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Articles

Educated Mexican migrants in the United States: Analysis of gender inequalities

Migrantes profesionistas mexicanos en Estados Unidos: Análisis de las desigualdades de género

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Abstract

This work comparatively analyses the determinants of incorporation into the American labor market by qualification level of the occupation of Mexican educated female and male migrants. To meet the objective, we estimate two multinomial econometric models that examine the odds of not being filled or used in positions of different level of qualification. Based on these results, scenarios are built. In the first that combines academic degree with the presence of children, the high probability for the female population of being outside the workforce was blunt, with the exception of having a doctorate. The second scenario, which relates to immigration conditions, schooling and English proficiency, illustrates vulnerability as immigrants, when optimal conditions are not present, but in this case women have greater odds to be left out of the workforce.

Keywords: qualified Mexican migration, gender, occupation, multinomial models, United States.

Resumen

Este trabajo analiza comparativamente los determinantes de la integración en el mercado de trabajo estadounidense por nivel de calificación de la ocupación de los y las migrantes profesionistas mexicanos. Para cumplir con el objetivo estimamos dos modelos econométricos multinomiales que examinan las probabilidades de no ocuparse o de emplearse en puestos de distinto nivel de calificación. Con base en estos resultados se construyen escenarios. En el primero que combina el grado académico con la presencia de hijos, fue contundente la alta probabilidad para la población femenina de estar fuera de

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la fuerza de trabajo, con la salvedad de contar con doctorado. En el segundo escenario, en el que se relacionan las condiciones migratorias, la escolaridad y el dominio del inglés, se ilustra la vulnerabilidad como inmigrantes que se intersecta con la vulnerabilidad de género, cuando no están presentes las condiciones óptimas.

Palabras clave: migración mexicana calificada, género, ocupación, modelos multinomiales, Estados Unidos.

Introduction

Among the most notable global trends of the past three decades is the unprecedented growth in the migration of educated human resources. Some 27% of migrants in the Group of 20 (G20) had at completed least one level of tertiary education in 2010-2011, compared with 23% in 2000-2001. This corresponds to an additional 12 million migrants with tertiary education, of whom two-thirds are in the United States, Canada and the United Kingdom (OECD, 2017).¹

At the same time, the evidence shows that globally, the rate of migration by female professionals is greater than that of the male population, even exceeding that of uneducated women and educated men (Rodríguez, 2014). Organization for Economic Co-operation and Development figures (OECD, 2017) estimate that in 2010-2011, 52% of all highly educated immigrants in the G20 were women, compared to 49% in 2000-2001.

Mexico is a country with a long tradition of migration to the United States. Worldwide, the percentage of migrants with a bachelor's degree or higher has increased in recent decades from 3% in 1990 to 10.2% in 2015 (Delgado, 2015). At the same time, the increase in migration by female professionals has been notable. The average annual growth rate of skilled migrant men was 5.9% between 1990 and 2014, while the average annual growth rate of skilled migrant women during that period was 8.2% (Ramírez-García & Gandini, 2016; Ramírez & Tigau, 2018). However, despite having the same educational levels, women have lower levels of activity compared with their male counterparts (Gandini, 2019).

The evidence shows that the labor conditions of female Mexican skilled migrants in the United States in terms of the rate of participation, employment opportunities and employment in the high-skills sectors differ compared to those of skilled women in Mexico and those of generation 1.5.² Lowell and Pederzini (2012) find that the economic participation rate for women aged 25 to 54 years with a master's or doctorate degree in Mexico is 87.3% and 96.5%, respectively; meanwhile, for migrant women (generation 1.0) these rates are 72.1% and 59.5%, and for generation 1.5, they are 90.2% and 84.2%.³

The objective of this study is to examine the employment characteristics of female migrant Mexican professionals in the United States compared with migrants of the

¹ In these countries, their number increased by 77% between 2000-2001 and 2010-2011 to almost 20 million.

² Generation 1.5 refers to "those born in the society of origin but socialized in the host society" (Feixa, 2008, p. 115).

³ Generation 1.0 refers to all persons born abroad who report Mexico as their country of birth (Lowell & Pederzini, 2012).

same type in 2015. In particular, the aim is to investigate the different likelihoods of occupying high-, medium- and low-level jobs and of being outside the labor force. This analysis seeks to make visible the double vulnerability faced by educated Mexican women in the host country compared to their male counterparts based on their situation as migrants and as women. The intention is to demonstrate that the gender inequalities that permeate the public sphere (the market) and the private sphere (the household) have a differential effect on workforce selection and on the different types of occupation by skill level, as is the case among skilled migrant women in other countries. The study by Ramírez-García and Gandini (2016) compares the employment situation of skilled Mexican women in the United States with that of other groups of migrants or native-born women. In this article, we are interested in examining the disadvantages faced by female Mexican professionals versus males. In particular, the aim is to demonstrate, first of all, that lack of citizenship and lack of English proficiency diminish the opportunities to obtain employment and to occupy high-skill positions because for women, the unequal distribution of child care and their marital status are circumstances that put them at a disadvantage.

To meet the objective, we estimate two multinomial econometric models (one for women and another for men) that examine the likelihood of being employed or not being employed in jobs with different skill levels (high, medium and low). We use microdata from the American Community Survey (ACS) as a source. The explanatory variables are grouped into three major categories: *i*) sociodemographic characteristics (age groups, marital status and the presence of children), *ii*) human capital (educational level, academic training and English language fluency) and *iii*) migratory conditions (citizenship and length of stay in the United States).

The document consists of four sections plus this brief introduction and conclusions. The first section reviews the concept of professional or educated migration (PM). Particular attention is given to identifying the skill level of occupations. The second section addresses the main existing literature on migration and gender studies and the need to consider in the analysis of PM the inequalities between women and men, which leave the former at a disadvantage. The third section presents the sociodemographic, human capital and migratory characteristics. The fourth section describes the multinomial model used to estimate the probability of being employed in positions with different skill levels. Based on these results, two scenarios were created, taking into account *i*) the presence of children and academic level and *ii*) migratory conditions, schooling and English language proficiency. Finally, we present the conclusions.

Clarification of Concepts

PM⁴ has been less frequently addressed than other topics linked to this demographic phenomenon due to the lack of statistical information, difficulties in establishing comparisons over space and time, and the lack of a concept that identifies professional migrants (Gaspar & Chávez, 2016).

⁴ In the clarification of concepts, we closely follow the work of Vázquez and Domínguez (2018).

In some studies, those born in the country of origin who are aged 20 years or older and have tertiary education are considered PMS (Delgado, 2015; González, 2005; Ramírez-García & Gandini, 2016). Under this operational definition, the training that can be achieved in Mexico by that age is a two- or three-year technical degree. Consequently, this definition includes those who obtained their bachelor's degree outside of Mexico. Ramírez-García and Gandini (2016) consider PMS to be those who have completed a tertiary (or bachelor's) degree or higher (graduate degree).

In this article, the following characteristics were used to identify PMS among Mexicans in the United States: individuals who arrived in the United States after the age of 25 years and possessed at least a bachelor's degree (or equivalent) before emigrating (Batalova, Fix & Creticos, 2008).⁵ The definition of occupations according to skill level was based on the percentage of employees with at least a bachelor's degree (Vázquez & Domínguez, 2018). This method of grouping occupations coincides with the International Labor Organization's International Standard Classification of Occupations (Clasificación Internacional Uniforme de Ocupaciones [CIUO], 2008). Three skill levels were identified: high, medium and low.

High-skill occupations are those in which at least 60% of all workers possess a bachelor's degree. Examples of occupations at this level are scientists, researchers and professionals, sales and marketing managers, civil engineers, high school teachers, physicians, musicians, surgical nurses, and computer systems analysts. These occupations involve tasks that require complex problem solving, decision-making, and creativity based on broad theoretical and factual knowledge in a given specialization.

Middle-skill occupations are those in which between 20% and 59% of employees possess at least a bachelor's degree. Examples of these occupations are industrial supervisors, medical laboratory technicians, legal secretaries, and IT support technicians, among others. These occupations involve performing complex technical tasks and practices that require a set of technical and procedural knowledge in a specialized area.

Low-skill occupations are those in which less than 20% of workers possess a bachelor's degree. Some examples are machinery operators or maintenance persons, tailors or stylists, bus drivers, store clerks, servers, electricians, and those involving simple and routine physical or manual tasks, such as freight handlers, gardeners, and kitchen assistants, among others. These occupations include tasks that require lower-level competencies, including the ability to read instructions or perform simple arithmetic operations.

Migration and Gender

Population movements are related to gender because the reasons why men and women migrate are different, as are their channels for migration and their experiences (International Organization for Migration [IOM], 2010). In the early 1980s, men emigrated to the United States, while women remained responsible for the household in the place of origin or emigrated as companions, wives, daughters, or mothers of

⁵ In the survey, there is one question concerning current age and another regarding years of residence. In this way, we were able to determine the age at which migrants arrived in the United States.

male migrants (Cárdenas, 1983). Over time, however, this pattern has transformed, and some women, particularly those with high educational levels, now emigrate on their own in search of better economic opportunities (Kanaiaupuni, 2000). Therefore, female migration does not necessarily involve a pattern of male providers, as will be seen later (IOM, 2010). The study of migration through a gender lens has focused on seeing the dual vulnerability that women face in the host country as migrants and as women. Both aspects are particularly important for female professional migrants, the topic that we are concerned with in this article. However, as Gandini (2019) pointed out, studies on skilled migration have not taken a gender approach.

The social context in which migration occurs is influenced by gender inequalities and family relations, which increases the need to analyze this phenomenon. For example, Kanaiaupuni (2000) and Cerrutti and Massey (2004) found that women and men had distinct roles; Meares (2010), in turn, identified that migration had a negative impact on women's careers and also led to increased household responsibilities. It should be noted that to a greater extent than men, skilled female migrants also face the problems of disqualification and underutilization, wherein the work experience gained in the country of origin is wasted because they must take jobs that are not in line with their educational training (Ramírez-García & Gandini, 2016) or because despite having academic credentials, women must remain outside the labor force for significant periods (Gottfried, 2013).

Among the literature analyzing the topic of migration and gender, one can identify a group of authors who examine the factors that affect individuals' decision to migrate, with some differences among them, as noted below.

The population of Mexican migrants to the United States is characterized by positive selection with respect to education, a feature that has increased in recent decades (Feliciano, 2008). It should be noted that this selectivity is higher among female migrants than among their male counterparts, something that is confirmed by Kanaiaupuni (2000).

An aspect of great interest is the relationship between female migration, paid domestic work and family care in global care chains. It is a fact that developed countries such as the United States have a care deficit (Gottfried, 2013). On the one hand, in these countries, the old model of social organization of care, characterized by the sexual division of labor and the social division of public/private space, is failing, and one response to this failure has been to externalize some tasks that were previously performed within households or to commercialize some domestic work and unpaid care (Orozco, 2007). Thus, some migrants are employed as nannies or caregivers, often leaving their own children behind in their country of origin. On the other hand, and more relevant to educated migration, there is an insufficient supply of nurses and caregivers. Thus, various governments have facilitated access to migration for nurses and persons trained in similar tasks.⁶

It should be noted that the pattern of a greater proportion of educated women working part-time still prevails, as does high gender segregation in jobs that involve less complexity and autonomy, mainly in the high-tech sectors (Benenería & Roldán, 1987). Additionally, the salaries of professional women are deficient (Gandini, 2019).

⁶ According to an IOM-OECD study (IOM-OECD, 2014), admission systems tend to favor men in professions such as business management, information and engineering technologies and women as nurses, teachers and social workers.

Regarding their vulnerability as migrants, women face poor English skills, a lack of fluency and strong accents, as well as inadequate networking opportunities (Zhou, 2003). Thus, in the United States, the employment rate for working-age women (25-54) from third-world countries in 2010 was almost 20% lower than the average employment rate for all women in that age group (Eurostat, 2010). On the other hand, when women arrive as companions of a spouse, the immigration situation may not favor their incorporation into the labor market.

Regarding gender vulnerability, skilled female migrants have different patterns of employability (Man, 2004; Meares, 2010). Empirical evidence in the United States suggests that women with a college education may hold jobs that do not require such training. The reason is that despite the enormous cultural shift that has occurred in many countries, which has allowed women to obtain undergraduate and graduate degrees and achieve wider participation in the labor market, in addition to new laws and regulatory changes favoring equality between women and men in different areas, it is still a fact that women in the United States have a disproportionate share of the responsibility for child care and household duties (Gottfried, 2013). This makes it difficult for them to compete on equal terms with men outside the home.

It has been recognized that there are informal and cultural norms that dictate gender segregation in certain sectors of the economy and work modalities as well as vertical segregation (Stone, 1994). Similarly, sociocultural constructions of roles and gender stereotypes establish who is the authority in decision-making or ownership of economic assets (Elson, 1999).⁷ Hence, some women believe that they may receive higher pay for their human capital in the United States; however, they may find themselves in a highly segregated market and therefore fail to achieve it (IOM, 2010).

One explanation for this outcome is that the presence of children entails family responsibilities that tend to affect women more than men. The relative lack of support infrastructure in the United States for working parents forces families to handle child care themselves, either through unpaid work by a family member or by paying for services obtained through the market (Gottfried, 2013).⁸ An additional factor is the importation of dominant cultural norms regarding gender in Mexico, where the roles attributed to married men and women affect decision-making in the countries of destination. At the same time, the traditional patriarchal family often restricts women's employment and confines them to unpaid domestic and care work.

It is worth mentioning that these vulnerabilities among women intersect, which increases the difficulty of choosing between working and not working and determining what kind of work to do (Zhou, 2003).

Based on this context, it is important to ask the following question regarding the employment situation of highly skilled female Mexican migrants: What are the differences with regard to the position of PMS?

⁷ For a broader discussion of this topic, see Perrons (2015).

⁸ This is because the United States is one of two countries in the world that lacks paid maternity leave. Some private companies provide it, but their coverage is low. On the other hand, the United States is among the OECD countries with the lowest public expenditures on early childhood education and care as a percentage of GDP, 0.5% below the average (0.7%) and well below France, New Zealand and the Nordic countries (OECD, 2016).

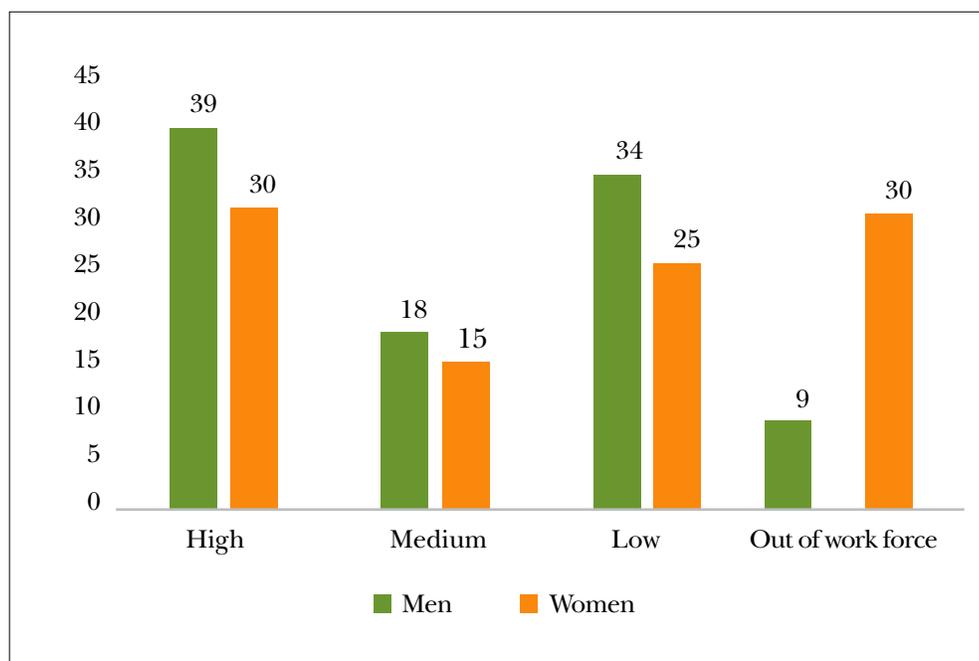
Professional Migration and Labor Insertion

The preceding paragraphs emphasized the importance of examining the issue of migration by Mexican professionals and labor insertion through a gender lens. Below, we describe some conditions that affect the labor insertion of PMS based on skill level by occupation.

The information presented below comes from 2015 American Community Survey (ACS) microdata developed by the U.S. Census Bureau. By design and sample size, the ACS is a household survey widely used for the study of skilled migration.

Based on the ACS, it is estimated that in 2015, the number (*stock*) of Mexican immigrants in the United States with at least a bachelor’s degree comprises 132 604 men and 132 013 women.⁹ Disaggregation by occupation based on skill level shows that for women, 30% (9% less than men) are in high-skill occupations. In middle-skill occupations, no significant differences are observed. In low-skill occupations, there are higher percentages of men (34% compared to 25% women). Only 9% of men are outside the labor force; for women, this figure is 30%, or more than three times the number of men (Figure 1).

Figure 1: Percentage distribution of PMS by skill level, 2015



Source: Author’s creation based on ACS (2015).

⁹ Of the total, 71% are married, 55% have children under age six, 65% do not have citizenship, and 72% have English proficiency.

In the analysis of labor insertion, we selected the following as explanatory variables to analyze vulnerability as migrants: English proficiency, migratory conditions and years of residence. The explanatory variables used to analyze gender vulnerability are the presence of children and being married. Other variables influencing the type of labor insertion must also be considered; one such variable is age, which can affect labor insertion differently for women than for men. Table 1 presents the variables associated with gender vulnerability, and it can be observed that in terms of the distribution of men and women in *age* groups, the pattern in high- and medium-skill occupations is not very differentiated. Among the population outside the labor force, however, the percentage of men over 45 years of age is 30 percentage points higher than that of women (86% vs. 56%), which may indicate that not being in the labor force is not an option for men at younger ages.

Regarding *marital status*, married individuals predominate, with some differences according to skill level. For example, there is a higher percentage of unmarried women in high-skill occupations compared with men (31% and 24%, respectively). In contrast, for those outside the labor force, there is a higher proportion of married women than married men (75% vs. 68%). The composition of PM households includes the traditional home comprised of a married couple (71%). However, it also includes households in which a spouse is absent, in which case significant differences by gender are observed: among such homes, 12% report absent wives, compared to 19% reporting absent husbands. Thus, the proportion of single women serving as heads of household is seven points higher than that of single men as heads of household. There are also nonfamily households of men and women; in these cases, the proportion of men is higher: 17% versus 10%, respectively (Table 1). This confirms that women not only migrate for reasons of family reunification but also act as independent agents or providers, as indicated by the IOM (2010).

In addition, Table 1 shows the negative relationship between the presence of *children* and female migrant employment: this condition decreases women's opportunity to enter high-skill occupations (among women in high-skill occupations, only 14% have children under six years of age, compared with 20% of men in high-skill occupations) and increases the percentage of women outside the labor force (among the female population outside the labor force, 26% have children under 6 years of age, compared with only 6% of men outside the labor force). These results coincide with the findings of Caicedo (2012) and Martínez (2008) regarding the migrant population and with those of García and Pacheco (2000) and Domínguez and Brown (2013) regarding the general population.

Immigration status is an element that provides certainty and stability in achieving adequate working conditions; however, the ACS does not provide information regarding visas. It only provides data on citizenship status. Regarding the *migratory characteristics* described in Table 2, it is observed that the greater the stability migrants possess in terms of immigration status (*citizenship*), the better their employment conditions: 47% of the total number of women in high-skill jobs versus 38% of men have citizenship. The opposite is true among those outside the labor market: 71% of women do not have citizenship, compared to 52% of men.

Table 1: Percentage distribution of PMS according to sociodemographic characteristics, 2015

Characteristics	High-skill		Middle-skill		Low-skill		Outside the workforce	
	M	W	M	W	M	W	M	W
Age groups								
Ages 25 to 35 years	13.5	13.4	12.0	12.2	9.7	9.8	5.8	11.0
Ages 36 to 46 years	36.5	35.1	32.1	38.8	27.9	30.7	7.8	32.6
Over 45 years	50.0	51.6	56.0	48.9	62.4	59.5	86.4	56.4
Marital status								
Unmarried	23.8	31.2	19.1	24.5	29.6	33.3	32.0	24.5
Married	76.2	68.8	80.9	75.5	70.4	66.7	68.0	75.5
Presence of children								
No children under age 6 years	80.2	86.4	81.1	84.6	87.2	84.7	93.9	74.4
With children under age 6 years	19.8	13.6	18.9	15.4	12.8	15.3	6.1	25.6

Note: Totals may not add up to 100 due to the rounding of figures.

Source: Author's creation based on ACS (2015).

At all skill levels, approximately two-thirds of the migrant population has more than 10 years of *residence*. The percentage of highly skilled men with between 6 and 10 years of residence (17%) is higher than that of women (13%), whereas the percentage of women with 11 or more years of residence is 61%, compared with 57% of men (Table 2).

Table 2: Percentage distribution of PMS according to migratory conditions, 2015

Characteristics	High-skill		Middle-skill		Low-skill		Outside the workforce	
	M	W	M	W	M	W	M	W
Citizenship								
No	62	53	65	51	73	69	52	71
Yes	38	47	35	49	27	31	48	29
Time of residence								
Up to five years	26	26	25	24	17	14	10	19
6 to 10 years	17	13	15	11	14	16	10	18
11 or more years	57	61	59	65	70	70	79	63

Note: Totals may not add up to 100 due to the rounding of figures.

Source: Author's creation based on ACS (2015).

Professional training undoubtedly has an important influence on labor insertion. Table 3 shows that in general terms, *education*, and in particular, higher academic degrees are associated with higher income and better employment conditions (Walby, Gottfried, Gottschall & Osawa, 2016). In the case of women, education has proven to be of great importance in explaining their participation in the labor market (Delgado, Chávez & Rodríguez, 2016; Docquier, Lowell & Marfouk, 2009). It can be clearly observed that the percentage of migrants (both men and women) with a bachelor's degree is higher than the percentage of migrants with a graduate degree. In high-skill occupations, there is a higher percentage of women with bachelor's degrees (59% vs. 52%) and a lower percentage of women with graduate degrees. In contrast, among those outside the labor force, there is a higher proportion of married women compared to married men (22% vs. 36%), although in absolute terms, the number of men is very low.

In relation to the *specialization* of academic degrees, important differences exist (Table 3). In the case of men, engineering, science, mathematics and computer science (ESMCC) predominate (52% versus 18% of women). In turn, 28% of all women specialize in business, compared to 21% of men, followed by social sciences and education (17%).

A variable that is linked to training is *English language* proficiency. In this regard, the population of Mexican female professional migrants is at a disadvantage with regard to other groups of migrants (Vázquez & Domínguez, 2018). In high-skill occupations, a higher percentage of men (91%) than women (86%) are proficient in English. Among those outside the workforce, 45% of women have no English proficiency, compared to 30% of men (Table 3).

Table 3: Percentage distribution of PMS in terms of human capital, 2015

Characteristics	High-skill		Middle-skill		Low-skill		Outside the workforce	
	M	W	M	W	M	W	M	W
Education								
Bachelor's degree	52	59	73	79	82	82	64	78
Graduate degree	48	41	27	21	18	18	36	22
Specialization								
Business	21	28	25	43	25	34	20	28
Science, engineering, mathematics and computer science	52	18	56	18	48	13	43	15
Social sciences	11	17	8	15	10	16	13	14
Other (education, health sciences, humanities and art)	16	36	11	24	17	37	23	42
English language								
Yes	91	86	81	86	62	57	70	55
No	9	14	19	14	38	43	30	45

Note: Totals may not add up to 100 due to the rounding of figures.

Source: Author's creation based on the ACS (2015).

In addition to the marked inequalities noted above, it is interesting to mention that, as demonstrated in Table 4, there is horizontal segregation within the group of skilled migrants, which manifests as a greater concentration of women in occupations identified as “female” according to the sexual division of labor (Rodríguez, 2012). In high-skill occupations, men excel in ESMCC, with a participation rate of 24%, compared to 9% of women. In comparison, the participation of female migrants stands out in occupations related to education (33% vs. 11%) and medicine (8% vs. 5%). In finance, business and law, no major differences are observed. Among medium-skill occupations, the participation of female migrants in community and personal services (22%) and office work (32%) stands out compared with that of male migrants (9% and 11%, respectively). The proportion of men in sales jobs is 15 percentage points higher than that of women (34% vs. 19%).

Vertical segregation is also present. This segregation accounts for a greater share of women in lower-hierarchy positions, despite having skill levels similar to those of their male peers (Rodríguez, 2012). Thus, there is a lower presence of skilled female migrants in management positions (11 points less) in both high- and middle-skill occupations.

Table 4: Percentage distribution of PMS by occupation, 2015

Occupations	High-skill		Middle-skill	
	M	W	M	W
Manager	37	26	30	18
Finance/Business	12	11	4	3
ESMCC	24	9		
Education	11	33		
Medicine	5	8		
Community and personal services	5	7	9	22
Entertainment	7	6		
Office			11	32
Sales			34	19
Other			10	6

Note: Totals may not add up to 100 due to the rounding of figures.

Source: Author's own analysis based on the ACS (2015).

Segregation patterns extend to the place of employment; skilled male migrants tend to have a greater presence than their female counterparts in for-profit enterprises (including private universities) and self-employment, the latter being particularly significant among those in middle-skill occupations. Educated female migrants have a greater presence in nonprofit entities and the government (federal, state, or local); in particular, they have higher rates of participation in high-skill occupations (29% vs. 14%) and middle-skill occupations (18% vs. 7%). In low-skill occupations, 80% of skilled male migrants compared to 65% of skilled female migrants work in private enterprise and unincorporated self-employment, the latter being linked to food service occupations (Table 5).

Table 5: Percentage distribution of PMS according to place of employment, 2015

Place of employment	High-skill		Middle-skill		Low-skill	
	M	W	M	W	M	W
Private enterprise	63	47	68	64	80	65
Nonprofit entity	10	14	1	4	2	6
Government	14	29	7	18	5	9
Self-employment	13	9	23	13	12	20

Note: Totals may not add up to 100 due to the rounding of figures.

Source: Author's own analysis based on the ACS (2015).

Employment of Skilled Migrants in Different Occupations: A Multinomial Model

Methodological Aspects

The objective of the model is to examine the differences between women and men in different niches of the market in terms of the likelihood of their being employed in occupations of various skill levels (high, medium, low) or outside the labor force. The dependent variable is categorical; the number “1” was assigned for employees in occupations that demand high skill; “2” was assigned for those in middle-skill occupations; “3” was assigned for those in low-skill occupations; and “4” was assigned for unemployed persons.

Based on the literature review and descriptive analysis, the explanatory variables were grouped into the three categories described below. The description and operationalization of the variables are presented in Table 6.

Nonlinear behavior is expected for age; in higher age groups, employment possibilities are greater. Regarding marital status and the presence of children, a negative relationship is expected for women in high-skill segments.

Regarding characteristics related to the migratory situation, specifically citizenship, we expect greater chances of being employed at least in the high- and middle-skill jobs; however, differences are also expected by gender. Regarding years of residence, to the extent that this suggests the accumulation of work and life experience, we assume that a greater number of years of residence would increase the likelihood of employment in high- and middle-skill occupations. Additionally, it is expected that English proficiency would have a great influence on labor integration; hence, our expectation is that it will have a high impact on the likelihood of being employed at high- and middle-skill levels for both women and men.

Table 6: Description of variables

Sociodemographic characteristics	Human capital	Migratory conditions
<p><i>Age groups</i> 1 = Ages 25 to 35 years 2 = Ages 36 to 46 years 3 = 46 years and over</p> <p><i>Marital status</i> 1 = Married or part of a couple 0 = Widowed, divorced, separated or never married</p> <p><i>Presence of children</i> 1 = With children under age 6 years 0 = No children under age 6 years</p>	<p><i>Educational level</i> 1 = Bachelor's degree 2 = Graduate degree</p> <p><i>Academic training</i> 1 = Business 2 = Science, engineering, mathematics and computer science 3 = Social sciences 4 = Other (education, health sciences, humanities and art)</p> <p><i>English language proficiency</i> 1 = Yes 0 = No</p>	<p><i>American citizen</i> 1 = Yes 0 = No</p> <p><i>Time spent in the United States</i> age/year of arrival</p>

Source: Author's creation based on the ACS (2015).

We expect that the likelihood of being in the highest-level occupations would be associated with academic level. In other words, our expectation is that possessing a graduate degree would have a positive effect compared to having only a bachelor's degree, at least at the high-skill level. We also expect the effect of areas of specialization to differ by gender, with men specializing in ESMCC being more likely to be in high-skill positions and women more likely to be in such positions when their specialization is business.

The Likelihood of Being Employed in Different Occupations: Results

The multinomial logit model that was estimated is based on the central idea that there is no hierarchical order among the four types of occupations based on the abilities of workers. Two multilogistic regressions were estimated: one for women and one for men.

The number of observations was 1,153 (population 132 604) for men and 1 288 (population 132 013) for women. Because the estimate was carried out with the weights

proposed in the ACS¹⁰, it was possible to avoid the problems of heteroscedasticity arising from the heterogeneity of individuals (Kreuter & Valliant, 2007). The results were satisfactory in both models; the coefficients as a whole were statistically significant in the two regressions according to the LR test and had a pseudo r-squared of 0.12 for men and 0.16 for women. In other words, the model with explanatory variables is more suitable than a model with only the constant in the case of women.

Table 7 shows the relative coefficients¹¹, that is, the ratio of the probability of an event occurring or an option being chosen versus the probability of the phenomenon not occurring or the opposite option being chosen, for the two models. Its interpretation is the “advantage” of or preference for one option versus another, that is, the number of times that the phenomenon is more likely to occur than to not occur. Comments on the results are presented below and are organized according to the different types of variables: sociodemographic, human capital and migratory conditions.

Table 7: Factors associated with the probability of being employed in high-, medium- and low-skill jobs, 201

Characteristics	High		Medium		Low	
	Men	Women	Men	Women	Men	Women
Ages 36 to 46 years	1.41	1.27	1.10	1.69	1.26	1.26
Over age 46 years	0.35	1.62	0.25**	1.74	0.43	1.40
Married	1.70	0.56***	1.84**	0.61**	1.01	0.53***
Children	0.73	0.36***	0.94	0.28***	0.76	0.44***
Graduate degree	2.35***	1.80***	1.53	1.07	0.64	0.61*
ESMCC	0.98	0.73	0.96	0.63	1.21	0.57**
Social sciences	0.88	1.17	0.66	0.78	1.46	0.92
Education/Health	0.98	0.62***	0.79	0.34***	1.00	0.60**
Language	4.31***	4.76***	1.84	3.94***	0.72	1.31
Citizenship	1.34	2.57***	1.07	3.13***	0.65	1.24
Years of residence	0.88***	0.96	0.90***	0.98	0.93***	0.99
Constant	7.39***	0.55	8.34	0.31	33.03	2.17

Source: Author’s creation based on the ACS (2015).

***p < 0.01, **p < 0.05, *p < 0.10

Note: Women: LR chi2(51) = 456.45, Prob > chi2 = 0.0000, Pseudo R2 = 0.1601

Men: LR chi2(51) = 452.28, Prob > chi2 = 0.0000, Pseudo R2 = 0.1292

¹⁰ That is, using the svy command in the Stata software.

¹¹ This is known in the literature as an odds ratio.

Sociodemographic Characteristics

Age group is significant only among men aged 46 years and over with a middle-skill level. Older men have the fewest opportunities to be employed in jobs that demand at least a middle-skill level. Unlike for men, age does not appear to be a relevant factor for women.

Marital status and the presence of children suggest a strong influence on the employment status of women, but not that of men. Being married has a significant negative effect on employment at all skill levels, as does having children, as was proposed in the hypotheses. Being married was only had a significant for men in terms of an increase in the likelihood of having a middle-skill level job.

Human Capital

The importance of human capital is confirmed. Taking a bachelor's degree as a reference, both men and women are more likely to be employed in high-skill positions when they possess a graduate degree. As expected, among women in low-skill professions, having human capital decreases the likelihood of employment in such jobs. Of note is the fact that in terms of employment in middle-skill jobs, human capital is not significant for men or women.

Regarding the field of academic training, for which business was taken as a reference, the variable "other" was statistically significantly associated with reduced participation in high-, middle- and low-skill occupations for women. In other words, an educational background in business enables women to be employed in occupations with different skill levels.

Proficiency in English was significantly related to employment in high-skill jobs for both men and women and in middle-skill jobs only for women, which confirms the hypothesis put forward.

Migratory Conditions

For women alone, citizenship is a statistically significant factor in whether they held high- and middle-skill jobs. Among men, citizenship has no significant impact in any case. We find these results surprising.

Time of residence has an unexpected impact; in both high- and middle-skill jobs, one additional year of residence decreases the likelihood that men will hold these types of jobs. A similar result is observed for women in high-skill occupations.

In addition to identifying the main explanatory factors for employment type according to skill level and related gender inequalities, it is interesting to analyze differences in the distribution of the likelihood of being employed in jobs with different skill levels. As shown in Figure 2, the probability of being employed in high- and middle-skill occupations is 55% for men and 42% for women. In contrast, the probability of being unemployed or employed in low-skill jobs is 58% for women and only 45% for men. These figures reflect the gender differences and disadvantages faced by female PMS. These results are consistent with the findings of Gottfried (2013),

who points out that although migrants may have obtained bachelor’s and graduate degrees and belong to a society that has undergone marked changes in favor of gender equality, the likelihood of women’s labor insertion is significantly lower than that of men. This makes it difficult for women to compete on equal terms with men outside the home.

Figure 2: Probability of employment in different occupations by skill level, 2015



Source: Author’s creation based on the ACS (2015).

Dual Vulnerability in Different Scenarios

Given the diverse influence of gender on the different variables, we consider it in the interest of identifying which type of occupation is most likely in different scenarios: i) the presence of children and academic level and ii) migratory conditions, education and English proficiency.

In the first scenario, it is observed that men are more likely to be employed in high- and low-skill occupations when they have a bachelor’s degree, regardless of whether they have children. Women with graduate degrees are most likely to be employed in high-skill occupations when there are no children present and to be outside the labor force when children are present. If they have only a bachelor’s degree and have no children, women are more likely to be in low-skill occupations; meanwhile, women who possess a bachelor’s degree and have children are again most likely to be outside the labor force. It should be noted that the greater likelihood that women who have children will be engaged in activities outside the labor force may suggest a gender pattern due to the unequal burden women bear for reproductive and care work (Table 8). As Benería

and Roldán (1987) and Szasz (1994) suggest, the socially assigned reproductive role of women determines the possibilities and characteristics of their labor insertion.

Table 8: Likelihood of employment by skill type. Education and children, 2015

Education	Without children		With children	
	Men	Women	Men	Women
Bachelor's degree	Low	Low	Low	Outside the labor force
Graduate degree	High	High	High	Outside the labor force

Source: Author's creation based on the ACS (2015).

In the second scenario, in which migratory conditions, education, and English language proficiency are related to the likelihood of being employed in jobs with different skill levels, four combinations result: having citizenship and English proficiency, English only, citizenship only, and neither. The best combination for men and women is the first, which provides the highest likelihood of being employed in high-skill occupations, regardless of academic level. In the second combination, in which language proficiency is taken into account, the same is true for men and women who possess a graduate degree. With a bachelor's degree, employment in low-skill occupations is most likely for both men and women.

Among those who possess citizenship and no language skills, men with graduate degrees have a high likelihood of being employed in high-skill positions. In contrast, women in this scenario are most likely to be outside the labor force. In this scenario, both men and women possessing a bachelor's degree have the greatest likelihood of being employed in low-skill jobs.

Finally, in the worst scenario, characterized by a lack of both language skills and citizenship, men with both bachelor's and graduate degrees are likely to be employed in low-skill occupations, and women are likely to remain outside the labor force in both cases (Table 9). Thus, women are more likely to be outside the labor force than men, which suggests the presence of gender inequalities that impede women's greater participation in the private sphere. Women are still responsible for the care of the home and children; hence, only in the presence of optimal conditions do they break with this pattern.

These results demonstrate how vulnerability as migrants intersects with gender vulnerability, as mentioned in the section on migration and gender.

Table 9: Likelihood of occupations by skill type, education, English language and citizenship, 2015

Education	Men	Women
Language and citizenship		
Bachelor's degree	High	High
Graduate degree	High	High
Language		
Bachelor's degree	Low	Low
Graduate degree	High	High
Citizenship		
Bachelor's degree	Low	Low
Graduate degree	High	Outside the labor force
No language, no citizenship		
Bachelor's degree	Low	Outside the workforce
Graduate degree	Low	Outside the workforce

Source: Author's creation based on the ACS (2015).

Conclusions

In recent decades, there has been an increase in migration by skilled Mexicans to the United States, with increasing participation by women.

To demonstrate the presence of very differentiated behavior, this article compares labor insertion for men and women by type of occupation.

Within the group of skilled migrants, a horizontal segregation exists that is manifested in a higher concentration of women in occupations identified as female. Likewise, among the types of employment held by migrants in high-skill occupations, education and medicine are of particular note. Among middle-skill occupations, community services and office work are of note.

Vertical segregation is also present and accounts for a higher concentration of women in lower-hierarchy positions despite possessing skill levels similar to those of their male peers (demonstrating the existence and persistence of glass ceilings). Thus, there is a lower presence of skilled female migrants in management positions in both high- and middle-skill occupations.

On the other hand, the results of the econometric estimation demonstrate that there are statistically significant differences between the results of the regression for women and men. Regarding socioeconomic characteristics, age groups were found to

be significant only for men in high- and middle-skill occupations, while no effect was found among women. In contrast, marital status and the presence of children reduce the likelihood that skilled female migrants will participate in high-, medium- and low-skill occupations. Regarding human capital variables, some academic specializations were significant only for women: business, humanities and social sciences among high-skill positions and business, ESMCC and social sciences among middle-skill positions. However, for men, the only significant specialization was health sciences in middle-skill occupations. It should be noted that both academic degree and English proficiency definitely increase the likelihood of being employed in high-skill jobs, with some exceptions. Regarding migratory conditions, citizenship was only a determining factor for women. Years of residence had a negative effect on male PMS and a positive effect on female PMS in high-skill occupations.

Our scenarios illustrate the gender pattern of skilled migration. The first scenario, which combines academic level with the presence of children, shows that there is a high probability that women will remain outside the labor force unless they possess a phd. In the second scenario, which relates to immigration conditions, education, and English proficiency, the vulnerability of immigrants is illustrated. In this model, it was found that while citizenship is important, English proficiency is more important. Furthermore, in the face of the difficulty that women encounter in taking language and training courses when they have young children, as Kofman points out (Kofman, 2012), it is understandable that gender inequalities are once again present; in such cases, women are more likely to be outside the labor force than men.

These results coincide with those of several authors (IOM-OECD, 2014; Kofman, 2012; Martínez, 2008; Ramírez-García & Gandini, 2016), who suggest different causes. Martínez (2008) mentions the dilemma regarding production and reproduction that persists for Mexican women in the United States. Kofman (2012) discusses the inability of immigrant women to take language, training and certification courses to get ahead professionally in receiver countries, particularly when they are responsible for young children and other family activities. Therefore, migrants are vulnerable, but gender vulnerability doubly affects women. For its part, the IOM-OECD (2014) points to biases in admission processes designed to attract skilled labor from other countries.

It is undeniable that there is a group of women who have broken gender barriers in terms of their progress in academic training and competition in the labor market; however, the burden of socially assigned unpaid domestic and care obligations, among other factors, frequently has an impact on their employment situation. Breaking this pattern will require work-life balance policies that reflect joint social responsibility, where unpaid domestic work and care tasks are shared between women and men as well as between the state, the market and society. Measures and actions are needed that break the mechanisms of the invisibility that permeates women's lives.

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