

Mexico

Migration Outlook

November 2010

Economic Analysis

- The recession in the U.S. ends, but the creation of jobs will be slow, slightly better for immigrants.
- Controls such as “The Arizona Law” could have negative effects in that state.
- A high percentage of qualified Mexican human capital is not made use of in Mexico but rather in the United States.
- The most important driving force for emigration is not in Mexico but in the U.S.



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Closing date: October 20, 2010

1. Summary

The recession in the U.S. officially ends, but the creation of jobs will be slow; for immigrants it will be slightly better.

Contrary to what occurred in previous recessions, economic recovery in the U.S. will be gradual and with very slow creation of employment. This expectation is a consequence of the process of adjustment of the U.S. economy, after a deep financial crisis, with high indebtedness of families, a still lack of stability in the real estate market and lack of stimulus from the fiscal policy. In this environment, workers of Mexican origin reached the highest unemployment rates on record, almost close to 13%, three percentage points above the national average. However, since the beginning of the year, the unemployment rates have begun to drop for this group of workers, and to date they are close to 11%, a figure that is still far from the record low of 5% seen in 2006 and 2007. At the present time, nearly 1.6 million workers of Mexican origin (first and second generation) are unemployed, of which around 45% are immigrants.

Remittances in the first quarter of this year halted the decline in dollars that had been seen since the second half of 2008. Nevertheless, some variables, such as construction in the U.S., which had been expected to be a driving force, have shown lower dynamism in recent months, which suggests that the boost in remittances could be slightly lower than what was estimated at the beginning of this year. Our growth forecast for remittances at the end of 2010 is within a range between an annual -2% and 2% in dollars. Although remittances could close the year on a positive ground and next year could continue their growing trend, they are still far from the record levels of 2007. We foresee that it will not be until 2012 or 2013 that figures similar to those historic highs will be achieved.

Contrary to public opinion, the most important driving force that triggers Mexican migration is not in Mexico but in the U.S.

Migration from Mexico to the United States is due mainly to economic factors, without ruling out others of another nature. Contrary to what is traditionally noted, the lack of opportunities in Mexico is not the main factor that explains Mexican migration to the U.S. Our results are proof that, in both periods of expansion and recession, employment demand in the United States is the main factor that attracts immigrants. Other important factors, though of less importance, are unemployment in Mexico, the spread in wages between the two countries and the lack of opportunities in Mexico.

The population in the United States is aging and immigration is becoming more important; one more sign of the complementary aspects between the United States and Mexico.

Currently, the number of employed native Americans is lower than in 2007. Between 2002 and 2009, the proportion of workers over 45 increased from 39% to 44%. Between 2000 and 2009, close to 3,000,000 U.S. workers retired. In light of this dynamic, the immigrant population in the U.S. is offsetting the aging of the labor population, allowing for a slower process. Such is the case of Mexicans, who are, on average, younger among the immigrants. Most of them are between 30 and 45 years of age. In case there would not be immigration in the United States, the proportion of persons in retirement age (65 years or over) in the total number of persons in productive age (between 15 and 64 years), that is, the dependence rate would be higher than 40% toward the year 2050. Currently, for each employed Mexican immigrant in the United States, there are four retired U.S. workers. In the coming years, the United States will require the input of immigrants in a greater proportion, to soften the aging process and its consequences for the economy. In addition to social security, there are positive elements for the U.S. economy derived from the presence of immigrants, both in terms of consumption, such as the payment of taxes, job creation and improvements in productivity.

A high percentage of more qualified Mexican human capital is not fully taken advantage of in Mexico but in the United States.

While the average educational level of Mexicans living in Mexico barely tops eight years, in the United States, the average schooling of Mexican immigrants is almost ten years. Twenty per cent of the persons born in Mexico that have doctorates live in the United States. For every four persons with doctorates in Mexico there is one Mexican immigrant in the United States with the same educational level. The probability that a Mexican with a doctorate degree will emigrate to the United States is four times greater than that of a Mexican with primary education and three times greater than for a Mexican with secondary school education.

The generation of greater work opportunities for Mexicans, a pending assignment.

The Mexican economy is not absorbing a high proportion of higher qualified labor. The highest unemployment rates are found among the population with higher educational levels (medium high and higher education). They surpass between 1.5 and 3 times that of persons with primary or no education. Labor reform is and will be very important and could constitute a decisive step. A comprehensive reform is required that considers not only elements that encourage job supply as a possible measure for labor flexibilization, social security, or training in certain areas, but also factors that increase labor demand as well as improve the rule of law and the application of justice, increase competition in some markets and raise incentives to generate greater investment, both public and private, which will gradually improve efficiency and with this, a more attractive environment that will facilitate developing more opportunities. These necessary changes are a pending assignment for the country.

Year over year Mexico transfers more than half of a percentage point of its GDP to the United States through immigrants, since there is an indirect transfer through education.

Our estimates reveal that in the 1994-2008 period Mexico transferred 81 billion dollars to the United States in the form of the educational cost of Mexicans prior to their emigration to the U.S.. That is, every year, six billion dollars were transferred to the United States, which is equivalent to slightly more than one half of a percentage point of Mexico's GDP annually.

Evidence of the outflow of Hispanic immigrants from Arizona, due to the entry into force of the SB1070 Law. The economy of the state could be negatively affected.

In Arizona, there are nearly 1.3 million persons of Mexican origin residing, of which 45% were born in Mexico. Of those born in Mexico, 25% have been naturalized. The recent SB1070 Law, although it has not been fully applied as it was initially proposed, is generating the departure of some immigrants from the state. We estimate that currently, there are 100,000 fewer Hispanics in Arizona than there were at the beginning of 2010. In Arizona, immigrants produce nearly 12% of GDP. Simply in construction alone, a reduction of 15% in the total number of immigrants in this sector could lead to a loss of 7 billion dollars. In view of the restrictions such as those described and given the flexibility we are observing in the labor market of immigrants in the U.S., incentives are being generated to move to other states in the U.S. and even toward other economic sectors in Arizona.

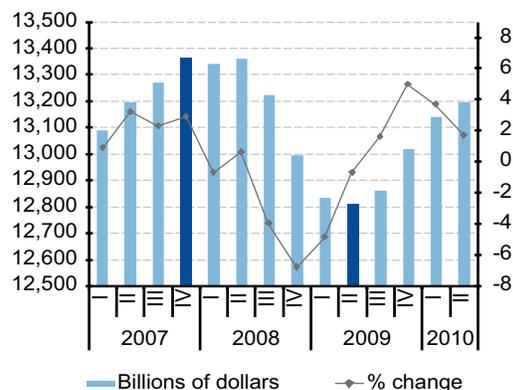
2a. The impact of the recession in the United States on immigrants and remittances from Mexicans and their respective outlooks

A relatively long recession in the United States, but with a distinctive characteristic: a very slow recovery

The recent recession in the United States was not only one of the most severe since the 1929 crisis, in terms of its scope, but also in relation to the number of countries that were to some degree affected. Since 1929 there has not been such a lengthy crisis; the NBER (National Bureau of Economic Research), a U.S. government agency in charge of quantifying the extension and characteristics of the economic cycle, both in the period of expansion as well as contraction, has concluded that the recent recession lasted 18 months, from December 2007 to June 2009. In that period, more than six million jobs were lost. Real GDP decreased 4% from the beginning to the end of the recession. Since World War II, a comparable fall had only occurred in 1958 when the economy declined 3.7%. On this occasion, the unemployment rate rose rapidly, from 4.5% to 10.1% by October 2008, a phenomenon that had not been seen since 1983, although at that time the population was younger and, as is common in periods of recession, it experienced higher unemployment rates. Although we have noted a positive growth of GDP in the last four quarters, it still is not possible to recover all that was lost. According to estimates by the U.S. Department of Commerce, GDP levels through the second quarter of 2010 are 1.3% lower in real terms than those registered in the fourth quarter of 2007.

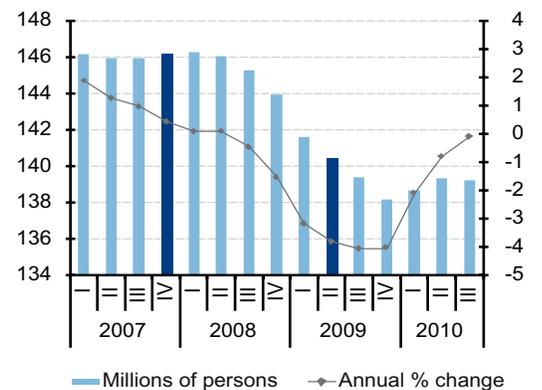
BBVA Research estimates that the United States will experience a gradual and moderate recovery, but the risks are on the downside. In any event, job creation will continue to be slow. In fact, through September 2010, the total number of jobs in the United States is slightly more than 600,000 below employment figures at the time at which the recession was officially over and the recovery began. In this edition of *Migration Outlook Mexico*, we will analyze the behavior of employment in the United States, specifically focusing on the Hispanic population and more specifically, on Mexican immigrants. We will also describe the recent evolution of remittances to Mexico, and we will present the outlook for 2011.

Graph 1
Real U.S. GDP (billions of dollars and annual % change)



Source: U.S. Department of Commerce.

Graph 2
Employment in the United States (Millions of workers and annual % change)



Source: BBVA Research with figures from the Current Population Survey (CPS), March 2009.

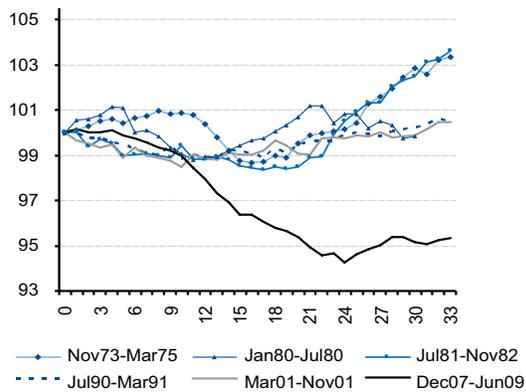
The recession ends, but the lack of jobs continues

In August 2010 the recession that began in December 2007 had been officially over 15 months earlier. To date there is no evidence that questions the fact that the slow road to recovery as predicted by BBVA Research will accelerate. If anything, the risks are more toward the downside. This gradual recovery has a greater impact on job creation. Although unemployment perhaps hit bottom in the fourth quarter of 2009, since then employment growth has been only slightly below 1%.

In another context it can be argued that contrary to what occurred in previous recessions, employment currently appears to be reacting much more slowly to the expansion of the economy. In the five previous recessions, less than one year after they had ended, employment levels were higher than at the time that the recovery began. Clearly, the labor market is the pending issue to be addressed in the United States. According to U.S. Department of Labor statistics, close to 50% of the 14.8 million unemployed in the United States have been without a job for six months and the average length of unemployment is 9 months. However, all the segments of the labor market are not experiencing the same behavior. Among Hispanics, signs are now appearing of a rising trend in employment. In previous editions of Migration Outlook Mexico we have shown that Hispanics tend to benefit to a greater degree in times of expansion, since in relative terms their employment levels tend to grow more than the average. This has also been observed at the end of the previous recessions. For example, 15 months after the January 1980 - July 1981 recession ended, while general employment rose 5%, for Hispanics new jobs rose 13%. In the following section we will analyze the specific case of immigrants of Mexican origin.

Graph 3

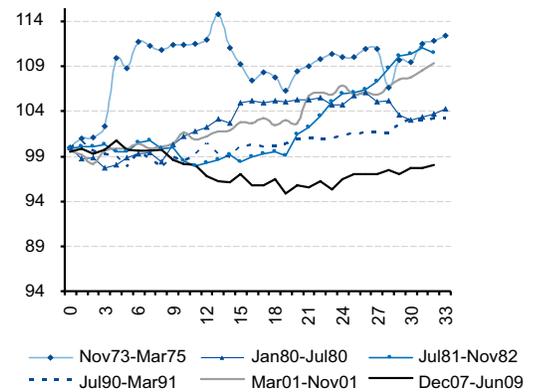
**Total U.S. jobs
(100 = month that the recession began)**



Source: BBVA Research with U.S. Department of Labor figures

Graph 4

**Jobs in the United States for Hispanics.
(100 = month that the recession began)**



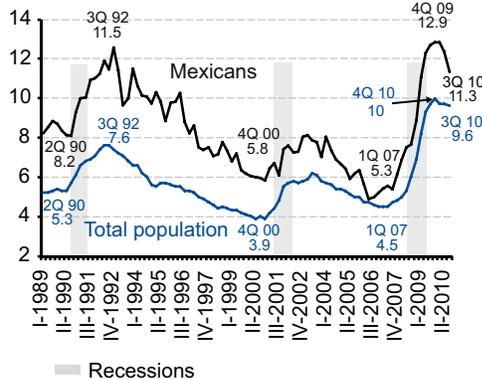
Source: BBVA Research with U.S. Department of Labor figures

Among Mexicans, how has employment performed?

In the current crisis, workers of Mexican origin had the highest unemployment rates recorded, close to 13%, three percentage points above the general average. This implied a loss of 600,000 jobs for this segment of the population. The unemployment rate for workers of Mexican origin has begun to decline in recent months and the figure currently stands at 11%, which is still high and very much above the 5% rate posted during the period of expansion. By the same token, employment appears to be beginning to recover. In the case of Mexicans, employment has increased 3% since it reached its lowest level. Nevertheless their current employment levels are currently 3% below rates registered at the beginning of the crisis. Thus, close to 1.6 million workers of Mexican origin (first and second generation) remain unemployed, equivalent to 10.8% of all those out of work, and of this figure 45% are immigrants. As has been the trend in the previous recessions, if economic conditions in the United States continue to improve, it would be expected that employment will continue to recover more rapidly for immigrants, and within this category, for Mexicans, in comparison with the general population average. The reasons behind this are to be found

Graph 5

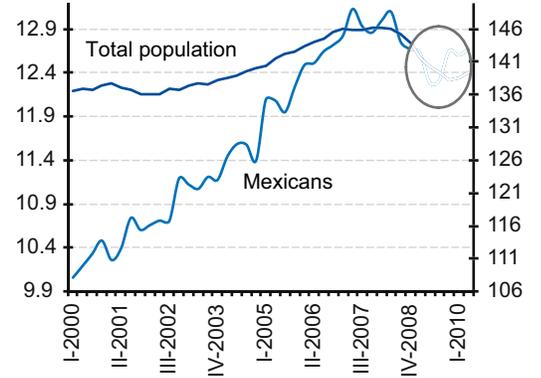
United States. Quarterly unemployment rate, general population and among Mexicans (Seasonally adjusted figures)



Source: BBVA Research with U.S. Department of Labor figures

Graph 6

Jobs in the USA for Mexicans and the total population. (Quarterly figures in millions)



Source: BBVA Research with U.S. Department of Labor figures

in their having greater job flexibility, both sectoral as well as regional, and that they receive lower wages. In a process of recovery, the job categories that first experience growth are generally concentrated in the lowest paid jobs and as the economic recovery continues to consolidate, job creation begins to become generalized and gradually demand increases for better paid workers. In synthesis, in the base scenario for the U.S. economy, it is expected that employment will recover slowly, although for immigrants job creation could occur more rapidly.

In which economic sectors in the U.S. are Mexicans gaining jobs and in which are they losing them?

The economic crisis led to an important loss in jobs for Mexicans living in the United States. Currently the number of jobs occupied by Mexican immigrants is close to 300,000 less than two years ago, whereas in the case of native-born Americans of Mexican origin (second or higher generation) the corresponding figure is more than 80,000.

It is in the construction sector where Mexicans have experienced the greatest number of job losses in the context of the recent economic crisis. Nevertheless, although the number of workers currently employed in this sector continues to be lower than two years ago, the job losses in the case of immigrants appears to have halted and in fact, a slight turnaround can even be noted this year in the number of jobs for these workers (around 20,000). The manufacturing and retail sectors, also characterized by a high concentration of Mexican immigrants, still show weakness in job creation for Mexicans. While the immigrants appear to continue to experience job losses in these sectors, Mexicans of the second or higher generations have seen gains in employment this year.

Flexibility is a factor characteristic of the labor supply of Mexicans in the United States. In times of expansion, this allows them to be among those that most benefit in terms of employment and in times of recession, they tend to lose the most jobs. This same flexibility allows them to find a place in sectors or geographical locations different from those that they had been engaged in. This situation appears to be occurring in some cases. For example, sectors in which Mexican immigrants have been gaining jobs, even during the economic crisis, include agriculture, fishing and reforestation, information, educational and health services, and public administration. Meanwhile, Mexicans of the second or higher generation have seen the number of jobs they hold increase in the following sectors: mining, transportation, professional and business services, and public administration.

Chart 1

**USA: Jobs held by Mexicans by economic sector, 2nd quarter
(thousands, non-seasonally adjusted figures)**

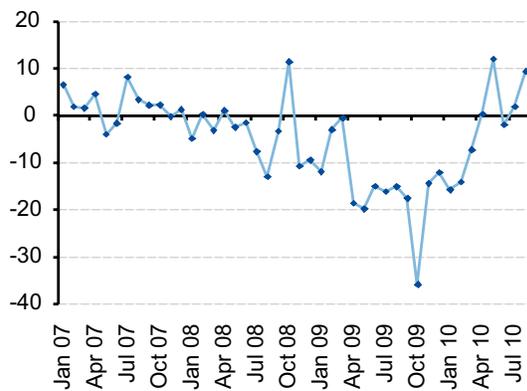
Of Mexican Origin	2008	2009	2010	Change, 09-10	Change, 08-10
	Agriculture, fishing, and reforestation	399	448	460	12
Mining	110	78	84	7	-25
Construction	1,963	1,700	1,662	-38	-300
Manufacturing	1,622	1,453	1,464	11	-158
Retail trade	1,874	1,781	1,745	-36	-130
Information	659	588	549	-39	-110
Transportation	153	167	204	37	50
Financial activities	586	517	502	-15	-85
Professional and business services	1,315	1,272	1,290	17	-25
Educational and health care services	1,692	1,825	1,870	45	177
Tourism and leisure activities	1,527	1,745	1,685	-60	158
Other services	751	703	672	-30	-79
Public administration	393	394	455	61	63
Total	13,044	12,671	12,642	-29	-402
Native born Mexicans					
Agriculture, fishing and reforestation	40	47	36	-11	-4
Mining	61	48	62	15	1
Construction	471	477	412	-66	-60
Manufacturing	566	460	499	39	-67
Retail trade	1,016	972	958	-14	-58
Information	392	341	256	-85	-136
Transportation	110	111	160	49	51
Financial activities	387	364	357	-7	-30
Professional and business services	451	455	459	4	8
Educational and health-care services	1,153	1,296	1,273	-23	120
Tourism and leisure activities	509	597	589	-8	80
Other services	275	248	241	-7	-34
Public administration	331	345	375	31	44
Total	5,762	5,760	5,677	-82	-85
Mexican Immigrants					
Agriculture, fishing, and reforestation	359	402	425	23	65
Mining	48	30	22	-8	-26
Construction	1,491	1,222	1,250	28	-241
Manufacturing	1,057	994	965	-29	-91
Retail	858	809	787	-22	-72
Information	266	247	293	46	26
Transportation	44	56	43	-13	0
Financial activities	200	153	145	-8	-55
Professional and business services	864	818	831	13	-33
Educational and health-care services	539	529	597	68	58
Tourism and leisure activities	1,017	1,148	1,096	-53	78
Other services	476	455	431	-24	-45
Public administration	62	50	80	30	19
Total	7,282	6,911	6,965	53	-318

Source: BBVA Research based on Current Population Survey (CPS) data

Immigrants' remittances sent to Mexico; a lower growth rate in construction could limit their recovery in the next few months

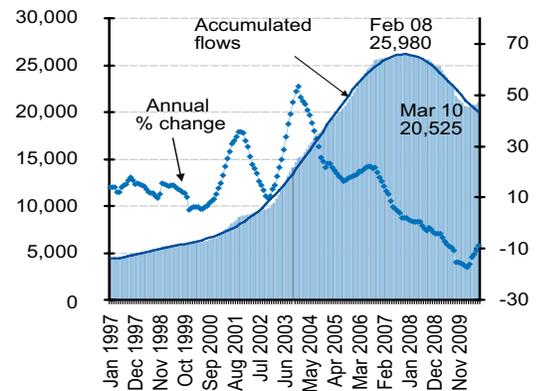
Mainly as a result of employment levels having begun to improve for Mexicans in the United States, in the first quarter of this year, remittances halted their decline in dollars that they had been posting since the second half of 2008. Until August (the last month for which information was available when preparing this edition of *Migration Outlook Mexico*), the accumulated revenue corresponding to remittances in the year topped 14.430 billion dollars, which is 1.8% below levels for the same period of 2009 in dollar terms.

Graph 7
Family remittances to Mexico annual % change in dollars



Source: Banxico

Graph 8
Family remittances to Mexico. Accumulated 12-month flows and annual % change in 12-month accumulated flows (Millions of dollars)



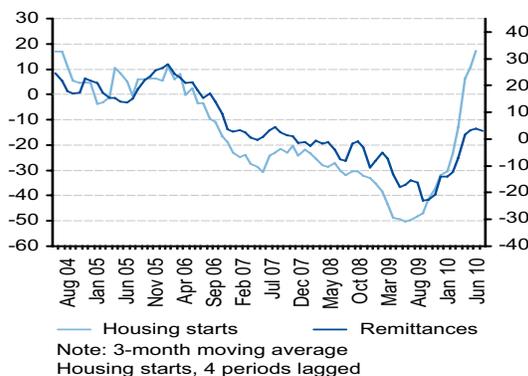
Source: Banxico

Since April 2010 the accumulated 12-month flow of remittances in dollars has been on the rise, which suggests that they are undergoing a recovery. For remittances to continue growing will, to a large extent, depend on the behavior of employment, in which a major factor will be the future performance of construction, where most of Mexican immigrant labor is concentrated (approximately 15%) and Mexicans' capacity to move more quickly to other sectors and regions where job creation is more dynamic. For now, given the structure of the labor market, housing starts in the United States is a variable that is highly correlated with remittances. This variable, while it appears to have halted the declining trend that it had been displaying in recent months, still shows no clear signs of recovery. In fact, the slight upward trend that this variable has posted since the end of 2009 and the beginning of 2010 even ended in the following months. Remittances experience a delayed reaction to the behavior of this variable, so it will be possible that some of the remaining months of the year will be marked by a not very favorable behavior in the amount of remittances sent to Mexico. This leads us to project that the growth in remittances by the end of the year will be in a range between -2% and 2% annually in dollars for 2010

Toward 2011 we expect a weak recovery in the U.S. labor market, but with greater advances than have been presented up to now. Mexicans will also be among the most benefited population groups in terms of employment, which will translate positively on the level of remittances. However, we foresee that this growth will still not be sufficient for remittances to reach the levels posted in 2007, when they registered their record high. Toward 2011, in our base scenario we estimate that remittances could grow about 5% annually in dollars.

Graph 9

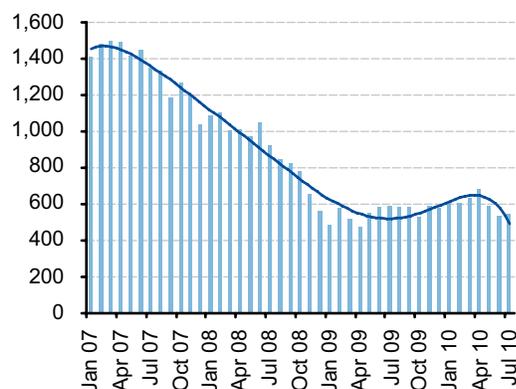
Remittances sent to Mexico and housing starts (annual % change)



Source: BBVA Research based on Banxico and U.S. Census Bureau statistics

Graph 10

USA: Housing starts (thousands)



Source: BBVA Research based on Banxico and U.S. Census Bureau statistics

Conclusions: toward a slow recovery of employment in the United States and of remittances

Even though the end of the recession in the United States was recently announced, the country's pre-crisis production levels have still not recovered and employment remains weak, very much below the levels posted before the recession. Employment will continue experiencing a very slow recovery, in which it will be necessary to absorb the effects of the crisis in the real sector, with a process of deleveraging family income and the slow digestion of the problems of the financial sector.

Hispanics have managed to begin to recover employment levels. A similar situation is occurring with Mexican immigrants. In sectors such as agriculture, fishing and reforestation; information, educational and health services, and public administration, Mexicans have been gaining new jobs. In the first quarter of this year, this has allowed for a halt in the decline in remittances sent to Mexico, a decrease that began at the end of 2008. Some variables related to remittances that initially were felt to have a considerable impact on their growth have diminished their dynamism in recent months. This suggests that the growth in remittances could be less than what was initially projected for the year

Although remittances could close the year on a positive ground and in 2011 could continue their upward trend, they will be still be far from the record high levels achieved in 2007. We estimate that it will not be until 2012 or 2013 when similar figures can be achieved.

Bibliographical References

BBVA Research (2010), "Situación Global"

2b. Migration from Mexico to the United States, an essentially economic link

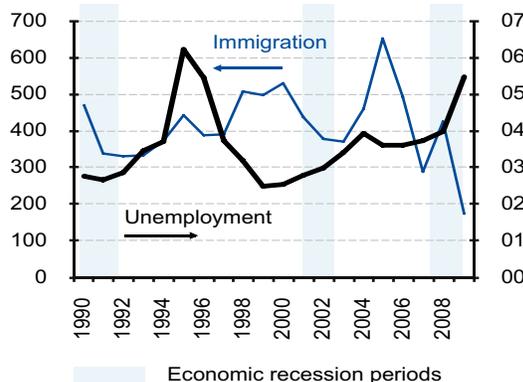
In previous editions of Migration Outlook Mexico, migration from an economic perspective has been analyzed seeking to reach a comprehensive approach between the issuing and receiving countries of migrants that mutually benefit from migration. If in the former there were no incentives for emigrating, persons would not leave their countries. Nevertheless, if in the destination countries migrants were not required, they would not emigrate to such countries. These are some of the economic reasons that seem to be enough to motivate persons to leave their country, but clearly they are not the only ones.

As regards migration from Mexico to the United States, there are forces that attract and expel migrants. Knowing their performance, both in times of expansion such as those prior to 2008 and during the recession of 2009, allows having a better understanding of migratory dynamics and, by this, facilitates identifying the benefits and costs for both countries. This knowledge also makes it easier to better order the migratory flows at different times in economic development. This article seeks to contribute to this debate. The economic factors having an influence on Mexican migration to the United States are analyzed. Some potential benefits obtained by the United States are described, and the fact that Mexican migration has increased its importance in the U.S. labor sector is shown. Also, evidence is given that migration will stand as a factor of greater weight in the economic development of the United States, not only in the coming years but also in the following decades, given the aging process that is beginning to be seen in the United States and that will be more intensive in the coming years in comparative terms with Mexico.

Unemployment in Mexico, the difference in wages, job demand in the U.S. Which factor most contributes to migration from Mexico to the United States?

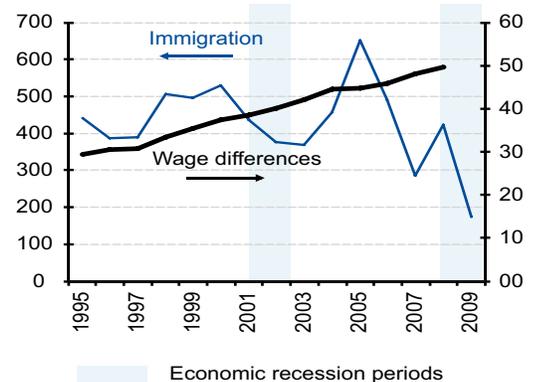
Why is there migration from Mexico to the United States? Which factors are those with greater weight in this process? The answers to these questions would help to better orient the migratory debate and to find more efficient solutions that would order migration under the principle of mutual benefit. This article seeks to contribute to answering such questions. We base our opinion on the results that we have found in previous editions of Migration Outlook Mexico, which suggest that economic factors are sufficient to motivate Mexican migration to the United States.

Graph 11
Mexican immigration in the U.S. and unemployment in Mexico (Thousands and unemployment rate)



Source: BBVA Research with Passel and Suro data (2005), Passel (2009) and INEGI.
Note: The unemployment rate refers to the proportion of the unemployed within the Economically Active Population based on the National Occupation and Employment Survey (ENOE for its Spanish initials).

Graph 12
Mexican immigration in the U.S. and wage differences between Mexico and the United States (Thousands of persons and dollars)



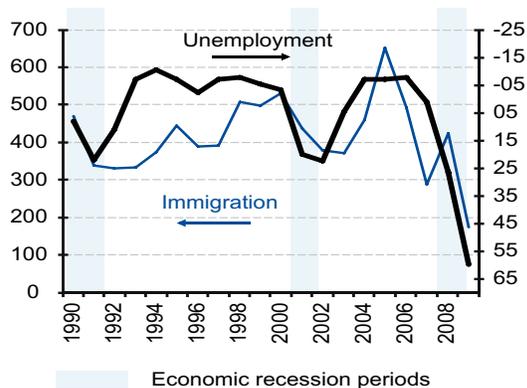
Source BBVA Research with Passel and Suro data (2005), Passel (2009) and OECD (2010).
The differences in wages between the United States and Mexico were obtained considering all payments in money and in kind that workers receive, and are considered gross income.

The predominant vision is that Mexican migration to the United States occurs as a response to the economic problems and the lack of opportunities in Mexico. That is, the main motors are on the side of the Mexican economy, which lead people to emigrate. Of lesser importance in terms of public perception is that migration occurs because it is the U.S. economy that demands Mexican migrants.

Based on these elements, three factors are herein analyzed, possibly the most important that encourage migration from Mexico to the United States. One of them, with regard to the Mexican economy, corresponds to the evolution of unemployment in Mexico, which is an indicator of the lack of opportunities in this country. The second is that of the spread between wages, a factor where both the economic performance of Mexico and that of the United States intervene. A third factor is the demand for Mexican workers in the United States.

Graph 13

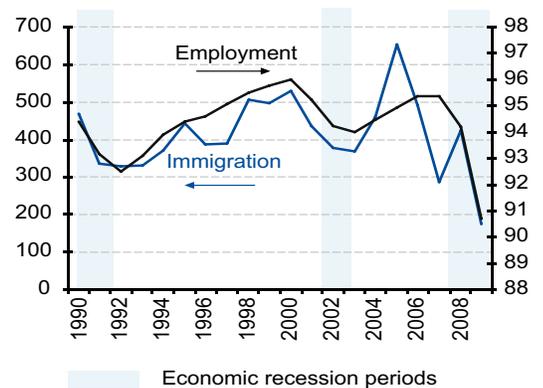
Mexican immigration in the U.S. and unemployment in the U.S.
(Thousands and annual % change, inverted scale)



Source: BBVA Research with Passel and Suro data (2005), Passel (2009) and Current Population Survey, U.S.
Note: Unemployment considers total unemployed persons in the work force.

Graph 14

Mexican immigration in the U.S. and employment in the U.S.
(Thousands and employment rate)



Source: BBVA Research with Banxico (central bank) data.
Note: The unemployment rate considers the proportion of unemployed persons in the work force.

In the first place, we compare unemployment in Mexico and Mexican migration to the United States between 1990 and 2009. Although there seems to be a certain correlation, it is not strong. It would have been expected in the majority of cases, which, when unemployment increases in Mexico, migration to the United States also increases and vice versa. Nevertheless, there are few years when such a relationship is present.

The differences in wages between the United States and Mexico were obtained considering all payments in money and in kind that workers receive. Included are wages, benefits, additional bonuses, etc. both in Mexico and the United States based on OECD figures (2010). In the last two decades the spread in wages have been growing and Mexican immigration should also be growing if this variable were the main determining factor in the performance of migration. Nevertheless, Mexican migration to the U.S. has shown periods of both a decrease and an increase. So, even though the spread between wages in the two countries could motivate the emigration of Mexicans to the United States, it does not seem to be a cyclical determining factor.

Finally, we see that migration from Mexico to the U.S. is mostly related to the economic cycle in the United States; there is a strong correlation with employment in the United States. In general, when employment (unemployment) rises (drops), migration also does, and the contrary occurs when employment (unemployment) drops (rises). The correlations of each one of the variables confirm what the graphs show: the higher correlation of Mexican migration to the United States is employment in the latter country; it is followed by unemployment in Mexico; and finally, the spread between wages. This behavior is valid both in periods of expansion such as those observed through 2007 and the beginning of 2008, as well as in the recession of 2009.

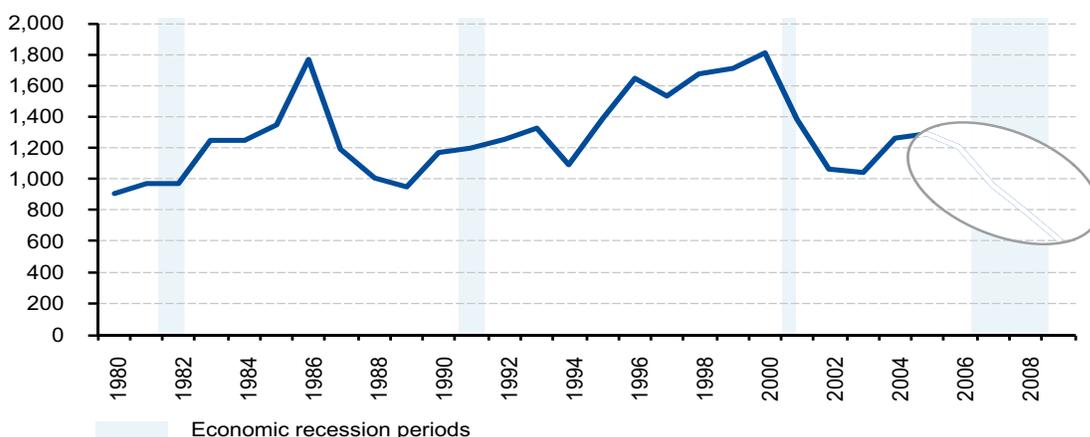
These results suggest that of the three variables, the main determining factor is the employment demand in the United States, then unemployment in Mexico and, finally, the difference in wages between the two countries. In this respect, the BBVA¹ estimates show that employment in the United States explains 71% of the fluctuation of Mexican migration in the U.S. The performance of employment in Mexico contributes 15% and the spread in wages 14%.

The main cause for the drop in Mexican migration to the U.S, as of 2007, is of an economic nature.

An indication that the migratory process between Mexico and the United States is economic is the reduction in Mexican migration to the U.S. as of 2007. The main determining factor in this situation is not a reduction in the wage spreads nor a rise in employment in Mexico, since this has not happened. Nor does it seem to be the reinforcing of the border with the U.S. Even though this last has occurred, the U.S. Department of Homeland Security figures are showing that this does not seem to be a determining factor, since the number of foreigners liable to be deported who are tracked down yearly as of 2007 (the year of the first symptoms of the crisis) has been lower than one million persons, a situation that had not been seen since 1989. The prior crises were also related with decreases or sluggishness in the number of persons liable to be deported. It is probable that the recent anti-migration conduct such as the "Arizona Law" could be contributing to the result that is being observed. Nevertheless, its effect is perhaps relatively low, since the reduction in migration began to be observed in 2007 and not in 2009.

Graph 15

U.S.: Location of foreigners liable for deportation (Thousands)



Source: BBVA Research with U.S. Department of Homeland Security data.

Therefore, potential migrants are not entering the United States, in general not because there are physical barriers impeding² this, but, because of economic reasons: the main cause of the lower migratory flows can be explained by the crisis in the U.S., which has had as a consequence a lower demand for migrant employment. Everything seems to indicate that once the U.S. economy starts to recover, the demand for migrant labor will continue and therefore some Mexicans will once again have incentives for emigrating.

Migrants in the United States raise productivity and production in general.

Previously, information has been provided that shows that more than being a burden for the U.S. economy, migrants contribute to dynamize it. There is not only no evidence of displacement of jobs or of a reduction in the wages of native workers or, if there is, they are relatively low and in specific sectors as it has been documented by a large number of jobs (see, for example, Friedberg and Hunt 1995; Card and DiNardo 2000; Fairlie and Meyer, 2000; Orrenius and Zavodny, 2003; Borjas and Hanson, 2005; Hotchliss and Quispe-Agnokli, 2008).³

¹ Review Monitor Hispano, September 2006, of the BBVA Economic Research Service.

² In previous issues of Migration Outlook Mexico, we have shown that the probability of a migrant worker entering the United States in one or more attempts is relatively high.

³ In the November issue of Migration Outlook Mexico, the main results of some of these jobs are presented.

A recent study by Peri (2010) shows that immigrants in the United States expand the productive capacity of the economy by stimulating investment and promoting specialization. This increases earnings and income per worker. Thus, total immigration in the period between 1990 and 2007 in the United States was associated to increases between 6.6% and 9.9% in real income per worker. This is equivalent on average to an annual increase of US\$5,100 per worker in the United States at constant 2005 prices. In the November 2009 issue of *Migration Outlook Mexico*, we show the results that point in that direction. Mexican migrants contribute around 4% of GDP in the United States.

The importance of Mexican migrants in the labor sector of the United States has increased, and it is expected that this trend will continue in the coming decades.

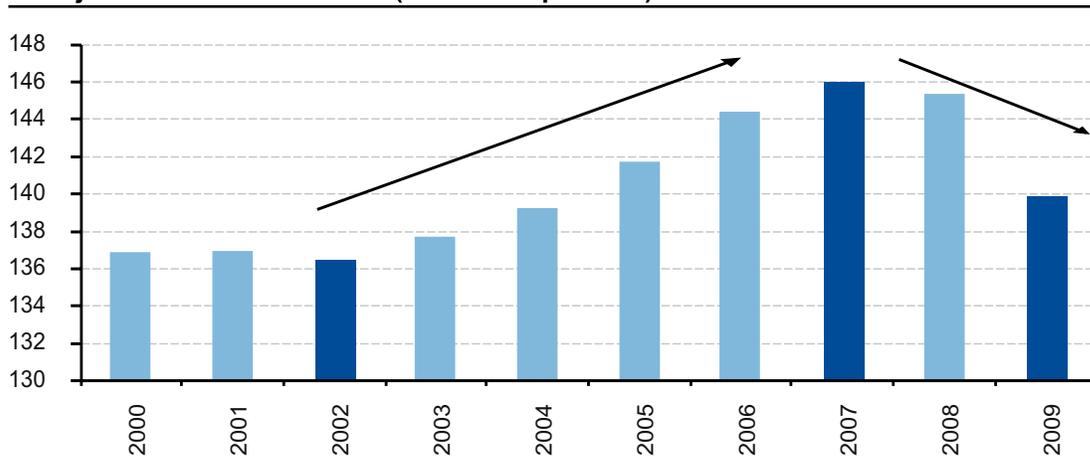
In this section, we compare the share in employment in the U.S. economy of both native Americans and foreigners, among them Mexicans. To this end, we reviewed three moments in time of this decade: the years 2002, 2007 and 2009, which indicate points at which an economic cycle⁴ in the U.S. began or ended.

In the period of expansion that began in 2002 and ended in 2007, according to figures of the Current Population Survey, the number of employed persons in the United States rose around 7%. The highest increase was registered in the U.S. native population where the increase was 5%. During this phase, workers who saw a greater increase in jobs were Mexicans with 25%. In the recession stage which included the years 2007 to 2009, the number of total jobs dropped 4%. U.S. native workers registered a 5.4% decrease, contrary to what happened to foreigners where the number of employed persons rose by almost 2%. Among the foreigners that registered a drop in the number of jobs were Mexicans. In previous issues of *Migration Outlook Mexico*, we had already documented this type of performance existing in the labor sector in the case of Mexicans. They tend to be the most benefited in periods of expansion, while in the recessions, they are the most affected, which shows that this labor sector is more flexible compared to native workers in the U.S.

Is the lower number of employed native U.S. workers due only to the economic crisis? The answer is "no". Between 2007 and 2009, the number of native pensioned workers of the United States rose from 27.9 million to 28.8 million persons. This result does not seem to have been caused by the current situation; it is a situation that has been present in the labor sector for some years. For example, in 2000 there were 25.7 million native U.S. pensioned workers. By 2009, this figure had risen to 28.8 million, by which the number of employed workers for each pensioned U.S. native worker went from 4.5 to 4. That is, some native Americans are retiring from the work market, without other Native Americans compensating for this exit.

Graph 16

Total jobs in the United States (Millions of persons)



Source: BBVA Research with CPS figures.

⁴ According to the classification made by the NBER (National Bureau of Economic Research), a U.S. institution entrusted with defining the duration of the economic cycles, both in their expansion and contraction stages.

Chart 2

Employed Population in the United States (Thousands)

	Thousands			% Change		
	2002	2007	2009	00-07	07-09	00-07
Total	135,435	145,347	139,149	7.3	-4.3	2.7
Born in the United States	116,485	122,578	115,956	5.2	-5.4	-0.5
Born abroad	18,950	22,769	23,193	20.2	1.9	22.4
Born outside of Mexico	13,157	15,528	16,537	18.0	6.5	25.7
Born in Mexico	5,793	7,241	6,656	25.0	-8.1	14.9

Source: BBVA Research with CPS figures, March 2002, 2007 and 2009

Chart 3

Employed Population in the United States (% Change 2002-2007 by sector)

	Primary	Secondary	Tertiary
Total	-33.9	1.9	10.0
Born in the United States	-31.7	-3.0	8.3
Born abroad	-42.5	24.2	19.9
Born outside Mexico	-50.4	11.7	18.8
Born In Mexico	-39.5	41.9	23.8

Source: BBVA Research with CPS figures. March 2002 and 2007

Chart 4

Employed Population in the United States (% Change 2007-2009 by sector)

	Primary	Secondary	Tertiary
Total	-0.9	-14.9	-1.7
Born in the United States	-3.0	-13.6	-1.6
Born abroad	8.4	-19.6	-2.1
Born outside Mexico	-23.2	-14.8	-3.3
Born in Mexico	18.1	-24.9	2.3

Source: BBVA Research with CPS figures, March 2007 and 2009

In general, the United States labor market has tended toward a reduction in employment in the primary sector in this decade. Both in the expansion period and in that of the recession, the number of employed persons was reduced. In the first case by 34% and in the second by 1%.

The secondary sector, which registered growth close to 2% in the number of employed persons in the expansion period, was where a larger proportion was left unemployed. There, while the number of employed native U.S. workers was reduced in the expansion stage, the foreigners increased their participation in an important way. Nevertheless, in the recession stage, the number of foreigners' jobs was reduced in a greater proportion. Mexicans were the ones who registered a greater loss in proportional terms, due to their high concentration in the construction and manufacturing sectors, which were highly affected by the economic crisis.

The tertiary sector in recent years has been the most dynamic in the U.S. economy. In the economic growth stage, the number of jobs rose 10%. Even though there was a loss in this sector in the current crisis, it was relatively low, lower than 2%. This sector, together with the primary, have been the sectors to which Mexicans who lost their jobs in the secondary sector have tended to move.

The work force in the United States is aging. The proportion of young native workers is decreasing and the older ones are increasing. Between the years 2002 and 2009, the proportion of workers older than 45 increased from 39% to 44%. This situation is what has led some workers to leave the American labor market in recent years. The migrant population is allowing that the aging process in the labor population to slow down, because, in general, they are younger than native U.S. workers. This is the case of the Mexicans who are on average the youngest among the migrants. Even though the average age has tended to increase among Mexican migrants, most of them are between 30 and 45 years of age.

Chart 5

Employed Population in the United States (% by age groups)

	2002			2007			2009		
	Less than 30	Between 30 and 45	Over 45	Less than 30	Between 30 and 45	Over 45	Less than 30	Between 30 and 45	Over 45
Total	24.7	37.8	37.5	24.7	34.1	41.3	23.7	33.0	43.3
Born in the United States	24.6	36.8	38.6	25.0	32.3	42.6	24.5	31.4	44.1
Born abroad	25.6	43.3	31.1	22.7	42.5	34.8	19.9	41.1	39.0
Born outside Mexico	21.4	42.8	35.8	19.4	41.3	39.3	17.3	39.6	43.1
Born in Mexico	36.6	44.7	18.7	30.6	45.4	24.0	26.1	44.9	29.0

Source: BBVA Research with CPS figures, Marzo 2002, 2007 y 2009

Therefore, the importance of Mexican immigrants in the U.S. labor sector has increased. Currently, for every Mexican immigrant employed in the United States, there are four pensioned American workers, due to which some active Mexican immigrants in the labor sector contribute to the pensions and social security benefits of some of the retired Americans.

Aging in the U.S. and greater potential demand for immigrants.

Previously, it was shown that Mexican immigration in the U.S. is strongly related to the demand for jobs, that is, the U.S. seems to demand immigrant labor in phases of economic expansion. In this section, we compare two scenarios through 2050: one in which there is no immigration in the United States, and the other in which immigration is relatively high⁵. To this end, we use the figures of the Census Bureau of the United States.

The United States is aging relatively quicker than Mexico. As we showed above, given that migrants are mostly persons of a productive age, one of its effects is that they rejuvenate the labor force and decrease possible financial charges in the pension systems, given that in many cases, it is the active workers who contribute for the pensions of retired workers. It should also be mentioned that they contribute with the payment of various taxes, both direct and indirect (such as the case of the VAT), which grant resources for maintaining the operation of various public goods and services.

In the scenario where there would not be immigration in the United States, (that is the increases in population would come from the population residing in the country, not considering the entry of new immigrants), the proportion of persons in retirement age (65 or older) in the total number of persons in a productive age (between 15 and 64 years of age) would be of 40% toward the year 2050. That is, for every 10 workers in a productive age, there would be 4 in retirement age. Even with high immigration, the number of persons in retirement age in the United States would increase, but instead of there being 4 workers of that age, there would be 3 for every 10 active persons. There would also be an important difference in the population in a productive age. With high immigration toward 2050, there would be 80 million persons more in a productive age.

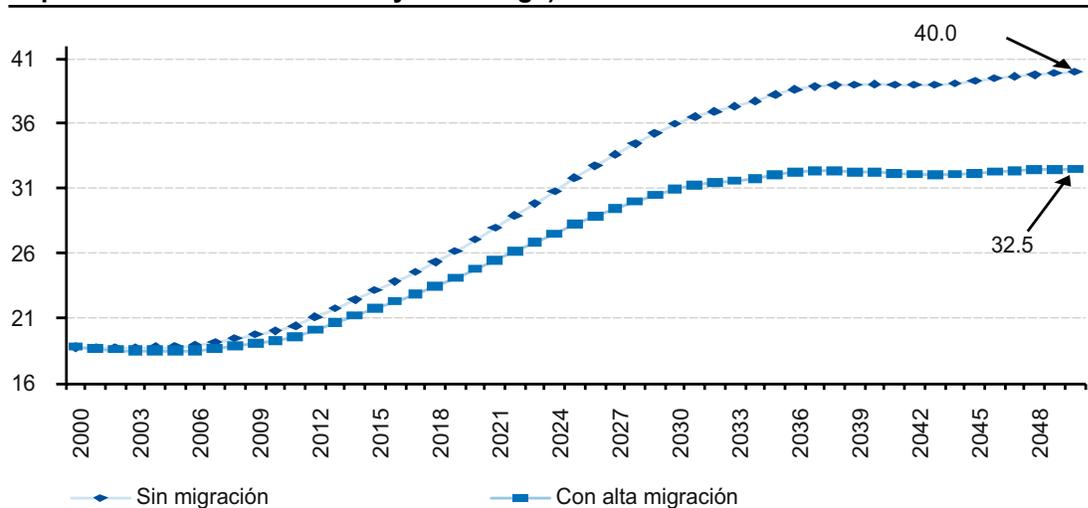
⁵ This scenario is designed based on the trend observed in international migration in the last 3 decades, considering the last 31 years and is projected based on the figure from the Census Bureau toward 2050.

This situation is not unique for the United States. Among the 10 main countries receiving migrants: the United States, Russia, Germany, Ukraine, France, Saudi Arabia, Canada, India, the United Kingdom and Spain, in 8 of them, the dependence in adult age would rise by more than twice between the year 2000 and the year 2050, and in 5 of them, this indicator would be at least 40% in 2050, according to projections of the Population Division of the United Nations (2009).

The figures presented here suggest that immigration in the United States would help to rejuvenate the labor force and to solve possible financial problems in social security by reducing the number of dependent persons per active worker. Therefore, if the United States currently requires migrant labor, it is probable that in the coming years this need will increase. In brief, it is very possible that in the coming decades, the United States will be competing to attract workers to its labor market or to accept the hard consequences of an aging population.

Graph 17

**Dependence rate in old age
(Proportion of persons older than 65 in the total number
of persons between 16 and 64 years of age)**



Source: BBVA Research with data from the Census Bureau of the United States. To create the series with a high net international migration, first the trend of international migration was projected based on the analysis of the time series, based on international migration trends of the last 3 decades, based on the Program of Population Estimate (PEP for its Spanish initials). Following the estimated migration, it is increased by a factor that is obtained by dividing projected migration in the total number of years by that projected for the years between 2001 and 2008

Conclusions: Employment in the U.S., main detonator for migration

The economic reasons seem to be sufficient for explaining migration; the demand for jobs in the U.S. is the main determining factor, both in stages of expansion and recession. The aging of the population in the U.S. will be a factor having a bearing on a greater demand for jobs from migrants in the coming decades.

We consider that migration from Mexico to the United States occurs mainly due to economic factors. Contrary to what is noted traditionally, the lack of opportunities in Mexico is not the main factor explaining Mexican migration to the United States; the results shown herein are evidence that the demand for jobs in the United States is more important from an economic cycle point of view than unemployment and the lack for opportunities in Mexico. Furthermore, the spread in wages between the two countries is also important, but of lesser, although sufficiently significant, explanatory importance. These determining factors are valid both during the expansion periods and also in what occurred during the recent recession. A greater knowledge in the way in which said factors stimulate migration is important in ordering the migratory flows and reducing costs and increasing their associated benefits. The recent recession episode that we have observed in the U.S. confirms the previous results and indicates their importance at different times of the economic cycle of the U.S. and Mexico.

In recent years, the importance of Mexican immigrants has increased in the U.S. labor sector. They have

allowed meeting the demand for jobs in some work places due to the retirement of native U.S. workers from the labor market. Currently, for every Mexican migrant employed, there are 4 retired American workers. Also, there are other elements that immigrants will contribute, such as tax payments that allow maintaining many of the activities provided by the State through public goods and services.

In the coming years, the most probable scenario points to the fact that Mexican migration will gain greater economic importance in the United States, not only due to its participation in raising productivity and in GDP per se, but also due to the aging of the American population that is being observed. The entry of immigrants into the United States has been beneficial in economic terms. To prohibit it could cause important costs. Due to this, it would be convenient to make greater efforts in ordering the migratory flows. The benefits obtained from migration are for both countries, and particularly in the case of the population dynamics; an additional factor is shown that gives evidence of the complementarity between the Mexican and American economies.

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3a. Immigration in Arizona and the effects of the new law “SB-1070”

In this article of *Migration Outlook Mexico* we will analyze the immigration phenomenon in Arizona. In the first section, we will deal with the trends and importance acquired by migrants, in terms of their weight with regard to population and their contribution to the state's economy. To complement the information, an inset will accompany this article that describes the antecedents and main characteristics of what is popularly known as “Law SB 1070”, the sanctions that were considered in this legislation and those that were suspended by federal court order. Finally, we will discuss some of the possible consequences in the state and on the U.S. economy in case similar laws were to become generalized in the United States. Although due to the controversial nature of the topic there are different approaches for dealing with this analysis. In this study, as is usual, we will consider the question from an economic standpoint.

Arizona's population, some characteristics

The tremendous expansion of the migrant population in Arizona occurred in the 1990's, with the average annual growth rate of this sector of the population reaching 9.3%. In the following decade, the growth rate diminished, to an annual 3.5%, to reach slightly less than 900,000 foreign-born residents in the state in 2009. With this inflow, foreigners went from representing 8% of the state's total population in 1990, to 15% in 2000 and 16% in 2009. At present, approximately one third of the foreigners are naturalized U.S. citizens.

Arizonan residents of Hispanic origin and particularly those coming from Mexico have a considerable weight in the total population. Of the U.S. native-born population in 2009 in this state, 25% were of Hispanic origin. In the latter category, those of Mexican origin are the majority (close to 90%). Arizona's foreign-born population is also in its majority of Mexican origin (64%). However, among naturalized U.S. citizens in Arizona, those of Mexican origin represent less than half (44%) the total. Or to put this in other words, residents of Mexican origin in Arizona in 2009 totaled approximately 1.27 million persons, of which those born abroad (mainly in Mexico) account for about 44% and of the foreign-born, those who are not naturalized, represent a high percentage, 76%.

The state of Arizona is home to slightly more than 2% of the total U.S. population. The U.S. foreign-born population resident in Arizona is slightly higher, at 2.4%. About 6% of people of Mexican origin in the United States live in the state.

Chart 6

Population growth in Arizona (thousands of people)

	1990	2000	2009	Average annual change 1990-2000 (%)	Average annual change 2000-2009 (%)
Native-born U.S. population	3,396.6	4,478.4	5,645.4	2.8	2.6
Born abroad	268.7	652.2	892.0	9.3	3.5
Naturalized	105.4	194.9	306.1	6.3	5.1
Non U.S. citizens	163.3	457.3	585.9	10.8	2.8
Total	3,665.3	5,130.6	6,537.4	3.4	2.7

Source: BBVA Research with Gans (2008) and CPS figures, March 2009

Chart 7

Arizona population according to origin, 2009 (Thousands of people)

	Total	Non Hispanic	Hispanics		
			Total	Non Mexican	Of Mexican origin
Native-born U.S. population	5,645.4	4,221.6	1,423.8	154.3	1,269.5
Born abroad	892.0	282.0	610.0	41.6	568.4
Naturalized	306.1	155.9	150.2	15.6	134.6
Non U.S. Citizens	585.9	126.1	459.8	26.0	433.8
Total	6,537.4	4,503.5	2,033.8	195.9	1,837.9

Source: BBVA Research with CPS figures, March 2009

Chart 8

Arizona population as a percentage of total U.S. population by category. 2009 (%)

Native-born U.S. population	2.1
Born abroad	2.4
Naturalized	2.0
Non U.S. Citizens	2.8
Of Hispanic origin	4.3
Of Mexican origin	5.8
Born in Mexico	5.0

Source: BBVA Research with CPS figures, March 2009

As with the trend on a national level, in Arizona the population, and consequently the labor force, is being rejuvenated by migration, especially that of Hispanic origin. The average age of the Hispanic population (28.5 years) is almost 10 years below that of the non-Hispanic population (38.8 years). Furthermore, the average age of the U.S. born population has even decreased due to the presence of Hispanics, since, on average, their average age is 24 years, 14 years less than for non-Hispanics.

Within the Hispanic population, the ethnic group with the youngest average age tends to be the Mexican, most of whom are in their productive years. The average age of naturalized U.S. citizens is high, not younger than 47 years, which suggests that they could obtain citizenship after many years of being in the country.

As we have noted above, the fact that immigrants have a lower average age than the native-born population in the United States translates into economic benefits for that country, since these are individuals who although they might not have documents, nevertheless work, pay taxes, consume products, create jobs, reduce the possible economic burden on the social security system, and on occasions, contribute with retiree pensions.

Immigrants in the Arizona labor market

In the Arizona labor market, native-born Americans tend to be concentrated on the higher-skilled jobs. In 2009, 37% were engaged in professional activities, management, business, and financial services. Complementing this, migrants, in general, play a major role in various service occupations (34.2%), professional activities (13.6), and transportation (10.9%). Mexican immigrants in Arizona, in addition to being employed in different service occupations (40.2%) are mainly concentrated in construction and mining (12.6%) and in transportation (12.8%). The primary sector is important as an employer (3.7%), but it is not the main source of jobs. Thus, immigrants, in general, do not seem to compete for jobs with local workers. They tend to be engaged in different activities, and therefore they have important economic effects on the economy of Arizona, as analyzed below.

Chart 9

Average age of the Arizona population, by origin, 2009 (Years)

	Average age				
	Total	Hispano			
		Non Hispanic	Total	Non Mexican	Of Mexican origin
Native-born U.S. population	34.6	38.2	23.9	29.0	23.3
Born abroad	42.0	47.6	39.2	47.5	38.7
Naturalized	50.4	52.3	48.5	56.9	47.5
Non U.S. Citizens	37.5	41.8	36.4	41.9	36.0
Total	35.6	38.8	28.5	32.9	28.1

Source: BBVA Research with CPS figures, March 2009

Chart 10

Workers in Arizona by job category, 2009 (%)

	Native-born	Immigrants	
		Total	Mexicans
Management, business and financial activities	16.2	6.7	2.4
Professional activities	20.6	13.6	4.3
Different service occupations	16.5	34.2	40.2
Sales and related occupations	13.9	8.8	6.3
Management and support occupations	15.7	5.8	6.5
Hunting, fishing, and reforestation	0.1	2.4	3.7
Construction and mining	4.8	8.4	12.6
Installation, maintenance and repair	3.9	3.8	3.9
Factory and manufacturing work	3.7	5.6	7.4
Transportation	4.5	10.9	12.8
Total	100.0	100.0	100.0

Source: BBVA Research with CPS figures, March 2009

Immigrants' economic contribution in Arizona

In this section we describe the results obtained by Gans (2008) in a study that analyzes the economic impact of immigration in the state of Arizona. The effects are estimated for both naturalized as well as non-naturalized foreigners. According to the results of this study, immigrants' economic contribution to the Arizona economy is important. As consumers, in 2004 naturalized foreigners contributed 6.1 billion dollars to the Arizona economy, while the corresponding figure for non-naturalized foreigners was 4.4 billion dollars, equivalent to 1.6% and 1% respectively of the state's GDP. These economic contributions translated, respectively, into 39,000 and 28,000 jobs, together equivalent to 3% of the state's total employment. Immigrants pay taxes, both direct as well as indirect, to the Arizona economy. In this case, in 2004 naturalized citizens contributed 460 million dollars in taxes, while the corresponding figure for non-naturalized foreigners was 320 million dollars.

In general, in considering the previously mentioned elements, it is estimated that in 2004, the total contribution of immigration can be translated into 15 billion dollars coming from the naturalized citizens and 29 billion dollars from non-naturalized foreigners. This represents 4% and 8% of total state GDP, respectively; that is, 12% corresponds to immigration. Thus, although spending on the part of non-naturalized foreigners is less than in the case of naturalized citizens, perhaps due to their sending remittances back home and lower wages, in total they make a greater contribution to the economy. This can be attributed to the non-naturalized population being in the productive years of their lives and tending to be younger than those who hold U.S. citizenship.

In the following section, based on a description of the Arizona Law, we will consider some of its possible consequences.

Chart 11

Economic contribution of immigrants to the Arizona economy, 2004

	Naturalized	Non-naturalized
Spending (US\$)	6.1 billion	4.4 billion
Approximate contribution in full-time jobs due to their spending	39,000	28,000
Taxes (US\$)	460 million	320 million
Approximate economic contribution		
Dollars	15 billion	29 billion
Percentage of GDP	4%	8%
Total number of full-time jobs	120,000	280,000

Source: Gans (2008)

Is it possible to already see some effects of the Arizona Law?

Just a few months after Law SB 1070 entered into effect, it is possible to see its effects in a lower number of Hispanics in the state of Arizona, as revealed by CPS figures. Although we are using a survey as a reference and as such there can be errors in estimates, we calculate that there are around 100,000 fewer Hispanics in the state than at the beginning of 2010. Most of these Hispanics, as previously indicated, are of Mexican origin. It is possible that this reduction can largely be attributed to the potential application of the law. If attributable to another factor such as the economic crisis, the decrease would have begun before that date.

At this time it is not possible to determine where the Hispanics who have left Arizona went. Probably some have moved to other states within the United States and others (perhaps fewer) have returned to their countries of origin. Recently the Mexican Interior Ministry (*Secretaría de Gobernación*), through the National Migration Institute (*Instituto Nacional de Migración*), and the Foreign Relations Ministry (*Secretaría de Relaciones Exteriores*), reported that between June and September 2010, approximately 23,380 Mexicans moved from Arizona back to their home towns and cities (See SEGOB-SRE, 2010). However, this figure is relatively modest, and therefore it can be assumed that despite the recent recession in the United States, the migration of Mexicans to that country has continued, although probably in smaller numbers than during the period of economic expansion.

Graph 18

Hispanics in Arizona (Population 16 years of age and older) (Thousands)



Source: BBVA Research with Current Population Survey figures

Possible effects of the “Arizona Law” on the state economy

The “Arizona Law” is resulting in fewer immigrants entering the state, and some others leaving it. Immigrants to Arizona, as we previously indicated, generally tend to work in sectors that are different from that of the native-born population and in that sense they can be considered complementary and not replacement workers. In general, they do not compete for jobs with the native-born workers, and, in fact, help sustain job creation. They are also consumers and they pay taxes. Thus, as previously shown, they contribute positively to the state economy in different ways.

Many of the benefits that immigrants contribute to the local economy are not very well-known. Nor are the possible effects very clear of restricting the entry of immigrants or expelling them from the state. A smaller number of immigrants will have adverse effects on the economy because this implies the loss of resources. This is demonstrated in the study by Gans (2008). According to his estimates, a 15% reduction in the migrant labor work force in agriculture would lead to the loss of slightly more than 3,000 full-time jobs. In the construction sector, a 15% decline in the immigrant population would result in the loss of 56,000 full-time jobs and would cost the state economy 6.6 billion dollars. A 10% reduction in the immigrant workforce in manufacturing would lead to the loss of 12,000 full-time jobs and have an economic loss of 3.8 billion dollars.

Immigration increases the size of Arizona’s workforce. With a decrease in immigration, the labor force would shrink and with it there would be a likely increase in costs with lower production.

Chart 12

Arizona: estimate of potential losses due to a reduction in the immigrant population

Sector	Reduction in the workforce	Loss of jobs	Monetary loss (dollars)
Agriculture	15%	33,00	600 million
Construction	15%	560,00	6.6 billion
Manufacturing	10%	120,00	3.8 million
Service industries	16%	540,00	2.5 million

Source: Gans (2008)

Conclusions: Mexican immigrants are important in Arizona. Applying the law could have negative effects for the state and also, of course, for the immigrants and their families.

The relative importance of immigration has increased in the Arizona economy. Immigrants, in general, are younger than the local population and as a result not only increase the size of the work force but also rejuvenate it in the United States. Immigrants usually tend to engage in activities different from those of native-born workers; they are mainly concentrated in jobs with low training levels. They can thus be considered complementary to local workers.

The recent law SB 1070 has resulted not only in fewer immigrants entering the state of Arizona, but also in some leaving. We estimate that the number of Hispanics is currently around 100,000 less than at the beginning of the present year. Immigrants withdrawing from the Arizona economy could have adverse economic effects on the local economy. The immigrants' scope and weight in the state, their economic importance, and their complementarity with the Arizona labor market and economy, once again places the need to reach agreements that facilitate and regularize migratory flows. Therefore, it is necessary to reiterate that both the benefits and in the event of restrictions, the negative effects of immigration, are shared by both the United States as well as Mexico and both countries could end up losing if they have to deal with generalized restrictions.

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Inset 1: The Arizona SB 1070 Law: Origin and characteristics

The Arizona Senate made a series of amendments to the Law 1070 regarding the support of law enforcement and safe neighborhoods (Support Our Law Enforcement and Safe Neighborhoods Act), which is known as the “Arizona SB-1070 Law”. The purpose of the amendments was to discourage and stop the illegal entry into the country and the presence of undocumented immigrants in U.S. economic activity.

According to that established in the amendment bill, a person may be stopped simply because there is reasonable suspicion that he or she is an unauthorized immigrant. A police officer, without a legal warrant, may apprehend a person if the officer has probable elements to believe that the person has committed a public offense that would allow such a person to be expelled from the United States. In like manner, the migratory status must be verified of those persons that have been arrested, before they are freed. The migratory status of those apprehended must be verified with the federal government. When a person is in the state of Arizona in an unauthorized manner, custody will be transferred to the federal migratory authorities. A fine of US\$500 was stipulated and deportation due to a first-time unauthorized entry, an amount that is doubled due to a second-time unauthorized entry in this state.

It was also considered a state crime for unauthorized foreigners to not carry their migratory documents.

The amendments to the Law also included measures and sanctions against those that house, hire and transport unauthorized foreigners; which include lesser fines and others that are higher, such as the elimination of permits in economic activities, the exclusion of governmental supports or economic incentives or the reintegration of these in case they have been received. It would be considered illegal to admit a worker in an automotive vehicle

whenever the vehicle impedes normal traffic flow. It was also proposed as a crime for an unauthorized foreigner to apply for a job, solicit work in a public place or carry out work as an employee or independent contractor in Arizona.

On July 6, 2010, the Justice Department of the United States filed a judicial mandate against the application of the Law. The main argument was based on noting that the regulation of immigration depends exclusively on the federal government. On July 28, 2010, one day before it became effective, a federal judge ordered the suspension of the most polemic clauses in the bill. For example, the fact that an officer may apprehend a person to determine his or her migratory status if there is reasonable suspicion that the person's stay is unauthorized in the country. The amendment that allows apprehending a person without an arrest warrant under the suspicion that he or she has committed a public offense that warrants expelling him or her from the United States. Also, the fact that it is a crime for authorized persons not to carry their migratory documents was eliminated. Some other points were also eliminated, such as those that criminalized that an immigrant apply for or conduct work.

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State of Arizona Senate Forty-ninth Legislature Second Regular Session 2010, “SENATE BILL 1070” visto en: <http://www.azleg.gov/legtext/49leg/2r/bills/sb1070s.pdf>

Decision of Judge Susan Bolton regarding the amendments to the Law 1070,

<http://vvoice.vo.llnwd.net/e14/5131575.0.pdf>

3b. Highly Qualified Mexican Immigrants in the U.S.; A revealing photograph

Generally, when there are references to Mexican immigrants in the U.S., they are associated almost automatically and in a generalized way to persons of low educational and income levels. Deep down in those perceptions, poverty is an underlying determining factor in the migration of persons. Nevertheless, as we have shown in previous issues of *Migration Outlook Mexico*¹, minimum income and education is required to be able to assume the initial costs of migration. There has been little study of the emigration of highly qualified persons in the case of Mexico, perhaps due to that prevailing perception regarding the migrant profile. However, as shown in this article, emigration by this group is very important from various points of view: the first, its size compared to the total Mexicans with high educational levels, which is significant; the second, its dynamics which is growing and superior to that of traditional immigration; and third, its impact on technological transfer..

Some studies have considered the trans-border movements of persons with a particular description of knowledge, as a channel of international technological diffusion². It is clear that in the host countries, when the migration of high-quality labor persons is of a more permanent nature, given that its human quality is high and has the opportunity of continuing to increase as time passes, due to experience and participation in the development of new knowledge and technologies, this process translates into a rise in the potential for growth of the country receiving immigrants. This, even though not in a symmetrical way could represent a loss for the countries of origin.

In this article, we present an analysis of highly-qualified migration from Mexico to the United States. Specifically, we approach the case of persons with doctorates. We offer a quantification of the number of Mexican immigrants with said educational level. Some of their characteristics are described and some factors are pointed out that contribute to the emigration of this group of persons. This study is complemented by the following chart in which there is a quantification of the transfer that Mexico has made to the United States through its educational expense on Mexican migrants prior to their emigration.

The main statistical base for identifying the number of migrants with doctorates is in the Current Population Survey-CPS published in the U.S. by the Census Bureau in March 2009, while the information regarding persons with the same educational level living in Mexico was obtained from the National Survey of Occupation and Employment (ENOE for its Spanish initials), published by the National Institute of Statistics, Geography and Information Technology (INEGI for its Spanish initials) corresponding to the first quarter of 2009.

How many persons born in Mexico who have doctorates live in the U.S.?

According to CPS figures, in 2009 there were a little more than 20,000 Mexican immigrants with doctorates living in the United States. Of these, 46% entered the U.S. in the last two decades. The decades between the 70's and 80's accounted for 34%, while the rest entered prior to 1970. This shows growing dynamics in recent years.

According to figures for the first quarter of 2009 of the ENOE, in that year slightly more than 80,000 persons were living in Mexico with doctorate studies, of which 73,000 were born in Mexico. Therefore, around 20% of persons born in Mexico, who have doctorates, live in the U.S. The proportion is considerable, practically twice what total Mexican immigrants represent in the United States, which is 11%.

¹ In the issue corresponding to June 2009, poverty and education are analyzed at a municipal level as factors for the emigration of Mexican migrants.

² Review UNCTAD, (2007)

Chart 13

Mexican migrants with doctorates in the U.S. according to their date of entry

Period	Number	% share in the total
Prior to 1970	4,002	19.8
1970-1980	6,832	34.0
1990-2009	9,383	46.0
Total	20,218	100

Source: BBVA Research with Census Bureau data, Current Population Survey (CPS), USA, March 2009

Another relevant comparison corresponds to the number of researchers with a doctorate who are registered in the National Researchers System (SIN for Sistema Nacional de Investigadores) in Mexico, which numbers 16,000, a figure lower than the number of Mexican immigrants with a doctorate in the U.S. (20,000). Thus, a large part of the Mexican human capital with very high labor qualification is not being taken advantage of by the country.

This first result indicates that the number of highly qualified Mexican immigrants is of great importance not so much for its magnitude in the total number of immigrants, but for what it represents in the total persons with high education levels in Mexico.

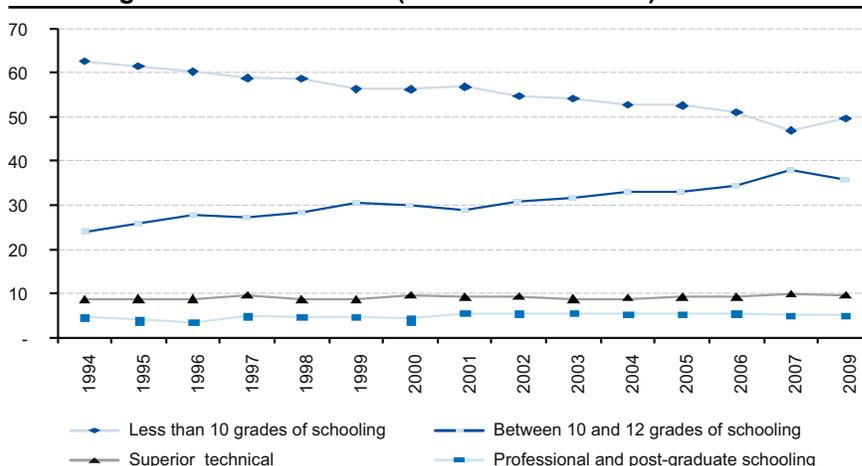
Taking into account the educational level, the proportion of Mexican immigrants with doctorates is one of the highest.

In the last two decades, the educational level of Mexican migrants to the United States has tended to increase on average. A decreasing trend can clearly be observed in the population with fewer than ten years of schooling and an opposing trend in persons with between 10 and 12 grades of schooling. That is, greater migratory flows have been present in persons with high school studies. Although the proportion of migrants with a superior technical, professional and post-graduate level has not shown much change, it has been increasing slightly. Thus, it can be affirmed that the labor quality of Mexican migration to the United States has increased. The number of migrants with between 10 and 12 school grades has multiplied close to three times between 1994 and 2009, and the number with superior technical, professional and post-graduate schooling has each grown two times.

Another interesting datum is that the average schooling of those born in Mexico, older than 15, living in the United States, is of around 10 years, higher than the average schooling in Mexico, which is slightly higher than 8 years for the same age range.

Graph 19

Population born in Mexico residing in the United States, according to educational level (% share in the total)



Source: Consejo Nacional de Poblacion (Conapo) (National Population Council) and BBVA Research based on the Census Bureau, Current Population Survey (CPS), USA

Chart 14

Population born in Mexico residing in the United States, according to education level Thousands

	1994	1998	2001	2005	2009
Less than 10 grades	4,059	4,325	4,819	5,795	5,897
From ten to twelve grades	1,556	2,064	2,434	3,630	4,243
Superior technical	570	651	773	1,018	1,139
Professional and post-graduate	299	342	468	584	591

Source: Consejo Nacional de Poblacion (Conapo) and BBVA Research based on Census Bureau, Current Population Survey (CPS), USA

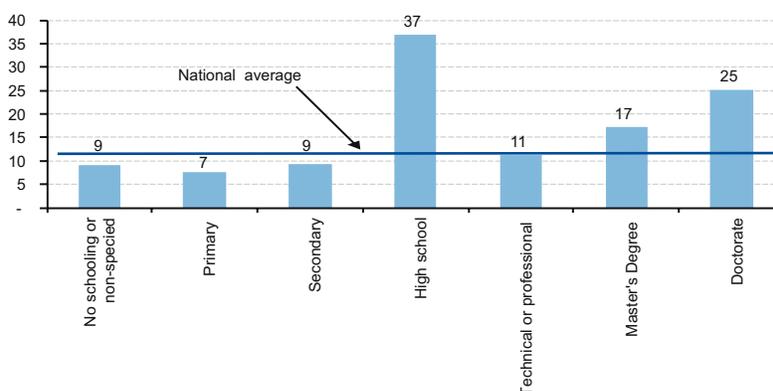
Another important reference for measuring the migration of qualified Mexicans or those with higher educational levels is to consider their share in the total population with the same educational level in the country. To this end, the educational equivalences of Mexico and the United States of the Ministry of Public Education in Mexico for 2009 were used. In general, the lowest percentage shares are found in the first educational levels, starting with those with no schooling instruction, then primary or secondary school. This indicates that for every Mexican with a relatively low educational level, the number of Mexican migrants in the U.S. with that same educational level is, in general, lower than when the educational level is higher: high school, technical, professional, Master's Degree or doctorate.

What the previous figures show is a relationship indicating that the higher the educational level is, the probability of emigrating tends to be higher. The higher proportion is found in high school, the 4.2 million Mexican migrants living in the U.S. with this educational level in the United States represent 37% of the 11.5 million migrants living in Mexico³. Persons with doctorates hold the second position. In this case, the proportion represented by Mexican immigrants in the U.S. is 25% of total persons in Mexico with doctorates. That is, for every 4 persons in Mexico with doctorates, there is 1 Mexican immigrant in the United States with the same qualification level.

Considering these results, even though the number of highly qualified immigrants represents a small share in the total of Mexican immigrants in the U.S.; in the total of persons with high labor qualification in Mexico, the share is relatively high. The probability that a Mexican with a doctorate will emigrate to the United States is 4 times higher than that of a Mexican with primary school studies and 3 times higher than a Mexican with secondary school studies. What factors could be having a bearing on this situation? In the following sections, we will try to answer this question.

Graph 20

Percentage of Mexican Immigrants in the U.S. with respect to the total population in Mexico, according to educational level, 2009



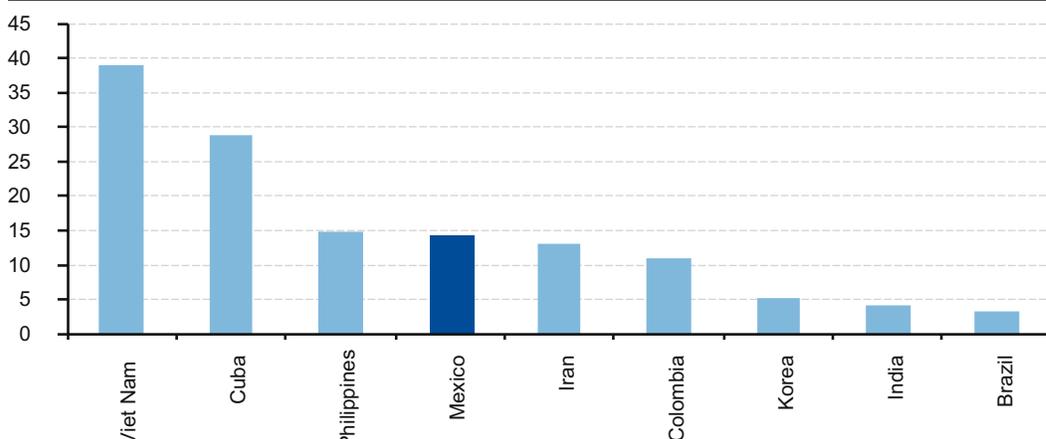
Source: BBVA Research preparation based on Current Population Survey (CPS), March 2009, and National Survey of Occupation and Employment (ENOE) first quarter 2009

³ Lowell, Pederzini and Passel (2006) find that for the year 2000 the percentage share in the doctorate level was the highest. The marked increase that has been registered in the immigration of Mexicans with high educational studies is what has modified the relative importance in the percentage shares.

Compared to other developing countries, Mexico has qualified immigration rates (including persons with post-secondary studies) that are higher than countries like India, Iran, Brazil, Colombia; and lower than those of Vietnam and Cuba and similar to those of the Philippines (UNCTAD, 2007).

Graph 21

Qualified migration rates in developing countries, 2000



Source: UNCTAD, 2007

Note: Qualified immigration refers to persons with tertiary education, that is, post-secondary school studies.

Characteristics of Mexicans with doctorates in Mexico and in the U.S.

According to ENOE results, the proportion of Mexicans with doctorates in Mexico of the masculine sex is much higher than that of women, 69% vs. 31%. In the United States, according to CPS results, the number of Mexican women with doctorates is equivalent to that of the men. Some studies have shown that the educational selectivity is higher for women immigrants in the highest educational levels (See Lowell, Pederzini and Passel, 2006; and Kanaiupuni, 2000); that is, men of lower educational levels have a greater probability of emigrating and women of higher educational levels have a greater probability of emigrating.

Although the average ages tend to be relatively equivalent in both groups, it has been observed that in Mexicans with doctorates living in the U.S., the proportion is higher both in the young (less than 40 years of age) and in the old (over 60 years of age). This seems to suggest that a few years ago, the emigration of Mexicans with higher educational levels was high, then, it decreased its dynamism, and, recently, it has accelerated. Lastly, as to the number of hours per week that Mexicans with doctorates work, it seems to be slightly higher in Mexico than in the U.S., according to figures of both surveys.

Chart 15

Characteristics of employed Mexicans with doctorates, according to their country of residence

	Mexico	United States
Gender(%)		
Male	68.8	50
Female	31.2	50
Average age (years)	47.2	48.1
Age Ranges (%)		
Under 40	31.9	34.1
41-50	30.3	22.4
51-60	25.2	20.7
Over 60	12.6	22.9
Weekly hours worked (average)	38.1	35.1

Source: BBVA Research based on the Current Population Survey (CPS), U.S. March 2009, and National Survey of Occupation and Employment (ENOE) first quarter 2009

Factors stimulating the emigration of highly qualified Mexicans to the United States

a. The spread between wages in the United States and Mexico

One of the first formal analytical frameworks for understanding the migratory phenomenon is the classic model of Harris and Todaro (1970), according to which the main motivation for migration from one sector to another resides in the better economic conditions that are reflected in the spreads in income expected between the two sectors. As per the results of this model, the elimination of the spread between wages, for example through commercial and labor integration between both economies that would facilitate the convergence of wages, would tend to reduce incentives for migration.

Extensions of the Harris and Todaro model incorporate a focus on human capital. It is based on the assumption that individuals are, by nature, different from one another, both in personal abilities and in knowledge, adapting capacity, education, etc., as well as in their physical characteristics, such as age, sex, etc. These differing characteristics would lead to varying income expectations. Therefore, the differences in the returns on investing in human capital can explain the heterogeneity in the propensity to emigrate. Based on the structure of the labor markets and the population policies, migrants are selected depending on their specific abilities (De Haas, 2008).

Based on the analytical framework indicated, the income earned on average by persons with doctorates in Mexico was obtained according to the results of the ENOE, as well as what is earned by Mexican immigrants with doctorates in the United States, according to the CPS results. These results could be biased downward, since it is common for persons in the highest part of the distribution to tend to report a lower income in the surveys.

The ENOE indicates that Mexicans with doctorates living in Mexico earned on average \$P111 per hour in the first quarter of 2009; which meant an average monthly income slightly higher than P\$20,000. While in the United States, Mexican immigrants with doctorates earned on average P\$378 per hour in 2009, which corresponded to around P\$66,000 monthly. That is, according to the results of these two surveys, a Mexican with a doctorate would tend to earn a little more than three times in the United States than what he or she would earn in Mexico.

Chart 16

Average income of Mexicans with doctorates in 2009, depending on the country of employment (Pesos)

Period	Mexico	United States	B/A
	A	B	
Monthly	20,056	65,908	3.3
Per hour	111.3	376.1	3.4

Note: The average exchange rate (pesos per dollar) considered in the estimate was that of the first quarter of 2009, 14.3

b. The lack of opportunities in Mexico

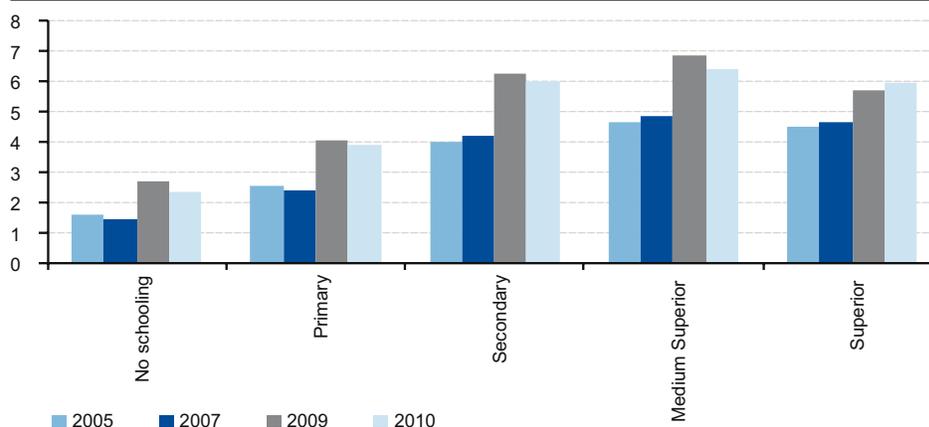
Another factor that could be a determining factor in the high proportion of highly qualified immigrants is the lack of opportunities in Mexico. According to figures of the National Survey of Occupation and Employment (ENOE), the higher unemployment rates are found among the population with higher educational levels (medium and higher education). Although within a context of a crisis like the one recently experienced, persons with higher education did not increase their unemployment rates so much as occurred in the rest of the levels. It is evident that for the sectors of the population with a higher educational level there are restrictions impeding that all those looking for a job manage to find it. There is no correspondence between supply and demand of employment, which could show a certain segmentation between the labor markets for the higher educational levels, beyond the general rigidity of the labor market in the country⁴.

⁴ Some studies have shown evidence of labor segmentation in the Mexican labor market. See, for example, Esquivel and Ordaz-Díaz (2008), Gong and van Soest (2002).

Some persons in Mexico, when they do not find employment for which they are trained, could find a job in activities that do not correspond to the abilities that they do have or, rather, they emigrate to other countries where they can apply their knowledge in a better way.

Graph 22

Unemployment rates in Mexico, according to educational level



Source: UNCTAD, 2007

Note: Qualified migration refers to persons with tertiary education, that is, with post-secondary studies. Figures for 2010 include through the second quarter.

c. Demand in the U.S. for qualified Mexican immigrants

For a person to be employed, it is necessary for someone to require him or her (as a worker), as occurs in any market. Even with the lack of opportunities in Mexico, highly qualified Mexicans do not emigrate to the United States if there is no demand for them. It would be less costly to be unemployed here than there.

In the period from 2000 to 2009, the employment of persons with higher education in the United States grew approximately 24%. In the case of Mexican immigrants, this figure was five times higher (approximately 118%), by which the proportion of Mexican immigrants in the number of employed persons with higher education rose from 0.5% to 0.9% during this period, even considering 2009, the year of the crisis and in which Mexican immigrants were the most affected in terms of employment.

That is, in relative terms, the demand covered by employees with higher education has increased more in the case of Mexicans, compared to the rest of the workers in the United States.

Chart 17

Some indicators of the performance of employment in persons with higher education in the U.S., 2000-2009

% Change	
Total workers	23.5
Mexican migrants	117.8
Share of Mexicans in total jobs	
Year 2000	0.52
Year 2009	0.93

Source: BBVA Research with Current Population Survey (CPS) figures, U.S., March 2000 and 2009

Conclusions: the imperative need to generate greater labor opportunities for Mexicans, a matter that is pending.

The loss of highly qualified human capital in Mexico is a reality. The highest emigration rates in Mexico are found in the highest educational levels. In general, the number of Mexicans in the United States represents 11% of the total inhabitants in Mexico. In the case of persons with a doctorate, this proportion is two times higher. It is estimated that slightly more than 20,000 Mexican immigrants with doctorates are living in the U.S., when, in Mexico, there are around 73,000 Mexicans with the same educational level.

There is little doubt that human capital is a factor contributing to economic growth. In this sense, Mexico could be losing due to the emigration of these persons and the United States increasing its growth possibilities, provided they had the possibility of being employed. In order to determine if this is happening, it is important to evaluate the net impact that Mexico has had due to this emigration. That is, whether the possible earnings that could be obtained through remittances⁵ or through the specialization that they earn abroad and apply in Mexico in case they return, compensate not only the expenses made by the Mexican government in their education but also what they stop producing in Mexico. In the following issues of *Migration Outlook Mexico*, these will be some of the topics that we will be dealing with so as to maintain an integral focus on the migratory dynamics.

It is of great importance for Mexico to take advantage of the human capital that has left and generate the conditions for its rapid return. In this sense, the Foreign Relations Ministry, through the Institute of Mexicans Abroad and the National Council for Science and Technology (CONACYT for its Spanish initials), with the support of the Mexico-United States Science Foundation, as of 2005 launched the Mexican Talents Network with the aim of organizing highly qualified Mexicans living abroad in order to promote activities of cooperation that bolster the scientific, technological innovative development of Mexico. Through this, the intention is to create a “bridge” that will generate a new attraction of talent toward the country.

Here we have indicated three factors that have a bearing on what is commonly known as the “brain flight”. The difference in wages between Mexico and the United States, the demand in the United States for this type of work and the lack of opportunities in Mexico would seem to be sufficient reasons from an economic standpoint to explain migration. These reasons are common for other migrant groups and sufficient for seeking opportunities in another country. It would have to be noted that there could be other motivations to undertake migration, such as aspects relative to climatic change, political and security considerations, among many other factors that were described and analyzed in the first Issue of *Migration Outlook Mexico*.

Despite the above, at an internal level, the debate in Mexico should be centered on achieving the generation of greater opportunities for workers at all levels, not only for those with higher educational levels, even though that is where there is the highest unemployment. The Mexican economy is not absorbing a high proportion of qualified labor. In this sense, labor reform is and will be very important and could constitute a decisive step. There is no doubt that the productivity and competitiveness of the Mexican economy should be increased, which would lead to higher wages. But, a more comprehensive reform should consider not only those elements that might promote job offers, such as possible labor flexibility, social security or training in certain areas, but also factors that will increase the demand for labor and increase the incentives for generating greater investment, public and private, which should gradually allow increasing efficiency and with this, a more attractive environment that will facilitate the development of opportunities for all.

⁵ Considering that the immigrants who send the lowest remittances are those of highest education levels see for example, Amuedo-Dorantes, Bansak and Pozo (2004).

Inset 2: An estimate of the transfer of resources due to education expenses from Mexico to the U.S. through Mexican immigrants.

Different economic theories attribute a relevant role to education in the growth of countries and the well-being of people. According to some theoreticians, expenses in education or training represent investments that could be considered from an economic standpoint as capital; in fact they are described as investment in human capital, since they generate economic profitability. That is, education allows for the creation and development of certain capabilities and skills that are reflected in greater productivity, which allows obtaining higher wages, in addition to generating greater economic growth in the productive process.

When persons emigrate, this allows their education to be used in the host countries without these countries having spent or invested in the migrants' education, since in many cases the expense is made in the places from which they come. Thus, the countries of origin transfer to the destination countries the expenses made in the education of the immigrants. This does not imply that this expense that the countries of origin make is not made use of by them. Immigrants obtain payment for their work and part of this is sent to their countries of origin through remittances, which could compensate to some extent for the educational expenses incurred, or in some manner could be interpreted as a return to their country of origin of the resources coming from those who emigrate.

In this inset the specific case of migration from Mexico to the United States is dealt with. The idea is to quantify the transfer, through educational expenses during the years 1994-2008, of persons that were born in Mexico and live in the United States. In this sense, this inset is an extension of an analysis of the positive economic effects of Mexican migration to the United States, introduced in the

November 2009 edition of *Mexico Migration Outlook*.

It is important to note that the results obtained herein do not represent the total transfer in human capital from Mexico to the United States, since it does not include other expenses made by the Mexican government or by civil society in Mexican immigrants, such as for example, in health or food or the provision of other public services, among others. Nor does it represent the total migration costs for Mexico, such as the amount that immigrants did not produce in their country or other costs that their emigration implicates. The following is the methodology and information sources used.

Education level and years of entry of Mexican immigrants in the United States

The main source of information is the March 2009 edition of the Current Population Survey-CPS. This survey contains information on the characteristics of the resident population in the United States, both domestic and foreign. With regard to foreigners, it includes data on their place of origin, year of entry or arrival in the United States and education level, among others.

According to the CPS, in the year 2009, there were 11.87 million Mexicans in the United States, of which 5% (close to 600,000) had a professional or postgraduate level, and of these, 200,000 entered the United States between 2000 and 2008. Among the Mexican immigrants, 9.6% (1.1 million) had a higher technical education level. Of these, 52% entered the United States between 1990 and 2008. There are 4.2 million with an educational level

Chart 18

Breakdown of Mexican immigrants, (%) in the U.S. by year of entry and education level, 2009

Year of entry	Education level			
	Less than 10 grades	From ten to twelve grades	Higher technical	Professional and postgraduate
Before 1990 or NA	16.9	12.1	4.6	2.0
1990-1991	2.3	2.7	0.8	0.2
1992-1993	2.3	2.0	0.5	0.2
1994-1995	2.8	2.6	0.7	0.2
1996-1997	2.9	2.2	0.6	0.3
1998-1999	4.1	3.4	0.6	0.4
2000-2001	5.1	3.7	0.6	0.4
2002-2003	4.1	2.5	0.3	0.4
2004-2005	4.0	2.0	0.4	0.4
2006-2008	5.0	2.7	0.5	0.5
Total	49.7	35.7	9.6	5.0

Source: BBVA Research with figures from the Bureau of Census, Current Population Survey (CPS), March 2009

Note: NA. Not available

between 10 and 12 grades, of which 1.3 million entered the U.S. between 2000 and 2008. Almost half of the Mexican immigrants in the United States, which represent 5.9 million, had less than 10 years of schooling; among these, 37% entered the United States in the present decade.

Thus, the share of persons with a high labor qualification (professional and postgraduate) has grown in the total number of Mexican immigrants in the United States.

Methodology for Estimate

The first step followed was to estimate the number of school years that the migrants covered in Mexico. For this, the formula indicated was used in 1): that is, from the number of school years covered by a person, the number of years that person had resided in the U.S. was subtracted, which was calculated based on the year of entry in the country. In those cases where a negative value was obtained, the number of years studied in Mexico was taken as 0.

1) Years of study in Mexico=

Max (0, years of schooling – years in the U.S.)

This calculation will offer conservative results on the value that Mexico has transferred to the U.S. through expense in the education of migrants, since it is not being considered that some persons, although they have already been in the U.S. for several years, have not studied a single year there.

Once the number of years that migrants studied in Mexico has been estimated, the educational costs per person are calculated based on the annual educational cost by education level based on figures reported by the Organization of Economic Cooperation and Development (OECD 2009). This included from pre-school through higher education. In the calculation, costs corresponding to the year 2006 were considered as reference, which for purposes of the exercise were assumed as constants in the years analyzed.

What is the magnitude of the transfer?

The calculations made based on the methodology mentioned above result in an amount of US\$81 billion. That is, this figure represents an estimate of the transfer made by Mexico to the United States in the 1994-2008 period as educational expense in the education of the

Chart 19

Annual educational expense per student in Mexico including all services, 2006

	Dollars
Pre-school	1,978
Primary	2,003
Secondary	1,814
Preparatory	2,856
Higher education	6,462

Source: OECD (2009)

Mexican immigrants in their country before they emigrated. Another way of interpreting this is that, on average, Mexico transferred US\$6 billion to the United States each year. Therefore, Mexico, on average, has made a possible transfer equivalent to slightly more than one half of a percentage point of its GDP.

Comparing this expense with the remittances that Mexico received in the period, the amount is close to US\$185 billion; that is, for every dollar that Mexico spent on the education of the immigrants, it received slightly more than two dollars in the 1994-2008 period. This result can be interpreted by saying that migration has been profitable. Nevertheless, if other migration costs are considered, the profitability probably diminishes. In the following editions of *Migration Outlook Mexico*, we will continue the analysis of these topics. This will serve in finding a first “order of magnitude” in a very complex calculation.

The United States, in turn, in addition to the transfer in educational expenses, has obtained other benefits due to Mexican migration. Simply in taxes (direct or indirect) that Mexican immigrants pay in the U.S., it received around 2.5 times what Mexico obtained in remittances between 1994 and 2008.¹

Thus, these aggregate figures suggest that the United States seems to receive, in economic terms, a more favorable balance than Mexico due to Mexican migration. However, we must not forget two elements within this approach of comprehensive analysis, which we have commented on other occasions; migration represents an increase in the provision of resources for the host country, in this case the U.S., but we must also mention that the two countries obtain mutual benefits, which would probably not be obtained without migration.

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Chart 20

Estimate of the Transfer made by Mexico to the United States through immigrants’ educational expense.

Period	Amount (Thousands of U.S. dollars)
1994-2008	81,115,534

Source: BBVA Research

Note: In the calculation, costs were considered by 2006 education level.

¹ In the November edition of Migration Outlook Mexico more figures are offered on the positive economic effects in the U.S. due to Mexican migration.

6. Statistical Appendix

Annual remittance flow, receipts (Billions of dollars)

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Global	120.5	125.9	130.5	145.4	167.5	204.5	237.5	275.2	317.3	384.8	443.5	420.1
Developed countries	48.5	50.0	48.0	52.3	54.9	64.1	73.2	76.2	81.9	95.4	105.8	102.9
Developing countries	72.0	75.9	82.5	93.1	112.6	140.4	164.4	198.9	235.4	289.4	337.8	317.2
Eastern Asia and the Pacific	12.2	14.9	15.7	18.8	27.5	32.7	40.3	50.5	57.6	71.3	86.1	84.8
Southern Asia	13.4	15.1	17.2	19.2	24.1	30.4	28.7	33.9	42.5	54.0	73.3	72.0
Latin America and the Caribbean	15.8	17.6	20.0	24.2	27.9	36.6	43.3	50.1	59.2	63.2	64.7	58.5
Europe and Central Asia	13.2	11.1	12.1	11.6	12.8	14.4	21.0	30.1	37.3	50.8	57.8	49.3
Middle East and Northern Africa	13.1	12.8	12.9	14.7	15.2	20.4	23.0	25.0	26.1	31.4	34.7	32.2
Sub Saharan Africa	4.3	4.4	4.6	4.7	5.0	6.0	8.0	9.4	12.6	18.6	21.1	20.5

Immigrants in the U.S. (Millions of persons)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total population	264.3	266.8	269.1	271.7	276.8	279.5	282.1	285.9	288.3	288.4	299.4	301.6	304.1
Immigrants	24.6	25.8	26.3	26.4	30.0	31.8	32.5	33.5	34.2	35.8	37.5	38.0	38.0
Gender													
Male	12.0	12.9	13.1	13.1	15.1	16.1	16.4	16.8	17.2	17.9	18.9	19.2	19.1
Female	12.5	12.8	13.2	13.3	14.8	15.7	16.1	16.7	17.0	17.8	18.6	18.9	18.9
Age													
Under 15	2.0	1.9	1.8	1.6	2.1	2.2	2.1	2.1	2.2	2.2	2.2	2.1	2.0
Between 15 and 64	19.8	21.1	21.6	21.8	24.7	26.4	27.0	27.7	28.4	29.6	31.0	31.5	31.3
Over 64	2.8	2.8	2.9	3.0	3.2	3.3	3.3	3.7	3.7	3.9	4.3	4.5	4.7
Region of origin													
Europe	4.1	4.3	4.3	4.2	4.4	4.5	4.5	4.6	4.7	5.1	5.2	5.3	5.3
Asia	6.6	6.8	7.0	7.2	7.9	8.5	8.5	8.4	8.7	9.3	9.8	9.9	10.1
Latin America	12.2	13.1	13.4	13.4	15.3	16.0	16.0	17.8	18.3	19.1	20.1	20.1	20.2
Other areas	1.7	1.6	1.6	1.6	2.4	2.8	2.8	2.7	2.6	2.2	2.4	2.8	2.4

Source: BBVA Research with information from United Nations, World Bank, United States Census Bureau and Pew Hispanic Center

Mexican Immigrants in the U.S.

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Total Mexican in the U.S. (Millions)	n.d.	n.d.	n.d.	n.d.	23.2	24.0	25.5	26.7	26.9	28.1	29.3	30.3
Mexican Immigrants	6.9	7.3	7.4	7.4	8.1	8.5	9.9	10.2	10.7	11.0	11.1	11.8
Second and third generation	n.d.	n.d.	n.d.	n.d.	14.4	14.9	16.0	16.8	16.6	17.5	18.2	18.5
Demographic characteristics of Mexican immigrants												
Gender (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Male	54.7	55.9	54.6	54.4	53.9	54.1	55.4	55.1	55.2	55.4	55.2	56.0
Female	45.3	44.1	45.4	45.6	46.1	45.9	44.6	44.9	44.8	44.6	44.8	44.0
Age groups (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
From 0 to 14 years old	10.7	10.3	9.7	8.0	9.4	9.3	9.1	8.6	8.6	8.6	7.7	7.3
From 15 to 29 years old	34.6	35.1	33.2	33.2	32.6	31.4	33.1	31.9	32.3	31.3	30.2	28.6
From 30 to 44 years old	34.1	33.9	35.8	36.2	36.1	35.6	36.9	37.5	37.4	37.0	37.3	38.1
From 45 to 64 years old	15.5	16.4	16.6	17.4	17.3	18.8	16.8	17.4	17.3	18.6	20.1	20.8
From 65 years or over	5.1	4.3	4.7	5.3	4.6	4.9	4.1	4.6	4.4	4.5	4.7	5.1
Average age (years)	33.3	33.1	33.8	34.5	33.9	34.4	33.6	34.3	34.2	34.5	35.2	35.2
State of residence (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
California	50.4	46.8	46.3	46.2	47.8	44.5	42.5	39.3	38.3	42.2	39.5	39.5
Texas	20.9	21.1	21.5	21.4	19.0	21.0	20.3	23.0	21.4	20.3	19.4	19.2
Other states	11.0	11.5	11.6	11.3	12.1	14.0	14.9	15.1	18.3	17.0	18.7	18.8
Arizona	4.9	6.8	6.7	6.4	5.3	4.7	5.6	6.0	6.2	5.6	6.4	5.7
Illinois	5.5	5.8	6.5	6.3	5.8	5.5	4.9	6.5	5.5	5.4	4.7	5.3
Florida	2.1	1.5	1.4	2.1	2.4	3.0	3.5	2.2	2.0	2.3	2.8	3.3
North Carolina	0.7	0.9	0.8	1.1	1.4	1.5	1.6	1.6	2.6	2.0	2.5	2.2
New York	1.6	2.2	2.9	2.4	1.8	2.1	2.3	1.8	1.7	1.2	1.9	2.0
Colorado	1.5	2.1	1.2	1.2	2.3	1.9	2.5	2.5	2.3	2.2	2.4	2.0
Nevada	1.3	1.3	1.1	1.5	2.0	1.7	1.8	1.8	1.6	1.9	1.8	1.9
Period of entry (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Before 1975	23.6	20.4	19.6	19.9	17.3	15.5	13.5	13.5	12.3	11.8	10.6	10.3
From 1975 to 1985	30.9	29.6	28.4	28.1	24.4	22.6	20.9	20.9	19.0	16.6	17.0	15.9
From 1986 to 1995	45.5	49.9	44.3	39.8	39.2	36.9	35.8	35.8	30.2	29.7	28.9	28.3
From 1996 to 2007	0.0	0.0	7.7	12.2	19.1	25.0	29.9	29.9	38.5	41.9	43.6	45.5
Mobility condition in the last year (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Non immigrants	91.3	91.8	94.5	92.0	91.6	91.9	91.2	92.3	93.2	89.7	93.1	94.9
Internal immigrants ¹	3.9	4.6	3.3	4.2	4.9	4.7	4.9	5.0	4.4	5.3	4.5	3.4
International immigrants ²	4.8	3.6	2.2	3.8	3.5	3.5	3.9	2.7	2.4	5.0	2.5	1.8
Social characteristic of the Mexican immigrants (%)												
Education³	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Less than 10 grades	60.2	58.7	58.6	56.3	56.2	56.7	54.7	54.1	52.7	52.6	51.0	47.0
From ten to twelve grades	27.5	26.9	28.0	30.3	29.9	28.7	30.6	31.4	32.9	32.9	34.3	38.0
Higher technical	8.9	9.6	8.8	8.8	9.6	9.1	9.3	9.0	9.1	9.2	9.3	9.9
Professional and postgraduate	3.5	4.8	4.6	4.6	4.3	5.5	5.4	5.5	5.3	5.3	5.4	5.0

Notes: 1/ Refers to the population that resided, the year prior to the interview, in a county other than the current one.

2/ Refers to the population that resided, the year prior to the interview, in Mexico.

3/ Population 25 years or over.

n.a. Not available

Source: BBVA Research with CONAPO estimates based on the Census Bureau, Current Population Survey (CPS), March 1994-2007.

Citizenship in the United States (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
United States citizen	15.5	18.2	21.1	22.7	22.6	22.6	21.4	21.8	21.3	20.4	21.3	21.5
Not United States citizen	84.5	81.8	78.9	77.3	77.4	77.4	78.6	78.2	78.7	79.6	78.7	78.5
Poverty condition⁴ (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Poor	34.4	33.7	30.2	28.3	25.7	24.7	24.6	25.4	25.7	26.2	25.7	22.1
Not poor	65.6	66.3	69.8	71.7	74.3	75.3	75.4	74.6	74.3	73.8	74.3	77.9
Type of health coverage (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Public	15.9	13.5	12.5	12.9	12.7	12.3	11.7	12.9	12.9	14.1	14.1	12.7
Private	29.0	31.7	31.2	31.4	33.2	33.1	33.6	32.3	30.3	29.8	29.6	28.3
Both	2.8	2.0	2.4	2.1	2.0	1.9	1.7	2.2	1.8	2.7	2.3	2.6
None	52.4	52.8	53.8	53.6	52.1	52.7	53.0	52.6	55.0	53.4	54.1	56.4
Labor characteristics of Mexican immigrants (%)												
Population 15 years or over (Millions)	6.2	6.5	6.7	6.8	7.3	7.7	9.0	9.3	9.8	10.1	10.3	10.9
Economically active population	4.0	4.4	4.6	4.6	5.0	5.3	6.3	6.5	6.7	6.9	7.2	7.7
Employed	3.6	4.0	4.2	4.3	4.6	4.9	5.8	5.8	6.2	6.5	6.8	7.2
Unemployed	0.4	0.4	0.3	0.3	0.4	0.4	0.6	0.6	0.5	0.4	0.4	0.4
Economically inactive population	2.1	2.1	2.1	2.2	2.3	2.4	2.6	2.9	3.1	3.1	3.1	3.3
Hours worked weekly (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
34 or less	12.1	12.5	13.0	10.6	9.3	9.7	11.6	11.1	10.3	11.0	9.5	10.5
From 35 to 44 hours	72.1	69.8	70.3	73.7	76.8	75.3	75.2	75.1	76.1	75.2	76.1	75.1
45 or more	15.8	17.7	16.7	15.7	13.9	14.9	13.2	13.8	13.6	13.8	14.4	14.4
Annual wage (U.S. dollars) (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Less than 10 000	31.0	29.8	26.2	23.8	21.0	17.5	17.5	15.0	14.4	13.4	12.8	11.1
From 10 000 to 19 999	43.6	42.1	43.2	44.3	44.1	42.4	40.0	39.9	40.9	39.9	37.1	34.4
From 20 000 to 29 999	15.6	16.6	17.9	18.8	20.1	22.0	24.6	24.3	23.9	24.0	26.2	27.5
From 30 000 to 39 999	6.1	6.8	7.6	6.9	7.8	9.9	9.3	10.7	11.2	11.4	12.4	13.7
From 40 000 or more	3.8	4.7	5.1	6.2	7.0	8.2	8.7	10.1	9.6	11.3	11.5	13.3
Sector of activity (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Primary	11.9	12.4	10.2	10.6	12.1	9.5	8.3	4.4	5.0	5.7	4.2	4.0
Secondary	35.1	36.4	35.3	34.9	36.6	36.5	35.8	35.8	36.1	36.9	39.6	40.6
Tertiary	53.1	51.2	54.5	54.5	51.2	54.0	55.9	59.8	58.9	57.4	56.2	55.4
Type of Employment (%)	n.d.	100.0	100.0	100.0	100.0	100.0						
Professional and related employment	n.d.	7.4	7.8	6.7	7.5	7.3						
Employment in services, sales, management ⁵	n.d.	15.4	15.9	15.0	15.0	14.9						
Business cleaning and maintenance, food preparation ⁶	n.d.	25.6	24.6	25.6	25.3	23.3						
Agriculture, fishing and forestry activities	n.d.	4.3	4.4	5.4	3.9	3.9						
Employment in construction, maintenance, and repair ⁷	n.d.	19.5	22.6	23.2	25.3	27.8						
Transportation and production ⁸	n.d.	27.9	24.6	24.0	22.8	22.6						
Extraction, mining	n.d.	0.1	0.1	0.2	0.2	0.2						

Source: BBVA Research with CONAPO estimates based on Census Bureau, Current Population Survey (CPS), March 1994-2007.

4/ Methodology for poverty in the U.S.. Individuals are classified as below the poverty level using a poverty index adopted by a Federal Inter Agency Committee in 1969, slightly modified in 1981.

5/ Includes health care services, security jobs such as detectives, inspectors, police officers, supervisors, correctional facilities staff, etc. personal care activities, such as child care, barbers or hairdressers, funeral services, recreational activities.

6/ Includes doormen, building cleaning staff, maids, domestic employees.

7/ Includes production operators and supervisors, electrical and electrical-mechanical assembly workers, manufacturers of metallic structures, programming operators and computer operators.

8/ Transportation and mobile occupations, systems assembly, electricians, electromechanical workers, machinery assembly, metallic manufacturers and adjusters, plastics workers, vehicle and equipment cleaners, recycling and loading workers.

n.a. Not available.

State information on Migration from Mexico to the United States

State	Immigrants in U.S.			Immigrants in U.S. as % of state population				Immigrants in U.S., % breakdown			
	1990	2000	2003	1990	2000	2003	Ranking 2003	1990	2000	2003	Ranking 2003
National	5,413,082	8,780,482	9,866,755	6.0	8.1	8.7		100.0	100.0	100.0	
Baja California	486,173	501,014	498,132	32.8	26.46	23.65	1	9.0	5.71	5.05	6
Zacatecas	360,276	513,810	550,856	16.7	21.93	23.21	2	6.7	5.85	5.58	5
Michoacán	571,002	950,661	1,059,366	11.7	16.72	18.10	3	10.5	10.83	10.74	2
Jalisco	912,093	1,252,615	1,349,238	14.2	16.31	17.06	4	16.8	14.27	13.67	1
Colima	57,170	85,258	92,732	12.8	15.32	15.64	5	1.1	0.97	0.94	25
Durango	204,871	301,832	327,306	10.8	14.33	15.05	6	3.8	3.44	3.32	11
Guanajuato	400,033	800,680	921,477	8.0	13.46	14.92	7	7.4	9.12	9.34	3
Nayarit	99,315	162,600	177,917	9.9	13.81	14.64	8	1.8	1.85	1.80	21
Chihuahua	338,780	457,037	478,760	12.6	14.32	14.24	9	6.3	5.21	4.85	7
Morelos	72,656	168,609	204,851	6.6	11.74	13.20	10	1.3	1.92	2.08	17
Aguascalientes	71,038	119,777	134,738	8.9	11.67	12.70	11	1.3	1.36	1.37	23
San Luis Potosí	200,941	339,314	386,100	7.5	10.82	12.15	12	3.7	3.86	3.91	9
Tamaulipas	137,839	221,284	241,961	6.1	8.09	8.40	13	2.5	2.52	2.45	15
Guerrero	107,405	284,851	347,528	3.3	7.13	8.37	14	2.0	3.24	3.52	10
Nuevo León	197,012	279,349	294,178	6.8	7.71	7.85	15	3.6	3.18	2.98	13
Sonora	139,996	165,299	170,604	7.3	7.14	7.08	16	2.6	1.88	1.73	22
Querétaro	47,384	90,036	106,145	4.2	6.28	7.04	17	0.9	1.03	1.08	24
Hidalgo	32,977	141,440	194,075	1.4	5.05	6.76	18	0.6	1.61	1.97	18
Coahuila	133,986	170,195	180,291	5.9	6.37	6.54	19	2.5	1.94	1.83	20
Sinaloa	83,135	161,370	186,534	3.4	5.40	6.01	20	1.5	1.84	1.89	19
México	206,566	485,442	586,196	2.9	5.42	5.95	21	3.8	5.53	5.94	4
Oaxaca	69,574	181,683	231,968	1.8	4.08	5.03	22	1.3	2.07	2.35	16
Puebla	85,369	246,361	305,442	1.8	4.18	4.92	23	1.6	2.81	3.10	12
Baja California Sur	13,637	16,546	17,213	5.1	4.83	4.73	24	0.3	0.19	0.17	29
Distrito Federal	270,978	367,202	413,395	2.7	3.05	3.36	25	5.0	4.18	4.19	8
Quintana Roo	12,790	15,431	16,413	5.2	3.51	3.30	26	0.2	0.18	0.17	30
Veracruz	46,614	197,495	266,256	0.7	2.41	3.16	27	0.9	2.25	2.70	14
Yucatán	33,824	43,313	47,081	2.1	2.23	2.38	28	0.6	0.49	0.48	26
Tlaxcala	4,238	18,836	25,856	0.5	1.76	2.34	29	0.1	0.21	0.26	28
Campeche	4,777	7,505	9,341	1.0	1.15	1.36	30	0.1	0.09	0.09	32
Chiapas	6,318	24,100	32,622	0.2	0.57	0.71	31	0.1	0.27	0.33	27
Tabasco	4,315	9,537	12,183	0.3	0.47	0.58	32	0.1	0.11	0.12	31

Source: BBVA Research based on CONAPO estimates

Indicators on remittance receipts at state level

State	Households in the year 2000					Indicator ⁵	Grade ⁶
	Number	Remittances ¹	Emigrants ²	Circulars ³	Return ⁴		
National	22,639,808	4.4	4.1	0.9	0.8	2.40	
Michoacán	893,671	11.4	10.4	2.8	2.3	9.5	Very high
Guerrero	677,731	7.9	6.8	0.8	1.1	9.3	Very high
Oaxaca	762,517	4.1	4.8	0.6	0.7	8.7	Very high
Zacatecas	306,882	13.0	12.2	3.3	2.5	8.3	Very high
Nayarit	222,714	9.6	6.8	2.0	2.0	6.1	High
Guanajuato	990,602	9.2	9.6	2.2	1.6	5.9	High
Morelos	376,140	6.4	7.5	1.3	1.1	5.7	High
Hidalgo	507,225	5.1	7.1	1.6	0.9	5.4	High
Tlaxcala	203,259	2.2	2.7	0.5	0.4	5.4	High
Puebla	1,098,409	3.3	4.0	0.5	0.7	4.4	High
Chiapas	832,111	0.8	0.8	0.1	0.1	4.2	High
San Luis Potosí	509,582	8.2	7.4	1.3	1.2	3.9	Medium
Colima	136,926	7.3	5.6	1.4	2.1	3.6	Medium
Durango	331,242	9.7	7.3	1.8	1.6	3.5	Medium
Veracruz	1,649,332	2.7	3.2	0.5	0.2	3.3	Medium
Aguascalientes	207,327	6.7	6.7	2.7	1.5	3.0	Medium
Jalisco	1,457,326	7.7	6.5	1.8	1.7	3.0	Medium
Querétaro	311,896	3.7	4.8	1.4	0.7	2.3	Low
Sinaloa	586,245	4.6	3.6	0.9	0.6	2.3	Low
México	2,978,023	2.1	2.6	0.6	0.3	2.2	Low
Chihuahua	767,679	4.3	3.7	1.0	1.3	1.4	Low
Tamaulipas	690,067	3.6	3.0	0.6	0.7	1.4	Low
Sonora	539,528	3.2	1.6	0.3	0.9	1.2	Low
Baja California	613,602	4.0	2.4	0.4	2.3	1.2	Low
Yucatán	387,434	1.4	1.0	0.2	0.2	0.9	Low
Coahuila	555,793	3.4	2.2	0.8	0.7	0.9	Low
Quintana Roo	219,671	1.0	0.7	0.2	0.2	0.7	Very low
Distrito Federal	2,203,741	1.7	1.6	0.4	0.3	0.6	Very low
Baja California Sur	107,536	1.1	1.0	0.6	0.6	0.6	Very low
Nuevo León	925,493	2.5	1.9	0.7	0.6	0.4	Very low
Tabasco	426,653	0.6	0.6	0.2	0.0	0.4	Very low
Campeche	163,451	1.0	0.9	0.2	0.1	0.1	Very low

1 Receives (%) of total remittances

2 With immigrants in U.S. of the previous five-year period (%)

3 With circular migrants from the previous five-year period (%)

4 With returning migrants from previous five-year period (%)

5 Indicator of dependence on remittances 2008. *Remittances/GDP*100.

6 Degree of dependence on remittances. Classification by BBVA Research. The cutoff points were established based on standard deviations in the sample.

Source: BBVA Research based on CONAPO estimates

Annual figures on family remittances at the national level

	2003	2004	2005	2006	2007	2008	2009
Millions of dollars							
Total	15,040.7	18,331.3	21,688.7	25,566.8	26,068.7	25,137.4	21,181.1
Money Orders	1,665.3	1,869.7	1,747.9	1,359.7	859.7	598.2	386.2
Personal checks	6.4	-	-	-	-	-	-
Electronic transfers	13,114.4	16,228.0	19,667.7	23,854.0	24,821.7	24,113.0	20,483.9
Cash and payment in kind	254.6	233.6	273.2	353.2	387.3	426.3	311.0
Thousands of Transactions							
Total	47,651.3	57,011.3	64,923.3	74,183.6	75,700.8	72,627.3	66,797.0
Money Orders	4,498.1	4,602.8	4,066.9	2,844.6	1,585.9	1,352.7	866.4
Personal checks	6.9	-	-	-	-	-	-
Electronic transfers	42,798.1	52,085.8	60,511.0	70,696.7	73,343.7	70,487.4	65,241.5
Cash and payment in kind	348.3	322.7	345.4	642.3	771.2	787.2	689.1
Average remittance (dollars)	315.6	321.5	334.1	344.6	344.4	346.1	317.1

Source: BBVA Research based on Banxico (central bank) data

*Figures up to third quarter

Annual figures on household remittances at national level (% breakdown)

	2003	2004	2005	2006	2007	2008	2009
Millions of dollars							
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Money Orders	11.1	10.2	8.1	5.3	3.3	2.4	1.8
Personal checks	0.0	-	-	-	-	-	-
Electronic transfers	87.2	88.5	90.7	93.3	95.2	95.9	96.7
Cash and payment in kind	1.7	1.3	1.3	1.4	1.5	1.7	1.5
Thousands of Transactions							
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Money Orders	9.4	8.1	6.3	3.8	2.1	1.9	1.3
Personal checks	0.0	-	-	-	-	-	-
Electronic transfers	89.8	91.4	93.2	95.3	96.9	97.1	97.7
Cash and payment in kind	0.7	0.6	0.5	0.9	1.0	1.1	1.0

Source: BBVA Research based on Banxico (central bank) data

*Figures up to third quarter

Total cost of money remittances from the United States to Mexico (dollars per remittance*)

	Chicago	Dallas	Houston	Indianápolis	Los Angeles	Miami	Nueva York	Sacramento	San Jose	Average
1999	21.8	27.1	21.8	42.1	28.3	27.4	27.0	32.4		28.5
2000	18.8	24.3	21.4	29.7	23.7	22.6	21.6	17.1	29.2	23.2
2001	12.7	16.2	15.7	21.1	13.1	17.0	15.7	14.7	15.0	15.7
2002	13.3	14.6	14.9	17.1	13.9	16.4	14.2	15.3	14.4	14.9
2003	11.2	13.1	13.1	22.9	12.0	13.1	12.8	14.5	13.1	12.8
2004	11.2	12.3	12.6	11.3	11.4	12.0	12.2	12.2	11.7	11.9
2005	10.1	11.7	11.9	9.7	10.6	10.3	11.0	10.7	10.9	10.7
2006	9.3	11.3	11.9	10.1	10.1	10.1	10.8	9.9	10.5	10.4
2007	8.2	10.3	11.9	9.8	8.7	8.7	9.5	7.7	9.3	9.3
2008	5.1	7.1	9.6	7.9	6.1	4.9	6.7	4.8	6.4	6.5
2009	4.4	5.7	7.7	7.4	4.8	5.0	5.6	4.5	5.3	5.6
2010	5.0	6.7	8.6	8.1	5.5	6.5	6.3	5.0	6.5	6.5

* Annual average except for 2010, which refers to the average for the January-April period.

Source: CNBV with information from PROFECO

Annual family remittances at state level (Millions of dollars)

	2003	2004	2005	2006	2007	2008	2009
National	15,040.7	18,331.3	21,688.7	25,566.8	26,068.7	25,137.4	21,181.1
Michoacán	1,778.9	2,298.9	2,461.8	2,520.4	2,392.0	2,457.2	2,133.1
Guanajuato	1,403.2	1,734.1	1,904.8	2,319.4	2,353.6	2,324.5	1,944.8
Estado de México	1,345.4	1,485.7	1,723.1	2,009.0	2,008.7	1,942.4	1,714.9
Jalisco	1,112.1	1,466.1	1,791.6	2,110.8	2,171.4	2,095.6	1,716.4
Veracruz	989.6	1,162.6	1,364.4	1,672.4	1,736.2	1,620.4	1,294.1
Puebla	804.9	963.0	1,133.3	1,425.9	1,555.4	1,567.5	1,304.7
Oaxaca	770.8	929.6	1,053.6	1,321.0	1,420.3	1,456.5	1,203.6
Guerrero	845.5	982.7	1,117.3	1,378.0	1,418.2	1,401.6	1,149.1
Distrito Federal	826.8	928.8	1,333.9	1,524.6	1,374.8	1,105.3	980.6
Hidalgo	589.1	698.1	782.1	945.5	1,085.6	939.5	736.7
Chiapas	397.7	465.3	557.5	710.0	760.6	758.3	605.9
San Luis Potosí	439.3	595.6	772.1	943.6	906.3	799.9	630.9
Zacatecas	400.5	485.3	541.0	670.0	757.5	677.7	569.6
Morelos	368.5	429.8	504.9	588.7	614.9	621.2	541.9
Tamaulipas	319.4	377.4	455.4	507.3	516.4	489.1	423.7
Sinaloa	238.1	290.9	435.6	508.0	521.2	511.4	457.7
Chihuahua	240.5	286.0	398.7	485.3	471.9	475.3	410.4
Durango	265.3	336.2	392.5	437.2	450.6	450.4	381.2
Querétaro	283.2	357.7	412.4	492.4	474.7	442.3	363.6
Nayarit	229.6	267.2	308.3	355.0	376.9	383.6	347.5
Baja California	144.4	168.8	263.2	309.6	336.1	342.1	329.1
Aguascalientes	193.3	303.0	291.4	351.5	358.6	331.1	280.9
Nuevo León	260.9	318.6	324.8	382.0	355.5	331.8	299.3
Sonora	130.5	174.6	302.5	334.4	335.7	318.3	284.6
Coahuila	142.2	184.3	247.0	282.3	294.2	299.6	246.0
Tlaxcala	143.1	181.3	218.0	268.0	293.5	299.3	257.2
Colima	105.2	137.6	169.1	187.5	196.3	197.9	173.3
Tabasco	87.3	107.8	160.3	192.5	185.2	159.4	116.8
Yucatán	59.5	73.0	88.8	119.0	133.4	129.0	106.2
Quintana Roo	53.7	68.9	86.9	102.0	99.4	99.5	87.5
Campeche	52.5	54.6	67.4	84.0	81.0	74.4	57.0
Baja California Sur	19.4	18.3	25.1	29.2	32.4	35.5	32.6

Source: BBVA Research based on Banxico (central bank) data
*Figures up to third quarter

Annual family remittances at state level (Breakdown %)

	2003	2004	2005	2006	2007	2008	2009
National	100.0						
Michoacán	11.8	12.5	11.4	9.9	9.2	9.8	10.1
Guanajuato	9.3	9.5	8.8	9.1	9.0	9.2	9.2
Estado de México	7.4	8.0	8.3	8.3	8.3	8.3	8.1
Jalisco	8.9	8.1	7.9	7.9	7.7	7.7	8.1
Veracruz	6.6	6.3	6.3	6.5	6.7	6.4	6.1
Puebla	5.4	5.3	5.2	5.6	6.0	6.2	6.2
Oaxaca	5.1	5.1	4.9	5.2	5.4	5.8	5.7
Guerrero	5.6	5.4	5.2	5.4	5.4	5.6	5.4
Distrito Federal	5.5	5.1	6.2	6.0	5.3	4.4	4.6
Hidalgo	3.9	3.8	3.6	3.7	4.2	3.7	3.5
Chiapas	2.9	3.2	3.6	3.7	3.5	3.2	2.9
San Luis Potosí	2.6	2.5	2.6	2.8	2.9	3.0	3.0
Zacatecas	2.7	2.6	2.5	2.6	2.9	2.7	2.7
Morelos	2.5	2.3	2.3	2.3	2.4	2.5	2.6
Sinaloa	2.1	2.1	2.1	2.0	2.0	1.9	2.2
Tamaulipas	1.6	1.6	2.0	2.0	2.0	2.0	2.0
Chihuahua	1.6	1.6	1.8	1.9	1.8	1.9	1.9
Durango	1.8	1.8	1.8	1.7	1.7	1.8	1.8
Querétaro	1.9	2.0	1.9	1.9	1.8	1.8	1.7
Nayarit	1.5	1.5	1.4	1.4	1.4	1.5	1.6
Baja California	1.0	0.9	1.2	1.2	1.3	1.4	1.6
Nuevo León	1.3	1.7	1.3	1.4	1.4	1.3	1.4
Aguascalientes	1.7	1.7	1.5	1.5	1.4	1.3	1.3
Sonora	0.9	1.0	1.4	1.3	1.3	1.3	1.3
Coahuila	0.9	1.0	1.1	1.1	1.1	1.2	1.2
Tlaxcala	1.0	1.0	1.0	1.0	1.1	1.2	1.2
Colima	0.7	0.8	0.8	0.7	0.8	0.8	0.8
Tabasco	0.6	0.6	0.7	0.8	0.7	0.6	0.6
Yucatán	0.4	0.4	0.4	0.5	0.5	0.5	0.5
Quintana Roo	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Campeche	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Baja California Sur	0.1	0.1	0.1	0.1	0.1	0.1	0.2

Source: BBVA Research based on Banxico (central bank) data

Labor situation of Hispanics and Mexicans in the U.S. (Figures in thousands)

	2007		2008				2009				2010	
	III	IV	I	II	III	IV	I	II	III	IV	I	II
Total population*												
Pop 16 years old & over	232,210	232,937	232,807	233,410	234,110	234,825	234,913	235,459	236,093	236,739	236,996	237,442
Work force	153,071	153,598	153,871	154,228	154,565	154,653	154,235	154,811	154,235	153,544	153,531	154,283
Employed	136,719	136,226	136,105	136,360	136,807	136,652	137,444	137,656	137,544	138,273	138,626	139,331
Unemployed	7,136	7,418	7,619	8,196	9,324	10,730	12,648	14,352	14,895	15,406	14,904	14,952
Share in labor rate	65.9	65.9	66.1	66.1	66.0	65.9	65.7	65.7	65.3	64.9	64.8	65.0
Unemployment rate	4.7	4.8	5.0	5.3	6.0	6.9	8.2	9.3	9.7	10.0	9.7	9.7
Total Population												
Pop 16 years old & over	232,210	232,937	232,807	233,410	234,110	234,825	234,913	235,459	236,093	236,739	236,996	237,442
Work force	153,921	153,752	152,822	154,264	155,399	154,662	153,659	154,697	154,923	153,289	153,270	154,181
Employed	146,723	146,732	144,755	146,166	146,029	144,501	140,125	140,592	140,069	138,724	137,332	139,560
Unemployed	7,199	7,020	8,067	8,099	9,370	10,161	13,534	14,105	14,854	14,565	15,939	14,621
Share in labor rate	66.3	66.0	65.6	66.1	66.4	65.9	65.4	65.7	65.6	64.8	64.7	64.9
Unemployment rate	4.7	4.6	5.3	5.2	6.0	6.6	8.8	9.1	9.6	9.5	10.4	9.5
Hispanics*												
Pop 16 years old & over	31,520	31,809	31,732	31,999	32,274	32,557	32,501	32,754	33,018	33,291	33,333	33,579
Work force	21,716	21,803	21,807	22,065	22,131	22,111	22,120	22,403	22,435	22,487	22,644	22,716
Employed	20,472	20,511	20,384	20,479	20,397	20,114	19,723	19,688	19,585	19,586	19,809	19,886
Unemployed	1,244	1,292	1,423	1,585	1,734	1,996	2,397	2,716	2,850	2,901	2,836	2,830
Share in labor rate	68.9	68.5	68.7	69.0	68.6	67.9	68.1	68.4	67.9	67.5	67.9	67.6
Unemployment rate	5.7	5.9	6.5	7.2	7.8	9.0	10.8	12.1	12.7	12.9	12.5	12.5
Hispanics												
Pop 16 years old & over	31,520	31,809	31,732	31,999	32,274	32,557	32,501	32,754	33,018	33,291	33,333	33,579
Work force	21,781	21,891	21,646	22,063	22,205	22,183	22,033	22,340	22,508	22,528	22,581	22,637
Employed	20,549	20,630	20,106	20,551	20,487	20,240	19,442	19,751	19,680	19,713	19,526	19,942
Unemployed	1,232	1,260	1,540	1,511	1,719	1,943	2,592	2,589	2,828	2,815	3,055	2,695
Share in labor rate	69.1	68.8	68.2	68.9	68.8	68.1	67.8	68.2	68.2	67.7	67.7	67.4
Unemployment rate	5.7	5.8	7.1	6.9	7.7	8.8	11.8	11.6	12.6	12.5	13.5	11.9
Mexican												
Pop 16 years old & over	19,985	20,018	20,161	20,427	20,744	20,707	21,056	21,006	20,716	20,913	21,284	21,182
Work force	13,921	13,841	13,700	14,045	14,238	14,144	14,183	14,349	14,140	14,168	14,468	14,322
Employed	13,183	13,011	12,687	13,044	13,158	12,960	12,493	12,671	12,350	12,398	12,471	12,642
Unemployed	738	830	1,012	1,001	1,080	1,184	1,690	1,678	1,790	1,771	1,997	1,680
Share in labor rate	69.7	69.1	68.0	68.8	68.6	68.3	67.4	68.3	68.3	67.7	68.0	67.6
Unemployment rate	5.3	6.0	7.4	7.1	7.6	8.4	11.9	11.7	12.7	12.5	13.8	11.7
Native-born Mexicans												
Pop 16 years old & over	8,948	9,106	9,230	9,364	9,429	9,730	10,227	9,976	9,623	10,031	10,493	10,211
Work force	5,954	6,105	6,111	6,274	6,247	6,419	6,662	6,596	6,287	6,417	6,818	6,582
Employed	5,548	5,708	5,702	5,762	5,676	5,831	5,925	5,760	5,387	5,543	5,907	5,677
Unemployed	406	397	409	512	570	588	737	836	899	873	912	904
Share in labor rate	66.5	67.0	66.2	67.0	66.2	66.0	65.1	66.1	65.3	64.0	65.0	64.5
Unemployment rate	6.8	6.5	6.7	8.2	9.1	9.2	11.1	12.7	14.3	13.6	13.4	13.7
Foreign-born Mexicans												
Pop 16 years old & over	11,037	10,912	10,930	11,063	11,315	10,977	10,829	11,031	11,093	10,882	10,791	10,971
Work force	7,968	7,736	7,589	7,771	7,991	7,725	7,520	7,753	7,853	7,752	7,650	7,740
Employed	7,635	7,304	6,985	7,282	7,482	7,129	6,568	6,911	6,963	6,854	6,564	6,965
Unemployed	332	432	603	489	510	596	953	841	891	897	1,085	776
Share in labor rate	72.2	70.9	69.4	70.2	70.6	70.4	69.5	70.3	70.8	71.2	70.9	70.5
Unemployment rate	4.2	5.6	8.0	6.3	6.4	7.7	12.7	10.9	11.3	11.6	14.2	10.0

* Seasonally adjusted figures

BBVA Research with figures from Bureau of Census, Current Population Survey (CPS), 2006-2009

Monthly receipts from remittances in Mexico (Millions of dollars)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Jan	338.7	382.5	399.6	456.3	655.0	711.0	1,017.3	1,081.9	1,367.6	1,758.3	1,872.9	1,781.1	1,568.2	1,320.7
Feb	331.6	366.4	388.9	447.2	637.7	718.9	962.9	1,171.8	1,428.4	1,823.2	1,856.7	1,859.4	1,803.4	1,548.9
Mar	381.9	427.2	464.9	494.5	718.1	744.5	1,099.1	1,480.2	1,691.6	2,152.8	2,186.3	2,115.9	2,104.3	1,949.7
Apr	425.5	440.0	469.2	498.8	734.8	805.9	1,202.5	1,513.5	1,753.3	2,072.7	2,166.1	2,188.4	1,779.8	1,784.0
May	486.7	520.4	571.6	590.8	798.2	912.2	1,343.8	1,770.4	2,057.3	2,534.6	2,431.9	2,371.2	1,900.1	2,128.1
Jun	453.6	503.5	521.9	541.6	747.8	860.0	1,351.2	1,684.3	1,923.3	2,340.3	2,300.4	2,264.1	1,922.8	1,885.2
Jul	441.7	494.3	506.7	557.6	796.6	843.1	1,361.4	1,654.4	1,840.3	2,191.7	2,369.2	2,186.7	1,833.4	1,867.2
Aug	428.9	486.6	532.1	608.1	789.3	849.1	1,401.3	1,786.8	2,059.2	2,334.3	2,411.9	2,097.5	1,780.7	1,946.7
Sep	431.5	476.3	490.5	568.6	772.1	860.6	1,365.5	1,586.8	1,886.4	2,141.0	2,186.0	2,113.4	1,742.1	
Oct	421.7	454.7	474.5	559.5	792.8	848.3	1,391.0	1,530.0	1,862.3	2,316.5	2,367.4	2,636.6	1,691.2	
Nov	343.4	460.7	502.0	583.1	693.8	741.4	1,203.7	1,506.2	1,887.0	1,962.8	1,957.8	1,747.3	1,495.1	
Dec	379.8	614.3	587.7	666.9	759.0	919.4	1,341.1	1,565.1	1,932.1	1,938.7	1,962.2	1,775.8	1,560.1	
Total	4,864.9	5,626.8	5,909.6	6,572.8	8,895.3	9,814.5	15,040.7	18,331.3	21,688.7	25,566.8	26,068.7	25,137.4	21,181.1	

Monthly receipts from remittances in Mexico (Annual % change)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Jan	8.0	13.0	4.5	14.2	43.6	8.6	43.1	6.3	26.4	28.6	6.5	-4.9	-12.0	-15.8
Feb	17.6	10.5	6.1	15.0	42.6	12.7	34.0	21.7	21.9	27.6	1.8	0.1	-3.0	-14.1
Mar	13.2	11.9	8.8	6.4	45.2	3.7	47.6	34.7	14.3	27.3	1.6	-3.2	-0.5	-7.3
Apr	8.2	3.4	6.6	6.3	47.3	9.7	49.2	25.9	15.8	18.2	4.5	1.0	-18.7	0.2
May	17.7	6.9	9.8	3.4	35.1	14.3	47.3	31.7	16.2	23.2	-4.1	-2.5	-19.9	12.0
Jun	24.2	11.0	3.7	3.8	38.1	15.0	57.1	24.7	14.2	21.7	-1.7	-1.6	-15.1	-2.0
Jul	18.2	11.9	2.5	10.1	42.9	5.8	61.5	21.5	11.2	19.1	8.1	-7.7	-16.2	1.8
Aug	11.1	13.5	9.3	14.3	29.8	7.6	65.0	27.5	15.2	13.4	3.3	-13.0	-15.1	9.3
Sep	27.2	10.4	3.0	15.9	35.8	11.5	58.7	16.2	18.9	13.5	2.1	-3.3	-17.6	
Oct	20.9	7.8	4.4	17.9	41.7	7.0	64.0	10.0	21.7	24.4	2.2	11.4	-35.9	
Nov	8.8	34.1	9.0	16.2	19.0	6.9	62.3	25.1	25.3	4.0	-0.3	-10.8	-14.4	
Dec	6.9	61.8	-4.3	13.5	13.8	21.1	45.9	16.7	23.5	0.3	1.2	-9.5	-12.2	
Total	15.2	15.7	5.0	11.2	35.3	10.3	53.3	21.9	18.3	17.9	2.0	-3.6	-15.7	

12-month flow of remittances in Mexico (Millions of dollars)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Jan	4,248.8	4,908.7	5,644.0	5,966.2	6,771.5	8,951.3	10,120.7	15,105.3	18,617.0	22,079.5	25,681.4	25,976.9	24,924.5	20,933.7
Feb	4,298.5	4,943.5	5,666.4	6,024.5	6,962.0	9,032.5	10,364.8	15,314.1	18,873.6	22,474.3	25,714.9	25,979.6	24,868.4	20,679.2
Mar	4,343.1	4,988.8	5,704.1	6,054.1	7,185.6	9,059.0	10,719.3	15,695.3	19,085.0	22,935.5	25,748.4	25,909.2	24,856.8	20,524.7
Apr	4,375.2	5,003.3	5,733.3	6,083.7	7,421.6	9,130.1	11,115.9	16,006.3	19,324.8	23,254.9	25,841.8	25,931.5	24,448.2	20,528.8
May	4,448.4	5,037.0	5,784.5	6,102.9	7,629.0	9,244.0	11,547.6	16,432.9	19,611.7	23,732.2	25,739.1	25,870.8	23,977.1	20,756.7
Jun	4,536.7	5,086.9	5,802.9	6,122.6	7,835.3	9,356.2	12,038.7	16,766.0	19,850.6	24,149.2	25,699.2	25,834.6	23,635.8	20,719.1
Jul	4,604.7	5,139.5	5,815.2	6,173.5	8,074.3	9,402.7	12,557.0	17,059.0	20,036.6	24,500.6	25,876.7	25,652.1	23,282.5	20,752.9
Aug	4,647.5	5,197.2	5,860.7	6,249.5	8,255.6	9,462.5	13,109.1	17,444.6	20,309.0	24,775.6	25,954.3	25,337.7	22,965.7	20,918.9
Sep	4,739.8	5,242.1	5,874.9	6,327.5	8,459.1	9,551.0	13,614.1	17,665.9	20,608.6	25,030.2	25,999.3	25,265.1	22,594.5	
Oct	4,812.5	5,275.1	5,894.8	6,412.5	8,692.4	9,606.5	14,156.8	17,804.8	20,940.9	25,484.4	26,050.2	25,534.3	21,649.1	
Nov	4,840.4	5,392.3	5,936.1	6,493.6	8,803.1	9,654.1	14,619.1	18,107.3	21,321.7	25,560.3	26,045.2	25,323.8	21,396.9	
Dec	4,864.9	5,626.8	5,909.6	6,572.8	8,895.3	9,814.5	15,040.7	18,331.3	21,688.7	25,566.8	26,068.7	25,137.4	21,181.1	

12-month flow of remittances in Mexico (annual % change)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Jan	13.9	15.5	15.0	5.7	13.5	32.2	13.1	49.3	23.2	18.6	16.3	1.2	-4.1	-16.0
Feb	14.2	15.0	14.6	6.3	15.6	29.7	14.7	47.8	23.2	19.1	14.4	1.0	-4.3	-16.8
Mar	13.8	14.9	14.3	6.1	18.7	26.1	18.3	46.4	21.6	20.2	12.3	0.6	-4.1	-17.4
Apr	11.9	14.4	14.6	6.1	22.0	23.0	21.8	44.0	20.7	20.3	11.1	0.3	-5.7	-16.0
May	12.2	13.2	14.8	5.5	25.0	21.2	24.9	42.3	19.3	21.0	8.5	0.5	-7.3	-13.4
Jun	14.0	12.1	14.1	5.5	28.0	19.4	28.7	39.3	18.4	21.7	6.4	0.5	-8.5	-12.3
Jul	14.8	11.6	13.1	6.2	30.8	16.5	33.5	35.9	17.5	22.3	5.6	-0.9	-9.2	-10.9
Aug	15.2	11.8	12.8	6.6	32.1	14.6	38.5	33.1	16.4	22.0	4.8	-2.4	-9.4	-8.9
Sep	16.8	10.6	12.1	7.7	33.7	12.9	42.5	29.8	16.7	21.5	3.9	-2.8	-10.6	
Oct	17.9	9.6	11.7	8.8	35.6	10.5	47.4	25.8	17.6	21.7	2.2	-2.0	-15.2	
Nov	16.8	11.4	10.1	9.4	35.6	9.7	51.4	23.9	17.8	19.9	1.9	-2.8	-15.5	
Dec	15.2	15.7	5.0	11.2	35.3	10.3	53.3	21.9	18.3	17.9	2.0	-3.6	-15.7	

Source: BBVA Research based on Banxico (central bank) data

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