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# **Public Policies and School Permanence in Primary Education** in México: a Panel Data Analysis 2006-2013

Políticas públicas y permanencia escolar en la educación primaria en México

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# Authorship Contribution Statement

Molina: Conceptualization, design, analysis, writing, interpretation, critical revision of manuscript, statistical analysis, supervision, final approval. Villalpando: Editing/reviewing, data acquisition, data analysis, drafting manuscript, securing funding, admin, technical or material support.

#### Abstract

This study seeks to determine the level of influence that per capita GDP and remittances have had on the permanence of primary school students who are in the correct grade according to their age in Mexico, through an econometric analysis of panel data. The analysis includes hard data from the period 2006 to 2013. The purpose is to generate information for decisionmaking in public policies that allow strengthening the school permanence of students.

Keywords: GDP per capita, primary education, public policies, remittances, school retention.

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# Introduction

The migration in México can be considered systematical and cultural, as well as traditional, and a problem of public policies (Chomsky, 2016). A massive flow of cash is obtained to our country (CONSIGNMENTS) sent by our fellow Mexican connationals who live abroad. Such resources cannot be considered an endogenous result, product of our national public policies, furthermore, a failure of those policies themselves. They represent an important income which have an impact in the consumption, the investment and savings, with major figures more than 22,500 million dollars annually (Banco de México, 2017).

It is well known that the social and economical development in the countries can be affected by the available level of goods and services, such as education, health and security, or the way they access to an income or employment and these, influence in the Index of Human Development (IDH by its acronym in Spanish), as an indicator of the United Nations Program for the Development (PNUD by its acronym in Spanish).

The influnce these incomes have in the students is fundamental in order for them to achieve better levels of education, as a good service that influences positivilely in the future income of the individuals and in the development of societies, as well as the power of human capital, (UNESCO, 2015a).

México is a country with a constant migration to The United States and Canada and this migrating behavior is recognized.

Considering the globalization of goods and services, and the human capital (Delors, 1996), the OECD and the UNESCO look for common purposes of convergency in the quality of the education in order to reach better results, and to achieve a high competency migration within a working market. That is why, Mexico adopts recommendations of these organisms concerning to educational and productive issues (OCDE, 2008).

By increasing the production and the income consumption is increased as well, the aggregate demand and the tax base. This allows to increase the public spending and guarantees services for the citizens, services like education and other social policies. Major incomes motivate the students population to stay in school and so to achieve better results. Considering the tendency of the migrating families to uncrease their income by sending more money, their children may be seen more motivated to stay in school until finishing the primary or secondary level of education (Banco de México, 2017).

The increase of consignments may have a negative effect due to that guarantees the permanence and stability in the job of the migrant provider overseas, consolidating in this form to the family disintegration. The children may continue in school, but seeing in the future the family disintegration overseas, their migration; losing their interest to get good grades at school (Aguilar Ortega, 2018).

The school permanence of the students considers that, the more students an educator has, the learnings decrease. It is complex to determine in what amount. Althought there are some tensions concerning to what could be the ideal number of students per educator, it is more feasible for instance the effective attention for 10 students instead of 20. It would be acomplished that, the fewer students, the better quality in the process of learning (UNESCO, 2015a).

The Interamerican Bank of Development agrees also that, a bigger number of sutents staying in school the learnig in the students population decreases and viceversa (BID, 2013). The difficulty stands on determine how much the number of students affects the educative results (Cordero, Crespo, & Pedraja, 2013). In addition, to consider that the permanence and the school promotion is an achievement, and a non permanence is a problem which implies promotion or failure, the same as desertion, due to this it would not be considered as an inscription at school age (Joaquín, 2001).

Families with members who attend to school assign resources for their children's education, no matter they are public schools. And these students obtain educative results influnced by those resources, being able to stablish as hard data on the models of analysis, through the GDP per capita and the consignments; allowing to determine with a bigger accuracy the level of influence such results have, as the permanence or the levels of learning.

It seems relevant to determine the level of influence that the mixed incomes made up by GDP per capita and the consingments-have in the permanence of their children in schools. However, it is difficult to establish the destination of those incomes in specific entries as education or to establish amounts of those for their children to attend to school.

The school permanence is the result of a group of public policies which converge in the attention of multidimentional and multifactor social issues such as poverty in all its different levels, the access to goods and health services, security, water, electricity, drainage, education itself, employment, etc. Problems which give birth to others, as the migration, and it is intended to be relieved through the institutional public programs (UNESCO, 2015b).

The problem is settled in establishing the level of influence these family mixed incomes may have in the school permanence of their children in the school communities with a migrant influence, analyzed from the GDP per capita and the consingments altogether through hard data, a problem that arises others, like the migration, and its implications including moral issues (Chomsky, 2016).

The plained hypothesis as way of solution will be that, a bigger mixed of incomes in the families (GDP per capita + consignments) better levels of school permanence for their children will be reached.

The results will allow to determine the level of influence those resources have in the permanence and will be used as inputs in the proposals of public policies and its sector focalization by the use of programs which allow to have better results in the enrollment indicators, promotion to the next grades, terminal efficiency, hope of schooling and a reduction in the dropout rate, with a major hope in schooling for the studying children in the families.

# Methodology

The study variables: a) independent: GDP per capita and consignments, and; b) dependent: the school permanence, for the period 2006-2013; data base of Banco Mundial (World Bank), INEGI y de la SEP/INEE (Instituto Nacional para la Evaluación de la Educación, 2021; Educa, 2021; Fundación BBVA Bancomer, A.C., 2012; INEGI, 2014). The data of study include the available information for the research variables the ones added in anual periods by states entity, consisting of: a) GDP per capita; b) the Consignments, and; c) el percentage of population according to the ideal age to receive the primary education or the school permanence. This study data is shown on table 1.

The school variable permanence represented in a percentage of the students population in school age, implies that, the students keep their registration, their course and egress, no matter the result evaluated in qualifications; it is only valued their aroval and percentage of absortion to the next school cycle registration), keeping a compound percentage expressed considering their ideal school age according to the school grade. If the percentage decreases the next year, that will imply either that not ll of them were promoted or not all of them were registered to the next school grade and affects the school permanence. The percentage of variation implies either the defection or insertion to the next school year.

The decision of selecting the study period of 2006-2013 consisted in valuing the series with the most information. What it was obtained in those series of percentage of population in school age.

With the study data a panel with variable periods was designed and the periods were poured in the program Eviews for analysis through an econometric model. This allowed to combine the series in relation to the hypothesis of work relating the students permanence in school age, as a function of the GDP per capita and the consignments. Different aspects were evaluated, (fixed or random); the stationarity assumption  $(0,\sigma)$  with probability values (prop) near to 0.0000 (zero), a confidence level higher than 95% and its normal behavior for a Kurtosis nearly to 3.0; as well as its elasticities; with the purpose to validate the best results within the limits of approval I the series regressions.

The series were evaluated in a first moment at a level of integration zero I(0)validating its unitary roots and the stationarity. The stabilized series were evaluated through logaritms, with either fixed or random effects, or in a combination of options. In each case, the evaluation with certain treatments implies to eliminate values in the series with the purpose to clean its behavior, which contributes a result with better acceptance, but it has an impact in the level of influence of the final coeficients with a minor value . This is explained in the phase of results.

Tabla 1 Study data by state entity of the period 2006 to 2013

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Baja California         2007         334.5793         1 4033.80689         11.8206521         Nayarit         2007         375.1605         8922.3324           Baja California         2009         322.0639         13406.48317         11.40279666         Nayarit         2009         321.6296         8489.3572           Saja California         2010         347.9566         13495.52752         11.208521         Nayarit         2010         337.3975         8867.7974           Jaja California         2011         347.9566         13495.52752         11.30785         Nayarit         2010         335.3755         1083.4575           Baja California         2012         464.6599         16083.34172         11.30785         Nayarit         2011         355.3575         10487.8575           Baja California         2012         464.6599         16083.34172         11.30785         Nayarit         2012         333.5175         10487.8575         10487.8575         11.30785         Nayarit         2012         333.5175         10487.8575         10487.8575         10487.8575         10487.8575         10487.8575         10487.8575         10487.8575         10487.8575         10487.8575         10487.8575         10487.8575         10487.8575         10487.8575         10487.8575 </td <td></td> <td>6612.034579</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>		6612.034579								
Baja California         2009         322,0639         13406,48317         11.40279666         Nayarit         2010         341,5296         8498,5877           Baja California         2011         347,9566         13495,52752         11,820,522         11,820,521         11,93785         Nayarit         2010         337,3975         8687,7974           Saja California         2011         396,7528         16189,40216         11.30785         Nayarit         2011         356,3557         10834,575*           Saja California         2013         321,0785         11,1976         Nayarit         2012         338,5175         10447,225*           Baja California Sur         2006         28,5343         13440,96646         11,708991         Nuevo León         2006         342,5526         19943,551*           Baja California Sur         2009         34,9667         1558,68952         11,5316622         Nuevo León         2007         327,065         25444,059*           Baja California Sur         2009         31,929         1568,68952         11,5316622         Nuevo León         2009         322,9915         24290,405           Baja California Sur         2010         33,7455         1511,363841         11,6554375         Nuevo León         2010		8922.332465								
Saja California         2010         347,9566         13495,52752         11,8206521         Nayarit         2010         337,3975         8687,7784           Saja California         2011         396,7528         16189,40216         11,30785         Nayarit         2011         356,3557         1083,4575           Saja California         2012         464,8599         16083,34172         11,30785         Nayarit         2011         336,3557         1083,4575           Saja California         2013         619,5518         16080,96599         11,11976         Nayarit         2012         333,5175         10487,829           Saja California Sur         2007         32,0066         14996,26493         11,11976         Nayarit         2013         32,0765         25444,0593           Saja California Sur         2009         31,9202         15614,95993         11,1456622         Nuevo León         2009         323,7695         25676,0355           Saja California Sur         2010         33,7455         1513,63841         11,6554375         Nuevo León         2009         322,9915         24290,403           Saja California Sur         2010         36,5599         20949,48295         11,54645         Nuevo León         2010         283,3822         27	12.3285929	9132.9495	376.45	2008	Nayarit	11.6480584	13650.18844	334.3168	2008	Baja California
Baja California         2011         396,7528         16189,40216         11.30785         Nayarit         2011         356,3557         1083,4575           Baja California         2012         464,8599         16083,34172         11.30785         Nayarit         2012         339,5175         10487,8234           Baja California         2013         619,5818         16090,95899         11.11976         Nayarit         2013         321,0782         10785,544           Baja California Sur         2006         28,5343         13440,96646         11.7089913         Nuevo León         2006         342,5526         19943,5561           Baja California Sur         2008         34,6967         1558,64931         11.6554375         Nuevo León         2007         327,065         25444,0599           Baja California Sur         2009         31,9202         1558,68525         11.5316622         Nuevo León         2008         32,937695         25676,0353           Baja California Sur         2010         33,7455         15113,63841         11.6554375         Nuevo León         2009         292,9915         24290,405           Baja California Sur         2013         34,57586         2024,46295         11.54645         Nuevo León         2010         38,3823		8498.35723			Nayarit			322.0639		Baja California
Baja California         2012         464.8599         16083.34172         11.30785         Nayarit         2012         339.5175         10487.829           Baja California         2013         619.5818         16090.96399         11.11976         Nayarit         2013         321.0782         1785.5444           Baja California Sur         2006         28.5343         13440.96646         11.7099913         Nuevo León         2006         342.5528         19943.551           Baja California Sur         2008         34.0967         15558.69825         11.531662         Nuevo León         2007         327.065         254444.695           Baja California Sur         2009         31.9202         15614.95993         11.34276618         Nuevo León         2009         323.7695         25676.0351           Baja California Sur         2010         33.7455         15113.63841         11.6554375         Nuevo León         2009         292.9915         24290.405           Baja California Sur         2011         36.5509         20949.48295         11.54645         Nuevo León         2011         308.9222         27577.817           Baja California Sur         2012         45.7566         20264.04808         11.44274         Nuevo León         2011         308.9222 </td <td></td> <td>8687.797488</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>		8687.797488								
Baja California         2013         619.5818         16009.09399         11.11976         Nayarit         2013         321.0782         10785.5442           Baja California Sur         2006         28.5343         13440.96846         11.7089913         Nuevo León         2006         342.5526         19943.551-           Baja California Sur         2007         3.2.0066         14996.26493         11.5554375         Nuevo León         2007         327.065         25444.059-           Baja California Sur         2009         31.9202         15614.95993         11.5316622         Nuevo León         2008         323.7695         25676.0355           Baja California Sur         2010         33.7455         15113.63841         11.6554375         Nuevo León         2010         292.9915         24209.405           Baja California Sur         2011         33.6595         20949.48295         11.54645         Nuevo León         2011         308.9322         27577.817           Baja California Sur         2012         41.356         20117.82438         11.54645         Nuevo León         2011         308.9322         27577.8178           Baja California Sur         2013         45.7586         20264.04808         11.46245         Nuevo León         2011         3		10834.57515								
Baja California Sur 2006 28.5343 13440.96646 11.7089913 Nuevo León 2006 342.5526 19943.5515   Baja California Sur 2007 32.0066 14996.26493 11.6554375 Nuevo León 2007 327.065 25444.059- Baja California Sur 2008 34.5957 15558.69525 11.5316622 Nuevo León 2007 327.065 25444.059- Baja California Sur 2009 31.9202 15614.95993 11.93475618 Nuevo León 2009 292.9915 24290.405   Baja California Sur 2009 33.7455 15113.63841 11.6554375 Nuevo León 2009 292.9915 24290.405   Baja California Sur 2011 36.6509 2094.48295 11.53454375 Nuevo León 2010 283.9829 2587.314   Baja California Sur 2011 36.6509 2094.48295 11.54645 Nuevo León 2011 308.9322 257877.817   Baja California Sur 2013 44.57586 20264.04808 11.44274 Nuevo León 2011 308.9323 27877.878   Baja California Sur 2013 45.7586 20264.04808 11.44274 Nuevo León 2013 597.1524 27770.584-   Campeche 2006 82.0086 18083.94566 12.6867425 Oaxaca 2006 1360.179 46853.6824   Campeche 2007 72.7832 13502.60159 12.6867425 Oaxaca 2007 1517.0494 6275.8398   Campeche 2008 72.7832 13502.60159 12.3454248 Oaxaca 2009 1298.4676 6001.1898   Campeche 2009 55.8249 9565.639393 11.9606976 Oaxaca 2011 1427.3349 7508.8237   Campeche 2011 55.0554 9848.594869 12.6687125 Oaxaca 2011 1427.3349 7508.8237   Campeche 2011 57.8156 11886.87987 11.26434 Oaxaca 2011 1427.3349 7508.8237   Campeche 2013 54.9004 10028.58707 11.13476 Oaxaca 2011 1427.3349 7508.8237   Campeche 2013 54.9004 10028.58707 11.13476 Oaxaca 2011 1472.3349 7508.8237   Campeche 2012 55.6208 10997.50109 11.26434 Oaxaca 2011 1472.3349 7508.8237   Campulia 2006 275.3269 14686.74891 12.5887137 Puebla 2007 1374.8834 8578.7080   Coahulia 2007 293.3344 1876 1616.881035 12.5384331 Puebla 2007 1408.7389   Coahulia 2008 184.6863 13066.88474 11.58595 Puebla 2010 1371.2222 9196.5535   Coahulia 2010 1246.9662 2182.035945 11.52895   Coahulia 2010 134.54564 12898.53912   Coahulia 2010 134.54569 2182.53945 11.52895   Coahulia 2010 134.54569 2182.53945 11.52895   Coahulia 2011 1486.74891 12.5887135   Coahulia 2011 1486.74891 12.5887135   Coahulia 2011 183.8223 1609										
Baja California Sur 2007 32.0066 14996.26493 11.6554375 Nuevo León 2007 327.065 25444.089. Baja California Sur 2009 34.6967 15558.69525 11.5316522 Nuevo León 2008 32.37695 25676.0355 Baja California Sur 2009 34.9967 15558.69525 11.5316522 Nuevo León 2008 292.9915 24290.405 Baja California Sur 2010 33.7455 15113.63541 11.5654375 Nuevo León 2009 292.9915 24290.405 Baja California Sur 2010 36.5509 20949.48295 11.54645 Nuevo León 2010 283.8929 25887.3745 Baja California Sur 2012 41.356 20117.82438 11.54645 Nuevo León 2011 308.9232 27577.8778 Baja California Sur 2012 41.356 20264.04808 11.4427 Nuevo León 2012 340.0258 27766.9961 Baja California Sur 2013 45.7586 20264.04808 11.4427 Nuevo León 2012 360.0258 27766.9961 Campeche 2006 82.0086 18063.94566 12.8978342 Oaxaca 2006 1360.179 4835.85242 Campeche 2007 80.4144 15687.9779.9 12.6687125 Oaxaca 2007 1517.4084 6275.83981 Campeche 2008 72.7832 13502.60159 12.3454248 Oaxaca 2007 1517.4084 6275.83981 Campeche 2009 55.5249 9556.363993 11.96687125 Oaxaca 2009 1298.4676 6001.1886 Campeche 2010 55.0554 9848.594869 12.6667125 Oaxaca 2010 1296.5398 6955.35381 Campeche 2011 57.8156 11886.87062 11.26434 Oaxaca 2010 1296.5398 6955.35381 Campeche 2011 57.8156 11886.87062 11.26434 Oaxaca 2011 1427.3849 7508.8237 Campeche 2012 55.6208 10997.50109 11.26434 Oaxaca 2011 1427.3849 7508.8237 Campeche 2013 54.9004 10028.85707 11.13476 Oaxaca 2011 1427.3849 7508.8237 Campeche 2013 54.9004 10028.85707 11.13476 Oaxaca 2011 1427.3849 7508.8237 Campeche 2012 55.6208 10997.50109 11.26434 Oaxaca 2011 1427.3849 7508.8237 Campelen 2010 234.1676 16184.81035 12.1537797 Puebla 2006 1482.5735 7616.0777. Coahulia 2006 275.3269 14686.74891 12.588715 Puebla 2006 1482.5735 7616.0777. Coahulia 2008 173.6891 14686.74891 12.588715 Puebla 2010 1371.4834 6876.722 8976.4718 Colmina 2008 184.863 1308.86874 11.7537982 Querétaro 2009 360.1548 1516.5221 Colmina 2009 184.8604 12332.31014 11.26524392 Querétaro 2009 360.1548 1516.5231 Colmina 2008 184.863 1308.68674 11.4262295 Querétaro 2009 360.1548 1515.5251 Colmina										
Baja California Sur         2008         34,9867         15558,68925         11,5316622         Nuevo León         2008         323,7695         25676,0354           Baja California Sur         2009         31,9202         15614,95993         11,34276618         Nuevo León         2009         292,9915         24290,405           Baja California Sur         2010         33,7455         15113,53841         11,5654375         Nuevo León         2010         283,3829         25887,314           Baja California Sur         2011         36,5509         2094,48295         11,54645         Nuevo León         2011         308,9322         27577,7676         986           Baja California Sur         2012         41,356         20117,82438         11,54645         Nuevo León         2011         300,028         277766,996           Baja California Sur         2013         45,7586         20268,04088         11,44274         Nuevo León         2013         597,1524         27776,5984           Campeche         2007         80,4144         15687,97729         12,6687125         0axaca         2007         1517,4084         6275,8388           Campeche         2008         72,7832         1350,260159         11,26434         0axaca         2009         128,4										
Baja California Sur         2009         31,9202         15614,9593         11,34276618         Nuevo León         2009         292,9915         24290,405           Jaja California Sur         2010         33,7455         15113,63841         11,5565375         Nuevo León         2010         283,9322         25887,314           Saja California Sur         2011         36,6509         20949,48295         11,54645         Nuevo León         2011         308,9232         27577,8177           Jaja California Sur         2013         45,7556         20264,04808         11,4427         Nuevo León         2012         340,0258         27768,3961           Jampeche         2006         82,0086         18083,94566         12,8978342         Oaxaca         2007         1517,4084         6275,3398           Jampeche         2007         80,7144         15687,77729         12,6687125         Oaxaca         2007         1517,4084         6275,3398           2ampeche         2009         55,8249         9858,36393         11,960976         Oaxaca         2009         128,6389         6495,3338           2ampeche         2010         55,8254         9846,594669         11,26434         Oaxaca         2011         1427,3349         7508,8237		25676.03554								
Saja California Sur         2011         36,5509         2094,94295         11,54645         Nuevo León         2011         308,9232         27577,877           Saja California Sur         2012         41,356         20117,82438         11,54645         Nuevo León         2012         340,0258         27768,9965           Jaga California Sur         2013         45,7586         20264,04088         11,44274         Nuevo León         2013         597,1524         27770,588           Jampeche         2006         82,0086         18083,94566         12,8978342         Oaxaca         2006         1560,179         4853,5824           Jampeche         2007         80,4144         15687,97729         12,6687125         Oaxaca         2000         1517,4084         6275,3398           Jampeche         2008         72,7832         13502,60159         12,3454248         Oaxaca         2009         129,4676         6001,1898           Jampeche         2010         55,0554         9848,594869         12,6687125         Oaxaca         2001         129,65389         6495,5389           Jampeche         2011         57,8166         11886,87062         11,26434         Oaxaca         2010         129,5389         6495,5389           J		24290.4058								
Saja California Sur         2012         41.356         20117.82438         11.54645         Nuevo León         2012         340.0258         27768.986           Jaja California Sur         2013         45.7586         20264.04808         11.44274         Nuevo León         2013         597.1524         27770.588           Jampeche         2006         82.0086         18083.94566         12.8978342         Oaxaca         2006         1360.179         4853.8241           Jampeche         2007         80.4144         15687.97729         12.6687125         Oaxaca         2007         1517.4084         6275.3388           Jampeche         2009         55.8249         9858.583939         11.96087125         Oaxaca         2009         1528.4766         6001.1882           Jampeche         2010         55.8249         9858.5836993         11.960876         Oaxaca         2010         1296.5389         6495.5384           Jampeche         2011         57.6156         11886.7062         11.26434         Oaxaca         2011         1427.3849         7508.237           Jampeche         2012         55.6208         10997.50109         11.2434         Oaxaca         2011         1427.3849         7508.23102           Jampeche	11.6042457	25887.3142	283.9829	2010	Nuevo León	11.6554375	15113.63841	33.7455	2010	Baja California Sur
Baja California Sur         2013         45,7586         2026A,04808         11,44274         Nuevo León         2013         597,1524         27770,588           Campeche         2006         82,0086         18063,94566         12,8978342         Oaxaca         2006         1360,179         4853,5824           Campeche         2007         80,4144         15867,97729         12,6667125         Oaxaca         2007         1517,4084         6275,3388           Campeche         2008         72,7832         13502,60159         12,3454248         Oaxaca         2009         129,4676         6001,1898           Campeche         2010         55,0554         9848,594869         12,26687125         Oaxaca         2009         129,4676         6001,1898           Campeche         2011         57,8156         11886,87662         11,26434         Oaxaca         2010         1295,5389         695,5389           Campeche         2012         55,6208         10987,50109         11,26434         Oaxaca         2011         1427,3349         7508,2237           Campeche         2013         54,0004         10028,58707         11,13476         Oaxaca         2012         1366,2207         7871,5312           Campeche         20		27577.81781								
Campeche   2006		27768.99681								
Campeche         2007         80.4144         15687.97729         12.6687125         Oaxaca         2007         1517.4084         6275.3384           Campeche         2008         72.7832         13502.60159         12.3454248         Oaxaca         2008         1522.2479         6208.3942           Campeche         2009         55.5249         9855.363993         11.9606976         Oaxaca         2009         128.44676         6001.1888*           Campeche         2010         55.0554         9848.594869         11.26434         Oaxaca         2010         1296.5389         6495.5389           Campeche         2011         57.8156         11886.87062         11.26434         Oaxaca         2010         1427.3349         7508.8237           Campeche         2012         55.6208         10997.50109         11.26434         Oaxaca         2011         1366.2207         7871.5312           Campeche         2013         55.900         10928.58707         11.13476         Oaxaca         2013         115.08675         762.9102           Caphulia         2006         275.3269         14686.74891         12.5887153         Puebla         2006         1482.5735         7616.0777           Coahulia         2007		27770.58845								
Campeche   2008   72,7832   13502,60159   12,3454248   Oaxaca   2008   1522,2479   6208,3942   Gampeche   2009   55,8249   9856,363993   11,9606976   Oaxaca   2009   1298,4676   6001,1898   Campeche   2010   55,85254   9848,594668   12,6667125   Oaxaca   2011   1298,5389   6495,5388   Campeche   2011   57,8156   11886,87062   11,26434   Oaxaca   2011   1298,5389   6495,5388   Campeche   2011   57,8156   11886,87062   11,26434   Oaxaca   2011   1427,3349   7508,8237   Campeche   2012   55,8208   10997,50109   11,26434   Oaxaca   2011   136,62207   7871,5312   Campeche   2013   54,9004   10028,58707   11,26434   Oaxaca   2012   1366,2207   7871,5312   Campeche   2013   54,9004   10028,58707   11,13476   Oaxaca   2013   1150,8675   7682,9102   Canhulla   2006   275,3269   14686,7494   12,5887153   Puebla   2006   1482,5735   7616,0777   Coahulla   2007   233,2384   1874,4045   12,5887153   Puebla   2007   1617,5595   8630,4225   Canhulla   2008   278,3621   18209,53984   12,5887153   Puebla   2008   1615,6722   8976,4719   Coahulla   2009   234,1676   1618,481035   12,1837197   Puebla   2008   1615,6722   8976,4719   Coahulla   2010   234,0096   1772,761272   12,5384331   Puebla   2010   1371,2222   9196,5535   Coahulla   2011   246,9692   21820,35945   11,52859   Puebla   2011   1469,6395   9984,4049   Coahulla   2012   233,5093   22470,05498   11,52859   Puebla   2011   1469,6395   9984,4049   Coahulla   2012   233,5093   22470,05498   11,52859   Puebla   2012   1403,2456   10225,7326   Coahulla   2007   199,683   12272,32888   11,52859   Puebla   2012   1333,4594   10224,2186   Collima   2008   184,683   1306,86874   11,4262295   Querétaro   2006   484,08   12716,432   Collima   2009   164,8044   1233,2391014   11,26524392   Querétaro   2007   475,1102   1535,331   Collima   2009   164,8044   1233,2391014   11,26524392   Querétaro   2001   345,331   1656,6921   Collima   2011   183,8223   16093,12239   10,93893   Querétaro   2011   333,2961   19551,014   1001ma   2011   183,8223   16093,12239   10,93893   Que										
Campeche         2009         55.8249         9856.36393         11.960876         Oaxaca         2009         1238.4676         6001.1882           Campeche         2010         55.0554         9848.594869         12.6687125         Oaxaca         2010         1296.5389         6495.5389           Campeche         2011         57.8156         11886.87062         11.26434         Oaxaca         2011         1427.3349         7508.8237           Campeche         2012         55.6208         10997.50109         11.26434         Oaxaca         2012         1366.2207         7871.5312           Campeche         2013         54.9004         10028.58707         11.13476         Oaxaca         2013         115.08675         7662.9102           Coahuila         2006         275.3269         14686.74891         12.5887153         Puebla         2006         1482.5735         7616.0777           Coahuila         2007         293.2384         18741.4045         12.5384331         Puebla         2007         1615.6722         8976.4719           Coahuila         2009         278.3621         18209.3954         12.3571797         Puebla         2009         1374.8834         8578.7080           Coahuila         2019										
Campeche         2010         55.0554         9848.594869         12.6687125         Oaxaca         2010         1296.5389         6495.5383           Campeche         2011         57.8156         11886.87062         11.26434         Oaxaca         2011         1427.3849         7508.8237.           Campeche         2012         55.5208         10997.50109         11.26434         Oaxaca         2011         1427.3849         7508.8237.           Campeche         2013         54.9004         10028.58707         11.13476         Oaxaca         2012         1366.2207         7871.5312           Campeche         2013         54.9004         10028.58707         11.13476         Oaxaca         2013         1150.8675         7682.9102           Campeche         2013         54.9004         14028.588715         Puebla         2006         1482.5735         7616.0777           Cabulia         2007         233.2384         18741.4045         12.5384331         Puebla         2007         1617.5595         8630.4225           Coahulia         2009         234.1676         1616.81035         12.513173797         Puebla         2009         1374.834         8578.7080           Coahulia         2010         236.9592										
Campeche         2012         55.6208         10997.50109         11.26434         Oaxaca         2012         1366.2207         7871.5312           Campeche         2013         54.9004         10028.58707         11.13476         Oaxaca         2013         1150.8675         7682.9102           Campeche         2013         54.9004         10028.58707         11.13476         Oaxaca         2013         1150.8675         7682.9102           Cadhulla         2007         293.2384         18741.4045         12.5887153         Puebla         2007         1617.5595         8630.4225           Coahulla         2009         234.1676         16164.81035         12.15317797         Puebla         2008         1615.6722         8976.47193           Coahulla         2019         234.096         17727.61272         12.5384331         Puebla         2010         1371.2222         9196.5535           Coahulla         2011         246.9692         21820.35945         11.52859         Puebla         2011         1469.6395         9954.4049           Coahulla         2011         246.9692         21820.35945         11.52859         Puebla         2011         1469.6395         9954.4049           Coahulla         2012		6495.353802								
Campeche         2013         54.9004         10028.58707         11.13476         Oaxaca         2013         1150.8675         7682.91024           Coahulla         2006         275.3269         14866.74891         12.5887153         Puebla         2006         1482.5735         7616.07775           Coahulla         2009         293.2384         18741.4045         12.5384331         Puebla         2007         1617.5595         8630.4225           Coahulla         2009         278.3621         18209.53954         12.387101         Puebla         2009         1374.8334         8787.6780           Coahulla         2010         234.1676         16164.81055         12.15371797         Puebla         2009         1374.8334         8787.8780           Coahulla         2010         234.0096         17727.61272         12.5384331         Puebla         2010         1371.2222         9196.5535           Coahulla         2011         246.9692         21820.33545         11.52859         Puebla         2010         1371.2222         9196.5535           Coahulla         2013         327.1924         22133.54821         11.35066         Puebla         2012         1403.2456         10225.752           Collima         2006	2 12.39832	7508.823742	1427.3849	2011	Oaxaca	11.26434	11886.87062	57.8156	2011	Campeche
Coahuila         2008         275.3269         14686.74891         12.5887153         Puebla         2006         1482.5735         7616.0777-7616.0777-7616.0777-7616.0777-7616.0777-7616.0777-7616.0777-7616.0777-7616.0777-7616.0777-7616.077-7616.0777-7616.077-7616.077-7616.0777-7616.0777-7616.0		7871.531289			Oaxaca					Campeche
Coahuila         2007         293.2384         18741.4045         12 5384331         Puebla         2007         1617.5595         8630.4225           Coahuila         2008         278.3621         18209.53954         12.387101         Puebla         2008         1615.6722         8976.47182           Coahuila         2009         293.1676         1618.481035         12.15317797         Puebla         2009         1374.8834         8578.7080           Coahuila         2010         294.0096         1772.761272         12.5384331         Puebla         2010         1371.2222         9196.55352           Coahuila         2012         283.5093         22470.05498         11.52859         Puebla         2011         1469.6395         9984.4049           Coahuila         2012         283.5093         22470.05498         11.52859         Puebla         2012         1403.2456         10225.7526           Colamia         2006         183.0994         10590.89404         11.7537982         Querétaro         2006         484.08         12716.432           Collima         2007         198.663         12872.32888         11.613639         Querétaro         2006         484.08         12716.432           Collima         2009		7682.910263								
Coahuila         2008         278,3821         18209,53984         12.387101         Puebla         2008         1615,6722         8976,47192           Coahuila         2009         234,1676         16164,81035         12,15317797         Puebla         2009         1374,8834         8578,7080           Coahuila         2010         234,0096         17727,61272         12,5384331         Puebla         2010         1371,2222         9196,5535           Coahuila         2011         246,9692         21820,35945         11,52859         Puebla         2011         1469,6395         9954,4049           Coahuila         2013         327,1924         22133,54821         11,52859         Puebla         2012         1403,2456         10225,752           Coahuila         2013         327,1924         22133,54821         11,53566         Puebla         2013         1334,5594         10224,218           Colima         2006         183,0994         10590,08940         11,753782         Querétaro         2006         484,08         12716,422           Colima         2009         184,663         13066,86474         11,4282295         Querétaro         2007         475,102         15354,313           Colima         2010		7616.077743								
Coahuila         2009         234.1676         16164.81035         12.15317797         Puebla         2009         1374.8834         8578.7080           Coahuila         2010         234.0096         17727.61272         12.5384331         Puebla         2010         1371.2222         9196.5535           Coahuila         2011         246.9692         21820.35945         11.52859         Puebla         2011         1499.6395         9984.4049           Coahuila         2012         283.5093         22470.05498         11.52859         Puebla         2012         1403.2456         10225.7520           Coahuila         2012         283.5093         2470.05498         11.52859         Puebla         2012         1403.2456         10225.7520           Colahuila         2006         183.0994         10590.89404         11.7537982         Querétaro         2006         484.08         12716.432           Colima         2008         184.663         13066.86474         11.282295         Querétaro         2006         436.4024         16175.221           Colima         2009         174.5044         12332.291014         11.20524935         Querétaro         2008         436.4024         16175.221           Colima         20										
Coahuila         2010         234.0996         17727.61272         12.5384331         Puebla         2010         1371.2222         9196.5535           Coahuila         2011         246.9692         21820.35945         11.52859         Puebla         2011         1493.6395         9954.4049           Coahuila         2012         283.5093         22470.05498         11.52859         Puebla         2011         1403.2455         10225.752           Coahuila         2013         327.1924         22133.54821         11.35066         Puebla         2013         1334.5594         10224.218           Colima         2006         183.0994         10580.88404         11.7537982         Querétaro         2006         484.08         12716.432           Colima         2007         199.663         12872.32888         11.6133639         Querétaro         2007         475.1102         15354.313           Dolima         2008         184.663         13066.86474         11.4282295         Querétaro         2009         360.1548         151451.363           Dolima         2010         171.5183         1398.62294         11.6133639         Querétaro         2009         360.1548         15149.363           Dolima         2010										
Coahuila         2011         246,9692         21820,35945         11,52859         Puebla         2011         1469,6395         9954,4049           Coahuila         2012         283,5093         22470,05498         11,52859         Puebla         2012         1403,2456         10225,7522           Coahuila         2013         327,1924         22133,54821         11,35066         Puebla         2013         1334,34594         10224,218           Colima         2006         183,0994         10590,89404         11,7537982         Querétaro         2007         475,1102         15354,313           Colima         2008         184,663         13066,86474         11,4282295         Querétaro         2007         475,1102         15354,313           Colima         2009         164,8044         12332,91014         11,2023392         Querétaro         2008         436,4024         16175,221           Colima         2010         171,5183         13963,62294         11,6133639         Querétaro         2010         354,5331         16266,921           Colima         2010         171,5183         13963,62294         11,6133639         Querétaro         2010         354,5331         16266,921           Colima         2011										
Coahuilia         2012         283.5093         22470.05498         11.52859         Puebla         2012         1403.2456         10225.7524           Coahuilia         2013         327.1924         22133.54821         11.35066         Puebla         2013         1334.5594         10225.7524           Zollima         2006         183.0994         10590.89404         11.7537982         Querétaro         2006         484.08         12716.432           Zollima         2007         199.663         12872.32888         11.6133639         Querétaro         2007         475.1102         1534.313           Zollima         2008         184.663         13066.86474         11.4282295         Querétaro         2008         436.4024         16175.221           Zollima         2010         171.5183         13963.62294         11.8133639         Querétaro         2009         360.1548         15419.363           Zollima         2010         171.5183         13963.62294         11.8133639         Querétaro         2010         354.5331         16266.921           Zollima         2010         171.5183         13963.62294         11.8133639         Querétaro         2010         354.5331         16266.921           Zollima         <		9954.404914								
Zolima         2006         183.0994         10590.89404         11.7537982         Querétaro         2006         484.08         12716.432           Zolima         2007         199.663         12872.32888         11.6133639         Querétaro         2007         475.1102         15354.313           Zolima         2008         184.863         13066.86474         11.4262295         Querétaro         2008         436.4024         16175.221           Zolima         2009         164.8044         12332.91014         11.20524392         Querétaro         2009         360.1548         15419.365           Zolima         2011         171.5183         13985.62294         11.8133639         Querétaro         2010         354.5331         16266.921           Zolima         2011         183.8223         16093.12239         10.93893         Querétaro         2011         383.2961         19551.014           Zolima         2012         180.17         15881.68833         10.93893         Querétaro         2012         378.5759         1998.144           Zolima         2013         183.3043         16152.39828         10.8542         Querétaro         2013         411.5412         20550.0201           Zolimas         2006		10225.75264								
Dollma         2007         199.663         12872.32888         11.6133639         Querétaro         2007         475.1102         15354.313           Dollma         2008         184.663         13066.86474         11.4282295         Querétaro         2008         436.4024         16175.221           Dollma         2009         164.8044         12332.91014         11.20524392         Querétaro         2009         360.1548         15419.363           Dollma         2010         171.5183         13985.62294         11.6133639         Querétaro         2010         354.5331         16266.921           Dollma         2011         183.8223         16039.12239         10.93893         Querétaro         2011         333.2961         1955.0144           Dollma         2012         180.17         15881.68833         10.93893         Querétaro         2012         378.5759         19984.144           Dollma         2013         183.3043         16152.39828         10.85342         Querétaro         2012         378.5759         19984.144           Dollma         2013         183.3043         16152.39828         10.85342         Querétaro         2013         411.5412         20550.020           Dhiapas         2007		10224.21807								
Dollma         2008         184.663         13066.86474         11.4282295         Querétaro         2008         436.4024         16175.221           Dollma         2009         164.8044         12332.9104         11.20524392         Querétaro         2009         360.1548         15419.363           Dollma         2010         171.5153         13963.62294         11.6133639         Querétaro         2010         354.5331         16256.921           Dollma         2011         183.8223         16093.12239         10.93893         Querétaro         2011         383.2961         19551.044           Dollma         2013         183.3043         16152.39828         10.85342         Querétaro         2012         378.5759         19984.144*           Dollma         2013         183.3043         16152.39828         10.85342         Querétaro         2013         411.5412         20550.0206           Dhiapas         2009         940.835         4219.408842         15.0005971         Quintana Roo         2006         99.5367         15272.121           Dhiapas         2007         921.152         5571.601576         14.7826243         Quintana Roo         2007         98.5211         17106.894           Dhiapas <td< td=""><td></td><td>12716.43219</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>		12716.43219								
Colima         2009         164.8044         1233.291014         11.20524392         Querétaro         2009         360.1548         15419.363           Dolima         2010         171.5183         13963.62294         11.6133639         Querétaro         2010         354.5331         16266.921           Dolima         2011         183.8223         16039.12229         10.93893         Querétaro         2011         383.2981         19551.014*           Dolima         2012         186.17         15881.68833         10.93893         Querétaro         2012         378.5759         19984.144*           Dolima         2013         183.3043         16152.39828         10.85342         Querétaro         2013         411.5412         20550.020           Phiapas         2006         940.835         4219.408842         15.0005971         Quintana Roo         2006         99.5367         15272.121*           Phiapas         2007         921.152         5571.601576         14.7826243         Quintana Roo         2007         98.5211         17106.894           Chiapas         2008         811.1219         6061.500525         14.4504287         Quintana Roo         2008         97.3466         16881.1011           Phiapas		15354.31366								
Dollma         2010         171,5183         13963,62294         11,6138639         Querétaro         2010         354,5331         16266,921           Dollma         2011         183,8223         16039,12239         10,93893         Querétaro         2011         383,2961         1951,014           Dollma         2012         180,17         15881,68833         10,93893         Querétaro         2012         378,5759         19984,144*           Dollma         2013         183,3043         16152,39828         10,85342         Querétaro         2013         411,5412         20550,0206           Dhiapas         2006         940,835         4219,408842         15,0005971         Quintana Roo         2006         99,5367         15272,121           Chiapas         2007         921,152         5571,601576         14,7826243         Quintana Roo         2007         98,5211         17106,894           Chiapas         2008         811,1219         6061,500625         14,4504287         Quintana Roo         2008         97,3466         16881,1011           Dhiapas         2009         609,7331         5773,272037         14,440494         Quintana Roo         2009         85,5718         1693,4784										
Colima         2011         183.8223         16039.12239         10.93893         Querétaro         2011         383.2961         19551.014*           Colima         2012         180.17         15881.68833         10.93893         Querétaro         2012         378.5759         19984.148*           Dolima         2013         183.3043         16152.39828         10.85342         Querétaro         2013         411.5412         20550.0205           Chiapas         2006         940.835         4219.408842         15.0005971         Quintana Roo         2006         99.5367         15272.121*           Chiapas         2007         921.152         5571.601576         14.7826243         Quintana Roo         2007         98.5211         1710.6394           Chiapas         2008         811.1219         6061.500525         14.4504287         Quintana Roo         2008         97.3466         16881.1011           Chiapas         2009         609.7331         5773.272037         14.0410849         Quintana Roo         2009         85.5718         16934.754										
Colima         2012         180.17         15881.68833         10.93893         Querétaro         2012         378.5759         19984.144*           Lolima         2013         183.3043         16152.39828         10.85342         Querétaro         2013         411.5412         20550.0206           Ihiapas         2006         940.835         4219.408842         15.0005971         Quintana Roo         2006         99.5367         15272.121           Shiapas         2007         921.152         5571.601576         14.7826243         Quintana Roo         2007         98.5211         17106.8344           Shiapas         2008         811.1219         6015.00525         14.4504287         Quintana Roo         2008         97.3466         16881.1011           Shiapas         2009         609.7331         5773.272037         14.0410949         Quintana Roo         2009         85.5718         16934.7541										
Jolima         2013         183.3043         16152.39828         10.85342         Querétaro         2013         411.5412         20550.020           Chiapas         2006         940.835         4219.408842         15.0005971         Quintana Roo         2006         99.5367         15272.121           Chiapas         2007         921.152         5571.601576         14.7826243         Quintana Roo         2007         95.5211         17106.8944           Chiapas         2008         811.1219         6061.500525         14.4504287         Quintana Roo         2008         97.3466         16881.1011           Chiapas         2009         609.7331         5773.272037         14.0410494         Quintana Roo         2009         85.5718         16934.7541										
Chiapas         2006         940.835         4219.408842         15.0005971         Quintana Roo         2006         99.5367         15272.121           Chiapas         2007         921.152         5577.601576         11.47826243         Quintana Roo         2007         98.5211         17106.8984           Chiapas         2008         811.1219         6061.500525         14.4504287         Quintana Roo         2008         97.3466         16881.1011           Chiapas         2009         609.7331         5773.272037         14.0410949         Quintana Roo         2009         88.5718         16934.7543		20550.02099								
Zhlapas         2007         921.152         5571.601576         14.7826243         Quintana Roo         2007         98.5211         17106.894           Chiapas         2008         811.1219         6061.500525         14.4504287         Quintana Roo         2008         97.3466         16881.1011           Chiapas         2009         609.7331         5773.272037         14.0410949         Quintana Roo         2009         85.5718         16934.7541		15272.12132								
Chiapas 2009 609.7331 5773.272037 14.0410949 Quintana Roo 2009 85.5718 16934.7543		17106.89462								
		16881.10183			Quintana Roo					
Chiapas 2010 574.4554 6194.455143 14.7826243 Quintana Roo 2010 86.804 17306.1329		16934.75437								
		17306.13256	86.804	2010	Quintana Roo	14.7826243	6194.455143	574.4554	2010	Chiapas
		19357.59814								
		19619.91353 20036.59856								

# Rubén Molina Martínez • Juan Manuel Villalpando Zorrilla

Federal entities in the Country	8 year cycle	Remittances in millions of dollars	GDP per capita by entity (dls)	% de población según edad idónea para cursar la educación primaria	Federal entities in the Country	8 year cycle	Remittances in millions of dollars	GDP per capita by entity (dls)	% of the population according to the ideal age to att end primary education
	Años	REM	PIBper	PPIEP		Años	REM	PIBper	PPIEP
Chihuahua	2006	473.9306	15671.74556	12.3328126	San Luis Potosí	2006	714.4894	8796.163127	13.7565345
Chihuahua	2007	460.2178	13908.2642	12.2777423	San Luis Potosí	2007	778.3766	10706.95211	13.5846904
Chihuahua	2008	474.7904	13907.85848	12.1348515	San Luis Potosí	2008	760.7517	11213.48119	13.3128483
Chihuahua	2009	407.8249	13334.4051	11.91685264	San Luis Potosí	2009	626.76	10601.7077	12.96988389
Chihuahua	2010	397.8418	13456.16633	12.2777423	San Luis Potosí	2010	629.4701	11163.65438	13.5846904
Chihuahua	2011	419.2972	13785.20469	11.74896	San Luis Potosí	2011	700.7963	13597.86945	12.13264
Chihuahua	2012	466.8191	14514.38668	11.74896	San Luis Potosí	2012	738.6956	13816.8257	12.13264
Chihuahua	2013	519.2166	14969.36295	11.65535	San Luis Potosí	2013 2006	707.0391	13848.38687	11.92628 12.4407328
Distrito Federal Distrito Federal	2007	1490.3933 1058.5616	27687.01366 28223.82852	9.59450822 9.48488933	Sinaloa Sinaloa	2007	503.219 522.9925	8143.235969 10970.72449	12.4407326
Distrito Federal	2008	1083.8623	28847.13199	9.31278643	Sinaloa	2007	487.6887	11508.3402	12.0221045
Distrito Federal	2009	965.8548	29794.38702	9.089771945	Sinaloa	2009	456.7455	11308.51092	11.70298716
Distrito Federal	2010	999.279	30991.2246	9.48488933	Sinaloa	2010	470.2196	11964.0491	12.2782516
Distrito Federal	2011	1151.9246	34543.60835	9.012137	Sinaloa	2011	511.8213	13155.52728	11.32678
Distrito Federal	2012	1013.5624	34735.64199	9.012137	Sinaloa	2012	501.2254	13472.60263	11.32678
Distrito Federal	2013	1394.5934	36087.71714	8.913291 13.5382532	Sinaloa	2013	502.9768	13742.54889	11.14457
Durango Durango	2006	428.4959 453.0538	9612.940788 11127.40379	13.5382532 13.3930028	Sonora Sonora	2006 2007	325.9658 332.3411	13260.92043 14870.83274	12.3589526 12.3091342
Durango	2007	442.0012	11650.51828	13.1491751	Sonora	2007	310.9555	14758.45286	12.1626076
Durango	2009	374.7868	11468.31148	12.83164465	Sonora	2009	278.703	14427.68874	11.93645088
Durango	2010	379.1025	11931.03364	13.3930028	Sonora	2010	292.0197	15150.77923	12.3091342
Durango	2011	416.6195	13540.56691	12.144	Sonora	2011	326.9156	19513.86573	11.52301
Durango	2012	431.0896	13435.29187	12.144	Sonora	2012	326.7587	19855.74758	11.52301
Durango	2013	458.911	13786.16434	11.92564	Sonora	2013	341.1566	20402.29727	11.41063
Guanajuato Guanajuato	2006	2311.2033 2388.9958	7899.254442 10705.40808	13.8709772 13.7220501	Tabasco Tabasco	2006 2007	187.8389 182.8242	7147.382196 21335.87038	13.0350744 12.8601527
Guanajuato	2007	2317.6678	10840.00559	13.4628545	Tabasco	2007	156.0173	27108.35535	12.6045415
Guanajuato	2009	1944.8707	10392.42905	13.1219182	Tabasco	2009	114.4117	23187.17713	12.28969907
Guanajuato	2010	1981.3321	11287.4529	13.7220501	Tabasco	2010	111.3427	26698.96219	12.8601527
Guanajuato	2011	2155.7864	12649.58938	12.28654	Tabasco	2011	111.7285	29147.37109	11.79206
Guanajuato	2012	2138.2954	12932.28523	12.28654	Tabasco	2012	111.2635	28473.06839	11.79206
Guanajuato Guerrero	2013	2007.5824 1455.7219	13379.66266 5752.081595	12.07008 14.9491853	Tabasco Tamaulipas	2013	117.1747 496.727	26030.81629 11889.84389	11.61257 11.9423508
Guerrero	2007	1489.5588	6956.775279	14.7074819	Tamaulipas	2007	516.6865	15441.16065	11.9121491
Guerrero	2008	1435.462	6827.709773	14.3379632	Tamaulipas	2008	500.5114	16353.62155	11.7821314
Guerrero	2009	1200.2611	6468.441086	13.88925242	Tamaulipas	2009	414.9636	14378.41741	11.56514356
Guerrero	2010	1201.4816	6827.009701	14.7074819	Tamaulipas	2010	402.2969	14841.28924	11.9121491
Guerrero	2011	1262.3572	7883.99873	13.11811	Tamaulipas	2011	445.2998	16726.56703	11.17536
Guerrero Guerrero	2012	1231.0101 1205.2596	7803.270125 7975.279486	13.11811 12.87735	Tamaulipas Tamaulipas	2012 2013	485.4869 709.283	16517.2233 16481.05356	11.17536 11.11424
Hidalgo	2006	982.8468	6141.537134	13.1068191	Tlaxcala	2006	270.6837	5503.771094	13.2102723
Hidalgo	2007	1092.2258	9263.69118	12.9162787	Tlaxcala	2007	303.3016	6818.744835	13.0979196
Hidalgo	2008	960.9702	9522.356246	12.6573472	Tlaxcala	2008	305.2063	6976.319497	12.9172661
Hidalgo	2009	752.0659	8645.67319	12.35320692	Tlaxcala	2009	258.8598	6867.973048	12.67998068
Hidalgo	2010	715.5117	9266.318715	12.9162787	Tlaxcala	2010	258.5201	7199.628996	13.0979196
Hidalgo	2011	762.6617 721.4882	11076.99571 11422.98984	11.87373 11.87373	Tlaxcala Tlaxcala	2011 2012	274.546 253.2368	8532.834516 8602.29634	12.27175 12.27175
Hidalgo Hidalgo	2012	630.1407	11240.7466	11.70759	Tlaxcala	2012	217.0694	8687.975061	12.08876
Jalisco	2006	1975.475	10299.77597	12.5797896	Veracruz	2006	1680.7816	6684.544666	12.7217336
Jalisco	2007	1996.6607	13033.05037	12.4869878	Veracruz	2007	1775.7294	9170.509737	12.5342907
Jalisco	2008	1914.7938	13331.57442	12.3048518	Veracruz	2008	1618.3088	9498.274392	12.2660708
Jalisco	2009	1695.0918	12780.94103	12.04940573	Veracruz	2009	1296.3027	8938.574353	11.94633925
Jalisco Jalisco	2010	1755.5694 1895.7864	13335.29466 15375.76182	12.4869878 11.57764	Veracruz Veracruz	2010 2011	1237.4372 1273.0864	9456.728487 12593.734	12.5342907 11.12061
Jalisco Jalisco	2011	1895.7864 1883.5055	15375.76182 15486.36955	11.57764	Veracruz Veracruz	2011	1273.0864	12593.734 13017.52404	11.12061 11.12061
Jalisco	2012	1755.0156	15887.63908	11.43498	Veracruz	2012	1027.6556	12757.1226	10.92882
México	2006	2079.1478	7731.668394	12.1297996	Yucatán	2006	122.0784	8662.068165	12.0884074
México	2007	2167.0181	8820.418725	12.0411486	Yucatán	2007	136.7516	10356.99002	11.912487
México	2008	2066.7034	9039.080434	11.8937228	Yucatán	2008	136.1225	10613.36107	11.6513688
México	2009	1700.7687	8943.431137	11.69736247	Yucatán	2009	109.9358	10891.49453	11.33099093
México México	2010	1637.5501 1658.3755	9661.659006 10789.20843	12.0411486 11.47484	Yucatán Yucatán	2010 2011	112.6927 117.809	11352.60072 13489.11942	11.912487 10.79558
México	2011	1563.7836	10789.20843	11.47484	Yucatan	2011	117.809	13489.11942	10.79558
México	2013	1432.9979	10980.62612	11.30799	Yucatán	2013	125.4273	13802.88417	10.66532
Michoacán	2006	2503.6922	6047.57158	13.4622397	Zacatecas	2006	667.7248	6125.538674	13.4747718
Michoacán	2007	2435.8051	8630.819873	13.2408663	Zacatecas	2007	687.4149	7887.127527	13.3092914
Michoacán	2008	2448.8623	9179.121777	12.9274171	Zacatecas	2008	681.5508	8353.690542	13.0573426
Michoacán	2009	2132.2835	8289.810677	12.5540835	Zacatecas	2009	573.2955	8613.848574	12.7395358
Michoacán Michoacán	2010	2144.5021 2245.0563	8541.429359 9940.543965	13.2408663 11.85948	Zacatecas Zacatecas	2010 2011	581.7119 625.4528	9547.233999 15050,75975	13.3092914 12.08119
Michoacan Michoacán	2011	2245.0563	9726.765037	11.85948	Zacatecas	2011	654.4501	14820.74809	12.08119
Michoacán	2012	2048.7233	9902.903908	11.70292	Zacatecas	2012	633.8002	12913.72369	11.92647

Source:Own elaboration based on the Banco Mundial (World Bank), del INEGI and I INEE.

# Results

Consideraning the relation between variables concerning to those supposed by the UNESCO and the OCDE, that propose a major investment and educational spending to improve the results of indicators in the achievement of school performance, major scholarship and better educational coverage, we can set the hypothesis that involves the permanence of the students in school age.

Although the directionality of the expenses and investment could differ concerning to the educational field conditioning the growth of the budget based on the results of the development in a long term period, both entities agree on that the expenses and investment must be increased in this sector. The expenses and investment must be increased in the educative sector in the order of 8% of the GDP of the countries, close to the average of those countries with better results and indicators in the development and education in order to reach the goals.

 $H_0$ : To a higher GDP per capita and higher consingments more school permanence in students in primary school age will be attending to school.

Variables will be, the school permanence expressed in percentage of students being attending to primary level; the GDP per capita and the consignments in dollars; dissagregated by state entity, with the following nomenclature:

Variables	Nomenclatura (Eviews)	Condición
Percentage of students in school permanence	alprimxent	Dependiente (y)
GDP per capita by entity	pibper	Independiente (x1)
Remittances by entity	rem	Independiente (x2)

The percentage of students staying in school will be a function of GDP per capita and remittances. Series evaluated: alprimxent = f(pibper, rem)

It is considered a relationship with positive effects: a higher income in the families a major school permanence. In the econometric model would be expected to have a positive effect on the increasing percentage in students due to the increase in the GDP per capita and the consignments. To verify the stationarity we evaluated the unitary roots by variables.

Tabla 2 Stationarity of the Number of students in primary school by state entity ALPRIMXENT

Panel unit root test: Summary Series: ALPRIMXENT Sample: 2006 2013 Exogenous variables: Individual effects		Newey - W selection a	cified lags: 1 /est automatic bandwi and Bartlett kernel observations for each t	
Method	Statistic	Prob.**	Cross - sections	Obs
Null: Unit root (assumes	common unit root process)			
Levin, Lin & Chu t*	-5.39904	0.0000	32	192
Null: Unit root (assumes	individual unit root process)			

Source:Own elaboration based on study data.

Tabla 3 Stationarity of GDP per capita PIBPER

Panel unit root test: S Series: PIBPER Sample: 2006 2013 Exogenous variables: Ir	·	Newey - W selection a	cified lags: 1 /est automatic bandwi and Bartlett kernel observations for each t	
Method	Statistic	Prob.**	Cross - sections	Obs
Null: Unit root (assumes	common unit root process)			
Levin, Lin & Chu t*	-3.49773	0.0002	32	192
Null: Unit root (assumes	individual unit root process)			

Source: Own elaboration with study data

Tabla 4 Stationarity of the consignments (REM)

Panel unit root test: Summary Series: REM Sample: 2006 2013 Exogenous variables: Individual effects	seled Balar	tion and E	automatic bandwid Bartlett kernel rvations for each te d lags: 1	
Method	Statistic	Prob.**	Cross - sections	Obs
Null: Unit root (assumes common unit root process)				
Levin, Lin & Chu t*	08.71487	0.0000	32	192
Null: Unit root (assumes individual unit root process	)			

Source: Own elaboration with study data

It is oserved that the three variables passed to a level, with a degree of integration con I(0). It implies that the series overcome the stationarity assumption  $(0, \sigma)$ , with an own value nearly to 0.0000 (zero). Therefore, it is not necessary to evaluate its cointegration. It is accepted the series in a level with its valid unitary roots and it proceeds to the regretion analysis of the series. *ls alprimxent c pibper rem* (see table 4).

Having the series to a level I(0), they cannot be passed according to the stationarity assumption  $(0, \sigma)$ , even though the own value near to 0.0000. In its better condition it is resented without effects. The prop value of the GDP per capita is higher than the acceptable value of 0.05 and it is not enough to value the test of normality para valorar la (figure 1).

Tabla 5 Test of normality for the series Is alprimxent c pibper rem

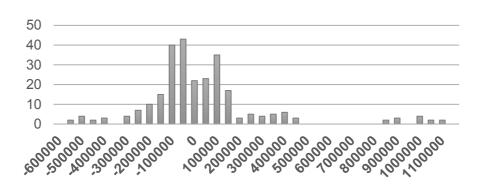
Dependent Variable: ALPRIMXENT Method: Panel Least Squares Sample: 2006 2013		Periods included: 8 Cross - sections included: 32 Total panel (balanced) observations: 25			
Variable	Coefficient	Std. Error	t-Statistic	Prob.	
С	131365.3	31491.42	4.171463	0.0000	
PIBPER	0.643471	1.468974	0.438041	0.6617	
REM	395.3193	25.45705	15.52887	0.0000	
R-squared	0.504920	Mean depende	ent var	426824.6	
Adjusted R-squared	0.501006	S.D. depender	nt var	352197.0	
S.E. of regression	248790.2	Akaike info cr	iterion	27.69826	
Sum squared resid	1.57E+13	Schwarz criter	rion	27.73980	
Log likelihood	-3542.377	Hannan - Quin	n criter.	27.71497	
F-statistic	129.0142	Durbin-Watso	n stat	0.036192	
Prob(F -statistic)	0.000000				

Source: Own elaboration with study data

Considering the obtained values, they are perceived very high, as it is the *C* coeficient of 131,365 units and the coefficient of the cosignment in 395.3 units, the error is fairly high for the independent coefficient *C* and for the consignments. Additionally the probability value for the GDP per capita is out of the accepatable range. What it is remarked in table number 5 with 0.6617 very far from the zero. The average of the independent variable is 426,824.6 units and its deviation is around 352,197 units.

All those values obtained in the evaluation force to run the series with a treatment seeking to stabilize them and with that, get a better behavior. In order to corroborate the discontinuity of the calculated behavior The Gauss bell and its coeficients graphic is used (figure 1).

Figura 1 Histogram of normality in the series Is alprimxent c pibper rem



Series: Estandardized residuals

Sample: 2006-2013 Observations: 256

Mean: 6.91e -11 Median: 45230.00 Maximum: 1106518 Minimum: -551400.9 Std. Dev.: 247812.6 Skewness: 1.913331 Kurtosis: 9.621761

Jarque - Bera: 623.9047 Probability: 0.000000

Source: Own elaboration with study data

In the test of normality prueba (figure 1) it is observed the discontinuity in the bell, an acceptable probability of 0.0000, but a very high kurtosis and dispared values. Because of that ,it is decided to evaluate the series by elasticities through logaritms, with the purpose to stabilize the effects of the measurement units of the variables in the coefficients. That is shown in table number 6. Series evaluated: *ls log(alprimxent) c log(pibper) log(rem)* 

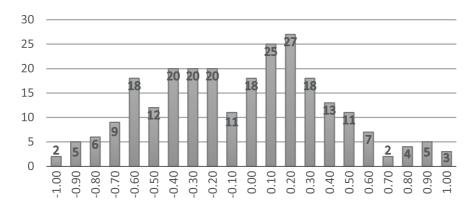
Tabla 6 Regression of the series Is log(alprimxent) c log(pibper) log(rem) through elasticities

Dependent Variable: LOG(ALPRIMXENT)  Method: Panel Least Squares  Sample: 2006 2013		Periods included: 8 Cross - sections included: 32 Total panel (balanced) observations: 25				
Variable	Coefficient	Std. Error	t-Statistic	Prob.		
С	6.204352	0.689742	8.995183	0.0000		
LOG(PIBPER)	0.268634	0.061892	4.340376	0.0000		
LOG(REM)	0.657261	0.032259	20.37470	0.0000		
R-squared	0.654524	Mean depende	ent var	12.68440		
Adjusted R-squared	0.651793	S.D. depender	nt var	0.755283		
S.E. of regression	0.445686	Akaike info cr	riterion	1.233244		
Sum squared resid	50.25486	Schwarz criter	rion	1.274789		
Log likelihood	-154.8553	Hannan - Quin	n criter.	1.249954		
F-statistic	239.6611	Durbin-Watso	n stat	0.057944		
Prob(F -statistic)	0.000000					

Source: Own elaboration with study data

Through elasticities (table 6) a valid result is obtained for the prop value of 0.0000, without any effect in crossed sections nor the period. It proceeds to evaluate the test of normality considering that the series have been stabilized, the atypic observations have been reduced and the effect on the units of variables have been eliminated over the coefficients (figure 2).

Figura 2 Histogram without effects in the crossed sections nor in period



Series: Estandardized residuals

Sample: 2006 -2013 Observations: 256

Mean: 5.70e-16 Median: 0-035361 Maximum: 1.073882 Minimum: -0.984383 Std. Dev.: 0.443935 Skewness: 0.128295 Kurtosis: 2.493015

Jarque -Bera: 3.443973 Probability: 0.178711

Source: Own elaboration with study data

The results are aceptable in the regression of the serie without any corelation of the effects in the coefficients of the independent variable. In the analysis, through the revision of the behavior in the histogram, it is verified that the continuity in the Gauss bell of the histogram of normality, with a probability near to 0.2, is aceptable to the 98% in level of confidence and a kurtosis of 2.49 (figure 2).

Tabla 7 Accepted Coeficients for the hypothesis H1 evaluated through elasticities

Is $log(alprimxent)$ c $log(pibper)$ $log(rem)$ $y = \beta 0 + \beta 1x1 + \beta 2x2 + \alpha duml + ei$						
Variable	Coeficiente	R-squared				
C	6.204352	0.654524				
Pibper	0.268634	Adjusted R-squared				
Rem	0.657261	0.651793				

Source: Own elaboration with study data

The regression is valid with that normality and a kurtosis within the parameters, involving a near to zero bias, and a distribution near to the normal. The coeficients are accepted for the initial planned hypothesis, with positive effects concerning to the percentage of students (permanence) with the increase of the GDP per capita and the consignments (table 7).

The hypothesis is confirmed *Ho* and the final equation will stay determined by the equation 1.

$$alprimxent = 6.204352 + 0.268634(pibper) + 0.657261(rem) + OldumI + ei$$
 (1)

Where:

 $\Omega dum I$  = is the non observable effect in the period, independent from the time iei = is the same as stochastic error

The value of Chi-ajustada allows us to infer that the combinations in the independent variables explain in a 65% the behavior of the dependent variable. The coefficients involve a positive relationship of the variables concerning to the independent variable in function of the elasticities, indicating that:

- By a percentual increasing of the GDP per capita increases a 0.27% the number of students. The values are expected according to the theoretical assumptions. The influence is positive.
- By a percentual increasing of the consignments it increases in a 0.65 % the number of students. The values are expected according to the theoretical assumptions. The influence is positive.

## Discusion

The fact that the results does not explain in a major percentage the dependent variable supposes that another variable not conssidered is required or it could be implicit in another variable with other indicators of another dimensión which would be necessary to explore. It must not be forgotten that the educational results are the product of socioeconomical variables, familiar, cultural and institutional. To value other variables in the análisis could improve the results of representativeness.

The obtained coefficients reveal that the influence is higher for the consignments (0.66) while those for the GDP are lower (0.27). The quantification exercise serves to be exposed if we replace the unitary values in the variables keeping a constant or eliminating the values of the non observable effect  $\Omega dumI$  and the error  $\Theta i$  in the equation.

$$alprimxent = 6.204352 + 0.268634(pibper) + 0.657261(rem) + OldumI + ei$$

Considering the non observable effect and the error the same as zero, while the variables GDP per capita and the consignments the same as one and two in combination, it is possible to observe the effect:

$$alprimxent = 6.204352 + 0.268634(1) + 0.657261(1) + 0 = 7.130$$
 
$$alprimxent = 6.204352 + 0.268634(1) + 0.657261(2) + 0 = 7.7875$$
 
$$alprimxent = 6.204352 + 0.268634(2) + 0.657261(1) + 0 = 7.3989$$

Mathematically would imply to strenghten the public policies focused on increasing the percentage of the consignments, due to its effect is higher in the dependent variable of school permanence. Perhaps it may be thought in strenghten the legal or temporary migration programs or those of communitary social bond of the legal migration with programs such as 3 by 1 (extinguished). However, it would not be the correct alternative. The countries cannot think in encouraging the migration and the la departure of their citizens this way, expelling the workforce; on the contrary, they must look for ways to improve the production and the development of their countries, as well as the permanence of their citizens inside the national territory as a major priority.

## Conclusion

The public policies which strenghten the growth of the GDP are mainly desired, not only for the influence in the school permanence in Mexico, but also for the effects in other sectors, such as health, security or the educational sector itself, and for the development of the country in general; it is better to create public policies that strengthen the GDP than to creat policies that strengthen the migration. These are aspects which should taken into account by the decisión makers with the information obtained as a result of this and other related studies as well.

The information and the results of this current study allow to affirm that the planted hypothesis is correct, there is a positive influence of the constituted mixed incomes by the GDP per capita and the cosignments in the school permanence. The influence of the consignments is higher 66/27 related to the GDP per capita.

In future research we could go deeper in the application of focalized surveys in the state entities where the migrant population has a strong presence with the intention to get data concerning to the resources the families assign to the education and the surroundings, and to return and value the variables and their level of influence las. Likewise, look for, consistently increase the data base, what can improve the quality of the results.

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