

SOME IMPLICATIONS OF BRAZILIAN POPULATION GROWTH
FOR NATIONAL DEVELOPMENT

By

Neil H. Offen

Office of Brazilian Affairs
Agency for International Development
Department of State
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The need for timely, complete and accurate population statistics as a basis for planning in a developing economy is self-evident. Methods of obtaining basic demographic measures where data are lacking or defective have been considered with increasing frequency in recent years. With populations climbing at staggering rates in certain areas of the world and with the recognition that political, social and economic development reflect a direct inter-relationship to this growth, a continuing awareness and familiarity with demographic realities is essential for the proper formulation and implementation of U.S. foreign policy.

Latin America is the fastest growing area on earth. Brazil, with one-third of the population of all Latin America and one-half of that of South America, is the key for locking the door on poverty, sickness, and discontent, and opening the portals towards a better life; a life free from the gnawing of hunger, the darkness of ignorance, and the hatred arising out of futility. The interests and security of the United States demand that we take the proper actions to insure that the causative elements of unrest, dissatisfaction and turmoil are undermined through the cooperative endeavors of the less developed nations along with our own.

Program, sector and project loans, technical assistance, Partners for the Alliance, grants and private investment must all be planned with a cognizance of present-day realities and with a more than theoretical outline of future contingencies. The ability to project possible occurrences and establish feasible alternatives, to adapt to change and yet still effectively and efficiently achieve desired goals, would undoubtedly be aided by the accumulation and analysis of data purporting to exhibit the basic operational medium: the people.

During the course of my research, I have tried to accumulate as much source material as possible. Approximately sixty books, articles, papers, airgrams and memoranda have been utilized in gathering demographic information constituting this report. However, one main source of data predominates, being relied upon, to varying degrees, by the vast majority of secondary sources encountered. The Instituto Brasileiro de Geografia e Estatística (IBGE) consisting of the Conselho Nacional de Estatística and the Conselho Nacional de Geografia, is the primary disseminator of statistical information covering almost every aspect of Brazilian life. Population inquiries, being at times a volatile political issue, have not received the fullest GOB cooperation. With a land area of 3,280,000¹ square miles (8,512,000² ha) and a population density (nationally) of about 27 per square mile,³ (9.7 per square km.)⁴ some Brazilians feel that a high

¹ The Congressional Record, June 21, 1967 (H7717). See also A.I.D. Economic Data Book: Latin America. Brazil, PPC/Division of Statistics and Reports, Washington, D.C., Revision No. 209, March 1967, Revision No. 218, August 1967.

² Population Information Center (PIC), Population Dynamics Program of Organizations Engaged in Pan American Cooperation, 1965-1966, Pan American Health Organization, Pan American Sanitary Bureau-Regional Office of the World Health Organization, Washington, D.C., February 13, 1967, (Document II). See also "Answers to Revised Briefing Book Questionnaire", which consists of answers to demographic questions compiled by the AID Mission in Rio de Janeiro to be found in the Office of Brazilian Affairs' Population File.

³ WOH/PS figure. Other estimates vary from 24 per square mile (Congressional Record, supra) to 28 per square mile (TOAID A-211; 8/3/66). Expressed in terms of population per square kilometer Brazil's density is 9.7 per square km. as contrasted with 21.2 per square kilometer in the U.S. "Answers to Revised Briefing Book Questionnaire", supra. See also appendix B.

⁴ IBID.

growth rate is essential for Brazil to develop and utilize her natural resources. Another reason for placing a high value on increased population growth is that in a predominately agricultural nation, i.e., a nation whose work force is primarily involved with the agricultural sector, the major form of "social security" to the farmer in his old age is his sons. Furthermore, the Latin American concept of "machismo" also plays a role in population growth. Children are considered a sign of virility and therefore, according to this concept, the more children one has, the more "macho" one is. In addition, over 90 percent of the population is Roman Catholic with the connection between the Church and State, though informal, still a strong political reality. Since, at present, the policy enunciated by the Holy See forbids the use of contraceptive devices, Brazilian activities in the birth control sector cannot be so overt as to imply a government policy in this respect. Another factor contributing to attitudinal aspects of Brazilian population growth is Brazil's high degree of concentration. Over 90 percent of the population lives along the narrow coastal plain or the adjacent central plateau.⁵

Concentration⁶

<u>Area</u>	<u>Percent of Total Population</u>
South	35.01
East	34.99
Northeast	22.09
Central West	4.24
North	5.67

5 A.I.D. Economic Data Book, supra, p.3.

6 Anuario Estatístico do Brasil, 1965, IBGE/Conselho Nacional de Estatística, Rio de Janeiro, November 1965. See also appendix B.

This concentration has left large areas, particularly the Amazon region, very sparsely populated. The theory enunciated is that, in order to populate these vast regions, an extremely high birth rate must be maintained. However, in order to effectuate this plan, the economy of the nation would necessarily have to absorb and sustain an ever increasing number of non-productive individuals. Presently, the population under 15 years of age constitutes approximately 44 percent of the total population.⁷ Conservative estimate places 54 percent of the population at 19 years of age or less. The general tendency on the part of the GOB, in regard to various demographic statistics, has been to underestimate. The figures published by the IBGE are generally based upon the 1960 census which results have not been completely published as yet. However, study has shown that the 1940 and 1950 censuses have significantly underestimated various growth patterns. It should be pointed out, as a caveat, that though much has been done to improve the reliability of the data gathered and presented, conflicting statistics can be found for any given subject. In choosing some figures over others, I have attempted merely to establish, as a working tool, those figures which will reflect the least possible margin of error, favoring underestimation in doubtful cases. Nonetheless, the effect that even these minimal projections might have, is, at times, frightening.

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WOH/PS figures place the population-under-15 figure at 38,300,000. Two publications put out by the Population Reference Bureau in Washington, D.C., place the percentage at 43%. (See Population Reference Bureau Bulletin, Vol. XXIII, No. 3, June 1967 and also World Population Data Sheet, 1966. Most Population Reference Bureau figures are based upon statistics compiled through United Nations agencies, which, in turn, gather the preponderance of their data from the IBGE). Over 50% of the population is under 19 years of age. See appendix A for chart on age/sex distribution; U.S. and Brazil.

In 1960, Brazil's labor force consisted of 31 percent of its population.⁸ Transmitting this percentage into terms of dependency shows that every worker had to support 3.2 dependents.⁹ Recent studies of demographic and economic development problems show that a disproportionate teen-age and younger population lays undue stress on the economy. In Brazil, this means that the investments required to feed, clothe, educate and train the oncoming generation fall upon an economically productive segment of the Brazilian population which, according to Glycon de Paiva is between five and twenty percent smaller in comparison to its counterpart in highly developed countries.¹⁰ The investments in the fundamental necessities of life in a country with a young population are much greater than those of countries with older populations. The developmental advantages of human growth potential and market expansion concurrent with income growth may be present. But the current effect upon the Brazilian economy of its youthful population is only to aggravate the difficulties of economic development.¹¹

⁸ Talk by Glycon de Paiva, former head of BENFAM, delivered on 5/4/67. Office of Brazilian Affairs Population File, U.S. Dept. of State, Washington, D.C.

⁹ IBID. See also appendix D.

¹⁰ IBID.

¹¹ Brazil at a Glance: 1967, Editora Banas S.A. under the sponsorship of Banco Central do Brasil at page 36. See also appendix F.

The work force growth rate according to the latest figures available¹² is 2.79 percent. The unskilled sector of this force represents 53.6 percent of the total work force but is only growing at a rate of 1.67 percent annually. The semi-skilled portion of the work force, representing 12.9 percent of the total is growing at an even smaller rate, 1.5 percent. The percent of skilled workers is 33.5 percent and the rate of growth, due to increased academic and technical education is growing at 5.63 percent per annum.¹³ However, with an increase in population as will be experienced by Brazil under present circumstances, the entry into the skilled labor force will decline unless the educational capacities throughout the national are greatly increased.¹⁴ Higher national income per capita and improved health and longevity are considered indications of economic growth. If, however, improvements in health and mortality precede growth of national productive capacity, the problems of meeting the needs of this increased citizenry will be multiplied. Brazil faces and will continue to face the need to greatly expand her productive output in order to maintain her present standard of living, a standard which both the GOB and the Government of the U.S. seek desperately to raise. Capital accumulation, an essential component

¹² Airgram A-1033, (Demographic Aspects of Brazil's 1960 Census). See appendix D for sectoral breakdown.

¹³ IBID. See appendix D for annual geometric rates of increase active and inactive adult population, 1940-1960 and for distribution and growth of labor force in the working population.

¹⁴ See appendix E for projections on number of teachers needed to be trained to have all primary (grades 1-6) school-age children in school by 1975 and for the number of classrooms needed to be built annually to achieve the same results.

of economic development, is lessened by the increased amounts spent on consumption, made necessary by the increasing number of economically unproductive persons. Brazilian resources shall have to be channeled to meet the requirements of providing more food, new classrooms, teachers, housing, etc., to adequately sustain her people. Modern technology is directed toward producing more and more with less and less labor.¹⁵ The existence of a large, unskilled labor force, when placed on a balance sheet, becomes not an asset but a definite liability. Furthermore, the distribution of the labor force does not reflect the distribution of the GNP. Although 52 percent of the work force is involved in agriculture, its share of the GNP is only 27 percent.¹⁶ And while the national per capital income is approximately US\$271, 50 percent of the population has a per capita income of less than US\$100. Ninety-five percent of the population accounts for only two-thirds of Brazil's total income.¹⁷ Urbanization is taking place with over 46 percent of Brazilians now living within municipal boundaries.

¹⁵ Development Digest, Vol. III, Number 3, October 1965, prepared by the National Planning Association, Washington, D.C. at pp. 1-7.

¹⁶ TOAID A-211 (8/3/66). See also A.I.D. Economic Data Book, supra. See appendix D for distribution of labor force and for distribution of GNP.

¹⁷ See appendix D for distribution of income.

Urban growth has been estimated to be at 5.33 percent yearly,¹⁸ surpassing Brazil's high population growth rate estimates which range from 2.9 percent to 3.6 percent.¹⁹ There are now 25 cities in Brazil with populations in excess of 200,000,²⁰ eleven of which are within the States of Rio de Janeiro and Sao Paulo. It is, therefore, apparent that internal migration, from rural areas to more and more urbanized centers, is occurring.²¹ The significance of this movement is manifold. It is widely believed that as an underdeveloped nation progresses, the structure of its urban-rural composition will undergo a gradual evolution transforming the state from a predominately agricultural-rural entity into a basically industrial-urban unit. It is therefore possible to interpret Brazil's urban growth as a sign of its economic development. However, certain factors of this movement must be considered. As in the flight of the farmer in the U.S., so too, do many Brazilian farmers find that the land no longer can provide an adequate income. Technology is also replacing many of the jobs once required within the agricultural sector. Furthermore, an urban "myth" might have influenced many to move from rural areas to the city, a myth that proclaims a better way of life, golden opportunities and better standard of living, a way of life that I'm afraid, as exemplified by certain favelas, is all to mythical. Unemployment in the city is increasing.

¹⁸ Airgram A-1033, supra.

¹⁹ See appendix A for annual population projections at various growth rates up to the year 2000.

²⁰ See appendix A for municipalities that presently have populations in excess of 200,000 inhabitants.

²¹ See appendix C for rural-urban comparative growth rates.

Unskilled labor is finding less and less of a role in the Brazilian economy. New jobs and new opportunities are presenting themselves but not rapidly enough to meet the demands of a growth rate that will double the population of Brazil in less than 24 years.²²

Life expectancy is increasing.²³ This increase, though, results largely from sharp declines in infant mortality,²⁴ rather than a decline

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The number of years for population to double is calculated by taking the annual rate of growth divided into 72 (WOH/PS).

<u>Number of years for Population to double</u>	<u>years</u>
<u>Growth rate (percent)</u>	
1.0	72.0
2.0	36.0
2.9	24.83
3.0	24.0
3.1	23.23
3.2	22.5
3.5	20.6

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Life expectancy at birth is now placed at between 54 and 55 years. See appendix A. During the 1940/50 period, life expectancy was estimated to be around 43 years. Significant increases are to be expected in the future since 50 percent of those who die annually in Brazil are under 5 years of age and effective steps are being taken to alter this situation.

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Infant mortality per 1,000 live births is approximately 112 per 1,000 live births. Sources reporting this figure included TOAID A-211, Saude e Planejamento, EPEA, the IDB, "Health Sector Analysis" (USAID/Brazil) and the "Revised Mission Briefing Book Answers". WOH/PS based on the 1960 rate, calculated infant mortality to be 70 per 1,000 births. The Pan American Health Organization Report estimated the figure at 78.8 per 1,000, while it was reported in the Congressional Record of 6/21/67 to be 171 per 1,000. In Brazil at a Glance: 1967, the Ministry of Planning stated that the 1964 rate was 112 per 1,000, but the 1966 rate has decreased to 90.0 per 1,000.

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of the death rate in general.

Fertility on the whole has remained constant for the past twenty years.²⁶
But, although the birth rate has not significantly increased, the fact that infant mortality has significantly decreased has brought about a bottom-heavy society. As stated previously, we have in Brazil a large and rapidly increasing, unproductive, dependent, population. The strain placed upon the nation to at least meet the demands of this group greatly reduce the efficacy of programs established to aid social and economic development.

Internal migratory movements are often triggered by unemployment due to seasonal or economy-structure failings in one region, and favorable labor conditions in the more advanced business and industrial centers. This situation occurred within the Northeast region with a resultant loss of population to the Southern meridional states. In more

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Death rate estimates vary from 9 to 13 per 1,000.

<u>Estimate</u>	<u>Source</u>
9 per 1,000	PAHO
10-11 per 1,000	World Food Problem, Vol 2, p.23
10-13 per 1,000	Populatinn Bulletin, XXIII, No. 3.
11 per 1,000	TOAID A-211
11.7 per 1,000	State Airgram A-1033
12 per 1,000	WOH/PS
13 per 1,000	IDB
13 per 1,000	Panoram Sanitorio do Brasil
13 per 1,000	<u>Brazil at a Glance: 1967</u>
13 per 1,000	USAID/Brazil "Health Sector Analysis"
13 per 1,000	Saude e Planejamento, EPEA

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Birth rate estimates range from 33.5 to 44 per 1,000 population

<u>Estimate</u>	<u>Source</u>
33.5 per 1,000	PAHO
37-41 per 1,000	World Food Problem, II, p.23
40-44 per 1,000	Pop. Bull. XXIII, No. 3, 6/67, P.R.B.
40-44 per 1,000	World Pop. 1966 data sheet
41 per 1,000	WOH/PS
43.7 per 1,000	State Airgram A-1033
43 per 1,000	Dr. Murray Gendell, Georgetown University

1940/1960 figures are basically the same.

recent years migration has tended to diminish as a result of the new development programs that have been put into effect by SUDENE. Through this organ, the Government of Brazil, along with the assistance of our A.I.D. Mission, has been taking both long and short-term measures towards a solution to the area's economic problems and these, in turn, it is hoped, will be the mainspring to gradual and peaceful social reforms. ²⁷

U.S. assistance to Brazil has been significant. A.I.D.-appropriated funds through FY 1967 have totalled \$1088.2 million; \$1034.7 million being allocated since 1962. In FY 1967, the total of all U.S. assistance amounted to \$303 million, or US\$ 3.47 per capita/Brazilian. ²⁸ A.I.D. grants and loans to Brazil represented 37.33 percent of the total Alliance for Progress for FY 1966. (In FY 1965, this figure was 43.34 percent; the FY 1966 total was higher in absolute terms, but less percent-wise. The FY 1967 figures represent both a decrease in total amount allocated and a decrease in Brazil's proportional share of Alliance funds). ²⁹

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Brazil at a Glance:1967, supra. See also appendix H for immigration and internal migration data.

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This figure includes AID grants and loans, Social Progress Trust Fund loans, EXIM Bank loans, military assistance, Peace Corps, and Food for Peace Programs. See appendix I (eye) for a complete breakdown.

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U.S. Economic Assistance Programs Administered by the Agency for International Development and Predecessor Agencies (April 3, 1948 to June 20, 1966) as amended through FY 1967, p. 28 see appendix I (eye) for Brazil's yearly share of the Alliance for Progress funds, 1961-1967.

These monies surely have alleviated the financial burdens placed upon the Government of Brazil, but as the population soars, the effectiveness of the projects and programs envisioned by our assistance must necessarily diminish.

The level of health among Brazilians is generally low, although there are wide regional and social variations. Almost everywhere inadequate sanitation and personal hygiene, insufficient potable water, inadequate waste disposal facilities, and general ignorance regarding health measures contribute to the high incidence of disease. Latest estimates place the number of doctors in Brazil at approximately 30 31 35,000, or roughly four doctors for every 10,000 persons. In recent years, the number of hospital beds available has increased in quantity but has decreased in proportion to a larger population requiring medical services. Presently, there are 314 hospital beds available for every

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In 1950, there were 25,754 doctors in Brazil. Today that number climbed to over 35,000 EPEA (35,200-1965). The distribution of doctors is as follows:

<u>Region</u>	<u>Number</u>
North	595
Northeast	2,977
East	16,195
South	13,418
Central-West	1,065

Source: Brazil at a Glance:
1967

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The ratio of doctors to population is 4:10,000 to 1:2,500. AID Program and Project Data FY 1968, TOAID A-211, PAHO

100,000 Brazilians, a decrease from the 1955 level when there were 32 369 beds available per 100,000. Forty percent of Brazilian hospitals are government-run, but 80 percent of long-term treatments are handled by these units, with private hospitals handling 61 percent of short-term care. Public health presently is allotted 5 percent of the national revenue with plans to increase this percentage to 8 percent by 1971. State and municipal governments, it is hoped, will supply an additional 4 percent to 7 percent of their 33 revenues towards combating disease and improving health conditions.

The Ministry of Health has established five departments to further these aims. The Federal Government also provides medical services and hospital care through the mobile services of the Special Service for Public Health (SESP). SESP, created with AID assistance, is a semi-autonomous agency of the Ministry which is organized as a foundation and receives nearly all its support from the federal government. According to the latest estimations, SESP has established about 400 health stations, spread, with the exception of the State of Sao Paulo, throughout the country, but predominately in the rural area of the Northeast. Both preventative and curative services are offered and although SESP centers are largely directed toward children and mothers,

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In 1966, there were 314 hospital beds available for every 100,000 persons. This represents a net loss of 55 beds per 100,000 population from the 1955 figures. TOAID A-211, Congressional Records H7717, AID Economic Data Book.

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Brazil at a Glance: 1967, supra, p.208. See the "Health Sector Analysis" prepared by USAID/Brazil, September, 1967, supra. See also appendix G.

they have been leaders in promoting the idea of integrated health services of various types under one roof. This is a break with Brazilian tradition which has been to create separate centers for various diseases and others for child and maternity care. Although 8 percent of Brazilian university students are pursuing courses towards their M.D. (as opposed to 1.5 percent of American university students),³⁴ the total number of students enrolled in institutions of higher learning is presently only about 165,000.³⁵ It is therefore apparent that the present numerical inadequacy of doctors in Brazil is not going to be alleviated in the near future. To compensate for the lack of professional care available, an extensive health education program should be maintained. U.S. AID programs have greatly contributed toward alleviating this situation and, a fortiori, U.S. aid has itself enabled, to some degree, the population explosion to take on the magnitude it has. The argument that the U.S. seeks to limit the population growth of Brazil in order to keep her underdeveloped and therefore at the mercy of the United States, is belied by an historical examination of American-sponsored projects and programs aimed, not at limiting the population of Brazil per se, but rather at ensuring a healthier, longer and happier life for the masses of Brazilians.

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TOAID A-211, supra.

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Figures for the 1962-1964 period place the number of students engaged in higher education at 110,500. "Answers to Revised Briefing Book Questionnaire".

Education must play a key role in the development of Brazil. A literate and skilled population is essential to this development. The literacy rate (with a literate being defined as one being able to read and write a simple informal note, "bilhete simples," in any language and not including those who could merely sign their names) is over 60 percent.³⁶ In order to have all primary age (grades 1-6) children in school by 1975, it was estimated (in 1964) that 142,550 new classroom units would have to be built by 1970 and 228,086 new teachers would have to be trained to meet increased enrollment. These estimates are conservative and do not project the increasing need for both classrooms and teachers for the period between 1970 and 1975. In 1964, there were 10,539,000 students in all the Brazilian education system. By 1970, the enrollment increase is estimated to be in the neighborhood of 8,000,000 in primary education alone.³⁷ As noted above, the need to provide classrooms is a great one. But this need raises other questions. What precedence or priority should be placed upon education? What about the need to adequately house the increasing population? To provide sewerage facilities?...potable water?...electricity? Where does one place priorities? Or can priorities be effectively established? Avoiding the difficulties of attempting to answer these somewhat nebulous questions, let me state, and I hope I'm not "fudging"

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See appendix E for literacy data.

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See also appendix E for present education system status and projected future needs.

the issue, that birth control can only serve to make the problems faced by Brazil more manageable. Priorities, of course, have been established and much has been accomplished. However, due largely to Brazil's high population growth rate, the futility of trying to build a foundation on sand becomes apropos; futile because as soon as a portion of the foundation is laid, the sand beneath the foundation slips and engulfs the work that has been done. In projections calculated, based upon the IBGE's 1967 population estimate of 87,200,000,³⁸ there will be approximately 247,000,000 Brazilians in the year 2000. This calculation is based upon an annual growth rate of 3.2 percent. This rate was arrived simply by taking the rate which made the most numerous appearances throughout the sources utilized. Few estimations given are below this growth percentage and there are only a handful above. (However, estimations do run as high as 3.6 percent per annum). It should be recognized that, in all likelihood, as the mortality rate is reduced, as it undoubtedly will be, the annual rate of growth will increase. Therefore, barring various unforeseen fortuitous circumstances, the population in the year 2000 may well exceed the present projection of 247 million, which,³⁹ in and of itself, is more than three times Brazil's present population. Taking the present Brazilian population and projecting it in terms of the U.S. growth rate, (which is 1.6 percent per annum), the population of the

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IBGE Anuario do Estatistico, 1965. Estimate for 1967. WOH/PS estimate for 1/1/68 is 87,353,000. See appendix A for other source estimates.

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See appendix A for annual projections from 1967 to 2000 at various growth rates.

country would only reach 147 million in the year 2000; a difference of 100 million persons resulting.

In 1966, it was estimated that 60 percent of the population lived without electricity in their homes and only 50 percent of the population was served by sewerage systems. ⁴⁰ Potable water supply is extremely limited. Unemployment, especially within the unskilled sector, is growing. The gains in gross national product are offset by the population increase. The housing gap is increasing despite efforts to reduce it. The educational system can neither provide enough classrooms, teachers nor textbooks. Medical care, especially for the poor, is grossly insufficient. Nutritional levels are low. Inflation still remains high. The gains made by the Government of Brazil and the USAID can only be largely negated by present population growth. Measures must be taken, and taken quickly, to allow the chances for Brazilian development to remain within the realm of possibility. Population planning measures must be adopted and effectuated as soon as possible or all the progress made in the past will be undone, and all the hopes for the future will go unfulfilled.

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<u>Figure</u>	<u>Source</u>
94,000,000	World Food Problem p. 23, Vol II (1970)
87,353,000	WOH/PS 1/1/68 Est. (10/67)
87,209,000	IBGE (projected <u>1967</u> figure based upon 1960 census)
86,472,000	AID Econ. Data Book, LA, Revision 219, 8/67, 1967
85,000,000	TOAID A-211 (AEdo B) (1966)
84,700,000	<u>Congressional Record</u> (H 7717) 6/21/67, Rep. Goodell (N.Y.) (Based on USAID/Br data)
84,679,000	IDB (mid-1966 estimate)
83,900,000	World Population Data Sheet - 1966 (PRB) *UNdata
83,900,000	Population Bulletin, Vol. XXIII, No. 3, Pop. Ref. Bur., Inc. (6/67)
82,222,000	USAID-Revised Mission Briefing Book, 1965
81,450,000	PIC. PAHO, 1965-1966 (2/13/67)
81,301,000	World Almanac 1967 (1965-UN)
78,809,000	UN Demographic Yearbook (1964).

Table II - Growth Rate

<u>Rate</u>	<u>Source</u>
3.6	Pop. Ref. Bur. Pop. Profile (7/64)
3.5	<u>Brazil at a Glance, 1967</u>
3.2 - 3.5	Gendell, Georgetown University (future estimates)
3.1	<u>Congressional Record</u> , Rep. Goodell, (H 7717) 6/21/67
3.1	<u>Answers to Revised Mission Briefing Book</u>
3.1	World Population Data Sheet - 1966, Pop. Ref. Bur.
3.1	TOAID A-211 (1966)
3.1	PAHO (1958-1963)
3.1	Gendell, Georgetown University, 1967.
3.0	<u>AID Congressional Growth Rates and Trend Data, AID/SRD, 3/31/67</u>
3.0	Population Bulletin, VOL. XXIII, No. 3, Population Reference Bureau, Inc. 6/67.
3.0	AID Economic Data Book
2.9	WOH/PPS.

APPENDIX A

Table III - Number of Years for Population to Double

<u>Growth Rate</u>	<u>Years</u>
1.0	72.0
2.0	36
2.9	24.83
3.0	24
3.1	23.23
3.2	22.5
3.5	20.6

Table IV - Projected Yearly Population Growth (1967-2000)
at 1.6% (U.S. Growth Rate 1958-64)

<u>Year</u>	<u>Thousands</u>	<u>Year</u>	<u>Thousands</u>
1967	87,200	1991	127,634
1968	88,595	1992	129,676
1969	90,013	1993	131,751
1970	91,453	1994	133,859
1971	92,916	1995	136,000
1972	94,403	1996	138,176
1973	95,913	1997	140,387
1974	97,448	1998	142,633
1975	99,007	1999	144,916
1976	100,591	2000	147,234
1977	102,201		
1978	103,836		
1979	105,497		
1980	107,185		
1981	108,900		
1982	110,643		
1983	112,413		
1984	114,211		
1985	116,039		
1986	117,895		
1987	119,782		
1988	121,698		
1989	123,645		
1990	125,624		

Table V - Projected Yearly Population Growth (1967-2000) at 3%

<u>Thousands</u>	<u>Year</u>	<u>Thousands</u>	<u>Year</u>
87,200	1967	148,468	1985
89,828	1968	152,923	1986
92,520	1969	157,510	1987
95,296	1970	162,235	1988
98,154	1971	167,103	1989
101,099	1972	172,116	1990
104,132	1973	177,279	1991
107,256	1974	182,597	1992
110,474	1975	188,075	1993
113,788	1976	193,718	1994
117,202	1977	199,529	1995
120,718	1978	295,515	1996
124,340	1979	211,680	1997
128,070	1980	218,031	1998
131,912	1981	224,572	1999
135,870	1982	231,309	2000
139,946	1983		
144,144	1984		

Table VI - Projected Yearly Population Growth (1967-2000) at 3.1%

<u>Year</u>	<u>Thousands</u>	<u>Year</u>	<u>Thousands</u>
1967	87,200,000	1984	146,526
1968	89,903	1985	151,068
1969	92,690	1986	155,751
1970	95,564	1987	160,580
1971	98,526	1988	165,558
1972	101,580	1989	170,690
1973	104,729	1990	175,981
1974	107,976	1991	181,437
1975	111,323	1992	187,061
1976	114,774	1993	192,860
1977	118,332	1994	198,839
1978	122,001	1995	205,002
1979	125,783	1996	211,358
1980	129,682	1997	217,910
1981	133,702	1998	224,665
1982	137,847	1999	231,630
1983	142,120	2000	238,810

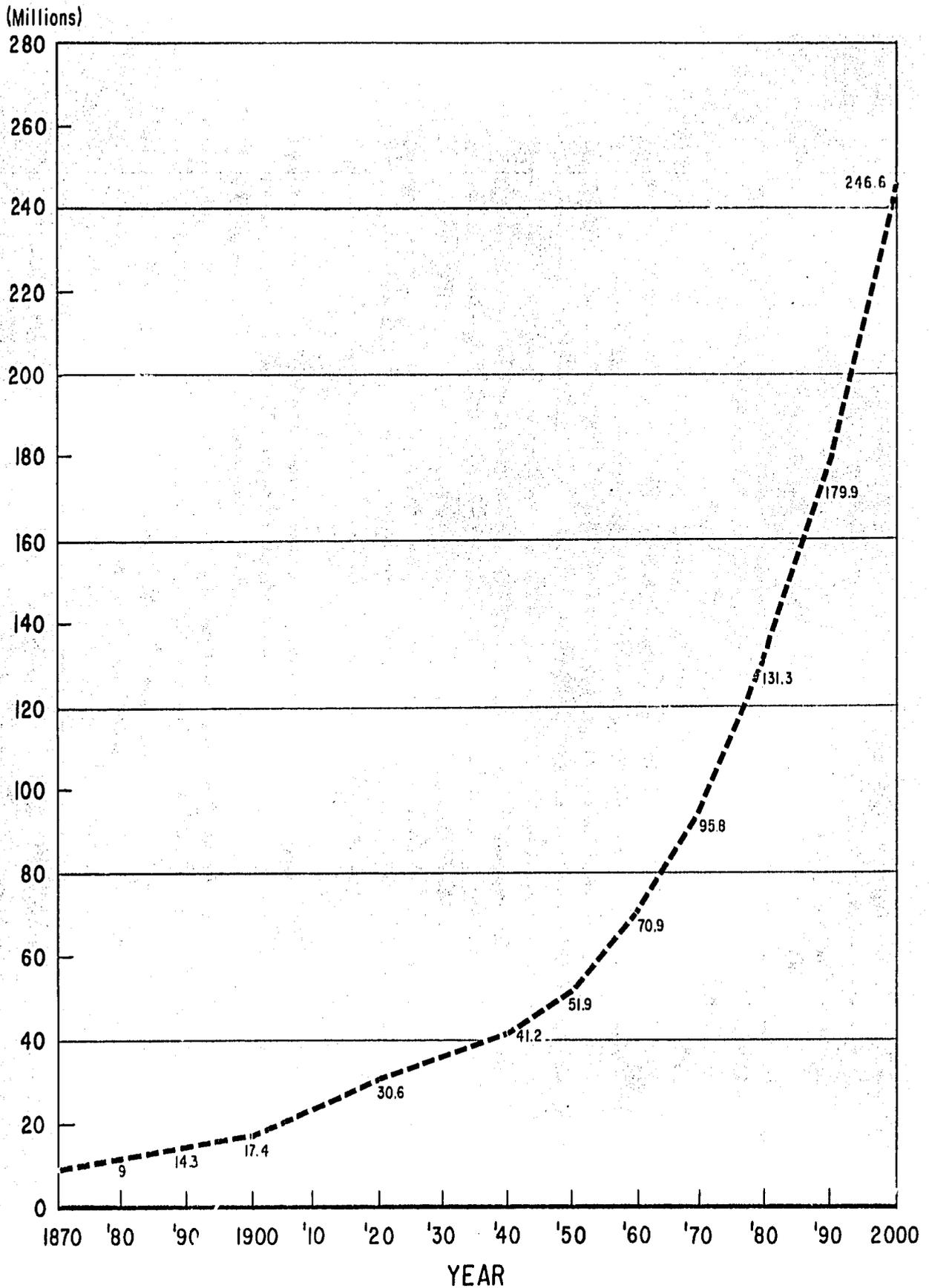
Table VII - Projected Yearly Population Growth (1967-2000)
at 3.2%

<u>Year</u>	<u>Thousands</u>	<u>Year</u>	<u>Thousands</u>
1967	87,200	1985	153,722
1968	89,990	1986	158,641
1969	92,867	1987	163,718
1970	95,839	1988	168,957
1971	98,906	1989	174,364
1972	102,071	1990	179,943
1973	105,337	1991	185,701
1974	108,707	1992	191,644
1975	112,186	1993	197,776
1976	115,776	1994	204,105
1977	119,481	1995	210,637
1978	123,305	1996	217,377
1979	127,250	1997	224,333
1980	131,322	1998	231,512
1981	135,525	1999	238,921
1982	139,862	2000	246,566
1983	144,337		
1984	148,956		

Table VIII - Projected Yearly Population Growth (1967-2000)
at 3.5%

<u>Year</u>	<u>Population</u>	<u>Year</u>	<u>Population</u>
1967	87,200,000	1985	162,005,000
1968	90,252,000	1986	167,675,000
1969	93,411,000	1987	173,543,000
1970	96,680,000	1988	179,617,000
1971	100,064,000	1989	185,904,000
1972	103,586,000	1990	192,411,000
1973	107,212,000	1991	199,145,000
1974	110,965,000	1992	206,115,000
1975	114,848,000	1993	213,329,000
1976	118,868,000	1994	220,796,000
1977	123,028,000	1995	228,524,000
1978	127,334,000	1996	236,522,000
1979	131,791,000	1997	244,800,000
1980	136,404,000	1998	253,369,000
1981	141,178,000	1999	262,236,000
1982	146,119,000	2000	271,414,000
1983	151,233,000		
1984	156,526,000		

BRAZILIAN POPULATION GROWTH (1870-2000)



COMPARISON OF U.S. AND BRAZILIAN GROWTH RATES (AT BRAZILIAN POPULATION LEVELS)

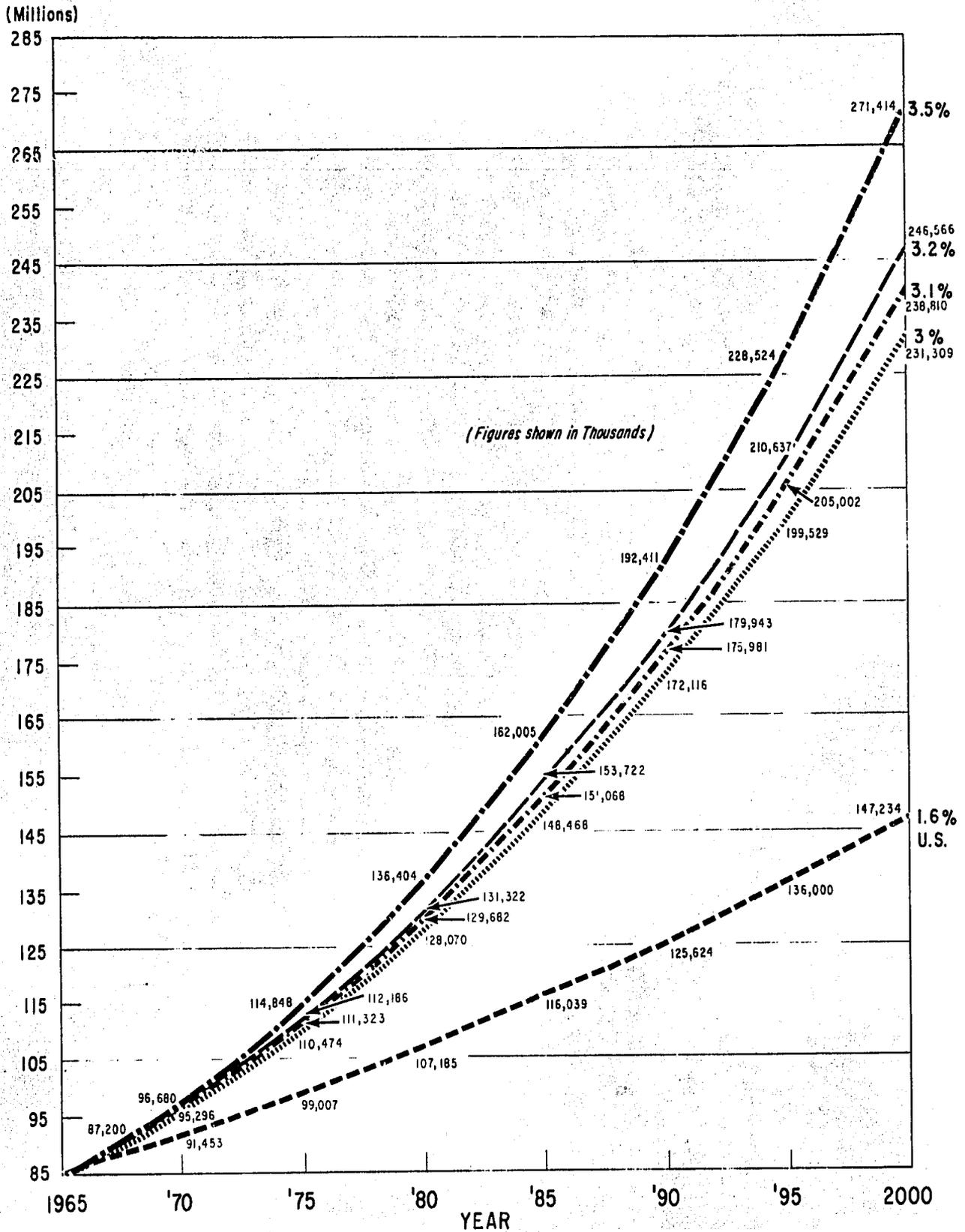


Table XI - Birth Rate per 1,000 Population

<u>Rate</u>	<u>Source</u>
41	WOH/PS
40-44	Population Bulletin XXIII, No. 3, 6/67, P.R.B.
33.5	PIC (PAHO) Doc. II (1964)
37-41	World Food Problem, p. 23, Vol. II, (1970 figures)
40-44	World Population Data Sheet, 1966, Population Reference Bureau
43	Dr. M. Gendell, Georgetown Univ., unpublished paper
41.7	State Airgram A-1033
40.0	TOAID A-211 (8/66)

Table XII - Death Rate per 1,000 Population

<u>Rate</u>	<u>Source</u>
13	IDB
13	Panoram Sanitorio do Brasil
12	WOH/PS
13	<u>Brazil at a Glance 1967</u> , (Ministry of Planning) 1966
10-13	Population Bulletin XXIII, No. 3
9	PIC (PAHO)
13	Health Sector Analysis
10-11	World Food Problem, II, p.23
10-13	World Population Data Sheet - 1966
10.7	TOAID A-211 (1965)
11.7	State Airgram A-1033
11.0	TOAID A-211 (1966) est.
13	Saude E Planejamento, EPEA

Table XIII - Infant Mortality per 1,000 live births

<u>Rate</u>	<u>Source</u>
112	IDB (1964)
112	Health Sector Analysis
70	WOH/PS (based on 1960 rate)
171	<u>Congressional Record</u> , 6/21/67, (H 7717)
78.7	PIC (PAHO) (1963)
112	<u>Answers to Revised Mission Briefing Book</u> (1964)
112	Saude E Planejamento, EPEA
112	TOAID A-211 (1960)
37	TOAID A-211 (1965)
90.9 (1966)	<u>Brazil at a Glance, 1967</u> , Ministry of Planning (1966) 112 in 1964.

Table XIV - Life Expectancy

<u>At Birth (years)</u>	<u>Source</u>
45	Congressional Record 6/12/67
50	PIC (PAHO)
54	TOAID A-211 (1960)
54	Panoram Sanitorio do Brasil
54	IDB
54.8	"Health Sector Analysis", USAID/Br
54.8	TOAID A-211 (1965)
54.8	Saude E Planejamento (1960)
55	AID Data Book (1964)
55	<u>Brazil at a Glance</u> , (1967)
	Ministry of Planning (1966)

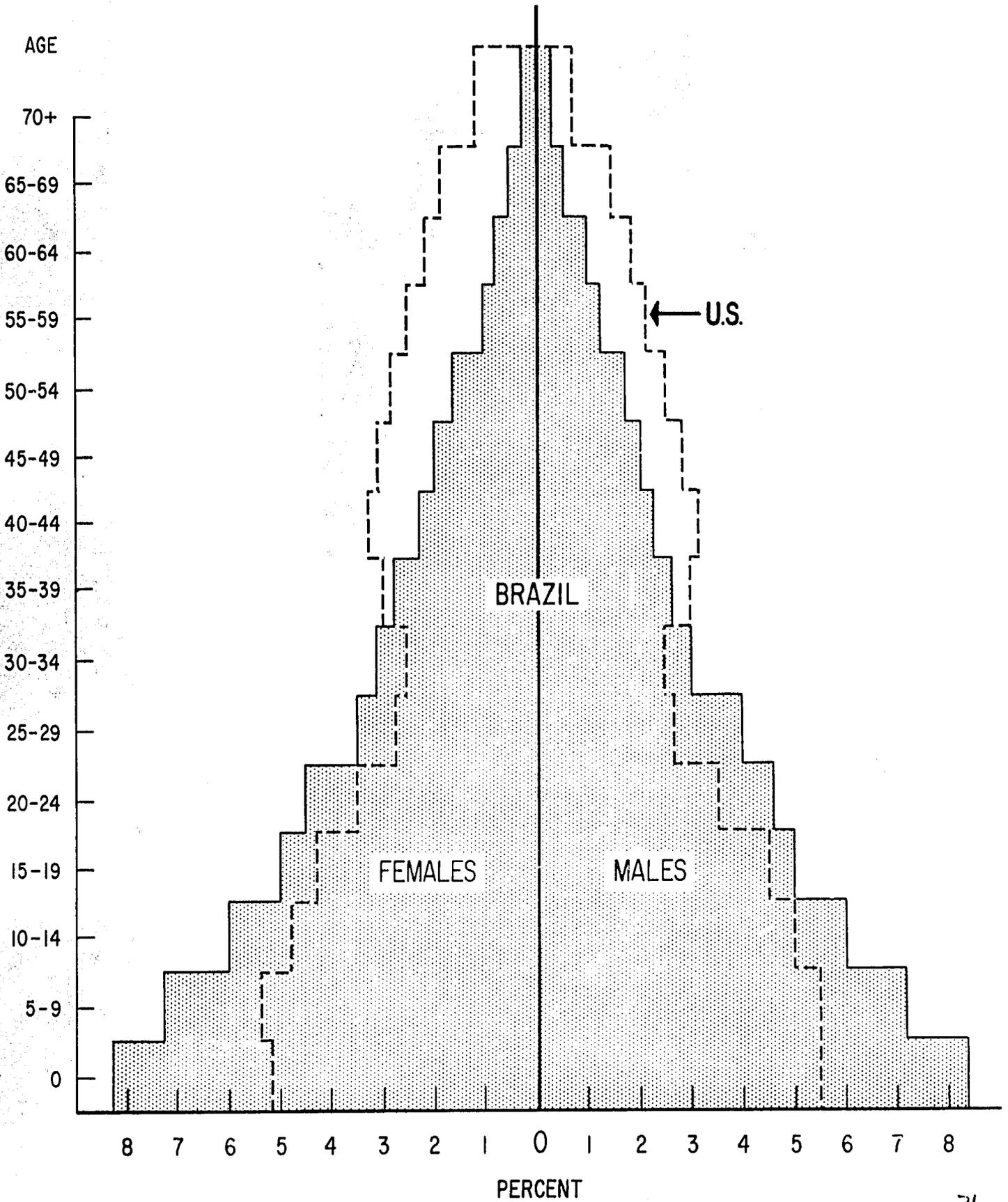
Table XV - Age Distribution; Percent of Population

<u>Age Group</u>	<u>Percent</u>	<u>Cumulative Percent</u>
0 - 4 <u>1/</u>	15.97 <u>1/</u>	15.97 <u>1/</u>
5 - 9	14.48	30.45
10 - 14	12.22	42.67
15 - 19	10.19	52.86
20 - 24	8.79	61.65
25 - 29	7.43	69.08
30 - 39 <u>2/</u>	12.13 <u>2/</u>	81.21 <u>2/</u>
40 - 49	8.50	89.71
50 - 59	5.40	95.10
60 - 69	3.12	98.22
70 +	1.77	99.99

1/ Five Year Groupings (IBGE 1960)

2/ Ten Year Groupings

AGE-SEX DISTRIBUTION (1960)



APPENDIX B

Table I - Demographic Density in Brazil - 1960

<u>Area</u>	<u>Demographic Density (inhabitants per sq. km.)</u>	<u>% of total population</u>
North	0.73	3.66%
Northeast	14.56	31.61%
Southeast	33.61	43.76%
South	21.12	16.73%
Central West	1.60	4.14%
Brazil	8.39	100.00%

Table II - Comparison with United States

<u>Year</u>	<u>Country</u>	<u>Demographic Density (inhabitants per sq. km.)</u>	<u>Population</u>	<u>Area (km)</u>
1960	Brazil	8.4	70,967,000	8,511,965
	U.S.A.	19.5	179,323,000	9,191,800
1965	Brazil	9.7	82,222,000	8,511,965
	U.S.A.	21.2	194,583,000	9,191,800

SOURCE: Answers to Revised Mission Briefing Book Questionnaire.

Table III - Area

	<u>Source</u>
3,286,473 sq. mi.	IDB
3,280,000 sq. mi.	Congressional Record, AID Data.
8,511,965 (km ² /)	PAHO, AID Questionnaire
85,384,400 ha.	"Brazil '66"

Table IV - Density

27 per sq. mile	WOH/PS	9.7 per sq. km. (AID Questionnaire)
24 per sq. mile	Congressional Record	
28 per sq. mile	TOAID A-211 (8/3/66)	
26 per sq. mile	AID Data Book	

Table V - Agricultural Land: 655,000,000 acres 31% total land area

Agricultural land per capita - 8 acres
 15% of total land area per capita - 4 acres (AID Data Book)

Table VI - Ratio of Rural Population to Area in Crops and Pastures
(per person per 1,000 hectares)

335 IDB

Table VII - Population Distribution

<u>Area</u>	<u>Population</u>	<u>Percent</u>
North	2,601,000	3.67
Northeast	15,678,000	22.09
Southeast	24,833,000	34.99
South	24,848,000	35.01
Central West	3,077,000	4.24
Total	70,967,000	100.00

IBGE (1960)

APPENDIX C

Table I - Urban - Population

<u>Urban</u>	<u>Source</u>	(in number or percent)
46% 36,340,000	AID Data Book (1965)	
49.6% 42,170,000	IDB (1966)	
39%	PIC (PAHO)	
46% 32,471,000	IBGE (1960)	
45.1% 39,327,000	Dr. Murray Gendell (unpublished paper) Georgetown University.	

Table II - Urban - Rural Age/Sex Distribution

<u>Age Group</u>	<u>Total</u>			<u>Urban</u>			<u>Rural</u>		
	Total	Men	Women	Total	Men	Women	Total	Men	Women
Total	70,100	35,000	35,100	32,500	15,600	16,850	37,650	19,400	18,250
0 - 14	29,900	15,000	14,700	12,600	6,200	6,400	12,300	9,000	8,300
15-49	33,000	16,400	16,900	16,100	7,650	7,500	16,900	8,600	8,500
50 -	7,100	3,600	3,500	3,700	1,750	1,950	3,450	1,800	1,550

(1960 IBGE)

APPENDIX C

Table IV - Regional Urban Levels and Growth

<u>Region</u>	<u>Urban Population (in 1,000's)</u>	<u>Percent of Population Urban (1960)</u>	<u>Annual geometric growth (percent) 1950/1960</u>
North	649	25.0	5.36
Northeast	3,268	20.8	5.06
East	8,771	35.3	5.00
South	9,774	39.2	5.60
Center-West	502	16.1	9.11
Brazil	22,934	32.3	5.33

* * * * * Source: A-1033

Table V - Geometric Growth and Average Annual Increment Between 1950/50, Cities with a Population of 10,000 or more in 1950

<u>Size of Cities in 1950 (1,000)</u>	<u>Annual Growth Rate (%)</u>	<u>Annual Average Increment (1,000)</u>
1,000 and more	3.92	103.4
600 - 1,000	-	-
300 - 600	4.95	32.9
100 - 300	4.63	11.4
50 - 100	5.77	5.6
20 - 50	6.47	2.9
10 - 20	6.20	1.2
10	<u>7.14</u>	<u>0.7</u>
	5.33	2.4

Source: A-1033
(from 1950 and 1960 IBGE censuses)

APPENDIX C

Table VI - Cities with Populations Over 200,000

<u>Population</u> (in thousands)	<u>City</u>	<u>Percent of</u> <u>Growth 1950/60</u>
5.535	Sao Paulo, Sao Paulo	72%
4.102	Rio de Janeiro, Guanabara	39%
1.081	Belo Horizonte, Minas Gerais	93%
1.046	Recife, Pernambuco	50%
.879	Porto Alegre, Rio Grande do Sul	63%
.878	Salvador, Bahia	57%
.790	Fortaleza, Ceara	91%
.573	Curitiba, Parana	100%
.573	Belem, Para	58%
.428	Nova Iguacu, Rio de Janeiro *	
.352	Campos, Rio de Janeiro *	
.316	Santos, Sao Paulo *	
.300	Sao Goncalo, Rio de Janeiro*	
.310	Goiania, Goias	
.295	Duque de Caxias, Rio de Janeiro*	
.284	Niteroi, Rio de Janeiro*	
.261	Campinas, Sao Paulo*	
.258	Santo Andro, S ^o Paulo*	
.232	Sao Joao do Meriti, Rio de Janeiro*	
.230	Campina Grande, Paraiba*	
.204	Pelotus, Rio Grande do Sul*	
.202	Juiz de Fora, Minas Gerais*	
.212	Maceio, Alagoas*	
.218	Natal, Rio Grande do Norte	
.200	Manaus, Amazonas	
.200	Brasilia, D.F.	

Sources: IBGE (1967)
* 1965 figures "Brazil '66"

APPENDIX D

Labor Force

Table I - Source: Congressional Record (H7717) 6/21/67

Force: 32,000,000 (1964)

Distribution: (1950)

- 51% - Agriculture
- 13% - Services
- 10% - Manufacturing
- 5% - Commerce
- 4% - Transportation and Communication
- 3% - Mining
- 14% - Other

Table II - Source: Talk by Glycon de Paiva 5/4/67

Labor force: developed countries 40-45%
under-developed countries 25-35%

Brazil's (%) labor force in re total population

- 1940 - 36%
- 1950 - 33%
- 1960 - 31%

For every productive individual, there are 3.2 dependents 1:3.2

Table III - Source: Airgram A-1033

Work Force Growth Rate: 2.79%

Total Population and Annual Geometric Rates of Increase Population 1940-1960

	1940	People (1,000)		Annual Growth Rate (%)	
		1950	1960	1940/50	1950/60
Active (adult)	14,760	17,117	22,651	1.52	2.79
Inactive (adult)	14,279	19,441	26,110	3.19	2.94
Total Population (Incl. minors)	41,236	51,944	70,119	2.38	3.00

Source: Demographic Census of 1960

APPENDIX D

Distribution and Growth of Labor in the Working Population

<u>Sector</u>	<u>1950</u>		<u>1960</u>		<u>Rate of Annual Geometric Increase (%)</u>
	(1,000)	percent	(1,000)	percent	
Unskilled	10,254	59.9	12,134	53.6	1.67
Semi-skilled	2,515	14.7	2,928	12.9	1.51
Skilled	4,348	25.4	7,589	33.5	5.63
Total	17,117	100.0	22,651	100.0	2.79

Table IV: Source: Answers to Revised Briefing Book Questionnaire

Total labor force (1960)	22,651,000	
Agriculture	11,698,000	51.6%
Industry	3,428,000	15.1%
Services	7,525,000	33.3%

Table V - Source: P.I.C. (PAHO)

Percentage of national income spent on compensation of employees: 64.8% (1960)
(Exclusive of agricultural workers)

Table VI - Source: AID Data Book

Labor force: 23,000,000 (1960)

Distribution: 52% Agriculture
3% Mining
10% Manufacturing
5% Commerce
13% Services
4% Transportation and communications
13% Other

Table VII - Source: IBGE (1960)

APPENDIX D

Table VII - Per Capita GNP (US\$)

<u>Amount</u>	<u>Year</u>	<u>Source</u>
271	1966	WOH/PS
271	1966	Pop. Ref. Bur. Bull.
271	1966	AID Data Book
300	1966	<u>Brazil '66</u>
215	1963	PAHO
271	1966	Briefing Questionnaire

Table VIII - Distribution of GNP

	<u>1/</u>	<u>2/</u>	
Agriculture	28%	27%	
Manufacturing, Mining, Elec- tricity and Construction	26%	27%	<u>1/</u>
Commerce	13%	12%	A-211 (1960)
Services	11%	11%	<u>2/</u>
Other	22%	23%	AID Data Book (1964)

Table IX - Assumed Distribution of Income 1960

<u>Population Percentage</u>	<u>Number of Persons</u>	<u>Per Capita Revenue (US\$)</u>	<u>Total Revenue (US\$ billions)</u>	
50	35,000,000	100	3,5	
45	31,500,000	325	10,5	
3	2,100,000	1,430	3,0	"Brazil '66"
<u>2</u>	<u>1,400,000</u>	<u>2,850</u>	<u>4,0</u>	(Source)
Total 100	70,000,000	300	21,0	

<u>9. Sector of Activity</u>	<u>Number</u>	<u>Percent (Active and Inactive)</u>	<u>Percent (Active)</u>
Total	48,761,467 (thousands)	100.00	
Agricultural, livestock and forestry	11,697	23.99	51.6
Extractive industries	573	1.18	2.5
Manufacturing	2,070	4.25	9.1
Construction	785	1.61	3.5
Commerce	1,520	3.12	6.7
Transportation, communica- tion, and warehousing	1,089	2.23	4.8
Services	2,732	5.60	12.1
Other activities	2,184	4.48	9.6
Inactive	26,110	53.54	

Source: Brazil '66

6. Urban/Rural Work Force Growth (1950/1960)

<u>Sector</u>	<u>Growth Percent</u>
Urban	70
Rural	17.5

Source: IBGE

APPENDIX E

Table I - Literacy Rate

		<u>1950</u>		
	<u>Total</u>	<u>M</u>	<u>W</u>	
15 and over	49.31	54.70	44.06	
		<u>1960</u>		
	<u>Total</u>	<u>M</u>	<u>W</u>	
	60.52	64.90	56.24	Source: IBGE
	60.6 (1960) Gendell			

Table II - Definition of Literacy

Literates were defined as being able to read and write a simple informal note ("bilhete simples") in any language. Those who could only sign their names were not considered literate.

Source: Cinso Demografico - Resultados Preliminares vii Recenseamento Geral do Brasil, 1960, serie especial, Vol. II, Rio, IBGE - Service Nacional de Recerseamento, 1965.

Table III - Classrooms Needed: Projection

Estimate of how many classrooms would have to be built annually in order to have all primary age (grades 1 through 6) children in school by 1975.

<u>Year</u>	<u>Increase (Enrollment)</u>	<u>Classrooms Needed</u>
1964	303,000	5,410
1965 (1970)	906,000 (1,663,000)	16,180 (29,700)
1966 (1975)	1,076 N.A.	19,210 N.A.
1967 Total	1,213 (7,983,000)	21,660 (142,550)
1968	1,324	23,640
1969	1,498	26,750

Source: Desenvolvimento de Ensino Primario eo Plano Nacional de Educacao, p. 35 NEC-INEP, II Conferencia Nacional de Educacao, Documento No. 1, Porto Alegre, INEP-CRAE, April 1966.

APPENDIX E

Table IV - Teachers

Primary	273,100
Secondary and Technical	102,100
Teacher training	18,500
Higher	1,378 (1962-1964)

Source: A-1033

Table V - Students

Primary	8,535,800
Secondary and Technical	1,717,300
Teacher Training	175,400
Higher	110,500 (1962-1964)

Source: A-1033

Table VI - Literacy

	<u>Source</u>
48.6%	Population Reference Bureau Bulletin
61.0%	AID Data Book
48.6%	PAHO
60.6%	Gendell
60.6%	IBGE

Table VII - Percent of Population Literate

<u>Age Group</u>	<u>Total</u>	<u>Men</u>	<u>Women</u>
5 + over	53.57	56.14	51.03
10 + over	60.63	64.03	57.30
15 + over	60.52	64.90	56.24
5 - 9	19.71	19.26	20.17
10 - 14	61.13	59.97	62.28
15 - 19	66.59	65.83	67.29
20 - 29	66.10	69.18	63.24
30 - 39	62.41	67.87	57.06
40 - 49	55.69	62.40	48.64
50 + over and age unknown	47.47	56.28	38.39

APPENDIX E

Table VIII - Teachers Trained Annually

<u>Year</u>	<u>Primary</u>	<u>Secondary</u>
1960	18,948	5,690
1961	18,874	5,973
1962	N.A.	6,603
1963	28,806	5,070
1964	30,883	5,174
1965	N.A.	
1966		

Source: Servico de Estatistica de Educacao e
Cultura, Ministry of Education

Percent of persons trained actually entering teaching - Primary
School teachers 1965 (50% est.), TOAID A-211 (8/66).

Table IX - Teachers Needed

Estimate of how many primary school teachers would have to be trained annually in order to have all primary (grades 1-6) school age children in school by 1975.

<u>Year</u>	<u>Enrollment Increase</u>	<u>Teachers Needed</u>
1964	303,000	8,656
1965	906,000	25,886
1966	1,076,000	30,744
1967	1,213,000	34,656
1968	1,324,000	37,829
1969	1,498,000	42,500
1970	1,663,000	47,515
1975	N.A.	N.A.
Total	7,983	228,086

Ratio: 35:1 accepted by Plano Nacional de Educacao and by UNESCO's Main Project.

Source: Treinamento, Formacao e Aperfeicoament de Professores Primarios eo Plano Nactional de Educacao, p. 3 MEL-INEP, II Conferencia Nacional de Educacao, Doc. No. 2, Porte Alegre INEP, CRPE, 4/66.

APPENDIX F

HOUSING

Table I - Percent Rural Population Living in Sub-standard Housing

1955	14.5%
1960	16 %
1966	17.5%

TOAID A-211

Table II - Percent urban population living in sub-standard housing

1955	9%
1960	10%
1966	12%

TOAID A-211

Table III - Number of Urban and Rural Houses Which Would have to be Built Annually to Eliminate the Housing gap in 20 Years:

435,000 units
Housing Deficit: 10 million units (Panoram)

Source: National Housing Bank, Ministry of Planning

Table IV - People Without Electricity

<u>Year</u>	<u>Total</u>	<u>Percent of Population</u>
1966	51 million	60.00
1960	48 million	68.00

Source: TOAID A-211

Table V - Percent of Urban Population for Which Potable Water is Available:

50% (1965)	A-211	Source: TOAID A-211
54%	Panoram	

Table VI - Percent of Population Served by Sewerage Systems

1955	25%
1960	23%
1965	18%

Source: TOAID A-211
50% (Panoram Sanitorio)

Percent of population without piped water in cities of 2,000 or more:

35% (1965)
Source: PAHO

APPENDIX G

HEALTH

Table I - Total Number of Physicians in Brazil:

1950	25,754	(CAPES)
1963	35,200	(EPEA)
1965	34,250	(<u>Brazil at a Glance</u>)

Distribution

North	595	
Northeast	2,977	
East	16,195	Source: <u>Brazil at a Glance</u> - 1967
South	13,418	
Central-West	1,065	

Table II - Ratio

MD:POP

1	:3624	('61) Congressional Record
1	:2500	(AID Program and Project Data for FY 1968)
4.5	:10,000	(1963) A-211
4	:10,000	(PAHO) (2.7 dentists per 10,000)

Table III - Number of Hospital Beds per 100,000

1950	319
1955	369
1961	318
1962	314
1966	314 (Congressional Record)
1966	314 (Data Book)
Source:	TOAID A-211 (1950-1962)

Table IV - Nurses Trained Annually

1960	341	
1961	354	
1962	417	
1963	511	
1964	911	
1965	1500 (est.)	Source: TOAID A-211
1966	2000 (est.)	
1970	4000 (est.)	

APPENDIX G

Table V - Percent of University Students in the field of
medicine and U.S. equivalent.

	<u>Brazil</u> <u>Dec. 1963</u>	<u>U.S.A.</u> <u>me, 1964</u>
Dentistry (D.D.S.)	7.0	0.7
Medicine (M.D.)	8.0	1.5
Nursing	3.0	1.5
Pharmacy	2.0	0.5

Source: Briefing Book

Table VI - Principal Causes of Deaths in Brazil with Incidence
Rates Compared to the U.S.

	Rates per 100,000	
	<u>Brazil</u>	<u>U.S.A.</u>
1. Childhood diseases	82.7	34.5
2. Gastites and Enteritis	77.2	4.4
3. Cancer	72.4	149.9
4. Heart Diseases	70.5	313.2
5. Accidents and Suicides	55.7	68.1
6. Pneumonia	53.5	30.4
7. Tuberculosis	34.9	5.1
8. Parasitic Infections	19.0	2.9

APPENDIX H

Immigration

Table I - Source: IBGE (1965) Anuario de Estadístico

Total for 1963	:	23,859
Portuguese		11,585
Spanish		2,436
Japanese		2,124

Table II - Source: Congressional Record

Total per year	31,000
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Table III - Source: Briefing Book Questionnaire Answers

A) Immigration to Brazil

<u>Period</u>	<u>Immigrants</u>	<u>% of average Brazilian population during this period</u>
1941-1950	130,000	0.3
1951-1960	586,000	1.0

B) Literacy Rates among Immigrants

<u>Period</u>	<u>Literates</u>	<u>Illiterates</u>
1945-1960	91.5%	8.5%

C) Skilled and Semi-skilled Immigrant Manpower - 1945-1960

<u>Skills</u>	<u>Number</u>	<u>Percent</u>
Agriculturalists	169,435	24
Workers	123,148	17
Technicians	8,752	1
Domestic Activities	273,582	39
Commerce	34,299	5
Other	98,395	14
	<u>707,611</u>	<u>100</u>

APPENDIX H

Table IV - Principal Immigrant Groups (1884-1957)

<u>Country</u>	<u>Immigrants</u>	<u>percent of total immigrants</u>
Italy	1,510,078	31.7
Portugal	1,457,617	30.6
Spain	657,744	13.8
Japan	209,184	4.4
Germany	192,574	4.0
Russia	109,899	2.3
Other	628,027	13.2

Table V - Decline of Immigration

<u>Year</u>	<u>Total Immigrants</u>
1952	80,000
1958	50,000
1963	23,859

Table VI - Internal Migration

1887 - 1939: internal migration of 3,102,806

<u>Year</u>	<u>Absent from Birthplace</u>
1940	1,300,000
1950	2,200,000
1960	4,000,000

Source: "Brazil at a Glance":1967
Tables: IV, V, VI

APPENDIX I

Table I - U.S. Economic Assistance to Brazil (1961-1967)

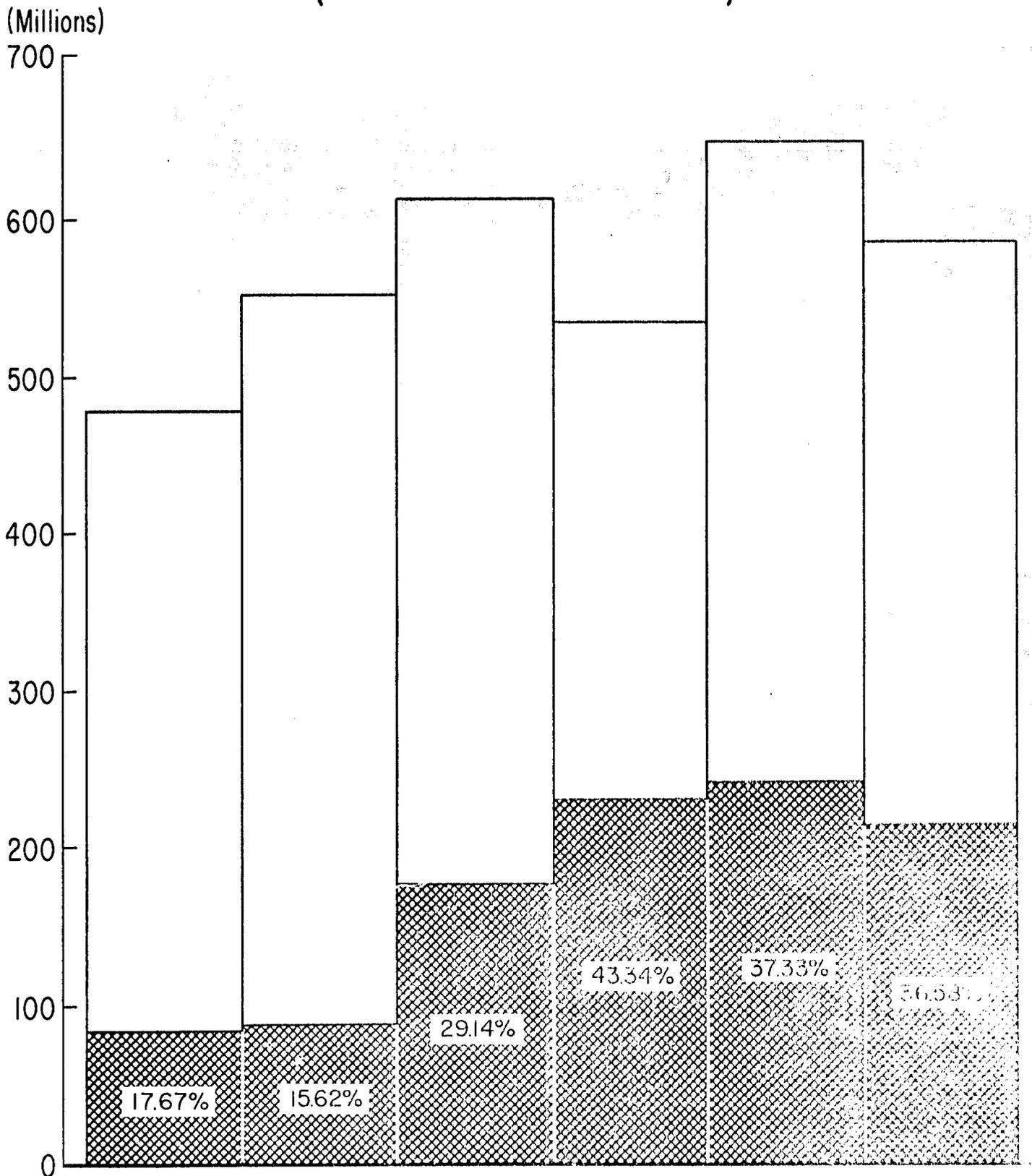
<u>Year</u>	<u>Population</u>	<u>Grand^{1/} Total (Mill. US\$)</u>	<u>Per Capita (US\$)</u>	<u>AID Grants & Loan Tots. (Mill. US\$)</u>	<u>AID per Capita (US\$)</u>
1962	75,271,000	252.1	3.35	84.5	1.12
1963	77,521,000	163.0	2.10	84.8	1.09
1964	79,837,000	396.3	4.96	178.2	2.23
1965	82,222,000	397.8	4.84	232.4	2.83
1966	84,679,000	405.3	4.79	241.9	2.86
1967	87,200,000	303.0	3.47	212.6	2.44

1/

This total includes:

- A. AID Grants and Loans
- B. Social Progress Trust Fund Loans
- C. EXIM Bank Loans
- D. Military Assistance
- E. Peace Corps
- F. Food for Peace (Title I - Title IX)

BRAZIL'S SHARE OF THE ALLIANCE FOR PROGRESS (AID GRANTS AND LOANS)



	FY 1962	1963	1964	1965	1966	1967
ALLIANCE	478.2	552.4	612.8	532.2	647.4	585
BRAZIL	84.5	86.3	178.6	230.7	241.7	214

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