag w %	1975 ag wage US$	type	change in ratio non ag/ag wages
Brazil	74-80	4.5	45.9	1.6	1.8[i]	53.5	aver	-[i]
Chile	75-81	6.0	74.9	7.0	4.7	26.6	min	*
Colombia	73-80	3.5	23.4	4.3	9.1	28.6	min	+
				2.3	4.5[j]	49.3	aver	+
Costa Rica	74-79	2.9	6.9	5.8	8.8	58.8	min	+
				8.8	11.7	73.4	aver	+
Ecuador	73-79	3.3	13.4	1.7	2.3	30.0	min	≈
Honduras	75-80	3.5	8.8	-2.8	-0.4	30.5	min	+
Mexico	77-81	5.5	20.3	-4.3	1.0	95.9	min	+
Panama	77-81	6.2	8.5	-0.6	1.3	78.0	min	+
Paraguay	76-80	8.5	17.7	-7.6	3.0	65.1	min	+
Uruguay	74-80	3.9	58.1	-9.5	-2.3	70.9	aver	+

Notes: [a]69-74 [b]65-70 [c]70-74 [d]71-74 [e]1971 [f]74-77
[g]73-77 [h]66-76 [i]74-78 [j]76-80 [k]80-82
* irregular ≈ ratio approximatively constant
Source: Tables 8a and 8b

Periods of economic stagnation or recession

Mid-sixties to mid seventies

	Period	Annual growth rate of GDP/c %	CPI %	non-ag w %	ag w %	1970 ag wage US$	type	change in ratio non ag/ag wages
Chile	65-70	1.3	25.9	-1.8	2.7	30.0	min	+
Nicaragua	65-76	1.6	6.3	-2.5	-2.2	34.7	min	≈
Peru	68-75	1.9	9.7	2.0	1.8	27.3	min	≈
Uruguay	65-74	0.8	56.2	1.5	1.9	70.9	aver	≈
Chile	71-75	-5.9	352.7	-11.8	-11.9		min	≈
Mexico	69-71	-20.5	5.2	1.0	2.6	48.8	min	+

Late seventies

	Period	Annual growth rate of GDP/c %	CPI %	non-ag w %	ag w %	1975 ag wage US$	type	change in ratio non ag/ag wages
Argentina	74-80	0.1	198.6	-16.8[l]	-21.9[l]	92.0	aver	-
Guatemala	77-80	1.4	10.3	7.8	15.1	34.0	min	*
				0.3	-3.4	33.3	aver	-
Panama	73-77	-0.6	7.0	-4.8	-2.8	78.0	min	+
Peru	75-80	-0.8	51.7	-6.2	-3.2	49.4	min	+
El Salvador	78-80	-13.3	15.0		-4.1	37.2	min	
Nicaragua	76-79	-14.3	18.3	-0.8	-2.0	50.6	min	-

Early eighties

	Period	Annual growth rate of GDP/c %	CPI %	non-ag w %	ag w %	1984 ag wage US$	type	change in ratio non ag/ag wages
Brazil	80-83	-3.3	122.8	-9.3	-4.5	60.1	aver	+
Chile	81-84	-4.1	22.5	-12.4	-12.2		min	≈
Colombia	80-84	.3	22.6	5.0	-1.2	97.2	aver	-
				4.0	5.2	95.2	min	+
Costa Rica	79-83	-5.0	46.7	-1.4	-1.2		min	≈
				-7.9	-4.5		aver	+
Ecuador	80-84	-.4	26.9	-14.5	-12.1	70.4	min	+
El Salvador	80-84	-7.2	13.9	-8.8	-12.3	62.4	min	-
Guatemala	80-84	-4.3	6.6	3.7[k]	3.1[k]		min	≈
Honduras	81-84	-3.1	7.5	-2.3	0.9		min	+
Mexico	81-84	-3.1	79.6	-15.0	-15.0	110.0	min	≈
Nicaragua	82-84	-2.6	35.1	-12.2	-10.5		aver	+
Panama	80-84	0.0	2.8	-3.3	-3.3		min	≈
Paraguay	82-84	-3.3	16.0	-4.7	-5.8		aver	-
				-3.8	-3.8		min	≈
Uruguay	80-84	-5.6	39.7	-3.1	-6.3		min	-

TABLE 8D

Agricultural and Nonagricultural Real Wages, 1965-1984

	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
Argentina																				
Constr. w	373	365	374	341	348	358	361	333	369	394	492	262	258	217						
Agr. w	215	213	219	199	207	228	259	235	263	302	280	154	141	124						
Brazil																				
Constr. w					179	175	184	180	172	175	184	190	200	206	198	199	206	209	152	146
Agr. w		117	117	112	108	107	113	117	130	148	154	150	155	161		100*	110	112	90	89
Chile																				
Urban min w	0.67	0.67	0.68	0.64	0.64	0.62	0.66	0.48	0.31	0.39	0.39	0.41	0.43	0.51	0.50	0 50	0 58	0 59	0 47	0.40
Agr min w	0.28	0.30	0.32	0.30	0.30	0 36	0.47	0.44	0 30	0.28	0.31	0.38	0.42	0.41	0 40	0 40	0 48	0.49	0 39	0 34
Colombia																				
Urban min w	588	490	453	428	396	450	413	369	374	421	435	380	439	476	432	573	569	596	638	660
Manuf w	1226	1163	1186	1235	1228	1394	1375	1226	1216	1160	1118	1170	1144	1267	1358	1360	1389	1440	1560	1643
Agr min w	378	315	291	275	252	260	239	214	221	327	370	323	373	409	372	535	530	565	605	650
Agr w	502	500	478	476	528	502						609	707	755	737	744	722	685	717	702
Costa Rica																				
Urban min w	351	351	348	342	357	350	364	357	334	310	309	337	359	387	396	394	356	337	391	411
Constr w						495	507	524	496	448	466	514	570	628	660	637	562	452	498	540
Agr min w	261	260	257	254	265	259	270	267	258	261	266	306	332	369	380	100*	91	88	101	
Agr w							376	371	358	330	332	382	471	516	562	563	518	457	506	
Ecuador																				
Urban min w				670	630	600	692	641	568	614	621	721	638	571	691	1222	1037	855	697	721
Agr min w				503	473	450	415	385	341	429	399	461	408	366	466	764	648	546	495	481
El Salvador																				
Urban min w	95	96	101	98	99	96	96	94	113	121	123	115	103	103		114	109	96	83	85
Agr min w	72	73	72	70	70	68	68	67	68	68	62	67	63	63	68	58	52	45	39	36
Guatemala																				
Urban min w	51	50	50	49	48	47	47	47	42	43	38	34	30	28	25	40	43	43	41	39
Manuf w	97	100	102	104	106	104	105	105	92	80	73	72	68	71	73	68				
Agr min w										26	23	20	18	17	15	30	33	32		
Agr w									22	22	22	20	18	19	19	16				
Honduras																				
Urban min w										83	77	73	68	65	71	65	68	68	62	61
Agr min w										42	45	46	42	41	44	45	53	54	50	49
Mexico																				
Urban min w	665	741	720	799	772	832	788	893	797	930	932	999	1049	1006	979	915	931	722	605	599
Agr min w	457	518	502	568	549	610	579	651	616	676	678	760	753	750	774	771	799	619	519	514
Nicaragua																				
Urban min w	361	347	343	328	324	317	312	310	261	267	283	292	297	301	283	241				
Agr min w	276	266	263	252	249	243	239	256	219	218	218	219	231	238	203	182				
Panama																				
Urban min w	90	90	89	87	86	83	82	97	91	83	81	77	74	71	70	73	68	65	65	62
Agr min w	42	42	42	41	40	39	38	61	57	56	55	53	51	49	49	53	49	47	46	53
Paraguay																				
Urban min w	6230	6050	5969	5933	5798	5850	5943	5606	6303	5594	5405	5175	4732	4918	3837	3874	3965	3976	3660	3383
Agr min w		5378	5380	5385	5381	5603	5537	5277	5336	5003	4745	4997	4566	5558	5074	5510	5644	5665	5211	4815
Peru																				
Urban min w	1489	1749	1693	1674	1576	1860	1854	1943	1914	1945	1805	1663	1460	1229	1252	1398				
Agr min w	1159	1064	997	964	1032	1055	1173	1151	1183	1076	1113	1072	935	737	974	979				
Uruguay																				
Constr w (Index)			117	97	106	100	127	111	115	118	103	93	81	76	69	65	68	68	62	59
Agr w		9.0	10.5	11.4	14.9	15.6	15.8	12.3	10.2	11.6	11.8	11.2	10.9	11.8	10.8	9.8	9.7	9.5	7.8	7.9

* New series

Sources: Tables 8a and 8b

15 years before or substantially lower, the most extreme cases being those of Argentina where the real average wage has fallen by more than 40 percent and Nicaragua where it has fallen by 30 percent. This contradicts PREALC's (1980) findings of an overall increase in real wages in agriculture which was based on data extending to 1977 only.

During this period, 1965-1980, GDP per capita (although experiencing a very unequal evolution) has increased significantly in most countries. Exceptions are Nicaragua, where it was in 1980 below its 1965 level, and Mexico and Peru where it was only 10 percent higher. The result is that during this favorable growth period of 15 years agricultural wage earners have lost very significantly compared to the average income in the nation in all countries except Chile and Mexico.

This phenomenon of absolute impoverishment in a majority of Latin American countries has further worsened in the 1980s. During this period, real agricultural wages have fallen drastically in all countries, with the only exceptions being Colombia, Honduras, and Panama. In Mexico, for example, where wages had risen enormously between 1965 and 1980, the dramatic fall in wages in the early 1980s has brought the agricultural wage back to its 1965 level. In Brazil, wages in 1984 were only 11 percent higher than in 1965; in Chile, 17 percent.

For some wage earners, falling real wages may have been compensated by greater access to land. Indeed, the number of small farms has increased by 92 percent between 1950 and 1980 while agricultural EAP increased by 67 percent. Yet, we do not know whether the growing number of small farms is due to landless gaining access to land or to medium farms becoming increasingly subdivided. While land reform programs have given access to land to landless workers, in Peru, for instance (Brass), the aggregate effect of these reforms

has been small and the process of subdivisions should dominate in the creation of small farms.

2. Impoverishment of the agricultural wage earners has been shared by the urban unskilled workers as well. In fact, urban wages of unskilled workers have declined even more than agricultural wages during the last 20 years. The result is that, relative to their urban counterparts, agricultural workers have improved their wage conditions in all countries except Ecuador and El Salvador. Wages of agricultural and nonagricultural workers have thus, over the last 20 years, converged in a downward movement as rural wages fell less than urban wages.

3. The absolute value of the two wages can hardly be compared because agricultural contracts often include more than the monetary wage and because the cost of living is also frequently lower in rural than in urban areas. However, in most countries, the level of agricultural wages was still in 1980 between 50 and 75 percent of the corresponding urban wage. (A notable exception is Paraguay where the agricultural minimum wage is higher than the urban minimum wage, but this could be due to a change in the statistical base in 1977). An even more formidable task is an international comparison of agricultural wages when they are transformed into dollars using the official exchange rate, particularly during the years of hyperinflation when computations of the average level of wage, CPI, and exchange rate are more difficult. In spite of this, Table 8C reports these levels for 1970, 1975, and 1980.

International comparisons of agricultural wages can be used to test the hypothesis that the level of wages is lowered by the presence of a large mass of semiproletarianized peasantry and that it increases as the peasantry disappears and full proletarianization increases. This hypothesis derives from the

theory of functional dualism according to which peasant household production acts as a subsidy to wages since part of the subsistence cost of semiproletarian households is borne by household labor, largely with zero opportunity cost on the labor market, applied to home production. The counterthesis is that full proletarianization of the peasantry would increase the supply of agricultural labor and drive the level of agricultural wages down further.

Regressions were run across countries for which data are available to explain average wages and minimum wages as a function of the relative importance of the peasantry in the agricultural labor force (the ratio of EAP in traditional agriculture to total agricultural EAP in Table 3A), of the level of proletarianization (taken as the share of wage labor in agriculture in the population census closest to 1970, as published in the United Nations, Demographic Yearbook), and of GDP per capita. The results are as follows:

Endogenous variable: average agricultural wage, 1970 and 1975.

Observations: Colombia, Brazil, Costa Rica, Uruguay, and Argentina.

Wage	GDP per capita	Size of peasantry	R^2
1970	0.038 (1.509)*	-0.771 (-1.672)*	.89
1975	0.056 (1.909)**	-0.306 (-0.553)	.80
		Proletarianization	
1970	0.041 (1.217)	0.807 (1.485)	.88

Endogenous variable: minimum agricultural wage, 1970.

Observations: Colombia, Ecuador, El Salvador, Nicaragua, Peru, Costa Rica, Panama, Mexico, (Chile omitted).

Wage	GDP per capita	Size of peasantry	R^2
1970	0.060 (4.121)**	-0.256 (-1.465)**	.78
		Proletarianization	
	0.050 (6.170)**	0.302 (3.155)**	.91

*Indicates significant at the 85 percent confidence level.

**Indicates significant at the 90 percent confidence level.

These results support the thesis that, in spite of the increasing integration of the rural and urban labor markets and of the competition for temporary employment that originates in town-based landless labor, the peasantry remains an important source of semiproletarian labor. The larger this reservoir of cheap labor, the lower the level of agricultural wages.

4. This overall evaluation of the evolution of wages during the last 20 years overlooks very contrasted periods in each country. Most countries have indeed had very unstable growth of GDP per capita with, in most cases, either a change in economic regime or a short recession in the mid-1970s. Noticeable exceptions are Colombia, Costa Rica, and Ecuador which have had a moderate but sustained growth, at least until 1980. The evolution of wages is observed to be strongly influenced by macroeconomic changes. For most countries, a periodization of the macroeconomy also gives a good periodization of wage movements. This analysis by periods is reported in Table 8C.

It is interesting to note that agricultural wages do not seem to be influenced by the growth of the agricultural sector itself but more by overall economic growth. This supports a similar result that was found in the analyses of migration and employment patterns in which pull effects determined outside of agriculture clearly dominate over push effects that originate in agriculture.

5. Comparisons across countries of the growth periods show a great diversity in the evolution of real wages but some regularity in the evolution of the ratio of agricultural to nonagricultural wages. During the growth periods of the mid-1960s to the mid-1970s, characterized by annual growth rates of GDP per capita of 2 to 4.5 percent and by fairly low rates of inflation (below 15 percent for most countries), the ratio of agricultural to nonagricultural wage has, in most cases, remained fairly constant. In the growth periods of the late 1970s, characterized by higher growth rates (3.5 to 7 percent) and higher rates of inflation (over 20 percent in most countries), the ratio of agricultural to nonagricultural wages has increased. This resulted from either a larger decrease of the urban wage or a larger increase of the agricultural wage (PREALC, 1980). This narrowing of the wage gap can be attributed, as was seen in the study of the evolution of the employment structure of rural and urban populations (Table 7), to an increasing integration of the agricultural and nonagricultural labor markets, particularly in periods of high growth rates of the economy.

6. Periods of stagnation and of recession, by contrast, exhibit less regularity in the evolution of relative wages. But absolute levels of real wages remain strongly affected by the overall economic performance and by the rate of inflation. In the occurrences of stagnation in the late 1970s and in all situations of recession, all real wages declined with the exception of Colombia. However, the magnitude of the decline seems to be related to the rate of inflation more than to the magnitude of the recession itself. This is also true within each of the contrasted periods when real wages are related to inflation on a year-to-year basis. This result contradicts PREALC's finding of the relative protection of agricultural wages against inflation as that

study did not incorporate the high inflation periods of the late 1970s and 1980s.

7. Comparison of the average wage to the minimum wage in agriculture can only be done meaningfully for Colombia and Costa Rica. While, for the overall 20-year period, the ratio of these two wages seems to have kept constant (as noted in the PREALC study for the 1965-1977 period), the two countries, in fact, show contrasted behavior in their different subperiods. In Colombia, the average wage was much less volatile than the minimum wage. It did not decrease as much as the average wage during the first period and then increased less during the second period. By contrast, in Costa Rica the average wage fluctuates more than the minimum wage.

Real Wages Paid to Permanent and Temporary Workers

In Table 9, wages of temporary agricultural workers are compared to those of permanent workers in Brazil and Chile. In both countries, temporary workers' wages are higher than those of permanent workers to compensate for flexibility on the employer's side and irregularity of work on the worker's side.[1] The case of Brazil shows important differences in wage levels between the rich south and the poor northeast, although wages in the northeast have partially caught up with those in the south during the last 20 years, implying a higher integration of the region induced by the very rapid growth of the economy.

The evolution over time shows a periodization similar to that of the previous table, with 1975 and 1981 as turning points. While growth rates in permanent workers' wages were, respectively, 5.1, 0.2, and -9 percent during these three periods, they were 7.1, -0.9, and -10.6 percent for temporary wages, showing a higher volatility of temporary wages. In particular, while in the last three years permanent workers' wages have kept in line with the

TABLE 9

Real Wages Paid to Permanent and Temporary Workers

Year	Brazil						Chile	
	Permanent workers			Temporary workers				
	Nordeste	South	Total Brazil	Nordeste	South	Total Brazil	Permanent	Temporary
	cruzeiros per month (1977 prices)			cruzeiros per day (1977 prices)			pesos per day (1980 prices)	
1966	466	714	561	17	29	20	a	
1967	504	752	607	18	28	20		
1968	462	670	585	17	26	21		
1969	486	718	639	16	28	20		
1970	508	721	652	16	27	21		
1971	500	775	681	18	31	22	164	195
1972	501	834	700	18	33	23	136	150
1973	563	887	784	21	39	28	113	121
1974	627	909	810	28	45	34	82	110
1975	670	977	875	29	48	37	64	84
1976	664	952	866	29	45	36	70	83
1977	684	971	903	30	46	37	71	87
1978	753	982	952	30	41	36	77	103
1979	790	959	927	30	40	35	81	101
1980	718	958	870	30	44	35		
1981	772	989	888	30	44	35		
1982	795	969	896	27	42	32		
1983	658	820	743	22	36	27		
1984	656	758	670	23	31	25		

[a]Blanks indicate no data available.

Sources:

For Brazil, Fondation Vargas, Agropecuaria, Precos Medios, Revisao e Atualizacao da Serie 1966-1984, Rio de Janeiro, Brazil, 1985.

For Chile, L. Jarvis, Chilean Agriculture Under Military Rule. University of California, Institute of International Studies, Berkeley, 1985, p. 63.

minimum urban wage (but not with the average wage of construction workers as seen in the Table 8C), temporary workers' incomes have deteriorated even more. The evolution of employment confirms the fact that temporary workers are in a more precarious situation than permanent workers when facing adverse economic situations since both their employment and their wages have higher fluctuations in response to changes in the labor-market environment.

Unemployment and Underemployment in Agriculture

Data on rates of unemployment for Chile, Peru, El Salvador, Mexico, and Brazil show sharply rising levels, particularly through the 1970s and the early 1980s (Table 10). This is true both for national unemployment as well as for unemployment in the agricultural sector. Unemployment assumes different forms in the urban and agricultural sectors, with higher levels of open unemployment in the former and higher levels of underemployment in the latter.

Open unemployment in Chilean agriculture increased from 2.2 percent of the agricultural labor force in 1966, to 4 percent in 1975, and 9.1 percent in 1980. There was a similar sharp increase in Mexico, with open unemployment in agriculture increasing from 0.8 percent in 1980, to 1.3 percent in 1960, and 6.3 percent in 1970.

In Chile, labor surplus in agriculture (defined as the sum of open unemployment and underemployment measured relative to labor needs for observed production) decreased between 1955 and 1970, basically as a result of rapid rural-urban migration and a declining agricultural labor force. Between 1970 and 1980, labor surplus increased in spite of the continued migration and a declining rural labor force due to the loss of access to land in the reform sector and the sharp increase in overall unemployment.

TABLE 10

Unemployment and Underemployment in Agriculture
Chile, Peru, El Salvador, Mexico, and Brazil

CHILE

Year	National unemployment	PEM and POJ	Total unemployment	Agricultural open unemployment	Agricultural surplus labor
	1	2	3	4	5
	percent of total labor force			percent of agricultural labor force	
1955					18
1965					14
1966				2.2	
1967				2.0	
1968				1.8	
1969				1.6	
1970	5.7		5.7	1.7	11
1971	3.8		3.8	1.5	
1972	3.1		3.1	1.0	
1973	4.8		4.8		
1974	9.2		9.2		
1975	14.5	2.0	16.5	4.0	
1976	14.4	7.5	21.9	5.0	19
1977	12.7	5.9	18.6	5.7	21
1978	13.6	4.3	17.9	7.1	19
1979	13.8	4.3	17.3	7.3	17
1980	12.0	5.2	17.2	9.1	17
1981	10.8	4.8	15.6		
1982	21.1	7.0	28.1		
1983	22.0	12.0	34.0		

PERU

Year	Total unemployment	Total underemployment	Agricultural underemployment
	percent		
1975	4.9	42.4	68.2
1976	5.2	44.3	61.8
1977	5.8	48.2	62.1
1978	6.5	52.0	65.4
1979	7.1	51.4	63.5
1980	7.0	51.2	68.2
1981	6.8	46.0	60.0
1982	7.0	49.9	60.9

EL SALVADOR

Year	Total unemployment	Agricultural open unemployment	Agricultural underemployment
	percent		
1965			39.3
1970			43.0
1975			47.0
1980 (July)	6.7	7.8	
1980 (November)	16.2	27.0	

(Continued on next page.)

TABLE 10--continued.

MEXICO

Year	Total unemployment	Agricultural open employment
	percent	
1950	1.3	0.8
1960	1.6	1.3
1970	6.7	6.3

BRAZIL: AGRICULTURAL UNDEREMPLOYMENT, BY REGIONS

Region	Family members	Temporary workers due to seasonality			Overall
	1980	1970	1975	1980	1980
	percent				
North	33.0	34.0	30.3	35.6	35.9
Northeast	24.8	11.0	24.1	26.7	29.6
Southeast except Sao Paulo	19.2	33.5	39.6	25.9	25.2
Sao Paulo	14.0	30.4	25.8	17.6	19.2
South	26.4	43.6	40.0	45.7	32.1
Center West	20.8	43.9	37.3	29.7	28.4
Brazil	24.0	25.9	30.2	29.1	29.2

BRAZIL: UNDEREMPLOYMENT IN AGRICULTURE DUE TO SEASONALITY[a]

Region	1970	1975	1980
	percent		
North	2.9	4.0	6.3
Northeast	1.9	5.9	8.3
Southeast (except Sao Paulo	9.8	12.5	9.1
Sao Paulo	9.1	8.1	7.0
South	6.7	7.8	10.3
Center West	14.6	13.8	11.9
Brazil	5.8	7.9	8.8

CHILE:

[a]State-run minimum employment programs.

Sources:

For columns 1, 2, and 3, see Ministry of Finance, Exposicion de la Hacienda Publica (Chile, 1983).

For columns 4 and 5, see E. Muchnik and C. Zegers, "El Sector Agropecuario Chileno, 1974-1980: Analisis de Tendencias y Perspectivas," Department of Agricultural Economics, Catholic University of Chile, (Santiago, 1980), pp. 179-80.

PERU:

Source: Compendio Estadistico.

(Continued on next page.)

TABLE 10--continued.

EL SALVADOR:

Sources: BID, Informe General Sobre el Desarrollo Agropecuario y Rural de El Salvador, 1976; see, also, CEPAL, Economic Situation of Latin America, 1983.

MEXICO:

Source: Censo General de Poblacion y Vivienda, 1950, 1960, and 1970.

BRAZIL:

[a]Calculations based on the difference between the peak employment of temporary workers and the full-time equivalent of temporary work. Since temporary workers in agriculture may have other employment opportunities, this ratio does not reflect the actual underemployment of agricultural workers.

Source: Angela A. Kageyama, "Modernizacao, Productividade, e Emprego no Agriculture," Campinas, Sao Paulo (December, 1985), pp. 308-317.

Striking are the very high estimates of agricultural underemployment in countries such as Peru, El Salvador, and Brazil. These figures do not show declining trends and indicate the permanence of large masses of surplus labor, low labor productivity, and poverty for a very large share of the rural population.

Changes over time in the pattern of underemployment due to seasonality show an interesting contrast between the more advanced regions of Brazil (the Southeast, Sao Paulo, and the Center West) and the less advanced. The pattern of seasonality decreases in the former while it increases in the latter. According to Kageyama (1985), this is due to the fact that, in the less-advanced regions, mechanization is only partial across tasks, such as ploughing, planting, weeding, and harvesting, and results in an increasing bunching of labor needs at the time of performing the nonmechanized tasks, principally harvesting, which tends to remain manual. Agriculture in the less-advanced regions also tends to be less diversified, and peaks in labor demand are consequently high. In the more advanced regions, mechanization is more complete across tasks, allowing the reduction of labor demands throughout the year and eliminating peaks. In addition, cropping patterns are more diversified, spreading labor needs throughout the year. There thus exists a cycle in the process of modernization and mechanization, resulting first in a bunching in labor demands and increasing unemployment due to seasonality. This is later followed by more complete mechanization of the labor process and greater regional diversification of activities, erasing labor peaks and reducing unemployment due to seasonality.

Implicit Remuneration of Family Labor

In Brazil, the number of active family members per farm increased slightly between 1970 and 1980 (Table 11), while the average size of farms smaller than

TABLE 11

Implicit Remuneration of Family Labor

BRAZIL

Farm size	Number of active family members				Income per active family member[a]				
								As a proportion of average wage of permanent workers	
	1970	1980	1970	1980	1970	1980	Annual growth rate	1970	1980
hectares	per farm		percent of total		1970 cruzeiros		percent	percent	
0-5	2.09	2.13	33.0	32.8	417	719	5.6	27.7	31.1
5-10	2.34	2.41	14.7	14.0	718	1,436	7.2	47.7	62.1
10+	2.48	2.53	52.2	53.3	1,783	3,986	8.4	118.4	172.5
Total	2.32	2.38	100.0	100.0	1,163	2,487	7.9	77.2	107.6

CHILE (Region IV, 1976)

Farm size	Proportion of farm households	Income per active family member[b]		Proportion of minimum wage	
		On-farm income	Total income	On-farm income	Total income
hectares	percent	dollars, U. S., 1976		percent	
0-2	59	92	224	17	42
2-5	25	385	511	72	95
5-10	11	830	967	156	181
10+	4	1,899	2,270	356	424

MEXICO

Farm characteristics	Farm income per active family member[c]		
	1950	1960	1970
	1950 pesos		
Ejido	656	597	779
Private, 5- hectares	340	103	745
Private, 5+ hectares	2,254	2,574	4,747
Total	1,060	787	1,315
Rural Minimum wage, 250 days worked	665	1,078	1,985
Ejido/minimum wage	0.99	0.55	0.39
Private/minimum wage, 5- hectares	0.51	0.10	0.38
Private/minimum wage, 5+ hectares	3.39	2.39	2.39
Total/ minimum wage	1.59	0.73	0.66

[a]Income calculated as difference between gross value of sales and expenses.

[b]Income from all sources, and there are 3.8 active family members per household.

[c]Income calculated as difference between gross value of sales and expenses.

Sources: For Brazil, Agricultural Census (various years); for Chile, Monardes, A. "El Empleo en la Pequena Agricultura: Un Estudio del Valle Central de Chile," University of Chile (1979); and for Mexico (wages), Hewitt de Alcantara, C. Modernizing Mexican Agriculture: Socioeconomic Implications of Technological Change, 1940-1970 (Geneva: U. N. Research Institute for Social Development, 1976) and (other data) Agricultural Census (1950, 1960, and 1970).

10 hectares declined (Table 5). These two forces combined to increase the population pressure on the land for small farms. In spite of this, income per family worker increased substantially in real terms because of rising product prices. The result is that, on the average for all active family members in agriculture, the level of implicit income has caught up with and surpassed the average wage of permanent workers between 1970 and 1980. However, for all small farmers--on farms less than 5 hectares which represent 37 percent of all farms and which employ one-third of family labor--income from home production is only 31 percent of the wage of permanent workers; and this percentage has barely increased over the last decade. On the large farms, by contrast, implicit income increased from 118 percent of wages to 173 percent. Even though absolute income of the poorest increased at an annual growth rate of 5.6 percent, inequality in family farm incomes has increased substantially over the decade. There has thus been a reduction in absolute poverty and an increase in relative poverty, an observation consistent with similar changes at the national level.

Implicit remuneration of family labor from home production on small farms is only a fraction of the wage of permanent workers and can be used as a measure of surplus labor on those farms if the wage of permanent workers is taken to indicate their potential full-time income. We thus see that there is a considerable degree of surplus labor for one-third of farm family members (0 to 5 hectares), reaching 69 percent in 1980, and that this surplus has not declined appreciably over the last decade. On farms of 5 to 10 hectares, with 14 percent of family labor, surplus labor is still 38 percent in 1980, but it declined by 28 percent during the last decade. Absorption of surplus labor thus appears to have benefited the medium farms more than the smaller farms.

In Chile (Region IV), as in Brazil, on-farm income for family members increases rapidly with farm size indicating how important land is as the limiting factor on income levels. Using, again, the minimum wage of permanent workers as a measure of full-time income, we see that the small farms (0 to 2 hectares), with 59 percent of farm households, have as much as 83 percent surplus labor; farms of 2 to 5 hectares, with another 25 percent of farm households, still have 28 percent surplus labor. Off-farm income sources, principally wage income, nearly erase surplus labor for this latter farm category. For the smallest farms, however, there is still 58 percent surplus labor when accounting for both on- and off-farm incomes.

In Mexico, as in Brazil, the data on implicit remuneration of family labor show an increase in real income on small private farms between 1950 and 1970 (an average annual growth rate of 4 percent) but not in the ejidos where real income per active member remained essentially constant (an average annual growth rate of 0.9 percent). The distribution of income thus worsened between private and ejidal sectors, while the ratio of family incomes on small relative to large private farms remained constant (16 percent in 1970). The ratio of ejidal to large private farm income deteriorated from 29 percent in 1950 to 16 percent in 1970.

The real rural minimum wage increased sharply between 1950 and 1970 (an average annual growth rate of 5.6 percent). Using this as a yardstick of full-time employment income in family farms, we see that surplus labor increases greatly over the 20-year period in both small private farms and ejidos, with surplus labor reaching 61 percent in 1970. The deterioration was particularly severe on the ejidos where surplus labor increased from 1 percent in 1950 to 61 percent in 1970, showing the increasing need for ejido family

members to seek off-farm income opportunities. While the ejido family labor was relatively better off than small private farmers in the 1950's, their conditions converged in the 1970's to a common situation of large surplus labor and a high level of dependency on off-farm income sources.

Footnotes

[1]Using as PREALC (1982, p. 141) 30 days as the number of work days per month in wage calculations for Brazil. Higher levels of skill among permanent than temporary workers tend to narrow the observed wage gap.

Part IV

Agricultural Labor Contracts

Permanent and Temporary Employment in Agriculture

The data in Tables 12A and 12B show evidence of a deep structural transformation of the wage labor market in Latin American agriculture with a shift from permanent to temporary employment in all countries but Mexico. Changes in technology with increasing mechanization contributed to this transformation on the demand side. The data on seasonality, reported in Table 10, corroborate this evolution with the interesting point that full mechanization of the seasonal cycle of tasks, which occurs only in few very developed areas, reduces seasonality. However, in many countries, the replacement of permanent workers by temporary workers came early in the 1960s before the rapid technological transformation and, as in Brazil, it also occurred in poor areas which had not introduced technological change to any large extent. The preference given to temporary workers thus came on the part of the landlords as a means of bypassing labor laws or institutional constraints. In Brazil, for example, implementation of the Rural Labor Status in 1963, which extended to agricultural workers the minimum wage and social benefit regulations already applied in the urban labor market, did not include nonresident temporary workers which then became a much cheaper source of labor. In Chile, labor laws forced payment of the minimum wage fully in cash, leading to the replacement of permanent workers with land privileges by temporary workers. The antagonisms of the land reform process also led landlords to minimize the presence of permanent workers on their farms as these were potential candidates for land appropriations. Finally, the labor legislation of 1979

TABLE 12A

Permanent and Temporary Employment in Agriculture

Year	Permanent	Temporary	Permanent / Temporary	Total
Argentina: paid workers				
1960	582,724	212,582	2.7	795,306
1969	338,751	240,451	1.4	579,202
Change, 1960-1969 (percent)	-41.9	+13.1		-27.2
Chile: Paid workers				
1965	184,464	146,202	1.3	330,666
1976	148,543	214,202	0.7	362,745
Change, 1965-1976 (percent)	-19.5	+46.5		+9.7
Mexico: paid workers on private farms larger than 5 hectares.				
1960	143,096	956,700	0.15	1,099,796
1970	184,846	627,241	0.29	812,087
Change, 1960-1970 (percent)	+29.2	-34.4		-26.2
Brazil: paid workers				
1970	1,075,806	1,457,141	0.74	2,532,947
1980	1,956,269	2,699,337	0.72	4,655,606
Change, 1970-1980 (percent)	+81.8	+85.2		+83.8

Sources: Agricultural Censuses.

TABLE 12B

Temporary Versus Permanent Employment

	1965	1970	1976
Chile, VI region			
Percentage of days worked by permanent workers in total number of paid work days	88	80	33
Number of permanent paid workers per HRB[2]	0.14	0.11	0.05
Number of days worked by permanent paid workers per HRB	32	29	13
Number of days worked by temporary paid workers per HRB	13	17	17
Total number of days worked by paid workers per HRB	38	38	30
Number of work animals per HRB	0.07	0.04	0.12
Number of tractors per HRB	0.011	0.016	0.024

[a]HRB = basic irrigated hectares.

Sample: In 1965, 16 large haciendas in Zone VI.

In 1970, the same geographical area has been transformed into 5 land reform cooperatives, 31 unexpropriated private farms created by subdivisions of the haciendas, 8 farms identical to 1965, and 2 reserves.

In 1976: the same geographical area had been transformed into 8 land reform cooperatives, 81 land reform individual farms, 3 cooperatives of land reform beneficiaries, and 49 private sector farms.

Source: J. Dorsey, "Empleo de Mano de Obra en las Haciendas del Valle Central de Chile: VI Region, 1965-1970-1976", (Santiago, Chile: PREALC/199, April, 1981)

restricted union activity to farms with more than 15 permanent workers, again inducing employers to reduce the size of their permanent labor force below this critical number and to satisfy labor needs with temporary workers. On the supply side, demographic pressures reduced migration opportunities with mounting urban unemployment; and loss of access to land in the reform sector, as a result of the counterreform of the military, created a large mass of landless workers, usually based in rural towns and available for hire on a temporary basis.

The detailed data for Region IV of Chile give a clear case of this transformation in a fruit-growing area. There the percentage of days worked by permanent workers in the total number of paid workdays fell by 63 percent between 1965 and 1976. The number of days worked by permanent paid workers per hectare decreased by 59 percent while that of days worked by temporary workers increased by 31 percent. The total number of days worked by workers of either type fell by 21 percent as labor was substituted by work animals (plus 71 percent) and by tractors (plus 118 percent). We thus witness a reduction in labor use per hectare as a consequence of substitution of labor by capital and a massive substitution among labor categories of permanent by temporary labor.

The overall data for Argentina and Chile corroborate the substitution of permanent by temporary labor observed in the above regional study. Going back to the more detailed data for Brazil reported in Table 4, the comparison of the evolution of temporary and permanent employment shows that temporary work is more volatile, decreasing more rapidly in the 1960s and then increasing more in the 1970s. This flexibility of temporary contracts in a context of economic instability is obviously to the advantage of employers. From the workers' side, we saw in Table 9 that their wages also fluctuate more, making them vulnerable to income changes. More detailed analysis (Rezende, 1985)

shows a significant transformation of the nature of the temporary workers during these two decades. Temporary workers of the 1960s were, in large part, resident workers who actually were temporary workers in terms of the length of time they worked for their employer but had long-term work agreements. When they were dismissed in the 1960s, they were replaced in the 1970s by nonresident temporary workers which often live in urban areas. The inferior attributes of these temporary jobs induced a deskilling of the corresponding labor force with an increasing participation of women, children, and elderly workers.

Forms of Remuneration to Workers

In Chile, there has been a rapid decline in labor payments in kind. Until the early 1960s, most permanent agricultural workers were paid largely with benefits in kind--principally access to arable land in usufruct and grazing rights (Jarvis, p. 120). Wages paid were above the minimum wage, and employers were allowed to deduct the value of in-kind benefits from cash payments. After 1960, both the minimum wage and the share of total wage to be paid in cash increased substantially. The real minimum wage in agriculture rose 27 percent between 1960 and 1965, 60 percent between 1965 and 1970, and another 30 percent in 1971. The proportion of wage to be paid in cash rose from 27 percent in 1960, to 75 percent in 1965, and reached 100 percent in 1970. Wages paid rose even faster than minimum wages during this period as employers were unable to reduce in-kind payments as fast as the mandatory cash payments increased. The 1960s were thus a decade highly favorable for agricultural workers, while it was detrimental to large landowners who were being negatively affected by both protective labor legislation and the progress of the

land reform. This situation was reversed after 1973 with falling real wages and favorable land and labor legislation for landowners.

The rise in cash wages as a share of total labor payment thus increased from 45 percent in 1965 to between 77 percent and 100 percent in 1976 (Table 13). The size of land assignments per worker on large farms declined from 12 hectares in 1965 to 2 hectares in 1976 (Dorsey, 1981).

After 1976, the share of cash wage in total income of farm workers remained essentially constant. It ranged from 75 percent on wheat farms to 100 percent on fruit orchards (Vargas, 1982). Noncash payments continued to decline, being replaced by increasing social security benefits and profit sharing, particularly in the most modern enterprises such as vineyards and fruits for export. It is, however, estimated that the proportion of the agricultural labor force covered by social security declined from three-fourths to less than one-half between 1976 and 1981. This is probably due to the fact that, with rising unemployment and falling agricultural wages, many workers found it increasingly difficult to make the required social security contributions. In addition, workers were trying to enhance their individual competitive position by forgoing social security benefits.

We can thus conclude that in-kind payments are no longer a significant source of labor income in Chile and that social security benefits and profit-sharing income represent yet a minimal complement to the cash wages received.

In Mexico, as in Chile, cash remuneration makes up the large bulk of wage labor payments. The daily payment in cash for labor services reflects the high degree of casualness of much of the agricultural labor market. This varies somewhat by region and by the type of farm offering employment.

TABLE 13

Forms of Remuneration to Workers

A. CHILE[a]

Activity	Year	Share of total income			
		Cash wage	Payments in kind	Social security	Profit sharing
		percent			
Large farms	1965	47	33	18	2
Vineyards	1976	79	11	4	6
	1981	80	7	5	8
Fruits for exports	1976	85	12	1	2
	1981	80	5	5	11
Mixed crops	1976	79	19	1	1
	1981	87	9	2	2
Fruits for domestic market	1976	100	0	0	0
	1981	97	1.5	0.5	1
Wheat	1976	77	23	0	0
	1981	75	25	0	0

Activity	Year	Farm area in land assignments to workers	Size of land assignment per worker
		percent	hectares
Large farms	1965	1.1	12
	1970	0.8	5
	1976	0.6	2

(Continued on next page.)

TABLE 13--continued.

B. VALLE DE MEZQUITAL, MEXICO

Farms	Type of payment		
	Money	Food	Drink
	percent		
Irrigation zone			
Subfamily[b]	88.4	4.5	7.1
Subsistence	88.8	6.2	5.0
Transitional	91.8	3.9	4.3
Capitalist	99.8	0	0.2
Total	96.9	1.0	2.1
Sierra			
Subfamily	67.8	26.2	16.0
Subsistence	54.5	23.3	18.2
Total	56.7	26.5	16.7

[a]Remuneration to permanent workers.

[b]The strata correspond to those given by Roger Bartra in Estructura Agraria y Clases Sociales en Mexico, Editorial Era, 1974, as agricultores pauperizados, medios, acomodados, capitalistas.

Sources:

CHILE

For large farms, see A. Valdes, "Wages and Schooling of Agricultural Workers in Chile," Economic Development and Cultural Change, Vol. 19, No. 2, January, 1971; see, also, J. Dorsey. Empleo de Mano de Obra en las Haciendas del Valle Central de Chile: IV Region, 1965, 1970, 1976, Working Paper No. 199. Santiago: PREALC, April, 1981.

For vineyards, see V. Vargas. Salarios Agricolas en Chile en el Periodo, 1975-1981: Estudios de Casos, Monograph 25. Santiago: PREALC, July, 1982.

MEXICO

M. Aguirre y Beltran and Hubert C. de Grammont, Jornaleros Agricolas de Mexico. Mexico: Editorial Macehual (no date).

Table 13 summarizes information collected by R. Cabrera Palomec in a 1973 survey of 129 farms in the Valle del Mezquital, a relatively advanced agricultural area in the state of Hidalgo. In the irrigated lowland region where most employment was offered by capitalist or transitional farms, 96.9 percent of the payment for labor services was in cash. This percentage is, however, high as well on subfamily farms (88.4 percent) and on subsistence farms (88.8 percent). In contrast, in the marginalized highland areas where all the employment was found on subsistence or subfamily farms, cash payments represent only 56.7 percent of wage while 43.2 percent is given in the form of food and drink.

Data for both Chile and Mexico thus indicate that payments in cash to hired workers has become the norm in the areas of commercial agriculture. Partial payment in food and drink only remains significant in the marginal areas of the peasant family.

Part V

Household Incomes and Rural Poverty

Sources of Income

Data on sources of income by farm size are scarce and those available apply to specific microregions where household surveys were conducted (Table 14). They cannot be aggregated in any systematic way to reflect the overall Latin American situation. Yet, there is a considerable degree of consistency across the data available (Table 14), showing a high level of dependency on nonfarm sources of income for a large percentage of farm households. Among off-farm income sources, wages are always, by far, the largest contributor. This indicates high levels of semiproletarianization among small farmers in Latin America. With equal farm sizes, the share of wage labor in total income is higher in areas with well-developed labor markets (Cajamarca, Puebla, and Guatemala) than in areas which are predominantly peasant with few employment opportunities (Garcia Rovira). Wage earnings are thus an important determinant of the permanence of small farmers who could otherwise not subsist by home plot production alone. The more employment opportunities are available, the smaller the viable farm size. Small farmers are thus a large reserve of cheap labor for the rural and urban labor markets.

There are unfortunately no data on sources of income over time with the result that we cannot directly observe whether small producers are increasingly dependent on wage income or not. We have to rely, for this purpose, on other indicators such as the declining average size of small farms.

TABLE 14

Sources of Income

Country and farm size hectares	Year	Share of farm households	Shares of income derived from: Farm activities	Wages	Other activities	Total household annual net income
		percent				dollars (U. S.)
Cajamarca (Peru)						
0- 3.5	1973	72	23	50	27	223
3.5-11.0		17	55	24	21	270
Puebla (Mexico)						
0-4	1970	71	32	58	11	393
4-8		25	64	32	3	675
Garcia Rovira (Colombia)						
0-4	1972	20	79	16	5	365
4-10		45	86	10	4	543
South Bolivia						
0- 5	1976-77	67	38	62		320
5-10		15	63	37		373
Region IV (Chile)						
0-2	1976	59	36	48	16	848
2-5		25	73	21	6	1,941
Vertentes (Brazil)						
0-10	1979	16	a	56		
10-20		49		15		
Northwest Altiplano (Guatemala)						
0- 1.4	1978	63	24	63	13	
1.4- 3.5		22	42	47	11	
3.5-44.8		15	58	34	8	
El Salvador						
0-1	1975	49	59	31	10	
1-2		22	75	19	6	
Ecuador						
0- 1	1974	34	23	63	14	561
1- 5		43	57	35	8	579
5-20		16	79	12	9	1,218
Ecuador--Sierra						
0- 1	1974		19	54	27	
1- 5			52	36	12	
5-20			71	12	17	
Ecuador--Coast						
0- 1	1974		32	53	15	
1- 5			60	31	9	
5-20			77	14	9	
Chamula (Mexico)						
	1970-1974		11	89		240

(Continued on next page.)

TABLE 14--continued.

[a]Blanks indicate no data available.

Sources:

For Cajamarca, Peru: C. D. Deere and A. de Janvry. "A Conceptual Framework for the Empirical Analysis of Peasants", American Journal of Agricultural Economics, Vol. 1, No 4 (November, 1979), pp. 601-611.

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For Vertentes, Northeast Brazil: E. DaSilva, "Peasant Production, Labor Reserve, and the Food Economy of Northeast Brazil." Unpublished Ph.D. dissertation, Department of Agricultural and Resource Economics University of California, Berkeley, June, 1983.

For Guatemala: Hintermeister, A., Guatemala: Pobreza Rural y Credito Agricola al Campesino. Santiago, Chile: PREALC/266, June 1985, p.37.

For El Salvador: C. D. Deere and M. Diskin, "Rural Poverty in El Salvador: Dimensions, Trends, and Causes," WEP 10-6/WP64. Geneva: International Labour Organisation, February, 1984, p.6.

For Ecuador: S. Commander and P. Peek, "Oil Exports, Agrarian Change and the Rural Labour Process: The Ecuadorian Sierra in the 1970's," WEP 10-6/WP63. Geneva: International Labour Organisation, November, 1983, p. 33.

For Ecuador, Sierra and Coast: E. Ortega, "Peasant Agriculture in Latin America," CEPAL Review, No 16 (April 1982), p. 94.

Rural Poverty

In Table 15A, a household is considered to be destitute if it cannot afford the basic food basket providing minimum calorie and protein requirements. It is living in poverty if it cannot afford housing and public services, such as health care and education, in addition to the basic food basket.

The data for the year 1970 indicate that poverty is a much more widespread condition in rural areas of Latin America than in urban areas. For Latin America as a whole, 62 percent of rural households live in poverty and 34 percent is destitute (Table 15A). The corresponding urban figures are 26 percent and 10 percent, respectively.

Ranking countries in three groups by decreasing levels of rural poverty, we obtain the following statistics:

	Honduras, Brazil, and Peru	Colombia, Mexico, and Venezuela	Costa Rica, Chile, and Argentina
Rural households below poverty line (percent)	73	49	22
Rural poverty/urban poverty	2.1	2.1	3.3
Gross domestic product per capita, 1970	479	652	933
Agricultural gross domestic product per capita, 1970	46	85	104

This shows that the percentage of rural households below the poverty line declines sharply as GDP per capita and agricultural GDP per capita increase. The location of poverty (ratio of shares of rural to urban households below poverty line) is, however, increasingly in the rural sector as per capita GDP

TABLE 15A

Rural Poverty: Estimates of Poverty in Latin America Around 1970[a]

Country	Households below poverty line		Destitute households	
	Rural	Urban	Rural	Urban
	percent			
Argentina	19	5	1	1
Brazil	73	35	42	15
Colombia	54	38	23	14
Costa Rica	30	15	7	5
Chile	25	12	11	3
Honduras	75	40	57	15
Mexico	49	20	18	6
Peru	68	28	39	8
Uruguay	[b]	10		4
Venezuela	36	20	19	6
Latin America	62	26	34	10

[a]The definitions and calculations of both poverty line and destitution are taken from Oscar Altimir, The Extent of Poverty in Latin America, Staff Working Paper No. 522 (Washington, D.C.: The World Bank, 1982).

[b]Blanks indicate no data available.

TABLE 15B

Rural Poverty in Mexico, 1963 and 1975

	Percentage of poor families		
	1963	1975	Change
	percent		
Agriculture	54.5	52.5	- 4
Employers	0.9	0.6	-33
Self employed	22.6	33.0	+46
Family workers	a	0.3	
Administrators & technicians	0.7		
Wage workers	30.4	18.5	-39

[a]Blanks indicate no data available.

Note: Definitions of poor are as follows.

1963 = MN$1,000 per month.
1975 = half of the estimated mean household income (MN$1,621 per month).

Source: J. Bergsman, Income Distribution and Poverty in Mexico (Washington, D. C.: World Bank, 1980).

TABLE 15C

Rural Poverty in Mexico, by Occupation of Head of Household, 1975

	Percentage of households			Average income		
	Rural	Urban	Total	Rural	Urban	Total
	percent			dollars		dollars per year
Agricultural workers	50.3	1.5	51.8	483	733	491
All other occupations	17.4	18.5	35.9	698	869	787
No occupation	7.8	4.1	11.9	526	723	594
Not classified	0.2	0.2	0.4	538	566	551
Total	75.7	24.3	100.0	538	833	610

Source: J. Bergsman, Income Distribution and Poverty in Mexico (Washington, D. C.: The World Bank, 1980).

increases across countries. Thus, in spite of rising average per capita income in the country, as a whole, and in spite of the relocation of marginality toward the urban sector, which we observed in Table 3, the rural sector remains the principal reservoir of poverty.

Household surveys conducted by the Mexican government in 1963 and 1975 give detailed information about the nature of rural poverty in that country. Table 15B shows that, while agriculture's share of poor families changed very little from 1963 to 1975, the share of the self-employed (comprised largely of small holders and ejidatarios) increased by 46 percent while the share of wage earners declined by 39 percent. Thus, the rural poor of Mexico are increasingly small holders rather than agricultural wage workers.

In Table 15C, the data show that in 1975 rural households accounted for 75.7 percent of the total number of poor households, with households headed by agricultural workers comprising more than one-half the total poor families. The average income for poor agricultural families is much lower than for any other category of worker, as much as 21 percent lower than for those families where the head of the household has no occupation.

We thus conclude that agricultural poverty remains massive, affecting as much as 62 percent of rural households. While higher levels of national per capita income reduce this percentage, the share of agriculture in total poverty does not decline, indicating the need for direct antipoverty interventions on behalf of the rural population if poverty in that sector is to be reduced to the level of that of other sectors of the economy.

Conclusion

The empirical information on the labor process in agriculture and on the rural labor market, which has been compiled and analyzed in this report, gives us only a partial and imperfect picture due to the lack of systematic information and the paucity of rural labor studies in Latin America as well as the tremendous heterogeneity of Latin American nations. The general picture that nevertheless emerges from this information is one of a rapidly declining share of agriculture in the total labor force, of weak capacity of generating non-agricultural employment in rural areas, and of extremely rapid rural-urban migration dominated by pull factors. With lack of employment creation in the modern agricultural sector, insufficient access to land, and limited urban and rural nonagricultural employment opportunities, the peasantry persists not as a superior form of agricultural production but principally as a refuge sector for surplus population. The result is that, even though total marginality (which has remained roughly constant as a share of total EAP) is increasingly displaced toward the urban sector, the size of the peasantry has increased over the last 30 years both in absolute number and in share of agricultural EAP with the size of the peasantry inversely related to the global performance of the economy. Over time, the number of small farms has grown rapidly; but average farm size has been falling and landlessness has quite likely risen as well. Peasants are thus forced to rely increasingly on off-farm income opportunities--principally employment on larger farms. Semiproletarianization of the peasantry has thus increased.

Unpaid family labor remains the principal source of work in agriculture. The bulk of wage labor still appears to be supplied by semiproletarianized

peasant household members, not by full time wage workers. It is for this reason that an analysis of rural labor markets in Latin America needs to incorporate a study of not only the landless population but also of peasant households.

An increasing integration of the rural and urban labor markets has induced a partial catching-up of rural with urban wages. But a rapid decline in permanent relative to temporary employment together with land consolidation has relocated an important fraction of agricultural workers in rural towns. These urban-based farm workers compete with the semiproletarianized peasantry for access to scarce temporary employment opportunities in agriculture. Because they are easier to recruit on a short-term basis, these town-based workers may well outcompete peasants on the temporary agricultural labor market. The net effect on peasant welfare is, however, not clear from the existing data: Real wages in agriculture have fallen in most countries since 1965 and particularly since 1980; land availability per peasant household has declined; but temporary employment has increased as well as access to nonagricultural employment.

In countries and regions where large masses of peasants remain, that peasantry provides the bulk of labor supply; and wages are subsidized by unpaid family labor on the home plot in what has been described as functional (but contradictory) dualism. Where a substantial town-based labor force is available and well integrated labor markets have developed, this system of functional dualism increasingly breaks down either because peasant labor is unavailable or because it is not competitive with town based workers in terms of recruitment costs for temporary assignments, particularly in peak periods of the year. In this case, agricultural wages tend to increase. How the

labor of the rest of the household is utilized and, hence, how it may still subsidize agricultural wages and whether the annual real income of rural workers and households is higher than under functional dualism are unknown at this stage and warrant further research.

It is nevertheless clear that rural poverty remains extensive in Latin America and that agriculture harbors an increasing share of total absolute poverty in spite of the displacement of total marginality towards the urban areas.

Changes in the labor process in agriculture are characterized by a rising capital/output ratio, indicating rapid mechanization in the medium and large farms and explaining the slow pace of employment creation in spite of eventually rapid rates of agricultural output growth. Mechanization tends to increase the seasonality of employment except in the most advanced areas where mechanization of all the stages of the labor process has been completed. There has been a rapid shift away from permanent employment and towards use of temporary labor. This is accompanied by both deskilling and feminization of the labor force. Forms of labor payment in kind or in land rights have rapidly declined to be replaced by wages in cash and minimal social security benefits.

By contrast to Asia, there is only minimal evidence of interlocked factors markets, with land and credit transactions complementary to forms of access to labor. In Latin America, labor increasingly assumes the form of a pure commodity transacted for a cash wage in response to the forces of supply and demand. While open unemployment is small, hidden unemployment is extensive denoting massive surplus labor relative to the labor needs of the modern agricultural sector. The rural labor market takes the form of a secondary labor

market with lower skilled and lower paid workers and increasingly precarious labor contracts. Wage determination is dominated by pull factors and wages tend to rise when urban migration tightens the rural labor supply.

The analysis suggests several lines of policy intervention to improve the welfare of rural workers and semiproletarianized peasant households.

1. Lack of access to land remains the key determinant of poverty in rural Latin America. Consequently, policies that promote redistributive land reforms should be the prime instrument of poverty alleviation. Even access to small plots of land which allow the valorization of the labor of household members with low or no opportunity cost on the labor market provides an important complementary source of income to wage earnings. Thus, even where land is so scarce that redistributive land reforms could not create viable family farms, access to small plots of land can contribute significantly to welfare. In most of Latin America, however, land is still sufficiently plentiful that redistributive land reforms could create viable family farms if the political will to do so were present.

2. Technological and factor price biases that favor mechanization in modern agriculture are an important determinant of lack of employment creation. These biases prevent the benefits of eventually rapid agricultural output growth in the medium and large farms from benefiting the landless and marginal farmers. Removing these price and technological distortions to foment employment creation and to tighten up rural labor markets is thus an important instrument for alleviating rural poverty.

3. An important fraction of rural labor households remains tied to small plots of land. Rural development programs should thus be promoted to increase the productivity of labor in those semiproletarianized peasant farms which are

of sufficient size to absorb modern technologies. It should be clear, however, that a majority of peasant households will not benefit from these programs because their access to land is insufficient. Thus, effective rural development programs need to come as a sequel to redistributive land reform and not as a substitute for it as has all too often been the case in the last 15 years.

4. By contrast to Asian countries, Latin American nations have not been particularly successful in developing nonagricultural sources of employment in the rural areas. Correcting this requires the decentralization of the highly concentrated pattern of urbanization and industrialization.

5. Global labor-absorbing economic growth is one of the main determinants of migration and decline of surplus labor in agriculture. With the peasantry as a refuge sector for surplus populations, the best antidote to rural poverty is thus an actively growing and labor absorbing urban economy particularly if rural reforms and decentralization of economic activity are not forthcoming.

6. Institutions that facilitate the integration of the rural and urban labor markets and ease the meeting of supply and demand for labor in agriculture should benefit the landless and semiproletarian peasant households. This includes public land bureaus to provide information on employment opportunities, programs of skilling of the rural labor force to give it better access to nonagricultural employment opportunities, and enforcement of labor laws.

7. Finally, special antipoverty programs toward the rural areas are warranted by the observed inability of current patterns of economic growth to reduce rural relative to urban poverty. This includes employment creation

programs through rural public works, social welfare programs to increase access to health, education, potable water, and other social amenities in the rural areas and food subsidies for that fraction of the population which is at immediate nutritional risk.

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