Formulating a Strategy for Employment Generation in Ecuador: Issues and Priorities

Prepared for USAID/Ecuador under a subcontract agreement with the Harvard Institute for International Development pursuant to the centrally funded Employment and Policy Analysis Project DAN-5426-C-00-4098-00.

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November 1988

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PREFACE

This report on employment strategy is part of a two-phase evaluation of the employment situation in Ecuador. The first phase was completed by Bruce Herrick, a consultant of Development Alternatives, Inc. (DAI), in September 1988, at the end of a two-week visit to Ecuador. Both reports respond to concerns about employment issues by the new Ecuador administration and by the U.S. Agency for International Development in Quito.

This work has been undertaken and financed under a USAID/Quito buy-in to the Employment and Enterprise Policy Analysis (EEPA) Project awarded by AID's Bureau for Science and Technology to a consortium comprising the Harvard Institute for International Development, DAI, and Michigan State University.

Many thanks are extended to USAID for its support in making this exercise possible. Particular appreciation goes to Mike Deal, Project Officer, and Scott Smith, Deputy Director. We also appreciate the encouragement and feedback provided by Mike Farbman and Robert Young at the Bureau for Science and Technology.

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EXECUTIVE SUMMARY

The new Government of Ecuador (GOE) views the employment situation as a casualty of the country's economic crisis. High -- and rising -- rates of unemployment and underemployment are cited constantly in official and popular discussions of Ecuador's economic problems.

On the supply side, the labor force is growing rapidly because of a continuing high rate of population growth; an increasing proportion of the population in the working-age category; and rising rates of participation, especially by women. Both rural and urban populations are growing, although the former is expanding more slowly than the latter and decreasing as a proportion of the overall population. A program of applied research, training, and education on the interactions of population growth, employment, poverty, population policies, and family planning programs is needed to increase public awareness of the problems and identify options for policy makers.

Rapid industrial growth during 1974-1982 was highly capital intensive so labor absorption was low relative to growth in output. Employment in agriculture fell and rural-to-urban migration was high. After 1974, most urban labor absorption took place in the services sector at stagnant levels of output per worker. Much of this labor came from rural areas -- migrant workers found what self-employment and low-productivity jobs were available in the cities, thus creating a large pool of low-productivity, underemployed urban workers.

Official unemployment estimates are high compared with results from a recent employment survey of Quito, Guayaquil, and Cuenca. The survey indicated an urban unemployment rate of 7.2 percent, which is low compared with employment rates in other Latin American countries and does not support the view that open unemployment is a serious labor market problem. According to the survey, urban unemployment was highest for workers who were young, female, and nonheads of households, and workers with relatively high levels of education. These characteristics define a secondary labor force rather than principal earners of family incomes.

Underemployment -- often alleged to afflict as much as 50 percent of the labor force -- is a more complex phenomenon. Visible underemployment, defined as workers who work less than 40 hours per week but who would like to work more, was found to be low in the urban survey, representing only 4.8 percent of the labor force. Invisible underemployment, defined as workers working 40 hours or more per week but receiving wages or self-employment income less than the legal minimum wage, was higher. Without accounting for additional, legally fixed compensation, 19.3 percent of the urban labor force covered by the survey was invisibly underemployed according to that definition. If additional compensation established by law is considered, invisible underemployment rose to 21.9 percent of the labor force, a rate that is too low to be consistent with the cited. underemployment of 50 percent of the labor force.

Underemployment can be defined in many ways and used to refer to different aspects of employment in a country. A more detailed analysis of the survey data for this report pointed out the association of invisible underemployment with low-productivity work, and hence low earnings and poverty of the workers. This finding is consistent with the informal-sector concept that claims rapid industrialization with low absorption of industrial labor has pushed labor into low-productivity jobs rather than open unemployment.

Opposing views about the informal sector relate to the question of how well the labor markets work in producing efficient wage and employment outcomes within a country's macro and trade policy regimes. If workers with equivalent human capital receive different incomes in different occupations, then labor markets are characterized as segmented and nonpurely competitive. If, however, returns to human capital are pretty much equalized across industries, labor markets are then competitive enough to produce efficient labor allocations, and low earnings approximately reflect human capital differentials of low-paid workers.

This issue has not been investigated in Ecuador. Reasoning from results in the United States and other Latin American countries, some labor market segmentation and nonpure competition most likely exists, and not enough highly paid labor is used in high-wage industries while too many poorly paid workers are trapped in the low-productivity informal sector. Policy reform is needed to create more jobs based on economic growth along with programs to improve the education and skills of low-productivity workers. Policy reform is also needed to reduce regulations and institutional arrangements that cause or perpetuate unequal earnings across industries.

Through policy dialogue, donors can encourage the GOE to go beyond macro and trade policy reforms that encourage export-oriented growth to address sectoral policy issues that determine the number and types of jobs that are created by the growth. Indirect intersectoral employment impacts should be emphasized along with the direct employment/output elasticity of growth. For example, agricultural growth based on higher yields per unit of land will raise agricultural income but do little more for direct agricultural employment than maintain the existing agricultural labor force. However, if the increased income is widely distributed among small-farm households, demands for simple consumer goods and services will rise. These demands can largely be met by local, small-scale production that is labor intensive. Such production will stimulate nonagricultural rural employment.

Policy dialogue can more effectively address employment issues if the GOE's capacity to gather employment and labor force data and carry out analysis of employment implications of policy alternatives is enhanced. The GOE needs to create the institutional framework and prepare the human resources needed for this purpose.

As a complement to a sectoral approach, the GOE should develop cost-effective programs that encourage the growth and productivity of micro and small enterprises in industrial, commerce, and service activities. This does not mean that all micro enterprises should be assisted. Few of the smallest enterprises will grow and become economically viable because the vast majority represents survival efforts of very poor

people, and programs to assist them would serve mainly welfare rather than development purposes. Expanding the "weak middle" in the distribution of firm sizes will favor employment because these firms produce more labor-intensive products and often choose more labor-intensive production techniques. Public works programs directed at asset creation can provide short-term income transfers for the seasonally underemployed in rural areas and for the urban destitute.

Improved primary and vocational education programs should be implemented as widely and as quickly as public-sector budgets allow. These human-capital investments are needed now even while the economy is stagnant so that worker skills and aptitudes will not limit future growth. The GOE should be assisted in the design of cost-effective educational investments to support employment-intensive growth.

Employment-intensive growth and promotion of micro and small enterprises also need to consider location. The GOE should assess the role of rural and urban linkages in its growth and employment policy reforms and programs. A strategy that encourages the location of services and functions in rural towns and secondary cities on the basis of an efficient spatial organization of agricultural and nonagricultural production should be developed. Locating small-scale manufacturing and service activities in regions where outputs and incomes in agriculture are rising will generate more employment than locating production in large-scale units in the major cities.

CHAPTER I

INTRODUCTION

This report reflects the rising concern of the new Government of Ecuador (GOE) and the U.S. Agency for International Development Mission in Ecuador (USAID) over employment, particularly off-farm employment. Various concepts of unemployment and underemployment are examined. New data on the magnitude and relationship of unemployment and underemployment to growth and structural change in the Ecuadorean economy are interpreted. The report concludes with an analysis of strategy and programming implications of employment generation for the GOE and its aid donors.

Concerns about employment in developing countries emerged in the 1970s. Prior to then, economic development was believed to depend primarily on the rate of capital accumulation. Development thinking emphasized resource mobilization to raise the rate of investment in a country's capital stock. Employment would be generated by the resulting growth in output and would reproduce the historical structural transformation of the labor force in the high-income industrial economies.

Perceptions of employment as a development problem resulted from data showing that patterns of employment in developing countries were evolving differently from employment patterns in early stages of industrialization in countries that are now developed. In particular, it was observed that accelerated industrial growth generated disappointing levels of industrial employment in most developing countries. This low absorptive capacity of the modern industrial sector, in association with an accelerated growth of the labor force, was leading to rapid expansion of employment in services and the public sector. The resulting expansion of tertiary-sector employment was deplored for the low productivity and incomes of the workers involved. Numerous country and comparative studies appeared -- including studies of Ecuador -- that calculated the degree of underutilization of labor in developing countries. The majority of these studies concluded that the degree of labor

underutilization was large, underemployment was closely associated with high inequality in the distribution of income, and attention to the employment implications of alternative growth paths was necessary to improve the social consequences of development in the low-income countries.

Fortified by rapidly rising revenues from oil exports and international loans, the GOE embarked on a course of expansionary growth and job creation in the mid-1970s. When growth slowed to a standstill in the 1980s, industrial employment had lagged behind the growth in industrial output and much labor had been absorbed in urban service jobs of low productivity. Moreover, because of rapid rural-to-urban migration, the backlogged stock of underemployed labor was apparently larger than ever. The deep economic recession of the 1980s with its deterioration in the country's employment and income further exacerbated this situation.

These developments led to a convergence of views that unemployment and underemployment are serious and worsening problems in Ecuador and that small-scale enterprises and the informal sector are important in ameliorating those problems. This report will address both parts of this proposition in relation to the GOE's overall development strategy and donors' assistance programs.

CHAPTER II

GROWTH, STRUCTURAL CHANGE, AND EMPLOYMENT IN THE ECUADORIAN ECONOMY

OVERALL AND SECTORAL GDP GROWTH

Since 1960, Ecuador has enjoyed an average growth in GDP of 6.5 percent per year. Overall growth during 1972-1981 actually exceeded an average of 7.1 percent per year. This accelerated growth was caused largely by a rapid rise in value of petroleum exports and expansion of the services sector. If the petroleum sector is excluded, the rest of the economy grew at the rate of 7.5 percent during 1972-1981 in response to the strong stimulus provided by oil exports and external borrowing.

In the 1980s, Ecuador's recurrent fiscal and balance-of-payment crises have had strong adverse effects on the economy and its overall growth. Growth after 1981 has averaged less than 3 percent per year, practically nil in per-capita terms. This stagnation in overall output per person in recent years can be compared to average increases of 2.5 percent during 1960-1986 and 4.5 percent during 1977-1981.

The relationship between output per person in an economy and employment can be illustrated by the following identity:

$$\frac{\text{GDP}}{\text{Population}} = \frac{\text{EAP}}{\text{Population}} \times \frac{\text{Employed Workers}}{\text{EAP}} \times \frac{\text{GDP}}{\text{Employed Workers}}$$

where EAP is the economically active population. This identity simply states that GDP per person in an economy is the product of the rate of economic participation of the population times the rate of employment of the labor force times output per employed worker. The terms in this identity will be used throughout this report to investigate relationships among growth, employment, and productivity in the Ecuadorean economy.

In sectoral terms, the economy has shown the expected decrease in the percentage contribution of the primary sector (crops, livestock, forestry, and

fisheries) to total output, especially during 1970-1982 (Table II-1). Between 1982 and 1986, a continued small decline in the contribution of crops was offset by small increases in livestock and fisheries. The contribution of manufacturing rose between 1970 and 1982 but by 1986 declined to less than its 1970 percentage. Services grew slower than total output, leading to a decrease in the percentage contribution of services to total output. This sustained fall in services as a percentage of GDP since 1970 needs to be contrasted to sectoral employment trends. The comparison will be made after a review of overall population and labor force growth in Ecuador.

POPULATION AND LABOR FORCE GROWTH

Population figures for Ecuador are based on censuses carried out in 1950, 1962, 1974, and 1982. These census data have been recently evaluated, systematically adjusted for underenumeration, and used to revise estimates of population growth since 1950.[1] Some overall results are given in Table II-2.

Between 1950 and 1982, the population grew from 3,250,000 to 8,700,000, an increase of 260 percent. The annual growth rate was higher during the 1962-1974 intercensal period (3.2 percent) than during the 1950-1962 interval (2.9 percent) but declined again to 2.8 percent during 1974-1982. In spite of this decline, the country's population growth rate remains high compared with countries that have similar levels of per-capita income.

Future population growth is an important factor affecting the supply of labor and hence employment. Based on a "medium" assumption with respect to fertility levels, population from 1985 to 2000 was projected as follows:

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[1] CONADE-UNFPA, *Población y Cambios Sociales*, Quito: Corporación Editora Nacional, 1987.

TABLE II-1

ECUADOR: STRUCTURE OF REAL GDP, 1970, 1982, AND 1986
(Percentage of total)[a]

	1970	1982	1986
Agricultural Crops	15.9	7.3	6.8
Livestock	7.5	5.2	5.4
Forestry	0.9	1.1	1.1
Fishing	0.7	1.3	2.0
Petroleum and Natural Gas[b]	-4.0	9.7	14.4
(Crude Petroleum and Natural Gas)	(0.4)	(13.7)	(18.0)
Mining	0.3	0.3	0.7
Manufacturing	17.2	19.1	16.9
Services	56.1	52.6	50.1
Indirect Taxes	5.5	3.5	2.5
	100.0	100.0	100.0

Source: World Bank, *Ecuador: Country Economic Memorandum*, June 16, 1988, p.4.

[a] Based on output in constant 1975 sucres.

[b] Refined petroleum production in the Ecuadorian National Accounts can be negative because output is sold below cost when crude oil inputs are valued at international prices. Alternatively, crude oil inputs could be valued at domestic prices and the difference between domestic and international prices shown as a subsidy and deducted from indirect taxes.

TABLE II-2

ECUADOR: POPULATION SIZE AND GROWTH RATES, 1950-1982

Census Year	Population (adjusted estimates)			Intercensal Growth Rate
	Male	Female	Total	
1950	1,659.524	1,685.486	3,345.010	
1962	2,376.701	2,377.421	4,754.122	2.9
1974	3,439.519	3,412.270	6,851.789	3.2
1982	4,379.502	4,328.944	8,708.446	2.8

Source: CONADE-UNFPA, *Población y Cambios Sociales*, Quito: Corporación Editora Nacional, 1987.

Year	Projected Population[2]
1985	9,378,000
1990	10,781,000
1995	12,314,000
2000	13,939,500

These projections imply that annual population growth will fall gradually from its present rate to 2.5 percent during 1995-2000. According to these projections, population will total almost 14,000,000 by the end of this century, an absolute increase of 4.6 million persons over 1985. If population does increase almost 50 percent by the year 2000, the labor force will also grow but at a rate determined by the age structure of the population and the rate of economic participation by various age and sex groups.

The age distribution within the population affects the potential labor supply. Table II-3 shows the changing distribution by age group and shows that the age groups (15-64) that contribute most to the economically active population are rising as a proportion of total population. This change in age distribution began in the 1980s and will continue until the end of the century. As a result, the potential labor force will grow each year more rapidly than population. Moreover, since the change in distribution is concentrated in the 20-64 age group, the number of potential new entrants in the labor force will rise sharply in the 1990s.

Before discussing the rate of participation in economic activity, the rural and urban composition of the population should be reviewed because economic participation by age group and sex can be quite different in the urban and rural components of a country's population.

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[2] *Ibid*, p. 285-6.

TABLE II-3

ECUADOR: POPULATION DISTRIBUTION BY AGE GROUP
(Percentage)

Age Group	1950	1980	1990	2000
0-4	17.5	16.3	15.5	14.2
5-14	25.2	25.4	24.5	24.4
15-19	9.7	10.9	10.7	10.4
20-64	43.6	44.1	45.8	47.3
65 and over	4.0	3.3	3.5	3.7

Source: INEC-CLAD, Ecuador, "Estimaciones y Proyecciones de Población, 1900-2000."

Rural and urban populations in Ecuador are defined by a political-administrative criterion. All persons residing in provincial capitals and county seats (*cabeceras de cantones*) are considered urban. Counties are subdivided into parishes, so each county must have at least one urban parish. An urban entity, however, may extend over more than one parish. In 1982, for example, 126 urban entities included 236 urban parishes, whereas the remaining 725 parishes were considered rural.[3] Over time, as additional counties were created, the population in the newly designated county seats were added to the urban population.

Use of this criterion means that many small population centers -- some with less than 1,000 inhabitants -- are included in the urban population, although some larger urban entities -- containing up to 20,000 persons -- are classified as rural.

The proportion of the population considered rural declined from 71.5 percent in 1950 to 51.1 percent in 1982. These figures show that urbanization has taken place in the country. It should be noted, nevertheless, that the absolute size of the rural population was still growing in 1982, although at a rate much slower than the urban

[3] The rural population also includes persons living on the peri-urban fringes of provincial capitals and county seats.

population. By the end of the 1974-1982 intercensal period, the rural population growth rate had dropped below one percent (0.91 percent) although the urban growth rate was five times as large (4.48 percent).[4]

If the definition of the urban population were changed to include only entities with 10,000 or more inhabitants, the urban population in 1982 would have represented only 46.7 percent of the total population and would have consisted of 50 localities rather than the 126 included in the census. Use of the census criterion overestimates the size of the urban population, fails to include several sizeable urban localities, and defines many very small population centers as urban.

Recent projections of rural and urban population growth in the 1990s are given in Table II-4. These projections indicate that urban growth is expected to decelerate while rural growth will remain at about one percent per year. If these projections are valid, the urban population will represent less than two-thirds of the total population in the year 2000. Ecuador would then be one of the least urbanized countries in Latin America. Moreover, it would not yet have passed the important turning point where the rural population reaches its maximum absolute size and begins to decline both in total number and as a proportion of the total population.

Much of the difference in urban and rural population growth rates is caused by rural-to-urban migration. In the past Ecuador has experienced rapid rural-to-urban migration that was influenced by both pull and push factors. Rural population was pulled to the cities by better economic opportunities and improved access to social services and amenities, and pushed by persistent rural poverty and lack of access to land.

The net number of rural-urban migrants was estimated in the CONADE-UNFPA study. Of the net increase of 1,269,640 urban dwellers between 1974 and 1982, 50 percent (634,820) was attributed to the natural increase of the urban population. The other 50 percent represents reclassification of rural to urban parishes and migration from rural to urban areas. Of the latter 50 percent, the study estimated

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[4] CONADE-UNFPA, *op. cit.*, p. 196.

TABLE II-4

ECUADOR: PROJECTIONS OF RURAL AND URBAN POPULATION GROWTH, 1985-2000

Demographic Indicator	1985	1990	1995	2000
Urban Population	4.819.6	5.902.2	7.147.5	8.516.0
Percentage	51.39	54.74	58.04	61.09
Annual Growth Rate[a]	4.62	4.05	3.83	3.50
Rural Population	4.558.4	4.879.4	5.166.7	5.423.4
Percentage	48.61	45.26	41.96	38.91
Annual Growth Rates[a]	1.18	1.36	1.14	0.97

Source: CONADE-UNFPA, *Población y Cambios Sociales*, Quito: Corporación Editora Nacional, 1987.

[a] Refers to maximum rate during the 5 years ending with the year shown.

that reclassification added only 36,819 persons to the urban population, while migration during the intercensal period added 598,000 people to cities.

These projections imply that substantial rural-to-urban migration is likely to persist in the 1990s. Thus, rural and urban labor markets will continue to be linked by these migratory flows, an interrelationship that will be discussed further in Chapter III.

The economic participation rate is the remaining variable that affects the economically active population (EAP), which is the country's labor supply. The EAP is given as the population of working age times the rate of participation. Economic participation is defined relative to production of value added as measured by the national accounts. Participation rates are very difficult to estimate and project.

The potentially economically active population in Ecuador includes all persons 12 years of age or older, whereas in other countries 15 is more commonly used as the minimum age for economic activity. The estimated structure of the economically active population by age and sex for 1962 and 1982 is shown in Table II-5. According to these data, Ecuador's overall participation rate declined from 60.7 percent in 1962 to 51.8 percent in 1982. This implies that the EAP increased at a slower rate than the potentially active age groups.

Labor force participation rates for males and females are usually quite different, especially in lower-income countries. The male participation rate declined from 87.3 percent in 1962 to 71.8 percent in 1982. Factors influencing this decline included expansion of school enrollment and an increase in social security coverage.

Ecuador's population censuses are believed to have significantly underestimated female participation rates, especially in rural areas. Adjustments based on survey data resulted in estimates of 34.7 percent for 1962 and 32 percent for 1982. This slight decline was attributed mainly to rural-urban migration since urban rates have historically been lower than rural rates. Increased education and changes associated with urbanization, however, are likely to raise urban female participation rates above rural rates in the future.

TABLE II-5

ECUADOR: STRUCTURE OF THE ECONOMICALLY ACTIVE POPULATION BY AGE GROUPS AND SEX, 1962 AND 1982
(percent)

Age Groups	1962			1982		
	Total	Male	Female	Total	Male	Female
Total	100.0	71.1	28.9	100.0	68.8	31.2
12 - 14	6.3	4.3	2.0	3.2	1.7	1.5
15 - 19	15.3	10.0	5.3	11.9	7.5	4.4
20 - 24	14.9	10.2	4.7	15.6	10.4	5.3
25 - 29	12.6	9.1	3.5	14.7	9.8	4.8
30 - 34	10.5	7.9	2.6	12.1	8.6	3.5
35 - 44	16.8	12.5	4.3	17.9	12.7	5.1
45 - 54	11.6	8.5	3.1	11.9	8.8	3.2
55 - 64	7.2	5.3	2.0	7.4	5.5	1.9
65 +	4.8	3.4	1.4	5.3	3.9	1.4

Source: Gutierrez, A. (1984), "Empleo y Crecimiento en Ecuador 1970-1982. Tendencias Recientes y Lineamientos de Politica," ISS-PREALC Documento de Trabajo Q/8411, Quito, Cuadro 10.

Estimates used for this report showed growth in the EAP at an average annual rate of 2.9 percent during 1974-1982. The female EAP increased from 28.9 percent of the total EAP in 1962 to 31.2 percent in 1982. The age group 25-64 years included 28.9 percent of the total EAP in 1962. By 1982, the concentration of the EAP in that age group had risen to 64 percent, reflecting rising school enrollments by males and females in the lower age groups.

Using CELADE methodology, CONADE-UNFPA projected the EAP by sex and rural and urban location for 1985, 1990, 1995, and 2000 (Table II-6). These projections depend heavily on the assumed participation rates. For females, the assumed rates reach only 26 percent in urban areas and 10 percent in rural areas. The result is that the total EAP is projected to consist of 77 percent males and 23 percent females in the year 2000. Because participation rates of females are most likely seriously underestimated, the actual EAP is likely to grow more rapidly than projected.

Keeping this probable underestimate in mind, projections in Table II-6 show that the annual rate of growth in the EAP (3.15 percent) is expected to exceed the overall population growth rate. This results both from increases in the share of population of working age as well as the projected changes in participation rates. In these projections, growth in the working-age population caused most of the increase in the EAP, which supports the view that participation rates, especially for females, are likely to rise more rapidly than the projections assumed.

Projections in Table II-6 also show the changing location of the EAP, and show that the degree of urbanization of the work force is expected to exceed that of the population, reaching 77 percent by the year 2000. This difference reflects the selective character of rural-to-urban migration. The highest migration rate is among young adults of working age. Furthermore, labor force participation rates of both males and females in the migrating age groups are higher than in the other age brackets. The higher projected growth rate of the urban EAP (4.31 percent) over the rural rate (1.41 percent) is caused in part by this growing concentration of the labor force in urban areas.

TABLE II-6

ECUADOR: PROJECTIONS OF THE ECONOMICALLY ACTIVE POPULATION BY URBAN AND RURAL LOCATION AND SEX
(000 persons)

	Economically Active Population				Percentage Distribution			
	1985	1990	1995	2000	1985	1990	1995	2000
Total EAP	2,854.1	3,365.0	3,938.5	4,578.4	100.0	100.0	100.0	100.0
Males	2,261.5	2,646.4	3,073.5	3,547.2	79.2	78.6	78.0	77.5
Females	592.6	718.6	865.0	1,031.2	20.8	23.4	22.0	22.5
Urban EAP	1,540.5	1,940.3	2,410.2	2,947.1	100.0	100.0	100.0	100.0
Males	1,107.7	1,392.7	1,725.7	2,106.0	71.9	71.8	71.6	71.5
Females	432.8	547.6	684.5	841.1	28.1	28.2	28.4	28.5
Rural EAP	1,313.6	1,424.7	1,528.3	1,631.2	100.0	100.0	100.0	100.0
Males	1,153.8	1,253.7	1,347.8	1,441.2	87.8	88.0	88.2	88.4
Females	159.8	171.0	180.5	190.0	12.2	12.0	11.8	11.6

Source: CONADE-UNFPA, *Población y Cambios Sociales*, Quito: Corporación Editora Nacional, 1987.

In summary, both urban and rural labor forces will grow in the 1990s, but the urban sector must provide three out of four jobs needed to employ the new work-force entrants. Creation of urban jobs is therefore a priority task facing the country. Although absorption of labor in rural areas will still be required, but on a reduced scale, raising low productivity and income of existing as well as new rural workers is the most serious issue for rural areas in the 1990s. This aspect of the employment problem will be more clearly understood after data on sectoral employment and productivity trends are analyzed.

EMPLOYMENT AND LABOR PRODUCTIVITY GROWTH BY SECTOR

The overall employment/output elasticity for Ecuador during 1974-1982 was estimated in a previous study at 0.46, one of the lowest in Latin America.[5] This elasticity rose after 1982 because the rate of output growth fell while the work force continued to expand. Such an increase should not, however, be interpreted as an improvement in the employment performance of the economy.

Employment data for 1962, 1974, and 1982 were summarized for the primary, secondary, and tertiary sectors of the economy.[6] During 1974-1982, employment in the primary sector fell in absolute terms although it rose in both the secondary and tertiary sectors. While the share of employment in the secondary sector rose slightly, the largest increase both in absolute numbers and percentage share came in the tertiary sector (Table II-7).

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[5] Gutierrez, A., "Labor Market Functioning, Employment and Basic Needs in Ecuador," Quito: ISS-PREALC Working Paper No. 13, August 1984, p.8.

[6] Primary: agriculture, forestry, and fisheries; secondary: manufacturing, construction, and utilities; tertiary: commerce, transportation, finance, and public and personal services.

TABLE II-7

ECUADOR: EMPLOYMENT BY SECTORS, CENSUS YEARS 1962, 1974, AND 1982
(000 persons)

Sector	1962	1974	1982
Primary	801.6	1,192.5	1,172.7
Secondary	262.8	323.1	436.6
Tertiary	374.6	597.9	1,009.9
Total	1,439.0	2,113.5	2,619.2

Source: CONADE-UNFPA, *Población y Cambios Sociales*, Quito: Corporación Editora Nacional, 1987.

Note: Petroleum is excluded from the data.

The implied employment/output elasticities by sector are shown in Table II-8. Employment absorption since 1962 has been highest in the tertiary sector and lowest in the secondary sector. Employment in the secondary sector grew less than half as fast as output even during the economic boom years from 1976 to 1982. The elasticity was negative after 1974 for the primary sector. Within the secondary sector, employment growth has been concentrated much more in construction than in manufacturing. Between 1962 and 1982, manufacturing employment grew only from 210,200 to 270,660, an average annual percentage growth of only 1.4 percent. In contrast, construction employment rose from 86,400 to 153,600 during 1974-1982, an average increase of 7.8 percent per year. By 1982, construction represented 35 percent of secondary employment, up from a share of 18 percent in 1962.

TABLE II-8

ECUADOR: EMPLOYMENT/OUTPUT ELASTICITIES BY SECTOR

Sector	Period		
	1962-1974	1974-1982	1962-1982
Primary	1.07	-0.09	0.69
Secondary	0.23	0.50	0.30
Tertiary	0.71	0.99	0.83

Source: Authors' estimates based on census data.

Output per worker was also calculated for the years where comparable data were available. Output per worker has risen since 1970 in the primary and secondary sectors, but in 1982 output per worker in primary activities was less than 25 percent of that in secondary activities (Table II-9). In services, output per worker is intermediate between the other two sectors. It rose during 1962-74, but has not increased since 1974. Thus, the large absorption of workers in services during 1974-1982 was accomplished only at stagnant levels of output per worker.

This information is also presented in Table II-10 as growth rates in output per worker. The primary sector not only has lower average productivity per worker but also has also failed to increase its productivity as rapidly as the secondary sector. Although productivity in services rose about as rapidly as in other sectors during 1962-1974, productivity growth in services dropped virtually to zero after 1974.

These data are consistent with several conclusions about output, employment, and productivity in the Ecuadorean economy:

- The primary sector is achieving modest growth in output per worker but is failing to absorb additional labor. Moreover, output per worker in the primary sector has declined consistently since 1962 relative to the economy-wide average (Table II-9).

- Rapid industrial growth during 1974-1982 was highly capital intensive so labor absorption was low relative to growth in output. As a result, output per worker in the secondary sector grew more rapidly than anywhere else in the economy.

- After 1974, most urban labor absorption took place in the services sector at stagnant levels of output per worker. Much of this labor represented migrant workers from rural areas finding what self-employment or low-productivity jobs were available. Thus, a large pool of underemployed urban workers was created.

TABLE II-9

ECUADOR: GDP PER WORKER BY SECTOR

Sector	1962	1974	1982
Primary	1592.441	1553.208	1865.780
Secondary	3160.578	6628.288	8373.798
Tertiary	4715.431	5600.937	5617.685
Average	2691.800	3474.142	4397.259
Ratios			
P/S	0.504	0.234	0.353
P/T	0.338	0.277	0.332
S/T	0.671	1.183	1.491
P/Average	0.592	0.447	0.424
S/Average	1.174	1.908	1.904
T/Average	1.752	1.612	1.278

Source: Authors' estimates.

Note: GDP in constant 1975 sucres. GDP figures used were 3-year averages centered on census years.

TABLE II-10
ECUADOR: GROWTH IN OUTPUT PER WORKER BY SECTOR

Sector	1962-74	1974-82	1962-82
	(average annual percentage change)		
Primary	-0.20	2.50	0.90
Secondary	9.14	3.29	8.20
Tertiary	1.57	0.04	1.00
Overall Economy	2.42	1.90	3.67

Source: Authors' estimates.

CHAPTER III

ORGANIZATION AND FUNCTIONING OF LABOR MARKETS IN ECUADOR

The inability of the Ecuadorian economy to generate sufficient stable and well-paying jobs is perceived as an important deficiency in the functioning of its labor market. A sampling of locally produced literature and newspaper reports on employment showed that because there is such widespread concern with employment issues, the new GOE has announced that employment generation and reduction of underemployment are among its most important policy objectives.

Employment concerns are understandable since much of the working population in Ecuador, as in many developing economies, is engaged in low-productivity activities, earning low incomes. The downturn of the Ecuadorian economy since 1982 has both increased the percentage of the population engaged in low-productivity activities and reduced average income of the workers. In this context, underemployment, or, more generally, the employment problem, needs to be understood as shorthand notation for the more basic problems of low productivity and worker earnings that are below the poverty level.

Although it may be agreed that Ecuador has an underutilized labor force, there is lack of agreement about the causes and remedies of the problem. Since data sources are sparse or nonexistent, quantitative estimates of the degree and extent of labor underutilization vary widely. Different conceptual frameworks inspire different methodologies for estimation, often making results inconsistent and difficult to reconcile. As in other countries, there is a tendency to overestimate the amount of unemployment and underemployment. Often, when more reliable data become available, usually based on household surveys, estimates of unemployment and underemployment are revised downward.

Even if more reliable data based on household surveys permit agreement on the quantitative dimensions of the employment problem, policy remedies still remain unresolved. Basic disagreements exist about how purely competitive labor markets

are in developing countries, and about the extent and importance of institutional distortions in the form of minimum wage laws and hiring and firing regulations in those markets.

Discussion about employment problems and their remedies is dominated by two opposite visions, both highly charged ideologically. The neoclassical view is that labor markets are reasonably competitive, wherease the informal sector adherents believe that labor markets are segmented and thus nonpurely competitive. Because of these different starting points, it is not surprising that policy recommendations inspired by one vision are often a reverse image of recommendations inspired by the other.

Careful analysis of available evidence suggests that the truth lies somewhere in the middle. Recent empirical literature on both the United States and Latin American countries concludes that observed wage dispersion across sectors indicates that labor markets are to some degree noncompetitive. Nevertheless, the segmentation that is identified is of a different nature than the one proposed by the informal-sector advocates. Rather than cutting exclusively along enterprise size, the border between low- and high-productivity jobs cuts along sector boundaries with firm size, capital intensity, and profitability acting as underlying correlates of segmentation.

High-productivity jobs are clustered in larger establishments and more profitable industries. Workers who are qualitatively equivalent earn higher incomes working in those larger establishments and industries than elsewhere in the economy. Employment policy therefore must generate the largest number of high-productivity jobs possible. To achieve this objective, policy reform to increase competitiveness of the tradeable sectors and to improve resource allocation in nontradeable sectors is necessary. Because there is a divergence between the social and private costs of labor in the high-productivity industries, government policies that promote employment in these sectors improve efficiency, and thus are justified even in a market-oriented policy regime.

This chapter begins with a review of the extent of unemployment and underemployment in Ecuador, using recent urban survey data made available to the

team by the Instituto Nacional de Empleo (INEM). Next, market segmentation is analyzed and ideas that are outlined briefly above are presented in more detail. Finally, farm and rural off-farm employment are analyzed.

UNEMPLOYMENT: CONCEPTS AND MEASUREMENTS

Unemployment, a concept widely and even indiscriminately used, has lost precise meaning. Is being unemployed in a rural area the same as being unemployed in an urban area? Is unemployment the same at every stage of economic development? The answer to both questions is no, but analysts still estimate rural and urban unemployment rates in a country and decide that unemployment there is high compared to some international standard of full employment.[1]

The standard definition of unemployment means labor-force participants are willing to work but cannot find jobs. In the INEM Household Survey the definition is:

> All those people 12 years or older who were not working during the reference period (five weeks), who were unemployed but who were available for work, and those who had taken action to get a salaried job or become self-employed. This concept covers the workers who had lost their jobs because they were fired or had resigned (*cesantes*) as well as those who were joining the job market for the first time (*buscan primera vez*).

The lower age limit of 12 years used in this definition of EAP is lower than the more generally used age of 15 years. Defined as members of the EAP, the 12-15 year old group usually has little education, comes mostly from poor families, and is therefore likely to be intermittently unemployed or engaged in casual, low-productivity jobs.

The group defined as unemployed belongs to two different categories. The first category consists of *cesantes*, workers who had jobs and were either fired or quit their jobs. The unemployment rate of this category is affected by growth; downturns

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[1] See Piore, M. for an interesting discussion of this issue, "Historical Perspectives and the Interpretation of Unemployment," *Journal of Economic Literature*, XXV(4), December 1987, pp. 1834-50.

in economic activity cause dismissals and thus affect the unemployment rate. On-the-job stability regulations (such as regulations issued with the recent minimum wage increase) often make it costly for employers to dismiss workers and thereby reduce the direct impact of economic recession on unemployment. Nevertheless, because of the lack of unemployment insurance, workers from poor families and workers who are heads of households usually are not unemployed since they must find some work, however poorly paid, to support themselves and their families.

The second category within the group defined as unemployed is *buscan primera vez*, and consists of young and inexperienced workers. The unemployment rate for this category is 100 percent (if they hold jobs they are not counted as unemployed). The global unemployment rate is thus affected by the age structure of the population (the larger proportion of labor force participants in the EAP in the first age bracket, the higher the global unemployment rate) and by their ease of entry into the job market (the higher proportion of *buscan primera vez* that find jobs, the lower the global unemployment rate). Because *buscan primera vez* workers are inexperienced and have limited skills, the effect of minimum wage laws is greatest on them, even to the extent that the minimum wage may be above the market-clearing wage for their group.

From an economic point of view the efficient rate of unemployment is not zero. Transaction delays and matching processes imply that some workers searching for jobs commensurate with their qualifications are at some point unemployed because good worker and job matches are not instantly achieved. Although it is difficult to pinpoint a number for this efficient unemployment rate, there seems to be some agreement among economists that global unemployment rates above 8 percent indicate a lack of jobs and not a search for worker and job matches. The number mentioned, however, is arbitrary and depends on too many factors and conditions to be taken too literally. Nevertheless, because unemployment rates depend on many factors including economic growth, age of the population, and definition of unemployment, definitive statements about the extent of unemployment and its social costs should be carefully interpreted.

How high and how costly is unemployment in Ecuador? Table III-1 shows the historical evolution of unemployment rates as reported in different sources.

TABLE III-1

ECUADOR: OPEN UNEMPLOYMENT RATES, 1962-1983 ACCORDING TO DIFFERENT SOURCES

Information Sources and Areas	1962	1968	1974	1975	1977	1982	1983	1987
Population Census								
(Without corrections)	1.0							
Total	4.3		3.2			5.4		
Urban			4.4			6.9		
Rural			2.3			3.8		
(Corrected)								
Total	3.9		2.9			nd		
Home Survey								
Urban		5.5		5.3				
Quito and Guayaquil					5.8			
Quito, Guayaquil and Cuenca								7.2
Home Survey								
(Catholic University)								
Quito and Guayaquil							9.7	
(popular strata)								
Budget Surveys								
Familiar								
Urban				3.8				

Source: Population Census (without corrections) 1962, 1974, and sample from 1982 Census. Home Surveys 1968, 1975, 1977. For 1982, Table 1. For the corrected census figures, ISS-PREALC Project (1984). For the Family Budget Survey, based on ISS-PREALC project data for the INEC.

Taken from Gutierrez, A. "Empleo, Crecimiento en Ecuador, 1970-1982. Tendencias Recientes y Lineamientos de Politica," ISS-PREALC Documento de Trabajo Q/8411.

Analysis of Urban Unemployment

Table III-2 shows unemployment rates for different groups of workers, based on the INEM survey. The unemployment rate for females is double the one for males; within the group of new entrants into tne labor force that difference is almost three to one. Unemployment rates for the age groups 12-24 are much higher than the ones for older workers. Taken together these figures indicate that unemployment mostly affects inexperienced, younger, and female workers who have difficulty finding and maintaining a first job, or who have limited access to the labor market. Employment difficulties experienced by secondary, low-skilled workers entering the job market for the first time are highly plausible in a recessionary economy.

Unemployment for heads of households is only one-fifth of that for nonheads, and again these figures suggest that family incomes are not greatly affected by unemployment. Nevertheless, for heads of households, the unemployment rate for female heads is three times higher than that for male heads. Family income support programs should therefore target families headed by females, families which are more heavily affected by unemployment.

Within occupational groups, clerical personnel and agricultural workers have the highest unemployment rates. An interpretation of agricultural workers is difficult because the data may compound recent migrants to urban areas who have never had urban jobs (and therefore declare themselves as agricultural workers while looking for different jobs) with workers who perform agricultural activities while residing within an urban area.

The situation for clerical workers is more easily understood after looking at unemployment rates by worker educational levels. Workers with complete secondary education and with incomplete university education are more likely to be unemployed than those who have completed their university educations. These educational levels, however, provide the general skills needed for clerical jobs. Again, these educational levels are not usually attained by members of poor families, suggesting that poverty and unemployment are not close correlates of each other.

TABLE III-2

ECUADOR: UNEMPLOYMENT AND UNDEREMPLOYMENT RATES BY OCCUPATIONAL GROUP
QUITO, GUAYAQUIL, AND CUENCA, NOVEMBER 1987
(as percent of EAP within the group)

UNDEREMPLOYMENT RATES	
Visible underemployment (less than 40 hrs/week)	
Total	4.78%
Agriculture and mining	4.37%
Manufacturing	4.82%
Construction	3.48%
Commerce	5.93%
Utilities	3.54%
Finance	2.72%
Other services	5.37%
Invisible underemployment (less than minimum wage)	
Total	21.87%
Agriculture and mining	11.17%
Manufacturing	26.27%
Construction	40.49%
Commerce	25.00%
Utilities	12.24%
Finance	8.87%
Other services	19.32%
DISMISSED WORKERS (as percent of EAP) (only for Quito and Guayaquil)	
Total	7.30%
Agriculture and mining	5.20%
Manufacturing	4.71%
Construction	4.32%
Commerce	3.99%
Utilities	3.69%
Finance	6.25%
Other services	3.70%

Source: INEM Household Survey, November 1987.

Wage earners and domestic service are the occupational categories most affected by unemployment. Unemployment of self-employed workers, however, is practically nil. By sector where a job was previously held, unemployment rates do not show any significant variation, countering somewhat the assertion that unemployment is a result of the economic recession. If that were the case, unemployment rates would vary significantly across sectors and be higher in manufacturing and construction, the sectors most often affected by reductions in aggregate demand.

How Important is Unemployment?

Our analysis of urban unemployment clearly supports the conclusion that unemployment is not a serious labor market problem. Urban unemployment rates are fairly low and rise significantly only for workers who are young, female, and nonheads of household, and workers with relatively high levels of education. This description fits quite well the secondary labor force whose unemployment rate does not heavily affect family income. In turn, it casts substantial doubt on the need for massive employment generation programs that supposedly draw on unemployed workers. The proportion of unemployed workers is not large so any massive employment program will mainly transfer the work force from one activity to other.

The issue of rural employment is more complicated. Some rural workers migrate between the sierra and coast following seasonal agricultural production cycles. Even if they do not migrate and remain unemployed for periods within the year, it is not clear how much of the rural labor force is available for other work and how permanently it is available. More discussion of rural employment is presented in the final section of this chapter.

UNDEREMPLOYMENT AND THE INFORMAL SECTOR CONCEPT

The concept of underemployment has had a curious evolution. From a reasonably well-defined notion of underutilization of the labor force in a dual economy, it evolved toward a host of related notions often defined by means of measurement possibilities. Consequently, underemployment is often used with adjectives (visible, invisible), and defined by reference to categories of workers and

job characteristics. Most of the definitions hint toward low productivity but usually with little empirical relevance since productivity is difficult to measure.

To better understand the concept of underemployment, its origins in the evolution of development economics need to be considered. Pinto's 1965 paper[3] on the structural heterogeneity of developing economies was a healthy reaction against the overly optimistic vision of Lewis that had long dominated the theory of labor markets in developing economies. Lewis' postulate was simply that in developing countries with large rural populations, the marginal product of labor in agriculture was essentially zero. So urban industrial development could draw labor from the large pool of rural workers without reducing agricultural production. The development process was one where industrial growth would absorb labor up to the point where the marginal product of labor was equated in agricultural and industrial activities.

Contrary to this optimistic vision, in the economy that Pinto describes even if average productivity of labor had risen, there existed two different and separate productive structures in the urban area. One was highly productive, mostly industrial, highly capital intensive, monopolistic, and generating high incomes, but employing only a small fraction of the available labor force. The other was plagued by low productivity, mostly in the services sector, in which workers worked with little or no capital, generating low incomes, and occupying the largest share of the urban work force. Furthermore, because capital was scarce and big, modern, monopolistic industrial firms were able to obtain privileged access to the capital market, no transition path existed between the two parts of the urban economy. Thus, the two conditions for labor market segmentation were fulfilled: modern firms obtained for themselves and their workers higher returns on physical and human capital than firms in the low-productivity segment, and traditional firms had no way to evolve into modern firms because of their lack of access to capital.

More than 20 years after the publication of Pinto's paper, it is difficult to disagree with his description of developing economies. To be sure, many things have

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[3] Pinto Anibal, "La Concentración del Progreso Técnica y de sus Frutos en el Desarrollo Latinoamericano," El Trimestre Economico, no. 125, Ene.-Mar. 1965, 3-69.

changed: the industrial base has became larger, domestic financial systems have developed, governments have enlarged their scope of action and become more interventionist, and considerable progress in health and education has been made. But still a close look at most developing economies reveals the same old features: a small part of the labor force engaged in high-productivity activities, working with large amounts of capital and receiving higher incomes, and the other large part of the labor force working in low-productivity activities receiving low incomes.

That this is an undesirable situation hardly needs to be stated. However, economic theory rarely leads directly to policy design. Decision makers, politicians, and bureaucrats require that the case be presented in term of problems to be solved and policies designed as remedies. Problems need to be quantified and solutions and policies evaluated in terms of some summary indicators of their consequences. Abstract terms that have precise meaning in the minds of trained professionals need to be simplified so the general public can understand the problems and support the policies. The prevailing notion about the urban informal sector and the related measures of underemployment were derived from this process of adapting complex problems for policy design. Whatever judgement one makes about their preciseness or validity, they have fulfilled a useful role in making politicians and the general public aware of, and willing to take action on, problems of labor underutilization.

The Urban Informal Sector

ILO's 1972 Kenya report gave birth to the notion of the informal sector as:

> ... a way of doing things characterized by (a) ease of entry (b) reliance on indigenous resources (c) family ownership of enterprises (d) small scale of operations (e) labor-intensive and adaptative technology (f) skills acquired outside the formal school system, and (g) unregulated and competitive markets.

Advocates of the notion recognized early that this list of characteristics hardly defined a precise sector of the economy (Sethuraman [1981]).[4] Some items in the

[4] Sethurman, S.V. *The Urban Informal Sector in Developing Countries: Employment, Poverty, and Environment.* WEP Study, Geneva: International Labor Organization, 1981.

list refer to firms, others to workers' characteristics. Where is a small-scale enterprise operating with foreign, capital-intensive technology in a competitive market supposed to be: in the informal or the modern sector? This and a host of other questions were immediately raised about the informal sector definition, and many of them remain as yet unanswered.

As often happens with difficult-to-define concepts, an enumerative approach was taken. Even if it implied a loss of conceptual depth, the enumeration of who and what is in the urban informal sector allowed for measurement and quantification of some dimensions of the problem. The definition of the informal sector used in the INEM Household Survey is that this sector encompasses:

- All owners, and workers in private establishments of less than five employees;[5]
- All self-employed workers in nonprofessional, nonmanagerial occupations; and
- All nonpaid family workers.

With some ambivalence (that is, are domestic-service, nonpaid family, and urban food-production workers included or excluded) this definition is widely used to quantify the size of the urban informal sector and is based on practical data considerations. Because the concept was intended to be applied to developing economies, characterized by a weak or nonexistent statistical basis, the definition was adapted to data from more generally available household surveys. Beginning with workers' characteristics, and obtaining information on size of the firm from the workers, adapting the definition of the urban informal sector to data obtained from household surveys was a cost-reducing and feasible way to determine what percentage of the total work force reflected the characteristics described in the enumerative definition of the informal sector.

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[5] Some countries use different size limits, sometimes varying by sector, to define the subsector of micro enterprises. Nevertheless, "less than five employees" is the most usual in Latin America and special questions on whether a worker works in a firm with five or more employees are included in most Latin American household surveys.

Does the above definition correspond to the concept of the informal sector? When we say that a percentage of the total work force is employed by, or owns, firms with less than five employees, or is self-employed, does it mean that the workers are working in jobs with the characteristics included in the ILO informal sector definition? The answer is empirical, and specialists in the field differ with respect to the answer. So, even if we agree that the production units included in the informal sector are a reasonable approximation of the low-productivity segment of the economy, the meaning of the figures on the informal sector total work-force remains open to question.

Again, we insist that this is not meant to dismiss the importance of the problem of the large number of the population engaged in low-productivity activities. The point is: are informal sector concepts and the measurements that practitioners use based on them useful and accurate descriptions of the problem?

Table III-3 presents a quantification of the relative importance of the urban informal sector in Quito, Guayaquil, and Cuenca, based on INEM Household Survey data. The urban informal sector accounted for 37.3 percent of the total employment in the three cities. It represented almost 80 percent of total employment in retail trade (#62), 72 percent in other manufacturing industries (#39), and more than half of total employment in hotels and restaurants (#63), textiles (#32), and wood products and furniture (#33). In the transport (#71) and construction (#50) industries, informal sector employment reached more than 40 percent of total employment.

In terms of occupational categories, informal sector employees (as opposed to self-employed) represented a significant proportion of all employees in only the sectors of other manufacturing industries (#39, 46.2 percent), retail trade (#62, 40.3 percent), and personal and domestic services (#95, 48.3 percent).

Table III-4 provides a closer look at the industry composition of the informal sector. The largest concentration of employment in the informal sector was in retail trade (#62), which accounted for 42 percent of total employment. This industry was followed in importance by textiles (#32, 10.9 percent), personal and domestic services (#95, 10.6 percent), and construction (#50, 9.3 percent).

TABLE III-3

ECUADOR: PERCENTAGE OF INFORMAL SECTOR EMPLOYMENT PARTICIPATION BY BRANCH OF ACTIVITY AND WORK CATEGORY FOR QUITO, GUAYAQUIL, AND CUENCA, NOVEMBER 1987

BRANCH	WORK CATEGORY						
	TOTAL	EMPLOYER OR ACTIVE PARTNER	SELF-EMPLOYED WORKER	GOVERNMENT EMPLOYEE WAGE EARNER	PRIVATE INDUSTRY WAGE EARNER	FAMILY WORKER WITH NO SALARY	OTHER
11. AGRICULTURE AND HUNTING							
12. SILVICULTURE AND TIMBER EXTRACTION							
13. FISHING							
21. COAL MINING							
22. OIL AND NATURAL GAS PRODUCTION							
23. EXTRACTION OF METALLIC MINERALS							
29. EXTRACTION OF OTHER MINERALS							
31. FOOD PRODUCTS, BEVERAGES, AND TOBACCO	27.39%	73.48%	100.00%		9.72%	100.00%	
32. TEXTILES, CLOTHING, AND LEATHER GOODS	60.09%	77.66%	99.52%		22.86%	100.00%	
33. WOOD PRODUCTS AND FURNITURE	53.41%	83.73%	100.00%		35.07%	100.00%	
34. PAPER PRODUCTS, PRINT SHOPS, AND EDITORS	18.75%	100.00%	100.00%		11.97%	100.00%	
35. PROD. OF CHEM. PRODUCTS FROM PETROLEUM, COAL, RUBBER & PLASTIC	10.22%	64.87%	100.00%		5.00%	100.00%	
36. PRODUCTION OF NONMETALLIC MINERAL PRODUCTS, OTHER THAN THOSE DERIVED FROM PETROLEUM AND COAL	30.31%	60.54%	100.00%		8.68%	100.00%	
37. BASIC METAL INDUSTRIES							
38. MANUFACTURING OF METAL PRODUCTS	32.98%	57.31%	100.00%		19.55%	100.00%	
39. OTHER MANUFACTURING INDUSTRIES	72.32%	85.80%	96.70%		46.25%	100.00%	
41. ELECTRICITY AND GAS	1.31%				1.79%		
42. WATER WORKS AND WATER SUPPLY							
50. CONSTRUCTION	43.23%	60.02%	94.73%		30.93%	100.00%	
61. WHOLESALE BUSINESS	13.38%	88.81%	100.00%		6.05%	100.00%	
62. RETAIL TRADE	78.88%	90.43%	100.00%		40.29%	100.00%	
63. HOTELS AND RESTAURANTS	66.77%	85.64%	100.00%		27.97%	100.00%	
71. TRANSPORT AND STORAGE	42.35%	49.58%	69.81%		15.53%	100.00%	
72. COMMUNICATIONS							
81. FINANCIAL ESTABLISHMENTS							
82. INSURANCE							
83. GOODS AND SERVICES RENDERED TO THE COMPANIES	13.65%	9.77%	21.69%		12.08%	100.00%	
91. PUBLIC ADMINISTRATION AND DEFENSE	0.16%					100.00%	
92. INDEMNITY SERVICES	13.67%	100.00%					
93. SOCIAL SERVICES AND OTHER COMMUNITY SERVICES	0.67%				0.28%	100.00%	
94. RECREATION, ENTERTAINMENT, AND CULTURAL SERVICES	23.15%	37.81%	27.26%		21.01%	100.00%	
95. PERSONAL AND DOMESTIC SERVICES	30.79%	85.31%	92.75%		48.33%	100.00%	
96. INTERNATIONAL ORGANIZATIONS	14.32%				16.72%		
TOTAL	37.32%	66.60%	89.27%		21.10%	99.01%	

ECUADOR: TOTAL INFORMAL SECTOR EMPLOYMENT BY BRANCH OF ACTIVITY AND WORK

ECUADOR: TOTAL INFORMAL SECTOR EMPLOYMENT BY BRANCH OF ACTIVITY AND WORK CATEGORY FOR QUITO, GUAYAQUIL, AND CUENCA, 1987

BRANCH	WORK CATEGORY						
	TOTAL	EMPLOYER OR ACTIVE PARTNER	SELF-EMPLOYED WORKER	GOVERNMENT EMPLOYEE WAGE EARNER	PRIVATE INDUSTRY WAGE EARNER	FAMILY WORKER WITH NO SALARY	OTHER
11. AGRICULTURE AND HUNTING							
12. SILVICULTURE AND TIMBER EXTRACTION							
13. FISHING							
21. COAL MINING							
22. OIL AND NATURAL GAS PRODUCTION							
23. EXTRACTION OF METALLIC MINERALS							
29. EXTRACTION OF OTHER MINERALS							
31. FOOD PRODUCTS, BEVERAGES, AND TOBACCO	11185	2435	2633		2938	3179	
32. TEXTILES, CLOTHING, AND LEATHER GOODS	46843	4673	29881		8287	4002	
33. WOOD PRODUCTS AND FURNITURE	16793	4163	6063		5999	568	
34. PAPER PRODUCTS, PRINT SHOPS, AND EDITORS	2502	594	360		1440	108	
35. PROD. OF CHEM. PRODUCTS FROM PETROLEUM, COAL, RUBBER & PLASTIC	2260	1154	51		1004	51	
36. PRODUCTION OF NONMETALLIC MINERAL PRODUCTS, OTHER THAN THOSE DERIVED FROM PETROLEUM AND COAL	3356	520	1039		673	1124	
37. BASIC METAL INDUSTRIES							
38. MANUFACTURING OF METAL PRODUCTS	10516	2565	2894		4593	464	
39. OTHER MANUFACTURING INDUSTRIES	7698	967	4190		1775	766	
41. ELECTRICITY AND GAS	50	0	0		50	0	
42. WATER WORKS AND WATER SUPPLY							
50. CONSTRUCTION	39690	6296	14384		18683	327	
61. WHOLESALE BUSINESS	1532	397	404		622	109	
62. RETAIL TRADE	179643	24635	105044		27748	22216	
63. HOTELS AND RESTAURANTS	29008	4515	13927		5249	5317	
71. TRANSPORT AND STORAGE	22848	1459	17244		3555	590	
72. COMMUNICATIONS							
81. FINANCIAL ESTABLISHMENTS							
82. INSURANCE							
83. GOODS AND SERVICES RENDERED TO THE COMPANIES	5148	648	1367		2845	288	
91. PUBLIC ADMINISTRATION AND DEFENSE	143	0	0		0	143	
92. INDEMNITY SERVICES	108	108	0		0	0	
93. SOCIAL SERVICES AND OTHER COMMUNITY SERVICES	755	0	0		101	654	
94. RECREATION, ENTERTAINMENT, AND CULTURAL SERVICES	2605	338	649		1332	286	
95. PERSONAL AND DOMESTIC SERVICES	45425	7867	22068		14449	1041	
96. INTERNATIONAL ORGANIZATIONS	109	0	0		109	0	
TOTAL	428217	63334	222198		101452	41233	

Self-employed workers constituted 51.9 percent of total employment in the informal sector and were concentrated mostly in retail trade. Employees accounted for 23.7 percent of total employment in the sector and were again mostly in retail trade.

The most common characteristic of the industries where employment is concentrated (both in terms of participation in total industry employment and in total informal sector employment) is ease of entry. Retail trade, personal services, textiles, and Other Manufacturing Industries are all characterized by labor-intensive technologies and competitive (even atomistic) product markets. Nevertheless, transport, where the capital requirements are somewhat higher and thus constitute an entry barrier, also represents a significant fraction of total industry employment.

The definition of informal sector is confusing when dealing with employment problems because it groups different situations under the same name. Workers following a survival strategy (forced to eke out a living and produce with little or no capital in sectors where their activities generally have no possibility of evolving toward more stable and productive enterprises) are grouped with workers whose capacity to evolve toward more productive activities is hindered only by one or a couple of missing factors. As it stands, the notion of informal sector points to a group of low-productivity jobs, but hides the causes (and possible remedies) for their low productivity.

Being a unidimensional definition on the basis of size, the concept of informal sector conceals the contribution these activities can or cannot make to foster self-sustained growth in a broader context. This issue is best explored in an approach that is sector based, where one can better study the role that micro enterprises and self-employed workers can play in employment generation within a framework of self-sustained growth.

At least three situations need to be distinguished. The first is the small group of micro production units that only need credit or some other complementary input to evolve toward self-sustained enterprises. In extreme cases, only a better regulatory environment is needed for them to provide better services than larger-scale units. One example is that of taxi drivers who, as owner-operators of their

vehicles, obtain incomes higher than employees and are generally more efficient than large-scale operations in the provision of transport services.

The second and larger group is made up of production units that are in sectors where they could never evolve but that provide relatively stable, though poorly paid, jobs for their workers. Though these units do not generally have the potential to grow into stable, high-productivity activities, they do provide employment and incomes for their workers. In terms of growth strategy, they do not fulfill a strong role. In terms of employment generation, however, they fulfill a very useful transitional role. Macro and micro policies that do not hinder their employment generation role, and cost-effective programs that identify and assist the few among these units that could migrate into the first tier, should be the main policy tools used for this group.

The last and largest group at the bottom of the pyramid, consisting mostly of the poorer units that at best barely eke out a living for their members, is essentially a residual. No amount of public resources could help them evolve into more productive units. Only economic growth, by creating alternative productive employment opportunities, and public assistance programs to provide short-term income transfers, are remedies in the short and long runs.

Measurement of Underemployment

Emergence of the informal sector concept clarified facts that puzzled many observers of labor markets in developing countries: in recessionary periods, even if there were reductions in modern sector employment, unemployment did not grow significantly and household incomes fell less than expected. What happened was that displaced workers and new entrants, instead of remaining unemployed, simply created jobs in the informal sector. Even if their incomes fell, income was obtained from self-generated jobs so these workers did not qualify as unemployed. To be sure, the productivity and incomes of these workers were much lower than those of their employed modern sector counterparts. Underemployment embodied these differences in productivity and income.

The ILO defines underemployment as follows:

> Underemployment exists when a person holding a job does not work a normal workweek and could and would like to have an additional job, or when their incomes or their performance would be enhanced if they could work in better productive conditions or change their profession according to their professional capacities.

The INEM Household Survey uses two definitions of underemployment, both versions of the above ILO definition. They are:

- Visible underemployment: Those employees or self-employed who involuntarily worked less than 40 hours (legal workweek) a week. (The rate of visible underemployment is the quotient between the number of visible underemployed and the EAP.)

- Invisible underemployment: Those employees or self-semployed who work 40 hours or more with incomes less than the minimum wage for their sector or profession, including additional payments. (The rate of invisible underemployment is the quotient between the number of invisibly underemployed and the EAP.)

Visible Underemployment

Visible underemployment is related to labor demand and worker status. If labor demand is low, some employers reduce the length of the workweek to economize on labor costs. Nevertheless, in today's economies the workweek is rarely reduced because there are institutional regulations governing the length of the workweek and hiring based on wage-per-hour arrangements is uncommon and often prohibited. An employer willing to reduce total labor costs will most likely dismiss some workers rather than reduce number of hours worked. Work-sharing arrangements, and other forms of cushioning the impact of labor demand reductions on total employment, are usually resisted by workers who will probably remain employed. Workers who become self-employed, however, and so are out of formal employee status with its hiring and workweek regulations, generally work longer hours when demand for their products is low in order to achieve the minimum income needed to support themselves and their families. Visible underemployment in the urban areas covered by the INEM survey is low, only 4.8 percent of the EAP.

Invisible Underemployment

Invisible underemployment, in turn, is a much more complex notion. Theoretically, in a competitive labor market, all equally productive workers (with the same human capital) should earn the same wage regardless of where they work. Since wages can be thought of as payments for the human capital possessed by the worker, competition will force all workers to receive the same rate of return on their human capital, and so wages for comparable workers will be equalized across sectors and enterprises. For example, if a worker in a small enterprise has a lower wage than that of an equivalent worker in a big enterprise, competition in the labor market will permit the small enterprise worker to seek the job in the big enterprise, bidding that wage down. This process will continue until no differences in wages remain for equivalent workers. However, in a segmented, nonpurely competitive labor market, returns on human capital, and therefore wages, depend on the segment of the economy and size of enterprise where the worker holds a job. In low-productivity segments and small enterprises, returns to human capital and wages are lower than in high-productivity segments and large enterprises.

The notion of invisible underemployment tries to capture the difference in returns to human capital and wages that arise in segmented, noncompetitive labor markets. To do so, some standard minimum return to human capital is set, and all workers earning less than that standard are defined as underemployed, meaning that they hold jobs that pay lower incomes than other jobs.

In actual measurements, though, actual incomes earned are related to the minimum wage. The minimum wage, of course, is a more or less arbitrary parameter set by a country's government. A low minimum wage, or an inflationary process that erodes the real value of a given minimum wage, can reduce measured invisible underemployment. In Ecuador, the rate of invisible underemployment, measured as workers who earn less than the minimum wage without taking into account additional compensation, was 19.3 percent of the total EAP in the cities covered by the INEM survey. However, taking into account additional compensation established by law, the rate rose to 21.9 percent.

Furthermore, using the minimum wage as a definition for a standard of comparison leads to the conclusion that workers with more human capital are less underemployed than workers with little or no human capital. The reason for this is that the labor market to a degree equalizes the rate of return of human capital across all workers, not the wage (the total return). The wage still depends on the absolute amount of human capital that the worker possesses. Even if a trained engineer earns more than the minimum wage, he or she does not necessarily hold a high-productivity job commensurate with his or her qualifications. It very well may be that because of lack of access to capital or other complementary inputs, his or her productivity is lower than it could be by working in the high-productivity segment of the economy.[6]

With these cautions in mind, analysts and policymakers should use underemployment figures very carefully. The concept does point toward the proportion of labor force working in low-productivity activities, but it does so in a broad and ill-defined way. Because the problems of low-productivity and labor market segmentation are so important, figures that exaggerate or misstate the problem, making the whole issue less credible, should not be used indiscriminately.

An example is the 50 percent underemployment rate frequently mentioned for the Ecuadorian economy. The underemployment rate in Quito, Guayaquil, and Cuenca is closer to 25 percent, based on INEM's data that roughly covers 66 percent of the total urban population, or 33 percent of the total national population. Even if underemployment is higher in the other urban areas, say 50 percent, underemployment in rural areas would need to be about 75 percent of the rural work force for the overall national underemployment rate to reach 50 percent. Because this is unlikely, we can conclude that the 50 percent underemployment rate is an exaggeration of the underlying problem of low productivity in Ecuador.

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[6] ILO defines *subempleo por calificación* as workers working normal time but at jobs that are technically inferior to their qualifications, resulting in a production process does not fully use workers' aptitudes. This notion resolves the criticism made in the text. Unfortunately, measurement difficulties have not permitted a wide use of this measure of underemployment.

Table III-5 presents the historical evolution of different measures of visible and invisible underemployment. INEM's data for 1987 refers only to the urban areas of Quito, Guayaquil, and Cuenca and so are not strictly comparable to other estimates of underemployment rates made on a national or even all-urban basis.

A more disaggregated view of underemployment for different groupings of workers based on INEM's Household Survey is presented in Table III-6. Visible underemployment affects more strongly workers in the age group 12-14 years old. For the other age groups, rates are in the range of 4-5 percent, which are quite low. The proportion of workers who earn less than the minimum wage plus additional compensation established by law (invisibly underemployed) is higher for workers younger than prime-age labor force participants, especially the age group 15-19 years old. For the age group 25-54 years old, invisible underemployment rates are about 15 percent.

Educational Levels

Twelve percent of the workers with no education involuntarily work less than 40 hours a week, although only between 4 and 5 percent of the workers with some level of education are so affected. Thus, invisible underemployment is negatively correlated with educational attainment. The invisible underemployment rate for workers with no education reaches 44 percent but drops to only 1 percent for college-educated workers. These figures reflect in part the definition of invisible underemployment, but also the high private rates of return to higher education.

By occupational categories, visible underemployment affects more self-employed workers than any other group. The case of nonpaid family workers is difficult to interpret, because it is not clear how the legal workweek affects work allocations within the family. Also, almost one of every three self-employed workers earns less than the minimum wage, whereas 21 percent of wage-earning employees earn less than the minimum wage. On the one hand, because the minimum wage is a legal regulation, this rate of underemployment reflects the prevalence of illegal practices in the labor market, and the inability of public officials to effectively enforce legal regulations. On the other hand, it reflects the inconsistency between regulations and market forces, where the latter usually win over the former. Excluding nonpaid

TABLE III-5

ECUADOR: URBAN UNDEREMPLOYMENT ESTIMATES, 1962-1982

	Source	% of URBAN PEA	Criterion
1968	PREALC (1976)	43	Minimum wage
1976	PREALC (1978)	37	Minimum wage
1975 1)	ISS-PREALC (1984)	38	Minimum wage
1982	Olivetti de Lama (1984)	42	Occupational categories
1987	INEM Household Survey		
	- visible	4.8	Legal work-week
	- invisible	21.9	Minimum Wage

Source: To calculate underemployment in 1975, the minimum wage of S/20205 yearly was used. See Secretary General of Planning, CONADE (1983).

Taken from Gutierrez, A. "Empleo, Crecimiento en Ecuador, 1970-1982. Tendencias Recientes y Lineamientos de Politica," ISS-PREALC Documento de Trabajo Q/8411.

TABLE III-6

ECUADOR: UNDEREMPLOYMENT RATES FOR DIFFERENT GROUPS OF URBAN WORKERS (QUITO, GUAYAQUIL, AND CUENCA)

GLOBAL UNDEREMPLOYMENT RATES (as percent of EAP)	
-VISIBLE	4.78%
-INVISIBLE	21.87%
- BY AGE GROUP	
Visible underemployment (less than 40 hrs/week)	
Total	4.78%
12-14	10.73%
15-19	5.17%
20-24	5.33%
25-44	4.26%
45-54	5.37%
55-64	4.30%
65 and more	5.25%
Invisible underemployment (less than minimum wage including additional compensations)	
total	21.87%
12-14	32.82%
15-19	47.05%
20-24	29.33%
25-44	16.48%
45-54	15.40%
55-64	20.39%
65 and more	27.11%
- BY EDUCATIONAL ATTAINEMENT	
Visible underemployment (less than 40 hrs/week)	
Total	4.78%
None	11.82%
Elementary incomplete	5.62%
Elementary complete	4.38%
High school incomplete	5.37%
High school complete	3.83%
College incomplete	4.65%
College complete	3.81%
Invisible underemployment (less than minimum wage	

TABLE III-6 -- Continued

Total	21.87%
None	44.31%
Elementary incomplete	38.64%
Elementary complete	32.35%
High school incomplete	24.11%
High school complete	13.03%
College incomplete	6.60%
College complete	1.08%

- BY OCCUPATIONAL CATHEGORY

Visible underemployment (less than 40 hrs/week)

Wage earners	2.54%
Self-employed	10.34%
Establishment owners	3.85%
Nonpaid family workers	12.48%
Domestic service	7.82%
Total without nonpaid family workers and domestic service	4.52%

Invisible underemployment (less than minimum wage including additional compensations)

Wage earners	21.18%
Self-employed	29.83%
Establishment owners	11.47%
Non-paid family workers	0.00%
Domestic service	44.85%
Total without nonpaid family workers and domestic service	22.36%

- BY SECTOR

Visible underemployment (less than 40 hrs/week)

total	4.78%
Agriculture and mining	4.37%
Manufacturing	4.82%
Construction	3.48%
Commerce	5.93%
Utilities	3.54%
Finance	2.72%
Other services	5.37%

TABLE III-6 -- Continued

Invisible underemployment (less than minimum wage plus additional compensations)	
Total	21.87%
Agriculture and mining	11.17%
Manufacturing	26.27%
Construction	40.49%
Commerce	25.00%
Utilities	12.24%
Finance	8.87%
Other services	19.32%

Source: INEM Household Survey, November 1987.

family workers and domestic service workers, visible and invisible underemployment rates are 4.5 percent and 22.4 percent, respectively. These rates give a better idea of the extent of the underemployment problem, as they exclude occupational categories for which its meaning is not at all clear.

Industry Groups

Underemployment rates by industry show a distinctive pattern. Visible underemployment is low in all industries, the highest being commerce (6 percent) and other services (5.7 percent). Invisible underemployment rates, in turn, are 40 percent in construction, about 25 percent in manufacturing and commerce, and almost 20 percent in other services. Utilities, agriculture and mining, and finance show much lower underemployment rates (about 10 percent).

In downturns of the economy when construction activity slows down, construction workers have frequent short spells of unemployment that are referred to as in-between-jobs waiting. The resulting low monthly earnings could be reported as a high rate of invisible underemployment. Moreover, the common practice of on-site hiring allows construction firms to bid down wages depending on the on-site labor supply and demand, making construction workers' wages highly responsive to market conditions. Low wages in construction are also caused by the casual nature of worker and employer relations, making it easier for employers to avoid minimum wage regulations.

Manufacturing industry represents a special case. Invisible underemployment rates are highest in textiles (#33, 30 percent), wood products and furniture (#34, 48 percent), metal products (#38, 29 percent), and other manufacturing (#30, 30 percent) (Table III-7). These industry groups have large proportions of small shops that work with very little capital and have generally unfavorable production conditions. The fall in aggregate demand has adversely affected these firms and workers, reducing their incomes. Because minimum wage regulations are either difficult or impossible to enforce in these production units (both because workers are willing to work below the minimum wage and because the firms are not officially registered), wages are more flexible, and under depressed demand conditions fall under the legal minimum wage.

ECUADOR: VISIBLE UNDEREMPLOYMENT BY BRANCH OF ACTIVITY AND WORK CATEGORY AS A PERCENTAGE OF TOTAL EMPLOYMENT FOR QUITO, GUAYAQUIL, AND CUENCA, NOVEMBER 1987

BRANCH OF ACTIVITY	TOTAL	WORK CATEGORY				
	TOTAL	WAGE EARNERS	SELF-EMPLOYED WORKERS	EMPLOYERS	NONPAID FAMILY WORKER	DOMESTIC SERVICES
TOTAL	5.15%	2.67%	10.39%	3.86%	12.92%	7.62%
11. AGRICULTURE AND HUNTING	7.54%		10.87%	9.43%	65.05%	
13. FISHING	1.82%	1.96%				
29. EXTRACTION OF OTHER MINERALS	11.97%	100.00%				
31. FOOD PRODUCTS, BEVERAGES, AND TOBACCO	4.07%	1.76%	15.57%	7.60%	14.00%	
32. TEXTILES, CLOTHING, AND LEATHER GOODS	7.50%	3.27%	12.80%	4.77%	12.59%	
33. WOOD PRODUCTS AND FURNITURE	5.31%	5.83%	6.80%	5.07%		
34. PAPER PRODUCTS, PRINT SHOPS, AND EDITORS	1.63%	1.81%				
35. PROD. OF CHEM. PRODUCTS FROM PETROLEUM, COAL, RUBBER & PLASTIC	1.33%	0.71%	100.00%	2.81%	100.00%	
36. PRODUCTION OF NONMETALLIC MINERAL PRODUCTS, OTHER THAN THOSE DERIVED FROM PETROLEUM AND COAL	1.89%	0.63%		5.82%	9.70%	
38. MANUFACTURING OF METAL PRODUCTS	3.94%	2.43%	9.95%	3.22%	54.53%	
39. OTHER MANUFACTURING INDUSTRIES	10.73%	1.30%	16.48%	4.53%	42.69%	
50. CONSTRUCTION	3.64%	2.18%	8.27%	6.89%		
61. WHOLESALE BUSINESS	2.65%	2.89%				
62. RETAIL TRADE	6.42%	3.82%	8.19%	2.53%	11.66%	
63. RESTAURANTS AND HOTELS	5.78%	0.27%	12.90%	3.68%	8.86%	
71. TRANSPORT AND STORAGE	4.59%	2.96%	5.38%	4.89%	42.71%	
81. FINANCIAL ESTABLISHMENTS	0.71%	0.72%				
83. GOODS AND SERVICES RENDERED TO THE COMPANIES	4.91%	3.14%	17.37%			
91. PUBLIC ADMINISTRATION AND DEFENSE	0.82%	0.82%				
93. SOCIAL SERVICES AND OTHER COMMUNITY SERVICES	5.07%	4.25%	23.83%			
94. RECREATION, ENTERTAINMENT, AND CULTURAL SERVICES	13.53%	13.27%	13.69%	21.81%		
95. PERSONAL AND DOMESTIC SERVICES	8.22%	5.29%	16.35%	2.10%	10.47%	7.62%

Source: INEM Household Survey, November 1987.

TABLE III-7B

ECUADOR: INVISIBLE UNDEREMPLOYMENT BY BRANCH OF ACTIVITY
AND WORK CATEGORY AS A PERCENTAGE OF TOTAL EMPLOYMENT
FOR QUITO, GUAYAQUIL, AND CUENCA, NOVEMBER 1987

BRANCH OF ACTIVITY	TOTAL	WORK CATEGORY			
	TOTAL	WAGE EARNERS	SELF-EMPLOYED WORKERS	EMPLOYERS	DOMESTIC SERVICES
TOTAL	23.58%	22.28%	29.99%	11.50%	43.69%
11. AGRICULTURE AND HUNTING	15.98%	19.94%	23.48%	7.52%	0.00%
13. FISHING	10.90%	11.75%	0.00%	0.00%	0.00%
22. OIL AND NATURAL GAS PRODUCTION	2.82%	2.82%	0.00%	0.00%	0.00%
29. EXTRACTION OF OTHER MINERALS	12.08%	16.77%	0.00%	0.00%	0.00%
31. FOOD PRODUCTS, BEVERAGES, AND TOBACCO	19.57%	20.38%	31.86%	21.54%	0.00%
32. TEXTILES, CLOTHING, AND LEATHER GOODS	30.10%	40.41%	24.90%	16.44%	0.00%
33. WOOD PRODUCTS AND FURNITURE	48.11%	68.10%	40.33%	19.27%	0.00%
34. PAPER PRODUCTS, PRINT SHOPS, AND EDITORS	16.77%	18.19%	0.00%	8.42%	0.00%
35. PROD. OF CHEM. PRODUCTS FROM PETROLEUM, COAL, RUBBER & PLASTIC	16.09%	17.59%	0.00%	0.00%	0.00%
36. PRODUCTION OF NONMETALLIC MINERAL PRODUCTS, OTHER THAN THOSE DERIVED FROM PETROLEUM AND COAL	18.43%	19.99%	39.56%	5.94%	0.00%
37. BASIC METAL INDUSTRIES	3.49%	3.62%	0.00%	0.00%	0.00%
38. MANUFACTURING OF METAL PRODUCTS	28.92%	31.94%	34.35%	16.78%	0.00%
39. OTHER MANUFACTURING INDUSTRIES	29.76%	53.99%	19.27%	23.16%	0.00%
41. ELECTRICITY AND GAS	3.78%	3.78%	0.00%	0.00%	0.00%
42. WATER WORKS AND WATER SUPPLY	5.65%	5.65%	0.00%	0.00%	0.00%
50. CONSTRUCTION	42.32%	47.61%	51.74%	10.98%	0.00%
61. WHOLESALE BUSINESS	7.73%	7.47%	25.00%	0.00%	0.00%
62. RETAIL TRADE	26.34%	20.01%	35.62%	11.88%	0.00%
63. HOTELS AND RESTAURANTS	29.18%	40.18%	32.35%	11.61%	0.00%
71. TRANSPORT AND STORAGE	14.40%	19.05%	11.01%	7.37%	0.00%
72. COMMUNICATIONS	7.03%	5.13%	0.00%	100.00%	0.00%
81. FINANCIAL ESTABLISHMENTS	3.29%	3.30%	0.00%	0.00%	0.00%
82. INSURANCE	4.90%	5.07%	0.00%	0.00%	0.00%
83. GOODS AND SERVICES RENDERED TO THE COMPANIES	14.83%	20.13%	11.65%	0.00%	0.00%
91. PUBLIC ADMINISTRATION A D DEFENSE	3.63%	3.64%	0.00%	0.00%	0.00%
93. SOCIAL SERVICES AND OTHER COMMUNITY SERVICES	5.74%	5.22%	12.46%	6.63%	0.17%
94. RECREATION, ENTERTAINMENT, AND CULTURAL SERVICES	7.93%	11.83%	0.00%	0.00%	0.00%
95. PERSONAL AND DOMESTIC SERVICES	41.95%	58.45%	28.60%	12.84%	43.52%

Source: INEM Household Survey, November 1987.

In the commerce and personal services groups (excluding domestic service), where self-employed workers represent almost half of the total employment, these workers assume an entrepreneurial risk and so their incomes have little relation to the minimum wage. Nevertheless, they generally receive low incomes from working under low-productivity conditions.

Interpretation of Underemployment Measures

Underemployment affects different groups of workers in different ways and for different reasons. Prime-age workers, who have established records in the labor market, are less affected by both types of underemployment than younger workers. Workers who are more educated are also less affected by underemployment than less-educated workers, although this is more or less a tautological conclusion and thus has limited practical implications. In this sense, the faster the economic growth, the lower the underemployment rates, at least to the extent that an expanding economy offers younger workers easier entry into the labor market.

Faster economic growth also reduces the extent of measured underemployment by raising market wages and generally reducing the gap between them and the minimum wage. We have seen that construction and manufacturing are two industries where for different reasons this discrepancy tends to intensify in economic downturns and thus to be reflected in higher measured rates of underemployment. Economic growth also affects a worker's ability to find a job in a formal employee-employer relationship. Given the absence of unemployment insurance, workers who cannot find a job often "invent" one where they employ themselves (self-employed) or a few other workers (micro enterprises). In both situations, wages paid are market wages, often lower than the minimum wage, and so are translated into higher measured underemployment.

A trivial way of reducing measured underemployment is to reduce the minimum wage to market levels. And here is where the weakness of the notion becomes evident. Reducing the minimum wage will not affect labor productivity; it just reduces the standard against which job productivity is measured. One could argue that given the reduction in the real value of the minimum wage in Ecuador (which in July 1988 was 61 percent of its real 1980 value) the data discussed above are

underestimating the extent of underemployment in Ecuador. But clearly this argument incorrectly centers the discussion on standards of measurement, instead of on the more important problems of low productivity and low incomes affecting a substantial proportion of the work force.

Although visible underemployment is a more widely accepted type of labor underutilization, it is low enough in Ecuador so that it does not constitute a major policy concern. However, invisible underemployment is less widely accepted. We have discussed above its definitional shortcomings. Nevertheless, our more detailed empirical analysis of invisible underemployment reveals that it points toward industries and employment status that are associated with low incomes and low productivity. We conclude that, with all the necessary caveats, invisible underemployment measures are a reasonable, and available, indicator of that type of employment problem. Because of scarce data on the labor market, this available indicator should be used, but used with caution.

LABOR MARKET SEGMENTATION

The previous section identified the conceptual weaknesses of the informal sector concept. But critics of the concept generally fail to see its usefulness in a policy context. Even if labor market specialists have not been able to fit it into the framework of neoclassical economic theory, policy makers and the general public have widely adopted it to refer to production petty retailing, and service activities whereby the majority of the urban poor in developing countries make their living. Labels can have strong political effects, especially when they simplify complex and poorly understood phenomena. Sooner or later specialists will be forced to deal with a subject of such widespread public attention. The "remarkable convergence of fashion on the small enterprise and the informal sector" noted by Tendler (1988)[7] indicates that the informal sector notion should not be summarily discarded.

In the debate that accompanied the popularization of the informal sector concept, a crucial question was raised: Does the informal sector refer to a group of

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[7] Tendler, Judith, "The Remarkable Convergence of Fashion on Small Enterprises and the Informal Sector: What Does It Mean for Policy? A Proposal," MIT (mimeo), 1988.

firms or a group of workers? The answer to this vague question came in two parts. First, it was perceived that informal sector referred to a set of productive activities, so that firms were the basic definitional element. Informal-sector production units consisted of micro enterprises and self-employed workers. Moreover, these firms could seldom evolve into modern-sector production units because ill-guided public policies and capital-market imperfections consigned them to a marginal status. Credit, technical assistance, and supportive policies were required to elevate their economic condition.

The second part of the answer is only now beginning to emerge from labor-market research in developing countries: even if less-skilled workers represent a large proportion of the informal sector workforce, the low productivity of informal sector work is as much the result of insufficient physical capital as human capital. That is to say, workers with equivalent human capital may receive different incomes depending on the particular segment of the economy in which they work. A study by Uthoff (1984) using Chilean data confirmed this divergence of returns to human capital across industries.[8]

But these divergences would only be observed in segmented labor markets that are nonpurely competitive, the existence of which is disputed by neoclassical economists (Gregory 1986 and Berry and Sabot 1976).[9] These latter economists conclude that labor markets in developing countries are competitive enough to produce efficient wage and employment outcomes within the overall constraints imposed by distortions originating in the countries' macro and trade policy regimes. Thus, the employment problem is not so much the result of labor-market failures as

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[8] Uthoff, A., "Changes in Earnings Inequality and Labor Market Segmentation: Metropolitan Santiago, 1969-78." *Journal of Development Studies*, Vvol. XXII (2) 1984, pr 300-26.

[9] It should be noted that Gregory implicitly accepts the definition of invisible underemployment. But we have seen above that definition of invisible underemployment leads to his conclusion that young and unskilled workers have wages closer to the minimum wage (what the definition means), but should not lead to the conclusion that they are the only group, or even the group most affected, by low productivity. (Gregory, P., *The Myth of Market Failure: Employment and the Labor Market in Mexico*, Baltimore: Johns Hopkin University Press, 1986 and Berry, A. and R. Sobot, "Labor Market Performance in Developing Countries: A Survey," in Streeten, P., ed., *Recent Issues in World Development*, Pergamon Press, 1981.)

it is the result of policy-induced distortions endemic in developing countries. As Biggs, Grindle, and Snodgrass (1988)[10] point out:

> Neoclassical economists have decided that this part of the economy (small enterprises and the informal sector) uses combinations of labor and capital that are "right" for the national factor endowments -- unlike the large and formal sector firms, which are induced by government policies to use excessively capital-intensive and "modern" techniques.

Once policy reforms set the "right" macro prices, programs to assist young and less-educated workers to acquire general literacy and specific skills should be the main policy instrument used in the labor market to alleviate underemployment and poverty. This position is argued strongly in a recent World Bank Discussion Paper by Kahnert.[11] This author concluded:

> Nor can support be found for the view that high wages and low wages observed side by side in urban areas portray severe labor market segmentation and misallocations of labor. Empirical attempts to verify segmented high-wage and low-wage sectors have largely failed to document the importance of institutionally induced wage differentials or rigidities. This has happened whether the attempts focused on firm size, government wage legislation, union membership or on formal/informal, or modern/traditional dichotomies. The major part of wage variance in urban activities, at least in the private sector, is explained by productivity-related worker attributes.

Looking at the opposing view, a variety of recent studies of developed and developing countries' labor markets have found convincing evidence that some degree of segmentation does in fact exist in those markets.[12] The procedure followed in

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[10] Biggs, Tyler, Merilee S. Grindle, and Donald R. Snodgrass, "The Informal Sector, Policy Reform and Structural Transformation," Cambridge: Harvard Institute for International Development, revised draft, July 1988, p.1.

[11] Kahnert, Friedrich, *Improving Urban Employment and Labor Productivity*, World Bank Discussion Paper no. 10, May 1987, p. 7.

[12] See Krueger and Summers ("Efficiency Wages and the Inter-Industry Wage Structure," *Econometrica*, pp. 259-93, March 1988) for the U.S. labor market; Lang, Marquez, and Romanguera (Theories of wage determination: some lessons from Chile and Venezuela," presented at the NBER Summer Institute, August 1988) for a summary of results of empirical studies on Chile and Venezuela; and Robbins (Inter-industry wage differentials and efficiency wages," mimeograph, Berkeley, 1987) for Brazil.

most of these studies has been to fit human-capital wage equations with fixed industry effects. The data used has come from household sample surveys of private-sector workers. The standard deviation of observed industry wages in these surveys has been in the range of 20-30 percent. Even if human capital explained a substantial proportion of the observed variance in wages, industry effects, after accounting for human capital and personal characteristics, have been in the range of 10-20 percent in the countries analyzed.

Moreover, these industry-wage differentials are highly stable over time, suggesting that they do not originate in temporary disturbances in labor and product markets. They are also highly correlated across occupations, meaning that high wage firms pay higher wages to all worker occupations regardless of the importance of each occupation within the firms' production technologies. This evidence casts some doubt on both efficiency-wage explanations and differential labor quality arguments, which assert that high wages are paid by firms to attract more productive workers. The general conclusion of these studies is that labor markets are segmented and not purely competitive. As a consequence, differences between the social and private costs of labor arise in the high-wage industries. These divergences create a standard market-intervention case where policies to increase employment in the high-wage industries are efficiency improving to the extent that they bring in line the social and private opportunity costs of labor.

Nevertheless, the segmentation identified in the labor market does not generally run along the lines proposed by the advocates of the urban informal sector, but more along industry lines. Industries with bigger establishments, more modern technologies, more profitable firms, and operating in more monopolistic markets, pay higher wages to their workers. To improve productivity and raise incomes, growth and employment should be based mainly in those industries. Essentially, then, the task of economic development policy is to identify those industries and the measures that can foster their growth in a market-oriented context.

In this sense, the getting-prices-right approach that is followed by the World Bank and other international donor agencies is appropriate but incomplete. In terms

of employment generation and productivity enhancement, active -- albeit well designed -- industrial, agricultural, and trade policies are essential ingredients in a growth strategy. This conclusion will be used later as a basis for recommending a sectoral employment/productivity strategic focus for the ongoing economic policy dialogue in Ecuador.

LABOR MARKET INSTITUTIONS AND WAGE POLICIES

Regulatory interventions are particularly heavy in labor contracting and wage determination practices in Ecuador. Minimum wages are fixed differentially for small firms (less than 15 workers), domestic services, and agricultural workers, and the remainder of commerce and industry. The last minimum wage increase was accompanied by an increase in severance payments for no-just-cause firing of tenured workers, justified in terms of "avoiding massive dismissals."

In terms of contracting practices, two types of contracts need to be distinguished. The first is the fixed-term contract, which by law has a minimum duration of a year, with a trial period of 90 days. The second is the indefinite contract, which also has a trial term of 90 days, but after 90 days the contract can be ended by the firm with no severance payment if firing for just cause can be established. In the fixed-term contract, severance payments for dismissals without just cause are the costs of employment termination, including additional compensations established by law.[13] In the case of indefinite contracts, severance payments are calculated at the rate of two-months salary per year worked.

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[13] Additional compensations are: 13th month: one-twelfth of the total yearly compensation, including bonuses and overtime; 14th month: the value of two minimum wages; 15th month: up to 10,000 sucres depending on actual salary; *utilidades*: 15 percent of declared profits are distributed equally among workers and holidays: one twenty-fourth of yearly salary. Additionally, for workers earning less than two minimum wages, transportation and cost-of-living (up to 1,500 sucres monthly) bonuses are paid. In addition, after two years of a worker's tenure, one monthly wage per year must be paid as contribution to the social security system (IESS).

Proving just cause involves a special judicial body, which acts by means of summary oral arguments. If the monetary value of the claim exceeds 50,000 sucres, the judgement can be elevated to superior labor courts and finally to the Supreme Court.

Collective labor conflicts are resolved by an administrative entity (called the Tribunal de Conciliación y Arbitraje), presided over by a functionary of the Labor Ministry and with representation of both parties. Its judgement can be appealed to a higher administrative body. Conflicts can also be settled by another administrative entity, the Departamento de Mediación Laboral. As expected government and union politics are very important in the resolution of collective conflicts, because no legal or custom precedents need to be invoked in conflict settlements handed down by the administrative bodies.

Estimates of labor union membership differ widely; no reliable information on the matter exists. Unions are establishment based and can be established legally only in those establishments with more than 15 employees. These establishment unions can be affiliated with provincial federations, which in turn can join a national confederation. When a union is organized, the establishment must, by law, contribute .05 percent of wages to the local federation and another .05 percent to the national confederation. Some craft-like unions exist, the most important being the teacher's union (UNE), the public employees union (CONASEP), and a federation of *campesinos* with ethnic overtones (FENOC).

Four main ideologically oriented union confederations exist. The first is CEOSL, formerly affiliated to CIOSL,[14] which may be characterized as social democrats who are left-of-center, with an estimated membership of 35,000 workers. The second is the Confederacion Ecuatoriana de Trabajadores (socialists and communists), with an estimated membership of 10,000 workers. The third is CEDOC (moderate socialists), which was divided when the social-christian action formed its own confederation, giving origin to the fourth group, CEDOC-CLAT, affiliated with

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[14] Confederación Internacional the Organizaciones Sindicales Libres.

the social-christian CLAT,[15] which is itself divided in two competing groups. The latter two groups have smaller memberships than the first two, though no estimates were available to the team. All these confederations are loosely organized in a political coalition, called the Frente Unitario de Trabajadores. Because union membership is relatively small in number, and not explicitly affiliated to any political party, the degree of political influence of labor varies with the political orientation of the particular government in power.

The importance of these legal, institutional, and wage policies lies in their contribution to industry wage differentials and divergences of private from social labor opportunity costs in Ecuadorean labor markets. Because little analysis of these issues exists, and the necessary data base for such analysis is extremely weak, we recommend strengthening the GOE's capacity to collect and analyze employment and wage data and generate policy-relevant information as a part of its employment generation strategy.

RURAL LABOR MARKETS AND EMPLOYMENT

Overall data on urban and rural population growth were reviewed in Chapter II. As noted, the rural population in Ecuador is exhibiting a long-term decline as a share of total population while continuing to grow in absolute numbers. Rural population growth is positive in all of the country's main geographic areas, although not in every province. Rural population growth is occurring in spite of a suspected decrease in cultivated areas which is reported to have declined from 1.8 to 1.6 million hectares in the 1980s.[16] In the mid-1980s, however, harvested areas had risen for rice, maize, bananas, and cocoa. In any event, little extension of cultivated area is expected in the future. Future changes in agricultural output and

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[15] Confederación Latino Americano de Trabajadores.

[16] Dr. Morris Whitaker reports this decrease in an unpublished paper on "Sources of Growth" prepared for USAID/Ecuador. We are unable to reconcile this conclusion with the area of 1,741,000 hectares reported just for major crops in 1985, data attributed to the Sistema Estadistica Agropecuaria Nacional (World Bank, *Ecuador: Country Economic Memorandum*, Washington, June 1988, Table 2, Appendix B.2, p. 126). The distinction between cultivated and harvested areas may account for the discrepancy.

employment will almost entirely come from increases in crop yields and labor absorption on the existing cultivated area.

Rural Nonfarm Employment

In rural areas, not all economic activity is agricultural. In fact, rural households often engage in a variety of types of production that intermix agriculture, industry, and commerce, so drawing a line between agricultural and nonagricultural activities is difficult. This intermingling of agricultural, market, and household activities makes the concept of open unemployment in rural areas almost useless. In rural areas and small towns, changes in economic conditions are more likely to lead to adjustments in the distribution of time of family members among various tasks than to actual unemployment. When there is not enough productive work to keep family members fully employed, workers are still given tasks either on the farm or in the household that entitle them to a share of family income. Unemployment is an ambiguous concept when workers are part of extended families, sharing family resources and work opportunities.

Census results show that nonagricultural activities are becoming more important as sources of employment for the rural population (Table III-8). In 1982, 36.6 percent of the rural EAP was primarily employed in nonagricultural activities, up from 26 percent in 1974. In 1974, manufacturing provided more jobs for rural workers than any type of work other than agriculture. However, rural manufacturing employment in 1982 was no higher than it was in 1974. In contrast, the number of workers in construction, transportation, and personal and other services had doubled. In fact, the personal and other services category had become the most important source of rural employment after agriculture by 1982. These shifts occurred while agricultural employment for rural workers fell by more than 100,000.

As reviewed in Chapter II, the rural EAP is projected to increase from 1,314,000 to 1,631,000 between 1985 and 2000, requiring creation of 21,000 jobs annually in the rural sector. Past trends suggest that few, if any, of those jobs will reflect growth of employment on farms. In fact, if agricultural growth continues to involve mechanization that is labor substituting, agricultural employment will decline as it has in the recent past. If the rate of decline during 1985-2000 mirrors the

TABLE III-8

ECUADOR: ECONOMICALLY ACTIVE RURAL POPULATION BY TYPE OF WORK
(000 workers)

Type of Work	1982		1974	
	Total	Rural	Total	Rural
Agriculture	787.0	724.5	896.9	835.9
Mining	7.4	4.5	6.2	3.8
Manufacturing	286.5	95.6	226.3	95.2
Utilities	13.2	3.5	8.4	2.4
Construction	158.0	57.2	86.2	30.2
Commerce	271.9	49.9	189.1	40.1
Transportation & communication	101.3	26.3	54.7	13.7
Finance	44.1	2.4	19.7	0.9
Other services	554.9	127.8	329.6	61.7
Not specified	38.6	0.9	92.9	31.2
New workers	83.1	38.6	30.7	15.1
Total	2,346.0	1,139.1	1,940.6	1,129.0

Source: INEC, Population Censuses, 1974 and 1982.

1974-1982 rate, nonagricultural rural employment will need to absorb an additional 6,000 workers each year. These 6,000 workers moving from rural farm to rural nonfarm employment would be in addition to the 21,000 new workers resulting from growth in the rural population and rural EAP. In total, almost 30,000 rural nonfarm jobs would be needed annually to absorb growth in the rural labor force.

The discussion above highlights the poor prospects for increased employment on farms in Ecuador. In densely populated Asia, rapid technological change in agriculture, especially like that of the green revolution, has had diverse effects on labor absorption, but overall increased employment has been associated with higher yields and substantial growth in output. That is to say, agricultural growth based on yield-increasing, biochemical technology can lead both to a growth in labor productivity and to the absorption of additional workers.

In contrast, adoption of mechanical technology can have an important effect on labor productivity but at the cost of reducing on-farm employment. Little information is available about the extent of mechanization or even the number of tractors on farms in Ecuador. Indirect evidence suggests considerable substitution for labor has occurred. Calculations done for this study indicate that the number of work days per hectare of annual crops diminished between 1974 and 1987, except for potatoes and cotton. Taking into account crop areas, overall labor demand still fell for all crops except cotton, rice, and hard corn. In other words, although the number of hectares cultivated was higher in 1987 than in 1974, the total use of labor on farms was apparently lower in 1987 because of a reduced use of labor per hectare cultivated for most crops.

But the linkage between agriculture and nonagriculture must be considered to fully evaluate the overall effects of rapid growth in agriculture on job creation. Is agricultural growth strongly linked to nonagricultural employment creation? If not, can that linkage be strengthened?

Agricultural growth can create nonfarm jobs through backward and forward intersectoral linkages and through multiplier effects of farm-income growth. The first group of linkages refers to employment in the manufacture and distribution of agricultural inputs and the processing and marketing of agricultural products. The

second set of multiplier effects includes the reinvestment of financial surpluses generated from agriculture in a wide range of nonagricultural industries, and the jobs created by manufacture of consumption goods to be purchased with the added income earned in agricultural production.

These agricultural and nonagricultural linkages have not been extensively studied in Ecuador. Elsewhere, they appear to vary substantially from country to country, even between countries that followed similar development strategies, such as South Korea and Taiwan. In many countries, a distinct urban bias has existed. This is true in Ecuador also because of the concentration of investment and consumer spending flowing from the oil boom in cities and the import-substitution orientation of industrialization.

The available data suggests that the spinoff on employment creation in rural areas as a consequence of agricultural growth has been small over all and concentrated in construction and service activities rather than in manufacturing. There has been an important movement of labor out of agriculture into urban areas. New jobs -- especially higher-earning activities -- have been disproportionately created in urban areas, and most rural households have not participated in the new jobs.

Although policies to encourage higher yields and labor-intensive cropping patterns that increase both labor productivity and employment in agriculture should play a more important part in income generation in rural areas, it is also necessary to remember that the inexorable growth of the rural work force for the foreseeable future suggests urgent attention be paid to the role of rural off-farm employment in providing work and income for the rural population. We have already pointed out that the past impacts of overall and agricultural growth have not favored this linkage. On the macroeconomic side, growth based on export-oriented, relatively labor-intensive industries would be a welcome development. To encourage rural off-farm jobs, attention must also be focused on the patterns of growth in consumption of rural people. Little is known about the extent to which income gained from agricultural production is spent in rural areas on locally produced goods. Casual observation in rural markets reveals that much of what is sold for consumption comes from the two major cities or from outside the country. If rural off-farm

employment is to be taken seriously, closely examining the linkages in product and labor markets between rural areas and cities is vital. Important among these are spending patterns generated by agricultural income growth and their stimulus to rural off-farm employment. Evaluation of these linkages should be a priority in the expanded data collection and analysis activities that we recommend in Chapter V.

Rural Underemployment

Substantial seasonal variations in labor demand are a fact of life for agricultural workers. The difference in the number of employed workers between the highest and the lowest month was estimated to be 82,000 workers in 1982, or 10.4 percent of the agricultural EAP. Some of this variation is absorbed by rural-to-rural seasonal migration between the sierra and the coast, so the amount of idle labor in rural areas should not be overestimated. More careful studies of seasonal labor use and seasonal migration should be done to obtain accurate estimates.

In terms of rural underemployment, the last estimation available was made by PREALC for 1978. That study defined underemployment as the difference between a standard of days worked in a year and actual days worked. The standard varied with farm size: 200 days for farms larger than 100 hectares, 180 for farms between 5 and 100 hectares, and 165 days worked for farms smaller than 5 hectares. This variation reflected the greater incidence of off-farm work by small-farm households. The resulting underemployment rates are presented in Table III-9. It should be noted that the estimated underemployment rate is relatively low, compared to the 50 percent national underemployment rate frequently mentioned. Because of the expansion of agricultural production since 1978, we suspect that rural underemployment rates would be at most close to this figure in 1987.

Rural Income Distribution

First, rural labor incomes are lower and more unequally distributed than urban labor incomes. The poorest half of the rural population received 12 percent of total rural labor income in 1975, although this proportion was 18.9 percent for the urban areas (Table III-10).

TABLE III-9

ECUADOR: UNDERMPLOYMENT IN AGRICULTURE

Size of Farm		Person Years Worked (000)	Underemployment (percent)
I	7100 has.	76.77	24.5
II	5-100 has.	695.69	37.1
III	0-5 has.	447.16	38.1
	Total	1,219.62	33.9

Note: Work year of employment defined as

I = 200 days
II = 180 days
III = 165 days

Source: ISS/PREALC Doc. Q/8421

TABLE III-10

ECUADOR: LABOR INCOME AND ITS DISTRIBUTION IN URBAN AND RURAL AREAS, 1975

(1980 US$)

	Population Employed				Total Population			
	Urban		Rural		Urban		Rural	
Quartile	Average Income	% Inc.	Average Income	% Inc.	Average Income	% Inc.	Average Income	% Inc.
First	545	4.3	169	3.0	165	4.3	51	3.0
Second	1605	14.6	507	8.9	487	14.6	154	8.9
Third	2658	23.6	1042	18.1	805	23.6	316	18.1
Fourth	6495	57.5	4012	70.0	1968	57.5	1216	70.0

Source: Luzuriaga, Carlos. "Distribución del Ingreso y Pobreza en las Areas Rurales del Ecuador, 1950-1980".

Second, agricultural and nonagricultural wages are an important component of income for small-farm families, reaching 58.9 percent and 43.2 percent of total income for owners of farms of less than 1 hectare and between 1 and 2 hectares, respectively (Table III-11). These two size classes made up 46.4 percent of the total rural EAP in 1978 (Table III-12), and were the poorest rural groups. Because of the importance of wages in their total income, reduced agricultural and nonagricultural wage labor demand is especially serious for these groups, and acts as a powerful migratory push factor. Added to the pull factor represented by the differences between rural and urban labor incomes (also particularly large for this group), these factors have contributed to large migratory flows to urban areas from small-farm and landless rural households.

TABLE III-11

ECUADOR: SOURCES OF INCOME BY SIZE OF AGRICULTURAL HOLDINGS
(percentage)

	Farm Size (has.)								
Cash Income	0-1	1-2	2-5	5-10	10-20	20-50	50-100	>100	Average for all Size Groups
Income from own farm	21.4	38.0	53.9	65.3	70.4	78.8	81.6	87.1	59.5
Trade activities	7.9	3.9	4.5	4.9	4.6	2.7	4.4	4.2	4.9
Sale of handicrafts	4.4	1.4	0.6	0.8	0.1	0.8	0.6	1.0	1.4
Agricultural wages	31.6	26.2	17.1	8.1	5.1	2.3	1.1	0.3	12.8
Nonagricultural wages	27.3	17.0	9.8	7.3	5.2	4.6	6.3	3.9	11.4
Total Cash Income	92.5	86.5	85.9	86.3	85.4	89.1	94.0	95.6	89.9
Other Income									
Income in kind	0.7	0.8	0.7	0.3	0.8	0.9	0.6	2.2	0.9
Home consumption of Agricultural Products	6.8	12.7	13.4	13.3	13.8	10.0	5.3	2.2	9.2
Total Other Income	7.5	13.5	14.1	13.7	14.6	10.9	6.0	4.4	10.1
Total Income	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Luzuriaga, Carlos. "Distribución del Ingreso y Pobreza en las Areas Rurales del Ecuador, 1950-1980".

TABLE III-12

ECUADOR: DISTRIBUTION OF RURAL INCOME, 1978

Farm Size Class (has.)	Total Income (Mill US$ 1980) Agr	Nonagr	Number of Recipients (000)	Percentage distribution Income	Recipients[3]	Average Income per Recipient (US$ 1980)
0- 1	122.1	79.9	476.3	10.7	30.7	478
1- 2	105.5	30.3	245.2	7.0	15.7	624
2- 5	209.6	36.7	340.5	12.7	21.8	815
5-10	165.9	24.8	190.5	9.6	12.2	1129
10-20	159.1	17.5	122.9	9.1	7.9	1620
20-50	244.5	21.2	124.9	13.7	8.0	2399
50-100	209.8	26.9	39.0	12.2	2.5	6845
100-500	350.8	31.3	21.9	19.7	1.4	19675
>500	99.8	8.9	0.6	5.6	0.04	204246
All Farms	1667.1	277.3	1561.8	100.0	100.0	1401

[3]Economically active population.

Source: Luzuriaga, Carlos. "Distribución del Ingreso y Pobreza en las Areas Rurales del Ecuador, 1950-1980".

CHAPTER IV

CONSTRAINTS ON EMPLOYMENT GROWTH AND ALTERNATIVES FOR GENERATING EMPLOYMENT

MACROECONOMIC, TRADE, INDUSTRIALIZATION, AND PRICE POLICIES

Economic growth is a necessary -- if not sufficient -- condition for increasing the demand for labor and generating jobs. Moreover, if the aggregate demand for labor grows more rapidly than the size of the labor force, real wages will be generally increased throughout the economy.

Low and unstable overall growth in the economy since 1981 has seriously affected the country's employment situation. Open unemployment has increased along with supply-pushed, low-productivity employment. A lack of economic growth both constrains demand for labor in general and restrains the structural transformation process whereby more labor is absorbed in higher productivity jobs in the economy.

Ecuador's development strategy during its oil boom was fatally flawed. Some features of that strategy that impeded employment generation included:

- Much of the economic rents from oil exports was used for consumption subsidies, including food and fuel.
- The real exchange rate appreciated strongly, creating disincentives for production of agricultural and industrial exports and import substitutes.
- Industrial protectionism was used to foster import-substituting manufacturing production for the small domestic market.
- Financial market policies including controlled low interest rates and selective credit allocations reduced the cost of capital and encouraged capital-intensive production.
- Minimum-wage and other labor-protection policies benefited workers with formal sector jobs but discouraged job creation.

- Government regulations and restrictions created an anti-export bias and impeded growth along a path that would continually shift employment to production activities with higher levels of worker productivity.

Policies that protected inefficient manufacturing industries oriented to the small domestic market also limited growth in agriculture and export-oriented manufacturing production. Since the latter are more labor intensive than the former, employment generation suffered.

The agricultural sector provides a vivid example of the effects of the macroeconomic, trade, and price policies that the country followed over the past two decades. In intersectoral terms, the policies resulted in a long-term decline in the domestic terms of trade between agriculture and industry (Table IV-1). These relative price movements, in turn, affected incentives for agricultural production and incomes earned by workers in the agricultural sector.

Comparing tradeable to nontradeable production, the policies raised the price of the latter relative to that of the former (Table IV-2). Since 1975, relative prices of importables have consistently been held down relative to domestic goods, encouraging imports at the expense of domestic production. Prices of export goods relative to prices of domestic goods fell to 39 in 1981. They have rebounded since but have yet to return to the levels they enjoyed in the 1965-1975 period. The recent increases have improved incentives for the main export products -- bananas, coffee, shrimp, and cocoa -- but the extent of output responses by producers of these products is still uncertain.

Within agriculture, policies have favored some products over others. Price policies for rice, for example, have generally provided a high degree of nominal protection, which resulted in increased rice production in the 1980s. Because rice production is relatively labor intensive, on-farm employment was increased. Livestock production (beef and milk) has grown relative to production of wheat, barley, and legumes in the sierra and annual and perennial crops on the coast. These changes were in part demand induced by urban income growth as well as by government policies that led to price shifts in favor of livestock production. Again,

TABLE IV-1

ECUADOR: TERMS OF TRADE IN
AGRICULTURE RELATIVE TO MANUFACTURING

Year	Implicit Deflator		Terms of Trade Agriculture x 100 Manufacturing
	Agriculture	Manufacturing	
1975	100.0	100.0	100.0
1980	167.8	193.2	87.0
1981	183.8	205.6	89.0
1982	218.0	249.7	87.0
1983	367.0	355.1	103.0
1984	499.8	585.6	85.0
1985	615.4	738.8	83.0
1986	793.2	962.2	82.0

Source: World Bank, *Ecuador Country Economic Memorandum*, June 16, 1988, p. 39.

TABLE IV-2

ECUADOR: RELATIVE PRICES OF TRADEABLE GOODS
(1975-100)

Year	Imports/Domestic	Exports/Domestic	Exports/Imports
1960	108	84	66
1965	124	100	81
1970	104	102	98
1975	100	100	100
1980	85	64	75
1981	74	39	75
1982	74	41	55
1983	68	78	114
1984	64	99	154
1985	60	98	163
1986	60	92	153

Source: Scobie G. and Jardine V., "*Macroeconomic Policy and Agriculture in Ecuador*," Policy Analysis Unit. Ministry of Agriculture (unpublished).

these shifts have influenced the on-farm absorption of labor and off-farm employment in input-supplying and processing industries. Although effects of these shifts have not been evaluated, the overall effect has most likely been to raise the demand for on-farm and off-farm labor.

LABOR MARKET POLICIES

Minimum wage and hiring and firing regulations in Ecuador are considered to be mechanisms for improving income distribution. By raising wages and imposing additional compensations unrelated to productivity, these regulations are expected to enlarge the share of workers in total value added. However, both macroeconomic effects and enforcement problems counteract this equity objective.

Minimum wage policies and hiring and firing regulations in the Ecuadorian labor market have hindered the absorption of young and unskilled workers. Although no specific study on this issue has been made, the high unemployment rate of young and poorly educated labor force participants discussed in Chapter III is consistent with this conclusion. Furthermore, because these regulations both increase the relative price of labor and convert labor into a quasi-fixed factor, they encourage capital-labor substitution and reduce employment generation from investment and growth.

Public regulatory agencies have limited capabilities to enforce compliance with the regulations. Enforcement and control are easier for the larger, more visible firms in the modern sector than for small and marginal firms. But large firms pay wages well above the minimum wage, whereas most of the workers earning less than the minimum wage work in smaller establishments (Table IV-3). Consequently, on the one hand, the regulations are enforced only where they are less needed. On the other hand, and most important, both the enforcement difficulties for small firms and the fact that regulated labor costs are higher for large than for small enterprises elevate enormously the costs of growth for small enterprises. Expansion of a small enterprise requires both hiring more workers and paying workers higher wages, causing the per-worker additional cost of creating more jobs in a small enterprise to be higher than in a larger one. "Leveling the playing field" for all sizes of enterprises will require redesigning these regulations.

TABLE IV-3

ECUADOR: AVERAGE INDUSTRY WAGE AS MULTIPLE OF MINIMUM WAGE, 1986

ISIC Code	Establishment Size (number of employees)					
	10-19	20-49	50-99	100-199	200-499	500 and More
31	1.56	1.91	2.34	2.70	2.64	3.17
32	1.29	1.33	3.31	1.88	2.11	2.56
33	1.24	1.36	1.83	2.03	2.09	2.20
34	1.52	1.71	2.55	3.36	3.48	-
35	2.33	2.46	3.43	3.57	4.05	4.16
36	1.27	2.10	2.42	1.78	4.44	4.85
37	0.74	1.30	4.46	5.04	4.78	4.69
38	1.77	2.10	2.29	3.39	3.62	1.89
39	1.38	2.34	2.00	2.08	-	-
Total	1.588	1.915	2.364	2.816	3.129	3.165

Note: - zero establishments or no information available.

Source: INEC, *Encuesta Anual de Manufactura y Mineria*, 1986.

Another important aspect of the minimum-wage legislation and the related employment-stability regulations is their distributional impact. By raising the costs of dismissing workers, firms become cautious about expanding employment, even when market demand is increasing. Consequently, benefits to employed workers from the minimum wage and stability regulations are obtained at the cost of reducing employment opportunities for informal sector and unemployed workers.

These regulations were primarily evolved in the context of a growing economy, where the negative effects on employment and income distribution were cushioned by economic expansion. In a low-growth or stagnant economy, negative effects of these regulations dominate their effects and even act against their proclaimed objectives. The need for regulatory reform is obvious, though vested interests have until now resisted GOE efforts to introduce reforms such as the proposal of *trabajo compartido*, which eases the hiring and firing restrictions on private enterprises. Since labor unions represent large-firm workers more heavily favored by existing regulations, it is no surprise that they generally oppose attempts at regulatory reform.

SIZE AND QUALITY OF THE LABOR FORCE

The size of Ecuador's labor force through the end of the 20th Century will be determined by male and female participation rates in the working age groups. The potential workers have already been born. Projections of population and labor force growth and implications for employment generation over this medium-term period were discussed in Chapter II. Continued rapid population growth and rising participation rates will perpetuate the long-term need for accelerated employment generation into the 21st Century. As long as fertility remains at or near current levels, the economy will stay on an employment treadmill, constantly pressed to absorb new labor force entrants without eroding real wages of existing workers.

The longer-term implications of population and labor-force growth for employment, income distribution, and poverty are being neglected relative to the impacts of the current short-term economic crisis. Although the team did not review the population programs of the GOE and USAID, we believe that more attention

should be given to the long-term dynamics of population and employment. USAID has sponsored the development of several demographic-economic simulation models that could be used in Ecuador for research on the interactions of economic growth, labor force growth, wage determination, and income distribution. These models would make it possible to analyze the implications of alternative population policies and family planning programs. Their results could be used to acquaint key policymakers with policy options and better inform public opinion about the consequences of existing trends. Such a program of applied research, training, and education on long-term population and employment interactions is badly needed.

The concept of human capital, as previously defined in this report, represents the qualitative side of the labor force and is a function of education and training of workers. Unequal access to education and the lack of adequate delivery systems for educational services are features of the educational situation in Ecuador common to many developing countries. In poor urban areas access to education is not much better than in rural areas. Young members of poor families drop out of high school to produce income. Also, nutritional and health deficiencies, combined with adverse environmental conditions, result in poor learning quality. An excessive emphasis on higher education, to appease and attract the growing urban upper and middle classes, has resulted in budget allocations that constrain the quantity and quality of primary education and general literacy programs, although social returns to the latter programs are much higher than to secondary or higher education.

The effects of biased educational investments and an inadequate delivery system for educational services are important for employment. On the supply side, the general level of productivity of the work force, the degree to which new entrants in the labor market experience difficulties in finding a first job, and the ability of dismissed workers to find alternative work all depend on the extent and quality of basic education and vocational training.

The GOE has made significant efforts to design and implement vocational training programs, through institutions such as SECAP. Much remains to be done in this area before meaningful results are achieved. Overall educational policy is an even more difficult area, both because of the lack of technical and managerial

capabilities in the GOE, and because improvements in primary education and literacy programs will compete with secondary and higher education for scarce budgetary allocations.

Educational policy reforms are needed even if short-term prospects for economic growth are poor. Although primary education and vocational training will not help the employment situation if no jobs are available, they lay the foundation for employment expansion when the economy does improve. Rapid labor absorption in South Korea happened in part because of widespread literacy and primary education that preceded the country's export-oriented industrialization. Economic growth is needed to stimulate labor demand but implementation of educational reforms and expanded vocational training now will prepare the labor force to respond to expanded employment opportunities when they do occur. Since the required reforms will threaten the vested interests of the groups who benefit from the existing educational structure, their implementation by the GOE will be extremely sensitive politically.

INDUSTRIAL AND REGIONAL CONSTRAINTS AND OPTIONS

This section of the report discusses constraints on industrial and regional development, constraints that are obstacles to economic growth and employment creation. Options for their removal are identified. Attention is given, first, to industrial structure and the size distribution of firms, second, to the role of industry in imports and exports, and, finally, to regional development and credit assistance.

Industrial Structure and Size Distribution of Firms

An appropriate distribution of enterprises by size -- large, medium, small, and micro -- can make a contribution to an economy in accordance with the inherent advantages of each size class and, in so doing, foster efficiency, employment, and equity. Large enterprises (100 employees and over), medium enterprises (50-99 employees), and small enterprises (10-49 employees) are often grouped in the formal sector, because of their similarities with respect to their use of modern technology and their organizational structure, where functions are defined and administered by specialized workers. In contrast, micro enterprises (having 1-9 employees in Ecuador

according to UNEPROM of the Ministry of Labor and Human Resources but commonly having 1-5 employees in other countries) typically have one or two persons, working alone or assisted by family members. Few of these firms have paid workers or apprentices, and tools are usually simple and traditional.

Once the modernization process has taken root in a developing economy, it is typical for larger firms in the manufacturing sector to represent only a small fraction of the total number of enterprises, but a substantial portion of the number of workers and a large percentage (frequently between one-half and three-quarters) of manufacturing value added. These firms are often capital intensive and utilize sophisticated and costly technology. Their capital/labor ratio is generally high, and their contribution to industrial exports is usually greater than that of the smaller firms.

Smaller, more labor-intensive firms in the middle provide more employment per unit of investment than the larger firms; they dilute the political and economic power that normally accrues to larger firms; and they are apt to respond more quickly to changes in market demand. In so doing, they often show admirable inventiveness and ingenuity. Progressive small firms spread the benefits of economic expansion more evenly: they facilitate international competitiveness, they give the economy the capacity to adjust to changes in internal conditions, and they limit the concentration of economic power.

Census data from 1980 showed a bimodal industrial structure where the large firms contributed the largest share of value added, whereas the smallest firms, the micro enterprises, had the largest number of establishments (mostly persons working as self-employed). The larger firms and the micro enterprises were both important as employers of labor, with the edge in numbers going to the larger firms. Comparing 1965 census data with 1980 census data reveals that the tendency toward bimodality extended through the boom years of the 1970s. The largest firms represented 6.5 percent of the total number of establishments in 1965, but by 1980, this had fallen to only 1.4 percent (Table IV-4). Their share of employed persons in manufacturing declined from 55.6 percent in 1965 to 45.3 percent in 1980, and their share of value added declined from 75.9 percent to 70.7 percent. Despite the decline

in share of value added and employees, it is clear that their position remained dominant. The micro enterprises raised their share of the number of enterprises, in this period, from 68.9 percent to 94.4 percent; they more than doubled their share of persons employed from 18.3 percent to 39.7 percent; and tripled their share of value added, from 5.3 percent to 15.1 percent. The weak middle included the small (formal sector) enterprises whose share of value added fell from 18.8 percent to 14.2 percent and share of employment fell from 26.1 percent to 15 percent, while the number of such enterprises fell from 24.6 percent to 4.2 percent of the total number of firms.

The ebbing of the weak middle is further revealed by comparing the large and medium firms with the small (formal sector) firms for a longer period, from 1965 to 1986. This is possible because the 1965 and 1980 census data can be supplemented with manufacturing survey data for the years 1982 and 1986. (We cannot include the micro enterprises in this comparison because the surveys only included firms of 10 employees or more.) A ratio was calculated between larger firms and small firms for value added, persons employed, and number of establishments. These show that the larger firms continued their tendency toward concentration by raising their superiority over small firms in value added, going from 4.0 in 1965, to 5.0 in 1980, to 5.9 in 1982, and to 7.3 in 1986. Interestingly, although the larger firms' share of manufacturing value added declined moderately from 75.9 percent to 70.7 percent between 1965 and 1980, larger firms continued to gain ground over small firms by increasing their production ratio between 1980 and 1986. They achieved this while also increasing their margin in respect to persons employed, which rose from 3.0 in 1980 to 3.9 in 1982. By 1986, however, the employment ratio had receded to 3.5. Evidently, the larger firms were increasing their share of value added with less than a proportional increase in the number of workers. With respect to the number of establishments, a similar change is evident. The number of larger firms increased more than the number of small firms between 1980 and 1982, the ratio rising from 0.33 to 0.49. By 1986, however, this ratio had tapered off to 0.45. Clearly, then, the larger firms increased their predominance over the small firms in the manufacturing sector over the 21-year period from 1965 to 1986.

The declining status of small firms stands in sharp contrast to the increasing concentration by the larger firms, on the one hand, and the burgeoning of micro

TABLE IV-4

ECUADOR: RELATION OF LARGER TO SMALL ENTERPRISES
IN RESPECT TO NUMBER OF ESTABLISHMENTS, PERSONS EMPLOYED,
AND VALUE ADDED, 1965, 1980, 1982, AND 1986

	No. of Establishments				Persons Employed				Value Added			
	1965	1980	1982	1986	1965	1980	1982	1986	1965	1980	1982	1986
(1) Larger Firms % of Total	6.5	1.4	(c)	(c)	55.6	45.3	(c)	(c)	75.9	70.7	(c)	(c)
(2) Small Firms % of Total	24.6	4.2	(c)	(c)	26.1	15.1	(c)	3.5	18.3	14.2	(c)	(c)
(3) Ratio: Large Firms to Small Firms (1) ÷ (2)	0.26	0.33	0.49	0.45	2.1	3.0	3.9	3.9	4.0	5.0	5.9	7.3

Notes: (a) Large Firms = 50 and over
Small Firms = 10 to 49

(b) Figures on lines (1) and (2) represent percentages of actual figures taken from Economic Censuses of 1965 and 1980. Line (3) is the ratio of the larger firms to the small firms.

(c) Actual figures from the 1982 and 1986 Annual Survey of Manufacturers (Instituto de Estadistica y Censo, INEC) are as follows:

	1982			1986		
	Large	Small	Ratio	Large	Small	Ratio
Establishments	451	925	0.49	455	1012	0.45
Persons Employed	79,970	20,646	3.90	79,585	22,451	3.50
Value Added (mill. sucres)	27,185	4,579	5.90	115,797	15,766	7.30

Sources: Instituto Nacional de Estadistica y Censo (INEC), Economic Censuses of 1965 and 1980; and Manufacturing Surveys of 1982 and 1986.

enterprises, on the other. Obviously, the microenterprise in Ecuador is not dead or dying (as some have supposed) as a historically obsolescent form of organization. They continued to grow in number, in persons employed, and in value added during the prosperous 1970s, whereas small formal sector firms were losing position with respect both to the larger firms and to the micro enterprises. Most of the micro enterprises consist of *cuenta-propistas* (persons working as self-employed). Micro enterprises have, it seems, a permanent status in the labor force, regardless of the ups and downs of the economy. They use whatever technology is within their means, traditional or modern (as the one-person photocopier operator exemplifies). Micro enterprises survive because they serve the needs of the population that lives within their radius, because they can adapt to changes in demand caused by fluctuations of the economy, and because they are the refuge of workers who cannot find jobs in formal-sector firms.

Government policies have often -- sometimes inadvertently -- discriminated against the growth of the middle group of firms. We have already described how wage and employment policies can raise the costs of growth from micro to middle size. Subsidized interest rates and credit programs are often expected to favor the micro and small firms, but those firms are frequently excluded from access to investment finance that is cheap but rationed. Small firms can pay market rates of interest if those rates apply to all borrowers and do not require unreasonable collateral.

Investment incentive policies free beneficiaries from paying taxes on imports of raw materials and machinery and from local tax assessments. They often include tax holidays (sometimes extended year after year). These policies often become capital-saving devices that discourage firms from making appropriate calculations of the true social cost of capital and labor, which, if done, would result in combinations of technology and labor that are more labor intensive. All of these policies negatively influence employment. In addition, such policies can be a heavy drain on a government's budget.

Government trade and macro policies have also favored large-scale, import-substitution firms. These are the same firms that pay higher wages to their workers,

as shown in Chapter III. These wages have been an important pull factor encouraging rural-to-urban migration, as discussed in Chapter II. The growing number of micro enterprises is a response both to the resulting excess number of workers in urban areas and to the economic opportunities associated with high growth in the economy. Although it is impossible to disaggregate the separate impacts of these disparate forces, it would be a mistake to treat micro enterprises as all resulting either from excess workers on the supply side or economic opportunities on the demand side.

Micro Enterprises

A closer look at micro enterprises is warranted because of their importance in employing large numbers of Ecuadorians. For all micro enterprises (manufacturing, commerce, and services combined), one-person and two-person enterprises (often spouses) represented 80 percent of the total in 1980. The 3 to 4 persons stratum represented 15 percent and the 5 to 9 persons group represented only 5 percent of the total. In terms of the numbers of persons employed in manufacturing, however, the self-employed (1 to 2 persons) accounted for 57 percent of the total; the 3 to 4 persons group, 26 percent of the total; and the 5 to 9 persons group, 17 percent.

All micro enterprises (manufacturing, commerce, and services) numbered 153,241, or 97.6 percent of total nonfarm firms in 1980. They employed 291,652 persons, or 57.0 percent of all persons employed in nonfarm firms that year. They accounted for 10 percent of the value added and 5 percent of the formation of capital. By subsector, manufacturing accounted for 21 percent of the micro enterprises, and 26 percent of the persons employed. The commercial sector accounted for almost half (46 percent) of microenterprise employment, while services accounted for 28.4 percent. In terms of value added, the percentages were: manufacturing, 30 percent; commerce, 42 percent; and services, 28 percent. From the standpoint of employment maintenance, where almost two-thirds of the total number of employed persons are included in this category, it is clear that this sector is of the utmost importance

A breakdown of micro enterprises by branch of activity, shows that the textiles, clothing, and leather-goods industry (#32) had the largest number of establishments,

TABLE IV-5

ECUADOR: MICROENTERPRISES (1-9 PERSONS)
GROSS NATIONAL
1980

Sector	Number of Establish-ments		Persons Employed		Added Value (millions of sucres)		Gross Formation of Fixed Capital (millions of sucres)	
	No.	%	No.	%	Value	%	Value	%
Manufacturing	32443	21	74313	26	5757	30	677	24
Commerce	81343	53	134431	46	8182	42	1373	49
Services	39378	26	82581	28	5299	28	772	27
Gross National	153164	100	291325	100	19238	100	2822	100

Source: INEC, Economic Census, 1980.

persons employed, value added, and formation of capital in 1982. It was followed by wood products (#33), with furniture and sawn wood being preeminent, and was next followed by food-processing (#31). Together, these branches accounted for 80 percent of the establishments among the micro enterprises, 76 percent of the person employed, 72 percent of the value added, and 55 percent of the formation of capital. Next in line were metal products (#38) and nonmetallic minerals (#36).

Micro enterprises in commerce represented 81.3 percent of the total number of trade enterprises, 60 percent of the persons employed, 31.6 percent of the value added, and 17.4 percent of the formation of capital in 1980. Using sales as a criterion, in the services sector in the year 1980, micro enterprises (sales of up to 999,999 sucres) represented 98.2 percent of the establishments, 79.2 percent of the persons employed, 40.0 percent of the value added, and 33.1 percent of the formation of capital.

The number and importance of micro enterprises may have increased in recent years because of the slowdown in operations of larger enterprises. These quantitative dimensions of micro enterprises should be viewed in terms of the pyramid analogy introduced in Chapter III. Although many of these micro enterprises play an important role in providing domestic goods and services at economical prices to the large majority of the population, only a small proportion of them have the potential to migrate upward into the category of viable small firms. Programs based on the assumption of mass migration are unlikely to be successful or cost effective.

At the same time, however, as previously noted, other government policies, provisions, and programs make it costly for firms to move upward in the size distribution. Rules and regulations regarding working conditions, hours of work, compensation, and fringe benefits do not necessarily apply to micro enterprises. Firms often claim to be smaller then they are, or forego expansion, to escape the legal mandates and taxes that apply to formal sector enterprises. Ecuador shows increasing evidence of this "missing middle," which suggests that government policies damage the formation and profitable operation of that size of firm.

Manufactured Exports and Imports

During the boom of the 1970s, manufacturing growth averaged 13.9 percent annually in value added. The growth rate fell to 0.5 percent between 1980 and 1987. In the latter period, the industrial sector accounted for between 81 percent and 88 percent of the value of imports of raw materials and 60 percent of the value of imports of capital goods. Contributing to this were the inability of local producers to meet the quality standards and the structural gaps that existed within industry. The manufacturing sector has thus showed a large negative trade balance during the 1980s. Rather than providing a net positive contribution to the nation's balance of payments, manufacturing industry has created a deficit.

During the 1970s and 1980s, however, the export coefficient -- the rate of the value of manufacturing exports to the total value of manufacturing production -- has remained at about 9 to 10 percent. There has been virtually no upward movement in manufactured exports relative to manufacturing production.

The reversal of these coefficients -- that is, a reduction in the import coefficient and a strong rise in the export coefficient -- should be seen as an important national objective. The sector's production, supply, and distribution patterns, subsector by subsector, and for important products, should be analyzed to identify the best prospects among exportable products to achieve this objective. International quality standards, appropriate technology, reliability of delivery, service, and costs must all be considered. Judgments will have to be made about the use of capital-intensive vs. labor-intensive methods in the light of productivity and cost criteria.

The relative contribution of large, medium, and small enterprises should be examined with respect to their roles both as exporters and as suppliers to the national market. In the past, the lion's share of industrial exports came from the *gran industria.* A joint effort, using subcontracting, could turn this into a common effort with smaller firms. Until now, there has been little subcontracting in Ecuador, but it is widespread in other important industrial exporting countries, such as Japan.

The debate in the Ecuadorean Congress over whether or not to establish a Foreign Trade Institute is explicit testimony to the nation's recognition of the problem. Regardless of how the matter is resolved in organizational terms, the necessity for increasing exports remains a high national priority.

The ground has been cleared at the GOE's Free Trade Zone at Esmeraldas. Most of the buildings should be completed in 1989. The Free Trade Zone will be a complement to other private and public efforts aimed at promoting exports and employment, and will place the country in a better position to deal with the countries of the Pacific Rim. Little has been said or written about the expectations or prospects of this project, which could also have some importance for the location of in-bond industries (*maquiladoras*).

Industrial Decentralization and Regional Development

The objective of a regional development and industrial decentralization program is to achieve economic growth and employment by combining the development of local natural and human resources. These regions will then contribute to national growth objectives. However, the wasteful regional dispersion of resources by an arbitrary location of one plant here, another there in a mechanical and misguided application of the equity principle is to be avoided. Although regional planning in Ecuador began in early 1970s, it has been used mostly as a descriptive framework for mapping resource use, population distribution, and physical facilities. The basic problem remains that of reconciling sectoral strategies and infrastructural development with the needs of people in a particular geographic space. Rural and urban linkages are especially important in a regional development context.

In the absence of employment opportunities in the secondary cities of the rural areas, much of the growing nonagricultural rural labor force will be tempted to migrate to the already crowded major cities. The physical and social infrastructures in most of these secondary cities leaves much to be desired, particularly with respect to education (primary, secondary, and vocational schools). Health problems are a serious obstacle to effective functioning of the population in some areas, particularly on the coast.

The establishment of additional industrial parks (seven already exist) in selected cities, which show signs of population and economic growth, would provide organized facilities for housing new firms. In-bond industries could be encouraged to locate in the industrial parks.

Giving local administrative bodies -- provinces and/or municipalities -- more responsibility to act on their own initiatives has often proved fruitful when combined with training programs. What is needed is something more than delegation where the province or municipality acts as agent for the central government. Devolution, or the return of some legal (in some cases, constitutional) powers to the lower-echelon administrative bodies, should also be considered, accompanied by revenue sources so that their initiatives can proceed on a self-interest and self-reliant basis. For bigger cities or for provinces, an economic development staff (and/or collaboration with private sector industry and labor groups) could provide the personnel, funds, and expertise for identifying the main needs and resources of the areas.

In the light of the new government's declared intention to review all policy options with respect to economic growth, this would be a good time for an evaluation of the potential of each of the regions of Ecuador, and particularly of their natural and human resources, as part of a permanent regional development and industrial decentralization program. However innovative the policy approaches of the new GOE, the absence of a program of regional natural resource and human development runs the risk of fixing the current not entirely satisfactory regional patterns for a long time to come.

Access to Credit and Assistance

Common complaints heard from small firms and micro enterprises concern lack of access to credit and foreign exchange, delays in loan approvals, excessive transaction costs, and, in general, unfair treatment in public assistance programs. These criticisms are at odds with *fomento* laws that ostensibly provide them with exemptions from the payment of taxes, priority for imports of raw materials and equipment, lower tax rates, and differential access to public support services. Taking as a goal, however, the proposition for "leveling the playing field" for all size classes

of enterprises, the above-mentioned impediments and disincentives should be reviewed by the GOE and reforms instituted.

Access to credit is a legitimate need for every size of enterprise. A credit scheme for micro enterprises already exists, but funds fall short of the credit needed. Attending to the legitimate needs of only the most promising 10-20 percent of the micro enterprises would justify a modest and manageable extension of the lending program. Hitherto, micro enterprises have not played a role with respect to exports, but this could change in an export-oriented growth program. Meanwhile, micro enterprises are important to the domestic economy and in providing their services to the local population, as well as sources of employment for workers unable to find more renumerative work.

CHAPTER V

RECOMMENDATIONS FOR GOVERNMENT OF ECUADOR EMPLOYMENT STRATEGY FORMULATION, POLICIES, AND PROGRAMS

The slogan "*Pan, Techo, and Empleo*" is used in Ecuador today to evoke unmet basic needs of those persons living in poverty or suffering from the country's economic crisis. Food and shelter are basic human needs and employment is the means by which people earn income and thus gain entitlements to goods and services to fulfill their needs and wants. Employment, therefore, is not postulated as an end in itself but rather seen as a means to material welfare. Labor income accounts for 60-70 percent of total income in most market-based economies.

Although work (a disutility) provides the most widespread access to income streams, the size and distribution of those streams over workers are determined by complex environmental, structural, and policy variables that affect wages and self-employment income in the diverse, segmented, noncompeting labor markets in any economy. Concern with employment thus cuts across conventional economic and social sectoral approaches. Employment is less a policy objective than an important indicator for assessing overall economic performances. A country does not have an employment policy so much as employment is a key instrumental variable by which to assess all of a government's direct participation and indirect policy interventions in its economy. It is from this perspective that we offer the following recommendations for the GOE's development strategy and donor assistance priorities in Ecuador.

POLICY REFORMS AND POLICY DIALOGUE

A dialogue on economic policies between the new GOE and its aid donors has been initiated. The World Bank is leading donor participation in this dialogue in regard to public-sector monetary and fiscal policies, the level of the real exchange rate, and the direction, for reform of trade, industrial, and agricultural policies. Although some reference to employment, particularly in manufacturing, has been

included in the dialogue, much more could be done to identify the consequences for employment generation of the policy alternatives under discussion.

The main thrust of these policies is toward expansion of export-oriented industrial and agricultural production concentrated in products and industries in which Ecuador has an international comparative advantage. Growth combined with the adoption of efficient labor-intensive techniques should promote more rapid employment creation. In addition, employment effects of renewed growth will depend on product composition, firm size structure, and cost of capital and labor to firms of different sizes and at different locations.

The expected pattern of export-oriented growth is likely to be based on nontraditional agricultural products, resource-based food and forestry products, and labor-intensive manufactured goods such as textiles. USAID has a base of experience and access to technical resources to assist the GOE in focusing on complementary policies and supporting services to encourage employment-intensive private-sector responses to the production incentives created by macroeconomic policy reforms. Its local staff and external technical resources in the agricultural, forestry, export-promotion, and institutional development sectors should be utilized to identify specific constraints on, and remedial policies and projects for, export-oriented growth that is employment intensive. USAID can be instrumental in assisting the GOE's implementation of the sectoral approach recommended in Chapter III.

Both direct and indirect employment effects of sectoral output and export growth need to be considered. For example, Ecuador appears to have good potential for expanding agricultural production and exports, particularly of nontraditional products. We showed in Chapter III that this growth will not directly create much agricultural employment, but it will lead to higher productivity and wage increases for those workers already in agriculture as well as provide some additional jobs in input supplying and product marketing activities. The biggest employment effects, however, will probably come from the market and investment linkages of the increased agricultural income. These linkages will depend on whether the higher income is diffused widely in the rural sector or concentrated in the hands of a few large producers. Analyzing these indirect linkages goes far beyond the usual

nontraditional agricultural export promotion project. A different and more employment-oriented approach to policy analysis and dialogue is required.

EMPLOYMENT DATA, POLICY ANALYSIS, AND POLICY DECISION MAKING

In support of policy dialogue, USAID and other donors have an opportunity to assist the GOE in strengthening its institutions and human resources for gathering data on employment, analyzing employment policy issues, and providing information on policy choices to decision makers. At present, the Ministry of Labor lacks a planning and policy analysis capability. Other than the urban employment surveys being carried out by the Instituto Nacional de Empleo (INEM) with ILO assistance, no systematic data on employment is collected regularly. The INEM survey has yet to be institutionalized in the GOE and extended to rural areas. If the survey is continued, whether it will be the responsibility of INEM or INEC is still to be resolved.

USAID has a strong advantage in relation to other donors in assisting the GOE in improving its data-gathering and analytical capabilities. Lessons learned from the many projects USAID has funded on agricultural policy analysis, including an ongoing project in Ecuador, can be used for employment policy analysis. Informal contacts between the INEM and the Unidad de Analisis de Politica del Ministerio de Agricultura should be extended and formalized. This would allow both institutions to benefit greatly from collaboration. The immediate proposal at hand is the rural household survey that the Ministerio de Agricultura is planning with Sigma One support, where INEM could participate both in sample and questionnaire design and in rural labor market data analysis. Patterns of labor use by rural households and seasonal rural-rural and rural-urban migration should be emphasized in the data collection and analysis program.

The resources required will include long-term and short-term technical assistance, training both in-country and in the United States, and supporting services such as computers and software. The GOE will need to make a commitment to establish an appropriate planning unit closely linked to key policy decision makers.

One possibility would be to convert INEM into that type of analytical unit. At present, INEM is strained to do even the basic processing of the survey data it has gathered, much less the necessary analysis for providing timely, relevant, and reliable information to policy makers to assist them in policy formulation and implementation.

ENCOURAGING GROWTH AND PRODUCTIVITY OF MICRO AND SMALL ENTERPRISES IN THE INDUSTRY, COMMERCE, AND SERVICES SECTORS

As a complement to the sectoral approach previously recommended, this objective should be the strategic focus of direct employment-oriented policies and programs of the GOE. This recommendation is based on our findings on the potential economic viability of the microenterprises at the "top of the pyramid" (Chapter III) and the "weak middle" in Ecuador's firm size distribution (Chapter IV). Although sectoral policy reforms will lead to more employment intensive growth over all, the actions proposed here are needed to spread the benefits of that growth more widely among the large rural and urban population engaged in low-productivity employment.

The policies and programs should be oriented to the specific capital-market distortions, entrepreneurial limitations, and technical deficiencies that constrain output and productivity of the target firm population. Since labor/output ratios are already high for these enterprises, the purpose of the assistance should be to increase output and raise labor productivity rather than expand employment *per se*.

An analogy to the agricultural sector may be useful for establishing priorities. Just as the appropriate approach for that sector is to raise output growth of small farms and create widely distributed income streams, it is equally true that potentially viable micro and small enterprises need access to market-priced institutional finance; assistance in adapting technology for small-scale production; and supporting public services to improve product design, management, and marketing. Instructive parallels to lessons learned about concessionary small-farmer credit programs and the provision of cost-effective extension and training services should be invoked in designing specific programs and projects.

As a part of this strategic focus, the policy dialogue with the GOE should be extended to the market distortions and institutional arrangements that constrain the expansion of small firms through the size distribution. We encountered little recognition of this problem and even less evidence of its gravity. Approaches that encourage larger firms to draw on the contributions of small enterprises as industry output expands should also be formulated. The overall purpose of this strategic element is to provide small enterprises with more-equal access to finance, technology, markets, and management skills; that is, "level the playing field."

Achieving policy neutrality, which should be the first priority in Ecuador, does not answer the question as to what extent policies and program should actively promote the growth of smaller enterprises by favoring them over larger firms. Experience has not provided clear answers to this question. What would be the most cost-effective options for helping progressive micro and small enterprises to grow while avoiding noneconomic support of activities that represent survival efforts of poor people? The main obstacle is the high cost of serving numerous small-scale beneficiaries, where many credit and support services often must be subsidized to be sustained. As actions to implement policy neutrality are taken, further analysis of options for efficiently promoting small-scale enterprises should be carried out.

LABOR SUPPLY, QUALITY, AND UTILIZATION

We indicated in Chapters Two and Three some of the long-term implications of rapid population growth for employment and real wages. Although we are unable to make specific recommendations on population policies and family- planning programs, we do recommend, as outlined earlier, that the GOE initiate a program of applied research, education, and training on population and labor force interactions. The economic-demographic models and training materials available in USAID/Washington should be fully incorporated into this effort.

Worker Education and Training

Policies for human resource development are essential in an overall employment strategy. If the GOE is going to succeed in the implementation of an export-oriented growth strategy, major improvements in productivity will be needed. These improvements will come in part from the adoption of more efficient technologies but a large part also needs to come from improvements in labor productivity and the ability of workers to operate with these modern technologies. These enhanced capabilities can come only from improved primary education and vocational training. We argued earlier that these investments in human capital should be made now even while the economy is stagnant. USAID has considerable experience, in Ecuador and worldwide, in vocational training programs. This experience gives USAID a unique potential role in assistance in this area.

Public Works Programs

Even if overall policy reforms were to be implemented completely and instantaneously, their effects on employment and income generation will be far from immediate. Disadvantaged and underemployed groups in the population, such as rural and urban poor and young and unskilled workers, will at least in the short term be largely unaffected by policy reforms. Because of political and social concerns about this group, the GOE should consider labor-intensive public work programs that reduce underemployment and create productive assets to assist these groups in the near term.

USAID has a strong advantage over other donors in assisting the GOE to design cost-effective public-works programs. Lessons learned from the many labor-intensive infrastructure programs funded by USAID worldwide could help to design such programs. On-going USAID and other donor-assisted investment projects in Ecuador could greatly benefit from the creation of linked productive assets through this program.

Labor-intensive public work programs have strong effects on local labor markets and the economy through short-term employment generation and the creation of productive assets, and on the environment. Program design should address this multiplicity of effects and not focus exclusively on short-term employment generation. The purpose in Ecuador is to address labor underemployment, which is different from the goals of the emergency employment program that has been announced by the GOE. The need for the latter is not supported by our analysis in Chapter III of open unemployment.

The impact of public works programs on local labor markets will depend primarily on the availability of underemployed workers. Programs in rural areas should thus be given priority and designed to coincide with the idle season, whercas in urban areas careful assessment of the availability of underemployed labor must be undertaken prior to implementation.

As with any asset creation, the effects of public works programs depend crucially on the overall economic environment. Public works should be thought as a part of a comprehensive plan to efficiently utilize the country's labor force within the broader context of policy reforms. When the local economy is stagnant and no complementary measures are being taken to foster growth, the growth effects of infrastructure improvement are likely to be minimal or nonexistent. As a corollary, public work programs should be linked explicitly to on-going projects directed to local and regional economic growth.

Programs should be managed through local and regional governments to minimize centralized bureaucratic red tape and enhance local participation. Public work programs are management intensive both in their design and implementation stages. Local management capability is needed to administer the projects and to maintain the infrastructure created. When there is a lack of local managerial capability, training programs should be undertaken. The cost of these training programs could be shared with other local development programs, because local managerial capability is also needed for other programs of decentralized economic growth.

REGIONAL DEVELOPMENT

Earlier we emphasized the need to increase production by small farmers through new crops, improved seeds and cropping practices, more inputs, and supporting credit and extension services. Increased yields and output will raise incomes of small farmers and wage laborers, who are the majority of the rural population. Because of high-income elasticities of demand for household goods and services, agricultural income growth that is widely distributed over rural households will generate higher demands for goods and services that can be produced locally. However, without policies and programs to stimulate small-scale manufacture of consumer goods in rural areas, the demands are more likely to be met by goods coming from the two large cities or outside of the country.

Much of this commercial activity could be located in urban centers in rural areas. These towns and secondary cities in Ecuador, up to 20,000 in population, have received increasing numbers of migrants in recent years. A common pattern is for rural persons to first move to a nearby town and later migrate to one of the large cities. A regional development policy would help to retain migrants in rural towns and secondary cities as a preferable alternative to migration to a metropolis.

The GOE, with USAID assistance, needs to assess the role of rural towns and secondary cities in strengthening rural and urban linkages. The goal should be to develop a strategy for locating services and functions in rural towns and secondary cities according to their place in a rational spatial organization of agricultural and nonagricultural activities. This would require identifying and creating an inventory of existing and needed services and facilities in urban localities to carry out the input supplying, output marketing, and production and distribution of consumer goods and services related to increased agricultural output and rural household income. Infrastructure and institutional constraints limiting employment growth in towns and secondary cities should be identified and action programs designed to remove them.

APPENDIX

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