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## **Teaching the Evolution of Population Distribution in South America**

Since 1500 A.D., the population of South America has evolved through a sequence of major demographic transitions. Before the twentieth century is out, it will have passed through yet another. The primary objective of this exercise is to provide students with a conceptual framework of the distribution of population in South America in order to facilitate their understanding of the socio-economic forces at work within the continent. This is developed, in large measure, through a time sequence study of population distribution in South America with special emphasis upon the region's ethnic components.

In the process of moving through this exercise, students are introduced to a variety of graphic methods that can be utilized to highlight the presentation of demographic data. They are furthermore provided the opportunity to analyze demographic transition in a foreign continent against the background of their own experiences and knowledge. The exercise also permits reflection upon worldwide demographic forces that are operative in "developing" (basically tropical) as opposed to "developed" (essentially mid-latitude) nations.

Students are initially provided with Table 1 and asked to examine the data for evidence of patterns of ethnic distributions.<sup>1</sup> They are then asked to graph the data on Figure 1, using the 100 percent horizontal bar graphs. Following this activity, they are provided with Figure 2, which is to be compared with their product.<sup>2</sup> Having completed an analysis in the graphing of the data, students are asked to note the total population of South America, which is approximately that of the United States, and to summarize the character of ethnic distributions. Observations are directed to the following conclusions:

Figure 1



**TABLE 1**  
**DISTRIBUTION OF ETHNIC**  
**POPULATION IN SOUTH AMERICA**

Country	Population (1980 est.) (Millions)	Ethnic Distribution Percent of Total Population				
		White	Mestizo	Indian	Black*	Oriental
Argentina	27	89	9	2	--	--
Bolivia	6	14	32	54	--	--
Brazil	12	51	6	2	40	1
Chile	11	30	65	5	--	--
Colombia	27	25	42	5	28	--
Ecuador	8	10	41	39	10	--
Paraguay	3	5	91	4	--	--
Peru	18	13	38	47	1	11
Uruguay	3	93	7	--	--	--
Venezuela	14	13	72	3	12	--
Guyana	1	2	1	5	42	50
French Guiana	0.1	2	--	7	91	--
Surinam	0.4	2	--	2	49	47
<b>Total</b>	<b>238.5</b>					

Source: Ethnic data based on James (1969), with modifications; population data, Wilkie (1980, 66).

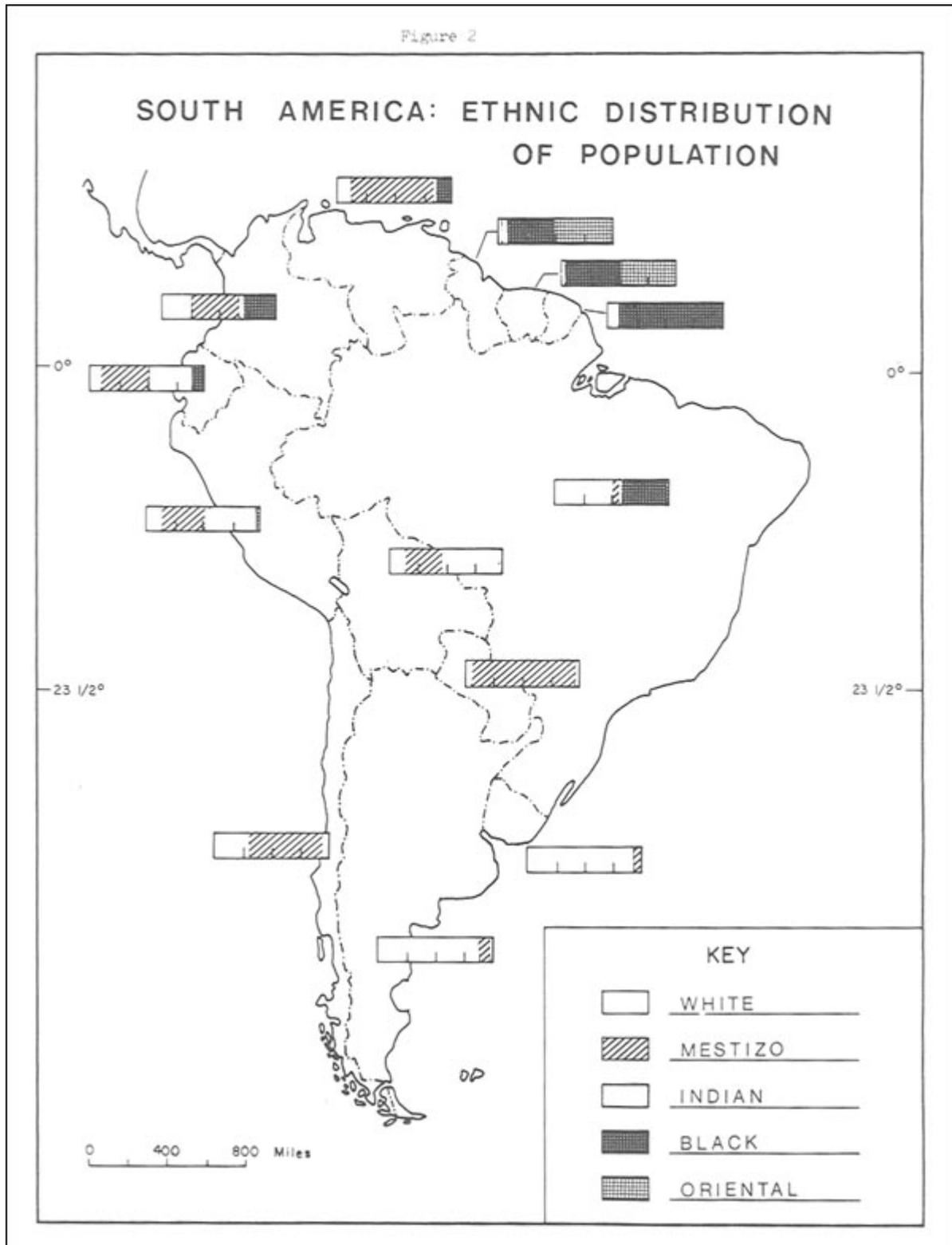
\*Includes mulatto

\*\*Includes South as well as East Asians

- 1) Indians dominate in the Central Andean sector (Bolivia to southern Colombia);
- 2) Whites dominate in southern subtropical and temperate regions of South America (and, although not revealed on the map, in Andean urban settings);
- 3) Blacks dominate in the tropical coastal "arc" from Ecuador to the horn of Brazil;
- 4) Orientals dominate in the Guianas;
- 5) Mestizos dominate at the opposite poles of the Andes (Colombia/Venezuela-Chile).

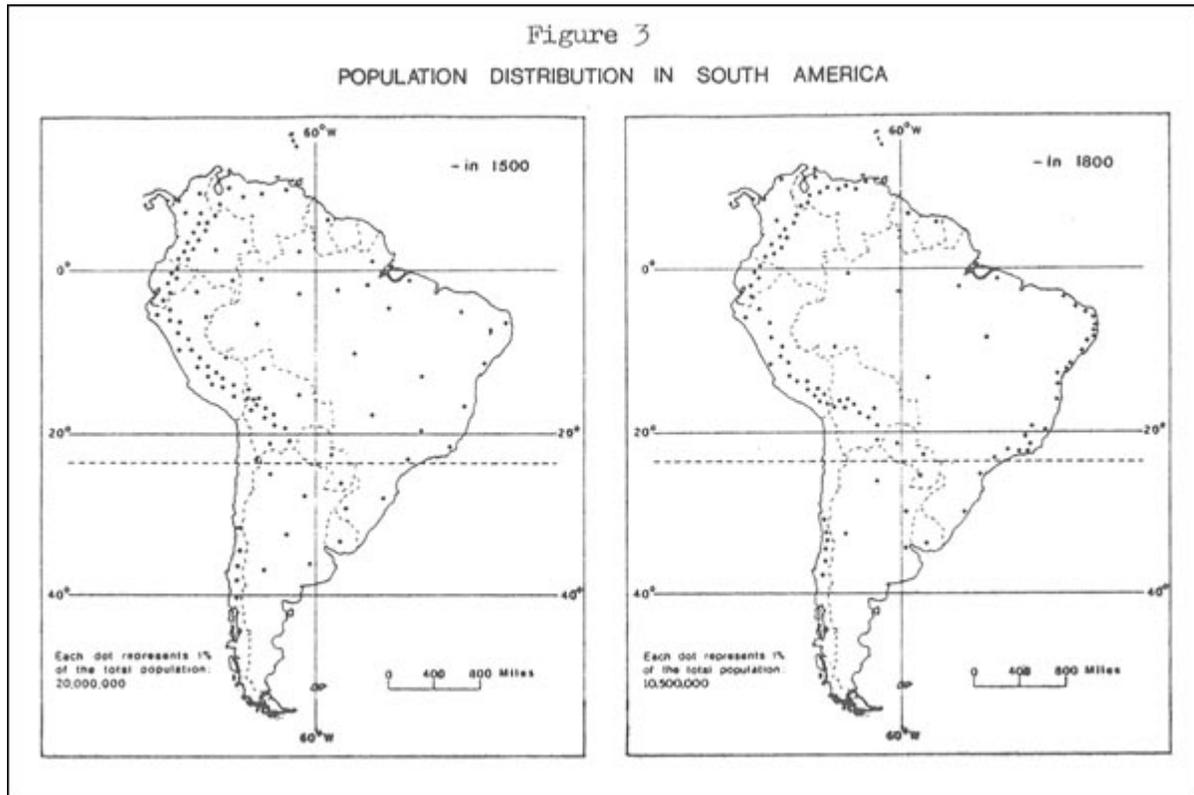
Students are reminded of the bases for general patterns in the distribution of ethnic groups in the United States prior to World War II and then asked to

speculate upon the bases for current patterns of ethnic distribution in South America.

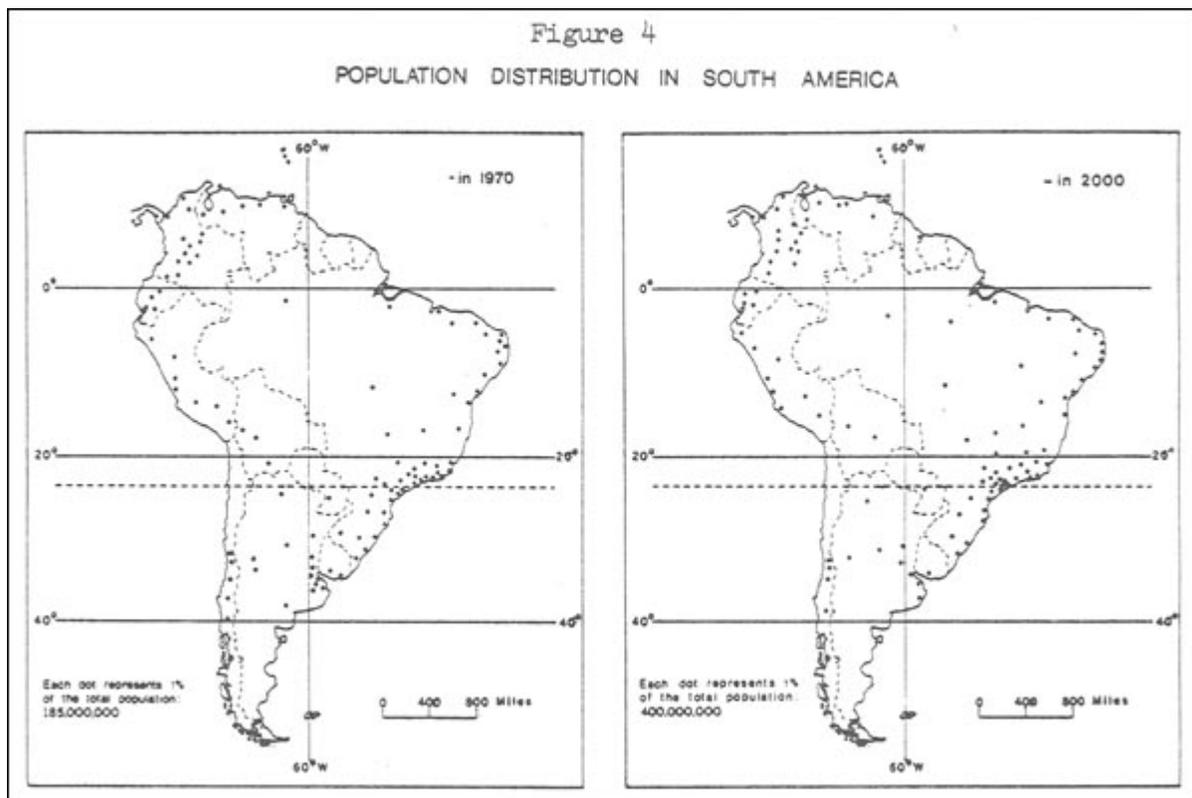


Attention is then turned to Figures 3 and 4, where 100 percent dot maps depict

population distribution for four time periods: 1500, 1800, 1970, and the year 2000. The estimated total population for South America is indicated for each period. It is noted that the maps provided represent ratio illustrations in that more dots do not necessarily mean more people. For example, in Bolivia, 15 dots are equivalent to three million inhabitants in 1500 whereas only three dots represent nearly six million inhabitants in 1970.



The map for 1500 reveals a concentration of population in the highland tropical Andean sector - the northwest quadrant of South America (Sanchez-Albornoz, 1974; Denevan, 1976). This is commonly known as the Indian "high culture" region of pre-Columbian South America and involves an area once dominated by the Inca and Chibcha. Approximately one-half of the continent's population was located in this region in 1500 (66 dots are located in the quadrant north of 20 degrees South Latitude and west of 60 degrees West Longitude).



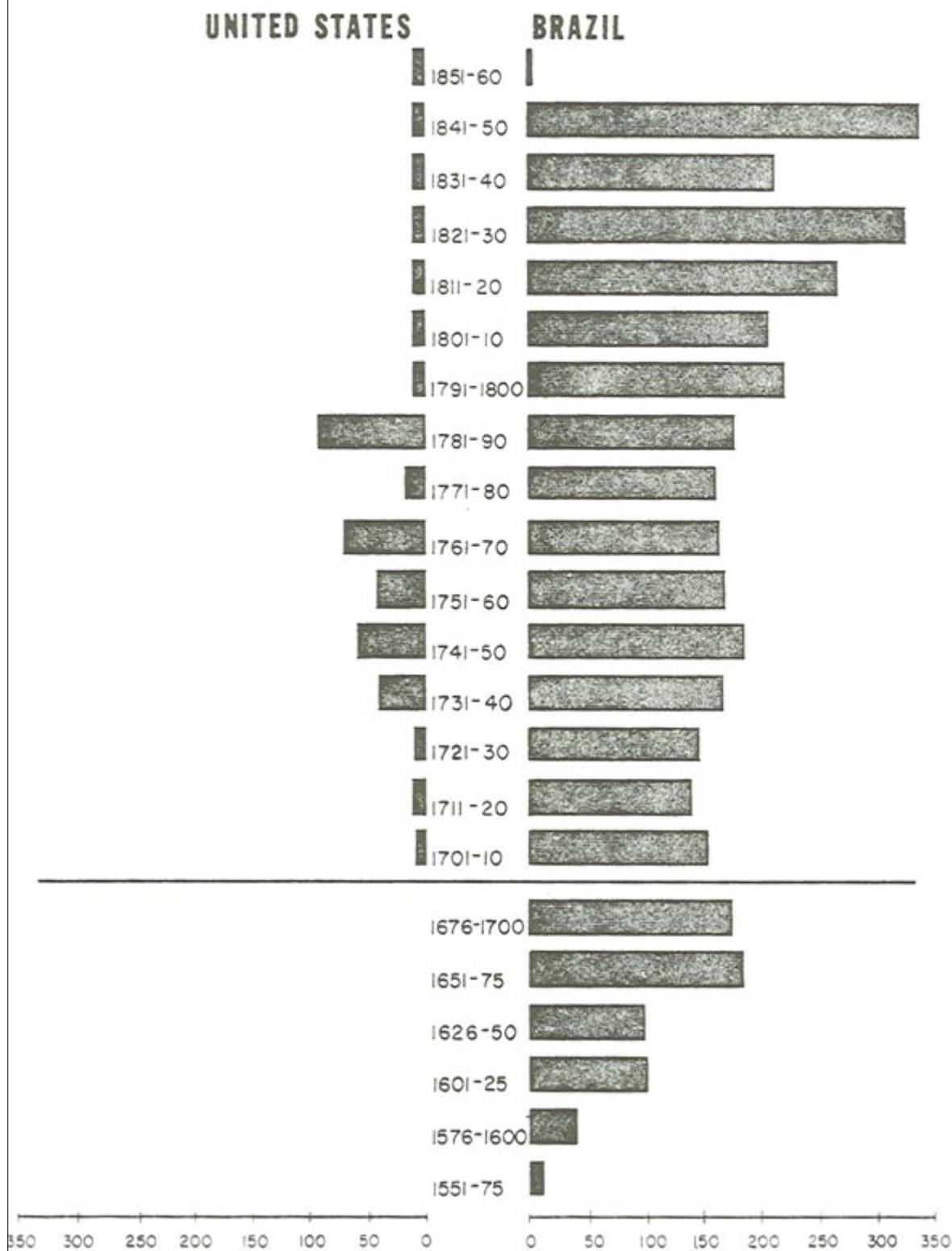
The 1800 map reveals a greatly reduced total population.<sup>3</sup> Although the population continues to be concentrated in the tropical region of South America (77 dots are located north of 20 degrees South Latitude), there has been a significant increase in the population of northeastern Brazil. This is largely attributable to the 2,500,000 blacks that were transported into that nation from Africa between 1500 and 1800. Another 1,100,000 were to come during the following half century (Curtin, 1969; Alden, 1963; Inikori, 1976). Since the total immigration of Iberians into South America between 1500 and 1800 did not greatly exceed 300,000 whites did not contribute outstandingly (possibly only 5 percent) to the continent's ethnic make up in 1800 (Sanchez-Albornoz, 1969). Thus, inhabitants of African origin came to make up approximately 30 percent of South America's population and Indians (and mestizos) made up most of the remainder.

In order to provide students with a comprehension of the relative significance of the contribution of blacks to the ethnic make-up of Brazil, they are provided with Figure 5. This diagram, on the importation of slaves into Brazil (Poppino, 1973) and the United States (Curtin, 1969), clearly illustrates the relative importance of slave traffic as it relates to both nations. Whereas 400,000 blacks were brought to the United States, approximately nine times that number were

ultimately brought into Brazil. Provided one has some understanding of the contribution of blacks to American ethnic make-up and culture, they should readily perceive the major contribution that blacks make to Brazilian society. The contrast is all the more significant if one considers the much smaller population base into which blacks were introduced in the case of Brazil.

Figure 5

Estimated Slave Imports Into The United States And Brazil For Specified Time Intervals



Because of the much higher proportion of imported males to females, blacks have not come to dominate in absolute numbers in either Brazil or the United States to the degree that might have been expected. Whereas blacks constituted approximately 70 percent and 20 percent respectively of the total populations in Brazil and the United States in 1830 (Harris, 1964), they currently constitute only 40 percent and 12 percent. The massive inflow of Europeans into Brazil and the United States after 1800 also contributed to a reduction in the proportion of blacks in each nation.

Blacks were brought into northwestern Brazil largely to work in the production of sugar and cotton. They were brought into southeastern United States largely to work in the production of cotton. In both instances, there evolved a plantation economy with all of its attendant socio-economic characteristics. Interestingly, in neither nation are blacks officially censused as part of the migrant stream.

In 1500 the largest number of dots were in the northwestern quadrant of South America (see Figure 3). By 1800 there had been a major shift clockwise to the northeastern quadrant. By 1970 (see Figure 4) the shift continued clockwise to the southeastern quadrant (south of the 20 degree South Latitude and east of the 60 degree West Longitude). The map for 1970 indicated a dramatic increase in the continent's total population and an equally dramatic proportional shift of population into the temperate and subtropical regions of South America. In 1970, 52 dots are below the 20 degree South Latitude as opposed to 20 and 23 respectively in 1500 and 1800. This is a consequence of European (white) immigration, dominantly South Europeans of Spanish, Portuguese, and Italian extraction, into South America beginning after 1850.

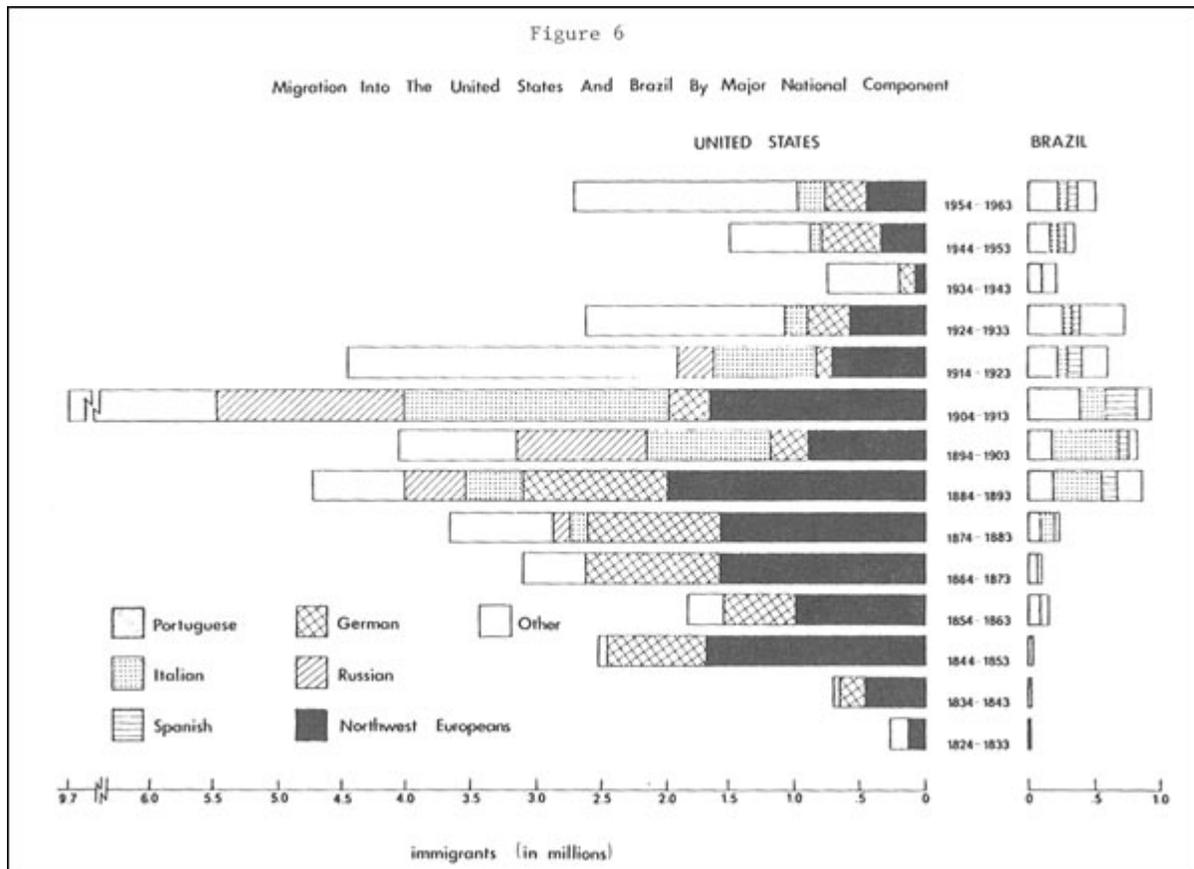
After independence, South America's entrance into the world trading community brought about a two-way linkage with Europe. European capital, know-how, and emigrants flowed into South America to exploit resources exported to Europe in exchange for manufactured goods. On occasion, when required, European migrants were supplanted by Chinese coolies, Moslem or Hindu Asiatics, and Japanese.<sup>4</sup>

In the immediate aftermath of independence various South American nations attempted to attract North Europeans. This effort brought about only a trickle of

migrants. More favorable economic conditions after 1870 ultimately brought forth a massive surge of European migrants. In the following 70 years there arrived nearly 8,000,000 Europeans (whites) of whom 95 percent landed on the mid-latitude Atlantic littoral between Rio de Janeiro and Buenos Aires (McEvedy and Jones, 1978). Approximately 3,500,000 landed in each Argentina and Brazil; approximately 600,000 in Uruguay. Their arrival greatly facilitated the export of grains, meat, hides, fibers, and coffee to the markets of Europe.

Since 1500 an approximately equal number of Africans and Europeans have migrated into Brazil. However, whereas Brazil received nine times as many blacks, the United States received 12 times as many whites. Having looked at Figure 5, students are now asked to examine Figure 6 depicting comparative patterns of European migration into the United States and Brazil. The dominance of white migration into the United States is readily apparent. It can be pointed out that there arrived in the United States a greater number of Europeans during anyone of six decades than there arrived in Brazil for the entire time period depicted. Whereas migration into Brazil has always been dominantly from southern Europe (Portugal, Spain, and Italy), migration into the United States was initially from northern and central and subsequently from southern and eastern Europe. The earlier and more massive contribution of Europeans to the migrant flow of the United States is evident. In both nations, the flow of Europeans was dominantly into more poleward regions, including southeastern Brazil and northeastern United States.

Figure 6



By 1970 the ethnic makeup of population in South America and the United States was roughly as shown in Table 2. In the United States, students have the illusion of a "melting pot" which, in reality, consists of a miscegenation of whites of various national origins. In a true sense of the word, the term "melting pot" is deservedly much more appropriate when referring to the population of South America.

TABLE 2  
THE ETHNIC MAKE UP OF THE POPULATION OF SOUTH  
AMERICA AND THE UNITED STATES, 1970 (PERCENT)

Region	Whites	Mestizos	Indians	Blacks	Oriental
South America	43	22	9	25	1
United States	87*	-	-	12	1

Source: Calculated from Table 1, United States Bureau of Census, 1976.

\*Includes Hispanic Americans who comprise 9 percent of this total. The categorization of a Puerto Rican mulatto or Dominican black in United States census data can only be conjectured.

- Less than 1 percent.

Although a distribution dot map is provided for the year 2000 (see Figure 4), students can be provided with a blank map of South America on which to submit their conclusions as to what the distribution of population may be by the end of this century. Their map for 2000 should give evidence of the current trend of high rates of population growth in tropical as opposed to temperate South America and an accelerating concentration of people in urban agglomerations (see Table 3). For the population map provided for 2000, students should compare the projected populations for Argentina and Colombia as opposed to what they were in 1970. Students should also note the number of dots south of the Tropic of Capricorn in 2000 (24 dots) as opposed to 1970 (34 dots) and be required to provide a rationale for this change.

**TABLE 3**  
**SOUTH AMERICA: URBAN POPULATION, GROWTH RATE OF**  
**POPULATION AND PROJECTED POPULATION FOR 2000 AD.**

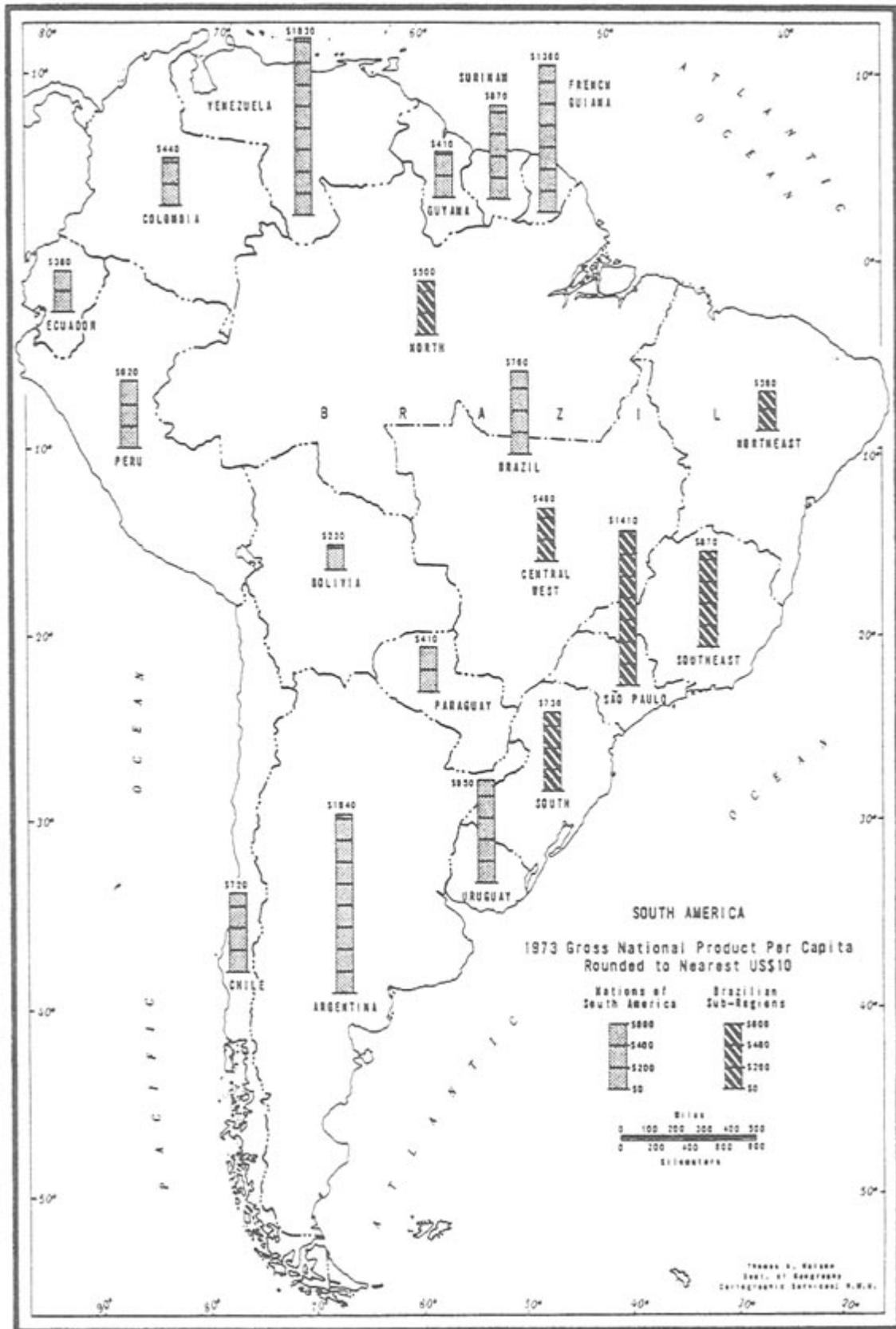
Region	Percent Urban Population (1979)	Annual Rate of Population Growth 1960-75 (percent)	Projected Population in 2000 (in millions)
<b>Tropical South America</b>			
Brazil	61	2.9	202
Colombia	61	2.8	54
Peru	62	2.9	30
Venezuela	75	3.3	24
Ecuador	42	3.3	16
Bolivia	34	2.6	10
Paraguay	40	2.6	5
French Guiana		3.9	
Guyana	40	2.1	1
Surinam	66	2.4	
<b>Temperate South America</b>			
Argentina	80	1.4	33
Chile	79	2.0	16
Uruguay	83	0.5	4

Sources: (Population Reference Bureau, Inc., 1979; World Bank, 1977, 22; Instituto Interamericano de Estadística, 1979, 3.

Figure 7, illustrating the per capita distribution of the GNP in South America, is a reflection of the continent's ethnic distributions and concomitant socio-economic systems. Tropical South America is significantly Indian on the Pacific versant and black on the Atlantic versant. With the exception of Venezuela (petroleum resources) and two sparsely populated Guiana states, the tropical nations, including the central and northern sub-regions of Brazil, are characterized by relatively low per capita Gross National Products (GNP's). On the other hand, the temperate and sub-tropical regions of South America, dominated by Europeans, are characterized by higher per capita GNP's. Other data (see Table 3) reflecting the proportion of people living within urban areas and the rate of population growth in South America are further representative of the demographic dichotomy of South America. Its tropical sector tends to be characterized by non-Western demographic trends and its temperate sector by

Western patterns of demographic growth.

Figure 7



During the remaining two decades of this century, problems attendant to the processes of urbanization will loom to crisis proportions in South America. This will tend to be a more serious problem in tropical rather than in temperate South America. As noted previously, the annual rate of population increase in tropical South America is much on par with counterpart realms of the world. On the other hand, this region's surge toward urbanization is unparalleled in comparable tropical realms. Whereas the percent of people residing in urban areas already approaches 60 percent in tropical South America, it rarely exceeds 35 percent in South and Southeast Asia or in Sub-Saharan Africa.

With the birth rates that characterize the developing world and a rate of urbanization rapidly approaching the threshold of the developed world, cities with over a million inhabitants and megalopoli are rapidly springing forth throughout tropical South America. Beginning with six cities in this category in 1960, there are currently 14 and they will increase to 23 by the turn of the century. The political implication of having 50 percent of these urbanites living at unacceptable levels of poverty is not comforting to contemplate.

The material which is presented in this exercise may be elaborated upon in many fashions and the amplification of various elements are dependent upon the instructor's interests and background. Basically speaking, however, the thrust of this exercise is an evolutionary approach to the understanding of the current demographic setting in South America. In the process, it is anticipated that students will come to appreciate the relationship between socio-economic trends and the quantitative and qualitative aspects of population in South America. It is also hoped that students will be disabused of the impression that the settling of South America was a solely European affair.

## Notes

1. It should be noted that the data provided in Table 1 are only best approximations. In using this table, the instructor should be exceedingly careful to point out that the distribution of ethnic groups, as shown, is partially predicated upon the perspective of American biases. For example, in the United States a mulatto is unequivocally categorized as a black, whereas in South America a mulatto may be considered mixed (brown), or on occasions even white. Although difficult to determine with any degree of certainty, the category mestizo, in Table 1, refers dominantly to those of mixed white-Indian heritage.

In the United States we would categorize these individuals as Spanish Americans or white.

2. Students generally prove unaware of the requirements that should be followed in graphing this type of data: the ethnic categories should always appear in the same sequence; if colors are utilized, they should reflect a mindset recognition (in other words, Indians should be designated by the color red rather than green or purple).

3. In reality, this reflects a recovery in population from a nadir in the mid-seventeenth century.

4. Examples are the plus/minus 100,000 Chinese migrants into Peru/Chile (1850-1900); the plus/minus 200,000 Japanese into Brazil (after 1908), and the entry of Asiatic Indians and Indonesians into the Guianas.

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