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**SCHOOL-RELATED ECONOMIC INCENTIVES
IN LATIN AMERICA:
REDUCING DROP-OUT AND REPETITION
AND COMBATING CHILD LABOUR**

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EXECUTIVE SUMMARY

Although more than 90 per cent of primary school-age children are enrolled in school in Latin America, the goal of 'education for all' is still far from being reached. Achievement tests carried out in seven countries in the region show high levels of functional illiteracy, particularly among low-income groups in urban slums and shanty towns and in rural (especially indigenous) areas. Poor academic achievement can in part be attributed to parental pressures put on children to work, either part time throughout the academic year or full time at harvest and other peak periods, or both. A second contributing factor is the rigidity of the formal education system, which fails to provide time for remedial work in cases of absence or slow learning. Moreover, in many countries, students who fail just one course can be required to repeat an entire year. And because child workers are generally taken out of school at the same time each year, they are likely to repeat the same curriculum, miss the same lessons, and fail the same grade again. Poor academic achievement is itself the factor that closes the 'vicious circle'. As their children apparently are learning so little, parents see no point in keeping them in school when there is more important work to be done.

According to region-wide figures for 1988, 20.8 million children in grades 1-6 were repeaters, which represented a total estimated cost of US\$2.5 billion. Governments have been slow to recognize major flaws in the educational system contributing to this situation. Among the main problems are the irrelevance of much that is taught, multigrade classes and lack of attention to individual needs. Children belonging to minorities or indigenous groups, moreover, encounter overwhelming initial difficulties when learning to read because the official language of instruction (that is, Spanish, or in the case of Brazil, Portuguese) is their second language. This paper has identified four strategies for educational improvement in the region: involving communities, especially in the selection of teachers and principals; increasing the time available for learning (for example, through greater pre-school coverage, the introduction of self-learning modules, and lengthening the school day and year); providing bilingual education; and introducing computers, particularly helpful in overcoming language difficulties. The need to adopt more participatory and active learning processes in place of traditional ('frontal') teaching methods is also highlighted.

To relieve disadvantaged families' dependence on their children's earnings, several countries in Latin America have experimented with promising economic-incentive programmes, including: (a) cash payments, as in the case of the *Borsa-Familia* Programme in Brazil, which provides a minimum salary to families whose children have excellent school attendance records; (b) voucher systems, such as the PACES programme in Colombia, enabling low-income families to send their children to private secondary schools that more closely meet their needs; (c) school-based food programmes, especially free lunches, which appear to be a powerful incentive for extremely poor families to keep their children in school; (d) payment of direct schooling costs such as transportation and uniforms; (e) apprenticeship programmes that provide education-with-income; (f) free textbooks; and (g) incentives to local management such as school improvement grants and the transfer of funds to local authorities enabling parents and communities to have greater say in the way educational resources are spent and how schools are managed. Some very encouraging reductions in repetition and desertion have been documented, but in most cases, the lack of reliable impact assessment studies makes it difficult to determine the actual results of the different programmes.

One recommendation of this paper is in fact the need to base education policy on better information and improved analysis of innovative incentive programmes of the type reviewed here. Crucial steps for every government in the region to take include monitoring the quality of education, supporting education research aimed at improving quality and relevance, and providing essential information to the public in order to build a 'social consensus' about the value of education and the risks of exploitative child labour.

FOREWORD

UNICEF and the International Labour Organisation (ILO), among other institutions, increasingly view education as the single most effective way to combat child labour. The challenge is more complex, however, than it may appear. In Latin America the issue is not so much how to expand the system to facilitate the enrolment of working children, but rather how to improve the quality, relevance and affordability of schools so that the region's very disappointing performance in terms of desertion and repetition can be overcome.

UNICEF's International Child Development Centre (ICDC) has for several years carried out or commissioned research on the relationship between child labour and primary education. A summary of findings of a five-nation study in Latin America has recently been published: *Better Schools - Less Child Work: Child Work and Education in Brazil, Colombia, Ecuador, Guatemala and Peru*. The full results of those country studies will appear shortly in Spanish.

Concerned especially with the problem of the increasing costs of primary education in many parts of the world, linked to constraints on central government budgets, decentralized financing of schools in some countries, and various schemes for 'cost recovery' in education, ICDC joined ILO in initiating a project, under the overall coordination of ILO's Richard Ankar, to assess the policy issues and empirical evidence concerning Economic Incentives for Children and Families to Eliminate or Reduce Child Labour. An initial publication with that title, by Ankar and Melkas, was published by ILO earlier this year. That study concluded that economic incentive initiatives, though going back in some cases over 20 years, have recently gained new impetus and are now widely regarded as an important means of action for combating child labour.

Of the actual experiences in 18 countries reviewed by Ankar and Melkas, the most common type of incentive programmes used cash or in-kind payments to help increase school attendance by providing school meals, clothing, textbooks or other school materials and/or by covering some school fees. The Ankar-Melkas study, while citing some encouraging results, also drew attention to the fact that very few of the incentive programmes have been independently evaluated. Impact assessments in terms of the effects on reducing child labour appear to be 'non-existent', at least for the programmes reviewed.

Among other initiatives ICDC is exploring, one of Latin America's leading authorities on educational research and development, Ernesto Schiefelbein, was asked: (a) to review the recent experience of that region in terms of improving the quality and relevance especially of primary education; and (b) to conduct an initial and rapid assessment of a selection of promising initiatives aimed at reducing the costs of primary schooling to low-income families likely to have a relatively high portion of working children or children at risk of being drawn into exploitative labour situations. The results of his review are summarized in this paper, and we are indeed grateful to him for the quality and clarity of his study.

The Schiefelbein review presents encouraging evidence that one of the earlier constraints many school-based economic incentive programmes have faced — their inability to reach a large scale — is being overcome in several countries. Two of the more recent and promising initiatives he cites are the *Programa de Ampliación de la Cobertura (PACES)* in Colombia, a voucher scheme benefiting about 100,000 low-income students, and the *Borsa Família* educational grant programme in Brazil. The Brazil effort was initiated in 1995 in the Federal District and quickly reached a coverage of 14,000 students from low-income families, with excellent results in terms of reducing drop-out rates. Plans for rapid expansion in other parts of the country are being developed.

The experiences reviewed in this paper fall short of providing the more detailed analysis of results, including costs and outcomes, that would be desirable in terms of effective

lesson-learning for policy and programme development. It is hoped, however, that this first review of Latin American experiences with school-based economic incentives to reduce child labour and increase school retention and performance will stimulate further analysis, including independent evaluations of especially promising programmes of the sort included in this paper.

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I. INTRODUCTION

Despite substantial declines in overall rates, child labour¹ remains a serious problem in impoverished urban and rural areas in Latin America. Moreover, approximately 80 per cent of children from low-income families, most of whom attend school on a part-time basis or work sporadically, have failed to achieve functional literacy (measured by the ability to understand simple written messages), even after six or more years of schooling. Most decision makers and legislators have limited knowledge about the characteristics of child labour and its linkages with educational processes, which leads them to design programmes that attack only isolated aspects of the problem rather than its root causes. Lack of information also affects trade union leaders and opinion makers, as well as families, especially when they make decisions relating to their children's schooling. This paper explores the association between child labour and poor educational performance in an attempt to fill some of these knowledge gaps.

Since the 1960s, Latin American countries have made remarkable progress in expanding access to education and increasing attendance rates.² Over 90 per cent of primary school-age children are now enrolled in school. Unfortunately, however, poor outcome continues to characterize the region's educational system. Low scholastic achievement leads to high repetition rates and is linked to factors that, either temporarily or permanently, 'push' children out of school or 'pull' them into labour markets.

The reasons for poor educational quality, drop-outs and child labour are more complex than usually assumed, and there are large variations among and within countries in the region. Legal and other constraints are linked with the increase with age of the 'percentage of working children', 'time worked' and 'level of salaries'.³ Across countries in the region, the share of working children aged 13-17 ranges from 6.2 to 32.3 per cent of the total child population in urban areas and from 15.4 to 55.5 per cent in rural areas. These figures have remained relatively stable during the last decade.⁴ On the other hand, while over 80 per cent of children under 14 'only study' (according to a number of household surveys), the figure drops to 40-60 per cent for the 15-17 age group.⁵ Household surveys are, however, an imperfect means of assessing child labour. For instance, one recurring problem is that many children are reported as 'only studying' when in fact they are also 'helping at home'.⁶ National averages are also misleading because work levels are much higher when only low-income populations are considered. Thus, according to one study, 36 per cent of seventh grade students in poor neighborhoods in Chile have paid part-time jobs (versus a national average of 10 per cent). For secondary school students, the share rose to 50 per cent (versus a national average of 20 per cent).⁷

Fortunately, the Chilean study found that in most cases work did not substantially reduce the achievement levels of the secondary school students. Findings differ widely, however, concerning the impact of work on school performance. It is certainly important to recognize that there are not only negative aspects of children's work, but also positive ones such as the opportunity to learn a trade, perseverance or team work.⁸ Most reports suggest that only a heavy load of work has negative impact on schooling,⁹ but no consensus has as yet been reached among Latin American specialists on what amount of part-time (or seasonal full-time) work indeed constitutes a "heavy load" and is therefore likely to interfere with a child's studies. A generally accepted rule of thumb is that over about 20 hours per week of work for secondary school students (and a lighter load for primary students) will impact negatively on school performance. However, remarkably little empirical evidence on this issue exists, especially relating to developing countries and concerning primary school performance.

An overview of the Latin American school situation as it is likely to affect working children and children at risk is presented in the next three sections of this report. The relationship between work and study is explored, given that countries in this region have largely failed to improve educational outcomes despite the many existing programmes aimed at enhancing quality or reducing drop-out and repetition. This analysis of causal relationships is then applied in section V to assess a sample of economic incentives, mainly linked to child labour, used in seven Latin American countries to reduce drop-out and repetition.

II. UNIVERSAL ENROLMENT, POOR OUTCOMES AND DROP-OUT

Access to basic education is almost universal in Latin America, and there is a positive rate of return to schooling, particularly high at the primary level. Parents, however, are not well informed on the benefits of and limitations to schooling. In 1995, over 90 per cent of all primary school-age children were enrolled in school, and enrolment by age nine was close to 95 per cent. But the quality and relevance of public education are grossly inadequate in most countries of the region.¹⁰ Half of the students have not attained basic literacy at the moment of dropping out after six or more years of schooling.¹¹

Latin American countries have expanded their education systems in the last decades, even during the economic crisis of the early 1980s and in spite of a relatively stable share of gross national product (GNP) allocated to education. Increased primary enrolment rates, accompanied by steady levels of public spending (with the exception of some cutbacks during the crisis), have created a massive system of varying — often poor — quality.¹² Expansion was financed by lowered teachers' salaries,¹³ shortened school days, use of double shifts (mainly but not exclusively in urban areas), a further reduction in the already minimal supply of teaching materials and some shifting of the cost of schooling to the pupils' families. In some countries, expansion was facilitated by loans from multilateral banks; these reached nearly US\$1 billion per year.¹⁴

With virtually no resources to improve classroom processes or teacher training, traditional 'whole class' teaching methods (also known as 'frontal teaching') still prevail, making remedial work and 'catching up' very difficult. The 'frontal' system encourages teaching the average student, use of a common curriculum, rote learning, rhetorical questions, standardized achievement tests, cheating on exams, and silent passiveness as students listen to their instructor's voice. Given the high level of age and cultural heterogeneity among low-income students, the system cannot begin to meet all students' basic needs and inevitably generates low achievement and high repetition rates.¹⁵ This problem is compounded in countries where students who fail one course (or subject) are required to repeat an entire year.

A vicious circle is created by the combination of poor school performance, mainly among low-income students, and a lack of understanding on the part of their parents of the real cost of temporary drop-out. Discouraged by their children's poor grades, many parents feel that schooling is a waste of time. Consequently they have no qualms about taking their children out of school during harvest or peak work periods. In their opinion, the cost of temporary absence from school is small, especially when compared with the expected economic returns of their child's labour. In fact, the cost is extremely high.¹⁶ For one, even though students may be learning very little, schooling is a screening device that will determine many of their children's future options. Second, there are no mechanisms in the

frontal system for individual tutoring of students following school absences. Consequently, many students are unable to catch up with classwork once they return to school. Many end up repeating the grade, and because of the seasonality of their work, are likely, the next year and possibly even subsequent years, to be confronted with the same curriculum already studied, miss the same lessons originally skipped, and be forced to repeat the same grade, yet another time. Parents eventually realize that their children are no longer learning anything (or at least not being passed to higher grades) and withdraw them permanently from school when they reach the age of 14, the minimum legal age for entry into the workforce.¹⁷ The fact that many of those 14-year-olds leave school while still in the initial primary grades has contributed to the popular belief that there is an 'early drop-out' problem in Latin America. The real point is that most drop-outs have been in school for five, six or more years.

Poor understanding of enrolment and attendance processes, of real learning problems, and of rationales used by parents for making decisions about the school attendance of their children makes it difficult for Latin American governments to design effective strategies to break the vicious circle. Some of the key elements of these processes, problems and rationales are reviewed in the next section.

III. FACTORS LINKED TO ATTENDANCE, LEARNING AND CHILD LABOUR

Low educational outcomes are linked to exogenous factors, 'pushing' children temporarily out of school (including the poor quality of education and myths about educational processes) or 'pulling' them prematurely into the workforce. Drop-out, child labour and the quality and quantity of education are closely interrelated, but only a few experts (most with little influence on policy making) have explored these linkages in any depth.

For years it was assumed that the quality of the school system was acceptable (or at any rate in need of only modest improvements) and that other factors, over which the school had no control, were largely responsible for generating early drop-out. Since the early-1970s, however, evidence of the problems of over-age students and repetition has been mounting. Studies have shown that although many students have attended school for at least five years, they are likely to have completed only a few grades at the time of drop-out, mainly because of frequent repetition.¹⁸ The extraordinarily high social cost of this repetition is shown in Table 1.

Table 1: NUMBER AND COST OF SCHOOL REPEATERS IN LATIN AMERICA

	1975	1980	1988
First grade repeaters (millions)	6.8	6.8	7.9
Second grade repeaters (millions)	1.2	1.4	1.4
Grades 1-6 repeaters (millions)	17.7	20.3	20.8
Unit cost in primary school (1990 US\$)	112.0	164.0	118.0
Amount spent on repeaters (US\$ billions)	1.9	3.3	2.5

Sources: UNESCO Regional Office for Education in Latin America and the Caribbean (OREALC); and UNESCO, 1990.

The high levels of repetition detected in various studies triggered evaluations in seven countries in the region. Drawing conclusions from achievement tests given to students in each country, these surveys confirmed the poor results of the educational system. International comparisons showed that cognitive achievement, even in Latin American countries viewed as having reasonably good educational systems, were in fact closer to levels in Africa than to those in East Asia.¹⁹ Serious equity problems were also detected.²⁰ It is now increasingly accepted that low educational achievement (as well as a lack of 'relevance' of what is eventually learned) is a major cause of drop-out. Poor children, as well as their parents, "may feel that what they learn at school does not provide them with useful skills or make any difference for their future".²¹ Unfortunately, too many decision makers still believe that exogenous factors are to blame for drop-out, and that an acceptable level of school 'relevance' can be reached merely by improving curriculum content.

Poor educational outcomes are closely linked with poverty,²² which also affects fertility, child work and school enrolment.²³ While repetition rates average nearly 30 per cent for the region as a whole, they jump to over 50 per cent for students in the lower half of the income distribution, and are probably even higher at the bottom quintile. Tests have shown that aggregate achievement scores of students in state primary schools in urban slums and rural areas (especially in indigenous areas) are usually about half those of better-off students²⁴ — even though the quality of teaching is similar, as shown by the fact that score differences almost disappear when the socio-economic level is statistically controlled.²⁵ Nearly half of all fourth grade students are illiterate and, as noted earlier, over 80 per cent of the students in the lower half of the income distribution are not learning even the most basic objective of education: reading comprehension.²⁶ It is no wonder that many poor parents take their children out of school and put them to work. In some cases, they may in fact be making the right choice, especially when they have reasons to believe that their children can learn valuable skills, or make useful 'contacts', in working situations.²⁷ Better information is required both for authorities to improve education systems and for parents to improve their decision-making. In the meantime, these performance correlations are relevant for those interested in the education/child labour relationship where data are lacking.

Costs associated with school attendance and forgone income are also taken into account by parents in making decisions about whether to keep children in school.²⁸ Even though, by law, state education (provided by the central government or local governments) is free in Latin America, parents actually pay up to one third of the school's operating costs. In addition, up to 2 per cent of their income is allocated to make various school 'contributions', as well as for transport, uniforms and other clothing, school-bags, books, notebooks, pencils and other materials.²⁹ Furthermore, forgone income may be highly valued according to prevailing employment and wage levels. Although the value of children's earnings rarely exceeds 10-20 per cent of family income in Latin America,³⁰ and most children tend to earn less than the minimum wage,³¹ their income may be a key element for survival during economic crises and high unemployment.³² On the other hand, during rapid economic growth and good employment periods or in areas of illegal activities (including drug trafficking)³³, children's income may increase considerably and become a substantial percentage of the household income. Labour markets clearly affect parents' and children's 'cost-benefit analysis' in terms of their decisions about work and schooling.

In addition to poverty, forgone income and school-related circumstances, there are many other factors affecting the cost-benefit assessment and families' decision to pull children out of school and/or into the workforce.³⁴ The family context and expectations may affect parents' or children's decisions on paid work through different characteristics: parents' education,³⁵ parents' type of work,³⁶ family survival strategies,³⁷ number and sex of

children and urban or rural context;³⁸ expectations on what can be learned in each type of work;³⁹ expectations regarding future income flows; and traditions that constrain a change that involves children becoming more educated than their parents.⁴⁰ Household violence, drugs and peers must be added as factors causing the phenomenon of street children who live on their own and work in the vast informal economy.⁴¹

In spite of these pressures, on balance the overall social context in Latin America is changing towards a reduction of child labour. There are positive signs that a 'virtuous cycle' is being generated. A key development is the trend towards universal access to education, discussed above, that guarantees school availability for all, especially in those countries where 'relevance' is being improved. Thus, nearly 90 per cent of young low-income parents have attended school for six or more years. Over 80 per cent have ranked themselves as 'literate' on population census forms (although over two thirds are in fact functionally illiterate). Most of them state that they provide their children with some help (or at least support) in their homework.

Mass media have generated a growing awareness that the region is competing in the world economy by improving technology and training, and most parents are now more interested in (or aware of the benefits of) a good education for their children. Mass media have also directly increased attention to the exploitation of children, especially in hazardous and illegal activities. International pressure, including from well-organized consumer groups in industrialized countries, is also putting a spotlight on violations of child labour laws. Gradually, these laws are being enforced with greater commitment and efficiency on the part of police forces, labour inspectors and the judiciary. There is also simply less economic demand from employers to hire children given that they provide a very limited contribution when sophisticated technology is used. Furthermore, most countries in the region have reached the demographic transition (as a result of — or associated with — universal access to basic education), and the number of children in each family is falling. Smaller family size together with an increase in the proportion of women participating in the workforce reduces the pressure to choose between the children who should work and those who can remain in school. In fact, this change in the role of women is a powerful factor for enrolling children in school and for seeking a longer school-day schedule so that parents can pick their children up at the end to their work day.

The increase in pre-school enrolment in poor urban areas also reduces the need for parents to rely on daughters for the care of younger siblings. The migration of young people from rural communities to the cities has increased the proportion of elders and lessened the problem of child care in rural areas. Availability of education services and the number of children per household may contribute to greater female workforce participation (especially when taken together with the increase in female-headed households). The income effect presumably results in more possibility for paying for day-care arrangements (assuming they are available); but there may be more pressure, especially on girl children, to remain at home to care for younger siblings (although little empirical evidence for this trend is available, as child labour surveys systematically ignore or understate home-based work by girls). There may also still be some gender bias adversely affecting girls among some indigenous groups.⁴²

In spite of these positive developments in Latin America, there is nevertheless still a fair amount of seasonal full-time work, poor and irrelevant schooling, and the problem of street children and other children working at the margins of the region's burgeoning 'informal economy'. Seasonal full-time work is associated with high repetition rates, as noted earlier, while permanent part-time work seems to be less damaging, at least for students in secondary education.⁴³ Achievement is much too low, as evidenced by the seven national

testing surveys already carried out. Little change has been detected in time series of educational achievement, and the 'relevance' of what is taught is highly questionable in spite of a multitude of educational and other programmes directed at pressing social problems facing children, adolescents and young adults in the region.⁴⁴ A brief review of several of the most promising educational programmes may provide an idea of their potential.

IV. THE LONG ROAD TO GOOD AND RELEVANT 'EDUCATION FOR ALL'

The educational system is effectively coping with multiple problems, but it still is far from offering credible educational options (in the opinion of many families) for the use of a child's time. Several problems have been effectively targeted for solution through a large number of preventive and compensatory educational programmes carried out in Latin America in the last two decades: provision of basic inputs; less crowding; school transport; nutrition; awareness of quality outcomes; instruction in native languages; local decision-making and decentralization; increased time available for learning; curriculum flexibility; multiple promotion strategies; and better teacher salaries.⁴⁵

However, implementation of these compensatory programmes has generated little change in terms of most classroom-level processes. Few programmes actually succeed in raising achievement scores and providing good education for all. An analysis of the test scores of fourth graders in Chile, covering the 1980-1992 period, for example, revealed that achievement levels did not change significantly during the period despite a large shift from state to private schools, use of only professionally trained teachers, provision of commercial textbooks to each student, maintenance of classroom size below 45 students, a degree of decentralization of management and curriculum in state schools to the county level, and annual reporting to schools (and parents' school committees) on achievement test scores, as well as local and regional averages for purposes of comparison.⁴⁶ Lack of well-tested learning modules to help children develop their own knowledge skills through interesting and active learning experiences (including reading and writing), and little time for teachers to share experiences and for children to learn, could be the main factors accounting for these unchanged test scores.

On the other hand, there are successful examples of programmes that target changes at the classroom level. In the 1970s, Chile and Uruguay were able to reduce the number of repeaters by making teachers more aware of the repetition problem, providing time for remedial work at the beginning and end of the school year, and emphasizing improvement of reading and writing skills. In many cases, however, students were promoted in spite of their not reaching the required achievement levels.⁴⁷ Colombia was also able, at a later date, to bring about substantial improvements in achievement levels by implementing a comprehensive approach with the *Escuela Nueva* rural education programme.

Personalized and group learning and school relevance are the main objectives of the *Escuela Nueva* programme. The programme uses tested and relevant materials that provide many opportunities for self- and group-learning: observations from the local context; group discussions; implementation of projects and trying out alternative approaches (experimenting); simulations, interviews, discussions, comparisons, and contests; sharing of learning experiences (among students, with family or community); use of previous knowledge; as well as reporting findings in writing and on-the-spot evaluation by teachers (rather than mere grading). This vast array of alternative learning models also helps teachers

to improve their teaching techniques by assisting their students in the day-to-day implementation of the learning experience mapped by the materials. In addition, as teachers do not need to spend time shouting instructions or information or writing on chalkboards, they have more time to use their professional training in helping students with problems. Each student can learn at his or her own pace. Those who must work during harvest periods, for example, can continue their learning (from the point at which they left off) when they return to school. Repetition and drop-out are drastically reduced. In sum, the *Escuela Nueva* facilitates a sensitive approach to the needs of each student, addressing the high degree of heterogeneity of the student body.⁴⁸ Pilot programmes with similar approaches have been successfully tried out in Chile, Guatemala, Honduras and Paraguay, and a major programme along similar lines is being developed in Argentina.⁴⁹

Four complementary approaches to educational improvement should also be highlighted: bilingual education; community involvement; increasing the time available for learning; and use of computers.⁵⁰

- **Bilingual education programmes** have quickly developed since the 1980s. They address the major problem faced by the many ethnic minority or indigenous children in the region whose first language is not Spanish or Portuguese, the languages used in most state schools.⁵¹ Programmes in Guatemala, Peru and Paraguay can be singled out for their careful development with indigenous teachers and their formative field-based evaluation of results.
- **Enhanced community involvement** has been successful in improving the selection of teachers and principals, and in ensuring that teachers respect their teaching commitments and treat students fairly. Programmes carried out in Mexico (*Instructores Comunitarios*), El Salvador (*Educacion con participation de la comunidad*, EDUCO) and Nicaragua (*Apoyo a comunidades escolares*) have substantially increased the amount of time effectively available for learning, and upgraded the quality of teaching, in terms of both content and delivery. Community involvement is also being improved in the region through many other efforts to decentralize decisions to local levels. Examples include the *Plan Social Educativo* in Argentina, *Escolas Padroes* in Brazil, *Proyectos Educativos Institucionales* (PEI) in Colombia, the voucher system in Chile (see below), and the election for five-year terms of school principals in Minas Gerais, Brazil. Schools operated by rebel groups could also be mentioned as examples of 'decentralized' educational activities.
- **Additional learning time** has been provided by lengthening annual or daily schedules for all students or by providing time for remedial work for low achievers. Argentina, Chile, Costa Rica, Mexico and Venezuela have extended the number of school hours. Chile and Uruguay are planning an extension from five to seven contact hours per day, closing the gap with respect to the normal work schedule of parents. Colombia is also planning to extend the time available for learning. Young teaching assistants have been hired to help students who have fallen behind in their classwork. For example, the P-900 programme in Chile has extended the learning time for slow-learning students by almost 20 per cent. It should be noted that only 50-70 per cent of the available time is used for active teaching in Latin America, the balance being used for administrative procedures, discipline or idle time.⁵²

- **Computers** have been incorporated by private schools in most countries, and Costa Rica has implemented a national programme for increased use of computers in both primary and secondary schools. Programmes for using computers in state schools are now being developed in Argentina, Brazil, Chile, Mexico, Uruguay and Venezuela. Computers may contribute importantly to increasing the quality of education by, for instance, enabling instruction to be individualized, permitting diagnostic testing, facilitating the retrieval of modules for learning experiences prepared in other schools, and increasing students' motivation. Targeting the provision of computers to poorer districts may be an effective strategy to reduce the gaps in school performance between wealthy and poorer districts. A strategy based only on districts' 'ability to pay', however, could easily increase such gaps.

Even though all four of these approaches are positive, only programmes that guarantee an improvement in the classroom processes (as *Escuela Nueva* or P-900) can raise the quality and relevance of education (and, in contrast with the case of Chile cited earlier, make a difference in achievement test scores). Most teachers, still too tied to the frontal educational system, have little incentive to innovate nor much access to systematic evaluations of successful experiences of local decision-making leading to more active and effective learning processes.⁵³

Following this brief review of some of the main issues relating to the quality and relevance of education in Latin America, the next section deals with economic incentives being used in the region for reducing drop-out and repetition and thereby reducing child labour.

V. ECONOMIC INCENTIVES TO PROMOTE BETTER SCHOOL PERFORMANCE

Latin American countries have attempted to reduce school drop-out and repetition, with direct and indirect effects on child labour, through a variety of income replacement and substitution programmes.⁵⁴ Those programmes have implemented a wide range of strategies, from cash payments for students, to provision of inputs that are generally financed by parents, or allocation of funds to the school, municipality or county levels for more flexible responses to student needs. The incentives can be in cash or in kind given that any subsidy to a student (fees, food, school materials, transportation) eventually frees family cash resources that can be allocated for alternative uses. In theory, there should be no substantial differences for parents between cash or in-kind incentives for keeping children in school; but there is some evidence that subsidies more effectively reach children if provided in kind or paid to mothers rather than adult males in the household. Venezuela, for example, has recently shifted from making cash payments to providing school meal programmes in order to improve the effectiveness of school-related subsidies.

Five types of incentive programmes illustrate the range of strategies in the region for providing cash payments, food or other in-kind incentives that may reduce child labour⁵⁵: (a) cash payments, in Brasilia (*Borsa-Familia*) and Costa Rica; (b) voucher systems, in Colombia (*PACES*) and Chile; (c) school-based food programmes; (d) payment of direct schooling costs, in Guatemala; and (e) apprenticeship programmes that provide education-with-income, such as 'dual education' programmes in several countries. In addition, strategies based on (f) free textbooks and (g) incentives to local management are briefly mentioned.

Cash Payments

The *Borsa-Familia* Programme in the Brasilia Federal District provides the equivalent of a minimum salary (about US\$100 per month) to poor families with school-age children. Only families in the lowest quintile of the income distribution are eligible. The subsidy, which is deposited in a savings account opened in the family's name, has a strict limit on the number of unauthorized absences (approximately two per month) and is lost when attendance falls below about 90 per cent of the total school calendar.⁵⁶ The programme started in 1995, and some 14,000 students were included in 1996 (at a cost of about 1 per cent of the education budget); the goal for 1998 is 20,000 students. Half of the money can be drawn from the savings account after four years, and the balance after eight years. A formal evaluation is being carried out, but there is already evidence that the drop-out rate has been reduced from 7 to 0.2 per cent in a sample of over 12,000 students. There are plans to implement similar programmes in the Brazilian states of Pernambuco and Ceara.

The *Salario Escolar*, operating in Costa Rica, is another cash payment programme. At the end of the school year, workers earning less than the average salary of the lowest quartile receive the equivalent of one month's salary. The *Beca Alimentaria* initiative in Venezuela pays about US\$20 per qualifying student through the banking system in order to improve nutritional levels. Each *Junta Municipal* and *Junta Escolar* sends the Ministry of Education a list of students attending their schools and the Ministry deposits the corresponding funds in the banks that then pay the parents according to those lists. Venezuela, however, has recently changed this strategy and is now initiating a school food programme.

Since 1992, Mexico has set up pilot programmes in a few states of the *Ninos en Solidaridad* programme for families in deprived areas. Some 500,000 families are paid about US\$20 per child attending school and performing over certain minimum levels of achievement. The programme was initially handled by the *Secretaria de Desarrollo Social* (within the Presidency) together with other programmes for women, health and nutrition; it is now being shifted to the county level. The Presidency is also designing a 'food card' programme for women with children attending schools. Similar to a telephone card, it can be used to pay for food in participating supermarkets. There are still problems in implementing this system in rural areas, but it is an idea that deserves serious attention and evaluation.

Voucher Systems

Two countries have implemented voucher systems that provide incentives for parents to keep their children in schools. This is not the place to evaluate these programmes, though it should be mentioned that eventual evaluations should use both equity and efficiency as their main criteria. In the short run, the public-private substitution issue is not a problem if there is no excess capacity in the public system. But over time (assuming both population increase and increased access to and retention in schools), the issue arises regarding which system should be expanded. Research shows only small differences in test scores between state and private schools after controlling by socio-economic levels, urbanization and family willingness to pay for school services. There are still equity issues, however, in terms of the relative affordability and quality of private versus state schooling in Latin America, as well as their relative ability or willingness to accept all types of students seeking admission.

The *Programa de Ampliación de la Cobertura (PACES)* in Colombia provides a voucher to low-income students who have completed their primary education in a state school and have not found a place in a state secondary school or who choose to continue their education in a private school.⁵⁷ The programme was launched in 1991 in the 10 largest Colombian cities. Those interested have to fill out the vouchers included in newspaper advertisements, or complete application forms at any of the regional offices of ICETEX, the government institute administering the programme. Only families in the lowest quartile are eligible for vouchers.⁵⁸ The actual payment of the voucher is made by a commercial bank upon presentation of the grades of the voucher beneficiary. The voucher is equivalent to half the cost per secondary student in the state system. In 1996, approximately 100,000 subsidized children were attending private secondary schools (representing 10 per cent of the total increase of secondary students in Colombia in the four-year period). A number of new private schools have been established that depend almost exclusively on these subsidies for their operation, but some 80 per cent of the subsidized students are enrolled in schools that existed before 1991. Furthermore, less than 5 per cent of students finishing state primary school go on to private secondary schools.⁵⁹ Even though there are some criticisms of PACES, mainly relating to the lower-than-average quality of the schools created to profit from the subsidies and a transfer of resources from state to private education,⁶⁰ the programme was implemented relatively easily and quickly and has successfully targeted low-income students. Colombia is also providing subsidies for some 100,000 children of low-income levels in female-headed households.

The Chilean voucher system covers all types of education through the secondary level and operates more broadly across the educational system than in Colombia. All subsidized schools (pre-school, primary and secondary) receive the subsidy per student-day-attended according to the daily attendance records reported by the school. There is a random control of attendance, and offenders are prosecuted by the criminal justice system and may be charged stiff fines. Private subsidized education has increased in the 1981-1994 period from 10 to 30 per cent of total enrolment, but changes in achievement levels have been marginal.

School-based Food Programmes

School lunches are a powerful incentive for extremely poor families to send their children to school. They also improve educational performance by reducing hunger.⁶¹ Many non-governmental organizations (NGOs) implement nutrition programmes as an effective way to keep students in school and to improve their educational achievements.⁶² Several mechanisms have been used to provide school breakfast and/or lunches: from provision of food and salaries for personnel to contracting the services of commercial caterers (in addition to the cash payments commented upon earlier). There are also different types of targeting: from poor schools (mainly in urban slums and peripheries and rural areas), to low-income students in any type of school (especially designed to cope with hunger and malnutrition in order to improve learning, but also generating a positive effect on curbing child labour). There are also substantial differences in the costs per student per year, from some US\$12 in Brazil to US\$50 in Chile, *circa* 1990. Costs tend to increase over time, and in Brazil they are now nearly US\$20 per child-year.⁶³ There is also a wide range of coverage in the region as described in the three national cases mentioned below. NGOs often benefit from these national programmes and may add resources of their own.⁶⁴

The Brazilian *Programa Nacional de Merenda Escolar* (PNAE) was decentralized and expanded in 1995 to cover 32 million students in some 5,000 municipalities with an annual cost of US\$650 million. These funds are paid to the *Conselhos Municipais de Alimentação Escolar* that are monitored by *Núcleos de Controle de Qualidade da Merenda Escolar*. Each municipality can select the best mix of food according to local needs and costs. Even though PNAE has been in operation since the 1960s only recently has it begun to target the really needy students. An internal evaluation carried out by the *Sistema de Acompanhamento & Avaliação* (A & A) suggests a reduction of drop-out and repetition.⁶⁵ The evaluation also points to the need for improvement of the local management of the food programmes.

The *Instituto Colombiano de Bienestar Familiar* (ICBF) makes cash payments to schools and parent associations according to an index of basic needs. Students from low-income families pay slightly less than US\$0.50 for a school lunch. The programme covers some two million students from the lower quintile of households during 130 to 170 days per year. The ICBF contribution covers about 30 per cent of the children's nutritional needs; the balance must be raised by the community, including space and personnel costs. In addition, some food is directly provided year-round to poor families living mainly in isolated rural areas and with little access to the school food programmes.⁶⁶

The Chilean *Junta Nacional de Alimentación Escolar y Becas* (JUNAEB) has targeted the food programmes according to the needs of students in the lower quintile rather than the school. The JUNAEB operates a national bidding process to select commercial caterers for each province and county. Each school certifies the school rations received, and a national monitoring unit randomly selects samples of rations to be sent to commercial laboratories to check the provision of nutrients according to contracts. The programme has operated for three decades, but evaluations do not provide clear evidence on the impact in terms of drop-out, repetition or achievement levels.

In several countries, community organizations are involved in the management aspects of providing school food as described in the case of Brazil and Colombia. Venezuela requests each school to organize an *Asociación Civil* to receive federal money for the *beca alimentaria* for all children. More research on the impact of school food programmes (according to their special characteristics) should be carried out given the substantial sums of money involved and the differences in impact detected in evaluations.

Payment of Direct Schooling Costs

Even though schooling costs borne by poor families are reduced in most countries by free provision of uniforms, shoes, notebooks, pencils, textbooks, backpacks, and subsidized transportation (and these subsidies allow families to free some cash for other purposes), there is only one country in the region that makes cash payments to reduce those specific schooling costs. In Guatemala the cost of transportation is paid to the families through commercial banks according to school attendance. The programme started in 1993, and available evidence suggests that it has had a positive influence on parents in terms of willingness to keep their children at school. In other countries, student transportation is subsidized by other users of (often private) means of transportation or by the government through budget allocations to cover the deficits generated. In most cases, students pay half or one third of the normal fare. Transportation subsidies are important because the distance between school and home is often a significant constraint to regular school attendance.⁶⁷

Apprenticeship Programmes Providing Education-with-Income

'Dual education' sponsored by the public education system and street-children care mainly provided by NGOs are two examples of programmes that help children at risk to obtain some income without blocking their ability to benefit from education. In the last decade there has been a steady growth of 'dual education' and apprenticeship-type training programmes with technical assistance from the German government. The programmes combine study and work, and in many cases apprentices earn a modest salary. Evaluations carried out in Argentina and Chile identified positive ratings by both students and firms participating in those programmes.⁶⁸ The *Escuelas Agrícolas de Alternancia* operating in Uruguay, with training periods at agricultural schools followed by practice periods at home, are also examples of education-with-income that could be tried out in other countries. Innovative work-study combinations are certainly activities that merit increased attention, and more information about 'what works' in this area would be useful to collect and share.⁶⁹

Latin American vocational and technical education programmes — carried out by major public institutions such as SENA (*Servicio Nacional de Aprendizaje*) in Colombia and SENAI (*Servicio Nacional de Aprendizaje Industrial*) in Brazil — help youngsters (in the 15-or-over age group) prepare for and find jobs and are also relevant in curbing child labour. An agreement between SENA and the Ministry of Education has made Colombian vocational education more relevant for youngsters from low-income families. This example should be carefully evaluated and (if successful) eventually tried out in other countries.

There are many NGO projects caring for children working, begging or 'hustling' in the streets. Simply citing a selected sample of street-children projects may give an idea of the extensive community efforts to cope with this problem: *Hogares Don Bosco* in Argentina; *El Alto* in La Paz and *AMANEKER* in Cochabamba, Bolivia; *Hogar de Cristo* and *Mi Casa* in Chile; *Ciudad Don Bosco* in Medellin and *Bosconia* in Bogota, Colombia;⁷⁰ CISOL in Ecuador; and *Alternativas* in Honduras. A project for 52,000 children at risk in six Brazilian cities financed by the Inter-American Development Bank (US\$17.9 million) represents a serious attempt to link the work of NGOs with government services.

These approaches should be oriented to providing opportunities for children to be reintegrated into the formal school system, especially for those who have not completed their primary education. Vocational training for street children should avoid dead-end careers in the increasingly demanding and changing labour markets. Today there are few job options — aside from crime — for young adults who have not at least finished primary school, and job-entry requirements will certainly continue to be raised over time.

Free Textbooks

Provision of free textbooks is gradually being extended in the region in order to increase achievement levels and educational relevance, as well as to reduce the direct costs of schooling. The following description of programmes carried out in three countries provides an idea of the issues involved.

Brazil distributed 110 million textbooks in 1996 to some 33 million primary school students from first to eighth grade. Textbooks for Portuguese, Mathematics, Social Studies and Sciences are included in the programme. The selected textbooks are approved in terms of content but need to be reviewed in terms of the educational processes suggested by the textbooks. Procurement is decentralized to the state level. The postal system cooperated in their distribution, and in 1995 nearly 90 per cent of the textbooks arrived at the municipality level before the beginning of the school year.

Colombia is distributing four million textbooks to some 900,000 primary students from first to fifth grade, and to over three million secondary students. Self-learning textbooks are distributed to rural schools participating in the *Escuela Nueva* programme. The unit cost is roughly US\$1.00 and the distribution cost is about US\$0.32. These self-learning textbooks, however, can be reused for five years, so the cost per year is very modest.

Chile is distributing six million textbooks to some two million primary students from first to eighth grade. Bidding requirements include 10 educational criteria that must be met by the publishing houses in order to win a contract. Textbook procurement is centralized, and even though it is designed as a 'winner-take-all' public tendering, some diversity among publishing firms is allowed. The Ministry of Education is exploring a mechanism to take into account teachers' preferences among short lists of selected textbooks.

Incentives to Local Management

Countries are increasingly designing mechanisms to allow local authorities and parents to manage educational resources and to design part of the curriculum.⁷¹ Vouchers (already commented on earlier), school improvement grants (SIGs), and direct transfers to local units are the most commonly used mechanisms. SIGs (or *Proyectos de Mejoramiento Educativo*) are used in Argentina, Brazil, Chile, Costa Rica, El Salvador, Mexico, Nicaragua and Venezuela.

Decentralization of educational planning and management is a recent trend mainly supported by the World Bank. The Bank, for example, recently approved a loan to support the decentralization of the Bolivian education system. There are as yet no evaluations of the impact of these initiatives. In the case of Costa Rica, schools may obtain improvement grants by participating in a biennial national contest. Chile, however, is currently designing the evaluation of the SIGs financed with a World Bank loan, and preliminary findings will be available in mid-1998.

El Salvador, Mexico and Nicaragua have successfully implemented direct transfer of funds to local units. Since 1991, the EDUCO project in El Salvador has transferred funds each year according to a contract agreed with each *Asociación Educativa Comunitaria* (ACE), organized by the students' parents, that operates the corresponding school. Each ACE hires teachers for the current school year. Initial evaluations suggest that teachers' attendance has substantially improved (teachers' attendance in rural areas is only about 80 per cent of the regular time schedule); students' grades are also much higher. Mexico implemented the *Instructores Comunitarios* programme that also transfers money to a local *Patronato* composed of community leaders. The *Patronato* pays monthly salaries to teachers (who are selected, trained and hired by a central governmental unit). A World Bank-supported project in Nicaragua is also transferring funds to some 2,000 schools for their operation, and plans have been made to extend this programme. The project also includes a bonus for teachers (30 per cent of their salaries) with excellent attendance records.

The federal government of Brazil has reached agreements with states and municipalities to grant funds directly to approximately 182,000 schools and is seeking to generate a core curriculum that can be complemented at the local level. The funds transferred are used to procure inputs to operate the schools, to pay for the upgrading of teachers' skills, and maintenance of the infrastructure. To receive the money, each school must have a School Council, a Parents-Teachers Association, and a savings account in a bank. When these conditions are met, the funds are deposited in the savings account. Schools with up to 50 students receive US\$500, and the grant increases with school size up to schools with 2,000 students receiving US\$15,000. Each agreement involves the allocation to schools of at least

15 per cent of the federal transfers to states and municipalities in proportion to the number of students enrolled in each school system. This strategy has required additional funds for the education sector, and the federal government has responded by providing the resources required to raise the unit allocation in primary education to US\$300 per student (60 per cent of the expenses being paid to teachers). US\$12 billion was allocated in 1996 to primary education to implement this goal. These efforts are also linked with state projects that are increasing community participation, including in the selection of school principals as in the case of Minas Gerais.

Argentina approved a national core curriculum in 1995 that should be complemented at the *provincia* level.⁷² In Brazil, the Ministry of Education has prepared the *Parâmetros Curriculares Nacionais* (PCNs) to be used by states and municipalities to review the curriculum, train teachers, produce textbooks, use *TV Escola* and evaluate educational achievements. PCNs provide a common framework that can be adapted in each region and stress the importance of active learning experiences for students and the permanent review and updating of curricular content. Chile also enacted a core curriculum in 1996, allowing up to 30 per cent of local curriculum design.

A number of countries are attempting to improve student achievement levels by increasing school management capacity through selecting and appointing better principals. Andean countries (from Bolivia to Venezuela) are reaching agreements with NGOs (mainly with the *Fe y Alegría* group) that have well-trained and committed principals able to raise educational performance, including through the more flexible selection and hiring of teachers. These improvements have been achieved with the same level of public resources per student as in the rest of the public system, but also by adding donations from private sources and school-generated income.⁷³ Chile has created incentives for private managers to advise schools and for private firms to provide grants to resource-poor schools, and half of such grants can be deducted from taxable income. As noted above, Brazil, El Salvador and Nicaragua are experimenting in various ways with increased community participation in the selection of principals. The appointment of principals for a fixed term allows the community to appraise their performance, and to make decisions on extending appointments for a new period or to hire new principals.

VI. CONCLUSIONS

Some 80 per cent of low-income students (mainly part-time or temporarily working) are not able to understand written messages when dropping out after six or more years of schooling, even if they have passed six grades. In spite of the myriad approaches tried out by Latin American countries to address the serious educational problems in the region, the battle for quality education for all (including students from low-income families) is still to be won. Fortunately the overall context in the region is changing towards a reduction of child labour, and there are promising signs that a 'virtuous cycle' is being generated through a combination of: virtually universal access to schools; major advances in literacy; the demographic transition; reduced rural populations; demands for training related to new technologies; women entering the workforce; pre-school expansion; better learning models; increased public and private resources for education; mass media reports on child labour; and also improvements in legislation, the judiciary, law enforcement, monitoring and control. In spite of all these positive developments, however, there is still a significant amount of

seasonal full-time child labour and part-time child labour that interferes with school achievement, and poor and irrelevant learning in the school systems of Latin America. The poor quality and irrelevance of education contributes to the attractiveness of child work from both the children's and the parents' perspectives.

Not enough attention has been devoted to identifying, understanding, and defining key problems associated with the relationship between child labour and learning or to developing a tradition of empirical research in this area.⁷⁴ Consequently, designing effective strategies for coping with this problem has been a very haphazard process. On the other hand, there are numerous activities being carried out in the region that have contributed to improving the context for designing a comprehensive set of incentives for reducing school drop-out and repetition and curbing child labour: increased provision of basic inputs; school food programmes; extended annual and daily amount of time available for learning; improved measurement of learning achievements; subsidized transport; bilingual education; provision of computers; reduced crowding in classrooms; decentralized decision-making and increased community involvement; flexible curricula (with only core curricula required); and higher teacher salaries (though salaries are still very low in the region).

There is a definite need to reach a strong 'social consensus' on the nature and causes of temporary and permanent drop-out associated with child labour in the region. A strategy of prioritization and sequencing of the main elements of reform is also needed. In most cases, curbing child labour will probably require gradual, complex changes rather than simple and dramatic interventions. There are no easy solutions in this area of social policy, and that caveat includes the school system.

Even though it is necessary to dispel the myth that all work negatively affects educational achievement,⁷⁵ temporary and seasonal (mainly harvest-related) work has especially detrimental effects when 'frontal teaching' (whole class and average student-centered) generates a vicious circle that constraints any possible further learning for temporary seasonal drop-outs. Thus a gradual change towards more active child-centered learning is a basic requirement to be included in the overall strategy of reform. Furthermore, parents must become more aware of the continuous nature of the learning process; learning experiences must include opportunities for review of problems and findings with parents and relatives.

At the same time, exogenous factors such as the demand for temporary seasonal work or other types of child labour should be addressed through economic incentives, increased public awareness of the problem, legal mechanisms, and monitoring and control systems.

Among the main interrelated strategies that should be implemented in the near future, assuming a national social consensus is reached, eight are specially relevant in terms of the adoption of additional resources for children of low-income families:

- **Gradually transform 'frontal teaching' into active and participatory learning processes** like those carried out by the *Escuela Nueva* programme in Colombia. This change can be facilitated: by the use of carefully tested self-learning materials that allow students to learn on their own, as well as in groups, by taking into account their previous knowledge and the local context; by providing options and opportunities for divergent answers; and by encouraging opportunities for children to share their learning experience with their families.
- **Extend pre-school education** to prepare children to make the best use of primary education and to provide at least one extra year of education for early drop-outs. Pre-

NOTES

1. Child labour is used here to refer to both paid or unpaid activities that are mentally, physically, morally or socially hazardous for the child. It should be noted that of the different forms of child labour identified by Anker and Melkas, 1995, two are not common in Latin America: work by very young children that precludes primary schooling; and bonded labour.
2. Schiefelbein and Tedesco, 1995.
3. Aldana et al., 1983; Contreras, 1985; Cordon, 1991.
4. CEPAL, 1995.
5. Edwards, 1996.
6. UNDP, 1991.
7. Cariola and Cerri, 1986, 1989.
8. Edwards, 1996.
9. Gajardo and Andraca, 1988; Boyden, 1994.
10. Students from Colombia, for example, ranked at the very bottom (40th out of a sample of 41 countries) in both math and science achievement, according to the 'Third International Mathematics and Science Study', conducted by the U.S. Department of Education and involving more than a half-million students (*International Herald Tribune*, 22 November 1996, p. 2).
11. UNESCO, 1996a; Chile, 1995; Argentina, 1994; CEE, 1991.
12. Schiefelbein and Tedesco, 1995.
13. Salaries were nominally higher than in the 1970s but, given the high rates of inflation typical of the period, actually lower in terms of their purchasing power.
14. McMeekin, 1996.
15. UNESCO, 1996a; Schiefelbein, 1994.
16. Garcia and Hernandez, 1992.
17. UNESCO, 1996a.
18. Schiefelbein and Grossi, 1981; Fernández et al., 1985; McGinn et al., 1992; Díaz and de Jesús, 1985; Cuadra and Crouch, 1989; Klein and Costa Ribeiro, 1990; Crouch et al., 1992; Reimers et al., 1992.
19. Arancibia and Rosas, 1994.
20. Schleicher and Yip, 1994.
21. Anker and Melkas, 1995.

22. UNESCO, 1996b.
23. Anker and Melkas, 1995.
24. Wolff et al., 1993.
25. Schiefelbein and Farrell, 1982.
26. CEE, 1991.
27. Garcia and Hernandez, 1992.
28. Anker and Melkas, 1995.
29. According to Musgrove, 1976, parents in the upper quartile spend up to 6 per cent of their total expenses on education. See also Molina et al., 1993; Schiefelbein, 1987; and Anker and Melkas, 1995.
30. Himes et al., 1994.
31. Fausto and Cervini, 1992.
32. Edwards, 1996.
33. Henriquez, 1996, found that 4 per cent of Chilean children living in a slum area, aged 5 to 17, have been caught peddling drugs and 6 per cent are frequent consumers.
34. Edwards, 1996; Nunes, 1994.
35. Fausto and Cervini, 1992; Gajardo and de Andraca, 1988.
36. Fausto and Cervini, 1992; Garcia and Hernandez, 1992.
37. Llomovatte, 1991.
38. Siddiqui and Patrinos, 1994.
39. Garcia and Hernandez, 1992.
40. Anker and Melkas, 1995.
41. Alfaro et al., 1992; Valverde, 1992.
42. Menchu, 1983.
43. Cariola and Cerri, 1989.
44. Schleicher and Yip, 1994; Wolff et al., 1993.
45. UNESCO, 1993, 1996b; ECLAC-UNESCO, 1992; Oliveira, 1989; Gorman and Pollit, 1992.
46. Schiefelbein and Tedesco, 1995.

47. Schiefelbein, 1993, Apezechea et al., 1987.
48. Colbert, 1987; Colbert and Arboleda, 1990; Schiefelbein, 1992.
49. UNESCO, 1996b.
50. Ibid.
51. CEE, 1992; Tedesco, 1990.
52. Fumagalli, 1990; Rodriguez, 1990; Galvez et al., 1981; Filp et al., 1987.
53. Schiefelbein et al., 1994.
54. Anker and Melkas, 1995, p 2.
55. Anker and Melkas, 1995, analysed four additional strategies that are not widely used in the Latin American region in the context of eliminating child labour: (a) income-generating activities for poor families; (b) provision of 'safe work' for children; (c) community development programmes; (d) camps, recreation and non-formal education seeking to combat child labour.
56. Brazil, 1996.
57. Calderon, 1996.
58. This restriction is similar to the one applied in the Milwaukee Voucher Program. See Hanushek, 1994.
59. Calderon, 1996.
60. World Bank, 1995.
61. FAE/PMA, 1996; Anker and Melkas, 1995; Schiefelbein and Clavel, 1983; Pollit, 1990.
62. IHDCR, 1995; CISOL, 1995; AMANECER, 1995.
63. Pfefferman and Griffin, 1989.
64. Kelly and Melkas, 1995.
65. FAE/PMA, 1996.
66. Sarmiento, 1996.
67. Boyden, 1994; Gajardo and de Andraca, 1988; Fausto and Cervini, 1992.
68. Suarez, 1991; Frigerio, 1987.
69. Corvalan, 1987.
70. Ardila, 1991; Herrero, 1987.

71. UNESCO, 1996b.
72. Braslavsky, 1995.
73. Swope, 1996.
74. Edwards, 1996.
75. Cariola and Cerri, 1989.
76. Boyden, 1991.

BIBLIOGRAPHY

- Aldana, E., Amezcuita, E. and Becerra, C., *Trabajo de los niños matriculados en las escuelas públicas de Bogotá*, Instituto SER, Bogotá, 1983.
- Alfaro, O., Ibarra, M. and Cerdas, D., *Menores trabajadores (as) en la calle y con conductas de deambulaci3n*, Patronato Nacional de la Infancia-UNDP, San Jos3, Costa Rica, 1992.
- AMANECER, *Survey Results on Income Replacement/Substitution Activities*, Cochabamba, Bolivia, 1995.
- Anker R. and Melkas H., *Economic Incentives for Children and Families Intended to Eliminate or Reduce Child Labour*, ILO, Geneva, 1995.
- Apezechea, H., P3rez, B., Coronel, H. and Ancheta, A., 'Repetici3n escolar: investigaci3n participativa en el interior', *Punto 21 Revista de Educaci3n*, No. 42, CIEP, Montevideo, September 1987 (see also No. 43, February 1988).
- Arancibia, V. and Rosas, R., *Medici3n de la calidad de la educaci3n en Am3rica Latina: resultados de siete pa3ses de la regi3n*, REPLAD-UC, UNESCO, Santiago, 1994.
- Ardila, I., 'Programa Bosconia - La Florida. Una obra educativa para muchachos callejeros', *Revista Latinoamericana de innovaciones educativas*, A3o III, No. 4, Buenos Aires, 1991, pp. 47-88.
- Argentina, Ministerio de Cultura y Educaci3n, *Informe de la producci3n de la lengua, Sistema nacional de Evaluaci3n, 1er Operativo nacional 1993*, Secretar3a de Programaci3n y Evaluaci3n Educativa, Buenos Aires, 1994.
- Boyden, J., 'Working Children in Lima, Peru', in Myers, W. (ed.), *Protecting Working Children*, Zed Books, London, 1991.
- Boyden, J., 'The Relationship between Education and Child Work', *Innocenti Occasional Papers*, UNICEF International Child Development Centre, Florence, 1994.
- Braslavsky, C., 'El proceso de concertaci3n de contenidos b3sicos comunes en la Rep3blica Argentina', *Bolet3n OREALC* 36, Santiago, 1995.
- Brazil, Secretar3a de Educacao, *Programa Bolsa Familiar (ayuda familiar) para la educaci3n y ahorro escuela*, Governo do distrito federal, Brasilia, 1996.
- Calderon, A., 'Voucher Program for Secondary Schools: The Colombian Experience', *Human Capital Development, Working Papers* 66, IMF, Washington, D.C., 1996.
- Cariola, L. and Cerri, M., *Trabajo infantil: ¿Mito o realidad?*, CIDE, Santiago, 1986.
- Cariola, L. and Cerri, M., *Trabajar y estudiar, ¿Cu3l es el problema?*, CIDE, Santiago, 1989.
- CEE, Editorial, *Revista Latinoamericana de Estudios Educativos*, Vol. XXI, No. 3, 1991, p. 9.

- CEE, 'Educación indígena y países pluriétnicos y multiculturales', *Revista Latinoamericana de Estudios Educativos*, Vol. XXII, No. 4, 1992, pp. 5-10.
- CEPAL, *Panorama social de América Latina*, CEPAL-FNUAP-UNICEF, Santiago, 1995.
- Chile, Ministerio de Educación, *Resultados de la Prueba 1994. Sistema Nacional de Medición de la Calidad de la Educación*, SIMCE, Santiago, 1995.
- CISOL, *Survey Results on Income Replacement/Substitution Activities*, Programa Niño trabajador, Loja, Ecuador, 1995.
- Colbert, V., 'Universalización de la Primaria en Colombia. El programa de Escuela Nueva', en *La Educación Rural en Colombia*, FES, Bogotá, 1987, pp. 77-93.
- Colbert, V. and Arboleda, J., 'Universalization of Primary Education in Colombia', *The New School Programme, Notes, Comments No 191*, UNESCO-UNICEF-WFP Co-operative Programme, Paris, July, 1990.
- Contreras, V., *Antecedentes para el análisis de los menores. Tres estudios: América Latina, Costa Rica y Brasil*, PREALC/ILO, Santiago, 1985.
- Cordon, I., *La situación de los niños en Guatemala*, Bernard Van Leer Foundation, Guatemala, 1991.
- Corvalan, O., 'Formal and Non-formal Education with Production in Latin America', CIDE, mimeo, Santiago, 1987.
- Crouch, L., Spratt, J. and Cubeddu, L., 'Examining Social and Economic Impact of Educational Investment and Participation in Developing Countries', *BRIDGES Research Report*, No. 12, HIID, Harvard University, Cambridge, 1992.
- Cuadra, E. and Crouch, L., 'Indicators of Students Flow Rates in Honduras: An Assessment of an Alternative Methodology', *BRIDGES Research Report*, No. 6, HIID, Harvard University, Cambridge, 1989.
- Díaz, M. and de Jesús, Z., 'La repetición escolar en los Núcleos escolares No 13, Matanzas, y No 36, Los Botados, de Bani y Yamasa', Departamento de Investigación Educativa, PIDE, Secretaría de Estado de Educación (SEEBAC), Santo Domingo, September 1985.
- ECLAC-UNESCO, *Education and Knowledge: Basic Pillars of Changing Production Patterns with Social Equity*, Santiago, Chile, 1992.
- Edwards, V., *Estado del arte sobre trabajo infantil y educación*, PIIE-UNESCO, Santiago, 1996.
- FAE/PMA, *Estudo de caso sobre o programa nacional de alimentacao escolar (PNAE) e seu processo de descentralizacao em areas assistidas pelo PMA no Brasil*, Fundacao de assistencia ao estudante-Programa Mundial de Alimentos, Brasilia, May 1996.
- Fausto, A. and Cervini, R. (eds.), *O trabalho e a rua. Crianças e adolescentes no Brasil urbano dos anos 80*, UNICEF-FLACSO-Centro Brasileiro para a Infancia e Adolescência, São Paulo, 1992.

- Fernández, M.L., Palma, A.L., Méndez, V.R. and Osorio, A.J., 'Informe de Investigación sobre el problema de deserción escolar realizado en el Núcleo escolar de Jutiapa, Danli, Departamento El Paraíso', Institute for International Research, McLean, Virginia, August 1985.
- Filp, J., Cardemil, C. et al., 'Control social, disciplina y cambio: estudio de las prácticas pedagógicas en una escuela básica popular', Documento de Trabajo del CIDE, 1987.
- Frigerio, G., *Sistema dual: evaluación de funcionamiento*, FLACSO-UNESCO, Buenos Aires, 1987.
- Fumagalli, I., *Uso del tiempo en la escuela media, Tesis de maestría*, FLACSO, Buenos Aires, 1990.
- Gajardo, M. and de Andraca, A.M., *Trabajo infantil y escuela. Las zonas rurales*, FLACSO, Santiago, 1988.
- Galvez, G., Rockwell, E., Paradise, R. and Sobrecasas, S., *El uso del tiempo y de los libros de texto en primaria*, DIE, Ciudad de Mexico, December 1981.
- García, M. and Hernandez, C., *¿Tiempo de Jugar?*, CEPLAES, Quito, 1992.
- Gorman K. and Pollit, E., 'School Efficiency in Rural Guatemala', *International Review of Education*, Vol. 38, No. 5, UNESCO, September 1992.
- Hanushek, E., *Making Schools Work: Improving Performance and Controlling Costs*, The Brookings Institution, Washington, D.C., 1994.
- Henriquez, J., 'Vivir en Ghettos', *La Epoca*, Suplemento Temas, Santiago, 14 July 1996, pp. 1-3.
- Herrero, J., *L'Éducation des enfants de la rue. Étude d'une initiative salésienne à Bogotá*, Université Catholique de Louvain, Louvain, 1987.
- Himes, J., Colbert V. and García Méndez, E., 'Child Labour and Basic Education in Latin America and the Caribbean: A Proposed UNICEF Initiative', *Innocenti Essays*, No. 6, UNICEF International Child Development Centre, Florence, 1994.
- IHDCR, *Survey Results on Income Replacement/Substitution Activities*, Instituto Hondureño para el desarrollo de las comunidades rurales, Tegucigalpa, 1995.
- Kelly, M. and Melkas, H., *Child Labour and Education: Income Substitution Schemes as a Mechanism to Reduce Labour and Increase Schooling*, draft report, UNICEF-ILO, Florence-Geneva, 1995.
- Klein, R. and Costa Ribeiro, S., *O Censo educacional e o Modelo de Fluxo: o problema da repetência*, Laboratorio Nacional de Computacao Cientifica, No. 24/91, Rio de Janeiro, 1990.
- Llomovatte, S., *Adolescentes entre la escuela y el trabajo*, Mino y Davila-FLACSO, Buenos Aires, 1991.
- McGinn, N., Reimers, F., Loera, A., Soto, M. and López, S., *Why Do Children Repeat Grades? A Study of Rural Primary Schools in Honduras*, Project Bridges, Harvard University, Cambridge, 1992.

- McMeekin, R., 'Coordination of External Assistance to Education in Latin America and the Caribbean', *Bulletin Orealc*, No. 39, UNESCO, Santiago, 1996.
- Menchu, R. and Rigoberta Menchu, I., *An Indian Woman in Guatemala*, Verso, London, 1983.
- Molina, C.G., Alviar, M. and Polania, D., *Gasto público en educación y distribución de subsidios en Colombia*, Planeación y Desarrollo XXIV, Bogotá, December 1993.
- Musgrove, P., *La contribución familiar a financiar la educación*, (RAE 901), Banco Interamericano de Desarrollo, Washington, D.C., 1976.
- Nunes, T., 'The Environment of the Child', *Occasional Paper No 5*, Bernard van Leer Foundation, The Hague, 1994.
- Oliveira, J., *Educational Reform in Latin America: Towards a Permanent Agenda*, World Bank, Economic Development Institute, Washington, D.C., 1989.
- Pfefferman, G. and Griffin, C., *Nutrition and Health Programmes in Latin America*, World Bank, Washington, D.C., 1989.
- Pollit, E., *Malnutrition and Infection in the Classroom*, UNESCO, Paris, 1990.
- Reimers, F., Cummings, W., McGinn, N., Rivarola, M. and Warwick, D., *Análisis del sistema educativo en el Paraguay*, HIID, Harvard University, Cambridge, October 1992.
- Rodriguez, N., *La educación básica en Venezuela*, Escuela de Educación, Universidad Central, Caracas, 1990.
- Sarmiento, A., *Incentivos, subsidios y complemento nutricional*, Mision Social, Departamento Nacional de Planeación, Bogotá, 1996.
- Schiefelbein, E., *Education Costs and Financing Policies in Latin America. A Review of Available Research*, World Bank, Education and Training Department-LCPED, Washington, D.C., 1987.
- Schiefelbein, E., *Redefining Basic Education for Latin America - Lessons to be Drawn from the Colombian Escuela Nueva*, IIEP, Fundamentals of Educational Planning Series, UNESCO, Paris, 1992.
- Schiefelbein, E., *Reducing Repetition and Low Achievement in Latin America: Lessons from Research*, OREALC, Santiago, 1993.
- Schiefelbein, E., *Education Reform in Latin America and the Caribbean: An Agenda for Action*, The World Bank, Washington, D.C., 1994.
- Schiefelbein, E., Braslavsky, C., Gatti, B. and Farres, P., 'Las características de la profesión maestra y la calidad de la educación en América Latina', *Boletín OREALC*, No. 34, UNESCO, Santiago, 1994.

- Schiefelbein E. and Clavel, C., 'Variables exógenas que inciden en el rendimiento escolar en 40 y 60 años de la escuela básica', *Serie Estudios CPEIP/OEA*, Santiago, 1983.
- Schiefelbein, E. and Farrell, J., *Eight Years of Their Lives*, IDRC, Ottawa, 1982.
- Schiefelbein, E. and Grossi, M.C., *Statistical Report on Repetition in Latin America*, UNESCO, CSR-E-40, Paris, 1981.
- Schiefelbein, E. and Tedesco, J.C., *Una nueva oportunidad*, Satillana, Buenos Aires, 1995.
- Schleicher, A. and Yip, J., *Indicators of Between-School Differences in Reading Achievement*, IEA, New Jersey, May 1994.
- Siddiqui, F. and Patrinos, H., *Child Labour: Issues, Causes, and Interventions*, World Bank, 526 Washington, D.C., 1994.
- Suarez, A.L., *El sistema dual en las Argentinas: un estudio de caso*, CENEP-OREALC/UNESCO, Buenos Aires, 1991.
- Swope, J., *Evaluación de la eficiencia interna de la educación primaria formal de Fe y Alegría. Informe preliminar*, CIDE, Santiago, 1996.
- Tedesco, J.C., 'La educación intercultural bilingüe en América Latina', *Prospects*, No. 75, Paris, 1990.
- United Nations Development Programme, *Política Social y pobreza en Argentina*, Proyecto Regional para la superación de la pobreza, UNDP, Bogotá, 1991.
- United Nations Educational, Scientific and Cultural Organization, *Statistical Yearbook 1990*, UNESCO, Paris, 1990.
- United Nations Educational, Scientific and Cultural Organization, *Towards a New Era in Educational Development, V Meeting of the Major Project in the Field of Education in Latin America and the Caribbean*, UNESCO, Santiago, 1993.
- United Nations Educational, Scientific and Cultural Organization, *The State of Education in Latin America and the Caribbean 1980-1994*, UNESCO, Santiago, 1996a.
- United Nations Educational, Scientific and Cultural Organization, *Education for Development and Peace: Valuing Diversity and Increasing Opportunities for Personal and Group Learning*, UNESCO, Santiago, 1996b.
- Valverde, L., 'Situación del niño en la calle en Costa Rica', *Revista de la Universidad de Costa Rica*, Vol. 16 (1), San Jose, 1992.
- Wolff, L., Schiefelbein, E. and Valenzuela J., *Improving the Quality of Primary Education in Latin America: Towards the 21st Century*, World Bank, Washington, D.C., 1993.
- World Bank, *Poverty in Colombia, A World Bank Country Study*, World Bank, Washington, D.C., 1995.

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