1993
Executive Research Project
RS4

Education in Brazil

Lieutenant Colonel
Phillip H. Davidson
U.S. Air Force

Faculty Research Advisor
Dr. John E. Bokel

The Industrial College of the Armed Forces
National Defense University
Fort McNair, Washington, D.C. 20319-6000

This document has been approved
for public release and sale; its
distribution is unlimited.
**Title:** Education In Brawn

**Personal Author(s):** Phillip H. Davidsen

**Type of Report:** Research

**Time Covered:** From Aug 92 to Apr 93

**Date of Report:** April 1993

**Page Count:** 42

**Supplementary Notation:**

**Subject Terms:**

**Abstract:**

SEE ATTACHED
EDUCATION IN BRAZIL – AN ABSTRACT

Brazil is a "sleeping giant" in the world community. What is lacking in this country is government support and the will of the people to move forward in pursuing educational excellence.

This research paper reviews Brazil's educational system from pre-primary schools through graduate education. Private schooling as well as vocational and technical education are also covered. There is a section that discusses how outside organizations, such as the World Bank, have tried to help.

The heart of the paper is the section on issues and problems. Eight specific concerns are identified including too few schools and too much turnover in teachers. Also noted are the high student dropout rate and a lacking scientific tradition.

This paper would be beneficial to someone interested in education, especially the difficulties an emerging nation has in building a strong educational system.
1993
Executive Research Project
RS4

Education in Brazil

Lieutenant Colonel
Phillip H. Davidson
U.S. Air Force

Faculty Research Advisor
Dr. John E. Bokel

The Industrial College of the Armed Forces
National Defense University
Fort McNair, Washington, D.C. 20319-6000
DISCLAIMER

This research report represents the views of the author and does not necessarily reflect the official opinion of the Industrial College of the Armed Forces, the National Defense University, or the Department of Defense.

This document is the property of the United States Government and is not to be reproduced in whole or in part for distribution outside the federal executive branch without permission of the Director of Research and Publications, Industrial College of the Armed Forces, Fort Lesley J. McNair, Washington, D.C. 20319-6000.
EDUCATION IN BRAZIL

Brazil has strategic importance not only to the United States, but also to Germany, Japan, and the rest of the world. With the largest land area and population in South America (see Appendix A), Brazil is a "sleeping giant." Her large pool of raw materials would lead one to believe that Brazil could become a world power. She "has long been an important source of food and vital raw materials and manufactured goods to the world; a fact that, allied to its favorable geography, its mild climate, and industrious character of its people, places Brazil in a position of growing influence on the world scene." ¹

However, what is lacking in this country is a national will and an effective government to forge ahead. The country has alternated between civilian and military rule, neither of which has satisfied the citizen's needs. Brazilians know that a strong educational system is crucial to their country if it is to realize its full potential in the world community.

INTRODUCTION

The Constitution of 1934 made primary education free and compulsory. However, until the 1960s, the Brazilian education system was subpar from primary school all the way through college. The best way to become educated was to have money and go to private school. The literacy rate was 75 percent in the cities, but only about 33 percent in the countryside. If Brazilians did not have
money, they were probably illiterate. Needing to fix this, Brazil initiated an ambitious four-point program:

1. Train the teachers. Underqualified teachers were primarily teaching the poor, resulting in nothing more than babysitting operations.

2. Teach illiterate adults to read, write, and do simple math. The ongoing program was called MOBRAL, which was launched in 1971. It stands for Brazilian Literacy Movement and makes use of volunteer teachers.

3. Improve and enhance access to education.
   - Retain students in school for a longer period of time. Most students were leaving after grade four.
   - Make vocational training an integral part of the curriculum for all students through middle school.
   - Equalize educational opportunities across the country.

4. Modernize curriculum to include vocational training for students not capable of higher education.

Even with these changes, Brazil still lags behind hemispheric competitors and world leaders in educational statistics (see Appendix B). Since education has such a strong influence on creating national values and economic fulfillment, Brazil must continue to place high priority on educational needs.

**POLITICAL SYSTEM**

Brazil is a federal republic divided into 23 states, three territories, and the federal district of Brasilia. There is an elected National Congress made up of a Senate and a Chamber of Deputies. The President is also elected. Here are some particulars:

- President - elected for five years and cannot succeed himself or herself.

- Senate - elected for eight year terms. There are three senators from each state.

- Chamber of Deputies - elected for four years. Number of
deputies is based on the population of each state.

A new Constitution took effect in 1988. It provided that power be divided among congress, the judiciary, in the form of a supreme court, and the president. Another important provision is that the new Constitution guarantees basic social and labor rights. It also provided for direct presidential elections.  

History of rule in the last 100 years - Brazil has gone back and forth between civilian and military rule at least five times. Obviously, this turmoil has impacted the advancement of education. Here are the key dates in Brazilian history:

-1891 - Brazil became a federal republic with a constitution modeled after ours.

-1930 - Governor Getulio Vargas of state of Rio Grande do Sul seized power after worldwide economic depression of 1929 and military coup in Brazil.

-1945 - Military forced Vargas to resign. Becomes member of U.N.

-1950 - Vargas returned to power after free election.

-1954 - Military forced Vargas to resign again after chaotic rule. Government returned to civilian control.

-1965 - Military again took control because of alleged communist leanings by elected government. Military ruled Brazil for next 21 years, but never really took over every aspect of day-to-day running of country.

-1990 - President Fernando Collor de Mello took office after first free election in 29 years.

GOVERNMENT'S ROLE IN EDUCATION

Educational opportunities vary tremendously in different parts of the country because of different tax bases. One primary responsibility of government is to correct regional imbalances, although they still persist, because jurisdictions with higher tax bases are able to budget more money per student. What the government is doing by providing financial and technical assistance to state and local governments is to require those below the national level to allocate a mandatory 20 percent minimum of their budgets for primary and middle education. But disparities still exist. For instance in Sao Paulo, more than 30 percent of revenues are channeled into education. This is good for those who live in Sao Paulo. But, in the poorer sections of the country, less than 20 percent of the budget goes for education, and those students suffer. The government is working very conscientiously toward improving agricultural and technical schools. This has long been considered one of the weakest links in the educational chain.

Brazilians believe education is the right of everyone and the duty of the state. Even though school attendance is mandatory for primary school children, the law is difficult to enforce because of the size of the country. Brazilians also believe that education is the key factor in the country's economic development; education is expected to prepare people for vocational training or higher education.
The administration of public education is decentralized with the state and municipal governments having responsibility for primary and middle schools. However, it seems that primary schools in the cities are run by municipal authorities, and rural area primary schools are run by the state. Most middle schools are under the jurisdiction of the state.\(^5\)

The Ministry of Education and Culture in Brazilia has overall responsibility for operation of the school system. Among its many duties are:

- To operate schools in the three federal territories.
- To operate special vocational and adult education programs.
- To be responsible for public higher education.
- To set national guidelines for education, as a primary role.
- To rectify regional disparities through financial and technical assistance to state and municipal school systems.

The formulation of overall educational policy is the responsibility of the Federal Council of Education. There are a total of 24 educators, prominent in their fields, appointed by the president for six year terms. Their responsibilities include:

- Establish national standards for the various school systems.
- Propose a syllabus for each grade level.
- Supervise the federal school system.
- Accredit institutions of higher education.
- Monitor administration of schools of higher education.
-Implements its own policy recommendations by virtue of decisionmaking authority it has.

The ministry in the Brazilian capital implements overall educational policy, which is formulated by an advisory panel of prominent educators. The council also:

- Sets minimum standards for education.
- Proposes syllabuses - The primary aim is to achieve literacy during the first four years of school. Math skills are also taught. Vocational courses are taught in the second four years of schooling. The Catholic religion is also taught on an optional basis.
- Provides technical assistance.

Each state has an education secretariat and advisory council.

**Education in the Budget** - Brazil has passed laws to insure that tax dollars go to education as much as possible. Here are some highlights of the government's educational budget:

- Now single largest line item, although children still have to buy their school books.
- Government funds national universities. Has increased funds for research.
- Government has recently begun to provide free lunches for poor students.

**Distance Education** - Thirty years ago, Brazil recognized the potential of radio to train illiterate rural farmers. The farmers formed study groups and were provided books for educational purposes. Besides listening to radio broadcasts, they have had the personal interaction to facilitate learning. The radio broadcasts have two purposes:

- Teach the farmers how to read.
Twenty years ago, Brazil added television to its public teaching repertoire. This was to overcome the lack of school facilities throughout the country. Early on, television presented learning materials, while trained teachers provided instructional support. Now, TV includes a secondary course for adults, a literacy program, and cultural programs for advanced students.

Even more advanced is a program for teacher trainees where classroom situations have been dramatized. For instance instructional methodology is dramatized while a narrator explains what is happening in the classroom.

Distance education in Brazil has progressed rapidly--from radio broadcasts to private and public TV.

ORGANIZATION OF THE PUBLIC SCHOOL SYSTEM

In accordance with reform legislation enacted in 1971, the educational system is divided into four cycles. These are primary school, middle school, undergraduate, and graduate education (see Appendix C).

Primary schools are operated by either the state or township. The eight year cycle is free and mandatory. As students reach the upper level, they must take some vocational training.
In the first four years, the students have one teacher for all subjects. Afterward, they usually have a different teacher for each subject. Boys and girls begin to study languages other than Portuguese early in school. They all study English, and many also learn French, German, and Spanish.

Middle schools are operated by either the state or township. They equate to our high schools but are called colleges. They are free, but students must be primary school graduates to attend. Only 20 percent of those eligible actually attend middle school.

What middle school really does is prepare children to go on to higher education or prepare them to join the work force. They are structured to provide either academic or vocational training. Although all middle schools are supposed to provide both academic and vocational training, essentially they stovepipe students to higher education or the work force.

One really unique aspect of the middle schools is that the students enroll for a certain amount of classroom hours. The result is that they complete school in 2-5 years. Since both tracks are divided into classroom hours rather than school years, the students can advance at their own pace, dependent upon how much they work outside the classroom.

All middle school students must take some vocational training.
Those on the vocational track have dozens of specialized areas to choose. The courses include practical apprentice work in school operated facilities and even training for primary school teachers. Also included are data processing, welding, and sewing. Classroom study is supplemented by apprenticeship studies.

The academic curriculum is based on 1000 hours of classroom work. Courses include history, math, science, and social studies, as well as Brazilian literature and Portuguese language.

A complete vocational course requires 1200 hours of classroom work. After completion, students receive a certificate that designates them as a technician in a particular area. Lower levels of certification are often sought by those students on an academic track. With 300 hours of specialized study, they also receive a certificate.  

**Universities.** In the 1960s and 1970s, there was a program created to enhance undergraduate or higher education:

- Competitive entrance examinations were designed for incoming students.
- Branch campuses of larger universities were built in smaller cities and towns.
- Pay raises were given to professors. Previously, most had to have second jobs to support their families.
- Scientific and technical programs were added and upgraded.

Most universities offer law, engineering, and medicine, and are under a national charter. (They are usually state run.)
Entrance is gained by taking an examination. Competition is keen, especially in engineering, and medicine. The test is very difficult. It tests students' knowledge of biology, chemistry, physics, math, Portuguese, English, and other subjects. If students do not pass, they can take the exam again in six months. Some students take as long as four or five years to finally pass the exam.

After students pass the exam, and they usually get the results in a day or two after they take the test, they are "initiated" by upperclass students. This could include getting your clothes ripped, paint and mud thrown on you, and chunks of your hair cut off. Girls are painted and covered with mud. Then all the students are marched downtown for celebrations.

After the celebrations, first year students register for a cycle of basic studies. This may serve as a remedial program for those middle school graduates who are less prepared to enter their field of specialized studies. Courses of study vary from three to six years depending on the degree sought.¹⁰

- A degree in medicine requires six years.
- A degree in law requires five years.
- A degree in engineering requires five years.
- A degree in the humanities requires three or four years depending on the specific course of study.

Pre-primary schools operate effectively in large cities, because they draw students from the middle class.
Children can begin school at age four. They learn to draw, to sing, and to play with other children. Similar to our children, they learn about colors, numbers, shapes, and the letters of the alphabet.

At age five, children advance to a pre-grade school to learn more about the alphabet and numbers. They also learn basic re: and some arithmetic.11

A DAY AT SCHOOL - The school year runs from March until the middle of December. They get summer vacation, too.

A high wall around the school protects the children and school from thieves and other undesireable characters. There is a guard at the gate, who makes sure that everyone is wearing a proper and clean uniform.

If you go to an urban school, you probably have a full curriculum and teachers for each grade and for each specialized course.

On the other hand, for students in a rural school, their classroom is probably crowded because of limited schools. There are probably no specialized subjects to be taught. Some rural schools have but one teacher, teaching in one room, with no more than a dozen children attending regularly. There is no real separation of grades.12

11
12
Children seem to enjoy school. Here is what one says:

"I go to a Catholic elementary school. We start school at 7:45 a.m. and finish just before lunch. We have geography, history, math, Portuguese, gym, science, and art lessons, but my favorite subject is English. Our uniform is a white blouse, red skirt, and white socks. After school I go to piano and ballet classes.

Most kids carry a backpack, and we begin the day by singing the national anthem in front of our flag.

We have recess, where we play tag or buy popsicles or popcorn from street vendors."\(^{13}\)

Teachers also seem to enjoy their work. Here are comments from a teacher:

"I teach at a Catholic school. I teach math and science to 11-year olds. We have about 1200 children, aged 4-14, in our school. There are 47 teachers.

The government has had a hard time finding qualified teachers to work in the schools, because salaries for teachers are very low."\(^{14}\)

**VOCATIONAL AND TECHNICAL EDUCATION**

Besides training in middle schools, Brazil has vocational training institutes. They are notable for their relations with employers and their high quality. They also have a reputation for being able to change in competitive environments. They specialize, for example in petrochemicals or textiles. They often get financial support from industry associations.\(^{15}\)

Another example of vocational and technical education is the Lodi School in Rio. There, training is based on market demand in surrounding industries. Here is how the program works. Learning materials are divided into modules, and students are evaluated
after each module. Then the students enter a period of supervised on-the-job training.

The program has been highly successful for three reasons:

- They provide training to students entering with different skill levels and aptitudes.
- Lodi developed a curriculum that is flexible in the face of changing markets.
- It has reduced dropouts and the cost of unused capacity.

The school operates all 12 months. This means students can enter the labor market year-round.\textsuperscript{16}

**ADULT EDUCATION AND LITERACY**

The share of the population classified as literate has risen by 40 percent (to 81 percent) in the last 50 years. However, some argue that literacy in Brazil is closer to 40 percent. Whatever the number, Brazil is well behind major industrialized nations, and even behind its two largest competitors in South America (see Appendix B). The dilemma appears to be how literacy is defined, how many people actually reach full literacy, and how many people lapse back into illiteracy. By whatever degree literacy is counted, it is a problem, and it is hurting Brazil reaching its full potential. Here is the key. \textit{Education is the linchpin to every element of national power that a country can muster.}

MOBRAL, as covered earlier, has offered instruction in literacy to several million people. Its courses are five months in dura-
tion and are usually conducted in the evenings. Interestingly, funds from the program come from lottery proceeds and tax deductible contributions from private companies.

There are also vocational programs for young adults and the unemployed. They are conducted all around the country by various groups and include training in industrial occupations, in commerce, and in the service sections. They are supported by a voluntary payroll tax.17

OTHER SCHOOL SYSTEMS
Besides public schools, there are other types of schooling in Brazil that are important to the country's development. For instance, military schools in all services are among the best in the world. There are Indian schools, mobile schools, and one of the oldest schools in South America.

The Jesuits actually founded the first college in the colony in the mid-1500s. They established academies in several locations. Education was classical, stressing grammar, philosophy, and theology. Graduates who wanted to study law or medicine went to Portugal for further education.

There are Indian mission schools in the interior. But still, many Indians have never been to school.

In some parts of the country, mobile schools are used to teach
children and even their parents. Teachers, books, and supplies go from village to village in a van, just as we use a mobile library in the U.S. to take books to counties in some rural areas.18

MILITARY - The Brazilians consider their educational systems developed for their armed forces to be second-to-none. The drive for professionalism has been ongoing for a number of years. The first sign of success came from a school for sergeants that combined tough entrance requirements with weighting toward technical subjects.

But schools for the military actually begin much earlier. There are military prep schools that begin as early as age 12 or 13 for those that aspire to be officers. After graduation and for those that pass a written exam, other graduates of secondary schools are also eligible, they then enroll in the military academy and face a tough four-year program leading to an army commission. There are studies in national security doctrine, engineering and sciences, and social sciences. During the last two years the students specialize in training such as infantry, artillery, or armor (branch schools).

Once in the army, the officer attends a one-year course that is a pre-requisite to field grade promotion. But before this happens, officers routinely maintain contact with their branch schools through correspondence or refresher training courses.
After promotion to field grade, the officer strives for acceptance into the Army Command and General Staff School. Without this, promotion to general is unheard of. For any officer that aspires to high rank, finishing each academic step in the highest percentile is necessary.

The education of air force and navy officers follows a similar pattern. All services attempt to send their top officers overseas to various military schools, including the U.S. However, the top of the educational ladder for all Brazilian officers is the Superior War College. It is modeled after the United States' Industrial and National War Colleges and prepares "civilians and military to perform executive and advisory functions, especially in those organizations responsible for the formulation, development, planning, and execution of the politics of national security." ¹⁹

Retired military officers frequently fill important administrative posts in state and federal educational systems. After all their schooling, they are well qualified for this venture.

**Private Schools.** They play a prominent role in Brazilian education, particularly at the middle level, and are entitled to federal subsidies. Children as young as four years old can attend nursery schools. There are also private universities.

Many of the best schools are private. They are badly needed,
because the building of public schools cannot keep pace with the growth in population. Private schools often have more funds to spend on training teachers, buying equipment, building gymnasiums, and laboratories, and developing good libraries. The tuition is tax deductible.

Most are supported by the Roman Catholic Church or other religious orders. They draw the bulk of their students from the elite and from the upwardly mobile whose parents have a hard time meeting tuition requirements.

There are some private schools set up to help students study for the college entrance exam. Students have to study long and hard, after work, and late at night. They study for six months.\textsuperscript{20}

\textbf{The Nambiquara Project} to teach the Indians illustrates how difficult education can be in Brazil.

Brazil decided to build a 1000 mile highway along their western frontier. Living in the middle of the region slated for development were the Nambiquara, free and proud Indian people, many of whom had little previous knowledge of Westerners.

What would they need in order to survive the sudden advance of Western society? How could they land on their feet after being catapulted into the 20th century? What sort of program would really be effective in helping them hold their own against the
tide of land-hungry, technologically sophisticated immigrants? The transition they would have to make was enormous. The Nam- biquara Project would help.

Over the course of time, there had been several attempts to teach the Indians how to read and write. Missionaries and Indian agents had both failed, because they tried to teach the Indians to read in a language they could not speak.

The Nambiquara Project provided the place, supplies, the organization, and the teachers. They adapted the school to the Nambiquara way of life:

-They taught them to read in their own language.
-They school convened in the dry season, when the Indians had leisure time.
-It was held at a neutral location, rather than in any one village, where students from other villages would be treated as visitors.
-Students were allowed to come with their families, because young men who wanted to learn could not leave their wives and children behind.
-Food was provided so the students would not have to take time off to go hunting.
-There were separate classes for adults and children, so that each could learn at their own pace.
-Individual attention was maximized, compliant with their tradition of one-on-one instruction.
-There was minimum competition, which is foreign to their nature.

There was widespread enthusiasm about learning to read, and they were all progressing on schedule. After several years, almost
all could read reasonably well, and a few could touch type. They now felt ready for instruction in Portuguese. However, before this had gone far enough, funding was cut off.  

OUTSIDE HELP

World agencies have recognized the vast potential of a great country like Brazil. Over the years, these agencies have stepped forward and assisted Brazil with their educational advancement. Here are their stories.

**How USAID Has Helped** - Recognizing that poverty was widespread, that wealth was concentrated in the hands of a small segment of the population, and that many children were malnourished, the Agency for International Development "worked with Brazilian managers to determine priorities and make joint decisions on how foreign assistance could contribute to meeting" priorities of education. That is, focus on rural areas and attempt to increase the number of children completing the fourth grade.

The first loan was made to secondary schools encouraging them to provide training in practical skills as well as core academic subjects. The second loan required education plans and curriculum improvement. Also, it placed emphasis on special projects in research, planning administration, and teaching.

The loans built on earlier assistance such as support for a pilot teacher training program, support for school construction, and
capacity building in primary and secondary education.

The major outcome of the loans was phased implementation approaches at various levels of schooling. Other significant achievements included:

- A national curriculum reform to promote active learning on practical education.
- Teachers increasing threefold and the percentage of certified teachers increasing.
- Enrollment rates in grades 5-8 increasing.

The loans were a success. Brazil was able to match the USAID loans and form a base capable of planning and implementing educational programs at the national, state, and local levels.23

How OAS Has Helped - The Organization of American States has been instrumental in Brazil's educational development.

They recognized the need for education in various areas:

- In the environment area, seminars have dealt with scientific information on the Amazon. Youth have also been made more aware of environmental problems.
- Educational programs have been developed to fight drug trafficking and drug abuse.
- The OAS provided support for the creation and improvement of schools in disadvantaged areas. They have improved course work and introduced work-oriented activities.24

The OAS has also been instrumental in promoting technical education and professional training. In one course, teacher skills were the focus in the areas of science and technology. Technical fields were also covered, primarily in the areas of chemis-
try, electronics, and telecommunications. Brazil also partici-
pated in information gathering that resulted in innovations for
technical and vocational education.

The OAS with Brazil as a member state has recognized that
education must be structured to provide students with the skills
to enter the job market. Also, education must be made available
to social groups in the lower income levels. They also believe
that low cost educational initiatives must be developed to "re-
verse the deterioration of living standards in both rural and
urban areas of the 1980s: the lost decade for development." 25

How The World Bank Has Helped - The World Bank has also been on
the scene in Brazil to assist in educational matters. One pro-
gram of note involves teacher training through distance educa-
tion.

Here is how it works. The program is self-paced and teaches
subject matter such as general secondary courses. The students
are uncertified primary school teachers, but they must be
employed. The curriculum consists of courses presented in
pamphlets. The topics include techniques for teaching. The
thing to remember is that most prospective primary teachers only
have about nine years of general education. Students study at
home and go to learning centers to be tested. While at the
learning centers, other student activities include microteaching
sessions, socializing, and study groups. The entire program
takes 30-50 weeks to complete. Once completed student teachers must take a certification exam. 26

Another important contribution by the World Bank was in the area of reducing repetition of grades by students. With financial assistance from the World Bank, Brazil began a massive effort in the northeast, the poorest area of the country, to update and enhance educational opportunities. A later evaluation showed increased student learning, resulting in less repeated grades. Money was actually saved, because investing in writing materials and textbooks shortened the average length of time for a student to advance to the fourth grade. 27

ISSUES AND PROBLEMS

During my research, I have identified eight problems that I believe exist in Brazil in regards to education. They all seem vitally important to me, worth studying further, and resolving if the national will so dictates. Here they are:

1. Education is theoretically compulsory through grade eight. However, the dropout rate for children in elementary schools remains high, although most children at least start school and get some education and training. However, millions of very poor boys and girls still do not go to school, because they must earn money for their families, work at home, or work on the farm.

This equates to only about 20 percent of Brazilians in the middle
school age bracket actually attending school. This is happening according to some social experts and government-sponsored studies because:

- Poverty causes cultural backwardness.
- Children need to work on farms and in the homes.
- Poor children get sick, oftentimes because of poor nutrition.
- Classroom overcrowding in the cities.
- Distance to school in the rural areas.

2. Applications in degree granting programs such as engineering and medicine far exceed available placements. Although these fields are among the most crucial to national development, high technology overheads make training facilities costly to expand. Many young people attend universities in North America or Europe. This is good, but only if they are going to return to Brazil.

3. Over half the population of Brazil is under 20, which means that a large number of new schools have to be built each year to keep pace with population growth. It is not unusual for city schools to operate in shifts, with two or three batches of students being taught in the same classroom each day. Brazilian children choose whether they want to go to school in the morning or afternoon. From the fifth grade on, some students even have the option of attending classes at night.

4. As yet, Brazil has no great scientific tradition, but re-
search centers into tropical agriculture have acquired a reputation which extends far beyond the borders of Brazil.

5. Many of the school buildings are old and in need of repair. Most schools do not have libraries, laboratories, or gyms.

6. The turnover in teachers is regarded as a serious problem in Brazil. Teaching is a respected profession and gives one status in the community. However, salary levels are low, and working conditions are poor. Brazil has even gone so far as to set up schools to train teachers, but the numbers are not considered adequate.

Most school teachers are women. Many are leaving after only a few years for better paying jobs or to get married. Added to the problem is the fact that enrollment is going up, and even more teachers are needed.

7. Quality varies in the institutions of higher learning. Some are respected schools of engineering or medicine, while others are criticized for their lax standards. There has also been a surge in students wanting to attend universities. The government policy is to expand those studies that have the least overhead like humanities, while limiting the growth of engineering and medicine, which are the most needed for the country's future development.
8. Access to higher education is limited to the rich in most cases. Only 25 percent of the total vacancies available are offered by tuition-free public universities. The entrance exam screens out about half of the middle school graduates who apply to enter higher education. Today, Brazil has about 40,000 students enrolled in graduate courses, but this is small for a country of 158 million people.28

OUTLOOK

Brazil has enormous potential--and along with the United States could become a major influencer in Western Hemisphere politics. However, I just do not see this happening for a long, long time.

Brazil is a country in political turmoil. She is a country that can not decide if she wants civilian or military rule. Brazil has many problems, economic and political to name just two.

One thing that is happening in Brazil that is very positive is that it is acknowledging and addressing some of its shortfalls. It is, among other initiatives, trying to improve education, recognizing the powerful influence it has on other elements of society.

Buying for the Future - Universities in Brazil have upgraded themselves by buying new workstations and servers. They will be used in "a broad range of applications, from research and instruction to administration." Brazil's national council for
technological development purchased 526 of the new workstations to be donated to universities throughout the country. Most universities have used mainframes and personal computers as their primary platforms.\(^{29}\)

**Threatened U.S. Role.** The United States cannot be overconfident so far as our role in being mentor to the Western Hemisphere nations. Brazil is already the leading country in Latin America despite its problems. An official in Brazil's Foreign Ministry remarked, "Everybody in the Brazilian bureaucracy works in accordance with the assumption of Manifest Destiny although we don't use that expression." \(^{30}\)

Despite Manifest Destiny which says that a country will inevitably expand, Japan is challenging our leadership role in Brazilian matters.

"As long-run players, the Japanese are fascinated by Brazil. The prime factors in Japan's encounter with Brazil include the compatible views of the two nations...The purpose of Japanese loans, direct investment, and transfer of technology is calculated to augment Brazil's role...Japan's collaboration with Brazil in the development of infrastructure...from a Japanese point of view...offer(s) immediately profitable opportunities for providing finance, technology, capital goods, and management services to Brazil." \(^{31}\)

Brazil does not want overdependence on the U.S. However, she does not want to alienate us either.

**CONCLUSIONS**

Brazil has learned that the best way to prepare for the future is
to educate its people. As the most populous country in South America, it is a regional power, maybe without challenge. The country is ambitious, but the government has enormous problems. The economic base that would enable the country to strengthen education is still lacking.\textsuperscript{32}

The development of Brazil depends on its ability to maintain dynamic growth in educational quality and availability. The government is trying to change the situation, but it has a long way to go. Crowded city slums, unemployed workers, and abandoned children all contribute to the problems faced by the country.

The military expects Brazil to become a world power in all those areas that have a bearing on the government--economics, politics, and their society. With the impeachment of Collor and the early failures of Franco, this country could explode.

But Brazil recognizes that a nation achieves its potential and takes its place in the world order through education. Hopefully, this great country, with enormous potential, will realize its place high in the world order of communities.
ENDNOTES


10. Ibid, p. 93.


27. *Ibid*, p. 44.


## EDUCATIONAL INDICATORS

<table>
<thead>
<tr>
<th>Country</th>
<th>YRS in Primary Cycle</th>
<th>Student-Teacher Ratios</th>
<th>Education Expenditures as % of GNP</th>
<th>Govt Expenditure as % of Ed.</th>
<th>% Completing Primary Schooling</th>
<th>Pupil Expenditures ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brazil</td>
<td>8</td>
<td>24</td>
<td>4.5</td>
<td>17.7</td>
<td>22</td>
<td>NO DATA</td>
</tr>
<tr>
<td>Argentina</td>
<td>7</td>
<td>22</td>
<td>3.6</td>
<td>15.1</td>
<td>NO DATA</td>
<td>478</td>
</tr>
<tr>
<td>Canada</td>
<td>6</td>
<td>17</td>
<td>7.2</td>
<td>15.4</td>
<td>NO DATA</td>
<td>NO DATA</td>
</tr>
<tr>
<td>West Germany</td>
<td>4</td>
<td>17</td>
<td>4.4</td>
<td>9.2</td>
<td>97</td>
<td>2171</td>
</tr>
<tr>
<td>Japan</td>
<td>6</td>
<td>23</td>
<td>5.0</td>
<td>17.7</td>
<td>100</td>
<td>1602</td>
</tr>
<tr>
<td>Mexico</td>
<td>6</td>
<td>32</td>
<td>3.4</td>
<td>16.7</td>
<td>69</td>
<td>NO DATA</td>
</tr>
<tr>
<td>United States</td>
<td>8</td>
<td>22</td>
<td>6.7</td>
<td>21.0</td>
<td>NO DATA</td>
<td>3934</td>
</tr>
<tr>
<td>Venezuela</td>
<td>6</td>
<td>26</td>
<td>5.4</td>
<td>21.3</td>
<td>73</td>
<td>178</td>
</tr>
</tbody>
</table>

Source 33
STRUCTURE OF EDUCATION IN BRAZIL

Ph.D

Master's Degree

University Degree 3 to 6 years

Middle School Diploma 15 14 13 12 11 10 9 8 7 6 5 4

Vocational Training

Middle School (2 to 5 years)

Vocational Training

Primary School

Pre-grade School

Pre-primary School

APPENDIX C