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Education and gender inequality: a worldwide analysis
and the case of Italy

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EDUCATION AND GENDER INEQUALITY: A WORLDWIDE ANALYSIS AND THE CASE OF ITALY

1. Introduction

Despite considerable advances in gender equality in recent decades, gender discrimination remains pervasive in many dimensions of life world-wide. The nature and extent of the discrimination vary considerably across countries and regions. But the patterns are striking. In no region of the developing world are women equal to men in legal, social, and economic rights. Gender gaps are widespread in access to and control of resources, in economic opportunities, in power, and political voice. Furthermore in a congruous number of countries, increasing trends have been recently recorded in female discrimination (Social Watch, 2003). The evidence presented shows that societies that discriminate by gender pay a high price in terms of their ability to develop and to reduce poverty.

The gender gap in education is a case in point because investment in women’s education is an efficient economic choice. It has been estimated that a 1 per cent increase in female secondary schooling results in a 0.3 per cent increase in economic growth (UN, 2000a).

Cross-country studies suggest “that if the countries in South Asia, Sub-Saharan Africa, and the Middle East and North Africa had started with the gender gap in average years of schooling that East Asia had in 1960 and had closed that gender gap at the rate achieved by East Asia

* Even if the paper was devised together by the authors, Flavia Cristaldi wrote sections nn. 1, 4, 5 and Riccardo Russo wrote sections nn. 2, 3, 6 and 7.

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The most urgent priority is to ensure access to, and improve the quality of, education for girls and women, and to remove every obstacle that hampers their active participation.

Article 3, World Declaration on Education for All
from 1960 to 1992, their income per capita could have grown by 0.5–0.9 percentage point higher per year—substantial increases over actual growth rates” (World Bank, 2001, p. 11). The same report estimates that even for middle- and high-income countries with higher education levels, percentage point increase in the share of women with secondary education is associated with 0.3 percentage point increase in the per capita income.

United Nations studies too highlight how denying education to women has slowed social and economic development. In countries where the ratio of female-to-male primary or secondary enrolment is less than 0.75 GNP per capita is roughly 25 per cent lower elsewhere (UN, 2000).

The Human Development Index (HDI) of a country is calculated through the education level, life expectancy at birth and income, which confirms the importance of knowledge in improving the quality of life. While UNDP has used the HDI since 1990 to draw up a list of all the countries of the world, in 1996 it developed a new Gender-related Development Index (GDI) to underscore the presence and incidence of discrimination within the countries. In this case too, education plays an essential role in the definition of the index, thus confirming once again the crucial role of culture.

In the past few decades enrolment has generally improved more for girls than for boys, so the gender gap in schooling is closing in most regions. Nevertheless, the gap is still wide in many countries. The study of this phenomenon world-wide highlights the presence of two major types of gender discrimination in access to education. In developing countries gender discrimination in access to education of any level is still very strong while in industrialised countries this gap is closing, and in some cases the trend is even reversing yet, overcoming gender discrimination in access to education does not necessarily imply a more even participation of the two genders to the labour market. New and possibly more devious forms of discrimination insinuate into the socio-economic context of those countries that drive more strongly at equality.

This study aims at highlighting the diverse gender gap in access to (primary, secondary and tertiary) education while uncovering the new patterns and forms of discrimination affecting the world of education in developed countries.

The international community knows that education is a powerful instrument for reducing poverty and inequality, improving health and social well-being, and laying the basis for sustained economic growth (Sen, 2000). It is essential for building democratic societies and dyna-
mic, globally competitive economies. Just because of these reasons the right to education is established in many binding international human rights instruments and it is one of the key development goals.

This study intends to briefly review the goals and deadlines set by the various international instruments and their implementation. Yet has the commitment undertaken by the international community in the past decades from the Summit on Education held in Jomtien, to the World Forum on Education, and finally to the Declaration of the Millennium been matched by the advocated results?

2. Methodology

This paper mainly examines a world-wide analysis of access to education through a selection of indicators referred to single countries or regional aggregates. The choice of indicators has been crucial for the entire work. To reach the objective indicators must satisfy three conditions. First, they must be useful for international comparisons, easy to read and built on common data. Second, they must be able to emphasise peculiar conditions existing in the different places (countries and regions) of the world. Third, they must be able not only to give a picture of a phenomenon but also to show future trends.

Data simplicity, global covering and future projections are not easy to obtain, due to the great complexity of the current global society that is, characterised by frequent and quick transformations in the economic, social and cultural fields.

The first indicator we have chosen is the Female literacy rate. We decided to use the female rate as a percentage of the male datum. It shows the gender gap both in the access to the entire education system and to any other opportunity for which writing and reading is indispensable. We consider two different rates, the adult and the youth ones, in order to have indications about the main changes occurred during the last ten years in any country, and to evaluate possible future trends. We will use maps to easily locate the distribution trends of the two indicators by country.

The second indicator is the female gross enrolment ratio. We still use this indicator as percentage of the male rate, and we adopt a regional scale differentiating the enrolment in the three levels of the education system. This indicator can provide indications on the school dropout rate by gender, but it also give us other important information about the presence (as percentage) of highly educated women in the society of the
different countries, and consequently on the women’s (actual or potential) contribution to the cultural, political and economic life.

The third indicator is the female percentage on the adult illiterate population. Reading an indicator both as the average of regional aggregates average and as a world average is useful to note the different influence that single regional aggregates can have on the global context. Indeed, the social phenomena affecting the poorest region of the globe involve such a large number of people that they influence all the global figures.

The wage level by gender is the fourth indicator we have chosen. This indicator is useful to highlight a subtler form of gender discrimination linked to education. In fact the gender gap does not only concern access to knowledge, but it also affects the value of the acquired skills in labour. This kind of discrimination is an efficient measurement tool for the industrialised countries, where no gender gap is reported for enrolment to education. We have applied this indicator only to Italy, with regards to the annual and the hourly wages.

The last indicator we have used only for the Italian case is the number of people having a higher education by gender and age. This indicator, graphically shown with an age pyramid diagram, enables an easy interpretation of the progressive evolution of women’s presence in the high levels of education, generation by generation. In case of a trend reversal, such as this one, it is possible to temporally locate any phase of it.

Data are calculated on the basis of national, regional and world averages, which is a shortcoming of this work, since inequalities at national and sub-national level are not taken into account, although it is known that illiteracy and many other types of human deprivation harm in a largest measure the more disadvantaged social classes in each country (Hicks, 1997).

Yet this approach enables to adopt a global point of view and to compare situations in different geographic areas.

Moreover, several authors maintain that, cultural variables influence gender inequality in access to education more then the economic one (Anand and Sen, 1992).

3. Gender inequality in access to education

At the beginning of the third millennium, illiteracy harms hundreds of thousands of disadvantaged adults. Illiterate are ever poorer, excluded from the opportunities offered by education, and the greatest part of them are women (Watkins, 1999).
If the present level in literacy education can express the future state of progress and emancipation of a population, it is indeed interesting to evaluate the evolution of the female condition in these fields, both on a national and international scale. The first step will be an analysis of the literacy rate by country, because the basic reading and writing skills are indispensable for any cognitive process (save for the orally transmitted culture).

The first thematic map (fig. 1) represents, in a world wide dimension by country, the female adult literacy rate estimated as percentage of the male value. In the graphic representation it is clear that the greatest inequalities in literacy are located in the African continent and in the Indian sub-continent. On the basis of UNESCO data we can state that in the developing countries regional aggregate, the female adult literacy accounts on average to 80% of the male datum, and in single countries figures are below 40%, as the case of Guinea Bissau (30%) and Niger (33%).

We can note a deep gender gap in many countries, especially in the same countries where the population growth presents the highest values in the world, as in Sub-Saharan Africa and in the Arab States. Yemen and Jordan for example present a 3.7% value in the annual population grow rate, while Nigeria presents a value of 2.8% (De Agostini, 2002). India and China also present a crucial condition in the global analysis of the issue. Even if they don’t show the worst conditions in the female adult literacy rate, the number of women involved in illiteracy is so high that it determines a big influence on the world average data.

However, since we are using a female adult literacy rate, we must consider that our datum is referred to the adult population, it involves the older generations and it is particularly influenced by social policies and government choices adopted in the past decades.

The second map (fig. 2) is built with the same criteria as the previous one and concerns the female youth literacy rate, estimated as percentage of the male value. It shows an improvement for the young generations. But although great changes have recently occurred in the social and cultural picture of many countries, extremely negative conditions persist primarily in Africa and Asia. Furthermore, recent trends show that the situation is worsening. In many countries, in fact, even though the female literacy rate is increasing as percentage of the male datum, it is anyway lower then 100% in most of the developing countries (3/4 of the world population), and since illiteracy is increasing in those countries, most illiterate people in the future will be women.

Projections made by UNESCO on the future gender composition of
the world illiterate population are drawing a worrying global scenario (UNESCO, 2002). As indicated schematically in figure 3, projections made by Institute for Statistics (UIS, UNESCO) indicate that the percentage of women on the total illiterate population will decrease both in the developed countries and in the countries in transition, but in the developing countries (the majority of the world population) an increasing trend is observed. Since the population growth rate is higher in the developing countries than in the rest of the world, it is possible that on a global scale the female percentage on the total illiterate population will increase in the future. Looking at the performance of the different regional aggregates we note that the female percentage on illiterate adult population is increasing as the world average despite the decreasing trends for the more developed regions and the countries in transition (MDR & CT). This happens because the total population of the less developed regions (LDR) is significantly the biggest part of the global population. As estimate in the world population prospects 1950 – 2050 (UN, 1999), in the year 2015 a number of 6,119.8 millions people will be living in the developing countries on a world total population of 7,048.2 millions. The study of UNESCO (2002), as we can observe in figure 3, provides evidence of the great impact that the problems of the poor countries have on the whole world population. According to this scenario for example, there will be an increase in the female percentage on the total illiterate population from 63.03% of 1990 to 63.71% of 2010, even though the number of illiterate women will decrease from 97 million out of 157 million illiterate in 1990 to 75 million out of 125 million illiterate in 2010 (UNESCO, 2002). On the basis of this projection, it can be concluded that next years efforts in implementing literacy world-wide will bring most benefits to the male illiterate population despite the statements of intent of the main international organisations.

Until now the analysis has confirmed a division of the world into two blocks. The “North of the world”, where gender inequalities in basic education do not exist anymore, and the “South of the world”, where a deep gender gap, far from closing in the short term, not only exists but is going to increase.

If we focus on the acquisition of complex knowledge, we see that the divide between the two blocks is still growing.

The present society needs more complex knowledge than simple literacy to gain access to information, to take advantage of job opportunities in the changing labour market, and to trigger empowerment and freedom. If this is true for the industrialised countries it is even more urgent for the rest of the world.
We can proceed now with an analysis of the reached level of education from a gender point of view in regional aggregates, as they are defined by UNDP. We can study female enrolment percentages in the different levels of the education system (fig. 4), and the female percentage on the total enrolled population in the tertiary level of the education system (fig. 5).

The diagram in figure 4 shows great differences in each group of countries. In some developing countries of Latin America, Caribbean, East-Asia and Oceania, women enrolled in the primary level outnumber men, 50% of women in the due age is enrolled in the secondary level, while the data about the tertiary level are much lower with a moderate peak in few Latin American countries. The situation is worse in Southern Asia, in the Arab States and in Sub-Saharan countries, where the female enrolment ratio is already low in the primary level, and ever lower in the secondary and tertiary levels. The more worrying situation is in Sub-Saharan Africa, where only 23% and 28% of the women are enrolled in the secondary and tertiary levels of education respectively.

On the contrary, in the industrialised countries there is a peak of female enrolment in the secondary level, and more than 50% of the women are regularly enrolled in university.

Women studying at university, in fact, outnumber men in the industrialised countries and even more in the transition countries (which are the developing countries with the greatest economic growth). The poorest countries, instead, have the lowest figures and women account for 27% of the university student population only.

As reported so far, in the richest countries of the world and in the transition economies women have overcome men in terms of university enrolment. A superficial analysis of these data may lead to the conclusion that the problems linked with gender discrimination in access to knowledge have been solved. However, if we focus on the chances of using knowledge as a means of access to the labour market, we note that women have to study longer to achieve the same labour standards of their male colleagues.

4. Education and discrimination in a developed country: the case of Italy

Although at present in the “North of the world” women have greater access to education than in the past, and although in some cases their educational level is even higher than that of men, this does not mean
that gender discrimination has disappeared. In fact, analysis on labour environment, both at national and international level reveal discriminations in terms of access to professions and wages.

Discriminations between genders and social classes have been accurately studied in economics. In 1922 F.K. Edgeworth published the well-known article “Equal Pay to Men and Women for Equal Work” in the Economic Journal, providing a “neo-classic” theoretical basis to an issue that would have been studied in the future. In the mid 70s studies on salary discrimination had resumed (Becker, 1971; Arrow, 1973), an international debate started and it is still continuing with additions and criticism (Blau and Kahn, 1992, 2000; Dex, Sutherland and Joshi, 2000; Gupta, Oaxaca, and Smith, 1998; Hadley, 2001; Harkness, 1996; ILO, 1998; Reiman, 2001; Sung, Zhang, and Chan, 2000).

Without dwelling on the vast literature on this subject, we want to give evidence that also educated women in developed countries still have to endure gender discriminations.

International observation shows in fact the persisting difference in wages and labour standards between men and women whatever the origin of this discrimination: different “human capital” between men and women, preference of employers, preference of colleagues, presence of a “dual” market that segregates women into the informal and flexible sector, disadvantaging policies for women, or a weak knowledge of the workers’ skills that lead to a selection on a statistical basis (men are statistically more competent and present) (Addis, 1997).

In Italy, for example, for the same “human capital” and for the same working hours, women are paid less than men. The gender gap always exceeds 100%, and women always have lower wages. Moreover, women holding a degree cannot avoid this discrimination. According to the collected data, in fact, we can state that in Italy the higher is the educational level the greater is the wage discrimination. Generally a woman needs a higher educational level to have the same wage as a man (a man with a secondary level diploma has on average the same wage as a graduated woman) (Addis, 1997). Perhaps employers believe that a higher educational qualification is enough to equalise performance and efficiency levels between men and women (who will be unproductive during pregnancy, or will have special permits for family reasons). So women are often inserted in labour contexts that underestimate their real qualifications.

The economic output of the educational process does not generate equity. Women must invest a lot in education, especially in the highest levels, to enter a labour market that is almost organised with a masculine logic.
The higher female unemployment rate also delays women’s entry into the labour market giving them more time to obtain more qualifications.

In the last decade, the female percentage on the total enrolled university population has grown from 46% to 47% on a world average (UNESCO, 2000), with the already mentioned great regional differences (fig. 5).

In Italy women have always had a reduced access to education (illiteracy is primarily present among aged women), but in the last decades differences in educational levels have reduced. In the last few years women concluded secondary and tertiary studies with a higher frequency than men.

As for postgraduate education, an increase in female presence has begun only in the last generations (fig.6), but this increase in highly skilled women will have strong repercussions on the labour world and on the whole society.

It has been demonstrated that a decline in the fertility rate is coupled with an increase in female educational level, and since Italy has one of the lowest rates in the world, its further decrease will aggravate the already existing generation unbalance: a large aged population, few children, a decline in the middle-aged population (that is the working population), and the need for immigration to meet the labour market demand.

5. New technologies do not close the gap

The recent phase of economic globalisation, the expansion of international markets, the increase in mobility and the rise of new technologies have deeply transformed the structure of the world’s productive system. Several analysts observe a division of the market into two sectors, the formal and the informal market. The informal market, with its flexibility, collects the more disadvantaged categories and is mainly present in big cities (Sassen, 1991).

Women, as well as other disadvantaged categories, crowd the informal market more than men (UN, 2000b), accepting part-time and underpaid jobs.

Some see the rise of new technologies as a chance of redemption for poor countries and for disadvantaged categories within the rich countries. The physical distances and the geographic isolation can be cancelled by using computers, Internet and teleworking, and this in turn could also reduce social distances. In the most optimistic forecasts
women were seen as a high potential development category, but an international analysis shows that this way to emancipation is not possible at the moment. Internet users are almost concentrated in North America and Europe (80% of the world total) and in the other regions users belong to the richest and more educated élite. While in rich countries women access information on a slightly smaller average than men, in the poor countries women are a minority of the élite (out of the 1% of population surfing on the Internet in the Philippines 43% are women; UN, 2000).

The diffusion of new technologies is therefore a factor that increases the gender gap (Cristaldi, 1995). As Hagestrand maintained many decades ago (Hagestrand, 1967) the cultural level of people is an obstacle to the diffusion of innovation between them.

The small number of women using new technologies is not only linked with their lower educational level, but also with their preference for humanistic studies rather than technical-scientific studies.

Technologies cannot therefore reduce the gender gap on the labour market and place women at the top of the productive processes.

6. World objectives for educational policies

A side objective of this work consists in furnishing a brief analysis of world policies for the reduction of the gender gap in education evaluating aims and efficiency. This secondary aspect of the study will constitute a basis for a future step of the work focused on applications and programs proposed in order to achieve a zero setting of the gender gap in education.

International organisations have repeatedly shown the importance of education in the development processes and they have called for actions to equalise gender access to education with the aim of empowering the “half of the world”, but the solution to these great problems has not been found yet for most developing countries and for the marginal categories of the developed ones.

The world Agenda on social objectives, agreed by a high number of political leaders of the whole world has been often disregarded and the deadlines have been repeatedly postponed.

In several world summits organised in the last decade and in the complex debates that they have triggered, important world objectives were defined as possible and indispensable.

The World Forum on Education For All (EFA) took place in March
1990 in Jomtien (Thailand) under the auspices of the UNDP, UNESCO, UNICEF, and the World Bank. Leaders of 155 countries gathered in a first global effort pledging to take the necessary steps to universalise primary education and massively reduce illiteracy before the end of the decade. Within the six EFA Target Dimensions, declared in the Jomtien Framework for Action we highlight one of the objectives: to generalise the enrolment in primary school during the 90s.

Since 1990 the UNDP, with its first Human Development Report (HDR), has contributed very much to the diffusion of a gendered point of view in socio-economic studies, especially in the field of education. In its first HDR, the UNDP identified six human development objectives for the year 2000. The fourth was to generalise enrolment in primary school and the fifth was to reduce by 50% the illiteracy rate, with a female rate at least not higher than the male rate. Complex projections demonstrated at the time that it was clearly possible to achieve those goals.

In March 1995, the World Summit on Social Development took place in Copenhagen. It pledged to overcome poverty, to achieve full employment and to foster social integration by overriding development objectives. General access to primary school was postponed to the year 2015, the cancellation of the gender gap in primary and secondary school was postponed to the year 2005. Five years on, they reconvened in Geneva in June 2000, to review what had been achieved, and to verify whether that deadline too was bound to be missed.

The World Education Forum was held in April 2000 in Dakar (Senegal) and the global education crisis was at issue. Recent reports showed that over 110 million children still had no access to primary school, while another 150 million left school without being able to read or write, adding themselves to the ranks of the 872 million illiterate adults. Ten years after the first education forum in Jomtien where world leaders had promised education for all by the year 2000, the goal was not just far away, it seemed to be ever more remote. The Forum confirmed anyway the same objectives for the year 2015.

In September 2000, in the United Nations headquarters in New York, representatives of the 189 Member States met at the United Nations Millennium Summit. The turn of the century was symbolically a compelling moment for the Organisation to articulate and affirm an animating vision for the new era. In the Millennium Declaration, produced on that occasion, no change could be made to the Agenda, so the objectives of enrolment in primary school for all by the year 2015 and the cancellation of the gender gap in access to education by the year 2005 were
confirmed, while many concerns were expressed by the member states after reading the actual world trends in education.

Therefore, the political commitment taken on by the international community has not been followed by adequate policies. The objective established in 1990 for the year 2000 could not be met, and they have been changed and postponed by five or fifteen years.

The negatives trends recorded in the last decade of the 20th century about the growth of the illiterate population most of whom are women, reveals that there is a lack of synergy between the political aspiration at the international level and the policies adopted in each single country, as the world statistics on public expenditure in education shows.

Until a change in the international political picture allows each single country to allocate the right quantity of resources to the social expenditure, with a focus on education, not only the gender objectives but also any objective of social development will be hardly achieved also in the long term.

7. Conclusions

The issue of gender inequality in the education process is differently manifested in the macro-regional contexts. In the “South of the world” there is a deep gender gap and women are heavily disadvantaged, while worrying trends have been recorded also in the last few years. In the “North of the world”, on the contrary, there is a small gender gap in the tertiary educational level enrolment unfavourable to men, but a deep discrimination is recorded in relation to the value of the reached level of education, and this discrimination is totally unfavourable for women.

It can be stated that generally the illiterate population is increasing, and the largest part of it will be still composed by women if changes in the present trends do not occur in a short time.

If this situation remains unchanged, also the new objectives for the year 2005 and 2015 are bound to be missed again, and perhaps they will be postponed by other decades.

Investing in education is probably a strategic intervention for the purposes of human development, and this could result in freeing in few years all the creative energy of the 4/5 of the human population living in poor countries, most of whom are women.

In an economy ever more based on knowledge, the exclusion of individuals from education produces an increase in inequality between people and countries, threatening participation and democracy.
As we can infer from reports and declarations of the main international organisations, knowledge can activate energy and creativity and stimulate material and immaterial progress. It can result in an improvement of the quality of life and the acquisition of rights and freedom such as political, social and cultural rights, the freedom of speech, the freeing from oppression, violence and exploitation, the freedom to assert one’s own values and to actively participate in the civil society.

Individuals who have no access to education will have few chances of enjoying the mentioned rights, hence the last trends in education indicators contain important information on the future prospects of a population.

This work has also focused on the vicious circle that links women marginalisation, gender gap in education, and the will-power of policymakers. National policies could break that circle but international commitments lack strength and the solutions are still far to come. As the present work has shown, at the beginning of the third millennium the individuals who suffer most from human deprivation are women, both in the north and in the south of the world.
Fig. 1 - Female adult literacy as percentage of the male rate.
Fig. 2 - Female youth literacy as percentage of the male rate.
Fig. 3 - Female percentage on illiterate adult population 1990-2005.
Legend: World: world average; MDR & CT = More Developed Regions and Countries in Transition; LDR = Less Developed Regions; LDC = Least Developed Countries.

Fig. 4 - Female percentage on enrolled population (II and III level).
Legend: World: world average; MDR = More Developed Regions; CT = Countries in Transition; SSA = Sub-Saharan Africa; AS = Arab States; LA & C = Latin America and Caribbean; EA & O = Est Asia and Oceania; SA = South Asia.
Fig. 5 - Female percentage on tertiary enrolled population.
Legend: World: world average; MDR = More Developed Regions; CT = Countries in Transition; LDC = Least Developed Countries; S-SA = Sub-Saharan Africa; AS = Arab States; LA & C = Latin America and Caribbean; EA & O = Est Asia and Oceania; SA = South Asia.

Fig. 6 - People having a higher education in Italy by gender and age.
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