facultad de ciencias sociales | universidad de la república

PHES

Programa de Historia Económica y Social - Unidad Multidisciplinaria

HISTORICAL PATTERNS OF GENDER INEQUALITY IN LATIN AMERICA: NEW EVIDENCE

María Magdalena Camou

Documento On Line Nº 38

Abril 2015

ISSN: 1688-9037

documentos de trabajo

ISSN: 1688-9037
Título-clave: Documentos de trabajo (Programa de Historia Económica y Social, Unidad Multidisciplinaria, Facultad de Ciencias Sociales, Universidad de la República)
Título-clave abreviado: Documentos trab. (Programa Historia Económica Social, Unidad Multidisciplinaria, Facultad Cienc. Sociales, Univ. Repúb)

Constituyente 1502, 4º piso.

Teléfono: (+598) 24136400

Fax: (+598) 24102769

María Magdalena Camou

HISTORICAL PATTERNS OF GENDER INEQUALITY IN LATIN AMERICA: NEW EVIDENCE

Documento On Line Nº 38

Abril 2015

ISSN: 1688-9037

Historical Patterns of Gender Inequality in Latin America: New Evidence

María Magdalena Camou

Abstract

The topic of this paper is to explore Latin America's backwardness in the incorporation of women to the labour market. The collected data allows advancing in the reconstruction of the main disaggregated gender indicators of performance in education, income and life expectancy for a group of Latin American countries (Argentina, Bolivia, Brazil, Chile, Colombia, Peru, México and Venezuela) along the XX century.

The evidence shows that Latin America has already achieved gender equality in the results for Education and Life Expectancy in most countries. Nevertheless, the main gap between the sexes is in the labour market, both in the participation rate and in wages. Our preliminary results show a marked relationship between women's activity rate and Gross Domestic Product (GDP) per capita, but this is not enough to explain variations between countries.

Keywords: gender inequality, labour market, gender education gap, Gender Development Index

JEL Classification Number: N36, O1

1 Introduction

The discussion on the sources of development and the best variables to use to describe its process of structural transformation has produced a large literature. In this paper we explore Latin America's backwardness in the incorporation of women to the labour market. We want to explore the linkages between education levels and women's participation rates, improving our knowledge about education gender gaps through the reconstruction of the performance of different generations over time.

The focus is on changes in Latin America over the course of the twentieth century. We have already accumulated some data relevant to this line of research and are advancing in the reconstruction of the main disaggregated gender indicators of performance in education, income and life expectancy for a group of Latin American countries (Argentina, Bolivia, Brazil, Chile, Colombia, Peru, México and Venezuela).

Using the indicators assembled to measure Human Development, Latin America has already achieved gender equality in the results for Education and Life Expectancy in most countries.[1]

The main gap between the sexes is now in the labour market, both in the participation rate and in wages. Our preliminary results show a marked relationship between women's activity rate and Gross Domestic Product (GDP) per capita, but this is not enough to explain variations between countries.

Within a wider context, it will be incorporate the relationship between the gender related Human Development components for Chile and Uruguay.

In the first section the main question within the context of theoretical discussion are situated. The second section presents the data and methodology. Next, we discuss the evidence about the evolution of education by gender for a group of representative Latin American countries. The fourth section is devoted to women's participation in the labour market, while in the fifth section I present preliminary results about evolution of the Gender Development Index (GDI) in Chile and Uruguay from 1940 to 2000. The paper ends with a summary of the results and the agenda.

[1] If we used more refined indicators suitable for measuring the quality of education or education for specifics profession, the results can vary. However, the data are not available for historical approaches.

2 Theoretical approach

The importance of gender inequality can be discussed in two areas that are distinct but complementary: on the one hand they are in themselves a matter of concern in the field of well–being and social justice, and on the other hand they have effects on an important group of goals such as economic growth and development (Klasen 2000).

The focus on "capabilities" proposed by Sen (1999) is an example from the first line of concerns. Sen maintains that in order to evaluate the conditions of human well–being we must focus on the genuine liberties that people have so as to be able to lead the kind of life they consider worthwhile. In this view, life can be seen as an inter–relation of "functionings" and "capabilities": the former has to do with results or achievements and the latter depend more on opportunities. These categories reflect the difference between obtaining something and having the freedom to obtain it.

In spite of the importance of the means to achieve goals, Sen's focus centres on the freedom men and women have to obtain those goals they consider worthwhile. Well–being can be understood as the expansion of each person's potential to be or to do, in other words to exercise this liberty, and therefore we are concerned with asymmetries in "capabilities" and "functionings" between men and women (Glover & Nussbaum, 1995, Nussbaum, 2000). This will reflect inequalities in access to resources (material or non–material) and also institutional, social, political or geographic inequalities (Robeyns, 2003).

Robeyns (2003) says that Sen's theory is suitable to study gender inequalities in this approach of the individual in his or her environment, in the integration of aspects related to the market and outside the market (captured with health or education indicators) and because it explicitly recognises human diversity and considers aspects like sex, race, age, ethnicity and their influence on levels of well–being.

Although Sen's capabilities approach is more a theoretical framework than a specific way of measuring quality of life, in practice its application has been summarized in a operational tool as the Human Development Index (HDI). The importance of this indicator for a gender perspective is that it allows the measurement of inputs and outcomes and it captures the systematic gaps in life expectancy, education, income, etc., that exist between different individuals, whether these differences are based on sex, age, race, ethnicity, etc. Looking at the individual level is also an advantage over standard

welfare economics that uses only GDP per capita. Robeyns argues that opportunities should be equal from the legal point of view that prevails in Western societies, so if there were no discrimination the results for the different indicators for these different groups would not show a systematic bias (Robeyns 2003).

Turning to the second line of concern there is a wide literature studying the relationship between gender inequality indicators and development and growth. A line of argument is that gender inequality is negatively related to income per capita. Therefore in a cross–section analysis the tendency in gender inequality will be to decline while income per capita rises (Dollar and Gatti.R. 1999).

The empirical evidence in the general literature suggests that there is a positive relationship between rising per capita income and a reduction in gender inequality, and therefore societies that maintain gender inequalities have to "pay a price" in terms of less growth. Variables like religion, forms of organization or patriarchal customs may mean that certain communities effectively prefer inequality and are prepared to pay this price. Apart from that, in a more general sense, the male bias in how societies are organized and in their legal and institutional structures also has significant effects on economic growth in the short as well as in the long run.

Nevertheless, other researchers discuss or relativize this assumption. It is argued that this relation is neither linear nor simultaneous in the evolution of all indicators (Boserup 1970, Eastin and Prakash 2009).

The distortions to growth that gender inequality causes can vary with the level of development. Opportunities for women to progress do not necessarily increase or decrease in a linear way as economies develop. There is evidence that in the intermediate stages women may have fewer opportunities and gender equality may worsen, even when there are higher per capita income.

The rate at which women enter the labour market is one of the most controversial topics in the specialized literature. Different hypotheses have been tested regarding, among other things, the effects of education, wage differences between the sexes and public policies. Most research in this area (Sarasúa and Gálvez 2003) concludes, on the one hand, that each of these factors offers a partial explanation for the process, and on the other, that the practices of markets and individuals are subject to strong path dependence.

This is not a minor issue because changes in the female activity rate determine very strong variations in the labour supply of a country or region, with a consequent impact on the economic equation. In the neoclassical economic view the variations of labour supply are first related to demographic changes or changes in the quality of supply, downplaying the significance of changes in the women's participation. On this topic there is an abundant literature already referred to in the introduction to this book (Pampel and Tanaka 1986, Psacharopoulos and Tzannatos 1989, Schultz 1990, Goldin 1994, Goldin and Katz 2008).

In summary, from the different approaches of the literature on gender and development briefly mentioned, we want to highlight the importance of revealing how unequal a society is in comparison with others, in which spheres is the inequality concentrated and what kind of development contributes more to the reduction of gender inequalities. Recognizing these features of societies is a first step in order to be able to reflect on the impact of policies, institutions and culture.

3 Methodology and Data

Constructing indicators such as education level, activity rate, wage gap and life expectancy disaggregated by sex requires statistics that are very difficult to find, especially for the period before 1970. It is only since around that year, when Household Surveys were introduced in most Latin American countries, that a greater stock of information has become available.

Evidence about education by sex from the beginning of the twentieth century up to 1960 or 1970 is not available for most Latin–American countries. Therefore we have reconstructed the level of education by gender for a group of Latin American countries using the Census Microdata for the year 2000.[2] We reconstruct series of education levels completed for different generational cohorts born over the period 1900–1960 (2011).

This method suffers from a specific bias given that survivors are more educated than the average person in each generation. As research has shown, life expectancy is positively related to income and education (Koch, Romero et al. 2007). However, as our primary

[2] In some cases, because the lack of a census in the year 2000, we used the closest available census in the 2000 decade.

interest is in the relative value of these data, for the comparison between countries and over the period, rather than their absolute value and the bias is supposed to affect all the countries in a similar way, we are facing less risks.

Based on this information we construct an indicator that combines the different levels of education. We weight the secondary level (1.4) and the university level (2) and we build an estimator that ranks the results between 0 and 100; the maximum value is 100, equal to all people having completed university, while 0 is equal to all people completing only primary school.

In the second part of the paper we present the GDI for two countries, Chile and Uruguay, countries for which we have found the required data.

Although we are aware of the limitations of this indicator, it captures the main areas in which women are faced with restrictions (education, health and income), as the theoretical framework used here indicates. In Economic History research, the scarcity of sources leads to discarding many other options that could be more appropriate according to the theory.

A frequent criticism of composite indicators is that the weighting of different components is arbitrary. This complicates interpretations of the aggregated index because differences between different components may compensate for each other. Nevertheless, the methodology allows us to analyze the evolution of the components both separately and as part of the global indicator.

The GDI, as an indicator of development measuring the Human Development Index (HDI) corrected for gender inequality, reflects the notion that gender inequalities reduce the general level of well–being in a country, and depending on their intensity, they "penalize" human development. It shows the loss in potential human development due to inequality between female and male achievements in these dimensions. It ranges between 0, where women and men fare equally, and 1, where one gender fares as poorly as possible in all measured dimensions.

But in this conception, the GDI also depends on the level of the HDI. This aspect of the methodology has been heavily criticized, and Dijskstra and Hanmer have proposed a simple formula that abstracts from levels of development (2000). Using the same information as the GDI, the Status of Women Index (SWI) examines the position of women compared to that of men.

We use the GDI formula, which estimates health, measured by female and male life expectancy at birth; education, measured by female and male expected years of schooling for children and female and male mean years of schooling for adults ages 25 and older; and command over economic resources, measured by female and male estimated earned incomes. Estimated female earned income per capita is obtained from GNI per capita, first by multiplying it by the female share of the wage bill and then rescaling it by the female share of the population.

Then we make some changes and improvements in accordance with the following standards:

- The life expectancy index contains different minimum and maximum values for men (76.5–21.6) and women (81.1–26.4). In order to account for changes over the period we have reduced the range of life expectancy for both men and women, using a method similar to that of Prado de la Escosura's (2004).

  The education index covers illiteracy (2/3) and primary and secondary school enrolment rates (1/3). University enrolment levels could not be included because of the scarcity of sources. Also in this indicator we weight the secondary level by 1.4.

- The income index reflects only the participation of women in the labour market, leaving out most of the work women do in the agricultural and domestic domains. The wage gap estimated in our indicator is based on data about industrial workers for the period (1940–1960) for both countries. Given that wages in the industrial sector show less dispersion than in the agricultural or service sectors, the index probably underestimates the real gender gap for the first decade. For the rest of the period the data, based on Household Surveys, includes all economic sectors.

4 Education by Gender in Latin America: the Erosion of Differences, 1920–2000

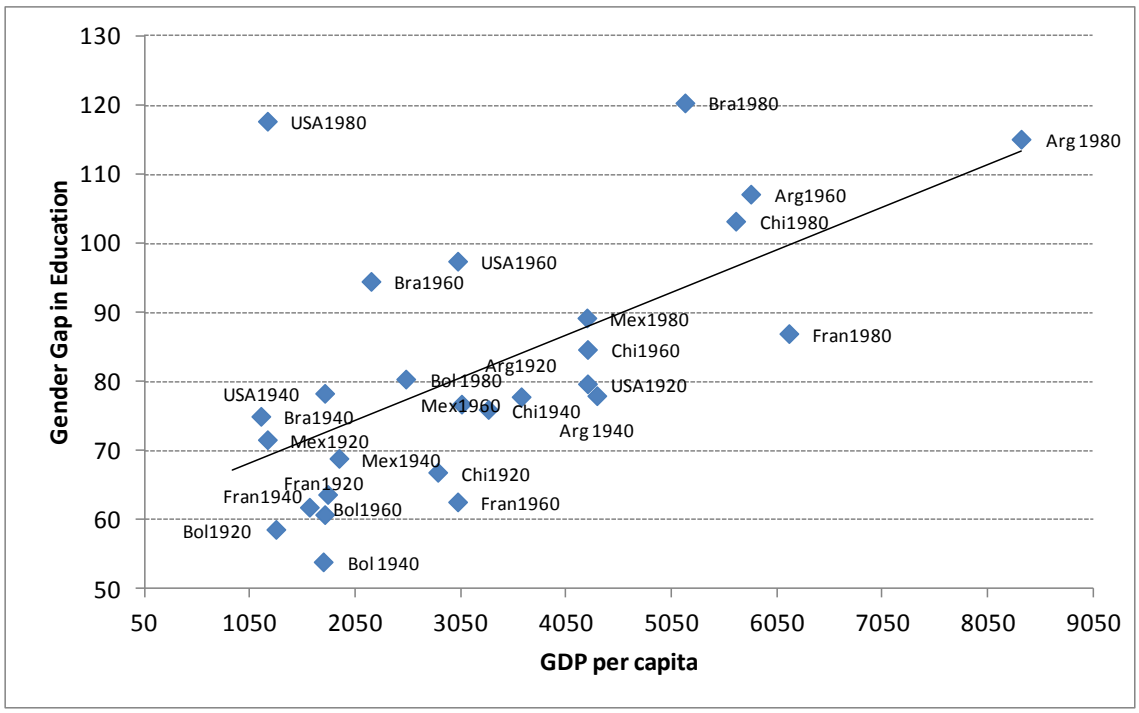
Previous research on the historical evolution of the education gender gap was based on literacy rates (Thorp 1998) or numeracy (Manzel and Baten 2009). Thorp distinguishes various patterns in the gender gap in illiteracy rates from the end of the nineteenth century until 1990, but the available data vary from country to country. This author

finds a positive correlation between the percentage of the population that is indigenous and the gender gap, but also notes that this characteristic overlaps with the differences in the relative sizes of rural and urban populations. She reports that Brazil, Costa Rica, Panama, El Salvador, Ecuador and Paraguay form a group in which the gender gap has narrowed continuously, and where by 1990 inequality levels were very low. The same can be said of Argentina, Cuba, Uruguay and Jamaica, but in the last two countries on the list, illiteracy rates among men have recently begun to increase.

On the other hand, in Peru and Bolivia the gender gap was over twenty percentage points in the sixties, but in the recent past has fallen to around ten percent. In Guatemala the gap even widened over the period, reaching 18.3 percent in the 1990s. Another country where the evolution is quite different is Mexico, where the gap did not narrow, but rather has remained steady at around 7 percent throughout the period.

In Figure 2.1 we present the education gap between women and men in a group of countries of Latin America, in addition to France and United States. The correlation between the erosion of the gap and increase in GDP per capita is remarkable. From the beginning of the period, in 1920, to 1960 the countries with higher indigenous populations (Bolivia and Mexico) have a gap of around 60 percent. More developed countries like Chile, Argentina and Brazil are in an intermediate group. By 1980 this group of countries was already between 90 and 100 percent (no gap), a level similar to that of the developed countries in our sample. Results over 100 imply a better–educated female population than male population, and correspond with higher levels of GDP.

Figure 1 GPD per capita and Gender Gap in education

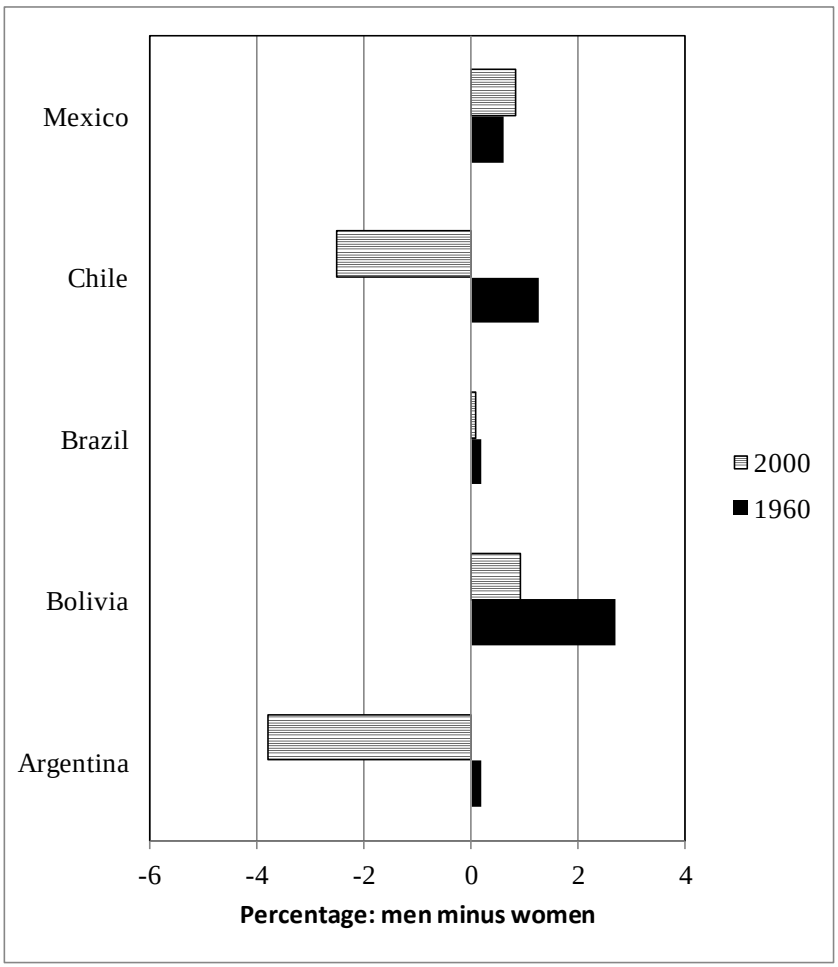


Note: Each generation refers to those born during a 10 year period; for example the generation 1900 was born between 1900 and 1910. The gender gap corresponds to the generation born 20 years before the indicated year, while GDP is for the same year. Arg: Argentina; Bol: Bolivia; Bra: Brazil; Chi: Chile; Fran: France; Mex: Mexico; USA: United States of America

Sources: GDP: (Bértola and Ocampo 2010) Education: Own estimation based on (2011)

For the period 1960–2000 (Figure 2.2), we have more complete statistics, which include the whole population and all three levels of education. Both of these aspects of the improved statistics should lower the level of the index relative to what it would be without this information. The evidence indicates the continuation of this scenario, with the women surpassing men in Argentina and Chile (2000), Brazil with similar levels for both sexes and Bolivia and Mexico continuing with a moderate gap (the highest gap being 3 percentage points). As in many other aspects, Brazil is one of the countries which closes the gap the fastest.

Figure 2 Gender Gap in education



Note: Education Gap in the percentage of the population that has completed each level of school by gender(% of men minus% of women). Each school level accounts for a third of the total average and the levels were weighted to construct an education basket according with previous research (Bértola, Camou et al. 2010): primary school =1; secondary school = 1.4 and university= 2).

Sources: (Barro and Lee 2000)

5 Labour Market Participation

The evolution of female participation in the labour market is difficult to reconstruct due to the scarcity of sources.

In general, women workers have not been well documented. The censuses carried out in the first decades of the twentieth century contain incoherencies, such as differences in the criteria for registering women's participation in the primary sector. This makes the

total population of workers in this sector change atypically, since it tends to be less formalized and women's productive and reproductive activities are combined.

Another problem with these sources is found in the first censuses from Argentina, Chile and Uruguay, carried out at the end of the nineteenth century and beginning of the twentieth century. These record the profession or job position of the person, without regard to whether they were employed or not at the time. The present day concept of "unemployed" doesn't seem to be immediately applicable to this earlier stage in which wage labour was the exception rather than the rule. However, this was a period of rapid economic growth, with increasing demand for labour and the incorporation of European immigrants, which means that unemployment was likely very low.

From the data collected, three periods can be identified for the Latin American countries:

1. 1910–1940: decrease in female labour in some countries: Argentina and Chile).
2. 1940–1970: few changes are seen in the Latin American countries studied.
3. 1970 to the present: explosive growth in female labour participation rates in the region.

Table 1. Female activity rate (% of women 14–64 years old)

	Argentina	Brasil	Chile	México	Uruguay	España	Inglaterra	USA
1910	34			15	18	10	39	
1920			31	6	21	9	37	23
1930			21	4	20	9	38	24
1940	27	24	26	6	21	8		26
1950	28	18	31	13	22	12	43	29
1960	26	21	24	18	23	15	47	35
1970	32	24	24	20	41	13	55	40
1980	33	33	26		42	17	61	52
1990	47	41	32	24	48	35	68	56
2000	57	43	39	42	59	40	70	65

Sources: USA: (Smith and Ward 1985); Spain : INE (Instituto Nacional de Estadística; England and Gales: Hatton, T. (2012). (Mitchel 2007), Argentina: Censos, ILO, Uruguay: Román and Fleitas y Censos de población; Brasil: Censos; Chile: Godoy and Díaz. México– INEGI, DGE. Censos Generales de Población y Vivienda.

It is debatable whether these data in fact show a "U" shaped evolution as seen in other countries. However, problems with the quality of the data complicate their

interpretation. The likely under-registration of women working in the agrarian sector may impact in different ways across the sample of countries we have. Mexico is probably one of the cases in which this impacts more. Moreover, considering that the number of registered women is not the total of working women, we see a decline in the registered women for some countries during the industrialization period. This deserves to be studied more deeply.

In so far as it occurred, how can the fall in female labour force participation in this early period be explained? Offering an explanation for the Argentine case, Berger (2011) points to the fall in demand for female workers due to the substitution of handicraft industries by manufacturing, as well as demographic factors. During this period the number of marriages rises as a consequence of immigration flows that is composed by a high proportion of males. Married women have lower labour force participation rates.

In Chile the rates are also higher at the beginning of the period. In this case, there was a process of urbanization and high rural to urban migration during this period. Migrant women went to work in factories, which increased the female labour force participation rate. After this process was well established, women began to withdraw from the labour market.

Gómez Galvarriato and Madrigal (2005) describe a slight fall in the activity rate of women also for Mexico. They work with the reconstruction of generations. According to their research, the women born in 1900–10 were more active in the labour force than the generation born in 1920–1930. The explanation they offer is very similar to Goldin's, but they add the substitution of artisanal handcrafts by industrial work, as in Argentina, and the lack of representation of women in unions.

Other countries, like Haiti and Bolivia, had high female labour force participation rates around the middle of the twentieth century, which correspond to the emerging wage relations and to a lesser degree of social and gender–based division of labour that characterizes lower–income societies (Weller 1998).

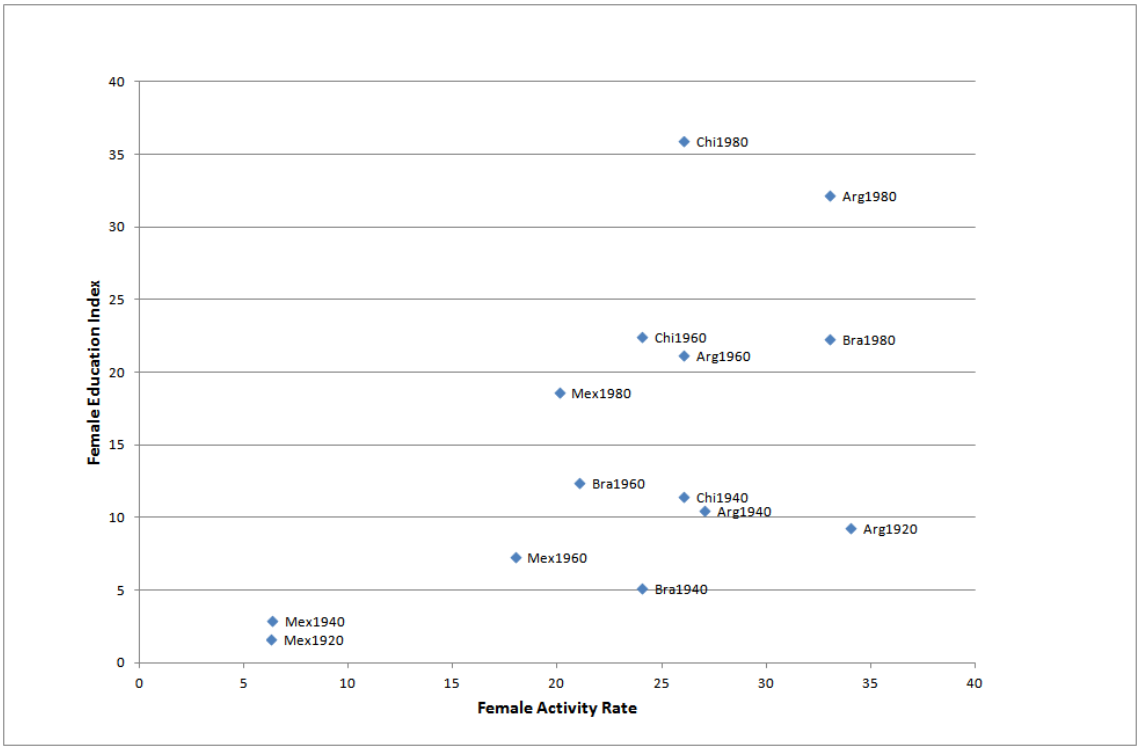
For the years between 1930–1970, the data collected give quantitative support to the thesis that women's participation in the labour market decreased during the import substitution period (Todaro 2004, Espino and Azar 2007). The authors cited argue that, in Uruguay and Chile, the state promoted a sort of Male–Breadwinner Model during this period, stimulating the diminution of women's participation in the labour market.

For Chile, Godoy and Díaz (2011) through the analysis of social visitation reports, women's magazines and the First Lady's epistolary registry, find evidence of the propagation of an ideology against female work outside the home, due to its threat to the stability of the family. The case of Mexico is characteristic of this process, with very low female labour force participation at the beginning of our observed period (1920), but later experiencing a rise in this indicator as large numbers of women enter the workforce. Gómez Galvarriato and Madrigal (2011) point out that the largest rise in the female labour force occurs starting in the 60s, and only after barriers to international trade were lowered. The authors place greater importance on lower fertility rates and increases in education to explain this process. The opening up to trade may have deepened this process, especially through the decrease in regional economic differences, increasing the female labour supply in areas where in earlier years it had been very low.

Looking at the countries in our sample (Table 2.1), female labour force participation begins to increase moderately in the 70s, continuing into the 80s. However, only in the 90s does the region see a significant improvement. In general, it remains low relative to developed countries.

Can we find an explanation of this evolution of female labour force participation by looking at increases in education for women? If we relate our indicator for the education gap between the sexes with female participation in the labour market, the evidence shows that the more educated generation of women, raised during the State–led Industrialization period, did not immediately increased the women in the labour market. It cannot be discard that this generation incorporated later into the labour market. And in the 80s, when the level of women's education was very close to or even higher than that of men, female participation rates still did not surpass the 30 percent barrier.

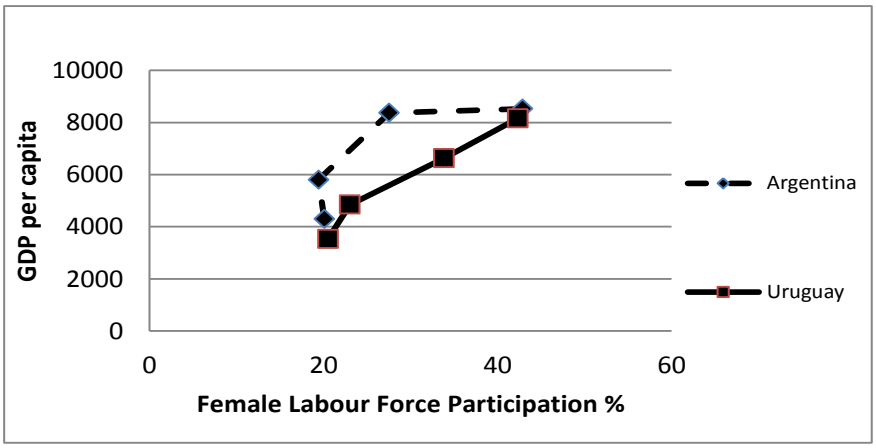
Figure 3 Female education index and female participation in labour market

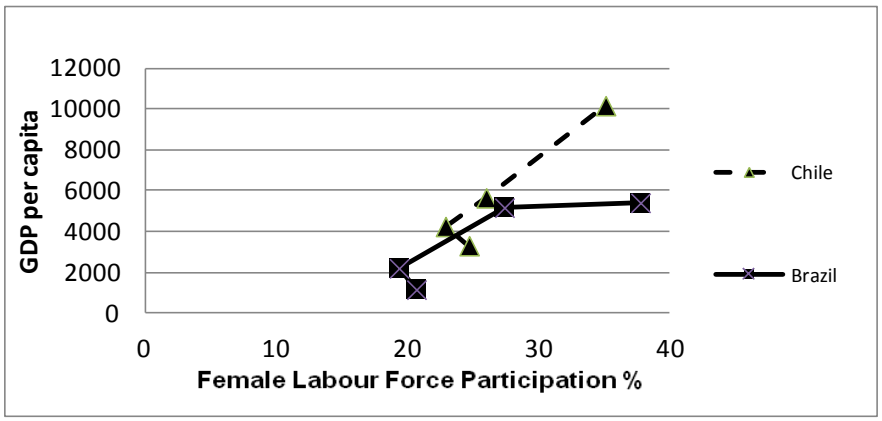


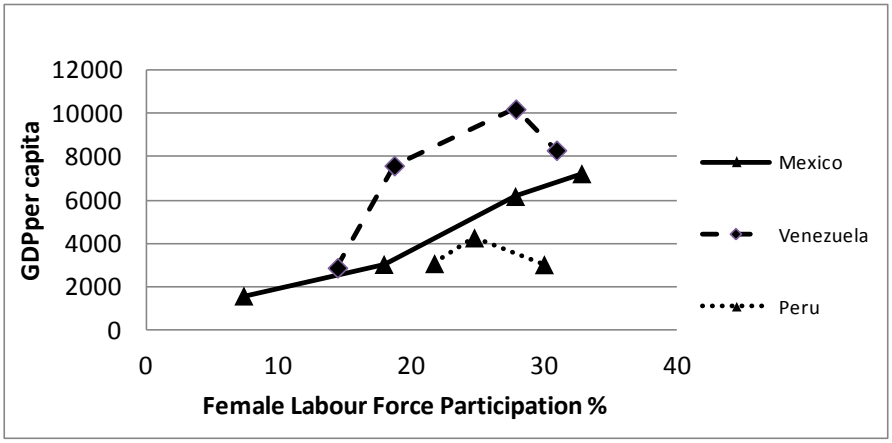
Sources: Education: (2011). Labour: Censos de Población Nacionales and Institutos de Estadística Nacionales; (Godoy Catalán and Díaz 2011)

Education may explain the long–run trend but leaves many questions about the timing of this evolution. Sarasúa (2003), discussing the neoclassical theory of discrimination which is based on the supply side, argues that the evolution of the activity rate also depends on demand constraints. Countries with a more diversified industry, covering sectors with intensive use of female labour, can stimulate a higher rate of participation.

Figure 4. Female force participation and economic growth 1940–2000







Source: (Camou and Maubrigades 2011)

According to the theory, and to the evidence collected for other regions of the world, gender inequality passes through different stages during the process of economic development. Looking specifically at the relationship between the female participation rate and economic growth the evidence shows that it is not linear. For Latin America we have found evidence of a correlation between economic growth and a decrease in gender inequality. However, there are different trajectories of the activity rate: on the

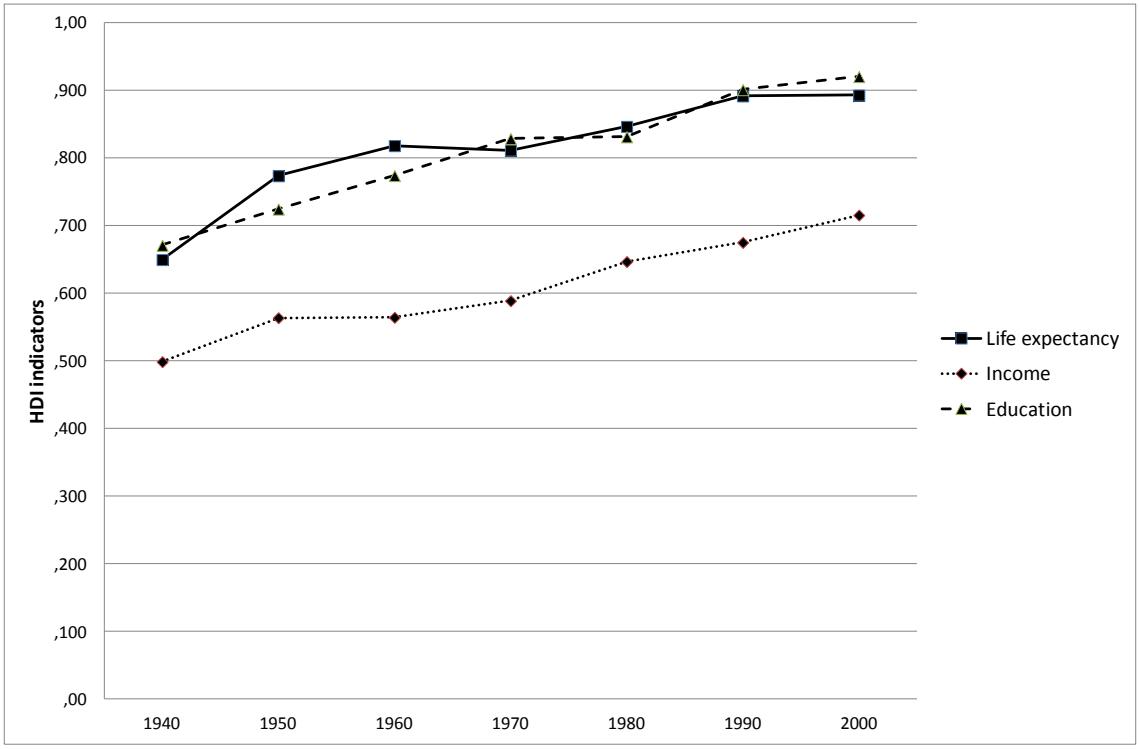
one hand, countries like Brazil increased the female participation rate while GDP remain stagnant; on the other hand, in countries like Chile, the female participation rates increased at the beginning of the period and then levelled off while at the end of the period real income was growing to the highest level of any Latin American country. Uruguay and Argentina have a more linear correlation, while Mexico, Peru and Venezuela were much further behind than the rest at the beginning of the period and, despite their improvement, have a much lower participation rate than the other countries at the end of the period.

A next step in this research will be to explore the differences among countries and between different periods with regard to the productive spheres in order to test the links between different production and employment structures and women's participation rates.

6 Gender related Human Development

Incorporating other variables, in the GDI, we can obtain a long run perspective on the evolution of the three dimensions. The period covers 1940–2000. The major changes in the status of women in Chile and Uruguay occur during this period.

5 Historical indicators of Gender related Human Development, Uruguay 1940–2000



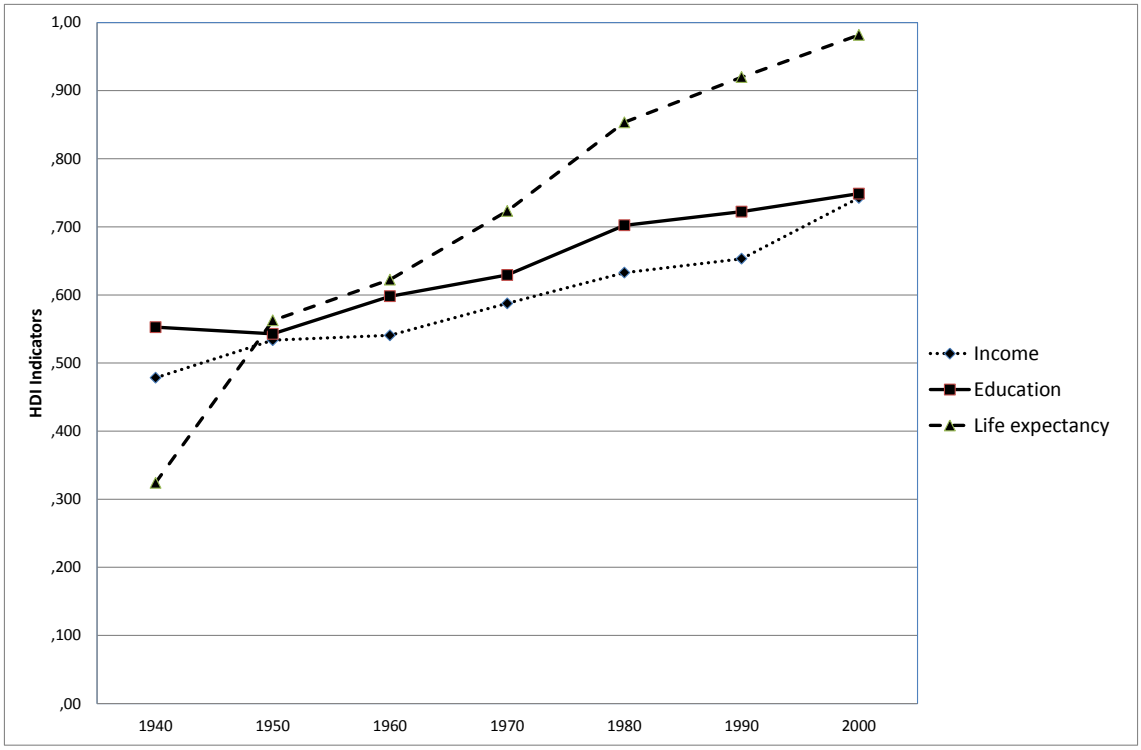
Note: each variable with its respective contribution to the GDI.

Source: Own elaboration based on (Camou and Maubrigades 2007) and statistics of Administración Nacional de Educación Pública.

Camou and Maubrigades 2007 estimated the GDI for Uruguay over the period 1920–2000. In this article the indicator for education by gender is improved. Originally the primary school enrolment rate was used; now the secondary school enrolment rate is incorporated.

The findings for Uruguay are that, from the 1940s to the 1960s, gender inequality was reduced. This stage in which the gender gap narrowed coincided with the period of internal growth and the implementation of policies to strengthen the domestic market and improve workers' standard of living[3]. The period starting in the 1960s shows a slowdown of the improvement in gender equality and a new tendency to equality in the last decade, more moderate than the one in the 40s and 50s.

Figure6. Historical indicators of Gender related Human Development, Chile 1940–2000



Note: The contribution of each variable to the GDI.

Source: Own elaboration based on Godoy Catalán & Reyes (2011), Reyes (2012), Anuario Estadístico de Chile, Barro and Lee (2000).

In the first period (1940–1980) the improvements are concentrated in education and life expectancy in the case of Chile. During more recent decades (1980–2000), women make more progress in terms of the income variable.

When we consider what happened in the period 1920–1950, it is important to highlight that while women made progress in terms of legislation and education, they did not significantly improve their position in the sphere of production. In Uruguay, the situation of women improved according to indicators such as life expectancy, infant mortality and education, but it was not until the 1970s that the rates of female participation in the economy significantly rose. Between 1952 and 1960 the female labour participation actually fell in Chile and later on, it improved very slowly (Todaro 2004). Although a lag between improved education and incorporation into the labour market is to be expected, it was in the 1990s when the women's participation rate passed 30 percent.

The dynamics changed in the 1970s; there was a new productive model geared towards exports that required a workforce that was cheaper and less conflictive. Employers looked to women to fill this role. This made for a decrease in labour costs and, at the same time, a narrowing in the gender/wage gap, as analyzed in recent research covering Uruguay, Argentina and Brazil (Camps, Camou et al. 2006). In the case of Chile the evidence also points to a reduction of the gap (Reyes Campo 2012) .

To see the aggregate index we choose the GDI and the Status of Women Index (SWI).

The GDI measures the reduction in Human Development due to gender inequality and therefore should not be interpreted independently of the HDI.

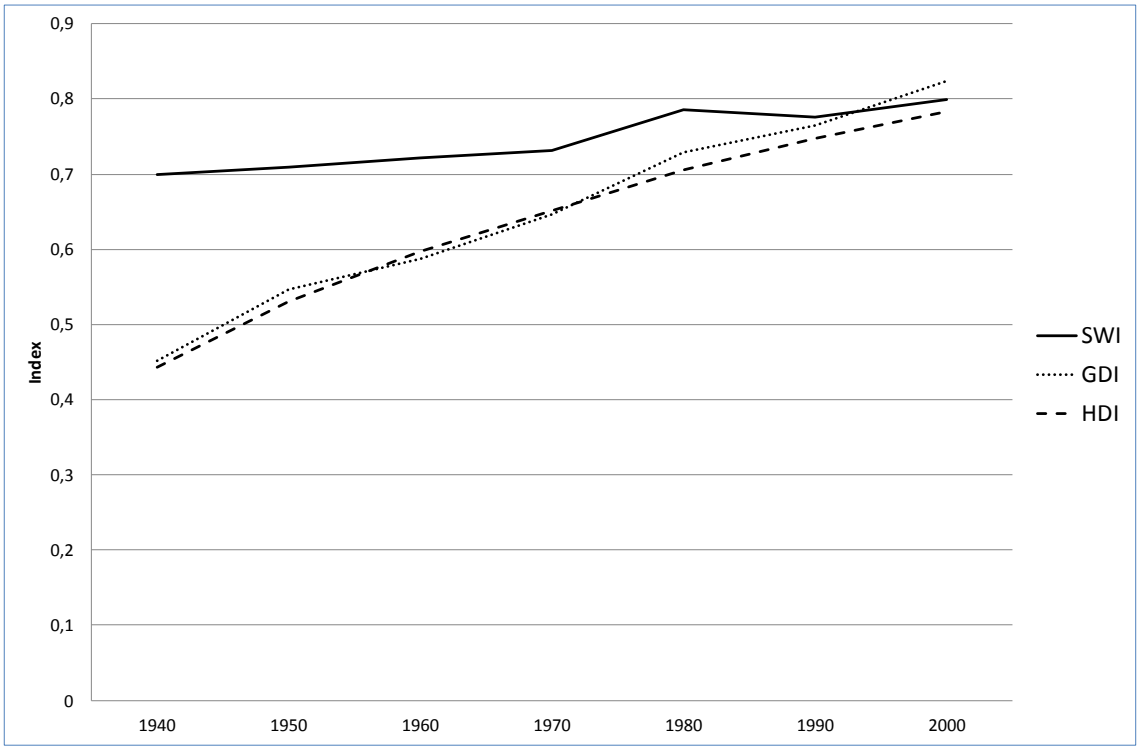
Consequently, the GDI score is highly dependent on the HDI levels. That is the case not only when comparing countries, but also when comparing different periods.(Dijskstra and Hanmer 2000).

If the main goal is to measure the position women have as a group, compared with the position of men as a group, in different fields of society, the SWI is a more appropriate indicator. This index concentrates on gender (in) equality as such, by abstracting from the absolute levels of education, employment, poverty, etc. The calculation is based on the same indicators as the GDI but estimates the ratios of female–to–male indices for education and life expectancy. For the income indicator, it takes the ratio of the implicit

rate of return of female to male labour time, as in the GDI estimation, but without ranking it in relation to maximum GDPpc levels, as the HDI and GDI do.

In Chile we find an improvement of the GDI and HDI from 1940 to 2000, but the SWI shows that most of the increase in GDI was due to an enhancement of well–being of the general population. The comparison of female to male achievements denotes a gradual but slow reduction of gender inequality.

Figure 7. Gender Inequality Index of Chile

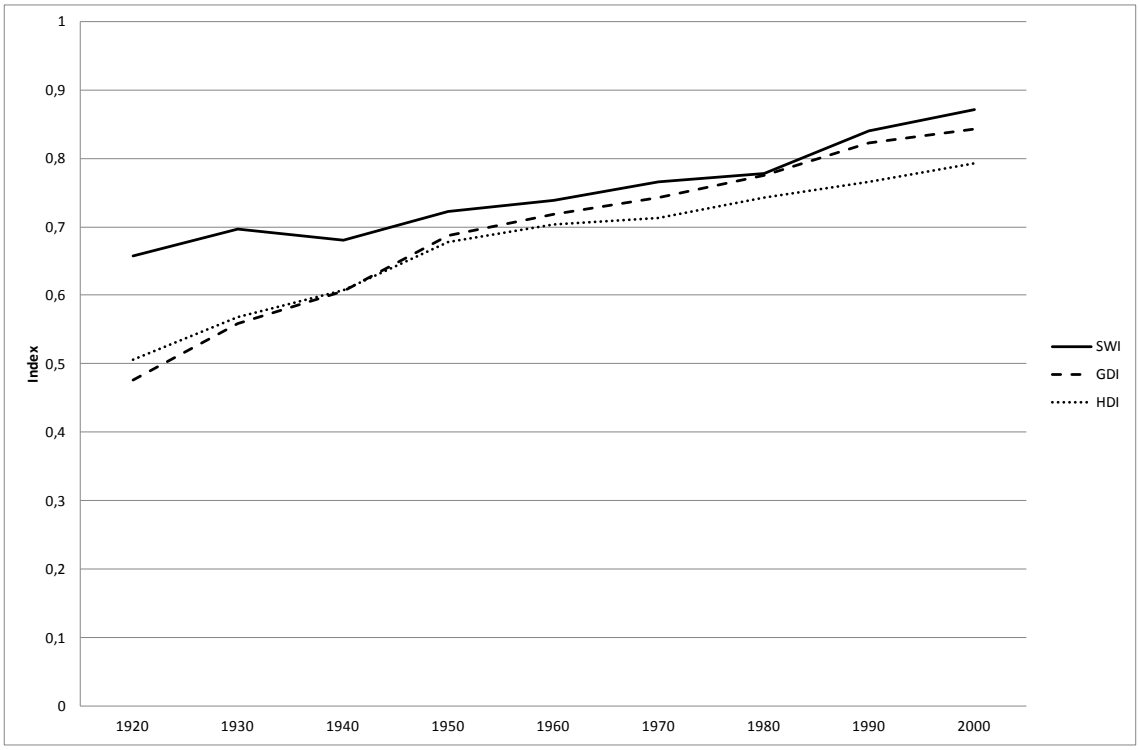


Source: See Figure 2.6 GDI: Gender Human Development Index; SWI: Status of Women Index; HDI: Human Development Index

For the Uruguayan case, our indicator covers a more extended period, beginning in 1920.[4] Comparing both countries in the 1940s, Uruguayan gender indicators have a much higher starting point than for Chile. But in the last two decades, an acceleration of the improvements in gender equality occurs for Chile.

[4] For Chile, the shortage of information on wages does not allow covering the period between 1920-1940.

Figure 8 Gender Inequality Index of Uruguay



Source: See Figure 2.6

7 Summary

The results we present here correspond to a work in progress. Despite the difficulty in obtaining appropriate sources, we have been able to construct and process a fairly large, previously unexplored dataset. We estimate that we will extend this database with more countries in the near future.

The main goal of this paper was to try to capture the relationship between gender equality in education, health and participation in the labour market in Latin America to changes in the rate of growth.

Our findings confirm a positive relationship between education, the female participation rate and economic performance for a group of Latin American countries. This theoretical premise had not been demonstrated empirically until now. However, and most importantly, we want to highlight that there is no linear trend between these variables.

The enrolment and attainment ratios for women improved over the course of the period in step with economic growth. But although the explanation of the female participation

rate in relation to improvements in education works well, part of the variations remain unexplained. Further work is needed, including studies of the quality of education.

In the period under consideration, most of the countries studied are at a middle level of development and show different patterns of growth and of the incorporation of women to the workforce.The rise of demand for labour in the first stage of development usually opens up more opportunities for men than for women. In later stages of development, however, when countries are growing faster, the demand for female labour may increase as a consequence the tertiary sector's expansion. However the expansion of the tertiary sector and the increase in women labour opportunities are for developing countries not necessary linked to more skilled or better paying jobs. The growth process under increasing inequality may expand the demand for unskilled jobs, especially for women in domestic services.

By incorporating life expectancy and the gender wage gap, into the explanation as the GDI does, it becomes clear that the income variable is the biggest drag on women's performance.

These conclusions point the way for a future agenda for our work: it is necessary to integrate other variables into the explanation. We hope to incorporate demographic variables, such as the fertility rate and age of marriage, as well as the evolution of the economic structure.

8 References

Barro, R. J. and Lee, J.–W. (2000). "International Data on Educational Attainment: Updates and Implications". Working Paper.

Berger, S. (2011). "The Gender Order in the Oligarchical Argentine (1880–1930)" in Workshop: Gender Inequalities and Development in the Twentieth Century, Montevideo.

Bértola, L., Camou, M. M., et al. (2010). "Human Development and Inequality in the 20th Century the Mercosur Countries in a comparative perspective" in: Challu,A; Coastworth, J. & Salvatore,R. (eds.):*Living Standards in Latin American History. Height, Welfare, and Development, 1750–2000.* Harvard, Harvard University Press.

Bértola, L. and Ocampo, J. A. (2010). *Desarrollo, vaivenes y desigualdad. Una historia económica de América Latina desde la independencia*. Madrid, Secretaria General Iberoamericana.

Boserup, E. (1970). *Women's Role in Economic Development*. Nueva York, St. Martin's Press.

Camou, M. M. and Maubrigades, S. (2011). "Sesgo de género en el crecimiento económico: comparaciones latinoamericanas". 5tas Jornadas de Historia Económica, Montevideo.

Camou, M. M. and Maubrigades, S. (2007). "Desigualdades de género en Uruguay en perspectiva histórica." *Boletín de Historia Económica* Año V, No. 6: 35–51.

Camps, E., Camou, M. M., et al. (2006). "Globalization and Wage Inequality in South and East Asia, and Latin America: A Gender Approach". Working Paper No. 970, Departamento de Economía y Empresas, Universidad Pompeu Fabra, Barcelona.

Dijskstra, A. G. and Hanmer, L. C. (2000). "Measuring socio–economic Gender Inequality: Toward an Alternative to the UNDP Gender–related Development Index." *Feminist Economics* 6, (2): 41–75.

Dollar, D. and Gatti.R. (1999). "Gender Inequality, Income, and Growth: Are Good Times Good for Women? Policy Research Report on Gender and Development".Working Paper Series, No. 1, The World Bank.

Eastin, J. and Prakash, A. (2009). “Economic Development and Gender Equality: Is there a Gender Kuznets Curve?” 50th Annual Convention of The International Studies Association, New York.

Espino, A. and Azar, P. (2007). “Cambios de la política económica desde una perspectiva de género: de la sustitución de importaciones a la apertura económica”. 1er Congreso Latinoamericano de Historia Económica, Montevideo.

Godoy Catalán, L. and Díaz, X. (2011). “El empleo femenino en Chile, 1880–2000. Evolución, características y representaciones”. Workshop:Gender Inequalities and Development in the Twentieth Century, Montevideo.

Goldin, C. (1994). “The U–shaped Female Labour Force Function in Economic Development and Economic History”. NBER Working Paper #4707.

Goldin, C. and Katz, L. F. (2008). *The Race between Education and Technology*. Cambridge, Massachusetts y Londres, Harvard University Press

Gómez Galvarriato, A. and Madrigal, L. (2011). “Participación en la fuerza laboral de mujeres en México durante el siglo XX”. Bilbao.

Gómez–Galvarriato, A. and Madrigal, L. (2005). "Women’s Labour Force Participation in Mexico During the 20 th Century: Childbearing and Career Decisions."

Klasen, S.(2000). "Does Gender Inequality reduce Growth and Development? Evidence from cross–country Regressions." Sonderforschungsbereich, Max Planck Gesellschaft.386 212

Koch, E., Romero, T., et al. (2007). "Desigualdad educacional y socioeconómica como determinante de mortalidad en Chile: análisis de sobrevida en la cohorte del proyecto San Francisco." *Revista médica de Chile* v.135 n.11 Santiago

Manzel, M. and Baten, J. (2009). “Gender Equality and Inequality in Numeracy: the case of Latin America and the Caribbean, 1880–1949”. Tuebingen Universität

Minnesota Population Center. Integrated Public Use Microdata Series, International: (2011). Minneapolis, University of Minnesota. Version 6.1 [Machine–readable database].

Mitchel, B. R. (2007). *International Historical Statistics. The Americas, 1750-2005*. New York, Palgrave Macmillan.

Pampel, F. C. and Tanaka, K. (1986). "Economic Development and Female Labour Force Participation: A Reconsideration." *Social Forces* 64(3): 599–619.

Prado De La Escosura, L. (2004). "When did America Fall Behind? Evidence from Long–run International Inequality". Presented at the Inter–American Seminar on Economics, NBER, México.

Psacharopoulos, G. and Tzannatos, Z. (1989). "Female Labour Force Participation: An International Perspective." *World Bank Research Observer* 4(2): 187–201.

Reyes Campo, N. (2012). "Women Wages and the Gender Gap during the Import Substitution Industrialization in Chile". Barcelona, Universidad de Barcelona.

Sarasúa, C. and Gálvez, L. (2003). Introducción: Mujeres y hombres en los mercados de trabajo. In: *¿Privilegios o eficiencia? Mujeres y hombres en el mercado de trabajo.* Sarasúa, C. y Gálvez, L. Alicante, Universidad de Alicante: 9–33.

Schultz, T. P. (1990). "Women's Changing Participation in the Labour Force: A World Perspective." *Economic Development and Cultural Change* 38: 457–488.

Thorp, R. (1998). *Progreso, pobreza y exclusión. Una historia económica de América Latina en el siglo XX*. Washington, Banco Interamericano de Desarrollo.

Todaro, R. (2004). *Chile under a Gender Lens: from Import Substitution to Open Markets,* Unrisd.

Weller, J. (1998). *Los mercados laborales en América Latina: su evolución en el largo plazo y sus tendencias recientes* in: *Reformas Económicas* 11, Cepal.