Social Investment for Facing Migration Crisis

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Abstract

The new immigration policy of the United States could intensify deportations of undocumented migrants with an economic, social and political effect in Mexico. This problem could generate economic, political and social instability in some Mexican states then it is relevant to study how to diminish this effect. Social investment could reduce the impact of this situation and could reduce the reasons for those Mexicans that want to migrate. Social investment focuses on considering the migrant as an asset that could be incorporated into the labor market with government programs that stimulate intensive labor public investment, reduced violence, training and increased wages. By using multiple linear regressions and descriptive statistics, it is shown that the levels of education, economic growth, poverty, labor purchasing power, violence and unemployment have an effect on Mexican migration levels. In this way, it is shown that it is possible to reverse this problem with positive impacts on the Mexican economy.

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1. Introduction

U.S. immigration policies are becoming more demanding not only for legal new migrants, also for those individuals who have lived illegally in United States for years. These new policies are inspired by political, economic and social factors. Mexican migrants have contributed economically to the development of the United States with cheap labor. Thousands of U.S. companies have been benefited from hiring illegal Mexican migrants at very low wages. However, some American workers have been losing money because many Mexican migrants who decide to go to work in the United States are well prepared and provide high-quality, low-priced labor. These less competitive U.S. workers are pushing politically to limit the entry of more Mexican migrants through a wall and to expel those who are illegally. These measures would benefit thousands of U.S. workers to the detriment of U.S. companies.

Mexican government have done little to limit Mexican flows into the United States. Millions of Mexicans have chosen to leave their homelands because there are not enough sources of work, there is violence, wages are very low and the American dream encourages many people. Economically, the Mexican government benefits from migration. The expenditure budget is intended for fewer people, per capita, it is more money. Given the new immigration policies of the United States, Mexican government is concerned that with more population in Mexico, per capita, the expenditure budget will

¹Consejo Nacional de Población (Conapo). (2010). Migrantes recientes y no migrantes por nivel educativo según entidad federativa, 2010. [Online] Available: http://www.conapo.gob.mx/en/CONAPO/Migrantes_recientes_y_no_migrantes_por_nivel_educativo_segun_entidad_federativa_2010 (March 10, 2017).

be lower. This situation could lead to social instability.

The point is that the Mexican government have considered migrants return as a possible extra expense that will generate problems. The aim of this study is that if Mexican government follows the strategy of U.S. companies that consider Mexican migrants as an important asset, instead of consider as an expense these migrants could become a significant asset that could boost the Mexican economy. The hypothesis of this work is based on that if Mexican government creates jobs for those prepared workers, the migration flows would diminish and this situation would benefit Mexico because its economy would be sustainable.

2. Methodology

A descriptive analysis is presented with the objective of identifying which Mexican states have more migration problems and in what situation they are in each of the analyzed variables. Also some statistical models with multiple linear regressions are included in order to corroborate the hypothesis. Migration is grouped into three types: without education, basic education and post basic education.

The independent variables that are analyzed are: Gini, overall poverty, labor income, unemployment, willful homicides per every hundred thousand people, local income, federalized income, economic growth, population without health services and workers with at least secondary education. The dependent variables are: post basic education migration, basic education migration, without education migration, post basic education non migration, without education non migration. The sources that are used are: Conapo, Segob, Inegi, Coneval and SHCP.

3. Descriptive Analysis

As shown in Chart 1, Quintana Roo, Colima, Nayarit, Querétaro, Baja California and Hidalgo are states that more than 6% of their population had a recent migration process. In contrast, Durango, Tlaxcala, Puebla, Veracruz, Tamaulipas and Morelos are states that less than 1% of their population had a recent migration. The level of education of migrants is mainly basic, followed by post basic education and only few migrants have no education (see Chart 1).

Chart 1. Migration by level of education

| States | Percentage of migration | Without education migration | Basic education migration | Post basic education migration |
|------------------|-------------------------|-----------------------------|---------------------------|--------------------------------|
| Quintana Roo | 12.6% | 3.3% | 55.5% | 41.3% |
| Colima | 7.3% | 4.5% | 59.7% | 35.8% |
| Nayarit | 6.6% | 3.3% | 64.3% | 32.4% |
| Querétaro | 5.9% | 1.7% | 44.3% | 54.0% |
| Baja California | 5.6% | 4.7% | 65.6% | 29.7% |
| Hidalgo | 5.2% | 2.8% | 64.2% | 33.0% |
| Campeche | 4.6% | 3.9% | 56.1% | 40.0% |
| Estado de México | 4.3% | 2.6% | 58.2% | 39.3% |
| Aguascalientes | 4.0% | 2.1% | 51.3% | 46.7% |

| Sonora | 3.4% | 3.7% | 62.4% | 34.0% |
|---------------------|------------|------|-------|-------|
| Nuevo León | 3.3% | 1.9% | 53.3% | 44.8% |
| Ciudad de México | 3.0% | 2.3% | 45.9% | 51.8% |
| Sinaloa | 3.0% | 3.7% | 62.7% | 33.7% |
| Yucatán | 2.8% | 1.9% | 49.9% | 48.1% |
| Coahuila | 2.5% | 2.0% | 56.6% | 41.4% |
| | | | | |
| Oaxaca | 2.5% | 4.8% | 66.9% | 28.3% |
| San Luis Potosí | 2.5% | 3.0% | 59.3% | 37.8% |
| Jalisco | 2.5% | 2.8% | 53.1% | 44.1% |
| Zacatecas | 2.4% | 4.0% | 65.9% | 30.1% |
| Michoacán | 2.1% | 4.7% | 60.9% | 34.4% |
| Chihuahua | 2.0% | 4.9% | 63.3% | 31.8% |
| Tabasco | 2.0% | 4.0% | 57.7% | 38.4% |
| Guanajuato | 1.9% | 2.8% | 52.8% | 44.3% |
| Guerrero | 1.8% | 4.8% | 61.5% | 33.7% |
| Baja California Sur | 1.5% | 3.8% | 61.7% | 34.5% |
| Chiapas | 1.2% | 3.7% | 60.0% | 36.3% |
| Morelos | 0.5% | 4.0% | 54.9% | 41.1% |
| Tamaulipas | 0.4% | 3.1% | 59.8% | 37.1% |
| Veracruz | 0.3% | 3.7% | 64.2% | 32.2% |
| Puebla | 0.3% | 3.5% | 59.2% | 37.4% |
| Tlaxcala | 0.0% | 3.1% | 62.7% | 34.3% |
| Durango | 0.0% | 2.8% | 65.7% | 31.5% |
| C C | .1 1 1 0 . | | | |

Source: Compiled by author based on Conapo.

As seen in Charts 1 and 2, recent migration does not come from poor states. Chiapas, Oaxaca, Guerrero and Puebla, which have more than 60% of their population in poverty, less than 2.6% of their population had a recent migration. Only Ciudad de México and Hidalgo have a Gini greater than 0.5 and levels of recent migration of 3% or more of their population (see Charts 1 and 2). So, it is not clear that levels of poverty and inequality are the main cause of migration in Mexico. Colima that has the highest level of willful homicides per every hundred thousand people is also the second state with the highest level of recent migration (see Charts 1 and 2). This implies that violence could be an important factor for migration.

Chart 2. Social factors

| States | Overall poverty | Gini | Population without health services | Willful homicides per every hundred thousand people | Workers with at least secondary education |
|------------------|-----------------|--------|------------------------------------|---|---|
| Chiapas | 74.4% | 0.5172 | 20.2% | 0.86 | 48.0% |
| Oaxaca | 65.9% | 0.5125 | 19.7% | 1.81 | 49.0% |
| Guerrero | 64.5% | 0.4889 | 19.0% | 4.60 | 51.0% |
| Puebla | 63.2% | 0.5720 | 20.7% | 0.86 | 57.0% |
| Michoacán | 58.5% | 0.4518 | 25.9% | 2.53 | 53.0% |
| Tlaxcala | 57.4% | 0.4112 | 17.0% | 0.54 | 68.0% |
| Veracruz | 57.1% | 0.4899 | 21.4% | 1.26 | 55.0% |
| Hidalgo | 53.1% | 0.5041 | 16.9% | 1.06 | 64.0% |
| Zacatecas | 51.6% | 0.5066 | 14.6% | 2.89 | 60.0% |
| Morelos | 51.1% | 0.4668 | 16.3% | 3.13 | 70.0% |
| Tabasco | 48.5% | 0.4561 | 16.6% | 1.16 | 70.0% |
| Estado de México | 48.2% | 0.4611 | 19.1% | 0.96 | 72.0% |

| San Luis Potosí | 48.1% | 0.4766 | 10.5% | 1.44 | 66.0% |
|---------------------|-------|--------|-------|------|-------|
| Guanajuato | 45.7% | 0.4490 | 15.1% | 1.52 | 63.0% |
| Yucatán | 44.6% | 0.5108 | 14.1% | 0.33 | 61.0% |
| Durango | 42.7% | 0.4456 | 16.2% | 0.95 | 72.0% |
| Campeche | 42.3% | 0.4999 | 12.1% | 0.87 | 66.0% |
| Nayarit | 39.1% | 0.4712 | 15.7% | 0.32 | 72.0% |
| Sinaloa | 38.7% | 0.4859 | 15.0% | 3.85 | 69.0% |
| Tamaulipas | 37.1% | 0.4779 | 14.7% | 1.25 | 72.0% |
| Jalisco | 34.6% | 0.4679 | 18.7% | 1.26 | 70.0% |
| Quintana Roo | 34.0% | 0.4936 | 17.5% | 0.80 | 74.0% |
| Aguascalientes | 33.9% | 0.4863 | 12.2% | 0.38 | 73.0% |
| Chihuahua | 33.7% | 0.4581 | 14.3% | 3.23 | 70.0% |
| Colima | 33.2% | 0.4569 | 12.3% | 9.36 | 69.0% |
| Querétaro | 33.2% | 0.4881 | 15.4% | 0.64 | 70.0% |
| Coahuila | 29.5% | 0.5029 | 15.2% | 0.63 | 78.0% |
| Baja California Sur | 28.6% | 0.4543 | 13.5% | 5.32 | 72.0% |
| Sonora | 28.6% | 0.4758 | 14.1% | 2.15 | 78.0% |
| Ciudad de México | 28.3% | 0.5073 | 19.9% | 1.10 | 83.0% |
| Baja California | 27.8% | 0.4336 | 18.8% | 3.64 | 73.0% |
| Nuevo León | 19.8% | 0.4527 | 13.3% | 0.85 | 81.0% |
| | | | | | |

Source: Compiled by author based on Coneval and Segob.

As shown in Charts 1 and 3, Campeche and Colima with federalized incomes greater than 13,500 pesos per inhabitant, in those states more than 4.5% of their population had a recent migration. Tabasco with the highest level of unemployment, only 2% of its population had a recent migration (see Charts 1 and 3). Quintana Roo, Ciudad de México and Nuevo Leon are three states with the highest local income per capita and at least 3% of their population had a recent migration (see Charts 1 and 3).

4. Statistical Models

As seen in Model 1, for those individuals who migrate without education, overall poverty and labor income are important. Individuals that have more studies, these variables are more important when they decide to migrate. For post basic education migration, economic factors such as unemployment and economic growth are also important. It emphasizes that in environments with higher labor income or higher economic growth, some individuals prefer to migrate.

Overall poverty, labor income and unemployment are important variables for those individuals that chose not to migrate when they have at least basic education. So, unemployment is not sufficient cause to migrate (see Model 2), many unemployed people prefer to wait to find a job within their country. In states with less prepared population is where there are less people that are looking to migrate (see Model 2).

Chart 3. Economic factors

| States | Federalized income per capita | Local income per capita | Labor income per capita | Unemployment | Economic growth |
|------------------|-------------------------------|-------------------------|-------------------------|--------------|-----------------|
| Campeche | 16,504 | 2,954 | 2,255 | 3.9% | -4.9% |
| Ciudad de México | 15,370 | 5,972 | 3,094 | 4.3% | 1.5% |
| Tabasco | 14,671 | 977 | 1,839 | 7.6% | 1.0% |

| Colima | 13,636 | 1,944 | 2,731 | 3.5% | 3.3% |
|---------------------|--------|-------|-------|------|-------|
| Baja California Sur | 13,459 | 2,374 | 3,496 | 4.2% | 1.7% |
| Oaxaca | 12,793 | 625 | 1,160 | 1.7% | 2.2% |
| Aguascalientes | 12,617 | 1,864 | 2,191 | 3.9% | 7.5% |
| Guerrero | 12,542 | 900 | 1,147 | 1.6% | 2.7% |
| Chiapas | 12,483 | 639 | 1,148 | 2.8% | -0.4% |
| Chihuahua | 12,410 | 3,320 | 3,101 | 2.4% | 3.5% |
| Zacatecas | 12,310 | 1,271 | 1,619 | 2.0% | 4.2% |
| Nayarit | 12,209 | 1,198 | 2,288 | 3.6% | 4.6% |
| Durango | 11,876 | 1,236 | 1,992 | 3.5% | 1.6% |
| Hidalgo | 11,465 | 981 | 1,840 | 2.7% | 3.6% |
| Sonora | 11,463 | 2,174 | 2,633 | 4.2% | 0.7% |
| Tlaxcala | 11,243 | 732 | 1,655 | 3.6% | 2.8% |
| San Luis Potosí | 11,224 | 1,187 | 1,849 | 2.0% | 3.4% |
| Tamaulipas | 11,088 | 1,918 | 2,304 | 4.2% | 2.6% |
| Sinaloa | 10,854 | 2,181 | 2,389 | 2.8% | 4.0% |
| Querétaro | 10,823 | 2,729 | 2,159 | 4.7% | 7.8% |
| Coahuila | 10,779 | 2,255 | 2,737 | 3.9% | 3.1% |
| Baja California | 10,734 | 2,593 | 2,963 | 2.3% | 3.5% |
| Nuevo León | 10,607 | 3,524 | 2,861 | 4.1% | 4.1% |
| Michoacán | 10,595 | 861 | 1,874 | 2.4% | 3.0% |
| Veracruz | 10,588 | 957 | 1,541 | 3.5% | 0.2% |
| Quintana Roo | 10,563 | 4,103 | 2,991 | 3.7% | 4.1% |
| Yucatán | 10,544 | 1,317 | 2,177 | 1.8% | 3.6% |
| Morelos | 10,076 | 1,088 | 1,578 | 2.3% | 1.2% |
| Jalisco | 9,774 | 1,730 | 2,539 | 3.3% | 4.0% |
| Puebla | 9,645 | 1,031 | 1,696 | 2.8% | 1.7% |
| Estado de México | 9,448 | 1,263 | 2,128 | 4.8% | 1.6% |
| Guanajuato | 9,280 | 1,466 | 1,896 | 4.1% | 6.5% |

Source: Compiled by author based on SHCP and Inegi.

Model 1. Effect of economic factors on migration

| SS | df | | | | | | | |
|-----------------------------------|--|---|--|--|---|--|--|-----------------------------------|
| | | | | | | | | |
| | | | | R-square | d : | = 0.976 | 1 | |
| 47258.8689 | 32 | 14 | 76.83965 | | | | | |
| | | | | | t | P> t | [95% Conf. | Interval] |
| me | | | | | 4.18 | 0.000 | .0033198 | .009705 |
| nent | | | 2.541369 | .96396 | 2.64 | 0.014 | .5667862 | 4.515951 |
| rowth | | | 118.7798 | 48.59202 | 2.44 | 0.021 | 19.24358 | 218.316 |
| verty | | | 26.64304 | 5.162561 | 5.16 | 0.000 | 16.06802 | 37.21807 |
| | | | | | | | | |
| SS d | f | MS | | Number of | of obs | = | 32 | |
| | | | | | 0.1 | 755 | | |
| + | | | | F(4, 2 | 8) | = 755 | 5.50 | |
| -+ 110379.608 | 3 4 | 27 | 594.902 | F(4, 2 Prob > F | | | 000 | |
| + 110379.608 1022.70989 | | | | Prob > F | | = 0.0 | | |
| | | | | Prob > F | ed | = 0.0 = 0.9 | 000 | |
| 1022.70989 | 28 | 36 | | Prob > F R-square Adj R-so | ed quared | = 0.0 = 0.9 = 0.9 | 908 | |
| 1022.70989 -+ | 32 | 34 | 81.32243 Coef. | Prob > F R-square Adj R-so Root MS | ed quared SE t | = 0.0 = 0.9 = 0.9 = 6.0 P> t | 000 908 895 0436 [95% Conf. | Interval] |
| 1022.70989 -+ 111402.318 | 32 | 34 | 81.32243 Coef. | Prob > F R-square Adj R-so Root MS | ed quared SE t | = 0.0 = 0.9 = 0.9 = 6.0 P> t | 000 908 895 0436 [95% Conf. | _ Interval] _ 0158907 |
| 1022.70989 -+ | 32 | 34 | 81.32243 Coef. | Prob > F R-square Adj R-sq Root MS Std. Err. | ed quared SE t | = 0.0 = 0.9 = 0.9 = 6.0 P> t | 000 908 895 0436 [95% Conf. | - |
| 1022.70989 -+ | 32 | 34 | .5253532 | Prob > F R-square Adj R-sq Root MS Std. Err. .0014837 .9176247 | ed quared SE t 8.66 -0.32 | = 0.0 = 0.9 = 0.9 = 6.0 P> t | 000 908 895 0436 [95% Conf. | - 0158907 1.581814 |
| | 46130.2681 1128.60075 47258.8689 ducation migra me nent growth verty mpiled by aut | 46130.2681 4 1128.60075 28 47258.8689 32 ducation migration me ment growth verty mpiled by author | 46130.2681 4 11 1128.60075 28 40 47258.8689 32 14 ducation migration | 46130.2681 | F(4, 2 Prob > F F F(4, 2 Prob > F F(4, 2 F F F F F F F F F | 46130.2681 | 46130.2681 4 11532.567 Prob > F = 0.000 1128.60075 28 40.3071695 R-squared = 0.976 47258.8689 32 1476.83965 Root MSE = 6.348 ducation migration Coef. Std. Err. t P> t me | F(4, 28) = 286.12 46130.2681 |

| Source | SS | df | MS | | iber of | | 32 | |
|-------------|----------------------------|---------|-------------|---------------------|------------------------------------|---------|--------------------------------------|--------------|
| Residual | 372.038896 18.3594073 | 4 28 | | Prob R-sq Adj | , 28) > F uared R-squar | = | 141.85 0.0000 0.9530 0.9463 | |
| Total | 390.398303 | 32 | 12.199947 | Roo | t MSE | = | .80975 | |
| Without edu | ucation migrati | on | Coef. | | | P> t | [95% Cont | f. Interval] |
| Labor incor | me | | .000931 | .0001988 | 4.68 | 0.000 | .0005238 | .0013382 |
| Unemployn | nent | | 2008593 | .1229471 | -1.63 | 0.114 | 452705 | .0509863 |
| Economic g | growth | ĺ | -9.932035 | 6.197608 | -1.60 | 0.120 | -22.62726 | 2.763189 |
| Overall pov | verty | | 5.248134 | .6584524 | 7.97 | 0.000 | 3.899356 | 6.596913 |
| Source: Con | mpiled by aut | hor l | pased on Co | napo, Ineg | i, Cone | val and | SHCP | |

Model 2.

| Source | | df | M | S | Number of | | | | |
|------------|----------------|---------|--------|------------|----------------------|---------|------------------|-----------------------|--------------|
| Madal I | 24656.2024 | | | 506 | F(4, 28) Prob > F | | 494.23 0.0000 | | |
| | 349.217805 | | | | R-squared | | 0.9860 | | |
| | 343.217003 | | | | Adj R-squa | | | | |
| | 25005.4202 | | | 9381 | Root MSE | = | 3.5316 | | |
| Post basic | education non | migra | ation | | Std. Err. | t | P> t | [95% Conf | Interval] |
| Labor inco | ome | | | .0089626 | .000867 | 10.34 | 0.000 | .0071867 | .0107385 |
| Unemploy | ment | | | 1.202869 | .5362126 | 2.24 | 0.033 | .1044868 | 2.30125 |
| Economic | growth | | | -11.92359 | 27.02981 | -0.44 | 0.663 | -67.29164 | 43.44446 |
| Overall po | verty | | | 9.22172 | 2.871728 | 3.21 | 0.003 | 3.339253 | 15.10419 |
| Source: Co | mpiled by aut | hor b | ased o | on Conapo, | Inegi, Con | eval an | d SHCP | | |
| Source | SS | df |] | MS | Number | of obs | = | 32 | |
| + | | | | | F(4, 2 | 28) | = 154 | 3.14 | |
| Model | 141852.501 | 4 | 3546 | 53.1254 | Prob > I | | = 0.0 | 0000 | |
| Residual | 643.471631 | 28 | 22.9 | 811297 | R-square | ed | = 0.9 | 955 | |
| + | | | | | Adj R-sq | uared | = 0.9 | 948 | |
| Total | 142495.973 | 32 | 4452 | .99916 | Root MS | SE | = 4.7 | 7939 | |
| Basic educ | cation non mig | gratio | n | Coef. | Std. Err. | t | P> t | [95% Conf. | Interval] |
| Labor inco | ome | | | .011513 | .0011769 | 9.78 | 0.000 | .0091023 | .0139237 |
| Unemploy | ment | | i i | 1.152105 | .7278695 | 1.58 | 0.125 | 3388678 | 2.643079 |
| Economic | growth | | İ | 130.8606 | 36.69099 | 3.57 | 0.001 | 55.70246 | 206.0186 |
| Overall po | verty | | Ĺ | 77.28586 | 3.898161 | 19.83 | 0.000 | 69.30084 | 85.27088 |
| ource: Co | mpiled by au | thor l | pased | on Conap | o, Inegi, Co | oneval | and SH | CP | |
| Source | SS df | M | IS | | Number of | | 32 | | |
| | H | | | | F(4, 28) | | | | |
| | 1328.08593 | | | | Prob > F | | 0.0000 | | |
| | 64.7006646 | | | | R-squared | | | | |
| | | | | | Adj R-squa | | | | |
| Total | 1392.78659 | 32 4 | 3.524 | 5811 | Root MSE | = | 1.5201 | | |
| Without ed | lucation non n | nigrati | ion | Coef. | Std. Err. | t | P> t | [95% Con | f. Interval] |
| Labor inco | ome | | | 0001821 | .0003732 | -0.49 | 0.629 | 0009465 | .000582 |
| Unemploy | ment | | | | .2308039 | | | | |
| | | | | | | | 0 00 0 | 22 22 44 | 0.4.0000 |
| Economic | growth | | | | 11.63454 | | | -22.88664 14.37155 | |

Source: Compiled by author based on Conapo, Inegi, Coneval and SHCP

As seen in Models 3 and 4, in environments with higher federalized income, the highest levels of migration are occurring. However, if states are having higher local incomes, individuals prefer not to migrate. This effect is greater in states with higher levels of education. The effect of federalized income is greater on non migration and the effect of local income is higher on migration (see Models 3 and 4).

Model 3. Effect of government revenues on migration

| Source | SS | df | MS | | per of ol | | 32 29.27 | |
|--------------|-------------------------------|---------|--------------|--------------------------------------|-----------|------------------|---------------------|--------------|
| Model | 45199.76 | 2 | 22599 88 | | | = 0.0 | | |
| | 2059.10884 | | | R-sq | uared | = 0.9 | 9564 | |
| Total | 47258.8689 | 32 | 1476.83965 | | MSE | ed = 0.9 = 8. | | |
| Post basic e | ducation migra | tion | Coef. | Std. Err. | t | P> t | [95% Conf | Interval] |
| Federalized | income | | .0027724 | .0002467 | 11.24 | 0.000 | .0022685 | .0032763 |
| Local inco | me | | .0025338 | .0013336 | 1.90 | 0.067 | 0001898 | .0052574 |
| Source: Co | mpiled by aut | hor | based on Cor | apo and S | HCP | | | |
| Source | SS | df | MS | | nber of | | 32 | |
| + | | | | | 2, 30) | | 230.49 | |
| | 366.544513 | | | | | = (| | |
| Residual | 23.8537901 | 30 | .795126335 | | | _ = (| | |
| Total | 390.398303 | 32 | 12.199947 | | t MSE | red = (| .8917 | |
| Without edu | cation migrati | on | Coef. | Std. Err. | t | P> t | [95% Conf | f. Interval] |
| Federalized | l income | | .0003339 | .0000266 | 12.57 | 0.000 | .0002797 | .0003881 |
| Local incom | me | i | 0003025 | .0001435 | -2.11 | 0.044 | 0005957 | -9.37e-06 |
| Source: Co | mpiled by aut | hor | based on Co | napo and | SHCP | | | |
| Source | SS | df | MS | Nu | mber of | fobs = | 32 | |
| | + | | | - F(| 2, 30 |) = | 583.28 | |
| Model | 108609.245 | 2 | 54304.622 | 3 Pro | b > F | = | 0.0000 | |
| D 1 1 | | 20 | 03 102///1 | 9 R- | squared | = | 0.9749 | |
| Residual | 2793.07326 |) 50 | 75.102441 | | | | | |
| | + | | | - Ad | | ared = | 0.9733 | |
| | + 111402.318 | | | - Ad | | ared = | | |
| Total | + | 32 | 3481.3224 | - Ad 3 Ro | R-squa | ared = | | Interval] |
| Total | 111402.318 ation migration | 32 n | 3481.3224 | - Ad 3 Ro Std. Err. 0002874 | t 18.94 | P> t 0.000 | 9.649 [95% Conf. | .0060307 |

Model 4. Effect of government revenues on non migration

| | SS | | | | | | | | |
|--|--|------------------------|----------|--|---|--|--|---|-----------|
| Model | 24315.922 689.498217 | 2 | 121: | 57.961 | Prob > F | | = 0.0000 | 0 | |
| | 25005.4202 | | | | | | | | |
| Post basic ed | lucation non n | nigra | tion | Coef. | Std. Err. | t | P> t | [95% Conf | Interval] |
| Federalized | lincome | | | .0017657 | .0001428 | 12.37 | 0.000 | .0014741 | .0020573 |
| T . | ne | | | .0034357 | .0007717 | 4.45 | 0.000 | .0018597 | .0050117 |
| | npiled by aut | | | • | | | he - | 32 | |
| Source | npiled by aut | df | | MS | Numb F(2, | per of o | bbs = = 5 | 572.92 | |
| Source Source Model Residual | SS 138860.378 3635.59461 | df 2 30 | 69 | MS 9430.1892 21.186487 | Numb F(2, Proba | oer of o 30) > F ared | = 5 = 0 = 0 | 572.92 0.0000 0.9745 | |
| Source: Con Source Model Residual | SS 138860.378 | 2 30 | 69 | MS 9430.1892 11.186487 | Numb F(2, Prob R-squ Adj R- | oer of o 30) > F ared square | = 5 | 572.92 0.0000 0.9745 0.9728 | |
| Source: Con Source | SS 138860.378 3635.59461 142495.973 | 2 30 32 | 69 12 44 | MS 9430.1892 21.186487 352.99916 Coef. | Numb F(2, Prob R-squ Adj R- Root I | per of o 30) > F ared | = 5 = 0 = 0 = 1 = 1 = 1 | 572.92 0.0000 0.9745 0.9728 11.008 | Interval] |
| Source: Cou Source Hodel Residual Total Basic educat | SS 138860.378 3635.59461 142495.973 | 2 30 32 ation | 44 | MS | Numb F(2, Prob 2 R-squ Adj R- Root 1 Std. Err. | oer of o 30) > F ared | = 5 = 0 = 0 d = 0 = 1 - P> t | 572.92 0.0000 0.9745 0.9728 11.008 [95% Conf | .0067005 |

| Source | SS | df | MS | Numbe F(2, | | = 97 | and the second second | |
|----------------------------|--------------------------|--------|----------------------|---------------------|---|----------------|-----------------------|---------------------|
| | 1207.44474 185.341858 | | | Prob > R-squar | F | = 0.0 = 0.8 | 000 669 | |
| Total | 1392.78659 | 32 | 43.5245811 | Root M | | | | |
| Without edu | cation non mig | gratio | n Coef. | Std. Err. | t | $P{>} t $ | [95% Conf | Interval] |
| Federalized Local incor | | | .0007532 0015879 | .000074 .0004001 | | | .000602 002405 | .0009044 0007707 |

Source: Compiled by author based on Conapo and SHCP

As seen in Model 5, lack of health services, high levels of inequality and violence generate migration of individuals that have basic education or less. In states that have lower levels of education, the individuals that have more education tend to migrate. As seen in Model 6, levels of violence generate greater migration of individuals that are more prepared.

Model 5. Effect of social factors on migration

| Source | SS | df | MS | Number of obs = 32 F(4 28) = 36445 | | | | | | |
|---|------------------------------------|-------|---------------------------------|--|--------------------|--------|----------------------------|--|-----------------------|----------------------|
| | 46368.2807 890.588169 | | | F(4, Prob> R-squa | 0.0000 0.9812 | 0.0000 | | | | |
| | 47258.8689 | | | Adj R- Root M | squared = MSE = | | 0.9785 5.6397 | | | |
| Post basic e | ducation migra | Coef. | Std. Err. | | t | P> t | [95% Conf. | Interval] | | |
| Workers wi | without health th at least seco | | .532169 31.53928 9.270159 | | 3.12 | 0.081 | | 85.50952 .1283455 50.51627 47.91085 | | |
| Source: Co | mpiled by au | thor | based on Cor | apo, Conev | al and Seg | gol | b | | | |
| Source | SS | df | MS | F(4, | , | = | 32 626.58 | 3 | | |
| | 110171.509 1230.80919 | | | Prob > R-squa Adi R- | | = | 0.0000 0.9890 0.9874 |) | | |
| Total | 111402.318 | 32 | 3481.32243 | Root M | | = | 6.6 | | | |
| Basic education migration | | | | Coef. | Std. En | r. | t | P> t | [95% Con | f. Interval] |
| Gini Willful homicides Population without health services Workers with at least secondary education | | | | 69.96907 | .625614 | 35 | 2.39 1.89 | 0.002 0.024 0.070 0.238 | .2121237 -5.980435 | 2.775148 145.9186 |
| | mpiled by aut | | | | | | | | | |
| Source | SS | df | MS | Number of obs = 32 F(4, 28) = 199.19 | | | | | | |
| Model | 377.144457 | 4 | 94.2861142 | | - | = | 0.000 | | | |
| Residual | 13.2538465 | 28 | .47335166 | | ared : | = | | _ | | |
| Total | 390.398303 | 32 | 12.199947 | Root l | | | .6880 | | | |
| Without education migration | | | | Coef. | Std. En | | t | P> t | [95% Con | nf. Interval] |
| Gini Willful homicides Population without health services Workers with at least secondary education | | | | 9.956978 | | 5 | | 0.015 | .2135165 | .4794839 17.83833 |

Source: Compiled by author based on Conapo, Coneval and Segob

Model 6. Effect of social factors on non migration

| Source | SS | df | MS | Number of obs = 32 F(4, 28) = 741.43 |
|-----------------------------------|------------------|-------|--------------|---|
| Model | 24771.5462 | 4 | 6192.88656 | |
| | 233.873955 | | 8.35264125 | R-squared = 0.9906 |
| residual | 233.013733 | 20 | 0.55204125 | Adj R-squared = 0.9893 |
| Total | 25005.4202 | 32 | 781.419381 | Root MSE = 2.8901 |
| Post basic e | ducation non m | igrat | ion | Coef. Std. Err. t P> t [95% Conf. Interval] |
| Gini | | | | -14.87525 |
| Willful hon | nicides | | | .4384791 .2727106 1.61 0.1191201433 .9971015 |
| | without health | | | 8.449195 16.16234 0.52 0.605 -24.65786 41.55625 |
| Workers wi | th at least seco | ndar | y education | 48.21097 4.750504 10.15 0.000 38.48 57.94193 |
| Source: Co | mpiled by aut | hor l | ased on Con | apo, Coneval and Segob |
| Source | SS | df | MS | Number of obs = 32 |
| + | | | | F(4, 28) = 1118.99 |
| Model | 141610.111 | 4 | 35402.5277 | Prob > F = 0.0000 |
| Residual | 885.862175 | 28 | 31.6379348 | R-squared = 0.9938 |
| + | | | | Adj R-squared = 0.9929 |
| Total | 142495.973 | 32 | 4452.99916 | Root MSE = 5.6248 |
| Basic education non migration | | | | Coef. Std. Err. t P> t [95% Conf. Interval] |
| Gini | | | | 107.168 18.61368 5.76 0.000 69.03965 145.2964 |
| Willful hon | nicides | | | .3003067 .5307551 0.57 0.5767868959 1.387509 |
| Population | without health | serv | ices | 39.02924 31.45548 1.24 0.225 -25.4044 103.4629 |
| Workers wi | th at least seco | ndar | y education | 12.07655 9.24553 1.31 0.202 -6.862059 31.01516 |
| Source: Co | mpiled by aut | hor | based on Con | aapo, Coneval and Segob |
| Source | SS | df | MS | Number of obs = 32 |
| | | | | F(4, 28) = 152.48 |
| Model | 1331.6549 | 4 | 332.913724 | Prob > F = 0.0000 |
| Residual | 61.1316968 | 28 | 2.18327488 | |
| | F | | | Adj R-squared = 0.9498 |
| Total | 1392.78659 | 32 | 43.5245811 | Root MSE = 1.4776 |
| Without education non migration | | | | Coef. Std. Err. t P> t [95% Conf. Interval] |
| | | | | 1 22 00160 4 000702 6 72 0 000 22 07550 42 00770 |
| Gini | | | | 32.89169 4.889702 6.73 0.000 22.87559 42.90779 |
| | nicides | | | 32.89169 4.889702 6.73 0.000 22.87339 42.90779 .1406434 .1394262 1.01 0.3221449582 .426245 |
| Gini Willful hor Population | without healtl | | | |

5. Social Investment

After analyzing the descriptive statistics and the statistical models, it could be inferred that the profile of the recent migrants are individuals who come from states with greater economic growth environments and where poverty and unemployment levels persist. This situation is because investment is being intensive in the use of technology, displacing people with capacity and who are contracted in the United States mainly, where they appreciate their abilities.

To reverse these migratory flows, Mexican government has to implement a social investment policy that considers the migrant as an asset that provides skilled labor and not only as an expense in case of their repatriation. This social investment consists in focusing public investment on work-intensive projects rather than on technology as it has been doing.

Social investment must be accompanied by better social conditions such as reducing levels of violence and inequality and providing greater health services. Also better wages. Higher local income could be useful to redistribute resources and generate a less unequal environment that benefits the entire population.

Conclusions

Recent migration has occurred in environments with higher levels of economic growth, but individuals with relatively greater training have been unable to find employment because of the prioritization of investment in technology. If government focuses on increasing jobs for those prepared workers, migration flows would decrease benefiting Mexico; making its economy sustainable. This is possible through a social investment model.

Lower levels of inequality, violence and people without health services would be needed to generate a sustainable social investment environment. Local income could be an important source of extra income that allows a redistribution of resources that promotes better conditions to implement social investment. In this way, massive deportations could be assimilated into a strategy of greater sustainable economic growth.

References

- Consejo Nacional de Evaluación de la Política de Desarrollo Social (Coneval). (2017). Índice de la tendencia laboral de la pobreza. [Online] Available: http://www.coneval.org.mx/Medicion/ Paginas/Indicede-la-tendencia-laboral-de-la-pobreza-(ITLP).aspx (March 10, 2017).
- Consejo Nacional de Evaluación de la Política de Desarrollo Social (Coneval). (2015). Medición de la pobreza. [Online] Available: http://www.CONEVAL.org.mx/Medicion/Paginas/PobrezaInicio.aspx (March 10, 2017).
- Consejo Nacional de Población (Conapo). (2010). Migrantes recientes y no migrantes por nivel educativo según entidad federativa, 2010. [Online] Available: http://www.conapo.gob.mx/en/CONAPO/Migrantes_recientes_y_no_migrantes_por_nivel_educativo_segun_entidad_federativa_2010 (March 10, 2017).
- Instituto Nacional de Estadística y Geografía (Inegi). (2017). Desocupación. [Online] Available: http://www.inegi.org.mx/sistemas/bie/cuadrosestadisticos/GeneraCuadro.aspx?s=est&nc=624 & c=25462 (March 10, 2017).
- Secretaría de Gobernación (Segob). (2017). Incidencia delictiva del fuero común [Online] Available: http://secretariadoejecutivo.gob.mx/incidencia-delictiva/incidencia-delictiva-fuero-comun.php (March 10, 2017).
- Secretaría de Hacienda y Ćrédito Público (SHCP). (2017). Acuerdo por el cual se da a conocer el calendario de entrega, porcentaje, fórmulas y variables utilizadas, así como los montos estimados que recibirá cada entidad federativa del Fondo General de Participaciones y del Fondo de Fomento Municipal, por el ejercicio fiscal de 2017. [Online] Available: http://www.dof.gob.mx/nota_detalle.php?codigo=5470303&fecha=30/01/2017 (March 10, 2017).
- Secretaría de Hacienda y Crédito Público (SHCP). (2016). Obligaciones financieras de entidades federativas, municipios y organismos, serie histórica. [Online] Available: http://disciplinafinanciera.hacienda.gob.mx/es/OBLIGACIONES_ENTIDADES/ 2016 (February 21, 2017).