

Wages of Mexican migrants working in the agricultural sector in the United States.

Racial discrimination or difference in abilities

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Abstract

This paper seeks to emphasize the relevance of Mexican migrants working in the Agricultural sector and demonstrate some of the factors, such as ethnicity, academic skills, gender, and actual living conditions. By using the NAWS database, a survey made to agricultural workers in the US, and making a simple OLS regression, the results show that the fact of being a Mexican migrant in the agricultural sector does have a negative impact of 2.6% in their salary.

Resumen

Este artículo busca enfatizar la relevancia de los migrantes mexicanos trabajando en el sector agrícola y demuestra algunos de los factores, como el origen étnico, las habilidades académicas, el género y las condiciones de vida reales. Utilizando la base de datos NAWS, una encuesta realizada a trabajadores agrícolas en EUA, y haciendo una regresión OLS simple, los resultados muestran que el hecho de ser migrante mexicano en el sector agrícola sí tiene un impacto negativo de 2.6% en su salario.

Introduction

Labor migration has played an important role throughout economic and social history. This action can be approached from multiple perspectives, each providing a different perspective on the issue. In this work we will emphasize the Mexican participation in the USA labor market, and we will try to determine through a regression if a person due to various characteristics, such as origins, skills, gender, physical condition, family size, marital conditions, and more, is susceptible to receiving a lower salary, compared to local Americans.

Since Mexican labor migration in the USA has been a long social and economic movement, that has been involved in unequal rights, such as bad working conditions, discrimination and essentially, lower salaries; and considering that data from the NAWS survey mentions that close to 80% of workers in the agricultural sector are migrants and 72% of them are Mexicans, we can observe that a high percentage of the workers that participate in a sector who contributes in the 90's a percentage of 15.5 of the U.S. gross domestic product (GDP), (Pardey & Alston, 2020) even though the actual constitute has decrease to a to 5.4% share, which translates \$1.264 trillion to U.S. gross domestic product (GDP) (USDA ERS, n.d.), it still an essential part of their economy, where still the Mexican participation outstands, as it was shown in 2018 when the 93% of H-2A visas expended went to them. (NCFH, 2020)

The first section of this work contains the literature review that was used in order to analyze order studies that concern about the salary gap between Mexican migrants and other workers, which tend to have the same results. The second section give some of the Mexican labor participation history through almost 100 years, with the purpose to understand the circumstances that impulse their participation and how it has been evolving. The third section purpose is to

analyses the unequal treatments a long Mexican workers and how some changes were done but still the unfairness continued. The fourth and fifth section contain the data and gives and explains the econometric methods used. Finally, the last section includes the conclusions of the model. At the end of the work can be seen the appendix that includes tables from the NAWs surveys data.

Literature review

In order to understand to relationship between Mexican migrant workers in the agricultural sector and their differences in wages due to their skills origins, gender, physical conditions ... We consulted works from Orraca & Garcia, who analyze the work from Oaxaca (1973) and Blinder (1973) and from Brown, Moon and Zoloth (1980); Neilsen, Rosholm, Smith (2004); Hofer, Titelbach, Winter-Ebmer and Ahammer (2017). All the studies focused mainly on the human capital differences between migrant and native workers as the main explanation of the salaries gap, but it is relevant to add into this study the main characteristics and methods used in each work.

The work from Orraca and Garcia explained the Oaxaca and Blinder (OB) study, in which wages are separated into two different groups, the first contains an unexplained component, which they interpret as discrimination, and an explain component that includes differences in average characteristics. Their model includes variables such as the natural logarithm of hourly wages for individual (i), one for whether the individual is in occupation, and vector for exogenous variables, where can be found level of education, potential experience and marriage status, this model includes some of the variables we are regressing. Their OLS regressions main result is that Mexican born immigrants suffer from lower levels of education than US born workers, OB substant this analysis with Trejos argument, who understand family's migration due to seasonal activities in the agricultural sector, as the main factor affecting children scholar activities. As a result of the lacking in human capital that can be seen as poor levels of education, deficiencies in

English speaking, and other skills, as Trejos argument; they found out that the salary gap into US white workers and Mexican workers had a measurement of .599 log points.

The other study from Brown, Moon and Zoloth (BMZ) used an estimation with variables like the occupation specific wage regression for certain groups, the proportion of the workers in the specific sector. The authors mention that the model shows that also education levels are a crucial factor in the high or low levels of wages but has a stronger impact in native workers than in Mexican migrants, which can be understood that the second groups could show better education levels and still suffer from a lower salary. The results show that between Mexican migrant and US white workers, there is a 58.9% of the wage gap. In conclusion, Orraca and Garcia proposed the implementation of policies that regulate the unequal distribution of wages due to origins, and other factors like the differences in human capital.

In the work presented by Neilsen, Rosholm, Smith (2004) the salary gaps of two groups of immigrants in Denmark (assimilation and discrimination) are analyzed, as well as gender discrimination. The authors find that there is a large wage gap between natives and immigrants, mainly or almost entirely due to differences in qualifications.

It is interesting how the groups in which migrants are broken down change the levels of discrimination, but the final conclusions do not. The two groups into which the study is divided are: in assimilation, which are people who have been working as full-time employees for less than 10 years, and on the other hand, there is the group that has already worked for more than 10 years as full-time employee. It was found that a wage gap for immigrants persists, but this time it is reduced. The authors explain that this happens because in general, immigrants have exceptionally low levels of work experience. However, the gender wage gaps found in the research within all immigrant groups are dominated by the discrimination component (which may include wage

effects of unobserved productivity characteristics). For immigrant women, the gap for perfectly assimilated immigrants is maintained due to a positive component of discrimination, a result that contrasts with that obtained from the traditional decompositions.

An analysis of wage discrimination against immigrants in Austria was carried out in the article presented by Hofer, Titelbach, Winter-Ebmer and Ahammer (2017). The authors found an immigrant wage gap of approximately 15 log points. They also entered that with the results of the Oaxaca/Blinder decomposition that 10 to 30 percent of the wage gap that exists can be explained by differences in the endowment of human capital. Something interesting about this research is that they control by occupation and in particular by job position, and this is important because it considerably reduces the discrimination component. What you find is that the unexplained part of the wage gap amounts to only 3 to 5 log points as opposed to 15 before.

Mexican Migration to USA, Historic Context

The migration of Mexican workers to the United States presents formal records since the year 1850 due to the implementation of a new way to transport, which was the construction of the railroad, because of this there was the growth of ranches located in border states that focused on agricultural production. This new economic stage demanded a greater amount of labor which many Mexicans took advantage of. During this period, immigration policies between the two countries did not have strong restrictions. On the contrary, the receiving country had the capacity to accept all the new workers who moved in search of new job opportunities.

In 1883 this open-door displacement came to an end with the implementation of the "Alien Contract Labor Law" which prioritized the labor participation of national workers which was being occupied by migrant workers. Despite this restriction, Mexican participation was essential for multiple economic sectors of the United States, and the territorial border did not yet have extensive

surveillance, which continued to allow the movement of Mexicans on a continuous basis. Later, labor migration occurred in a deceptive way for Mexicans, who received promising offers for jobs in the railway sector and ended up working in the agricultural sectors on the south of the country. During this time, the only beneficiaries were the contractors who chose to pay very little or even nothing for labor, where working conditions were practically inhumane, in addition to the fact that workers did not have the possibility of leaving their jobs until they liquidated the debt with which the contractors allowed them to enter the USA. This debt covered the transportation money and the cost of the entry fee plus the issuance of their visa, implemented during the year 1917 with the Burnet Law (Cardoso, 1980).

It was in 1924 when the United States government proclaimed the creation of the Border Patrol in order to monitor, for the first time, the crossing of the border of people without legal documents. Because of this new policy, the number of detainees reached the amount of approximately 30,000 undocumented immigrants during the 5 years after the proclamation. In 1929, the United States declaimed the entry of undocumented persons as a minor crime, with a prison sentence of less than one year (Cardoso, 1980).

With the beginnings of the Great Depression in the United States, the relationship between immigrants and locals was increasingly affected. Many Americans blamed immigrants for taking their jobs, which led to a response of high deportations in order to maintain calm among the locals in the USA. (Genova, 2012; Hoffman, 1974) This trend exemplifies the restrictive migration policies that have been used over time, the lower the labor requirement in the United States, the more demanding immigration laws, and vice versa.

After the Great Depression, the concentration of Mexicans in public schools continued to cause discontent among many Americans, which became one of the reasons on the creation of the

Union of Mexican peasants and workers of the state of California, in 1933, in order to provide political awareness about the social and labor participation of Mexican migrants, as well as their descendants. However, the permanence of Mexican migrants in the North American country continued to cause social discontent throughout the decade.

It is in 1941 when a new labor regime originates, from the incorporation of the United States to the Second World War, when the labor demand in the USA increased significantly because the US labor markets suffered the loss of local participation due to the high percentage of men occupying a position in the war. Which resulted in the emergence of the "bracero program" focused on the migration of Mexican workers in two main sectors of the American economy, agriculture and maintenance to the railways. This program was regulated by the United States government, which administered the temporary entry of approximately 4.5 million men with similar characteristics; single and from rural regions, where approximately 74,600 workers were documented, while 142,000 were undocumented.

After the stages of economic stabilization in the United States, the numbers of deportations increased exaggeratedly until reaching amounts greater than a million detained migrants, in the year 1954. In the same way in 1955, the Justice's Immigration and Naturalization Service (INS) determined many visas that attracted an annual fluctuation between 400,000 and 450,000 migrants. However, the activities of the INS had a very deceptive regulation, since workers without documents were detained to later be handed over to the United States Department of Labor with the purpose of deporting them, act that was not concluded since they returned them to the crops where they were originally detained.

At the end of the implementation of the bracero program, after 22 years, the authorities considered the entry of undocumented immigrants into the country a crime, but the contractors

continued to take advantage of the popularization of labor migration among Mexican families and admitted workers without having the formal requirements, while they didn't receive any legal penalty. However, the migratory flow continued to rise, reaching the figure of 576,000 new migrants from the dual program. In the early 1970s, the participants in the labor program had the opportunity to legalize their stay in the country.

In 1976, legislation was established that limited immigration to 20,000 annuals, a large decrease from the 350,000 workers entering annually, which was the result of the increase in illegal immigration in the country. For the decades of the 80's and 90's, the numbers of Mexican migrants continued to rise, however, social and economic inequality persisted between communities. By the beginning of the 1990s, the participation of women increased in periods of stability, and decreased when economic crises occurred, such as that of 1995 in Mexico. For the year 2000, 22 million 500 thousand Mexican migrants were registered in the United States, as a result of the new labor and social opportunities that Mexican families wanted to acquire.

The Agricultural Sector, inequalities.

As it shows, Mexican participation on the agricultural sector has been mostly helpful through the USA social and economic history. With the Programa Bracero and the implementation of the H-2A visas, both improving the legal entrance of Mexican workers, it is clearly seen that their labor has a positive impact in the country's wealth. Nevertheless, workers haven't had deserving treatment and have been through hard times in order to achieve better labor conditions and well-paid wages.

Working in the most demanding physical job, adding the fact that many of them were having nutritional deficiencies, due to the low paid wages which led to living in poverty housing conditions, suffering from sexual harassment and the lack of education for them and their children,

which led many of their lifetime to face discrimination and unfair treatment, migrant workers demanded better conditions. Despite the violent acts of government against them, Mexican workers followed Cesar Chavez and Dolores Huerta movement in order to create the National Farm Workers Association in 1962. Their main purpose was to settle better working conditions such as security, wealth programs and equal pay rights among locals and them, Chavez organized nonviolent strikes that made people concern about one of the most important economic sectors facing the unfair treatments of discrimination, even Chavez movement was supported by Martin Luther King.

Four years later, a big accomplishment was made by an increase of 40% in the real minimum wage, from \$1.25 to \$1.75 an hour, also workers gained labor contracts and their conditions were improved. However, discrimination, hard labor conditions and salaries gap continued a long time damaging Mexican workers life and opportunities. Even though the farm migrant workers contribute to the USA economy by making the agricultural sector a \$1.053 trillion industry, most of them do not enjoy the same privileges as locals. This information leads us to look for some of the reasons that are affecting negatively their wages and then compare them to local workers in order to see the differences that both wages have in order to emphasize that a job that contains a lot of history of unequal rights, and huge importance of country's need, the remuneration should be more equal.

Data

The data for this research was obtained from the National Agricultural Workers Survey (NAWS). This is a survey that has been carried out among workers in the agricultural sector since 1989 in the United States. The latest year for which data is available is 2020. This survey is conducted by the Employment and Training Administration, which is an agency of the U.S. DEPARTMENT

OF LABOR and its purpose is to collect demographic, employment, and health data on farmworkers throughout the U.S.

Since the surveys are carried out randomly to workers and it does not follow the same individuals, the data doesn't follow panel data. Instead, we have a set of cross sections from 1989 to 2020. There are a total of 71,312 samples, of which 55,788 are workers who were born outside the United States and 22,186 are still migrants. Similarly, it is important to mention that the number of respondents differs from year to year. An important aspect of the data to mention is that the surveys were conducted in person, which could be presenting some Measurement errors.

Econometric Model and Variables

To show the effects of different variables on the wages of agricultural workers, we propose an econometric model where various variables were used to observe the effects of worker characteristics on wages.

$$\log(wage)_i = \alpha + \beta \text{migrant}_i + \gamma X_i + \mu_i$$

Equation (1)

The dependent variable of the model is the wages of each one of the workers. On the right side of the equation 1, we have an intercept and as the main control variable we have a dummy variable where it is specified whether the respondent is a migrant. Finally, we have vector X that expresses a set of variables that seeks to represent the characteristics of everyone, such as: age, marital status, education, current health status, and sociodemographic characteristics.

A regression was performed using the OLS method. It is not possible to remove fixed effects because the same people were not interviewed over time but controlled for time and region with the command “i.fy” and “i. region6” where fy and region6 are the control variables. The command used in Stata is the following.

reg lwage migrant age age2 married a09 b07 gender indigenous i.fy i.region6 fy##region6, robust

Where *lwage* is the logarithm of the workers' wages, *migrant* is a variable that tells when a respondent is a migrant. Then we have the controls for age and age squared. It was also controlled if the migrant was married, by their gender or if they had indigenous origins. The variable *a09* indicates when their last level of education was and the variable *b07* describes the level of English of the worker.

Conclusions

Although it is difficult to determine which are the main components of discrimination in an economy due to all the unobservable variables, according to the results found, we can affirm that there is a wage gap between native workers and immigrant workers in the United States agricultural sector of 2.6% in salary.

However, we also found that education levels have a positive impact on workers' wages of 3.5%, which means that the more educated the worker is, the possibility of receiving a lower salary is possible. Knowing English is one of the variables that we consider key when receiving a salary. The language can represent a disadvantage since it decreases the salary of a worker by 2.2%.

This leaves migrants from Mexico and Latin America in a very unfavorable situation because they are regularly people who have low levels of education and also do not speak English. After running the regression mentioned above, we can see that the model is a good approximation of wages. We see this in the value of *R2* in Table 1.

Table 1. Linear Regression of the wage-logarithm

<i>Variable</i>	<i>Coefficient</i>
<i>Migrant</i>	-0.026 (0.002)
<i>Education</i>	0.035 (0.000)
<i>Level of English</i>	0.022 (0.001)
<i>Gender</i>	-0.081 (0.002)
<i>Indigenous</i>	-0.021 (0.003)
<i>Age</i>	0.011 (0.000)
$R^2 = 0.58$ (0.000)	

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Appendix

1. Percentage of workers by nationality working in the agricultural sector according to the NAWS

NATIONALITY	%
UNITED STATES	20.51829
PUERTO RICO	1.219991
MEXICO	72.38474
CENTRAL AMERICA	4.100292
SOUTH AMERICA	.1402289
CARRIBEAN	.7712587
SOUTH EAST ASIA	.1079762
PASIFIC ISLANDS	.4795827
ASIA	.0434709
OTHER	.2033318

**NOT
ANSWERED**

.0294481

2. Average salary of all workers over the last 30 years

YEAR	MEAN WAGE
1989	4.936527
1990	5.304341
1991	5.453105
1992	5.650815
1993	5.566798
1994	5.713409
1995	6.02533
1996	5.700944
1997	5.834752
1998	6.2613
1999	6.513553
2000	6.865772
2001	7.345869
2002	7.464467
2003	7.668634
2004	7.824261
2005	8.03665
2006	8.529314
2007	8.880855
2008	9.253915
2009	9.491018
2010	9.523665
2011	9.639668
2012	9.627975
2013	10.17645
2014	10.41733
2015	10.84065
2016	11.21026
2017	12.09212
2018	12.70073
2019	13.43316