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The Impact of Regional Return on Education on the Self-selection of Mexican Immigrants

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The Impact of Regional Return on Education on the Self-selection of Mexican Immigrants

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Abstract:

This paper uses the 2010 Mexican Population and Housing Survey to examine the role of regional return to education on migrant selection. The study uses a standard linear regression model to predict the educational attainment of migrants and compares it to the educational attainment of non-migrants in each Mexican State. It finds evidence of negative selection, that less educated Mexican citizens are more likely to migrate to the United States. It also finds little evidence of the impact of regional return to education on migrant selection. The study offers potential explanations for the lack of impact and suggests avenues for continued study.

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Introduction:

The United States has been the world's largest economy since the end of World War I. It's rise to the top is due to a multitude of widely accepted reasons, including the strength of its manufacturing industry, abundance of natural resources, and established infrastructure. Less widely known, is the fact that as of 2017, the share of the United States labor force that is foreign born is 17.1 per cent. These immigrants are more likely than native-born workers to be employed in low-skill occupations, such as those in the service, construction, and agriculture industries. (Bureau of Labor Statistics 2017) The disproportionate representation of immigrant laborers in low-skill occupations is usually explained in one of two ways. First, immigrant laborers are willing to accept lower wages than native-born workers, thereby pushing native-born workers from these occupations. Second, native-born workers simply don't want the low skill jobs, causing a labor shortage that the immigrant workers are filling.

Mexican immigrants were the largest foreign-born group in the United States in 2016, making up roughly 25 percent of the 44.7 million immigrant population. (Zong and Jie et al 2016) Immigration from Mexico is understood to be driven by low-skilled laborers, seeking economic opportunity in the American labor market. However, after over four decades of growth, immigration patterns are shifting. In 2017, Mexico slipped from its position as the top origin of recent immigrants. Furthermore, recent immigrants are more likely to have bachelor's degrees and stronger English skills than immigrants from previous decades, suggesting that the immigrant population may be shifting away from low skill labor. The

implications of this are relevant, as immigrant labor has historically filled gaps in the low-skill job market.

Immigration policy in the U.S is often criticized for encouraging the "wrong" kind of immigration. Critics argue that immigration argue that American immigration policies encourage the migration of too many low-skilled migrants, and too few high-skilled migrants. Increased flows of low-skilled labor are often associated with wage deflation due to increased availability of inexpensive labor. Furthermore, recent political rhetoric associates, dubiously, low-skill migrant flows with increased welfare spending. These perceived negative effects would be more relevant if it is confirmed that low-skilled immigrants are more likely to migrate than high-skilled immigrants. If the converse is true, these fears would likely not be reflected in reality. In any case, it's clear that understanding the distribution of education level among migrants to the U.S. is necessary to effectively reform immigration policy.

The purpose of this paper is to study the impact of regional return on education on migration selection. To that effect, we use Mexican Census data from 2010. We find evidence in support of negative educational selection, regardless of a state's regional return on education. This result is expected, providing support for the hypothesis made by Ibarraran and Lubotsky (2005).

If the relationship between education and immigration status for potential Mexican immigrants is changing, there may be significant impacts on the American job market. Historically, immigrants, especially Mexican immigrants, have played a major role in filling the gaps in the labor market along the low-skill end of the spectrum. Without them, a labor

shortage is inevitable. Evidence of a labor shortage is already mounting. In the American Midwest, Stephanie Mercier, of the Chicago Council on Global Affairs, found that that the Food and Farming Sector is heavily dependent on immigrant labor, and already, the local job market is already facing shortages. (Mercier 2016) David M. Pearlman and Jeffrey D. Schaffer have found strong evidence that there are insufficient legal means to fulfill the labor needs of the hospitality industry of New Orleans. (Pearlman and Schaffer 2013) Though migrants to New Orleans tend to not be from Mexico, the need for additional migrant labor is clear. Policies need to be changed. However, before we can solve the immigration problem, we must first be certain that we have correctly identified the issue.

Literature Review and Existing Evidence:

Though Mexican immigration has been heavily researched, the selectivity of the migration is comparatively understudied. Ibarraran and Lubotsky (2005) propose a model for potential Mexican immigrants, similar to the standard immigration model that compares potential earnings of a person in their home country and potential earnings in the destination country net of moving costs. They add the product of education level of the individual and the regional return to education . The log of the wages *w,* of an individual *i*, living in home county *c* under this model is given by:

$$\log(w_{ic}) = a_c + B_c S_i \text{ (1)}$$

where B_c is the is the return to education in county c, S_i is the level education attained, and α_c is the wage level in county c. Similarly, the log of the wages of the same individual after migrating to the U.S. is given by:

$$\log(w_{iu}) = a_u + B_u S_i. \text{ (2)}$$

where B_u is the is the return to education in the U.S, S_i is the level education attained, and α_u is the wage level in the U.S. The model makes the simplifying assumption that returns to education are uniform across the United States. Furthermore, it assumes that these variables are exogenously given. Under this framework, a person immigrates if $(w_{ic}) < (w_{iu})$ net of moving costs. Ibarraran and Lubotsky concluded that if the return to education in a Mexican citizen's home county was higher than it was in the United States, the person would immigrate. In other words, less educated Mexican citizens, living in areas where education

paid off more, were more likely to immigrate. This conclusion of negative selection was supported by the Mexican Census of 2000.

However, this model does not include other drivers of immigration, such as social capital, familial ties, and other non-pecuniary benefits. As immigration, especially with one's family, is a massive decision, these drivers must be considered in order to understand migrant selectivity. Furthermore, the model fails to address non-education related skills. This is especially relevant, as Mexican immigrants tend to work in service, construction, and agricultural industries, where vocational training tends to outshine traditional education. Finally, their model does not consider that some migrants may move back and forth between countries. The authors address these concerns, citing that all of these can be captured in the net costs of migration, level of earnings in the United States, or return on education in the United States.

Chiquar and Hanson (2005) studied migrant selectivity by comparing migrant Mexicans and non-migrant Mexicans. This study used 1990 and 2000 U.S. and Mexican Censuses to compare the difference in wage distributions between migrants and non-migrants. They found that on average, Mexican migrants were earning real wages in the U.S. that were comparable to the wages that non-migrants in the middle to upper portion of the Mexican wage distribution earn in Mexico. Furthermore, while Mexican immigrants were on average less educated than American workers, they were on average more educated than comparable Mexican non-immigrants. Their result is inconsistent with that of Ibarraran and Lubotsky, which found evidence of negative selection. Chiquar and Hanson conclude that, at least in

terms of observable skills, there is intermediate or positive selection among potential Mexican migrant workers.

Orrenius and Zavodny (2004) offers strong evidence for the relevance of social network effects for migrants. For young migrants, the network can reduce the time to immigrate and help find employment in the U.S. For elderly migrants, it allows for retirement benefits in the form of remittances. The authors find that the steady state equilibrium of immigration depends on whether the returns to network capital are increasing, constant, or decreasing to scale. Furthermore, increased border security correlates with an increase to the flow of immigrants, completely contrary to the desired impact, while returns to scale are constant or increasing. This effect is likely explained by the increased value of the network. If barriers to entry are higher, the value generated by joining the network increases as well, as friends and family of the migrants will be able to surmount these barriers more easily than unaffiliated migrants.

In a later paper, McKenzie and Rapoport (2010) found that communities with weak migrant networks exhibit positive educational selection. This is consistent with the results of Chiquiar and Hanson (2005). The seemingly contradicts Ibarraran and Lubotsky (2004), which found negative educational selection. However, the authors found that with stronger community networks, negative educational selection occurs. Members of communities with weak networks likely exhibit positive selection because they don't have the luxury of relying on the network to find employment. As such, they only pursue immigration when they are confident that their education and skills will be enough to make immigrating worthwhile.

Conversely, with stronger networks, personal connections can help less skilled laborers find employment, thereby encouraging negative selection.

Orrenius and Zavodny (2005) explores the immigration decisions of undocumented immigrants. This study explores the impact of economic shifts, migrant networks, and level of border enforcement on the level of economic attainment of undocumented immigrants. This study was conducted using data from the Mexican Migration Project. The study found that regardless of the quality of an undocumented migrant's networks, there was no evidence of negative educational selection. Additionally, economic shifts are negatively associated with the average education level of undocumented immigrants. Finally, increased border enforcement is positively associated with higher average education and skill levels. Many of these characteristics are similar to that of the documented migrant population. This is reassuring for the validity of previous studies, as roughly a quarter of the migrant community is estimated to be undocumented. (Geiger 2018) The undocumented population's indifference to quality of migrant network is possibly caused by increased barriers to entry. This difference aside, we are able to assume that the undocumented migrant population behaves similarly to the documented migrant population.

Kaestner and Malamud (2014), the most recent study on the topic, uses novel data to examine the earnings outcomes of migrants. The study's descriptive statistics indicate that Mexican immigrants are more likely to be young, male, and from rural areas than non-migrants. However, they are similar to non-migrants in health and in cognitive ability, as measured by standardized test scores. The study finds that male Mexican immigrants are negatively selected on earnings, suggesting that the U.S. and Mexican labor markets have

different returns to the skills that these migrants possess. This study does not contradict previous evidence, but does not explore the changing educational demographics of the immigrant population. In the remainder of this paper, we examine the impact of education on a potential migrant's migration decision.

Data:

This study uses the Population and Housing Census 2010 from the Mexican National Institute of Statistics and Geography (INEGI). INEGI conducts the Population and Housing Census once every ten years, surveying ten percent of randomly selected households from each state. In total, over two million households, and over ten million people were surveyed. The dataset includes household characteristics, such as family size, condition of the home, and number of family members with disabilities. Households were asked to report all current household members, as well as current or past household members who had migrated abroad. The census survey also contains personal characteristics for each respondent, including sex, age, education, and monthly income. The dataset separately reports characteristics of recent migrants and non-migrants. However, there is distinctly less information about recent migrants compared to non-migrants. This information includes age, gender, Mexican state of origin, and current country of residence. The survey is adjusted for non-response bias.

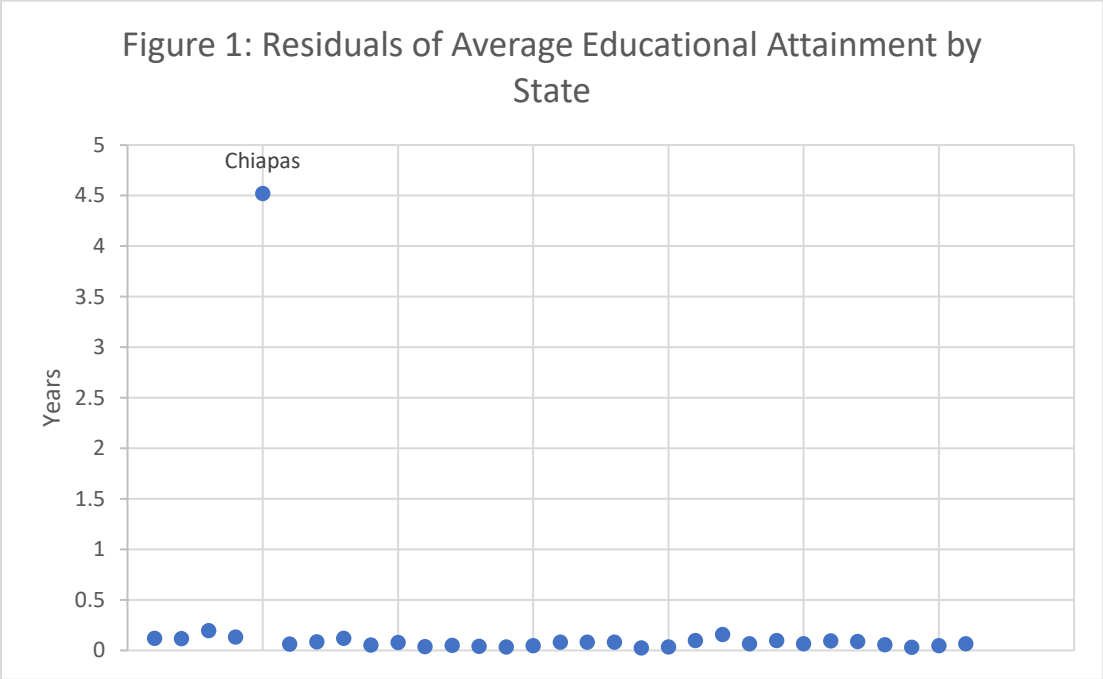
While the Population and Housing Census provides extensive information about the characteristics of Mexican citizens, it lacks key information about Mexican migrants. Namely, it lacks information pertaining to their educational background. Furthermore, we are unable to address the topic of migrant networks using this dataset, as the data lacks information about the migrant's relationship to their household in Mexico. As such, despite strong evidence of its impact on migrant selection, this study will not consider the impact of migrant networks.

Methodology:

The goal of this study is to examine the effect of regional differences in returns to education on migration selection. Ideally, we would compare educational outcomes of migrants and non-migrants directly, but as previously noted, the Mexican Population and Housing Census lacks education data for migrants. We assume that there are not systematic differences between migrants and non-migrants. If there are, it is likely that the model overpredicts or underpredicts migrant education, as these differences would cause our model to require additional information to capture these differences. Though this study does not explore the systematic differences, previous study of the Population and Housing Census conducted in 2000 found that these systematic differences either did not exist or were sufficiently minor. (Ibarraran and Lubotsky 2005)

First, we build a model to predict the number of years of education a non-migrant has attained. In order for this model to be used to predict migrant education, it can only take independent variables that are available in both datasets. We regress the number of years of education attained, on indicator variables for sex, age in years, and indicator variables for the size of the locality that the non-migrant resides in. These regressions are run separately for each Mexican state, allowing for regional differences to be captured. The model found a statistically significant relationship at $p = 0.05$ between years of education attained by an individual in a given state, and the individual's age, sex, and the size of the locality that he or she lives in. We compare our model's predicted education of non-migrants with their actual

educations and found an average residual of 0.22 years. Figure 1 shows the residuals for average education by state.



As mentioned, residuals are very low in every state, with one exception, Chiapas, which has a residual of 4.52. If we exclude Chiapas, the average residual decreases by a factor of three, to 0.07. With our statistically significant model, and low average residuals, we are confident that this model approximates the average educational attainment of non-migrants. In general, age is positively correlated with more education. Being male is correlated with having more years of education. Larger locality size is also correlated with more years of education.

Second, we use the model's coefficient estimates to calculate the predicted education for the migrant respondents. This method essentially assigns to migrants the average number of years of education of non-migrants who live in localities of the same size in their state, who

are the same sex, and the same age. Figure 2. shows the mean predicted education of migrants in each state.

Figure 2: Mean Predicted Education of Migrants by State in Years

	7.833	0.035	1.243
Aguachile	12.015	0.475	12.216
Baja California	11.859	0.785	9.117
Baja California Sur	7.312	0.238	3.226
Campeche	4.961	0.022	1.278
Chiapas	7.860	0.052	2.899
Chihuahua	9.343	0.111	3.819
Coahuila de Zaragoza	7.663	0.088	2.577
Colima	12.895	0.217	9.768
Districto Federal	7.090	0.030	1.587
Durango	6.279	0.057	5.897
Guerrero	6.707	0.013	1.032
Hidalgo	6.948	0.010	1.117
Jalisco	8.356	0.043	3.380
Mexico	6.375	0.008	0.949
Michoacan de Ocampo	7.862	0.029	1.358
Morelos	6.738	0.042	1.571
Nayarit	12.500	0.287	10.244
Nuevo Leon	5.560	0.007	1.276
Oaxaca	6.027	0.008	0.965
Puebla	6.699	0.031	1.629
Queretaro	14.107	0.780	12.242
Quintana Roo	6.351	0.016	1.086
San Luis Potosi	8.704	0.143	4.102
Sinaloa	9.106	0.086	3.523
Sonora	8.648	0.211	3.574
Tabasco	8.540	0.088	3.789
Tamaulipas	7.986	0.032	1.855
Tlaxcala	5.791	0.012	1.171
Veracruz de Ignacio de la Lave	6.186	0.047	2.022
Yucatan	6.720	0.017	1.253
Zacatecas	7.833	0.035	1.243

Third, we create an index for return on education in each Mexican state. This is done by simply dividing an individual's number of years of education by his or her annual wages in pesos and averaging the value for all respondents in the state. Migrant education is not considered here, because the dataset lacks both wage and education information. Furthermore, the data assumes that if the migrant has migrated, he or she does not return. As such, migrants have no impact on the return on education in a state. Figure 3. shows a chart of each state's calculated return on education. For the purpose of comparison, we separate the states into tertiles, and classify the third tertile as "High Return on Education," the second tertile as "Average Return on Education," and the first tertile as "Low return on Education."

Finally, we compare the state migration rates, return on education, and migrant education relative to non-migrant education. The Mexican Population and Housing Survey classifies recent immigrants as someone who migrated from Mexico within the last five years. Figure 4. shows the proportion of recent migrants for each state. Within each education tertile, we evaluate states' migration rates in relation to the state's return on education and migrant education relative to non-migrant education.

Figure 3: Return on Education by State in Pesos		
	ROE	Standard Deviation
Aguachile	8328	6700
Baja California	10895	892
Baja California Sur	9960	1092
Campeche	9414	2918
Chiapas	8569	6707
Chihuahua	11878	4097
Coahuila de Zaragoza	11450	2998
Colima	7465	2897
Districto Federal	12181	1247
Durango	10230	6445
Guerrero	9698	1645
Hidalgo	9212	8930
Jalisco	11441	10240
Mexico	10264	3036
Michoacan de Ocampo	15064	15876
Morelos	9572	7049
Nayarit	11146	7093
Nuevo Leon	12583	1228
Oaxaca	10097	7911
Puebla	12239	12683
Queretaro	8118	4985
Quintana Roo	9424	770
San Luis Potosi	11388	10490
Sinaloa	11377	2774
Sonora	8705	2471
Tabasco	11330	3170
Tamaulipas	12196	3219
Tlaxcala	8571	4621
Veracruz de Ignacio de la Lave	11784	10060
Yucatan	8786	4345
Zacatecas	11647	9297

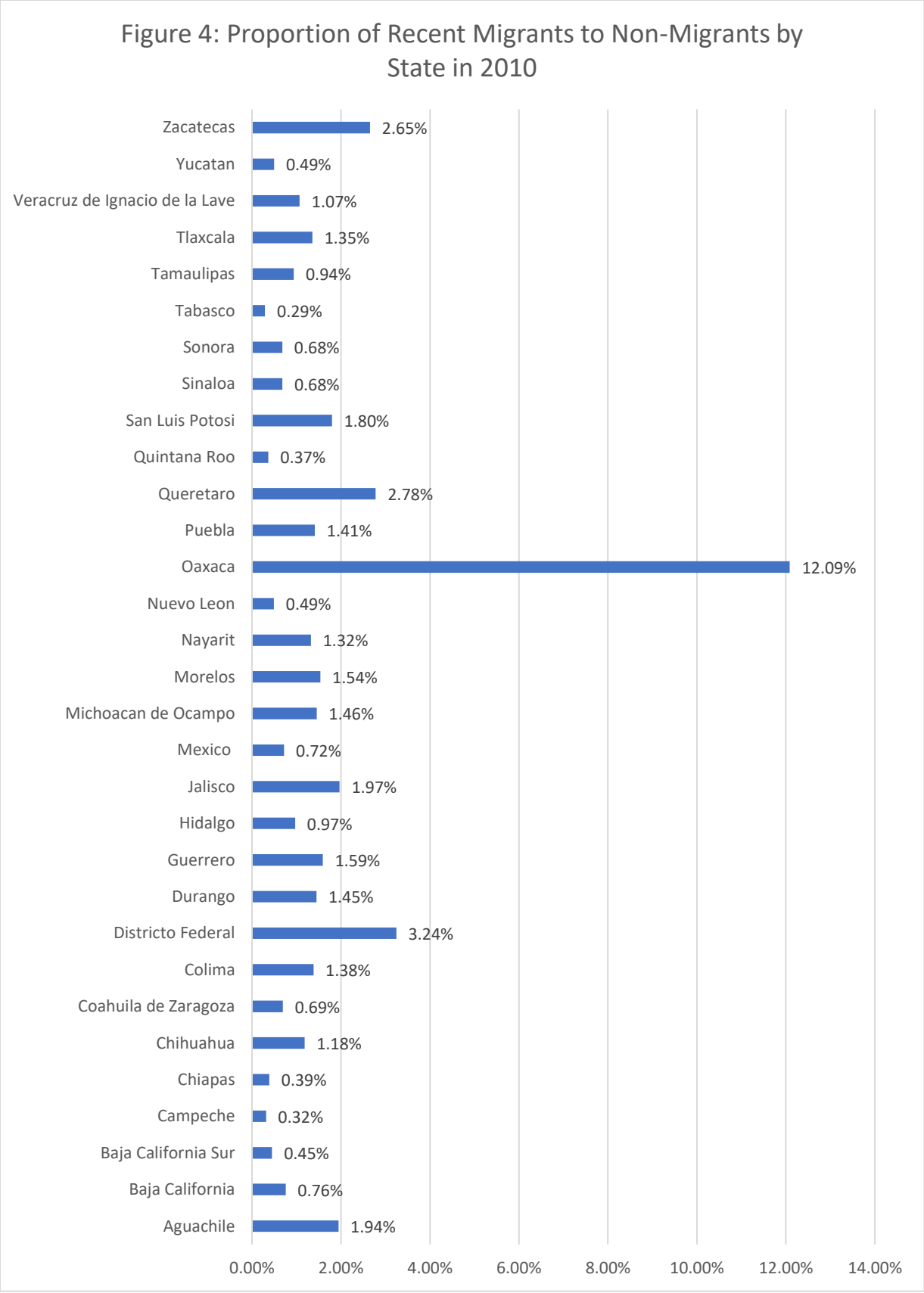
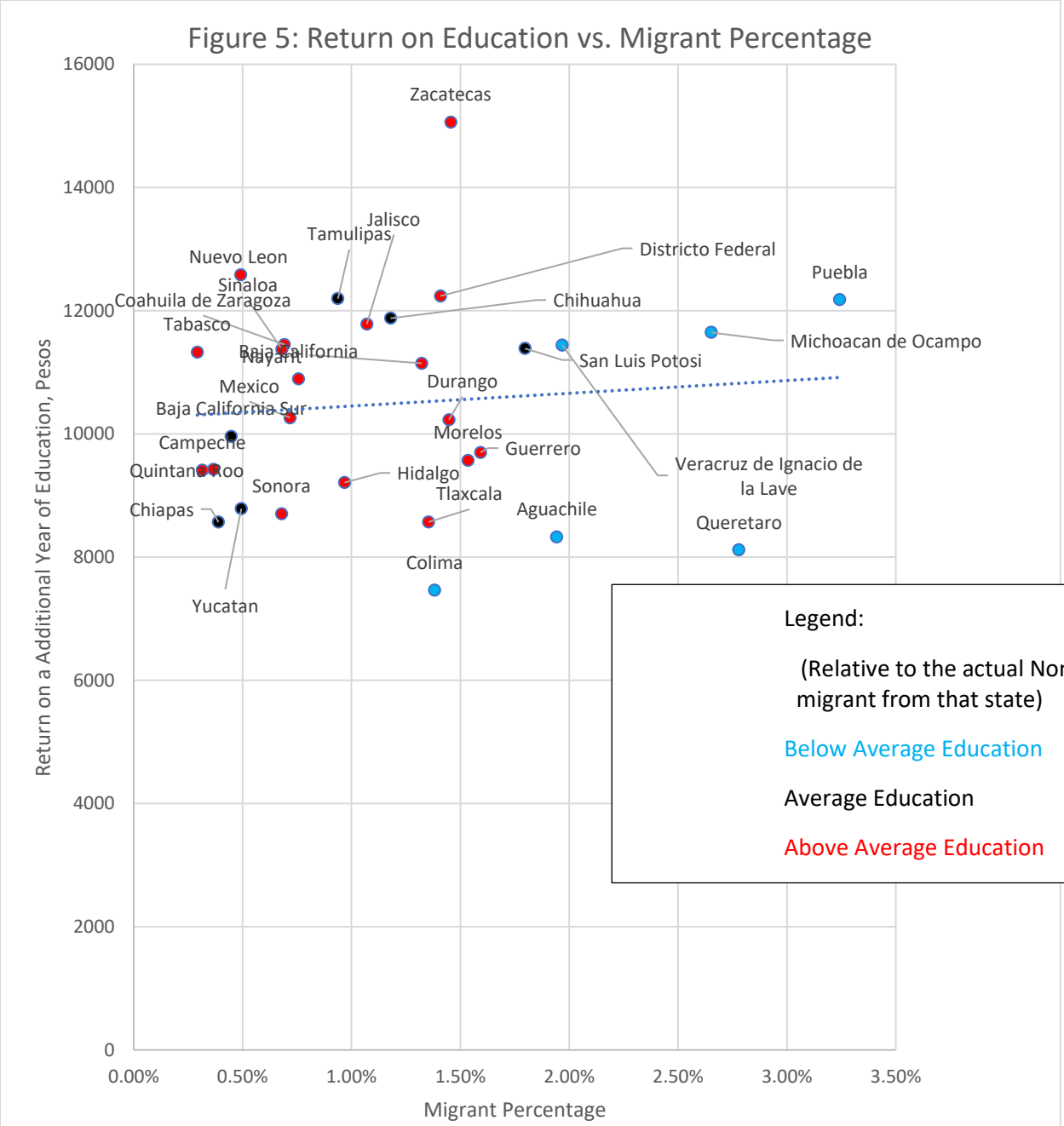


Figure 4: Proportion of Recent Migrants to Non-Migrants by State in 2010
Zacatecas 2.65%
Yucatan 0.49%
Veracruz de Ignacio de la Lave 1.07%
Tlaxcala 1.35%
Tamaulipas 0.94%
Tabasco 0.29%
Sonora 0.68%
Sinaloa 0.68%
San Luis Potosi 1.80%
Quintana Roo 0.37%
Queretaro 2.78%
Puebla 1.41%
Oaxaca 12.09%
Nuevo Leon 0.49%
Nayarit 1.32%
Morelos 1.54%
Michoacan de Ocampo 1.46%
Mexico 0.72%
Jalisco 1.97%
Hidalgo 0.97%
Guerrero 1.59%
Durango 1.45%
Districto Federal 3.24%
Colima 1.38%
Coahuila de Zaragoza 0.69%
Chihuahua 1.18%
Chiapas 0.39%
Campeche 0.32%
Baja California Sur 0.45%
Baja California 0.76%
Aguachile 1.94%
0.00% 2.00% 4.00% 6.00% 8.00% 10.00% 12.00% 14.00%

Results:

Our analysis found that in states with high returns to education, and in which the average migrant was more or similarly educated than the average non-migrant, had lower migration rates. The states with more educated migrants are: Coahuila de Zaragoza, Districto Federal, Nuevo Leon, and Zacatecas. The states where migrants had average educational attainment were Chihuahua, San Luis Potosi, and Tamulipas. In states with high returns to education, and in which the average migrant was less educated than the average non-migrant, migration rates were higher. These states were: Michoacan de Ocampo, Puebla, and Veracruz de la Llave. States with average returns to education and migrants with above average educational attainment, had below average migration rates. These included Baja California, Baja California Sur, Guerrero, Nayarit, Sinaloa, and Tabasco. States with average returns to education and averagely educated migrants experience below average migration rates. These were: Campeche, Durango, Mexico, and Morelos. One state, Oaxaca, had average returns to education and migrants with below average educational attainment and had above average migration rates. In states with below average returns to education and migrants with above average educational attainment, migration rates were lower. States with below average returns to education and migrants with average educational attainments experience below average migration rates. States with below average returns to education and less well-educated migrants experienced above average migration rates. Figure 5. summarizes these findings. We see that states where the average migrant was less educated than the average non-migrant, in blue, had above average migration rates.



Note: Oaxaca was dropped from this graph, as it was a far outlier (Migrant Percentage = 12.09%)

The evidence provided by the Population and Housing Census supports the hypothesis that migrants are negatively selected for by education. States where the average migrant is less educated than the average non-migrant have above average migration rates. States where migrants have educational attainment that is similar or above the average have below average migration rates. Interestingly, regional return on education appears to have no discernible impact on migration selection.

Regional education's lack of impact on migration selection does not necessarily invalidate the model. We continue to model a person's migration decision with the model specified in Equation 1. First, it could be the case that wage levels in Mexico are simply higher than they are in the United States. However, both conventional wisdom and existing literature tell us that this is false. Chiquar and Hanson (2005) finds that Mexican migrants in the United States earn real wages like those in the middle to top of the wage distribution of non-migrants. Since most migrants from Mexico are, on average, less educated than the average non-migrant, it's likely that they would fall lower on the wage distribution in Mexico then they would in the United States. Thus, wage levels must be higher in the United States. A more likely explanation for the negative selection is that returns to education in Mexico are sufficiently higher, in every state, then they are in the United States to offset the lower Mexican wage level. If this is true, people with even a modest amount of education can earn more in Mexico than they are in the United States. People who do not meet the requisite educational attainment would be incentivized to migrate to the United States, where they would earn more real wages. If this is the case, variation in regional returns to education should not influence a potential migrant's migration decision.

However, recent changes in the education distribution of Mexican migrants may change the role of regional returns to education in migration selection. Migrants who arrived after 2014 were more likely to have bachelor's degrees than migrants before 2014, shifting the education distribution upwards. (Zong and Jie et al) Under our model, this shift could be explained by dramatic shifts of regional returns on education, such that there are places in Mexico where return on education are lower than returns are in the United States. Unfortunately, scholars will likely have to wait until the Mexican National Institute of Statistics and Geography conducts and releases the Population and Housing Census of 2020 to study these shifts.

It's also possible that drivers of immigration are not considered by our current model. Recent scholars have studied the impact of migrant networks on immigration selection with some success. Mckenzie and Rapoport (2010) find that migrants with weak migrant networks exhibit positive selection, and that migrants with stronger networks are negatively selected for. This model also has potential to explain the recent shift in education distribution. It's possible that migrant networks are not as powerful as they once were. The current administration's legislative actions, such as the introduction of e-verify work programs and increased arrests by the Immigration and Customs Enforcement (ICE), have likely weakened a migrant's ability to help an undocumented network member find employment opportunities or navigate immigration institutions. Furthermore, political rhetoric in recent years may have driven public sentiment against migrants, possibly also weakening the power of migrant networks.

A potential avenue for future study is the examination of the 2020 Population and Housing Census with regards to regional returns to education and migrant networks and comparing the results with those drawn from the 2010 census. This study would incorporate two promising explanatory variables and would capture the change in recent changes in the education distribution.

Conclusion:

Understanding the drivers of immigration is paramount to developing effective immigration policy. This study found no evidence that regional returns to education have an impact on the immigration decisions of Mexican migrants. States with high, average, and low returns to education all exhibited similar educational selectivity. People with less than the average educational attainment in their state were more likely to migrate, while those with average or above average educational attainment were less likely to migrate. This response is consistent with the conclusions drawn by Ibarraran and Lubotsky (2005), which used the Population and Housing Census of 2005. This is evidence that, at least between 2000 and 2010, there were no significant changes in the distribution of educational distribution of the Mexican migrant community.

However, we do know that there have been significant changes between 2010 and 2018. If the United States is to make informed policy decisions, it must first understand the reasons why shifts in the migrant population occur. If our current immigration model cannot

explain these changes, we must update it so that it reflects reality. Recent political rhetoric has pushed immigration policy to the forefront of politics.

Recent migrants from Mexico are more likely than their predecessors to have bachelor's degrees. This has potentially interesting implications. If Mexican migrants are becoming more highly skilled, it is likely that they seek white-collar jobs in the United States, as opposed to the blue-collar jobs traditionally associated with Mexican migrant workers. Demand for high-skill work visas, the H1-B visa, is already above capacity. Adding more applicants for these visas can only place the system under further strain. Another potential implication of the shift in migrant education is a labor shortage in the service and agriculture industries. The United States depends heavily on migrant workers, both permanent and seasonal, to fill low-skill positions in these industries. If the labor supply for these jobs falls even further behind demand, these markets may fail to remain internationally competitive. Farmers, especially, frequently have to compete on the international market, where labor costs are often lower, to sell their goods. As a result, they often cannot afford to attract workers via higher wages, causing them to rely on migrant laborers who often accept lower wages. If labor costs rise in the agriculture industry, it's possible that the industry will be unable to support itself without significant subsidies.

If the United States is to maintain its position as the world's largest economy, it's policymakers must acknowledge the gaps in the domestic labor force, and strive to encourage migrants to fill these positions, across all skill levels. The changing demographics of our country's largest migrant population have quickened the need for more comprehensive

immigration models. Without further study and policy action, the resulting consequences could be difficult to anticipate, and as a result, difficult to remedy.

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Appendix:

Selected Regression Results

Districto Federal:

Linear regression

Number of obs	= 338093
F(5,338087)	= 257.30
Prob > F	= 0.0000
R-squared	= 0.0142
Root MSE	= 12.383

yearseduca~n	Coef.	Robust Std. Err.	t	P>|t|	[95% Conf.	Interval]
age	.041029	.0018772	21.86	0.000	.0373497	.0447083
3.sex	-.3871673	.0428263	-9.04	0.000	-.4711055	-.3032291
localitysize						
2	1.01897	.2371808	4.30	0.000	.5541025	1.483837
3	1.068449	.1815124	5.89	0.000	.71269	1.424208
4	2.776162	.1420839	19.54	0.000	2.497682	3.054643
_cons	6.651247	.1511321	44.01	0.000	6.355033	6.947462

Guerrero:

Linear regression

Number of obs	= 667900
F(5,667894)	= 1569.37
Prob > F	= 0.0000
R-squared	= 0.0366
Root MSE	= 11.463

escoacum	Coef.	Robust Std. Err.	t	P>|t|	[95% Conf.	Interval]
edad	.0460707	.0012132	37.98	0.000	.0436929	.0484485
3.sexo	-.3844471	.0279921	-13.73	0.000	-.4393108	-.3295834
tam_loc						
2	1.081643	.0360029	30.04	0.000	1.011078	1.152207
3	2.878954	.0568379	50.65	0.000	2.767553	2.990354
4	3.150138	.0551009	57.17	0.000	3.042142	3.258134
_cons	4.017594	.0385403	104.24	0.000	3.942056	4.093132

Quintana Roo:

Linear regression

Number of obs	= 67155
F(5, 67149)	= 276.39
Prob > F	= 0.0000
R-squared	= 0.0212
Root MSE	= 15.476

yearseduca~n	Coef.	Robust Std. Err.	t	P>|t|	[95% Conf.	Interval]
age	.0404501	.0047798	8.46	0.000	.0310816	.0498186
3.sex	-.1466	.1194521	-1.23	0.220	-.380726	.0875259
localitysize						
2	2.062178	.1743273	11.83	0.000	1.720496	2.403859
3	4.62259	.214347	21.57	0.000	4.20247	5.04271
4	4.545359	.1333736	34.08	0.000	4.283947	4.806772
_cons	5.289264	.1760311	30.05	0.000	4.944243	5.634285