## Population Division

Expert Paper No. 2012/2

# EDUCATION, LIFE CYCLE AND SOCIAL MOBILITY: A LATIN AMERICAN PERSPECTIVE

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Economic Commission for Latin America and the Caribbean

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#### **PREFACE**

The Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat organized an *Expert Group Meeting on Adolescents, Youth and Development* at the United Nations Headquarters in New York, on 21 and 22 July 2011. The meeting was convened in response to two main mandates: 1) The United Nations General Assembly resolution A/RES/64/134 proclaiming the year commencing 12 August 2010 as the International Year of Youth; and 2) The United Nations Commission on Population and Development decision to designate "Adolescents and youth" as the theme of its forty-fifth session, to be held in April of 2012. The meeting brought together experts from different regions of the world to present and discuss research on two broad themes: demographic dynamics of youth; and youth as agents of socio-economic development. A selection of the papers prepared by experts participating in the first part of the meeting is being issued under the Expert Paper Series published on the website of the Population Division (www.unpopulation.org).

The Population Division is grateful to Mr. Martin Hopenhayn, Director of the Social Development Division of the Economic Commission for Latin America and the Caribbean, Santiago, Chile, for having participated in the meeting and for preparing this paper on education and social mobility of youth in Latin America. As primary education has become nearly universal in much of the region, the completion of secondary education and greater opportunities to pursue tertiary level education are currently critical policy objectives. The completion of at least secondary education has also become a requisite for obtaining decent work and for having a reasonable chance at socio-economic mobility. The education systems in many countries of Latin America have expanded educational opportunities for the newer generations of youth, but segmentation is still prevalent and inequities still persist in the labour market, especially for the more disadvantaged social groups. Since educational attainment significantly affects employment opportunities and social mobility later in life, policies should strive to reduce segmentation in the national educational systems and labour markets. Policies and programmes should also facilitate the transition from school to work and to diversity alternative educational options, including vocational training and subsidized job training programmes, especially for youth who are not able to complete traditional and selective tertiary, university level degrees.

The *Expert Paper Series* aims at providing access to government officials, the research community, non-governmental organizations, international organizations and the general public to overviews by experts on key demographic issues. The papers included in the series will mainly be those presented at Expert Group Meetings organized by the Population Division on the different areas of its competence, including fertility, mortality, migration, urbanization and population distribution, population estimates and projections, population and development, and population policy. The views and opinions expressed in the papers that are part of the series are those of their authors and do not necessarily reflect those of the United Nations. The papers in the series are released without undergoing formal editing.

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### EDUCATION, LIFE CYCLE AND SOCIAL MOBILITY: A LATIN AMERICAN PERSPECTIVE

Martín Hopenhayn, Economic Commission for Latin America and the Caribbean (ECLAC)

#### A. INTRODUCTION

Education plays a fundamental role in people's life trajectories. To the extent that education democratizes access to quality jobs, it is the principal mechanism for overcoming unequal origins and for compensating socio-economic asymmetries over the life course. Education is therefore the most appropriate domain of intervention to address the intergenerational perpetuation of inequalities, and to make social mobility a real possibility for everyone on the basis of effort and merit.

At the juncture of education and social mobility, at least three key questions arise. The first is to what extent socio-economic origin determines differential access to education, trajectories and achievement, and to what extent education can reverse or neutralize differences in origin to afford mobility and equal opportunities. The second is to what extent educational attainment determines subsequent productivity, in terms of both labour income and the quality of jobs. In other words, how closely are the two phases of the life cycle, the education phase and the productive phase, linked to each other? The third question is what interventions are called for in the spheres of education and employment to promote virtuous circles and to mitigate vicious circles between them.

The remainder of this paper proceeds as follows. First, the paper will examine the relationship between education and social mobility based on **intra-system** segmentation or convergence indicators. Specifically, the paper will compare the educational attainment and learning of different socio-economic, ethnic, gender and regional population groups, and will also examine attainment indicators over time at the aggregate level. The paper will also consider how **extra-system** and contextual factors, particularly those related to the family, influence educational trajectories.

Second, going beyond the education system itself, the paper will look at **post-education system** parameters, that is, how educational attainment affects employment opportunities and social mobility later in life. To do this, the paper will make intergenerational comparisons to determine how educational attainment correlates with labour market participation. In this regard, it will be important to examine the asymmetries of the job market with respect to persons with similar educational attainments, including gender discrimination.

Third, the paper will propose areas of intervention that can be decisive in achieving greater social mobility, especially considering the level of secondary education and the education-employment connection.

1. Intra-system gaps and extra-system factors affecting educational attainment and learning

One aspect of **intra-system mobility** has to do with the advancement in educational achievement of society as a whole, measured by the average years of schooling from one generation to the next. Of particular interest, is the contrast between the percentage of young people who finish secondary education and those who go on to postsecondary education in different social groups. As shown in figure 1, in the Latin American region as a whole, there are sharp differences in the completion of secondary education by young people by income

quintiles.<sup>1</sup> In the lowest quintile, only one in four young people finish secondary school, compared with over four out of five in the highest quintile. A higher proportion of women than men finish secondary education in all quintiles, although women do not subsequently fare better in the labour market. In rural areas, the percentage of non-indigenous young people finishing secondary education is about half the national average, and the figure is even lower among indigenous rural youth.

(Percentages) 90 86 81 80 62 คก 50 40 31 30 20 20 10 0 Quintile I Quintile II Quintile III Quintile IV Quintile V Indigenous Non-indigenou Income quintile Rural areas Males Females

Figure 1. Latin America (18 countries): Population aged 20-24 years with complete secondary education by quintile of per capita income and sex, circa 2008

*Source*: Calculated by ECLAC on the basis of special tabulations of data from household surveys conducted in the respective countries.

Finishing secondary school is a decisive threshold for achieving social mobility throughout the working life. Assuming appropriate learning, secondary school completion entails the acquisition of general competencies and abilities that lay the necessary foundation for a productive life. Secondary school completion also provides a valuable credential for the labour market—having that credential or not makes a big difference for employment. Although the percentage of young people completing the whole secondary school cycle went from 27 per cent to 51 per cent in Latin America between 1990 and 2006, the region is still far from a universal trend towards upward social mobility through education.

Another gap is observed between students from different socio-economic origins in terms of their schooling trajectory. As can be seen in figure 2, for the 18 countries of Latin America with available data, not all youths who have completed their secondary education (those aged 15-19 years) progress at the same pace. Only 55 per cent of those in the first income decile showed timely progression through the system, compared to 89 per cent of those in the tenth decile. This statistic stresses the "glass half empty" as against the "glass half full" with regards to the rates at which young people in the different deciles progress through secondary school. Comparing the years 1990 and 2005, The evidence shows that in all the income deciles there was a sharp decline in grade repetition, and the average percentage of timely progression rose from 48 per cent to 69 per cent during that period, and then further to 73 per cent in 2008. This reflects greater learning achievements, but also

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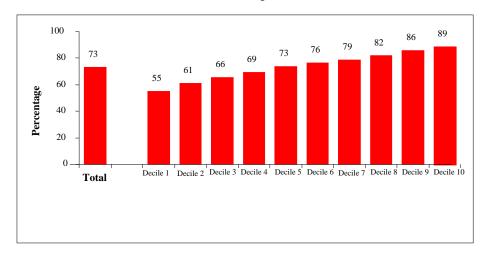
<sup>&</sup>lt;sup>a</sup> The data for indigenous and non-indigenous youth refer to eight countries for 2007.

<sup>&</sup>lt;sup>1</sup> In this figure, persons aged 20-24 are considered because this group is just over the normal age of secondary school attendance, and therefore reflect recent rates of secondary education completion.

represents a more efficient investment in education, given the onerous costs involved in high rates of grade repetition.

Figure 2. Latin America (18 countries): Young people aged 15-19 years with timely progression through the education system, circa 2008

(Percentage)



*Source*: Calculated by ECLAC on the basis of special tabulations of data from household surveys conducted in the respective countries.

The gaps are even greater in postsecondary education. Only 8.3 per cent of people aged 25-29 years in the region<sup>2</sup> have managed to complete at least five years of postsecondary education (figure 3), the typical length of a university degree programme in the Latin American region. There is significant stratification by per capita income quintiles: for every 27 young people in the richest quintile who complete five years of postsecondary studies, there is only one in the poorest quintile who does.

The average completion rates of postsecondary education for the first four quintiles in the region is very low, ranging from less than 1 per cent in the first quintile to 12.4 per cent in the fourth quintile. This is attributable mainly to the low level of secondary school completion in the lower quintiles, as poor preparation and meagre learning at the levels leading to postsecondary education, causes many who do start a postsecondary education to fail. Also, the opportunity costs of remaining in the education system in adulthood are high for most Latin American families, leading to attrition before the cycle is completed. This situation is all the more serious considering that the largest jump in the rates of return in the labour market occurs precisely at this threshold, of completing higher education.

These data evoke the problem of intergenerational perpetuation of inequality—children of parents with low income and education levels tend to have low educational attainment themselves, which in turn confines them to low-income jobs, and so forth. This is illustrated further in figure 4, which shows a strong correlation between the educational climate in the household (years of schooling or education level of the parents) and the children's educational achievement. Whereas only 3.4 per cent of the children of parents who did not complete primary school manage to finish tertiary studies, this figure climbs to 71.6 per cent for children whose parents completed their tertiary education. The completion rates of secondary education for children of parents in these two extreme educational categories are 32.7 per cent and 91.1 per cent, respectively. The glass half full, by contrast, is that one in three children of

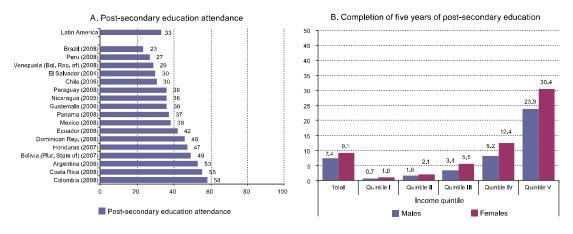
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<sup>&</sup>lt;sup>2</sup> Average for the 17 countries with available data, displayed in figure 3.

parents who did not finish primary school manage to complete their secondary education, and as much as 85.5 per cent of them complete their primary education.

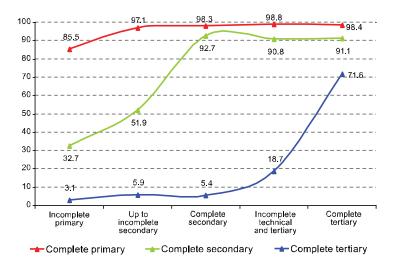
Figure 3. Latin America (17 countries): Postsecondary education attendance among young people aged 20-29 years and completion of at least five years of university education among those aged 25-29 years by per capita income and sex, circa 2008

(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries.

Figure 4. Latin America (selected countries): Young people aged 25-29 years who completed varying levels of education by household educational climate, circa 2006<sup>a</sup> (Percentages)



Source: Calculated by ECLAC on the basis of special tabulations of data from household surveys conducted in the respective countries.

These data confirm, therefore, that there is a high correlation (and consequent rigidity) between education levels of parents and children, but at the same time they indicate that there is a clear trend towards children surpassing the education levels of their parents. In other words, there is "systemic" mobility through increased educational attainment over time, but also some intergenerational "education level rigidity", which is detrimental to the lower socio-economic levels, rural residents, indigenous people and persons of African descent.

<sup>&</sup>lt;sup>a</sup> Average years of education their parents completed, except for young people who are already emancipated and are themselves heads of households. In this case, refers to their own level of educational attainment.

The inequities in the region's education systems are also reflected in the learning gaps. The most recent data on academic results of countries in the region are from the 2009 Programme for International Student Assessment (PISA) carried out by the Organization for Economic Cooperation and Development (OECD). This test evaluates the acquisition of basic competencies in the areas of reading comprehension, science and math in a sample of 15-year-old students. In 2009, nine countries in the region participated in the examination: Argentina, Brazil, Chile, Colombia, Mexico, Panama, Peru, Trinidad and Tobago and Uruguay.

The scores show that a high percentage of the student population are very deficient in the basic competencies of education. Moreover, the difference between the results of the Latin American countries that participated in the PISA testing and the average for developed countries belonging to OECD is very significant. Figure 5 shows the distribution of the academic results of 15-year-old students in reading according to their socio-economic and cultural status.<sup>3</sup> Most of the students in the first and second socio-economic and cultural quartiles in the countries of Latin America and the Caribbean had levels of attainment below 2, meaning that they have not developed the basic competencies to perform well.

100 80 60 40 Percentage of Students 20 20 40 60 80 100 1234 1234 1234 1234 1234 1234 1234 1234 Ouartiles Uruguay Argentina Brazil Chile Colombia Mexico Panama Peru Trinidad OECD and Tobago ■ < Level 1</p> ■ Level 1 ■ Level 2 ■ Level 3 ■ Level 4 ■ Level 5

Figure 5. Latin America and the Caribbean (9 countries): Distribution of performance on the PISA reading test among 15-year-old students, by quartile of socio-economic and cultural status (ISEC), 2009

Source: Calculated by ECLAC on the basis of special processing of microdata from the 2009 PISA test.

In the countries of the OECD, there are also differences in learning achievements among students of different socio-economic and cultural groups, but unlike their counterparts in Latin American countries, most of these students have at least the expected basic competency level, i.e., level 2 or above. The most dramatic case in terms of overall results and inequalities among the Latin American countries participating in the test is Peru, where

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<sup>&</sup>lt;sup>3</sup> Programme for International Student Assessment (PISA) computes this index based on three aspects linked to socio-economic status: household buying power and the occupational status and education level of the parents of the students who participate in the PISA tests (for details, see OECD, 2010)

90 per cent of students in the first quartile do not achieve the basic reading competency they need to be fully integrated citizens in today's world.

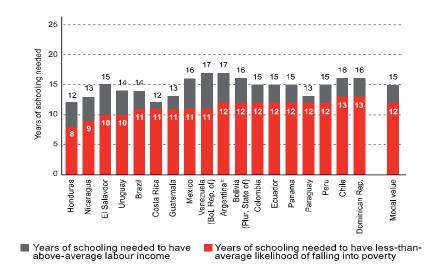
#### 2. Post-system mobility: Rates of return and employment history

Young people's education affects the **post-system** paths they take, especially with regard to their participation in the labour market and social mobility. The situation on this matter in Latin America is critical. As previous sections have shown, **intra-system** mobility is rather low as there is significant stratification of educational attainment between generations rooted in the socio-economic stratification of families of origin. Consequently, there is **extra-system rigidity** (the correlation between students' educational attainment and their socio-economic origin), **intra-system rigidity** (stratification in the attainment of one generation compared to the preceding generation's attainment), and **post-system rigidity** (stratification of workers by educational attainment).

Figure 6 sums up recent evidence (ECLAC, 2010) on the number of years of schooling required to have good prospects for social mobility in young people's life-cycle immediately following their emergence from the education system. The number of years of schooling required for the employed population aged 20-29 years in 2008 to have a good chance of emerging from poverty, staving off poverty, or earning an above-average income, based on the salary obtained for the level of education attained was estimated. Put in other terms, the estimate marks the extent of separation, at the educational threshold, between greater or fewer options for social inclusion in the post-education phase of the life cycle. The cut-off point varies from one country to another, but the average threshold for the countries studied is 12 years of schooling (equivalent to completing secondary education) required to be less likely than average to fall into poverty. This average is not very high, considering the high level of unemployment and job instability in this age group.

Figure 6. Latin America (18 countries): Years of schooling required to be less likely to live in poverty or to earn above-average labour income among the employed population aged 20-29, circa 2008<sup>a</sup>

(Years of schooling)



Source: Calculated by ECLAC on the basis of special tabulations of data from household surveys conducted in the respective countries.

Figures 7a and 7b, show the high correlation between educational attainment and subsequent employment. As the first figure shows, younger and older workers must have completed at least some secondary education to reduce their chances of working in the

<sup>&</sup>lt;sup>a</sup> Employed persons working 20 or more hours per week.

<sup>&</sup>lt;sup>b</sup> Urban areas.

informal sector to less than 50 per cent. In Latin America, the informal sector is usually associated with low incomes, job instability, and a lack of social protection through employment. Although the adult population (aged 30-64 years) is more likely to work in the informal sector than the younger workers in all education levels, it is still very significant that among youth who completed only primary school, six out of ten are relegated to the informal sector.

When the quality of employment is measured in terms of income, adults aged 30-64 years of all education groups earn more than employed youth aged 15-29 years. There is a threefold explanation for this phenomenon: the "devaluation of education," which causes those who enter the labour market today to receive a smaller return per year of education than those in previous generations; income discrimination against youth who have double or triple the unemployment rate of older adults; and the fact that older adults have already "maximized" their earning potential in the labour market because they are at a later stage of their life cycle.

It is also important to emphasize that for both adults and youth in the labour force, there are major gaps between those who have completed only secondary education and those who have completed at least some university studies. The difference is even greater between those who did not complete tertiary studies and those who have obtained a university degree. The return to education, estimated by the increases of income, is clearly differentiated by educational level. Considering a simple average for the 18 countries of the region, this return is 4.9 per cent per additional year of primary education, 7.3 per cent for each additional year of secondary school, and 16.2 per cent for each year of postsecondary studies. However, these averages conceal major inter-country differences: primary education has a return ranging from 1 per cent per additional year of education in Costa Rica to 9.1 per cent in Honduras; from 3 per cent in Bolivia to 13.2 per cent in Guatemala per additional year of secondary school; and from 8.7 per cent in Argentina to 29 per cent in Brazil for each year of postsecondary education (ECLAC, 2010).

What can be concluded with respect to the post-system impact of education on socio-occupational mobility? First, in principle, meritocracy works, as greater educational attainment is reflected in higher income throughout the subsequent "productive" life cycle. There is an obviously positive side to this fact insofar as meritocracy is critical for social mobility. But a negative aspect is also observed, in that the stratification of educational attainments (intra-system) undermines the starting point for meritocracy because the cultural capital of the family of origin, the socio-economic level of households, the place of residence, and the ethnic group to which each person belongs, continue to dominate as determinants of educational attainment. The situation is even more serious if consideration is given to the largest leaps in the return to education that occur at the tertiary level, to which only a minority of Latin Americans has access.

The auspicious side of the coin is the large numbers of first-generation college graduates who have unprecedented possibilities for socio-occupational mobility in comparison with their parents. In several countries of the region, more than half of university students are the first to get some tertiary education in their immediate family. But once again, the percentage of youth from the lower socio-economic strata who manage to attain this educational level is still very small.

Another way of looking at the **post-system** mobility factor of education is to compare the wages of different groups with similar educational attainment. Figures 8a and 8b allow us to view the problem from two perspectives (ECLAC, 2010): gender and labour market informality. With regards to the first perspective, figure 8a shows that meritocracy does not favour women as much as men. The wages of women are greater for secondary and tertiary studies than for primary school, but men's wages are more than 19 per cent higher than those

of women at the same education level. This gap does not seem to have narrowed in recent years.

Figure 7. Latin America (selected countries): Informality and monthly labour income for the employed population aged 15-29, 30-64 and 15 and over, by level of education, a circa 2010 (Percentages)



Source: Calculated by ECLAC on the basis of special tabulations of data from household surveys conducted in the respective countries.

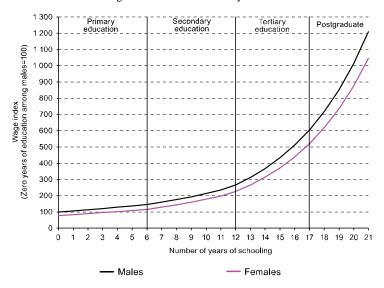
Regarding the second perspective, the formal-informal divide also produces different returns to education, and this gap becomes larger as the level of education rises, as shown in figure 8b. At the lower levels of education, the wage gap is only 10 to 12 per cent, but at the higher levels, wages can be as much as 80 per cent higher in the formal sector than in the informal sector, for workers with the same level of schooling. Overall, and on average, wages in the formal sector is about 40 per cent higher than in the informal sector.

<sup>&</sup>lt;sup>a</sup> The length of education cycles was defined in accordance with the 1997 International Standard Classification of Education (ISCED).

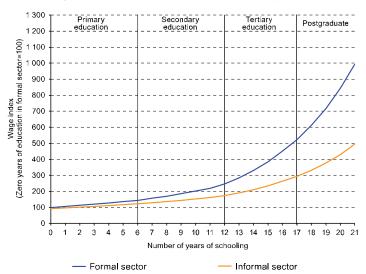
Figure 8. Latin America (selected countries): Wage index by years of schooling, wage-earners aged 20 or over working 20 or more hours per week, by sex and labour market formality, a circa 2010

(Index: Wages with zero years of schooling in the comparison category with the highest income=100)

#### A. Wages of men and women by level of education



#### B. Wages of formal and informal sector workers by level of education



Source: Calculated by ECLAC on the basis of special tabulations of data from household surveys conducted in the respective countries.

#### 3. What to do?

It is not easy to propose a repertoire of policies to address the problems outlined here. There are two main limitations in this regard. The first is that since the wave of education reforms began in Latin America more than two decades ago, the number of policy proposals accumulated so far makes it difficult to say anything new. Furthermore, the modest results of these reforms cast a shadow of scepticism on the policies attempted to date. The second limitation is that the attainment of greater equity and social mobility requires the alteration of structural conditions beyond the specific realm of education, such as differences in socioeconomic conditions and cultural capital of households of origin, the segmentation and

<sup>&</sup>lt;sup>a</sup> Simple averages of wages for each segment of the labour market in each country.

functioning of the labour market, and the restrictions on meritocracy imposed by networks of relationships and discrimination against certain population groups.

The public policy challenges are thus complex and manifold. For public education, there is a wide range of well-known options (see ECLAC, 2010): improving the capacities and recognition of teachers; furthering the educational use of information and communications technologies in the public education system; improving school administration as well as the management of central and decentralized agencies working with families to keep children and youth in school and to support their progress through the system in a timely manner; and lengthening the school day with a commensurate expansion of course offerings.

For adolescents and young adults, priority policy areas for social mobility in Latin America and the Caribbean include increased coverage of secondary education, measures to promote timely progress and completion, and to improve the quality of education. The Latin American region is in a good demographic position to invest more in secondary education, since societies are moving towards a lower relative and absolute weight of the child and youth population, with steadily increasing rate of primary school completion (ECLAC, 2008), which frees up resources that can be invested in secondary education. This demographic bonus will not last for much longer, and for this reason the time to focus efforts on enhancing secondary school progress and completion is now. The composition of education spending at different levels must be reviewed. A sustained increase of investments in secondary education should provide consistent incentives for the improvement of education sector professionals (teachers, directors, planners), to keep children in school, and to enhance the quality and relevance of education by updating contents, technologies and teaching methods. With respect to families and households, conditional cash transfers to families with children of secondary school age must be expanded to prevent early dropouts.

Other challenges arise in the post-education phase. First, it is essential to address the observed weak link between leaving the school system and a full incorporation into the labour market. It is known that young people face very high unemployment rates and when they do join the workforce, they often do so sporadically, precariously and in a segregated manner. The *sine qua non* interventions in this area include programmes for job training, the provision of information on job opportunities, incentives to hire youth, and the certification of competencies and skills and providing support for young entrepreneurs. The timely acquisition of experience in organizational behaviour and work routines and the enhancement of job skills, especially among youth without a postsecondary education, should expand the opportunities for upward mobility throughout their working life.

Second, it is important to ensure a greater degree of equality in the economic returns to education for individuals with similar levels of schooling. The first step is to promote equal labour rights and wages for persons with comparable skills and education, preventing gender, racial and ethnic discrimination, as well as striving to eliminate the differences between the formal and informal sectors in this regard. The second step, which is more difficult, is to mitigate the differences created by networks of relationships that depend on social class, educational community (public vs. private schools in poor neighbourhoods vs. rich ones) and area of residence. These gaps can be closed partially through services provided by the State, municipal government, the community, civil society organizations or those associated with Business Social Responsibility (BSR), in order to prevent informational asymmetries in job-seeking, to provide incentives for employers to recruit talent from low-income families, and to provide contact networks to those who do not have them. The possibility of doing this now through electronic networks makes the process more feasible, cheaper and more efficient.

Finally, it is important to facilitate labour market entry for those who sustain the care economy. This pertains particularly to women, especially those in families or households that lack the discretionary funds to outsource care needs in the marketplace. For this very reason,

social protection networks must incorporate public-sector components to support care for dependents in the household, be they children, the elderly or the sick.

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