

# **"Over-qualification of migrant workers from the Southern Cone of Latin America living in Argentina and in Brazil"<sup>1</sup>**

**Gabriela Adriana Sala**

CONICET - Argentine National Council for Scientific and Technical Research

## **Preface**

On the occasion of the latest census (2000-2001), Argentina was still concentrating the largest amount of migrants among the countries of the Southern Cone of Latin America, whereas Brazil saw a growing amount of bordering migrants.

In 2001 the census carried out in Argentina registered 923,215 migrants from bordering countries, which represented a 2.5 % of the total amount of population residing in that country (36,260,130 persons). Among those migrants, 233,464 were born in Bolivia; 34,712 in Brazil; 212,429 in Chile; 325,046 in Paraguay and 117,564 in Uruguay. During the inter-cense period, the amount of Bolivians, Brazilians and Paraguayans went up.

In 2000, Brazil registered 118,612 migrants coming from countries of the Southern Cone of Latin America, which represented a 0.07 of the total population in the country (169,799,170 persons). This registry included 28,822 Paraguayans, 27,531 Argentines, 24,740 Uruguayans, 20,388 Bolivians and 17,131 Chileans. Nearly all of them, with the exception of Chileans, showed positive rates of annual medium growth in the period 1991-2000.

In the nineties, in Argentina and Brazil, the increase in the presence of migrants coming from countries of the Southern Cone of Latin America coincided with improvements in the education of the population and with an increase in the proportion of workers hired for positions which required less qualification than those they had. In Argentina, these processes took place in a context of growth of the unemployment level and a worsening of the work conditions, whereas in Brazil, the economic conditions were more favorable. Besides, in that country, improvements in the schooling of the work force started from a level which was lower than in Argentina.

In the eighties and the nineties, the economies of the countries in the Southern Cone of Latin America went through a process of opening, deregulation and labor flexibility. With a variety of effects as regards employment and income distribution, these countries, with the exception of Chile, in general showed growing unemployment levels. In the urban areas of Brazil, the unemployment annual medium rate went from 5.3 % in 1985, to 7.6 in 1999, a modest growth when compared to the behavior of this parameter in other countries in South America. In Argentina, the open unemployment in urban areas reached 2.6 % in 1980 and 15.1 % in 2000, although higher levels were registered with some measurements in the second half of the nineties (Table 1).

---

<sup>1</sup> Paper presented in the IUSSP 26th International Population Conference, Marrakech, Morocco 27 September to 2 October of 2009. This paper is based upon the article "Sobrecalificación de los migrantes del Cono Sur residentes en Argentina y Brasil", published in the International Migrations Magazine, Vol. 5, Issue 2, July-December 2009. El Colegio de la Frontera Norte, México.

**Table 1**  
**Latin America Selected Countries. Average annual urban unemployment rates. Selected years, 1980-2000**

País	Year							
	1980	1985	1990	1996	1997	1998	1999	2000
Argentina (urban areas)	2.6	6.1	7.4	17.2	14.9	12.9	14.3	15.1
Bolivia (departmental capitals)	-	5.8	7.3	3.8	4.4	6.1	8	7.5
Brazil (Six metropolitan areas)	6.3	5.3	4.3	5.4	5.7	7.6	7.6	7.1
Chile (National)	10.4	15.3	7.8	6.4	6.1	6.4	9.8	9.2
Paraguay (Urban)	4.1	5.2	6.6	8.2	7.1	6.6	9.4	10
Uruguay (Urban)	7.4	13.1	8.5	11.9	11.5	10.1	11.3	13.6
Latin America and the Caribbean	<b>6.1</b>	<b>7.3</b>	<b>5.8</b>	<b>8.0</b>	<b>7.8</b>	<b>8.1</b>	<b>8.9</b>	<b>8.4</b>

Source: ECLAC (2004) Statistical Yearbook for Latin America and the Caribbean 2003

This article proposes to describe the level of over-qualification of migrant workers of the countries in the Southern Cone of Latin America, residing in Argentina and Brazil, departing from the information provided by the latest population censuses in these countries. To determine the over-qualification of the bordering migrants residing in Argentina two methodologies will be applied: the first one compares the qualification of the occupation and the maximum level of education that has been reached, whereas the second one matches the years of study of each worker and the average schooling of the occupation group to which it belonged. The latter methodology will also be applied to Brazil's census information.

This essay concludes that in Argentina, the estimation based upon the relationship between the maximum level of schooling that has been reached and the qualification of the occupation shows a higher percent of over-qualified workers among migrants from bordering countries and, especially, among women. On the contrary, the second methodology detects that the schooling of the majority of workers was compatible with the average education requirements of the occupational groups and that sub-qualified workers had a more considerable weight among bordering migrants than among native workers. In Brazil, this modality of estimation detects higher levels of over-qualification among migrant workers in the Southern Cone than among those who were born in this country.

It is important to make clear that it is not possible to compare the levels of over-qualification in Argentina and Brazil due to the different nature of the classification systems that have been used. The Users Base of the Argentine census describes the nature and qualification of the occupation departing from different variables, whereas the micro-data of the Brazilian census offer this information in a sole variable. On the other hand, in the Argentine census, the variable "published nature of the occupations" of the Users Base has a remarkable degree of aggregation of the occupations. Those categories that concentrate most migrant workers do not consider different functions in the labor hierarchy. These heterogeneities are present to a lesser extent in the classifying system of the micro-data of the Brazilian census, which orders occupations according to the functions and the position in the occupational hierarchy, following international guidelines.

The combination of both methodologies is highly enriching and it allows to overcome the problems arising from the heterogeneity of the categories of the variable "published nature of the occupation" of the Users Base of the Argentine Census. On the other hand, the variable "qualification of the occupation" is not present in the micro-data of the Brazilian census, and for this reason it was not possible to employ the methodology based upon the relationship between that variable and the level of schooling.

### **Some approaches to the over-qualification issue**

The access to occupational structure is not universal since at the moment when workers are hired or promoted the employer evaluates compatibility between the qualities of the candidates with the requirements of the occupation. Qualification, which is generally inferred from schooling and experience, is one of the most evaluated features.

A revision of the theories which analyze the relationship between schooling and labor formation departing from the concept of qualification, proposes the classification in two major currents. The first considers over-qualification as the result of a temporary mismatch between offer and demand for employment, which arises because workers accept work positions which require less education than they actually have, due to the lack of information or because they choose to make an investment in specific training in that position. It is in this framework that the most considerable incidence of over-qualification was observed among the youngest workers. From an opposite perspective, over-qualification was visualized as a cumulative phenomenon. For many employers, schooling of workers operates as an indicator of their competence and productivity, and the increase in the offer of workers with a higher schooling would stimulate an increase in the minimum schooling required. A similar approach postulates that if the offer of workers increases, then those workers would find limitations to be inserted in positions matching their qualifications and, in the face of finding themselves unemployed, they would be ready to accept positions requiring a lower level of education, and with that they would displace the workers with lower schooling to positions requiring a lower qualification. This process would lead workers to get more training so that they could avoid that displacement or not to end without a job. For this reason it is expected that over-qualification will become a structural problem. Among those theories considering over-qualification as a cumulative phenomenon, there is one that postulates that in segmented and heterogeneous labor markets, devaluation of education credentials could arise from a deterioration in the quality of education; although it could also be the result of a depreciation in the value of knowledge due to an increase in the quantity of years of education of the population, which in turn would lead to an increase in the education requirements in activities that continue to be the same. Another perspective pleads that the technological changes and the opening of the economy to international trade asks for staff with higher schooling, some of the qualifications becoming obsolete (Salas, 2005).

International literature has pointed at the sub-utilization of the schooling and the experience of the foreign workers when hired for occupations which require lower education than they really have. This situation can partly be explained by the lack of channels of incorporation to the labor market in the receiving society, the insufficient mastering of the language spoken at the destination country and the existence of formal barriers which are a hindrance for the access to the professions whose exercise is regulated, such as medicine, law or engineering. For the exercise of these professions, the professional associations at the destination country demand a validation of the diplomas and experience which were obtained at the country of origin (Girard and Bauder, 2005).

## **Labor and educational profile of migrants of the Southern Cone residing in Argentina**

At the beginning of the XXI century, Argentina was still the main destination of migrants from bordering countries with a low level of education, whereas Brazil showed a low presence of migrants that were born in other countries in the Southern Cone, among which the schooling level ranged between medium and high.

In Argentina, almost half of the males and four out of ten women who were born in this country had a low schooling level. Over a third of Bolivians and Paraguayans, half of the Brazilians and three out of ten Chileans had not attended school at all or they had abandoned their studies before they ended primary level. Four out of ten Bolivians had a low level of education; the same happened with over a fourth of the Brazilians, almost a half of the Chileans and over a half of Paraguayans and Uruguayans. Almost three out of ten Uruguayans and a fifth of the Bolivians had finished high school and they also had taken tertiary (preparatory school) and even university courses. Four out of ten Bolivian and Brazilian females and almost a third of Paraguayan women showed a very low schooling level. Besides, almost an 80 % of Bolivian, 71 % of Brazilian, 77 % of Chilean, 86 % of Paraguayan and 59 % of Uruguayan women showed a low or very low level of education. Regarding bordering migrants, the percentage of those who had completed college studies was higher among those coming from Brazil and Uruguay and lower in the total population classified by sex (Sala, 2008).

The information of the latest census showed remarkable levels of labor segregation of bordering migrants residing in Argentina, which can be explained by the predominant but changing insertion (according to nationality), in branches of activity which demand for an intensive work force such as construction, manufacturing industries, domestic service, and, to a lesser extent, in activities related to hotels and restaurants. With respect to Argentina's native work force, Bolivian, Paraguayan and Chilean males are over-represented among those employed with operative qualification and those who are not qualified. Brazilian and Uruguayan workers presented a distribution which was similar to that of the Argentines. Bolivian, Chilean, Paraguayan and Uruguayan females were over-represented among the workers with no qualification and, together with those from Brazil, in positions with an operative qualification (Sala, 2008).

In general, the activities in which the bordering workers residing in Argentina were employed were characterized by the disadvantageous labor conditions and salaries, the fluctuations in the demand of work force –arising from seasonal factors- the low level of organization in unions and the predominance of different remuneration frameworks (piecework, by time and productivity, instead of the monthly payment with benefits), or the existence of hidden salary relationships. In other cases, the most remarkable feature was self-employment in conditions of very low capitalization, especially in the area of retail commerce and in the repair of personal assets.

The labor segregation of migrants and native workers is also expressed through different levels of over-qualification. Very often, migrants are over-represented in branches and occupations which admit the incorporation of workers with no identity documents, a qualification that exceeds the qualification level required for the position, besides being ready to accept labor conditions and salaries which would not be acceptable for native workers. As time goes by, practices for hiring staff and paying salaries are consolidated in these branches and occupations, which discourage the incorporation of native workers and turn those branches and occupations into labor niches fed off by new migrants, who in general, will have schooling higher than the previous ones.

In Argentina, the progressive deterioration of the work conditions and salaries coincided with an increase in the schooling of the population with an occupation, a situation which was reflected in the over-schooling of the work force (Groisman, 2003).

An alternative to estimate the level of over-qualification is the comparison between the qualification of the occupation and the maximum level of formal instruction reached by those with an occupation, following methodological criteria developed by the National Institute of Statistics and Censuses of Argentina (INDEC, 1998). Qualification refers to the complexity of the specific work developed in the framework of each occupation, which determines the requirements of knowledge and skills. The occupational qualification is an attribute of the occupations and not an attribute of persons. Therefore, it qualifies the degree of complexity of occupations and not the educational level of persons (INDEC, 2005b). The *Census of population, homes and houses 2001* of Argentina recognizes four kinds of occupations and establishes criteria of compatibility between qualification and formal instruction. Table 2 shows a summary of the main characteristics of the classification of occupations following qualification.

**Table 2. Characteristics and requirements of occupations according to the degree of qualification**

<i>Type of occupation</i>	<i>Characteristics of the occupation</i>	
	<i>Duties and employed tools</i>	<i>Required skills</i>
a) Unqualified occupations	They use simple objects and tools (or, very often, the worker's own body) and they perform the same duties over and over.	They require no previous skills or knowledge, with the exception of some brief instructions at the very beginning.
b) Operational qualification occupations	They are applied on simple objects and they use tools, machinery or equipment with a certain complexity. They take for granted the performance of sequential and diverse duties, which calls for attention, quickness and handling skills apart from specific knowledge of the properties of the used objects and instruments.	They require specific knowledge and skills, acquired by means of previous training and/or equivalent labor experience.
c) Technical qualification occupations	They are applied to objects with certain heterogeneity. They use complex machinery or equipment, and/or intellectual processes. Very often it involves carrying out a multiplicity of diverse duties, with a changing sequence and which imply the use of handling skills and theoretical knowledge about the properties and characteristics of the objects and the working instruments, besides the specific rules that regulate the involved processes.	The technical qualification occupations require specific knowledge acquired through formal training or through experience.
d) Scientific-professional occupations	Basically, the instruments to be used are intellectual processes and, eventually, machinery and/or equipment that carry out not only a multiplicity of duties, varied and with a changing sequence, but which are essentially innovating, they take for granted the presence of general and specific theoretical knowledge about the properties and characteristics of the working objects and instruments, besides the laws and rules that regulate the processes. They are applied to heterogeneous and complex objects.	They require specific knowledge and skills, acquired through specific formal training and, exceptionally, through equivalent labor experience.

*SOURCE:* INDEC, "National Classifier of occupations of the *National Census of population, homes, and houses 2001* (CNO-2001). Methodological Appendix", *National Census of population, homes and houses 2001*, 2005b.

It would be correct to place those with an occupation but no studies or those with incomplete primary studies (very low level) among the *unqualified occupations*. In the *operational qualification occupations*, the correct assignment between education and qualification corresponds to those employed with full primary schooling and incomplete secondary education (low schooling level). It also mentions the *technical qualification occupations*, within which it is correct to include those occupied with full secondary studies, complete or incomplete tertiary studies and those with full university studies (medium schooling level), as well as the *scientific-professional qualification occupations*, in which case the correct assignment corresponds to those occupied with full university studies and post-graduate studies (high education level). Besides the correct assignment between achieved level of instruction and occupation, there are two additional situations: the over-qualification, if the qualification required for the activities is under the level of formal education the worker really has, and the sub-qualification, which involves those workers showing a schooling level which is inferior to the level required for the qualification.

This methodology shows that the over-qualification was associated to the sex and the country of origin of migrants. There were groups with an over-qualification exceeding the total of the residing population: males with a medium and high level of education who came from Bolivia, Chile, Paraguay and Uruguay; females born in the same countries with low, medium and high schooling level; and Brazilian females with a medium and high schooling level. In both sexes, the broadest gaps corresponded to those coming from Bolivia and Paraguay, with a medium level of schooling (Table 3).

**Table 3**  
**Argentina. Occupied over-qualified by country of birth, gender and level of schooling**  
**Argentina (%). 2001**

Country of birth	Male			Female		
	level of schooling			level of schooling		
	Low	Middle	High	Low	Middle	High
Bolivia	13,8	82,3	38,8	49,7	77,5	57,0
Brazil	11,4	47,0	32,3	37,6	54,7	60,6
Chile	16,1	71,3	48,3	59,6	70,1	64,9
Paraguay	12,6	74,2	35,6	71,4	75,9	50,8
Uruguay	16,3	63,8	39,9	51,7	63,8	45,6
Total borders migrants	14,3	72,6	40,4	62,2	71,2	54,7
Total residents	16,9	59,5	33,9	49,1	51,9	45,5

Source: INDEC (2005) Demographic Census 2001

Over-qualification characterized female labor insertion and, particularly, the insertion of women who were born in a bordering country. While most employed males, migrant and native, with full primary studies or incomplete secondary studies, showed a correspondence between the education level and the occupation's qualification, most Chilean, Paraguayan and Uruguayan workers, with the same education level, were over-qualified. Even if over-qualification was not the predominant feature, it weighed remarkably on the rest of the females, since almost half of the Bolivians and four out of ten Brazilians (of the total number of resident females), inserted themselves in occupations which required a qualification level lower to the education background they had (Table 4).

Sub-qualification of persons with a low level of education was higher among those coming from Bolivia, Chile, Paraguay and Uruguay, in comparison with the total number of male and female residents, who were mostly from Argentina (Table 4). This would indicate that many of the native workers with a level of education equal to that of migrants

had occupations with an operational qualification which took for granted a schooling level higher than the level they really had, and they had access to those occupations thanks to the fact that they had Argentine identity documents and for having a broader knowledge of the labor market.

**Table 4**  
**Argentina. Matching between maximum educational level attained and occupational qualification by Country of Birth, gender and level of education (%). 2001**

Country of birth	Matching between educational and occupational qualification	Gender and level of schooling							
		Male				Female			
		Very Low	Low	Middle	High	Vey Low	Low	Middle	High
Bolivia	Sub-qualification	74.4	5.6	1.7	*	46.6	6.1	1.2	*
	Match	20.5	75.0	10.2	57.9	45.8	37.1	15.2	38.8
	Over-qualification	*	13.8	<b>82.3</b>	38.8	*	49.7	<b>77.5</b>	<b>57.0</b>
	Insufficient or ignored information	5.1	5.6	5.9	3.3	7.6	7.1	6.1	4.2
Brazil	Sub-qualification	88.0	16.1	14.9	*	65.4	12.7	7.6	*
	Match	7.9	67.8	32.8	62.3	23.5	40.9	31.2	35.7
	Over-qualification	*	11.4	47.0	32.3	*	37.6	54.7	60.6
	Insufficient or ignored information	4.1	4.8	5.3	5.4	11.1	8.7	6.5	3.8
Chile	Sub-qualification	72.6	6.8	4.0	*	24.3	7.4	2.5	*
	Match	20.8	70.4	17.4	45.7	69.9	26.5	21.3	31.5
	Over-qualification		<b>16.1</b>	71.3	<b>48.3</b>	*	59.6	70.1	<b>64.9</b>
	Insufficient or ignored information	6.6	6.7	7.3	6.0	5.7	6.5	6.1	3.6
Paraguay	Sub-qualification	77.5	6.4	3.7	*	19.9	5.2	2.1	*
	Match	14.5	73.7	15.1	61.5	74.0	18.3	16.8	46.5
	Over-qualification	*	12.6	74.2	35.6	*	<b>71.4</b>	<b>75.9</b>	50.8
	Insufficient or ignored information	8.0	7.3	6.9	2.9	6.1	5.0	5.3	2.7
Uruguay	Sub-qualification	73.2	10.6	7.7	*	31.9	9.6	4.5	*
	Match	18.3	65.8	21.3	55.3	61.7	32.4	25.7	50.7
	Over-qualification	*	<b>16.3</b>	63.8	<b>39.9</b>	*	51.7	63.8	45.6
	Insufficient or ignored information	8.5	7.3	7.1	4.9	6.3	6.4	6.1	3.6
Total borders migrants	Sub-qualification	75.7	7.2	4.5	*	32.7	6.5	2.7	*
	Match	18.0	71.8	16.2	55.1	60.5	25.4	20.2	41.8
	Over-qualification	*	14.3	72.6	40.4	*	62.2	71.2	54.7
	Insufficient or ignored information	6.4	6.7	6.7	4.5	6.8	5.9	5.9	3.5
Total residents	Sub-qualification	70.7	11.3	8.0	*	31.3	10.5	5.4	*
	Match	21.8	64.9	25.8	62.5	61.0	33.5	37.8	51.9
	Over-qualification	*	16.9	59.5	33.9	*	49.1	51.9	45.5
	Insufficient or ignored information	7.5	6.9	6.7	3.5	7.7	7.0	4.9	2.6

Source: INDEC (2005) Demographic Census 2001

Over-qualification of persons with complete university studies, besides other factors related to unemployment, has a relationship with the existence of legal limits to exercising regulated professions as well as language barriers, which can lead to an insertion in occupations with a lower qualification, as an alternative to unemployment. The existence of language barriers is especially important at the moment of having to explain the high percent of over-qualified Brazilian women with a university degree (60 %), who

probable migrated out of trans-national hiring schemes, which would have guaranteed their insertion in occupations compatible with their education level, as it may have been the case among many males of the same origin.

### Over-qualification according to approved schooling years

There is another way of estimating over-qualification, departing from the comparison between the years of study of workers with the average educational requirements for each group of occupations. In this case, for each group of occupations, the average schooling level and the standard deviation were calculated at two digits, in relation to native workers, both male and female. From these measurements, it was possible to distinguish three situations: match, over-qualification and sub-qualification. In the case of match, schooling level of workers ranges between the average number of years of study and plus-minus a standard deviation. The worker is over-qualified if his/her schooling years are above a standard deviation of the average of years of study of the occupational group to which he/she belongs. Sub-qualification arises when the schooling years are below the average schooling level of the occupational group to which he/she belongs less a standard deviation.<sup>2</sup>

Following this methodology, the schooling of most workers with a variety of origins in Argentina was compatible with the average educational requirements of the different occupational groups. The group of sub-qualified workers had a remarkable weight, especially among migrant workers. In comparison with Argentine workers, the higher percents of sub-qualified workers among Brazilian, Bolivian, Paraguayan and Chilean males and females can be highlighted. Only Uruguayan males and Brazilian females had a percentage of over-qualified workers which was higher to the level shown by the Argentines with an occupation of the same sex (Table 5).

**Table 5**  
**Matching between the Education of the occupied and the Average Education of the occupational group by Gender and Country of Birth (%). 2001**

<b>Gender and Matching between education of the occupied and the average education of the occupational group</b>	<b>Argentina</b>	<b>Bolivia</b>	<b>Brazil</b>	<b>Chile</b>	<b>Paraguay</b>	<b>Uruguay</b>
<b>Male</b>						
Sub-qualification	11.4	21.6	31.5	17.2	18.5	9.1
Match	78.4	71.6	61.9	74.4	77.9	80.1
Over-qualification	10.2	6.8	6.6	8.4	3.6	10.8
Total	100.0	100.0	100.0	100.0	100.0	100.0
Total (absolute)	<b>5757063</b>	<b>59292</b>	<b>7545</b>	<b>53058</b>	<b>56616</b>	<b>31346</b>
<b>Female</b>						
Sub-qualification	12.2	29.5	22.7	18.7	19.5	10.4
Match	79.0	65.9	67.9	76.2	77.8	81.2
Over-qualification	8.8	4.6	9.5	5.1	2.6	8.3
Total	100.0	100.0	100.0	100.0	100.0	100.0
Total (absolute)	<b>3331482</b>	<b>30470</b>	<b>4565</b>	<b>28809</b>	<b>53834</b>	<b>18876</b>

Source: INDEC (2005) Demographic Census 2001

<sup>2</sup>This methodology was developed by Clogg & Shockey (1984).



**Table 6**  
**Argentina. Occupied Males by Occupational group, Matching between the Education of the occupied and the Average Education of the occupational group by Country of Birth (%). 2001**

<b>Occupational group</b>		<b>Argentina</b>	<b>Bolivia</b>	<b>Brazil</b>	<b>Chile</b>	<b>Paraguay</b>	<b>Uruguay</b>
<b>Small and Medium Private Companies Directive and Manager occupations</b>	Sub-qualification	7.7	33.3	36.0	16.9	21.7	6.3
	Match	76.5	61.4	49.8	72.2	72.6	83.0
	Over-qualification	<b>15.8</b>	<b>5.3</b>	<b>14.2</b>	<b>11.0</b>	<b>5.7</b>	<b>10.7</b>
	<b>Total Abs.</b>	<b>465733</b>	<b>2361</b>	<b>663</b>	<b>2252</b>	<b>2523</b>	<b>2536</b>
<b>Administrative. Legal. Accountancy and Financial Occupations</b>	Sub-qualification	16.2	23.5	16.0	25.0	30.9	18.3
	Match	62.3	61.3	54.4	62.3	56.2	66.0
	Over-qualification	<b>21.5</b>	<b>15.2</b>	<b>29.6</b>	<b>12.7</b>	<b>12.9</b>	<b>15.7</b>
	<b>Total Abs.</b>	<b>567857</b>	<b>842</b>	<b>250</b>	<b>1833</b>	<b>1500</b>	<b>2019</b>
<b>Commercialization Occupations</b>	Sub-qualification	8.1	28.3	27.8	15.4	21.1	8.4
	Match	81.3	66.5	59.6	76.8	75.2	81.3
	Over-qualification	<b>10.7</b>	<b>5.3</b>	<b>12.6</b>	<b>7.7</b>	<b>3.7</b>	<b>10.3</b>
	<b>Total Abs.</b>	<b>699411</b>	<b>4240</b>	<b>539</b>	<b>4306</b>	<b>4464</b>	<b>4093</b>
<b>Transport &amp; storage occupations</b>	Sub-qualification	9.6	21.1	27.9	14.2	14.9	8.0
	Match	85.0	71.2	69.1	65.9	81.6	84.6
	Over-qualification	<b>5.4</b>	<b>7.7</b>	<b>3.0</b>	<b>19.9</b>	<b>3.5</b>	<b>7.4</b>
	<b>Total Abs.</b>	<b>634403</b>	<b>2824</b>	<b>337</b>	<b>4590</b>	<b>3876</b>	<b>4120</b>
<b>Domestic and Non Domestic Cleaning Occupations</b>	Sub-qualification	13.3	16.2	26.6	16.3	15.1	7.0
	Match	71.6	47.5	58.7	61.8	67.6	63.4
	Over-qualification	<b>15.1</b>	<b>36.4</b>	<b>14.7</b>	<b>21.9</b>	<b>17.2</b>	<b>29.6</b>
	<b>Total Abs.</b>	<b>199476</b>	<b>1169</b>	<b>109</b>	<b>1987</b>	<b>3011</b>	<b>2598</b>
<b>Other Services Occupations</b>	Sub-qualification	16.8	28.8	21.0	25.6	22.4	9.4
	Match	74.2	59.4	65.0	67.7	75.3	80.5
	Over-qualification	<b>9.0</b>	<b>11.8</b>	<b>14.0</b>	<b>6.7</b>	<b>2.4</b>	<b>10.1</b>
	<b>Total Abs.</b>	<b>157703</b>	<b>778</b>	<b>214</b>	<b>1732</b>	<b>1588</b>	<b>1380</b>
<b>Agriculture production Occupations</b>	Sub-qualification	14.0	25.4	38.5	18.4	35.0	7.2
	Match	74.6	67.5	60.2	69.8	61.0	61.7
	Over-qualification	<b>11.4</b>	<b>7.1</b>	<b>1.3</b>	<b>11.8</b>	<b>4.0</b>	<b>31.1</b>
	<b>Total Abs.</b>	<b>388860</b>	<b>13346</b>	<b>3312</b>	<b>5232</b>	<b>2531</b>	<b>180</b>
<b>Cattle, bees-and hunting occupations</b>	Sub-qualification	16.7	27.9	30.7	23.1	26.8	7.1
	Match	69.8	60.7	61.5	65.4	65.6	63.5
	Over-qualification	<b>13.4</b>	<b>11.4</b>	<b>7.8</b>	<b>11.5</b>	<b>7.6</b>	<b>29.4</b>
	<b>Total Abs.</b>	<b>233306</b>	<b>438</b>	<b>244</b>	<b>1664</b>	<b>883</b>	<b>255</b>
<b>Building and Infrastructure Occupations</b>	Sub-qualification	10.7	19.4	17.3	15.6	15.5	7.5
	Match	81.2	76.5	73.6	80.5	82.9	84.9
	Over-qualification	<b>8.1</b>	<b>4.1</b>	<b>9.0</b>	<b>3.9</b>	<b>1.7</b>	<b>7.6</b>
	<b>Total Abs.</b>	<b>673057</b>	<b>17124</b>	<b>444</b>	<b>14249</b>	<b>19869</b>	<b>4118</b>
<b>Industrial and Handicraft Production Occupations</b>	Sub-qualification	10.4	17.5	31.7	16.2	16.8	7.1
	Match	82.0	76.0	57.7	78.2	81.1	83.8
	Over-qualification	<b>7.6</b>	<b>6.5</b>	<b>10.7</b>	<b>5.6</b>	<b>2.1</b>	<b>9.1</b>
	Total (%)	100.0	100.0	100.0	100.0	100.0	100.0
	<b>Total Abs.</b>	<b>595271</b>	<b>11212</b>	<b>477</b>	<b>7106</b>	<b>9589</b>	<b>3727</b>
<b>Repairing consumers goods Occupations</b>	Sub-qualification	8.9	16.8	31.3	15.8	17.1	9.2
	Match	85.7	74.4	61.6	78.4	80.4	82.5
	Over-qualification	<b>5.4</b>	<b>8.8</b>	<b>7.1</b>	<b>5.8</b>	<b>2.5</b>	<b>8.3</b>
	<b>Total Abs.</b>	<b>200859</b>	<b>1763</b>	<b>112</b>	<b>2304</b>	<b>2082</b>	<b>1346</b>

Source: INDEC (2005) Demographic Census 2001

It is also important to highlight the over-qualification of Chilean and Uruguayan males employed in transport and storage occupations; the Uruguayans and Brazilians working in industrial and handicraft production; and the Uruguayans and Chileans working in agriculture (Table 6). Among females, the over-qualification of Bolivian, Brazilian, Chilean and Uruguayan females can be highlighted, in occupations such as domestic and non-domestic cleaning, and of Brazilian females in all occupational groups, with the exception of agricultural production (Table 7). Among males from Bolivia, Uruguay, Chile

and Brazil, the higher levels of over-qualification can be observed in occupations that had previously shown a very low percentage of occupied with such an origin. Among males, over-qualification was associated to a higher schooling of Brazilians and Uruguayans (Table 7).<sup>3</sup>

**Table 7**  
**Argentina. Occupied Females by occupational group, Matching between the Education of the occupied and the Average Education of the occupational group by Country of Birth (%). 2001**

<b>Occupational group</b>		<b>Argentina</b>	<b>Bolivia</b>	<b>Brazil</b>	<b>Chile</b>	<b>Paraguay</b>	<b>Uruguay</b>
<b>Small and Medium Private Companies Directive and Manager Occupations</b>	Sub-qualification	6.0	36.3	18.1	16.1	20.4	3.8
	Match	75.2	60.1	62.2	77.0	74.6	84.9
	Over-qualification	<b>18.9</b>	<b>3.6</b>	<b>19.8</b>	<b>7.0</b>	<b>4.9</b>	<b>11.3</b>
	<b>Total Abs.</b>	<b>158643</b>	<b>1268</b>	<b>288</b>	<b>1077</b>	<b>1865</b>	<b>978</b>
<b>Administrative. Legal. Accountancy and Financial Occupations</b>	Sub-qualification	9.2	15.6	12.6	18.0	23.3	11.1
	Match	73.2	72.8	58.4	72.5	67.2	76.1
	Over-qualification	<b>17.6</b>	<b>11.6</b>	<b>29.0</b>	<b>9.5</b>	<b>9.5</b>	<b>12.8</b>
	<b>Total Abs.</b>	<b>623846</b>	<b>674</b>	<b>341</b>	<b>2346</b>	<b>1969</b>	<b>2828</b>
<b>Commercialization Occupations</b>	Sub-qualification	6.2	42.8	14.8	12.6	22.8	4.6
	Match	79.6	53.7	68.1	79.0	73.5	82.6
	Over-qualification	<b>14.2</b>	<b>3.6</b>	<b>17.1</b>	<b>8.4</b>	<b>3.7</b>	<b>12.8</b>
	<b>Total Abs.</b>	<b>436264</b>	<b>6475</b>	<b>521</b>	<b>3640</b>	<b>4338</b>	<b>2778</b>
<b>Domestic and Non Domestic Cleaning Occupations</b>	Sub-qualification	16.7	24.1	32.8	20.4	18.0	11.5
	Match	80.7	71.2	63.8	77.0	80.0	84.3
	Over-qualification	<b>2.5</b>	<b>4.7</b>	<b>3.4</b>	<b>2.5</b>	<b>1.9</b>	<b>4.2</b>
	<b>Total Abs.</b>	<b>752240</b>	<b>9985</b>	<b>851</b>	<b>13836</b>	<b>35437</b>	<b>5788</b>
<b>Other Services Occupations</b>	Sub-qualification	6.7	7.9	6.1	9.3	8.3	5.2
	Match	77.8	79.6	65.3	79.3	87.2	78.5
	Over-qualification	<b>15.5</b>	<b>12.5</b>	<b>28.6</b>	<b>11.4</b>	<b>4.6</b>	<b>16.3</b>
	Total (%)	100.0	100.0	100.0	100.0	100.0	100.0
	<b>Total Abs.</b>	<b>69467</b>	<b>519</b>	<b>245</b>	<b>752</b>	<b>1502</b>	<b>768</b>
<b>Agriculture production Occupations</b>	Sub-qualification	15.8	40.1	34.1	17.6	36.2	0.0
	Match	74.0	54.6	65.1	69.1	56.6	50.0
	Over-qualification	<b>10.2</b>	<b>5.3</b>	<b>0.8</b>	<b>13.3</b>	<b>7.2</b>	<b>50.0</b>
	<b>Total Abs.</b>	<b>40230</b>	<b>3873</b>	<b>1121</b>	<b>375</b>	<b>235</b>	<b>12</b>
<b>Industrial and Handicraft Production Occupations</b>	Sub-qualification	8.1	17.9	15.4	13.2	13.3	6.0
	Match	78.7	76.7	63.8	77.5	83.0	78.2
	Over-qualification	<b>13.2</b>	<b>5.4</b>	<b>20.7</b>	<b>9.3</b>	<b>3.7</b>	<b>15.8</b>
	<b>Total Abs.</b>	<b>155666</b>	<b>4229</b>	<b>188</b>	<b>1720</b>	<b>2839</b>	<b>1117</b>

Source: INDEC (2005) Demographic Census 2001

<sup>3</sup>Tables 6, 7 and 8 contain information about the occupational groups that concentrated the majority of the bordering workers. Those groups included 80 % of the Argentine employed men, 90 % of Bolivians, 85 % of Brazilians, 84 % of Chileans, 86 % of Paraguayans and 79 % of Uruguayans. Among employed females, these categories contained a 65 % of Argentines, 84 % of Bolivians, 71 % of Brazilians, 77 % of Chileans, 86 % of Paraguayans and 64 % of Uruguayans.

Table 8

**Argentina. Over-qualified Occupied by Gender, Occupational group and Country of Birth (%). Occupied by Gender and Occupational group on the total of occupied of the same origin by Country of Birth o (%). 2001**

Gender and Occupational group	Over-qualified Occupied by Country of Birth (%)					Occupied in each occupational group by Country of Birth (%)					
	Argentina	Bolivia	Brazil	Chile	Paraguay	Uruguay	Bolivia	Brazil	Chile	Paraguay	Uruguay
<b>Male</b>											
Small and Medium Private Companies Directive and Manager Occupations	15.8	5.3	14.2	11.0	5.7	10.7	3.8	8.3	4.0	4.1	7.4
Administrative. Legal. Accountancy and Financial Occupations	21.5	15.2	29.6	12.7	12.9	15.7	1.5	3.9	3.5	2.6	10.2
Commercialization Occupations	10.7	5.3	12.6	7.7	3.7	10.3	7.0	7.1	7.8	7.5	11.8
Transport & storage occupations	5.4	7.7	3.0	19.9	3.5	7.4	4.5	4.3	8.2	6.4	10.1
Domestic and Non Domestic Cleaning Occupations	15.1	36.4	14.7	21.9	17.2	29.6	1.9	1.4	3.5	5.0	3.3
Other Services Occupations	9.0	11.8	14.0	6.7	2.4	10.1	1.3	2.8	3.1	2.7	2.7
Agriculture production Occupations	11.4	7.1	1.3	11.8	4.0	31.1	21.3	40.7	9.2	4.1	6.2
Cattle, bees-and hunting occupations	13.4	11.4	7.8	11.5	7.6	29.4	0.7	3.0	2.9	1.4	3.7
Building and Infrastructure Occupations	8.1	4.1	9.0	3.9	1.7	7.6	27.5	5.6	25.1	32.8	10.8
Industrial and Handicraft Production Occupations	7.6	6.5	10.7	5.6	2.1	9.1	18.1	6.3	12.6	15.9	9.7
Repairing consumers goods Occupations	5.4	8.8	7.1	5.8	2.5	8.3	2.9	1.4	4.1	3.4	3.2
<b>Female</b>											
Small and Medium Private Companies Directive and Manager Occupations	18.9	3.6	19.8	7.0	4.9	11.3	3.9	5.5	3.5	3.3	4.3
Administrative. Legal. Accountancy and Financial Occupations	17.6	11.6	29.0	9.5	9.5	12.8	2.4	8.2	8.1	3.9	19.2
Commercialization Occupations	14.2	3.6	17.1	8.4	3.7	12.8	20.0	10.9	11.8	7.8	12.7
Domestic and Non Domestic Cleaning Occupations	2.5	4.7	3.4	2.5	1.9	4.2	31.1	16.8	44.4	62.5	20.8
Other Services Occupations	15.5	12.5	28.6	11.4	4.6	16.3	1.7	4.9	2.5	2.7	2.0
Agriculture production Occupations	10.2	5.3	0.8	13.3	7.2	50.0	11.9	21.0	1.2	0.4	1.1
Industrial and Handicraft Production Occupations	13.2	5.4	20.7	9.3	3.7	15.8	13.0	3.7	5.6	5.0	4.3

Source: INDEC (2005) Demographic Census 2001.

In bold, occupations that concentrated 5% or more of occupied by sex and country of birth

The differences among the results that were obtained departing from the two methodologies partly arise, from the nature of the comparisons on which each one of them are based, and from the heterogeneities of the occupational groups of the Users Base of the 2001 Argentine census. The first methodology connects attributes of those with an occupation (education level) with the occupation's attributes (qualification). The second is based on the comparison of each worker's schooling, measured in years of study, and the average schooling of its occupational group and exclusively considers the native workers' attributes. As a consequence, in the second case, the higher schooling of Argentine workers rises the occupation's average schooling, and for this reason one could expect higher levels of sub-qualification among Bolivian, Brazilian and Paraguayan migrants.

In many occupations of the Argentine labor market, the schooling level of workers increased with no change in the technological requirements. Besides this process of devaluation of education credentials, in a context of high unemployment, native workers, with higher schooling put pressure to occupy positions in labor niches such as construction, manufacturing industries, domestic service and agriculture, thus displacing migrant workers towards less qualified occupations in the same occupational group. This displacement is said to have led to an increase in the average educational requirements for those occupations, set up from the average schooling of native workers.

Besides, there would be an effect arising from the heterogeneity of occupations within the categories of the variable "published nature of the occupations" of the Users Base of the 2001 census, which would partly explain, the remarkable levels of sub-qualification of bordering migrants included in the Argentine census. Unlike the Brazilian census, this variable does not provide any information about ranks and functions. The census in Brazil distinguishes high public power representatives, organizations' directors, managers, professionals and technicians in different areas, besides employees for different activities.

In the Users Base of the Argentine Census, the occupations related to construction and infrastructure, agriculture, industrial and handicraft production, and commercialization, concentrated the majority of bordering workers. In these occupations, in general, the percent of over-qualified persons was lower among migrant workers. Since all these categories are too wide, it is not possible to detect if bordering workers could insert themselves in those occupations with a lower rank, with low education requirements, flexible hiring conditions and with no requirements as regards having Argentine identity documents. The variable "published nature of the occupation" includes, in the same category, occupations with a low rank and others that, besides a higher schooling level, required identity documents, would offer better working conditions and salaries, and would be destined for Argentines and migrants who settled long time ago.

### **Over-qualification of Southern Cone migrants residing in Brazil**

In Brazil, migrants that were born in Paraguay were concentrated in the lowest education levels. Males and females who were born in Chile and Argentina, and Bolivian and Uruguayan males were more concentrated in the medium and high education levels. Females in all migration groups had an education level which was lower than that of their male peers. Argentine, Bolivian, Chilean and Uruguayan males showed a schooling level above the total population residing in Brazil, whereas those coming from Paraguay showed more resemblance. Argentine, Bolivian, Chilean, and Uruguayan men and women, and Paraguayan males, showed a percentage of persons with complete high studies that was higher than the total of residents in Brazil. Those who were born in Chile presented the higher rate of persons with full high studies (39.5 among men and 33.8 % among women).

The percent of qualified migrants was also important among Argentines (35.5 among men and 30.7 % among women); Bolivians (34.1 among men and 19.5 % among women) and Uruguayans (19.8 among men and 15.7 % among women) (Sala, 2008).

In Brazil, most men who were born there and in Paraguay were working in agriculture. Argentines and Uruguayans were concentrated in commercial activities and in automobile and personal and domestic objects repair. Those who were born in Bolivia and Chile found themselves inserted in the transformation industry. Among women with an occupation, coming from Brazil and Paraguay, most of them were working in the domestic service. Most Argentine and Chilean workers were working in activities related to education. Bolivian women concentrated in the transformation industry, and the Uruguayans, in commercial activities and automobile and personal and domestic objects repair.

The Southern Cone migrants were more concentrated than native workers among the high members of the Public Power, directors at public interest organizations and companies, managers and professionals of the sciences and arts. Women and men born in Argentina, Chile and Uruguay showed a broader concentration in managerial and professional occupations, and Bolivian men, in professional occupations. Among the medium level technicians, the broadest concentration corresponded to Argentine men and to Chileans of both sexes. Bolivian and Paraguayan men and women were over-represented among the workers in the productions of industrial assets and services, and in that occupation, the level of segregation of Bolivian women can be highlighted. Paraguayan workers were over-represented in service occupations, saleswomen in shops and markets, and agricultural activities, forestry, fishery and hunting (Sala, 2008).

During the two last decades of the XX century, the schooling of the Brazilian economically active population improved. In this country, the percentage of workers with less than four years of schooling over the total of workers with an occupation went from 47 % in 1977, to 26 % in 1999. Along this period, the relative participation of workers with higher schooling also went up, although the group of workers with 15 or more years of instruction, with full high studies in general, underwent little variation and, in 1999, it concentrated seven % of the workers (Wajman and Menezes Filho, 2003). Since the beginning of the nineties, the demand of workers with schooling over complete primary school went up. This increase coincided with an increase in the average schooling of workers, as a result of the policies of universalization of basic education, and it is associated to the higher education requirements of the labor market, arising from the technological breakthrough (Machado and Jayme Jr., 2003; Machado, Oliveira and Carvalho, 2003). In Sala (2005), it was observed that the percentage of over-qualified workers among the Southern Cone migrants was higher than the same measure among Brazilians.

Among foreigners with an occupation, who were born in Southern Cone countries, the biggest percentage of over-qualified workers corresponded to Chilean and Argentine males (48 and 39 %, respectively) and to Argentine and Chilean females (39 and 35 %, respectively), whereas the smallest percentages corresponded to Paraguayan workers (22 % among males and 15 % among females). The highest levels of over-qualification corresponded to Brazilian and Paraguayan workers of both sexes. This is related to the higher schooling level of Argentines and Chileans and the lower level of education of Brazilians and Paraguayans (Table 9).

**Table 9**  
**Brazil, Matching between workers' education and the Average Education of the occupational group by Gender and Country of Birth (%). 2000**

<b>Gender and Matching between occupy's education and Average Education of the occupational group</b>	<b>Brazil</b>	<b>Argentina</b>	<b>Bolivia</b>	<b>Chile</b>	<b>Paraguay</b>	<b>Uruguay</b>
<b>Male</b>						
Sub-qualification	18.4	4.6	5.6	3.5	18.9	8.5
Match	65.4	56.4	59.4	48.1	59.1	57.2
Over-qualification	16.2	39.0	35.1	48.3	22.0	34.3
Total	100.0	100.0	100.0	100.0	100.0	100.0
Total (absolute)	<b>39750082</b>	<b>9903</b>	<b>7600</b>	<b>7395</b>	<b>7013</b>	<b>8694</b>
<b>Female</b>						
Sub-qualification	14.5	7.8	9.2	3.4	18.2	6.8
Match	70.1	53.4	58.3	61.8	66.7	62.5
Over-qualification	15.4	38.8	32.5	34.7	15.1	30.7
Total	100.0	100.0	100.0	100.0	100.0	100.0
Total (absolute)	<b>24246205</b>	<b>4010</b>	<b>3359</b>	<b>2992</b>	<b>3713</b>	<b>4305</b>

Source: IBGE (2004) Demographic Census 2000

Brazilians of both sexes had the lowest percentage of over-qualified workers in almost all occupational groups. Paraguayans and Brazilians presented the highest percentages of sub-qualified workers in the majority of the occupations that were considered. Some of the groups of occupations which concentrated Paraguayan workers of both sexes and, to a lesser extent, to Bolivian women, presented a percentage of over-schooling that was lower than that of Brazilian workers with the same sex and occupational group. Among the occupational groups that concentrated more than 5% of the migrants' work force for each country, the ones presenting the highest percents of over-qualified persons were the textile industry workers, service workers and salesmen. As regards managers, professionals and technicians, the highest percents of over-qualified workers corresponded to Argentine and Chilean women and men and to Bolivian and Uruguayan women (Table 10).<sup>4</sup>

<sup>4</sup>Table 10 contains information about the groups of occupations that concentrated the majority of migrant workers in the Southern Cone. Those groups included an 89 % of Argentine males with an occupation, 92 % of those from Bolivia, 88 % of Chileans and Paraguayans and 91% of Uruguayans. Among women with an occupation, these categories included an 88 % of the Argentines, 96 % of Bolivians, 92 % of Chileans and Paraguayans and 91 % of Uruguayans.

Table 10

**Brazil. Over-qualified workers by gender, occupational group and country of Birth (%). Occupied by gender, occupational group on total of occupied by Country of birth (%). 2000**

Gender and Occupational Group	Over-qualified Workers by Country of Birth (%)					Workers in occupational group by Country of Birth (%)						
	Brazil	Argentina	Bolivia	Chile	Paraguay	Uruguay	Brazil	Argentina	Bolivia	Chile	Paraguay	Uruguay
<b>Male</b>												
Managers	20.9	48.9	44.3	56.3	34.3	28.9	3.7	15.7	4.7	12.1	3.9	11.5
Salesmen and trade service suppliers	5.5	28.1	10.5	27.2	6.3	16.3	9.0	8.9	6.1	7.8	6.8	11.6
Extractive industry and civil construction workers	20.0	64.8	42.2	81.8	26.9	42.6	11.5	4.9	4.6	3.9	17.3	7.3
Service workers	22.1	62.8	33.4	69.6	22.9	46.9	11.7	5.5	5.5	5.2	9.7	9.4
Textile, tanning, and graphic arts industry workers	23.3	41.8	66.5	86.0	39.7	66.7	1.9	1.4	22.7	2.3	4.6	2.3
Communicators, artists and members of religious orders	19.3	37.6	37.8	44.2	39.6	28.1	0.9	8.8	2.2	5.9	2.4	4.7
Physical and Chemical Science & engineer Medium Level Technicians,	10.5	27.7	15.8	46.4	61.4	38.8	2.2	4.2	2.6	11.2	1.3	4.1
Administrative Science Medium Level Technicians	16.7	26.9	49.0	39.9	35.5	24.9	2.6	6.6	2.0	4.7	3.3	5.5
Transversal functions' workers*	17.4	45.9	33.3	72.7	20.0	37.0	7.7	3.7	3.5	2.5	5.9	5.9
Farming exploration workers	14.5	38.3	57.7	53.8	16.0	37.2	13.0	1.1	2.9	0.7	12.5	4.6
Company and organization Directors (except those of public interest)	17.9	35.9	25.4	33.6	11.1	31.1	0.9	6.2	1.7	2.9	1.5	3.7
Education Professionals (with formation at a superior level)	17.8	44.3	40.2	28.0	54.6	59.4	0.8	5.5	1.5	5.2	1.9	2.4
Transformation of metals and compost workers	23.4	50.3	53.1	70.2	16.5	43.1	3.4	1.7	1.3	5.3	2.3	3.3
<b>Female</b>												
Service workers	17.7	46.7	24.5	63.7	15.2	44.9	34.2	16.1	25.9	11.7	49.1	25.2
Salesmen and trade service suppliers	5.8	28.1	10.5	27.2	6.3	16.3	11.2	9.3	8.8	11.2	10.7	15.3
Textile, tanning, and graphic arts industry workers	20.9	51.9	52.5	75.9	24.5	63.5	5.9	4.0	30.2	5.4	7.9	4.4
Education Professionals (with formation at a superior level)	8.3	34.6	19.0	22.9	11.0	8.1	3.3	12.9	4.8	14.6	2.7	7.7
Managers	25.2	55.5	50.0	41.3	0.0	35.9	2.6	10.2	5.4	8.7	2.7	7.1
Clerks	26.6	49.5	70.0	27.3	16.7	25.5	8.5	6.6	3.2	6.2	2.3	6.2
Communicators, artists and members of religious orders	4.9	12.1	0.0	12.8	0.0	11.6	1.2	7.3	1.2	3.3	1.3	3.8
Professionals of social & human sciences	13.7	42.1	85.0	0.0	22.7	65.3	1.3	4.1	2.4	7.6	0.5	2.2
Farming exploration workers	8.9	100.0	30.6	26.6	50.0	0.0	0.8	2.4	1.8	0.0	6.9	1.7
Biology and Biochemical Sciences medium level technicians	13.0	8.6	0.0	0.0	15.2	35.2	1.8	0.2	1.8	7.3	1.0	1.1

\* This huge occupational group includes supervisors of packing and labeling activities; operators of robots and special equipment; conductors of vehicles and elevation equipment and movement of loads' operators, workers of logistic and support of transport services; packers and feeders of machines and equipment of industrial production.

Source: IBGE (2004) Demographic Census 2000. In bold: occupations that concentrated 5% or more of occupied people by gender and country of birth

## **Final Considerations**

In Argentina, the insertion of Chilean and Uruguayan men and women by branch of occupation was similar to that of Argentine men and women. The broadest differences with the native work force corresponded to Bolivian workers, whereas in Brazil, Paraguayan workers –especially men- were less segregated in branches and occupations. In both countries, within these population sub-groups, the female labor segregation was higher. In Argentina, the concentration of migrants in branches of intensive work force and less qualified occupations led to worse hiring conditions in comparison with those recognized to native workers; in Brazil, the labor segregation of Chileans, Uruguayans and Argentines placed them in a less unfavorable situation. In this country, only Paraguayan workers and a part of Bolivians shared with the natives the more unfavorable insertion in the labor market (Sala, 2008).

In the nineties, the increase in the presence of migrants from Southern Cone countries in Argentina and Brazil coincided with improvements in the schooling of the populations and of the work force in both countries. During the second half of that decade, the Argentine labor market showed evident signs of crisis (growing unemployment, job insecurity and salary deterioration). In this context, the growth of more educated workers contributed to increase the over-qualification of those with an occupation. In Brazil, the increase in the schooling and the over-qualification of the workforce took place in a recession context less serious than in Argentina.

In Argentina, the determination of the over-qualification taking into consideration the relationship between the years of study of the workers and the average schooling level of their occupational group showed that the schooling of most workers, native and migrant, was compatible with the average education requirements and, secondly, it showed that the sub-qualified workers had a remarkable weight, especially among migrant workers. It also showed that the percentage of over-qualified workers in several activities, among Brazilian and Uruguayan males, and among Bolivian, Brazilian, Chilean and Uruguayan females, working in domestic and non-domestic cleaning, was higher than among Argentines of the same sex and the same occupational group.

The estimation of over-qualification departing from the comparison between the required qualification by the occupation and the maximum schooling level of workers brought even more concluding results, showing that in Argentina, males with a high and medium schooling level who were born in Bolivia, Chile, Paraguay and Uruguay; women countries from those countries with low, medium and high level of education, and Brazilian women with medium and high education had a higher percentage of over-qualified workers than the total in the native population. For both sexes, the broadest gaps corresponded to workers with medium schooling level, who were born in Bolivia and Paraguay, and they could be explained by the over-qualification of the migrants who arrived in the nineties and who had a medium schooling level in their majority.

In Brazil, among those with an occupation who were born in Southern Cone countries, the highest percentages of over-qualified workers corresponded to Chileans and Argentines, and the lowest, to Paraguayans, although a quarter of them were over-qualified. Southern Cone migrants, with the exception of Paraguayan women, had a percent of over-qualified workers that was higher than in the case of Brazilian workers of the same sex. In Brazil, over-qualification was associated to the higher education of Argentines, Bolivians, Chileans and Uruguayans.



The estimation of over-qualification by comparing each worker's schooling and the average schooling of its occupational group allows concluding that both in Argentina and in Brazil, sub-qualification is connected to the schooling differences of migrant and native workers. In both countries, migrants who had a schooling level that was lower than that of natives also presented a higher proportion of sub-qualified persons. In Argentina, this occurred among Bolivians, Brazilians, Chileans, and Paraguayans. In Brazil, Paraguayan workers presented a proportion of sub-qualified workers that was similar to that of Brazilians and higher than in the case of other migrant groups in the region. In that country, occupied people born in Argentina, Bolivia, Chile and Uruguay were more educated than natives, besides a higher percent of over-qualified persons. In Argentina, the average schooling of Uruguayan and Argentine workers was similar and resemblance was also found in the case of the percents of over and sub-qualified workers with an occupation in both groups.

Empirical evidences originated in the Brazilian census support the hypothesis of the migratory literature about the higher incidence of over-qualification among migrant workers, but they also introduce a consideration related to those with lower schooling, since a substantial proportion of those who were born in Paraguay, most of which had low education, were sub-qualified. In the case of Argentina, it could be possible to reach to a similar conclusion, although there are some differences between the results obtained departing from the two estimation methodologies.

A strict explanation of the differences in the levels of over-qualification of migrant and native workers, besides controlling schooling level and the type of occupation, should take into consideration other aspects, whose study exceed the scope of this article. Among those aspects, we could highlight the uneven unemployment levels, job insecurity, and the relative weight of migrants in each group of occupations; the specific nature of the mechanisms for the selection of the work force in the labor segments that concentrate migrants and of the changes that occurred in the modalities of insertion and promotion in the different occupations, which can be detected in uneven levels of over-qualification of those migrants who settled in different periods.

### ***Bibliography***

Clogg, Clifford.C y Shockey, James.W. Mismatch between occupation and schooling: a prevalence Measure, recent trends and demographic analysis. *Demography*, 21(2): 235-57. 1984.

ECLAC, *Statistical yearbook for Latin America and the Caribbean* ECLAC UNITED NATIONS PUBLICATION Available in <http://www.eclac.org/cgi-bin/getProd.asp?xml=/publicaciones/xml/3/14833/P14833.xml&xsl=/deype/tpl-i/p9f.xsl&base=/tpl-i/top-bottom.xslt>

Girard, Erik., Bauder, Harald. (2005) *Barriers blocking the integration of foreign-trained immigrant professionals: implications for smaller communities in Ontario*. Guelph, Ontario: University of Guelph, Department of Geography. Available in: [http://www.uoguelph.ca/geography/research/ffw/papers/immigrant\\_credentials.pdf](http://www.uoguelph.ca/geography/research/ffw/papers/immigrant_credentials.pdf)

Groisman, Fernando. (2003) "Devaluación educativa y segmentación en el mercado de trabajo del área metropolitana de Buenos Aires entre 1974-2000" en *Estudios del Trabajo*, Núm. 25, Primer Semestre pp. 73-97.

IBGE. (2004) *Censo Demográfico 2000 microdados da amostra*. Rio de Janeiro: IBGE

INDEC (1998) "*La calificación ocupacional y la educación formal: Una relación difícil?*", Instituto Nacional de Estadísticas y Censos, Serie Estructura Ocupacional N° 4, Buenos Aires.

INDEC (2005) *Censo Nacional de Población, Hogares y Viviendas 2001*. Base Usuarios Censo 2001- Aplicación de Redatam+SP x Plan (Celade-Cepal). Buenos Aires, 2005

INDEC (2005b) *Censo Nacional de Población, Hogares y Viviendas 2001. Clasificador Nacional de Ocupaciones del Censo Nacional de Población, Hogares y Viviendas 2001 (CNO-2001)*. Apéndice metodológico. En *Censo Nacional de Población, Hogares y Viviendas 2001*. Base Usuarios Censo 2001- Aplicación de Redatam+SP x Plan (Celade-Cepal). Buenos Aires, 2005

Machado Ana Flavia., Oliveira, Ana Maria, Carvalho, Ana. Flavia (2003) *Tipologia de qualificação da força de trabalho: uma proposta a partir da noção de incompatibilidade entre ocupação e escolaridade*. Belo Horizonte, MG.UFMG/CEDEPLAR,21p. (Texto para discussão, 218)

Machado, Ana Flavia, Jaime Jr, Federico Gonzaga. (2003) Liberalização comercial: impactos sobre a composição do emprego no Brasil. In: Wajnman, S., Machado, A. F. (Org.) (2003) *Mercado de trabalho: uma análise a partir das pesquisas domiciliares no Brasil*. Belo Horizonte: UFMG, p.267-292.

Sala, Gabriela. Perfil educativo y laboral de los nuevos y viejos migrantes regionales censados en Argentina y Brasil. *En Migraciones Internacionales*. Vol 1. Num 15. Julio-diciembre de 2008. El Colegio de la Frontera Norte, México.

Sala, Gabriela. Sobrecalificación de los migrantes del Cono Sur residentes en Argentina y Brasil”. *En Migraciones Internacionales*, Vol. 5, Núm. 17, Julio-diciembre de 2009. El Colegio de la Frontera Norte, México.

Salas, Julieta M. El fenómeno de sobrecalificación: calificaciones y competencias. Ponencia presentada al VII congreso nacional de estudios del trabajo ASET. Asociación argentina de especialistas en estudios del trabajo. Buenos Aires, Argentina 2005. Available in <http://www.aset.org.ar/congresos/7/11008.pdf>

Waisgrais, Sebastián. (2005) Determinantes de la sobreeducación de los jóvenes en el Mercado laboral argentino. El fenómeno de sobrecalificación: calificaciones y competencias. Ponencia presentada al VII congreso nacional de estudios del trabajo ASET. Asociación argentina de especialistas en estudios del trabajo. Buenos Aires, Argentina 2005. Available in <http://www.aset.org.ar/congresos/7/11004.pdf>

Wajnman, Simone, Menezes-Filho, Naércio (2003) Os efeitos da mudança demográfica sobre a desigualdade de rendimentos no Brasil. In: Wajnman, Simone Machado, Ana Flavia (Orgs) (2003) *Mercado de trabalho: uma análise a partir das pesquisas domiciliares no Brasil*. Belo Horizonte: UFMG. p.151-172.