INTERSTATE MIGRATION FLOWS.
ASSESSING TRENDS FOR MEXICO.
1950-2010

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ABSTRAC

This work identifies migratory flows taking place between the states in Mexico in a long-term perspective. Migration within a country is a manifestation of the different production conditions and growth rates of its entities and regions. They identify its imbalances and trends, which, in order to be corrected, require knowledge of their population movements and their determinants. This investigation takes as its main statistical source the Population Censuses from 1950 to 2010. By obtaining the migratory balances by state throughout the period, research institutions identify migration by type of behavior, which analyzes and follows trends. To this end, absolute migratory flows are considered and their importance from the point of view of the total population are then emphasized .Throughout the period, interstate migration flows make up a scenario in which a greater proportion of states behave like population ejectors and a lower proportion as attractors. Of the ejector states, the most important is the Federal District. The state of Mexico is the most important attractors. One central region with great migration activity where only two states interact predominantly as a receiver and ejector is thus formed. In addition to the central region, the investigation identifies attractors and ejecting regions in the north, northwest, northeast, north central, south and southeast. The paper concludes by discussing the importance of intense migratory flows in the central region and its future implications.

Keywords: *migration, population, interstate, region, expulsion, attraction.*

Migration within a country is a manifestation of the different production conditions and growth rates of its various entities and regions. It reflect the spatial interaction of socio-economic relations. For the same reason, we realize its imbalances and its trends. In order to correct imbalances and anticipate trends in whatever form requires first to know the population movements and their determinants. In other words, it means having a statistical basis of such movements associated with socioeconomic variables, to help formulate tentative generalizations that, confronted with existing theories of migration flows, predict behavior and propose policy measures designed to promote stabilizing behavior.

This paper has as its initial purpose, based on the available statistics, to account for the migration taking place between the states on a long-term perspective. Secondly, it tentatively aims to contribute to the identification of relevant economic regions from migration flows.

The substantive part of this work is focused on providing a general outline of migration between states for the period 1950-2010, and to identifies groups of migratory entities by type of behavior, analyzes them and detect trends. To this end, absolute migratory flows are considered and its importance from the point of view of the total population is emphasized. The final section presents the conclusions.

A drawback of this study relates to the analysis of the period that was chosen. Over sixty different events have occurred, both national and international, which have undoubtedly determined the population's behavior. Such behavior has shown variations and trends in interstate flows, but it is clear that sixty years may be a long enough period to contain, in turn, different sub-periods, each associated with a corresponding set of determinants to specific behavior .This means that factors that are valid for one period, are not necessarily true to the other, resulting in migration

although there are undoubtedly underlying determinants that do not always act with the same intensity and are not always similarly combined. In other words, there would be no standing to derive generalizations on the same migration theories being valid for all times and places.

Thus, in this work, our aim is reduced to delineate trends on migratory flows both on the side of the function of a geographical entity as "attractor" populations, such as expellers, but also with a view to identifying economic regions that establish their degree of dynamism and / or delay, in order to predict trends using attraction-repulsion techniques, and / or more sophisticated spatial interaction and therefore enable policy measures most suitable to promote behavior in an environment of economic growth and development at different, local, state and regional levels.

SOME THEORETICAL AND EMPIRICAL BACKGROUND OF INTERSTATE MIGRATION

The phenomenon of migration has focused with different spatial ranges. Some are international, inter-regional, interstate and intrastate. This paper is mainly interested in interstate and marginally the most recent. As for the interstate ranges, long ago several authors have benefited us with their excellent contributions. A classic study is by Ravenstein (1885) who takes as its object of study the UK and bequeathed a set of basic relationships that determine inter-population movements. In his view, these relations reached the category of immigration laws. Another, more recent, interesting study on this type of flow is by Clayton (1977), prepared for the United States. A state study addressing short-term migration having as one of its root causes economic fluctuations, is found in KP Ballard, and Clark GL. (1981). The costs

of interstate migration are addressed by Bayer, C., and Juessen, F. (2008). Less specific but also worth taking into account are the contributions of geographical and interregional characters is Beyers (1980); Rogers (1980); Tobler (1981) and Woods (1982). Mexico has a substantial record due to the work of Greenwood, MJ, Ladman, JR, and Siegel, BS (1981); Partida (1984); Uribe, M. and Caso, A. (1979); and Garrocho (1996).

These studies have adopted different methods according to their particular objectives. For example, the work of Ravenstein qualifies as descriptive statistics, which in no way detracts, especially if it is considered to be a pioneer work. The same is true of the work of Corona (1993) for Mexico. Other works adopt an econometric approach such as Partida, for the short term, or Greenwood, for the long term (1950-1970). Meanwhile, Clayton uses the method of Principal Component Analysis and nodal analysis, which is a theoretical - graphical technique. As a result of this variety of approaches, periods and spatial coverage, the scope of such contributions will also be diverse.

GENERAL INTERSTATE MIGRATION TRENDS IN MEXICO

According to the INEGI and based on the population census published by the institute of 1950-2010, a compilation, systematization and analysis of information on migration flows between

1. The numbers are rounded.

2. As the information on which is based the analysis comes from the census of the population and housing, and these are registered in decades, when we refer to 1950, 1960 etc. we are referring to the census of these years, which, as is obvious, understand and refer to the decades that end in those years. For example, when we say 1950, we refer to the period of 1941-1950, and so on.

the states belonging to the country took place. Derived from this work, the following preliminary results were obtained.

In 1950, the people who left their birthplace to reside in another totaled one million 820,000 , [1] a figure that rose to pass the decades to reach 9 million in 2010. [2] However, surprisingly, as a proportion of the total population, migration rose only slightly, because in 1950 it represented 7.1%, while for 2010 it was 8.0%, and on average for the whole period from 1950 to 2010, 7.1%.

During the 1970s and 1980s the lower intensity of emigration was recorded as a proportion of the population (6.4 and 6.3% respectively), having risen steadily since 1990.

According to the 1950 population census, 6 entities contributed with 71% of people who left their place of birth (Guanajuato, Hidalgo, Jalisco, Mexico, Michoacan and Zacatecas) (see Figure I). By 2010 this composition had changed, because only five institutions contributed 68% (Federal District, Veracruz, Oaxaca, Michoacan and Guerrero), of which the Federal District contributed 39% (see graph 2).

Graph 1. Entities in the Mexican Republic that provide
a migrant population 1950.
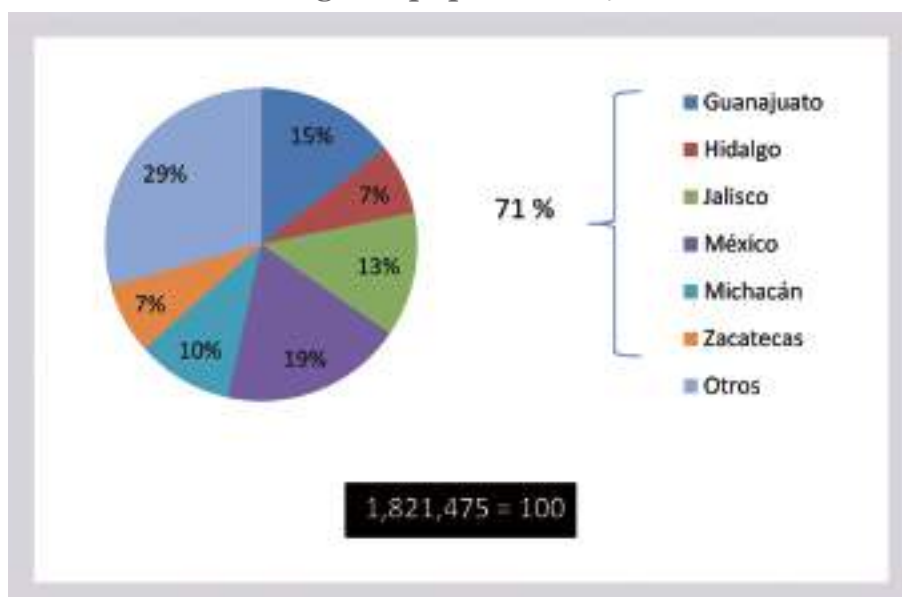
Source: Own design based on Figure 1 / See Annex, Others thousands

Graph 2. Entities in the Mexican Republic that provide
a migrant population 2010.
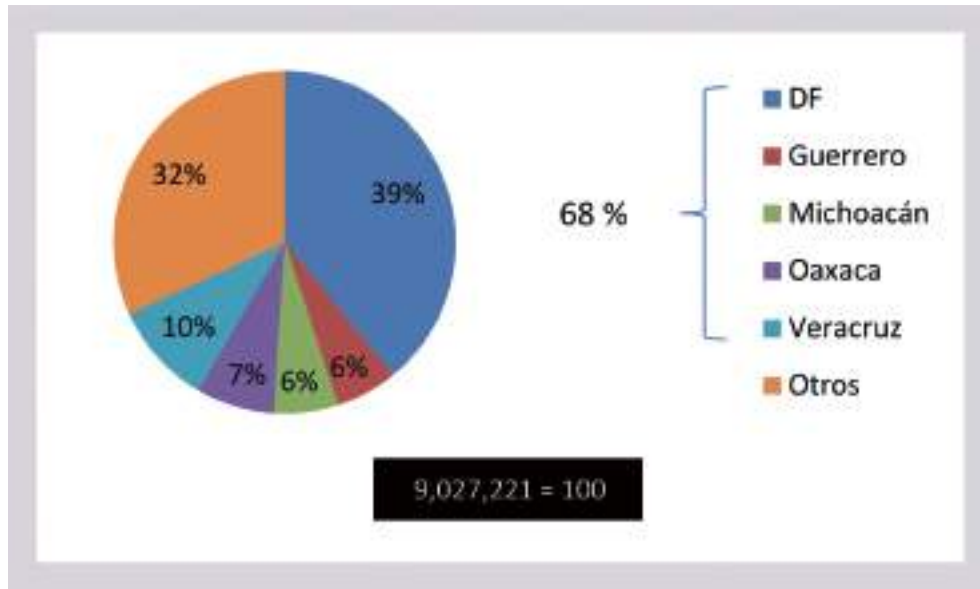
Source: Own design based on Figure 1 / See Annex, Others thousands.

Migration flows concern both the entities from which migrate people of different age and sex to others, whether they are neighboring or not, and entities that act as recipients from other states; Sometimes referred to as the first ejector population entities, and the latter as attractor entities.

Moreover, migration flows are population movements that have a variable behavior, both in intensity and scale, responding to factors of political, religious, cultural, economic, etc. type. In this exhibition we will not stop for the moment for such factors, since they require a careful and extensive review, but something more immediate, its phenomenal behavior, or in other words behavior and interaction in the period from 1950 to 2010 regardless of their causes. So, first we try to present the facts as they manifest and in another work we will seek to identify the determinants of the most important trends of interstate migration.

Of the systematic information, there have been four clearly detached behaviors of migration flows for the study period. In the first (I), entities throughout the period that showed a constant behavior in their function as ejectors are grouped; in the second (II), entities that, in contrast, showed a capacity to meet population attraction; in the third (III) remain the states that changed their status as first ejector and then attractors; and in the fourth (IV), those entities who first acted as attractors, and later as ejector.

EJECTOR POPULATION ENTITIES (1950-2010)

Group I consists of 13 entities (see Figure 3), and we should highlight the first place to Oaxaca. This state expelled 73,000 inhabitants in 1950 to 670,000 in 2010, followed by Michoacán (from 180,000 to 550,000); Guerrero (from 34,000 to 530,000) and Puebla (from 80,000 to 470,000).Three other states (San Luis Potosi, Zacatecas and Chiapas), expelled population in an average range of 75,000 in 1950 to 360,000 in 2010, highlighting especially the ejector dynamism of Chiapas, after 1990, while the other two states they were until 1980, then show a steady or declining ejector behavior. [3]

Of the remaining 6 entities, 5 (Durango, Guanajuato, Hidalgo, Tabasco and Yucatan) on average expelled 98,000 people in 1950 , by 2010 were sending people to other entities by an average of 178 thousand. While it should be noted that Durango, Tabasco and Yucatan maintained a dynamic flow ejector (but from a low level of expulsion: 31,000 people on average

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3 In effect, over a much lower base, in 1950 (5,000) where the expulsion in the period of 1950-2000 multiplied by 71.

in 1950), while Guanajuato and Hidalgo reported an upward trend until 1980 (starting a base of more than 100,000 people in 1950) and decreasing the next 30 years. A special case is that of Tlaxcala, which has traditionally been ejector and this upward trend in the period 1950-1980 and decreasing in 1990-2010, on a base of 55,000 expelled on average per decade, having 2010 as its decade of lowest expulsion.

Graph 3. Constant expulsing entities,
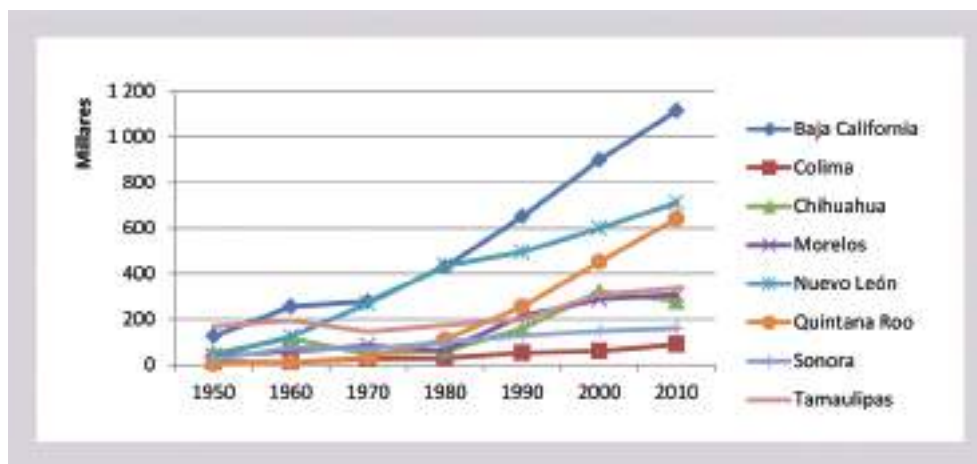1950-2010, Number of migrants
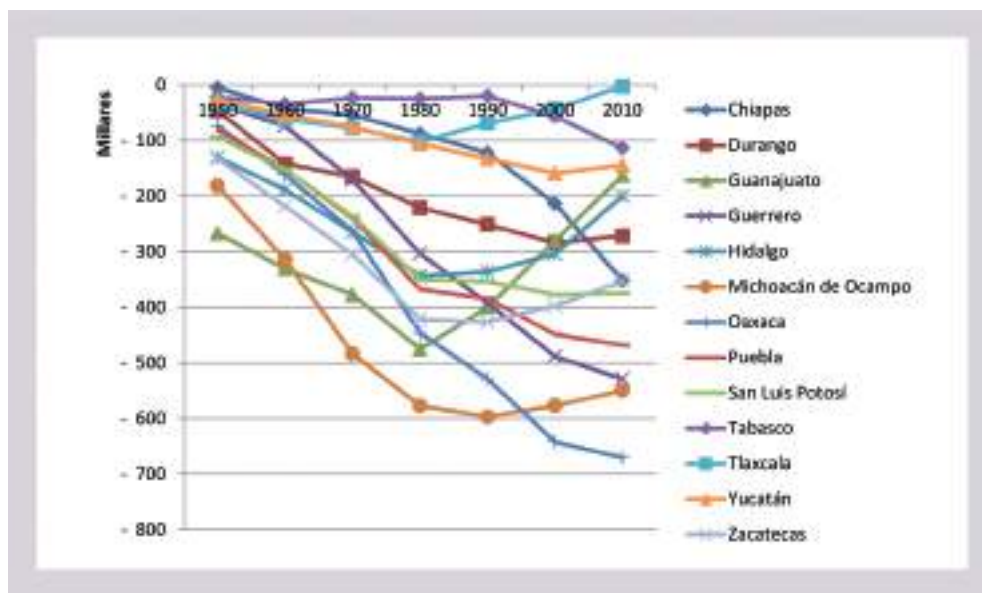
Source: Own design based on Figure 1 / See Annex, thousands.

ATTRACTORS POPULATION ENTITIES (1950-2010)

Group II is made up of eight companies (see Figure 4), of which Baja California, Nuevo Leon and Quintana Roo kept attracting a growing population.

Graph 4. Constant attractor entities. 1950-2010,
number of migrants

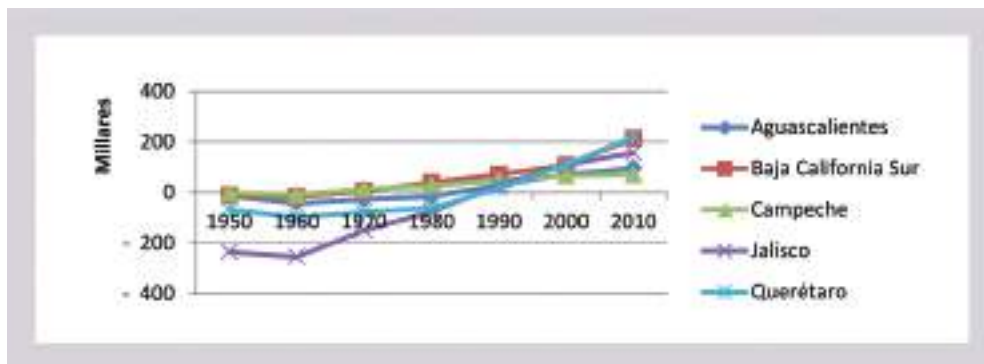Source: Own design based on Figure 1 / See Annex thousands

Baja California in 2010 multiplied by 9 (8.85) the number of people who entered their territory with respect to 1950. In turn, Nuevo Leon and Quintana Roo did it for 17 and 156 respectively. In absolute terms, California has played a major role as attractor, but Nuevo Leon and Quintana Roo (especially the latter) have been in terms of dynamism. Chihuahua, Tamaulipas and Morelos in 2000 exceeded the level of receiving 200 thousand people, while Colima and Sonora remained throughout the period below that level, with greater participation, however, from Sonora.

ENTITIES THAT CHANGED THEIR STATUS TO ATTRACTORS FROM EJECTORS (1950-2010)

Group III is made up of six states (see Charts 5.a and 5.b), which immediately highlights the State of Mexico, because of its status as an ejector of population in the censuses of 1950 and 1960,

went on to attract major migratory flows , from 600,000 in 1970 to the important figure of 4 million 600 thousand in 2010. Of the other entities, we should highlight Jalisco, which has been driving an average of 180 thousand inhabitants in the decades from 1950 to 1980, it has gone to receive in its territory nearly 100,000 people from 1990 to 2010. The other relevant state is Baja California Sur, because in the last 40 years has increased its attracting capacity, capturing in 2010 over 210 thousand people. Aguascalientes, since 1990, has increased its receiving position to the figure of 100,000 migrants. Queretaro, after having expelled an average of 76,000 people between 1950 and 1980, since 1990 has increased its receptive capacity, and in 2010 received 210 thousand migrants. Campeche, although it was expelling during the period 1950-1960, since 1970 he has been receiving people, although in amounts that do not exceed 75 thousand people, even for 2010.

Graph 5.a Entities that modified their condition from ejectors to attractors. 1950-2010, Number of migrants.

Source: Own design based on Figure 1 / See Annex thousands.

Graph 5.b. Atypical ejector-attractor entities. 1950-2010.
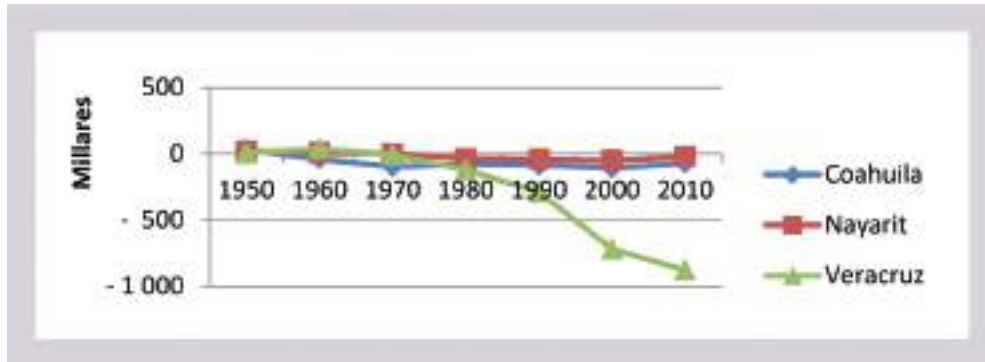Number of migrants
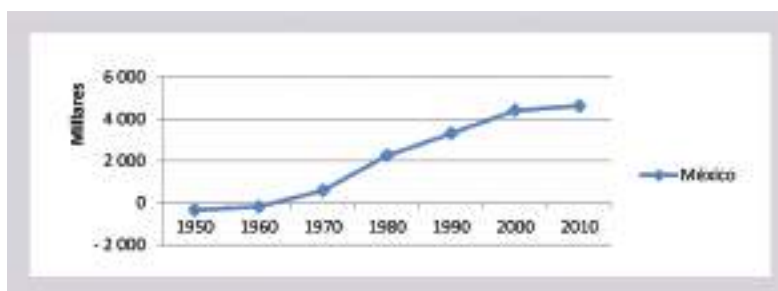
Source: Own design based on Figure 1 / See Annex thousands.

ENTITIES THAT CHANGED THEIR STATUS
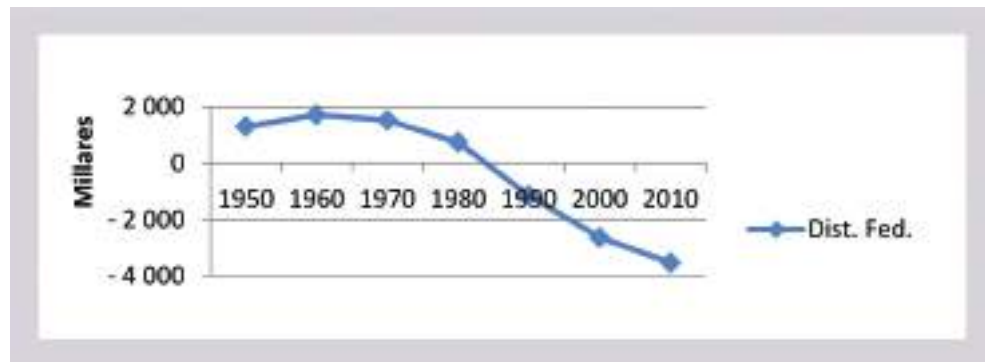## FROM ATTRACTORS TO EJECTORS (1950-2010)

The group IV in turn consists of 4 entities (see Charts 6.a and 6.b). Notable among them are Mexico City, which, after attracting an average population of one million 300 thousand people every 10 years between 1950 and 1980, this situation has reversed since the 1990s, with 2 million 440 thousand ejected on average every decade until 2010. Another state, Veracruz, stands out because since the 1970 census it has been increasing the number of people who migrate to other entities. In the decades of 1990-2010 It has expelled on average 630,000 inhabitants. Coahuila has ejected from its population since 1960 on an average of 80,000 every decade, while Nayarit has done so since 1980 at a lower level (less than 40 thousand people until 2010).

Graph 6.a Entities that modify its condition of attractors
and ejectors. 1950-2010. Number of migrants.

Source: Own design based on Figure 1 / See Annex/thousands .

Graph 6.b Atypical attractor-ejector entitites. 1950-2010.

Source: Own design based on Figure 1 / See Annex/thousands

However, considering the fact that in the period 1950-2010 there are states that changed their status to attractors from ejectors (group III), or attractors to ejectors (group IV), when considering these changes as already made, we can reduce the number of groups to only 2 for the censuses from 1990 to 2010, or, for a short time horizon of 30 years. Those groups can be identified as V and VI respectively.

TOTAL EJECTOR ENTITIES (1990-2010)

So, on the one hand is the V group of ejectors states, which is made up of 18 states, 5 more than in the expanded horizon (see Charts 3 7.a 7.b). Of these, five entities (Guerrero, Michoacan, Oaxaca, Mexico City and Veracruz) for 2010 were expelling population above 500 thousand, but the first place was for the Federal District, the only entity with an expulsion above 3 million 500 thousand , significantly followed by Veracruz and Oaxaca.

Graph 7.a. Total of ejector entities from 1990-2010 (not including Mexico City). Number of migrants
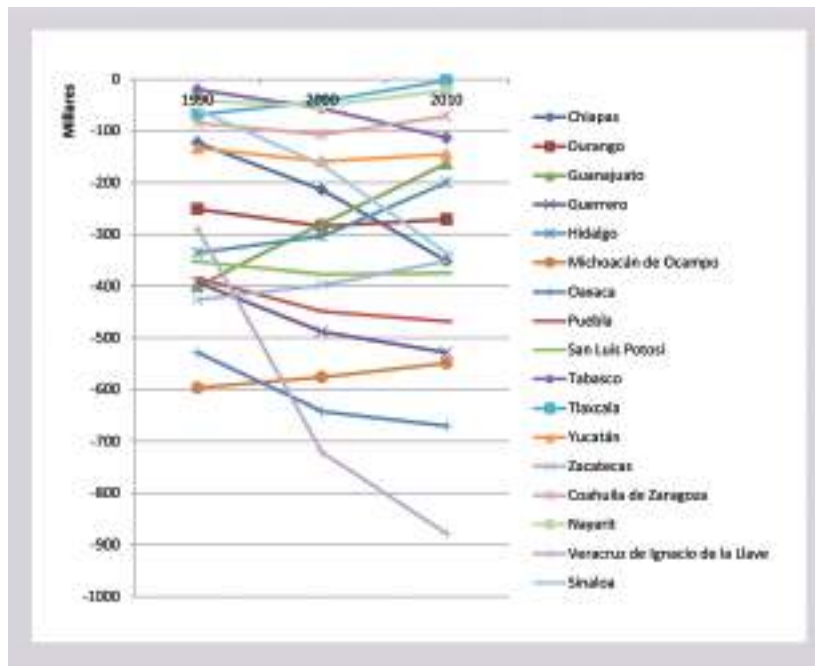
Source: Own design based on Figure 1 / See Annex / thousands

Graph 7.b. Atypical ejecting entity for 1990-2010.
Numbers of migrants
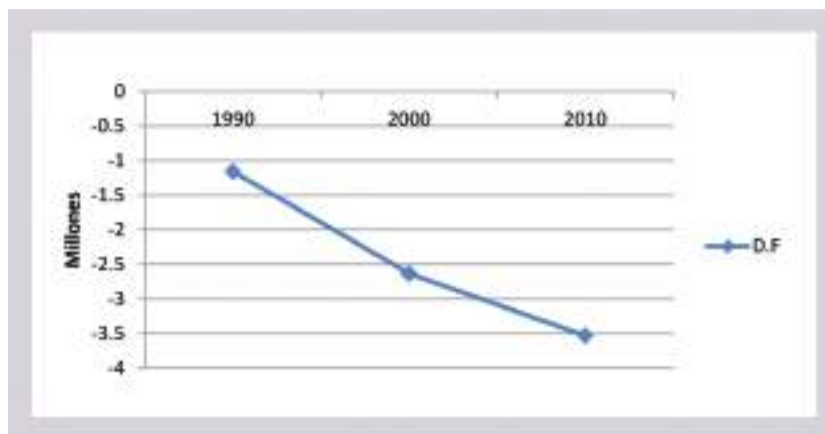
Source: Own design based on Figure 1 / See Annex .

Three other states (Puebla, San Luis Potosi and Zacatecas) expelled populations in a range between 350 and 450 thousand people in the period. Durango and Yucatan did an average of 270 and 150 thousand respectively. Sinaloa and Chiapas expelled populations of 100,000 in 1990 to 340,000 in 2010, while, conversely, Hidalgo and Guanajuato referred population to other entities from 180000 to 350 thousand in the same decades. Tlaxcala, Nayarit and Coahuila were migrant ejectors at an absolute low and declining level (below 100 thousand in the decennial period) -particularly Tlaxcala and Nayarit, in that order. Tabasco, meanwhile, also maintained a low, but growing , absolute level of expulsion.

TOTAL ATTRACTOR ENTITIES (1990-2010)

On the other hand there is the group VI, attractor states, consisting of 14 (versus 8 on an extended horizon, see Figures 4, 8.a

8.b). Of these, 4 are relevant for their attractive capacity. Firstly, the State of Mexico, the single entity with a pull of more than 4.5 million people in the decade 2000-2010. Secondly, Baja California, already surpassing one million people in the same decade, significantly followed by Nuevo Leon and Quintana Roo, with immigrants flows above 600 thousand.

Graph 8.a. Atypical attractor entity for 1990-2010.
Number of migrants.
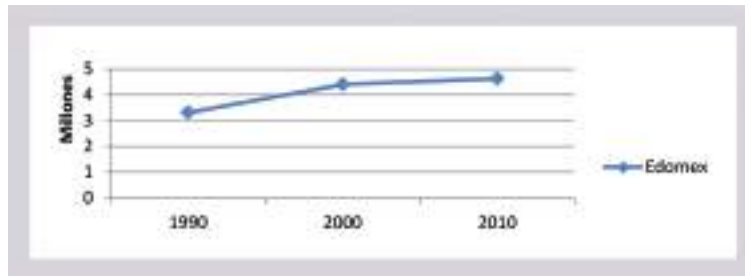

Source: Own design based on Figure 1 / See Annex .

Graph 8.b Total of attractor entities for 1990-2010.
Not including the State of Mexico.
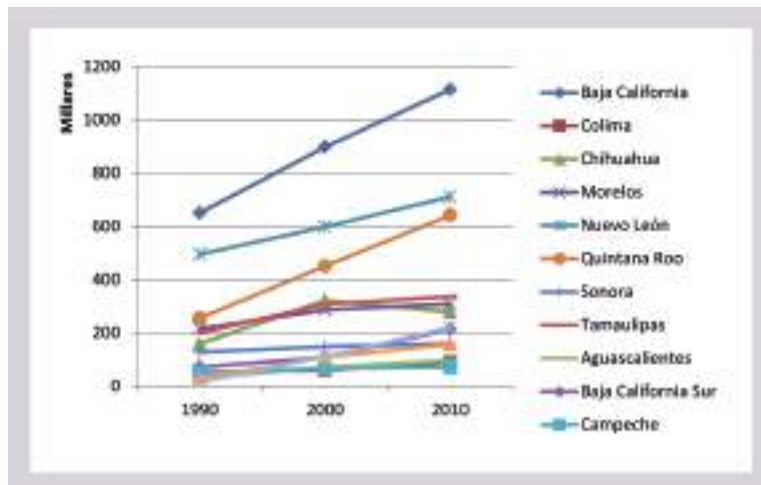
Source: Own design based on Figure 1 / See Annex .

It is followed by a group of three states (Tamaulipas, Morelos and Chihuahua) which attracted an average population of 270 thousand people per decade between 1990 and 2010. Finally, a group comprised of 7 states (Colima, Sonora, Aguascalientes, Baja California Sur, Campeche, Jalisco and Querétaro) captured migrants at an average below 145,000 every decade in the period. Those reporting the lowest levels were Colima, Campeche, and Aguascalientes.

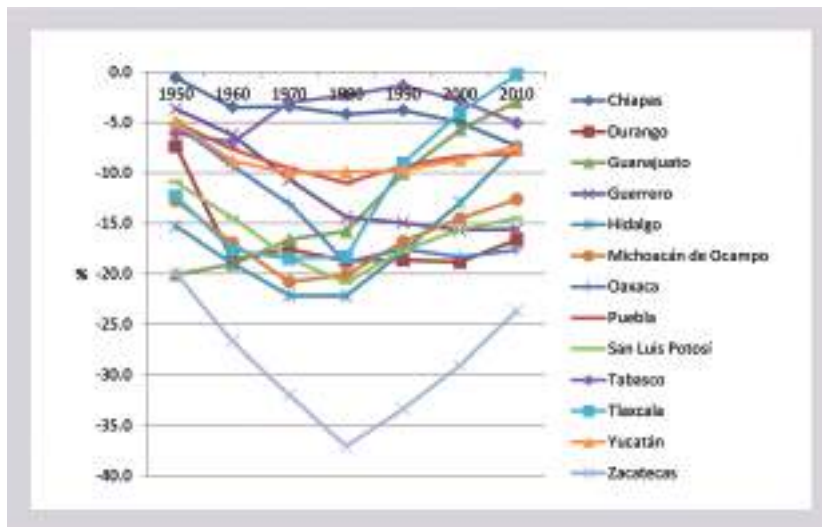## MIGRATION FLOWS AS A PROPORTION OF THE POPULATION

Now, returning to the extended time horizon (1950-2010), it must be emphasized that the results achieved in terms of the evolution of interstate migration change when we focus the analysis in terms of their importance to the population of the entities, instead of considering only the absolute flows.

For example, for group I, states like Oaxaca, Michoacan, Guerrero and Puebla, viewed in absolute terms increased the number of people expelled in the period 1950-2010, saw expulsion decreased as a proportion of the population after 1980 denoting the fact that the population grew faster than the speed at which these states expelled migrants. While in states like Tlaxcala, who reported an absolute low level of people expelled in the entire period from 1950 to 1980, the proportion of expelled population was growing until 1980, in other words until this decade the population was growing more slowly than their rate of expulsion. This relation was reversed since 1990. This feature is even more pronounced for Zacatecas state that reported a rate of 37% expelled in 1980, a proportion that decreased gradually by 2010, remaining however higher than for all other states. [4] (See Charts 3 and 9 together).

Graph 9. Constant ejector entities. Migratory balance as a propor-
tion of the population. 1950-2010.

Source: Own design based on Figure 3 / See Annex.

Graph 10. Constant attractor entities. Migratory balance as a pro-
portion of the population. 1950-2010.
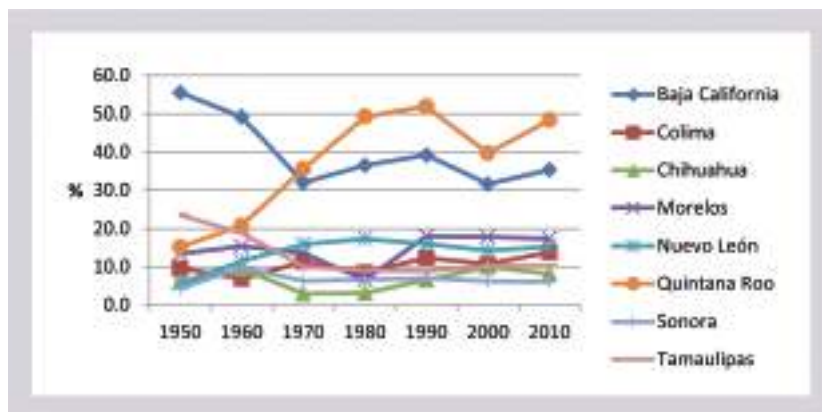
Source: Own design based on Figure 3 / See Annex.

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4 When we talk about the proportion we refer to the population the emigrated or immi-
grated during the focus decade, with respect to the existing population in the moment
that the census was done. It does not refer to the accumulated migrants.

As for group II, the flow of immigrants captured by Baja California as a proportion of the population was important in 1950 (55.4%), but a downward trend until 1970. After this year and until 2010 it maintained an average share of 35%. That is, in the first half the population grew faster than the rate of expulsion, however it was high, while in the second, population growth kept pace with the rate of attraction. This reveals the growth potential of the state, because it is not only able to retain a growing population, but also attract a large number of immigrants (see Figures 4 and 10). In the case of Quintana Roo, a state that equally attracted people throughout the period 1950-2010, the population growth was slower than the rate of attraction, reflecting as a result an increasing proportion of immigrants with respect to the population.

The group of states comprised of Colima, Chihuahua, Morelos, Nuevo Leon, Sonora and Tamaulipas, maintained a positive rate of attraction, but relatively low throughout the period, while the population as a proportion of variations reported below 20%, and some faster population growth and slower in other cases, thus reflecting a lower or higher rate ratio of attraction with respect to the population.

In turn, the State of Mexico (Group III) for 1950 expelled 25% of its population by 2010, 30% of the population were immigrants, but it should be made clear that until 1960 the population grew more slowly than the rate expulsion, and until 1990 the rate of attraction. After 1990 the population has grown faster, even though the rate of attraction was growing, reflecting results in a high proportion of immigrants, but constant in the period 1990-2010 (See Charts 5.by 11).

Another state that is notable for having changed significantly its ejector to attractor status is Baja California Sur. While in 1950 it expelled 20% of its population, in 2010, of every 10 inhabitants, 3 were immigrants. This is explained, in part, that the rate of population growth has been slower, with respect to the rate of

attraction since 1970. In general, for the states of Aguascalientes, Campeche, Queretaro and Jalisco, population growth has been lower than the rate of attraction, but at a relatively lower level than the case of Baja California Sur.(See Charts 5.a and 12).

Graph 11. Entity that modified its condition from ejector to attractor. Migratory balance as a proportion of the population. 1950-2010
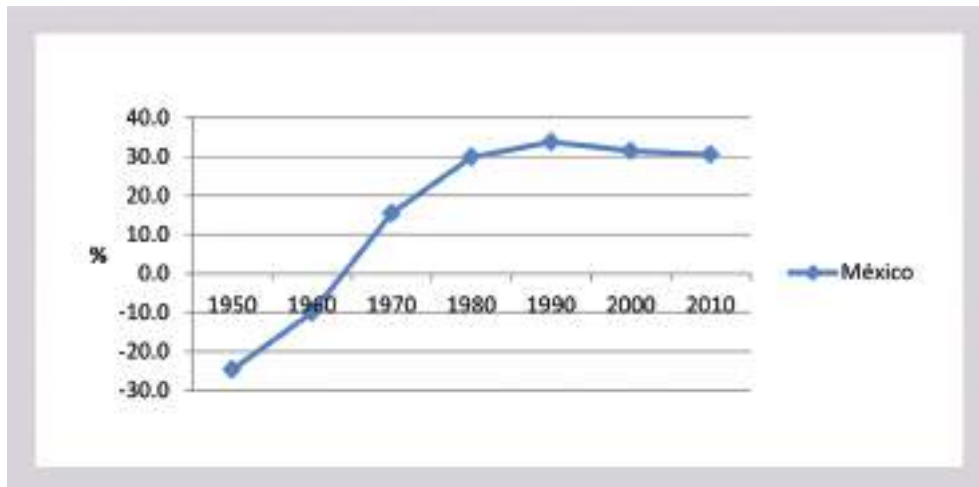
Source: Own design based on Figure 3 / See Annex.

Regarding group IV, the most important of all, both in absolute terms and relative to its population proportion, is the Federal District. In 1950 4 out of 10 inhabitants were immigrants, and by 2010 this situation was reversed, since 4 out of 10 were being driven to other entities. However, until 1980 population growth in Mexico City was higher than the rate attraction, denoting the growth of the urban area, while after 1980 the population growth was offset by an increase in the rate of expulsion, giving rise to a relatively constant population over 30 years (1980-2010). (See Charts 6.by 13).

Graph 12. Entities that modified their condition from ejectors to attractors. Migratory balance as a proportion of the population. 1950-2010.

Source: Own design based on Figure 3 / See Annex.
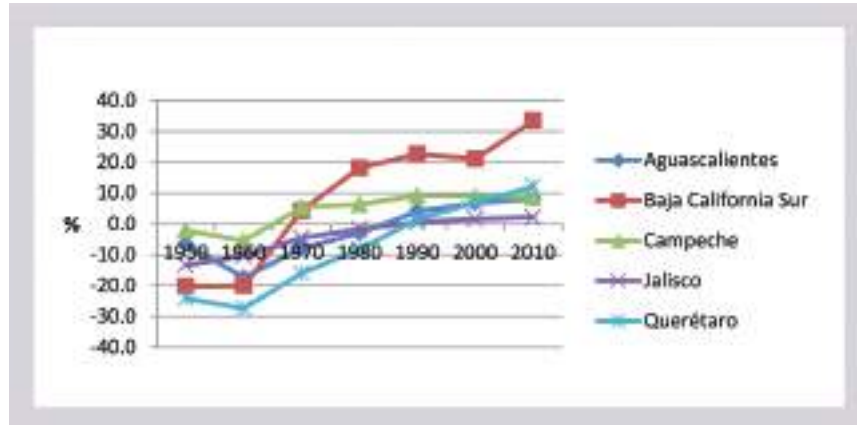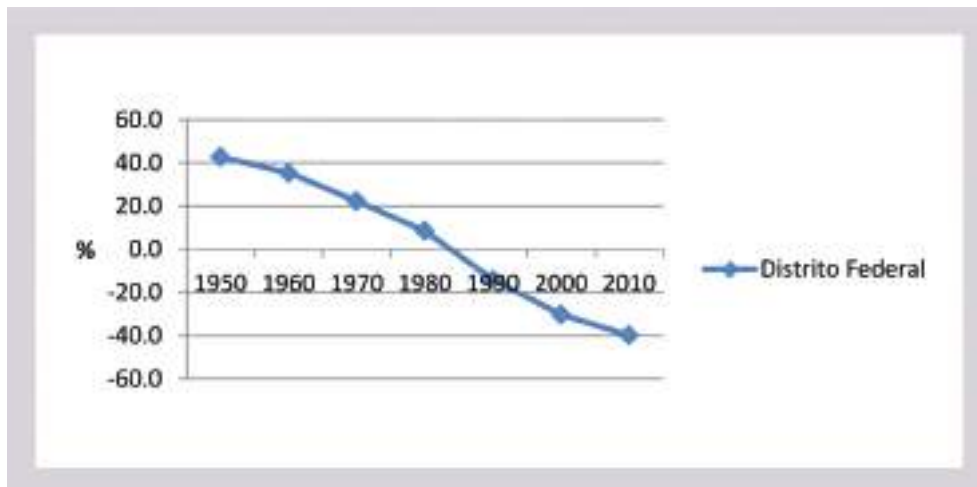
Graph 13. Entity that modified its condition of attractor to ejector. Migratory balance as a proportion of the population. 1950-2010

Source: Own design based on Figure 3 / See Annex.

Another state whose behavior is striking is that of Veracruz, which since 1970 has maintained an ejector activity of its growing population. The proportion of the expulsion with respect to the population which is also growing denotes a slow growth in the population. So the entity is losing population not only by a lower rate of population growth, but by a growing number of those who are expelled. The proportion of the expelled population is less than 15% of the population, even for 2010. Coahuila and Nayarit have been expelling people from 1960 to 1970, but have done so at very low absolute levels, expressing a compatible behavior with growth of the population, which has been slightly increasing (See Charts 6.a 14).

Graph 14. Entities that modified their condition from attractors to ejectors. Migratory balance as a proportion of the population. 1950.2010.

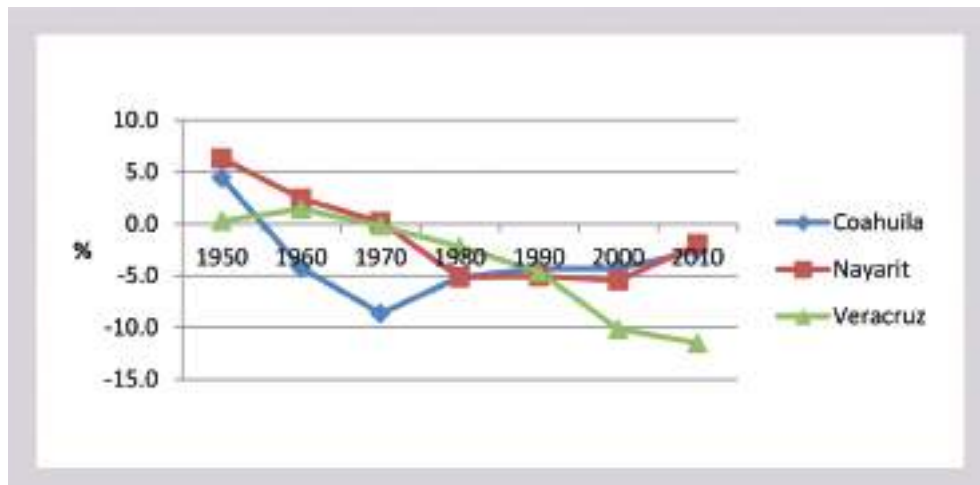Source: Own design based on Figure 3 / See Annex.

CONCLUSIONS

During the period 1950-2010 the interstate migration flows have formed a panorama in Mexico, so that by 2010, 56% of states were losing populations, while 44% were attractors. The number of expelled as a proportion of the total population was 8% in 2010 (9 million 27 thousand inhabitants). However, of this amount, 6 entities grouped 73% of the number of expelled inhabitants (Guerrero, Michoacan, Oaxaca, Puebla, Mexico City and Veracruz). Of this amount, Mexico City contributes 53% of those expelled. On the other hand, from the standpoint of the process of attracting, 4 states (Baja California, Nuevo Leon, Quintana Roo and the State of Mexico) grouped 78% of the immigrants. Of this percentage the state of Mexico accounts for 65% of the inhabitants that were captured.

In this manner on one hand, a higher proportion of ejectors states is well formed. The expelled population is captured by a lower proportion of states. Of ejectors states the most important by far is Federal District and the most important attractor states is the state of Mexico. It thus defines a central region with high migration activity, where only two entities (state of Mexico and the DF) interact as a receiver and expeller respectively and in a dominant mode.

Moreover, the definition of attracting regions for 2010 cannot be over emphasized: in the northwest, with the 2 Baja California's, Sonora and Chihuahua; Northeast, Nuevo Leon and Tamaulipas; in the center-north, Jalisco, Colima and Aguascalientes; the center, with the state of Mexico, Queretaro and Morelos; and finally south to Quintana Roo and Campeche. (See Fig. 6).

As for sending regions, especially the south and southeast of the country are ejectors, with the exception of Campeche and Quintana Roo. To the north and northwest, half of the states, especially those closest to the center, form a region of ejector

populations, which radiate towards the extreme northwest, to California, Sonora and Chihuahua (in that order); north, Nuevo Leon and Tamaulipas; to the center-north, Jalisco, Colima and Aguascalientes; towards the center, Queretaro, State of Mexico and Morelos; and to the southeast, Campeche and Quintana Roo. (See Fig. 5).

These results should be taken with caution. They only reflect a state of affairs that follows directly from the differences at the level of entities between individuals leaving and entering during a ten-year horizon, For example state migratory balances, which, according to variations present decade to decade (until 2010), end outlining a geography of migration that is embodied in a number of states that show, in a definitive manner, a situation of population expulsion or attraction. Which, in turn, and from a global perspective concludes defining specific socioeconomic regions depending on their condition of attraction to the relevant population. These results must be supplemented and / or verified with information concerning migration according to their origin and destination and in both cases whether they are from rural or urban centers.

Another important aspect that has some degree of difficulty is that which concerns the central area, in particular regarding the Federal District - State of Mexico interaction. Can it be said that the growing population of the second entity, which for the most part focuses on the Federal District peripheral municipalities, is a population of the entity itself, or do we think that irradiation is but, for the most part, the growth of Mexico City itself, whose limits are narrow? If the answer is in the sense of self and non-irradiated population, then the data on migratory balances in these two entities are not telling the whole truth. The question is relevant from the time that a significant proportion of the population living beyond the periphery of the Federal District, (particularly in the State of Mexico and Morelos) undertakes their economic activity in the city, whether commercial, service,

or labor. Thus, from the economic point of view, the city would still have precedence over the state of Mexico. In addition, the state should be considered as an extension of Mexico City, from the moment its territory is relatively small and whose economic expansion and hence population can only be to the state of Mexico, first, and then to Morelos, as it ultimately found by migration to these states.

Given this problem, it might be better to focus on these entities in conjunction with Morelos, Hidalgo, Puebla, Tlaxcala and Queretaro, as an economic region whose population movements are distributed within the region (depending on the variations which have economic and cultural conditions) over a complex evolutionary process of economic development.
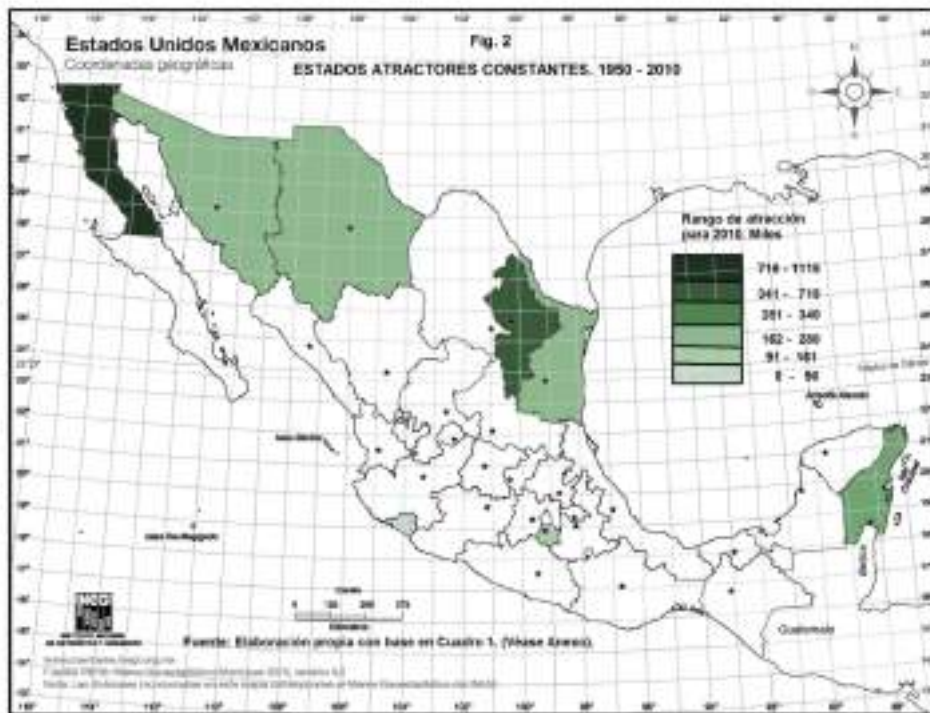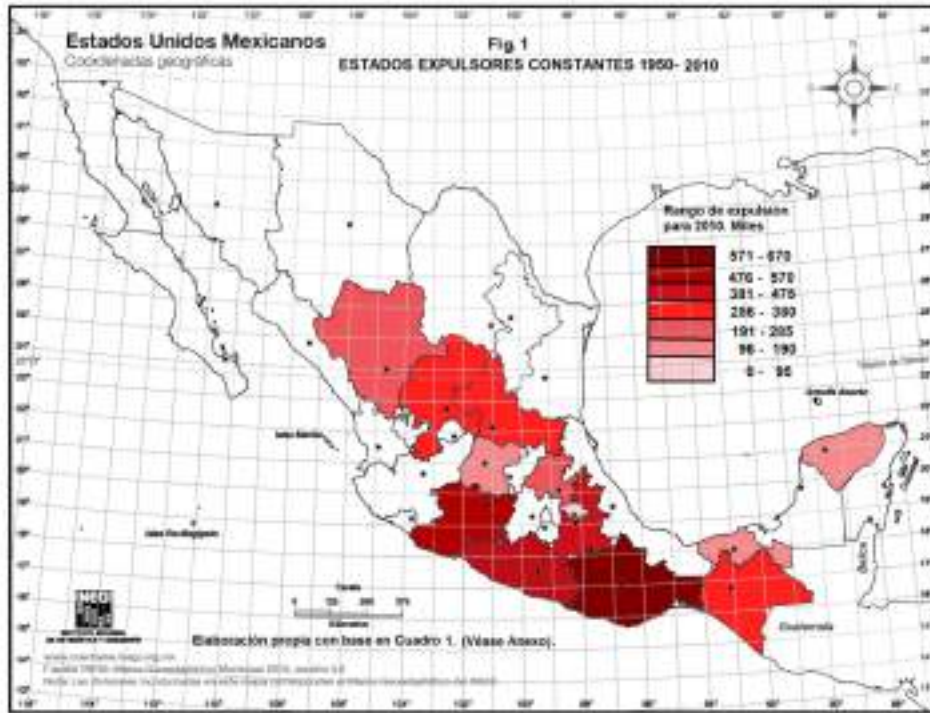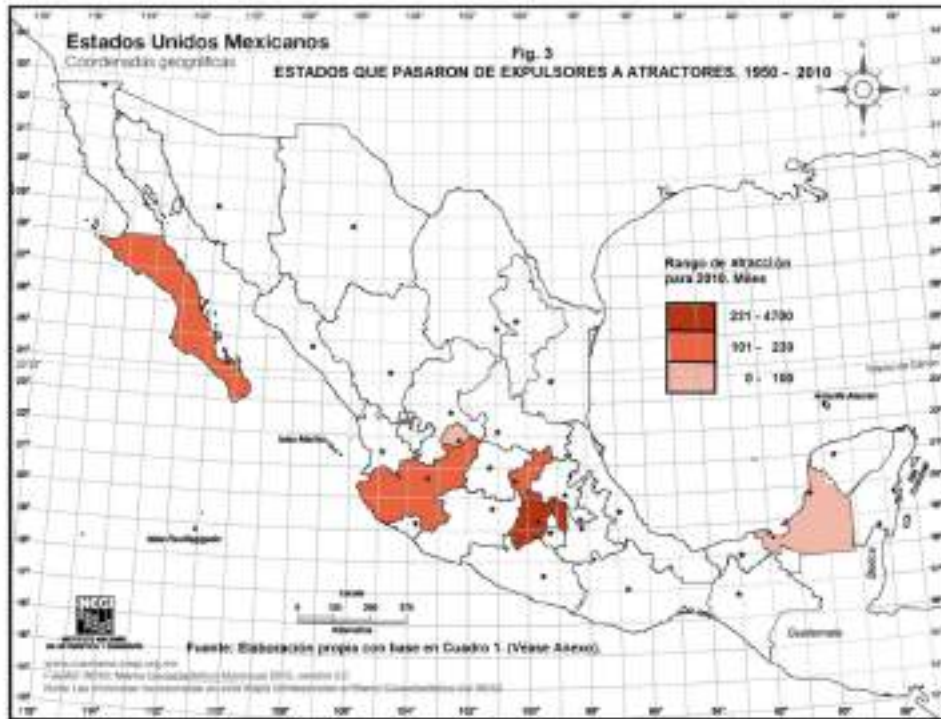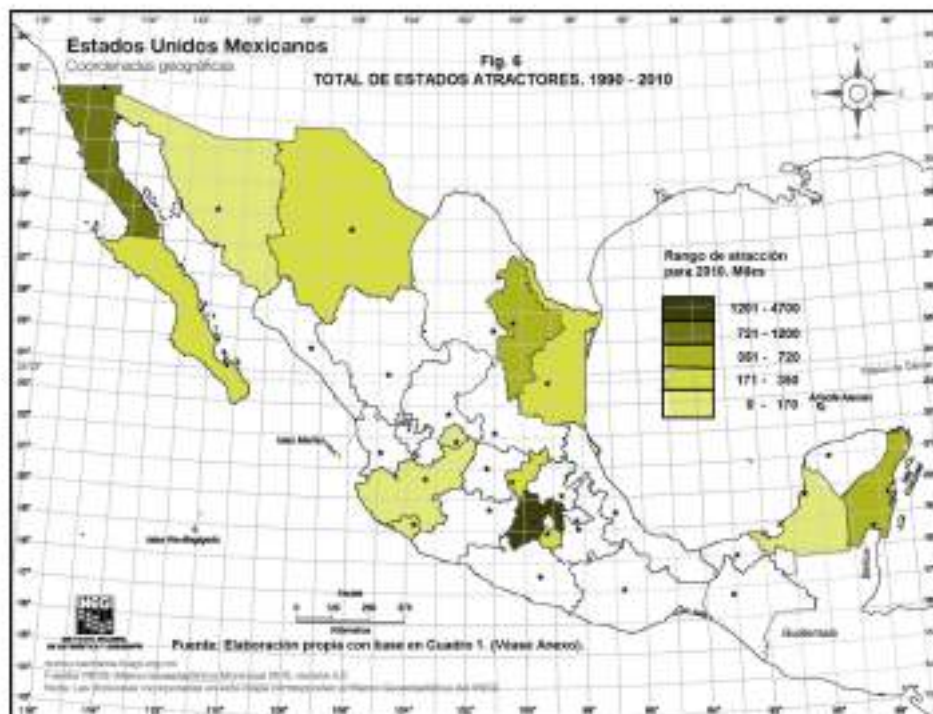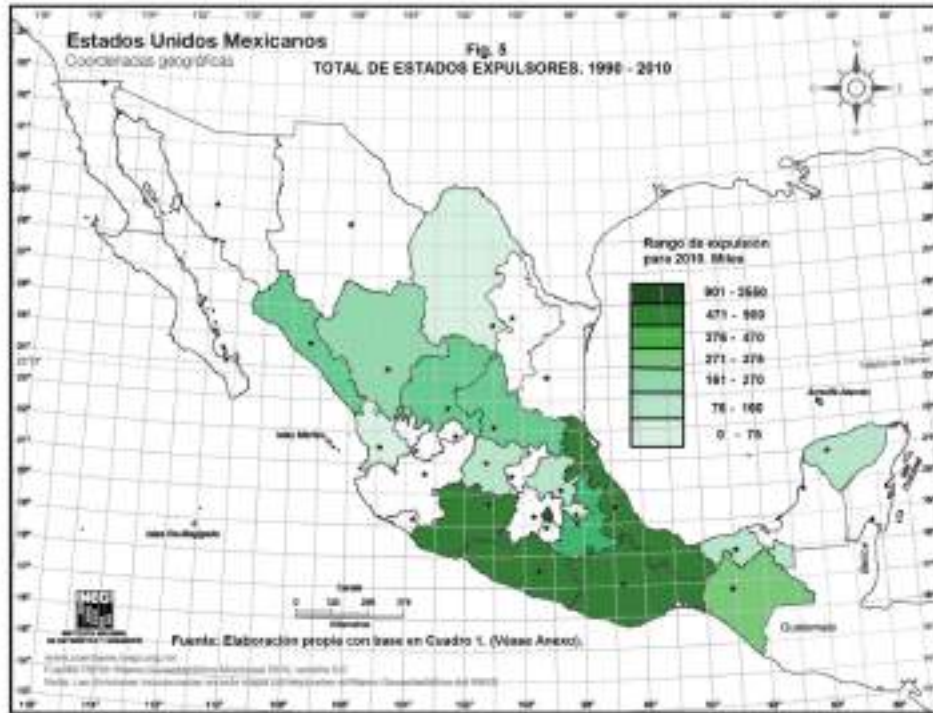
— ANNEXES —

Table 1 . NET BALANCE MIGRATION [1]

United States of Mexico

People

No.	ENTIDAD/AÑO	1950	1960	1970	1980	1990	2000	2010	Tipifica-ción [2]
1	Aguascalientes	- 12 291	-42357	-26766	-15468	29259	71729	96719	EA
2	Baja California	125 807	255607	278188	429778	650546	898680	1114316	A
3	Baja California Sur	- 12 315	-16352	5469	38925	71758	108045	213611	EA
4	Campeche	- 2 507	-9134	13427	26751	48880	66935	70518	EA
5	Coahuila	31 836	-38631	-96316	-80135	-85166	-107546	-71910	AE
6	Colima	10 801	11255	27179	29262	52908	60915	89786	A
7	Chiapas	- 4 969	-42530	-54118	-87705	-122342	-213689	-351784	E
8	Chihuahua	51 389	115386	47132	62066	159482	322033	278417	A
9	Distrito Federal	1 303 343	1721866	1527952	751139	-1158124	-2630069	-3528862	AE
10	Durango	- 46 416	-141682	-165070	-221077	-251205	-284124	-271306	E
11	Guanajuato	- 266 916	-330633	-377378	-475166	-400345	-279754	-162619	E
12	Guerrero	- 34 078	-73972	-170310	-303650	-392396	-486423	-528711	E
13	Hidalgo	- 130 236	-188638	-264500	-343410	-336058	-303794	-199479	E
14	Jalisco	- 234 629	-253688	-149333	-76538	29430	109100	156829	EA
15	México	- 343 009	-189076	592491	2258673	3309555	4404378	4627444	EA
16	Michoacán	- 181 363	-314041	-483546	-576751	-596939	-576315	-549301	E
17	Morelos	36 693	59471	83625	62240	215602	287039	308807	A
18	Nayarit	18 276	9429	968	-37538	-41785	-51891	-21500	AE
19	Nuevo León	41 796	123747	269423	435427	495059	599000	711084	A
20	Oaxaca	- 73 395	-161250	-263083	-446162	-528675	-642218	-670069	E
21	Puebla	- 81 237	-151341	-240140	-368008	-384235	-448646	-467980	E
22	Querétaro	- 69 030	-97287	-77332	-60751	15803	109935	221039	EA
23	Quintana Roo	4 095	10468	31396	111276	255921	451116	641828	A
24	San Luis Potosí	- 93 266	-151697	-236450	-349551	-353412	-377225	-374789	E
25	Sinaloa	- 20 373	-45995	1565	-8528	-59918	-164839	-336206	E*
26	Sonora	22 392	76421	68978	100411	127554	148473	160333	A
27	Tabasco	- 21 930	-34325	-23307	-24755	-20121	-56709	-113658	E
28	Tamaulipas	169 159	193426	146278	173817	199659	308030	336490	A
29	Tlaxcala	- 35 010	-61142	-77703	-101698	-68882	-42904	-2830	E
30	Veracruz	5 888	39193	-7987	-119416	-289686	-721102	-879188	AE
31	Yucatán	- 25 670	-54245	-75797	-105773	-132708	-158594	-144414	E
32	Zacatecas	- 132 835	-218453	-304895	-421369	-426263	-397566	-352615	E

Source: own calculations based on population censuses:
VII General Census of Population, 1950. Mexico, INEGI.
VIII General Census of Population, 1960. Mexico, INEGI.
IX General Census of Population, 1970. Mexico, INEGI.
X General Census of Population and Housing, 1980. Mexico, INEGI.
XI General Census of Population and Housing, 1990. Mexico, INEGI.
XII General Census of Population and Housing, 2000. Mexico, INEGI.
General Census of Population and Housing, 2010. INEGI.
1 / It is the difference between the number of people who immigrated and emigrated.
2 / E: ejectors States; A: attractors States; EA: States passed ejector attractors;
AE: States that went from attractors to ejectors.

Table 2. TOTAL POPULATION

United Mexican States (UMS). Thousands

No.	Entidad/Año	1950 a/	1960	1970	1980	1990	2000	2010
	EUM	25791.0	34923.1	48225.2	66846.8	81249.6	103263.4	112336.5
1	Aguascalientes	188.1	243.4	338.1	519.4	719.7	1065.4	1185.0
2	Baja California	227.0	520.2	870.4	1177.9	1660.9	2844.5	3155.1
3	Baja California Sur	60.9	81.6	128.0	215.1	317.8	512.2	637.0
4	Campeche	122.1	168.2	251.6	420.6	535.2	754.7	822.4
5	Coahuila	720.6	907.7	1115.0	1557.3	1972.3	2495.2	2748.4
6	Colima	112.3	164.5	241.2	346.3	428.5	568.0	650.6
7	Chiapas	907.0	1210.9	1569.1	2084.7	3210.5	4293.5	4796.6
8	Chihuahua	846.4	1226.8	1612.5	2005.5	2441.9	3241.4	3406.5
9	Distrito Federal	3050.4	4870.9	6874.2	8831.1	8235.7	8720.9	8851.1
10	Durango	629.9	760.8	939.2	1182.3	1349.4	1509.1	1632.9
11	Guanajuato	1328.7	1735.5	2270.4	3006.1	3982.6	4893.8	5486.4
12	Guerrero	919.4	1186.7	1597.4	2109.5	2620.6	3115.2	3388.8
13	Hidalgo	850.4	994.6	1193.8	1547.5	1888.4	2345.5	2665.0
14	Jalisco	1746.8	2443.3	3296.6	4372.0	5302.7	6752.1	7350.7
15	México	1392.6	1897.9	3833.2	7564.3	9815.8	14007.5	15175.9
16	Michoacán	1422.7	1851.9	2324.2	2868.8	3548.2	3966.1	4351.0
17	Morelos	272.8	386.3	616.1	947.1	1195.1	1612.9	1777.2
18	Nayarit	290.1	389.9	544.0	726.1	824.6	949.7	1085.0
19	Nuevo León	740.2	1078.8	1694.7	2513.0	3098.7	4199.3	4653.5
20	Oaxaca	1421.3	1727.3	2015.4	2369.1	3019.6	3506.8	3802.0
21	Puebla	1625.8	1973.8	2508.2	3347.7	4126.1	5383.1	5779.8
22	Querétaro	286.2	355.0	485.5	739.6	1051.2	1598.1	1827.9
23	Quintana Roo	27.0	50.2	88.2	226.0	493.3	1135.3	1325.6
24	San Luis Potosí	856.1	1048.3	1282.0	1673.9	2003.2	2410.4	2585.5
25	Sinaloa	635.7	838.4	1266.5	1849.9	2204.1	2608.4	2767.8
26	Sonora	510.6	783.4	1098.7	1513.7	1823.6	2394.9	2662.5
27	Tabasco	362.7	496.3	768.3	1063.0	1501.7	1990.0	2238.6
28	Tamaulipas	718.2	1024.2	1456.9	1924.5	2249.6	3024.2	3268.6
29	Tlaxcala	284.6	346.7	420.6	556.6	761.3	1068.2	1169.9
30	Veracruz	2040.2	2727.9	3815.4	5387.7	6228.2	7110.2	7643.2
31	Yucatán	516.9	614.0	758.4	1063.7	1362.9	1818.9	1955.6
32	Zacatecas	665.5	817.8	951.5	1136.8	1276.3	1367.7	1490.7

Source: own calculations based on population censuses:
Seventh General Census of Population, 1950. Mexico, INEGI.
VIII General Census of Population, 1960. Mexico, INEGI.
IX General Census of Population, 1970. Mexico, INEGI.
X General Census of Population and Housing, 1980. Mexico, INEGI.
XI General Census of Population and Housing, 1990. Mexico, INEGI.
XII General Census of Population and Housing, 2000. Mexico, INEGI.
General Census of Population and Housing, 2010. INEGI.

Table 3. MIGRATORY BALANCE OF EACH ENTITY AS A PROPOR-

TION OF ITS

No.	Entidad/año	1950	1960	1970	1980	1990	2000	2010	Tipifica-ción
1	Aguascalientes	-6.5	-17.4	-7.9	-3.0	4.1	6.7	8.2	EA
2	Baja California	55.4	49.1	32.0	36.5	39.2	31.6	35.3	A
3	Baja California Sur	-20.2	-20.0	4.3	18.1	22.6	21.1	33.5	EA
4	Campeche	-2.1	-5.4	5.3	6.4	9.1	8.9	8.6	EA
5	Coahuila	4.4	-4.3	-8.6	-5.1	-4.3	-4.3	-2.6	AE
6	Colima	9.6	6.8	11.3	8.5	12.3	10.7	13.8	A
7	Chiapas	-0.5	-3.5	-3.4	-4.2	-3.8	-5.0	-7.3	E
8	Chihuahua	6.1	9.4	2.9	3.1	6.5	9.9	8.2	A
9	Distrito Federal	42.7	35.4	22.2	8.5	-14.1	-30.2	-39.9	AE
10	Durango	-7.4	-18.6	-17.6	-18.7	-18.6	-18.8	-16.6	E
11	Guanajuato	-20.1	-19.1	-16.6	-15.8	-10.1	-5.7	-3.0	E
12	Guerrero	-3.7	-6.2	-10.7	-14.4	-15.0	-15.7	-15.6	E
13	Hidalgo	-15.3	-19.0	-22.2	-22.2	-17.8	-13.0	-7.5	E
14	Jalisco	-13.4	-10.4	-4.5	-1.8	0.6	1.6	2.1	EA
15	México	-24.6	-10.0	15.5	29.9	33.7	31.4	30.5	EA
16	Michoacán	-12.7	-17.0	-20.8	-20.1	-16.8	-14.5	-12.6	E
17	Morelos	13.4	15.4	13.6	6.6	18.0	17.8	17.4	A
18	Nayarit	6.3	2.4	0.2	-5.2	-5.1	-5.5	-2.0	AE
19	Nuevo León	5.6	11.5	15.9	17.3	16.0	14.3	15.3	A
20	Oaxaca	-5.2	-9.3	-13.1	-18.8	-17.5	-18.3	-17.6	E
21	Puebla	-5.0	-7.7	-9.6	-11.0	-9.3	-8.3	-8.1	E
22	Querétaro	-24.1	-27.4	-15.9	-8.2	1.5	6.9	12.1	EA
23	Quintana Roo	15.2	20.9	35.6	49.2	51.9	39.7	48.4	A
24	San Luis Potosí	-10.9	-14.5	-18.4	-20.9	-17.6	-15.6	-14.5	E
25	Sinaloa	-3.2	-5.5	0.1	-0.5	-2.7	-6.3	-12.1	E*
26	Sonora	4.4	9.8	6.3	6.6	7.0	6.2	6.0	A
27	Tabasco	-6.0	-6.9	-3.0	-2.3	-1.3	-2.8	-5.1	E
28	Tamaulipas	23.6	18.9	10.0	9.0	8.9	10.2	10.3	A
29	Tlaxcala	-12.3	-17.6	-18.5	-18.3	-9.0	-4.0	-0.2	E
30	Veracruz	0.3	1.4	-0.2	-2.2	-4.7	-10.1	-11.5	AE
31	Yucatán	-5.0	-8.8	-10.0	-9.9	-9.7	-8.7	-7.4	E
32	Zacatecas	-20.0	-26.7	-32.0	-37.1	-33.4	-29.1	-23.7	E

Source: own calculations based on Table 1 and Table 2.

REFERENCES

Ballard, KP., y Clark, GL. (1981). The short run dynamics of interstate migration: a space-time economic adjustment model of in-migration to fast growing states. *Regional Studies*, 15 (3), 213-228.

Bayer, C., y Juessen, F. (2008). *On the Dynamics of Interstate Migration: Migration Costs and Self-Selection*. IZA DP No. 3330. En: ftp.12a.org/dp3330.pdf.

Beyers, W.B. (1980). Migration and the Development of Multiregional Economic Systems, *Economic Geography*, 56 (4), pp. 320-334.

Clayton, C. (1977). The Structure of Interestate and Interregional Migration, 1965-1970. *Annals of Regional Science*, 11 (1), pp. 109-122.

Corona, R. (1993). Migración Permanente Interestatal e Internacional, 1950-1990. *Comercio Exterior*, 43, pp. 750-762.

Garrocho, R. C. (1996). Un modelo de simulación de los flujos de migración interna de México. Una aplicación empírica de un modelo de interacción espacial. *Estudios Demográficos y Urbanos*, 11 (3), pp. 433-476.

Greenwood, M. J., Ladman, J. R., y Siegel, B. S. (1981). Long-term trends in Migratory Behavior in a Developing Country: The Case of México. *Demography*, 18 (3), pp. 369-388.

Partida, V. (1984). Migración entre ocho regiones de México. 1955-1970. *Demografía y Economía*, 18 (3), pp. 378-409.

Ravenstein, E.G. (1885). The Laws of Migration. *Journal of Statistical Society*, 48 (2), pp. 167-227.

Rogers, A. (1980). Introduction to Multistate Mathematical Demography, *Environment and Planning*, 12 (5), pp. 489-498.

Tobler, W. (1981). A Model of Geographical Movement, *Geographical Analysis*, 13 (1), pp. 1-20.

Uribe, M. y Caso, A. (1979). Procesos migratorios interestatales: el caso de México (un enfoque econométrico), *Demografía y Economía*, 13 (2), pp. 224-233.

Woods, R. (1982). *Population Analysis in Geography*. Londres: Long-man.

STATISTICAL SOURCES

Séptimo Censo General de Población, 1950. México, INEGI.
VIII Censo General de Población, 1960. México, INEGI.
IX Censo General de Población, 1970. México, INEGI.
X Censo General de Población y Vivienda. 1980. México, INEGI.
XI Censo General de Población y Vivienda. 1990. México, INEGI.
XII Censo General de Población y Vivienda. 2000. México, INEGI.
Censo General de Población y Vivienda 2010. México, INEGI.