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Holding to Basics and Investing for Growth

Miren Uriarte

Cuban Education and the Economic Crisis of the 1990s

Note: Visual figures (graphs, tables and charts) referred to in this article were present in the original print edition of the Journal of Pedagogy, Pluralism and Practice, and are not currently present in the online edition.

Since the middle of the 1980’s, processes of economic restructuring have led to large changes in the landscape of educational and social policy in most of Latin America. Faced with severe economic crisis, Latin American nations have sought structural transformations that have redefined the role of government in the provision of social benefits and sharply reduced expenditures through wholesale privatization and deep reductions in remaining government-sponsored programs.(1) Between 1980 and 1990, expenditures in education as a percent of total government expenditures fell in most countries in Latin America(2), affecting especially public education, the only recourse for the poor. By 1996, the rate of expenditures improved somewhat, but countries such as Colombia, Guatemala, El Salvador, the Dominican Republic, Ecuador, Bolivia and Nicaragua had not caught up to the rate of expenditures of just a decade before. The results have been decreased opportunities for those that have to rely on government-funded education, serious gaps in quality and reach, poor teacher training and a continued de-funding of primary and secondary education in favor higher education, which is more politically popular and has a more visible, short-term economic impact ...and, as a consequence, lessened possibilities for the reduction of poverty, for increased equity and for social and economic development.(3)

Faced with an economic crisis of similar proportions, Cuba made different choices. Although it has had to embark in a deep process of economic restructuring that have had effects in the education of Cuban children, by the time the new century rolled in, it was evident that Cuba’s educational system was not only holding tight to the basic values that have been its greatest strength but beginning a new process of investment. Cuba’s commitment to universal access to public education at all levels and to the government’s responsibility for financing and implementing education across the island was unchanged. Funding for decreased somewhat during the depth of the crisis, but by 1996 was on the increase, with substantial capital investment in teacher support, in technology in schools across the island, in initiatives to motivate children to stay in school.

There is still no clear resolution to Cuba’s economic crisis, which deepened as its tourism-based new economy was hard hit by the aftermath of September 11th. But in
the area of education, it is clear that Cuba’s strategy is to “grow” out of the effects of
the economic crisis of the 1990s, keeping the education of the Cuban people at the
center of the country’s strategies for social development.

Education for All

Cuban educational policy initiatives have led the island to outcomes that are almost
universally recognized as positive. Literacy and schooling have risen dramatically
since the advent of the revolution in 1959. Educational indicators compiled by the
World Bank, show a sharp decrease in illiteracy (Figure 1) and an equally steep
increase in enrollments in secondary and post-secondary education (Figures 2 and 3).
In 1959, the educational attainment of Cubans stood at third grade. 45% of primary
school children did not attend school, and 23% of the population over 10 years old
was illiterate. Today, all Cubans attain at least a ninth grade education and adult
illiteracy is negligible.

Specific large scale initiatives have made a difference. One of the first educational
initiatives of the young revolutionary government was the National Literacy Campaign
that in 1961 brought thousands of young secondary and post secondary students into
the cities and countryside to teach illiterate peasants and urban dwellers how to read.
The literacy campaign reduced the illiteracy rate to 4% (from 23%). According to the
United Nations, the rate of literacy among people 15 and older in Cuba was 97%,
compared to 99% in Canada and the United States, 96% in Costa Rica, and 83% in the
Dominican Republic (see Table 1).

In the 1960s and 1970s, schools were constructed, especially in the countryside, and a
system of scholarships was instituted that assured that all children would be able to
attend school, regardless of where they lived or the economic situation of their family.
Pre-primary school enrollments increased from 52% in 1970 to 94% in 1995. In 1980,
98.8% of the children 6-11 were attending primary schools. Enrollments in secondary
education also climbed from 14% in 1960 to a high of 90% in 1990. In the 1990s,
during the economic crisis, these rates fell somewhat, due primarily to higher dropout
rates particularly in the technical schools. Total enrollments at all levels of
education – primary, secondary, and pre-university or technical professional – stand
at 76% of the population of appropriate age. Compared to the other countries, Cuban
rates fall between the high enrollments found in Canada and the United States (97% and
95%, respectively) and the much lower ones found in Costa Rica (67%) and the
Dominican Republic (72%), as can be seen in Table 1.

Enrollments in higher education increased from a low of 7% in 1970 to a high of 24% in
2000. As we will discuss, these enrollments were strongly affected by the economic
crisis of the 1990s, dropping to 12% in 1996, but recovering by 2000.
educational attainment of Cubans has translated into a highly educated workforce: of all Cuban workers, 14% have a university degree.(10)

Although large scale interventions have been important to the educational achievements that Cuba boasts, there are other factors that sustain this achievement. First of all, Cuba approaches education, as well as other areas of social development, with a set of values that have been important to its success. Cubans see education as a right of every Cuban citizen, and interpret this to mean that education should be universally accessible. Cuba has instituted an educational system that covers the island and delivers education free at every level: primary and secondary education, including special education for those who need it, and university or technical education, including at the graduate level.(11)

Another important characteristic of the Cuban system is that it is exclusively a public system: the government assumes full responsibility for funding and delivery of education. During the early 1960s, the process of nationalization brought all educational institutions and the delivery of education under the control of Cuba’s central government. Over the last 40 years, the system has developed along a socialized model, where the State is charged with assuring the access of all citizens to the educational system and developing and maintaining a network of educational institutions of all levels across the island. The educational system from pre-primary to grade 12 is administered by the Ministry of Education. The Cuban educational system includes pre-primary, primary (1–6), secondary (7–9), and pre-university or technical/ professional education (10–12). Curriculum is guided by a national program; this has provided a uniform set of guidelines and has resulted in a pretty homogenous level of preparation across the country. This was meant to offset the differences in the quality of education available for children in different areas, especially between urban and rural schools and between historically more and less affluent urban neighborhoods.

At the university level, there are 37 institutions of higher education, including technological and pedagogical universities, under the direction of the Ministry of Higher Education.

Finally, Cubans place education and other areas of social development, such as health care, at the center of the country’s strategy for development. This has meant an investment in not only access and quantity, but also in the quality of education. Recent reports have underscored the high outcomes for Cuban children in international comparisons of academic achievement, particularly in the areas of math and science.(12) Some factors often mentioned as sustaining this level of quality in the Cuban educational system are:(13)
• The broad distribution of free early childhood education
• The high quality of teacher training and professional development
• The availability of low cost instructional materials of high quality
• Strategies to link school and work
• An emphasis on high standards for both teachers and students with system wide evaluations and competitions that focus on the system rather than the individual
• Significant system decentralization with considerable flexibility to adapt to local needs and to encourage community participation

Cuban Education and the 1990s Economic Crisis

When socialism ended in Europe in 1989, Cuba suddenly lost all of its commercial partners and the providers of most of its infrastructure. The result was a dramatic plunge in Cuba's import capacity, which dropped by 75%. The drop in imports, in the context of a sluggish domestic production, severely jolted the Cuban economy. As Cuba attempted to cope with the jolt, Washington tightened its embargo and curtailed trade even further. The “Cuban Democracy Act” passed by Congress in 1992, and the Helms-Burton Bill passed in 1996, tightened the sales to Cuba by US subsidiaries in other countries and sanctioned foreign companies for making investments in Cuba, significantly adding to the cost of imports to Cuba.

These two events – the end of the socialist world and the tightening of the US embargo -- together had the force on the economy of huge hurricane. Cuba's gross domestic product (GDP) dropped by 43% between 1989 and 1994 (by 2000, Cuba’s GDP was still only 75% of what it had been before the crisis). In the countryside, agricultural production practically stopped, causing serious food shortages. In the cities, public transportation disappeared, as did gasoline for private cars. Throughout the island, electricity was closely rationed. The availability of clothes, medicines, construction materials, and many raw materials for industry was greatly curtailed.

Food scarcities were felt first as food production plummeted and the shortage of imported milk, meat, flour, and other foodstuffs made itself felt.(14) The 2001 Human Development Report of the United Nations reported that between 1996 and 1998, when the economy was already in some recovery, 19% of the Cuban population was undernourished – a higher percentage than that of El Salvador or Peru.(15) As a result, health problems related to nutrition began to be observed. Low birth weight births increased to 9.0% of births in 1993 compared with 7.6% in 1990.(16) Special nutritional programs were set up to remedy the nutritional deficits of expectant mothers. The epidemic of neuropathy, which affected 60,000 persons between 1992 and 2001,(17) is another example of the health effects of the nutritional problems faced at this time.(18) The recurrence of infectious diseases – such as tuberculosis –
that had all but disappeared in Cuba was another consequence of the deterioration of the standard of living of the population.

But there were many other problems. Medicines became scarce. There was no paper and any kind of office or school supply. The lack of construction materials impeded repairs of housing and public buildings and transportation all but stopped as fuel became scarce. The deteriorating condition of Havana’s buildings, even today, is perhaps the most visible evidence of the crisis.

By 1995, the economy had touched bottom and a very modest recovery had begun. This recovery resulted from a series of measures taken by the Cuban government to restructure the economy. The government’s action was far reaching; it created the conditions for foreign investment and opened up new economic spaces for Cubans to work privately. It also set in motion a swift transition from an economy based in agriculture and industry to one based on services. Tourism replaced sugar as the country’s main industry, creating new economic niches that emphasized international relationships and trade. The government also addressed critical problems in the internal finances of the country, introducing taxes and trimming bloated government ministries, services, and industries. Finally, the government legalized the use of dollars in the economy, creating in essence, a dual currency economy. The restructuring of the Cuban economy in response to the crisis, signified a slight improvement in the economy and a huge change in the structure of society and in Cubans’ daily lives. The first effect was the rapid increase of unemployment as industries closed and bloated bureaucracies gave way to leaner ones. Income inequality increased as the benefits of working in the different –the dying old and the emerging new— sectors of the economy made themselves felt. One important way in which this took place was in the differential access to dollars that was possible from tips, salaries in the foreign-influenced sectors such as tourism and its ancillary industries and from remittances from families living abroad. The buying power of the dollar quickly outpaced that of the peso as dollars became the vehicle for buying food and goods. Having access to dollars –from any source- is perhaps the greatest differential of life chances in Cuba today.

Another side effect of restructuring has been the sharply decreased economic return on education and professional preparation that the new economy brings. Because of the differences in working conditions and benefits between the “old” and “new” sectors of the economy, it is now possible for a waiter in a tourist hotel, which is one of the lowest-paid jobs in Cuba,(19) to obtain a set of rewards – salary in pesos, tips in dollars – worth many times more than the rewards that could accrue to a top professional who works for the state and earns a top salary, but only in pesos. Cubans call this the “inverted pyramid”. The immediate result has been the exodus of skilled
public service workers into low-level service jobs in the tourism industry. During 1993-1994, for example, almost 8% of teachers made this leap.(20)

Finally, the increased economic vulnerability has made the situations of many families quite difficult. These difficulties result not only from the problems that arise from lack of income, but also from the problems that come from the way that the emergent economy affects families. One important way is that now family wage earners often work more than one job. Prior to the crisis, most earners had a government wage which guaranteed enough for the family to live relatively comfortably. Now, government wage earners are at a disadvantage because they do not earn dollars, so many are forced to work in the informal, dollar-earning jobs in addition to their government work. This additional income comes from selling arts and crafts, to renting out a room in their home, to running a “paladar” (a home restaurant). Working adults in families are extremely busy managing the problems of getting to and from work with a badly deteriorated transportation system, obtaining the necessary food and supplies for the home, and, in many cases, having this second job. This is contributing to less attention being paid by adults to the daily family life at home, including the supervision of children.

The pull of the new economy has also been felt by children. The economic pressures on families and the rise of all types of informal jobs related to tourism have brought children to work on the street. Political scientist Sheryl Lutjens from Northern Arizona University writes that a 1996 report on education in the City of Havana identifies over 2,000 children, mostly boys 5 to 11 years old, living in conditions of social disadvantage and actively working in the streets of the “Casco Historico”, the renovated central section of Old Havana.(21) The fact is that, under the new conditions, a teenager can earn more in one afternoon showing a tourist around Old Havana than his father earns in a month working in his government job.

Families are under a great deal of pressure to raise children under very new and very different circumstances. Parents feel pressure from children to purchase items in dollar stores when they may have no or very limited access to dollars. They also complain that they have lost authority over their dollar-earning children, especially their teenagers. Families are also burdened by the reappearance of long-gone social problems: illicit street life in tourist areas, prostitution, petty crime. (22) Although Havana’s streets are still relatively safe compared with those of large urban areas elsewhere in the hemisphere, the reappearance of social problems and crime has been very troubling to a population that believed these social ills were problems of the past.
Impact on Social Policy

Many questioned whether, in the midst of such a deep crisis, Cuba could hold on to its commitments of free, universal access to social benefits and to continue to have the government provide them all. A review of social expenditures and of current social policy writing in Cuba makes evident that the basic principles of Cuban social policy remained in place. First of all, there continues to be a clear commitment to equity in access by maintaining all services free of charge, as has been the history of health, education, and other benefits in Cuba. Although some fees have been instituted, these are minimal and affect services that are not central to the mission: for example, fees for school lunches in high schools and fees for some adult education. Cuba did not use the crisis to revoke basic social benefits, including free public education, or to curtail their access in any way. Finally, in spite of the decentralization that has taken place in Cuba in the last decade, the government’s role as the main actor in this sphere remains unchanged. The central government continues to be responsible for funding, developing, and providing all social benefits, including education.

The fact is that in the midst of the crisis, the financial commitment to social benefits – education, health care, social security, and social assistance to the poor – was maintained. Social expenditures increased in relationship to funding in 1990 even as the gross domestic product of the country fell significantly and the recovered slightly during the decade, as can be seen in Figure 4. Be that as it may, there were funding shortfalls in specific areas at specific times. This was the case in regards to the funding for education, which fell by 18% between 1990 and 1994, the harshest period of the crisis. But even at this low point, Cuban investment in education remained at about 9% of GNP, higher than the 6% recommended by the United Nations and much higher than that allotted by other countries in the region. (23)

Impact in Education

The economic crisis and the restructuring of the Cuban economy in response to the crisis has affected education in significant ways. The most obvious initial impact was the result of the funding shortfall in the early period of the crisis which led to a rapid decline in the physical condition and the material resources of schools. With less funding and without the possibility of buying imported items with the available funds, the physical plant of the schools quickly deteriorated. There was a lack of construction materials, paint, light bulbs, wood for school furniture, for example. School supplies such as paper, pencils, pens, chalk were in short supply or not available at all. School books, provided free to all Cuban students, could not be reproduced and there was no paper to send notes home for parents: in response, for example, children were taught to care for books and teachers began to make home visits. The quality of school lunches and meals available in the many “schools in the
“countryside” also declined: children close to home began to eat their lunch at home – placing more burden in families’ already stretched food budgets. Transportation for teachers, particularly those teaching in the “schools in the countryside” became unreliable, forcing teachers to be absent from the classrooms with much more frequency.

Other incentives for teachers were also hard hit and the value of a teacher’s salary could not keep pace with the growing expenses fueled by the dollarization of the economy. As a result, about a large number of teachers left for service jobs in the “new” economic sectors.

The effect of those problems on children became most evident in the indicators of enrollment. Enrollments decreased sharply in pre-university and technical schools (10-12th grade). In 1990–1991, 94.5% of the graduates from secondary schools (ninth graders) went on to further education; by 1994–1995, that figure had dropped to 86.4%.(24) The choices students made also changed, now favoring technical schools over pre-university programs. Dropout rates from 9-12th graders also rose, particularly for students enrolled in pre-university education. Lutjens reports that in the midst of the crisis the drop out rate from technical and pre-university schools rose to rate of 8%.(25) These schools, which are almost all located in the countryside, represented a lot of hardship for students as food became scarcer and problems in transportation prevented teachers from reaching the schools.

Enrollments decreased even more sharply in higher education, falling from a high of 21% in 1990 to a 12% in 1996. (26) This surely resulted from the decrease in demand from pre-university program graduates but also fewer admission slots at the university level. University slots are highly linked to available positions in the Cuban economy, which was greatly reduced during the 1990s.

Another significant impact was the differential effect of the crisis in the educational opportunities for children in different areas of the island. Cuba had always kept a sharp watch on differences between rural and urban schools. But by the year 2000, the system began to pick up differences in achievement between urban Havana school children and children in other parts of the island, showing, in some areas, significantly lower attainment.27 In explaining these differences, Cuban leaders alluded to the following factors:

1. the sharp increase in class size in the city of Havana, reaching an average of 37 children per class, due to the shortage of teachers;
2. the conditions of the schools
3. the morale of administrative staff after 10 years of battling the severe shortage of resources.
Investing Out of the Crisis

By 1995 the crisis had touched bottom and the economy began a slight recovery and with this began the re-investment in education. The package of measures were directed to

1. provide incentives to teachers to remain in the schools;
2. reduce class size;
3. improve the conditions of the schools,
4. energize the educational system with the introduction of computers and technology,
5. provide post-graduation incentives for students to stay in school.(28)

The first measure sought to address the exodus of teachers from the educational system and into the “new” areas of the economy. The salaries of teachers and support staff were increased by 30% in order to make them more competitive with the combination of salaries and benefits offered in the “new” economy.(29)

A second initiative focused on class size and a limit was established at 20 students. In order to obtain this goal in schools across the country, in addition to a strong effort to maintain current teachers in the classroom, young people are being recruited to a core of “emergent teachers”. Emergent teachers receive a year’s training in pedagogy and then continue their studies at the same time that they provide support in the classroom under the mentorship of a teacher. In a move that has been likened for its boldness to Cuba’s Literacy Campaign in 1961, about 20,000 young people will participate in the program, teaching primarily in the elementary grades.30 In spite of concerns about the quality of the emergent teachers, by September of 2002, Havana – where achievement scores were falling critically behind-- became the first city with 20 students per class in every school in the city.

A similarly bold move refurbished all the elementary and middle schools in the country. Using volunteer, schools were repaired and painted; old, broken-down furniture was replaced; biology, chemistry and physics labs were stocked and new, modern equipment was brought in. In many neighborhoods in the country, which are still aching from lack of building supplies, the school is now often the best looking building.

Along with the repairs of school came the improvement of their technological capacity. Classrooms in all schools across the country were provided with TV’s, VCR’s, and computers. Teachers are being trained to use communication technology in their teaching. Courses teach students to use computers in their work. The introduction of new technologies, the revision of curriculums, the teaching of foreign languages in the
primary grades has injected new energy among teachers, students and parents. These are areas that all can see have real pay off for graduates as they enter the workforce in a new economy that is increasingly technology-based and oriented internationally.

Keeping children in school has also become a high priority as Cuba re-invests in education. Changes in schools are surely a way, but so are concrete opportunities for young people once they graduate. Before 1990, all students were guaranteed a job or a placement in a university upon graduation. But in the process of restructuring universities decreased their enrollments in response to the changes in the economy and jobs became scarcer as state enterprises and government employment streamlined to decrease expenses. There have been programs instituted to support the entry of young people, particularly young women, to the labor force, but these did not succeed in stemming their flow out of the labor force.(31) The incorporation of young people, particularly young women, to the labor force has become a high priority.

The opening of the social work training colleges and the program to train art instructors are examples of initiatives meant to guarantee that many more graduates will continue their education even if they do not test into a university when they complete their high school studies. Both are connected to real social needs and have received extensive publicity and political support. And in both, upon successful completion, students are guaranteed entry into university programs, if they desire. The social work training program, for example, has included thousands of young people ages 16 to 22 who had not attained admission at the university and had preferences for this type of work. They received a 10-month training program delivered by faculty from the University of Havana and later work in the city, tending to youth, the elderly, and others affected by the economic crisis. Their salaries, which reach to up to 400 pesos, are high in comparison with Cuban salaries. Once they begin to work, these social workers are eligible to attend the university social work program or any other undergraduate program.(32)

As a result, enrollments at both secondary and post secondary levels have improved markedly since their low numbers in 1997, as can be seen in Figure 5. The World Bank reports that enrollments in Cuban secondary schools, though still not at the level of 1990 (89%), have significantly improved and the enrollments in post-secondary education surpass those recorded in 1990.

**Looking Forward**

Strong, affirmative interventions have greatly improved the outcomes for Cuban children after a decade of economic crisis and of increasing problems in Cuban schools. Interventions were directed at keeping experienced teachers teaching, at
improving the experience of students by reducing class size and introducing new technologies and curriculums in the classroom and at providing economic motivation for children to stay in school. So far, they seem to have made a difference in Cuban education. The challenge is the sustainability of these aggressive interventions and others that will surely come as the Cuban economy continues to re-structure, creating new pressures in and expectations of education, educators and students.

“Cuba’s most important resource is the high level of capacity and training of its population,“ said economist Julio Carranza, director of the Regional Office of Culture for Latin American and the Caribbean of UNESCO, adding that this accomplishment is due to the investment of effort and resources of the last four decades in education, science and culture.(33) In spite of the fact that most of the region’s countries move in quite a different direction, Cuba continues to underscore that its road to development lies in the development of its people. And it continues to be willing to invest resources and effort in this effort. At no time has this endeavor been more challenging and more important than now, when Cuba opens itself to the world economy.
End Notes

(1) Huber, 1996; Golbert and Kessler, 1996; Yergin and Stanislaw, 2002
(4) For recent assessments, see for example: *Task Force on Education, Equity and Economic Competitiveness in Latin America*, 2001 and Gedda, 2001, Gasperini, 2000 and others
(5) *Centro de Investigaciones de la Economía Mundial*, 2000, p. 82.
(6) Lutjens, 2000, pp. 56-57 reports that the drop out rate at pre-university and technical schools reached 8%.
(7) Table 1 compares Cuban indicators with those of Canada and the United States, both developed nations in the Americas; with Costa Rica, one of the Latin American nations with the highest level of human development; and with the Dominican Republic, one of Cuba's closest neighbors in the Caribbean. Although a full assessment is not possible with available data, there is indication that in 1959 some aspects of social development were already advanced in Cuba compared with Latin America and the Caribbean as a whole. For example, World Bank Development Indicators (2001) show that infant mortality was lower and life expectancy was higher in Cuba than in the region as a whole. But primary school enrollments were just minimally higher and secondary school enrollments were significantly lower in Cuba than in the rest of the region.
(8) Enrollment in Cuban universities remains highly competitive. Access to programs of study at the university and post-graduate levels is granted through competition. Availability of slots is closely linked to economic priorities and may not always respond to students’ choices.
(10) In contrast, only 25% of the United States population over 25 has a college degree. (Cuban statistics report only on the percentage of workers.)
(11) Access to programs of study at the university and post-graduate levels takes place through competition. Availability of slots is closely linked to economic priorities and needs, but University education at all levels is also free.
(14) FAO, 2001
(16) Centro de Investigaciones de la Economía Mundial, 2000, p. 106.
(18) Among the factors believed to have contributed to the neuropathy epidemic were nutritional deficiencies in protein, B vitamins, and antioxidants and smoking, aggravated by increased physical activity and heat. See, e.g., Barnouin et al., 2001; Barry, 2000; Tucker and Hedges, 1993.
(23) Gasperini, 2000, P7
(24) World Bank, 2001
(27) Castro, 2002
(28) Togores, 2003
(29) Gasperini, 2000; Togores, 2003
(30) MacLeod, 2002
(31) The Centro de Investigaciones de la Economía Mundial (2000, p. 93), reports that both female retirements and problems with the entry of young women into the labor market led in 1997 to a female unemployment rate of 10.1% compared to 4.4% among males.
(32) Pérez Montalvo, 2002; Uriarte, 2003
(33) Prensa Latina, 2003&
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