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# Regional Differences in Infrastructure Investment at the State Level in Mexico, 1998-2005

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#### Abstract

In contrast with the standard outlook of investment in infrastructure, this analysis shows how the sizable deviations between approved and executed investment, create a new map of allocation of public funds for infrastructure in Mexico. The results indicate a sizeable gap between the approved and executed investment in the administrative branches, whose main responsible is the president. This evidence raises important questions and, calls for further research to explore the role of the Executive in the implementation of the public budget. This unexplored de facto budgetary power of administrative branches is especially important for Mexican policymaking process, in the context of the transition to democracy, and the loss of the Presidential hegemony over legislative decisions.

Keywords: federal public budget, state and local budget and expenditures, infrastructure, auditing, Mexico.

JEL Classification: H72, H61, M42.

#### Resumen

En contraste con la perspectiva tradicional de la inversión en infraestructura, este análisis muestra cómo las diferencias entre el presupuesto aprobado y ejecutado crean un nuevo mapa de asignación de los fondos públicos para la infraestructura en México. Los resultados indican una gran diferencia entre la inversión aprobada y la ejecutada en las ramas administrativas, cuyo principal responsable es el presidente. Esta evidencia plantea importantes cuestiones, y es una llamada de atención para realizar una mayor investigación sobre el papel del Ejecutivo en la ejecución del presupuesto público. Este inexplorado de facto poder presupuestario de las ramas administrativas es especialmente importante para el proceso de formulación de políticas públicas en México, en el contexto de la transición a la democracia, y la pérdida de la hegemonía presidencial sobre las decisiones legislativas.

Palabras clave: presupuesto público federal, presupuesto y gasto a nivel local y estatal, infraestructura, auditoría, México.

Clasificación JEL: H72, H61, M42.

#### Introduction

Given the assumption of the positive effects of infrastructure on economic activity, in Mexico there have been many efforts to secure the availability of resources for local governments in order to invest in basic infrastructure, such as potable water, sewage system or electricity; but also in infrastructure that promotes equity and development (urbanization, education, health, housing and roads).

The budgetary branches 28 and 33 are the main funding sources for infrastructure at the state and local levels in Mexico, which together represent 30% of the federal public budget. However, there are other sources of funding such as the budgetary branches, executed by command of the Executive power. Thus, the analysis of other these other branches should lead to a better understanding of how much, and to which states the president assigns funds to state governments.

The objective of this paper is to map the differences between the approved and executed investment in infrastructure at the state level, using the data from the Cuenta de la Hacienda Pública Federal (CHPF) from 1998 to 2005. This deviation from the approved investment by the Legislative is evidence of the discretional role of the Executive in the implementation of the public budget. The main result is that there is evidence of a positive correlation between the size of these differences and the political support from the president towards particular state governors.

The paper is organized as follows. In the first section there is a summary of the positive impact of the infrastructure on the economic activity. The various funding sources for the investment in public infrastructure available in Mexico are described in the second section. The third section details the level of investment in public infrastructure in the last ten years. The detail of the investment by year, presidential administration and type of budgetary branch appears in the fourth section. The econometric analysis appears in the fifth section. In the last section the conclusion and further research questions are stated.

# 1. Economic impact of infrastructure

The impact of public investment on economic growth has been extensively analyzed in the literature. Aschauer (1989) shows that public investment has a significant effect on the growth rate of the United States. However, Barro (1991) finds no significant effect of public investment on the economic growth

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<sup>&</sup>lt;sup>1</sup> To our knowledge, this is the first time that this data has been published.

in a cross section analysis for 98 countries. The striking contrast between these results emphasizes the need to study this problem at the country level.

Using an economic model of growth and investment in infrastructure developed by Barro (1990), Noriega and Fontenla (2005) analyze the Mexican case for the period 1950-1994. In this model, public infrastructure is considered an input for the final production; where it is mainly funded through taxation.

Noriega and Fontenla show that infrastructure (electricity kilowatts, kilometers of roads and total number of telephonic lines) has a positive and significant effect on the economic activity at the national level. Even though these results are good news, these authors does not investigate who has been the responsible for this levels of investment at the state level -the Legislative, the President or the private sector. In the absence of an answer to these questions, there is a call for an in-depth examination of investment in infrastructure in Mexico.

#### 2. Funding sources for the investment in public infrastructure

The financial sources available for state and local governments, in addition to the federal transfers (budgetary branches 28 and 33), are the following: 1) own income from tax revenues, 2) debt acquisition through commercial banking, and 3) emission of government bonds.

The administration of these financial options is restricted by law. For instance, the Constitution prohibits that the federal government assigns the federal transfers from the budgetary branch 33 directly to local governments. Thus, resources such as the Fondo de Aportaciones de Infraestructura Social (FAIS) are granted to state governments. In this way, the state governor is responsible for the reallocation of the federal transfers to the municipalities. This allocation is made based on indicators such as population size and marginalization.

The Mexican Constitution also bans states and local governments to contract foreign debt and/or foreign currencies. It also limits the acquisition of foreign debt to fund capital projects, such as infrastructure or public work. This regulation pretends to discipline local government's debt market, which competes in the financial market according to its risk valuation and its credit file. Nevertheless, for this regulation to be successful, the federal government must commit not to bailout local government, as opposed to what happened during the debt crisis in 1995. For this threat to be credible there has to be a regular revision —to guarantee that debt has been contracted only for capital investments— and that public finance information is reliable and accountable. Unfortunately, 68% of the resources obtained via debt were assigned to restructure past debt, instead of financing new capital projects (Tamayo-Flores and Hernández-Trillo, 2006: 15, 22).

The approved Presupuesto de Egresos de la Federación (PEF) represents an alternative source of information to explore the decentralization process of funding to invest in public infrastructure. The approval budget in infrastructure is immersed in a battle between the House of Representatives and the President (Sour, 2006). Even though the budget has been approved by the Legislative power, during the fiscal year some modifications may take place, which is why at the end of the year the effectively expended budget is different to the approved one. Thus, the president can reallocate resources, with no possibility for Congress to impede it. In many cases, this difference represents a considerably large amount of money compared to the budget approved.

#### 3. Investment in public infrastructure

In the last ten years, public investment has showed some important fluctuations (World Bank, 2006: 19). However, investment has increased little after the 1994 Mexican crisis. Apparently, this trend has followed the Mexican oil prices. See Table 1.

TABLE 1: PUBLIC INVESTMENT IN MEXICO (1993-2004)

Year	<b>Thousand Million</b>	% GDP	Annual
1 cai	pesos	/0 GD1	Growth
1993	226.9	3.76%	
1994	311.4	5.01%	37.3%
1995	214	3.75%	-31.3%
1996	182.4	3.00%	-14.8%
1997	200.8	3.10%	10.1%
1998	185.8	2.80%	-7.5%
1999	205.7	3.00%	10.7%
2000	257.6	3.59%	25.2%
2001	246.7	3.60%	-4.2%
2002	288.5	4.24%	17.0%
2003	313	4.53%	8.5%
2004	324.4	4.76%	3.7%

Source: World Bank (2006).

Nevertheless, investment only in infrastructure has not keep a constant growth rate. Table 2 shows that —in absolute terms— the resources invested increased from 1.1% of the GDP in 1998 to a 1.2% in 2003 (World Bank, 2006: 19).

TABLE 2: PUBLIC INVESTMENT IN INFRASTRUCTURE (1998-2003)

Year	Thousand Million pesos	Percentage of Public Investment	Percentage of the GDP
1998	64	39%	1.06%
1999	64	36%	1.02%
2000	69	31%	1.04%
2001	68	32%	1.02%
2002	84	34%	1.26%
2003	83	28%	1.23%

Source: World Bank, 2006.

This data includes road systems, ports, electricity and health. Investment in schools, urban transportation, airports, irrigation systems and gasoline are not included in these tables. Analyzing the investment in public infrastructure as a percentage of total public investment, we observe a constant decrease, even though as percentage of GDP this number remains around 1%.

#### 4. Infrastructure and public expenditure by budgetary branch

#### 4.1. Annual analysis

Using data from the CHPF, we analyze the approved and executed investment in infrastructure. In order to size the presidential power, budgetary branches 28 and 33 are excluded from the analysis since they are the result of a political negotiation between the legislators, the president and the governors.

There is a portion of budgetary resources with the specific name of the state or the local government. There are also resources that we called shared and without geographical classification. Shared resources are monies that go to fund projects in which two or more states are involved. Those resources that do not have a name —either of a state or local government— we called them without geographical classification.<sup>2</sup>

Considering all the investment, during the first four years of analysis, we observe an under-investment while from 2002 there is an over-investment. These numbers —as percentage of GDP— appear in Figure 1. The greater differences between approved and executed investment in infrastructure are in the years 2004 and 2005.<sup>3</sup>

<sup>&</sup>lt;sup>2</sup> On average, 68% of the investment lacks the name of the state or local government where the investment in infrastructure is going to be made. This research focus on the resources that are geographically labeled to see if there is a political explanation for the observed gap between approved and expended budget.

<sup>&</sup>lt;sup>3</sup> The data of expended budget by state, including all type of sources, is in Annex A.

0.060 0.050 Percentage of GDP 0.040 0.033 0.030 0.030 0.030 0.026 0.023 0.020 0.017 0 017 0.018 0.015 0.012 0.011 0.010 0.009 0.010 0.000 1998 1999 2000 2001 2002 2003 2004 2005 ■ Approved □ Executed

FIGURE 1: PUBLIC INFRASTRUCTURE SPENDING TO STATE AND LOCAL GOVERNMENTS 1998-2005

Source: CHPF.

Table 3 shows the annual amount of approved and executed public investment, as a percentage of the programmable expense, from 1998 to 2005. The difference between the approved and the executed investment appears on the third column.

TABLE 3: INFRASTRUCTURE INVESTMENT TO STATES AND LOCAL GOVERNMENTS AS PERCENTAGE OF PROGRAMMABLE EXPENSES

Year	Approved (A)	Executed (E')	Difference (E-A)
1998	0.112	0.099	0.013
1999	0.092	0.083	0.009
2000	0.092	0.080	0.013
2001	0.039	0.059	-0.020
2002	0.048	0.050	-0.002
2003	0.046	0.047	-0.001
2004	0.104	0.162	-0.057
2005	0.111	0.169	-0.058
		Average	-0.013

Source: CHPF. Programmable expenses do not include budgetary branches 33 and 28.

During the first four years of analysis (1998-2001) the executed expenditure is less than the approved, as opposed to the last four years where there is a clear pattern of over-spending. Table 4 only shows the resources that have a geographic destination, as a percentage of the programmable expenses. The mean variation is 0.01% —contrary to the -0.013% observed, when including shared and without geographical classification resources. This number

indicates that —on average— the expended resources that have a geographic destination are greater than the amounts that were approved. This gap is explained by the president's political preferences in the next section.

TABLE 4: INFRASTRUCTURE INVESTMENT TO STATES AND LOCAL GOVERNMENTS AS PERCENTAGE OF PROGRAMMABLE EXPENSES

Year	Approved (A)	Executed (E')	Difference (E-A)
1998	0.003	0.002	0.001
1999	0.015	0.020	-0.005
2000	0.021	0.020	0.001
2001	0.010	0.014	-0.004
2002	0.016	0.013	0.002
2003	0.017	0.013	0.004
2004	0.017	0.015	0.002
2005	0.027	0.020	0.007
		Average	0.001

Source: CHPF 2005. The programmable expenses do not include the budgetary branch 33 nor 28.

Figure 2 shows the ascending tendency in the expended resources with geographic destination in real terms, since 2001. It must be considered that during these years the price of the Mexican oil showed a constant ascendant behavior (USD 23.04 in 2002 to USD 49.51 in 2005). A correlation coefficient of 0.9031 reinforces the argument that public investment is positively and highly correlated to the Mexican oil prices (World Bank, 2001).

FIGURE 2: PUBLIC INFRASTRUCTURE INVESTMENT TO STATE AND LOCAL GOVERNMENTS
1998-2005 THOUSANDS OF MILLIONS OF PESOS 2005

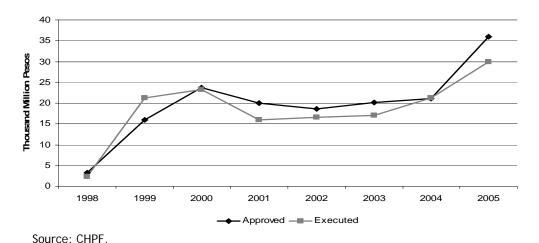


Figure 3 shows the investment in public infrastructure as a percentage of the GDP, considering only the resources that were transferred to the states.

800.0 0.007 0.007 0.006 0.006 0.006 Percentage of GDP 0.005 0.005 0.005 0.004 0.004 0.004 0.004 0.003 0.003 0.003 0.003 0.003 0.003 0.002 0.002 0.001 0.001 0.000 1998 1999 2000 2001 2002 2003 2004 2005 ■ Approved □ Executed

FIGURE 3: PUBLIC INFRASTRUCTURE SPENDING TO STATES AND LOCAL GOVERNMENTS 1998-2005

Source: CHPF 2005.

A negative number in Table 6 indicates underspending, while a positive number indicates overspending in the investment with specific destination. In the last row appears the average for the 32 states. During the period of analysis, on average there is an overinvestment of 8.96% in spite the fact that only 11 out of the 32 states present overinvestment (see last column on Table 5). This result indicates that the expended resources in these 11 states are considerably higher than the rest of the states. In these states the executive power to relocate resources is by far obvious than in the rest of the country.

TABLE 5: UNDER SPENDING AND OVERINVESTMENT BY STATE FOR EACH YEAR

State	1998	1999	2000	2001	2002	2003	2004	2005	Average
Aguascalientes	-63.12%	129.39%	-3.33%	-17.61%	-11.71%	-21.53%	-6.44%	-44.42%	-4.85%
Baja California	-53.45%	81.05%	1.44%	-19.65%	-1.78%	-16.77%	7.06%	-22.04%	-3.02%
Baja California Sur	-62.97%	81.96%	-2.21%	-5.26%	-11.56%	-12.50%	-2.54%	-34.77%	-6.23%
Campeche	-52.56%	108.08%	0.08%	-15.33%	-10.75%	-35.49%	-0.27%	-46.21%	-6.56%
Chiapas	102.53%	-51.29%	17.10%	-57.80%	-23.05%	-15.13%	8.52%	-9.44%	-3.57%
Chihuahua	-22.69%	-2.04%	3.15%	1.49%	-3.89%	-25.09%	12.72%	-1.38%	-4.72%
Coahuila	-62.57%	72.32%	-1.01%	-4.52%	15.08%	-16.04%	3.18%	-37.02%	-3.82%
Colima	-47.46%	70.98%	-5.36%	-17.70%	-19.53%	-23.37%	-6.19%	-39.32%	-10.99%
DF	-5.02%	-35.88%	-42.25%	-3.03%	-30.07%	13.26%	305.78%	211.71%	51.81%
Durango	-69.96%	9.65%	7.53%	10.63%	-24.95%	-10.00%	-25.49%	9.43%	-11.65%
Edo. de México	-53.05%	-33.41%	459.04%	-1.73%	35.06%	62.72%	4.07%	1696.01%	271.09%
Guanajuato	-43.65%	1.73%	-24.08%	-36.47%	2.37%	7.59%	10.74%	119.33%	4.69%
Guerrero	10.71%	-8.44%	-6.66%	-38.97%	-4.90%	-22.07%	-0.48%	-44.90%	-14.46%
Hidalgo	461.34%	90.05%	-22.87%	-6.82%	-22.52%	11.25%	18.89%	-12.58%	64.59%
Jalisco	-66.20%	-3.95%	4.75%	-6.79%	-1.07%	-2.45%	-22.96%	-36.51%	-16.90%
Michoacán	-62.92%	33.59%	9.43%	40.68%	26.86%	-15.72%	0.54%	20.25%	6.59%
Morelos	-56.58%	45.81%	0.14%	-6.82%	65.74%	26.15%	100.98%	74.08%	31.19%
Nayarit	-85.46%	40.31%	4.36%	49.43%	-58.87%	-0.28%	9.99%	-18.90%	-7.43%
Nuevo León	-63.12%	129.39%	-3.33%	-17.61%	-11.71%	-21.53%	-6.44%	-44.42%	-4.85%
Oaxaca	-28.25%	50.67%	14.07%	-10.28%	-2.77%	-10.89%	-30.81%	-7.15%	-3.18%
Puebla	-75.19%	198.85%	1.19%	-15.49%	-30.61%	-44.37%	-15.84%	-22.56%	-0.50%
Querétaro	-70.64%	16.32%	-11.69%	-4.46%	17.38%	6.77%	19.21%	7.06%	-2.51%
Quintana Roo	-57.14%	-9.66%	7.41%	-48.46%	-15.56%	-39.59%	-47.70%	-21.44%	-29.02%
Sinaloa	-31.18%	25.98%	5.13%	-75.09%	-38.75%	-13.20%	8.98%	-14.94%	-16.63%
SLP	-49.93%	-15.15%	-23.69%	5.27%	-0.15%	21.69%	4.73%	-10.16%	-8.42%
Sonora	-61.65%	12.12%	-0.11%	15.16%	56.37%	20.53%	7.42%	53.08%	12.87%
Tabasco	-71.44%	46.05%	7.06%	-19.37%	-16.50%	-16.26%	13.84%	-5.26%	-7.73%
Tamaulipas	3.61%	68.04%	-20.42%	-6.21%	-6.15%	-15.37%	-3.62%	-9.84%	1.26%
Tlaxcala	-37.27%	4.35%	7.97%	34.02%	-7.28%	-39.73%	54.11%	74.55%	11.34%
Veracruz	-48.36%	127.64%	-35.93%	-30.13%	-39.86%	-19.19%	-1.80%	-7.50%	-6.89%
Yucatán	-51.28%	7.61%	4.06%	-39.82%	38.76%	-8.45%	23.90%	32.97%	0.97%
Zacatecas	-23.67%	-21.25%	11.43%	8.66%	12.10%	16.81%	20.19%	10.50%	4.35%
Average	-28.08%	39.71%	11.32%	-10.63%	-3.88%	-8.07%	14.51%	56.82%	8.96%

Source: CHPF. Thousands of millions of pesos 2005.

Despite that during four years there is an overinvestment —and that the remaining four there is an underspending— overinvestment has been greater on average at the national level in Mexico (Table 6). As an example, in 1998 the greatest underspending was observed (28.08%), as opposed to the greatest overinvestment in 2005, which was almost the double (56.82%).

TABLE 6: UNDER SPENDING AND OVERINVESTMENTIN INFRASTRUCTURE TO STATES AND LOCAL GOVERNMENTS

Year	Average
1998	-28.08%
1999	39.71%
2000	11.32%
2001	-10.63%
2002	-3.88%
2003	-8.07%
2004	14.51%
2005	56.82%
Total Average	8.96%
Minimum	-28.08%
Maximum	56.82%
Standar Deviation	-27.99%

Source: CHPF. Indexed in 2005 pesos.

### 4.2. Zedillo vs. Fox Administration (fourth and fifth years)

In order to explain in more detail the differences between the approved and the executed investment, we divide the period of analysis between Zedillo and Fox administration to see whether there is a pattern in the allocation of resources between these two administrations. In this way, we can compare the fourth and fifth year of the administration of president Ernesto Zedillo (1998-1999) versus those years in the Fox administration (2004-2005). On average, the difference between the approved and executed infrastructure during the Zedillo was 5.82%, while during the Fox administration there was an overinvestment of 35.66%. Apparently, president Fox employed his discretional power more intensively than Zedillo.

TABLE 7: INFRASTRUCTURE INVESTMENT TO STATES AND LOCAL GOVERNMENTS COMPARISON AMONG FOX AND ZEDILLO'S ADMINISTRATION

State	1998	1999	Average	2004	2005	Average
	Е	rnesto Zedi	illo		x	
Aguascalientes	-63.12%	129.39%	33.13%	-6.44%	-44.42%	-25.43%
Baja California Baja California	-53.45%	81.05%	13.80%	7.06%	-22.04%	-7.49%
Sur	-62.97%	81.96%	9.49%	-2.54%	-34.77%	-18.66%
Campeche	-52.56%	108.08%	27.76%	-0.27%	-46.21%	-23.24%
Chiapas	102.53%	-51.29%	25.62%	8.52%	-9.44%	-0.46%
Chihuahua	-22.69%	-2.04%	-12.37%	12.72%	-1.38%	5.67%
Coahuila	-62.57%	72.32%	4.87%	3.18%	-37.02%	-16.92%
Colima	-47.46%	70.98%	11.76%	-6.19%	-39.32%	-22.75%
DF	-5.02%	-35.88%	-20.45%	305.78%	211.71%	258.74%
Durango	-69.96%	9.65%	-30.16%	-25.49%	9.43%	-8.03%
Edo. de México	-53.05%	-33.41%	-43.23%	4.07%	1696.01%	850.04%
Guanajuato	-43.65%	1.73%	-20.96%	10.74%	119.33%	65.04%
Guerrero	10.71%	-8.44%	1.14%	-0.48%	-44.90%	-22.69%
Hidalgo	461.34%	90.05%	275.69%	18.89%	-12.58%	3.15%
Jalisco	-66.20%	-3.95%	-35.08%	-22.96%	-36.51%	-29.74%
Michoacán	-62.92%	33.59%	-14.67%	0.54%	20.25%	10.39%
Morelos	-56.58%	45.81%	-5.39%	100.98%	74.08%	87.53%
Nayarit	-85.46%	40.31%	-22.57%	9.99%	-18.90%	-4.45%
Nuevo León	-63.12%	129.39%	33.13%	-6.44%	-44.42%	-25.43%
Oaxaca	-28.25%	50.67%	11.21%	-30.81%	-7.15%	-18.98%
Puebla	-75.19%	198.85%	61.83%	-15.84%	-22.56%	-19.20%
Querétaro	-70.64%	16.32%	-27.16%	19.21%	7.06%	13.14%
Quintana Roo	-57.14%	-9.66%	-33.40%	-47.70%	-21.44%	-34.57%
Sinaloa	-31.18%	25.98%	-2.60%	8.98%	-14.94%	-2.98%
SLP	-49.93%	-15.15%	-32.54%	4.73%	-10.16%	-2.72%
Sonora	-61.65%	12.12%	-24.76%	7.42%	53.08%	30.25%
Tabasco	-71.44%	46.05%	-12.69%	13.84%	-5.26%	4.29%
Tamaulipas	3.61%	68.04%	35.83%	-3.62%	-9.84%	-6.73%
Tlaxcala	-37.27%	4.35%	-16.46%	54.11%	74.55%	64.33%
Veracruz	-48.36%	127.64%	39.64%	-1.80%	-7.50%	-4.65%
Yucatán	-51.28%	7.61%	-21.84%	23.90%	32.97%	28.44%
Zacatecas	-23.67%	-21.25%	-22.46%	20.19%	10.50%	15.34%
Average	-28.08%	39.71%	5.82%	14.51%	56.82%	35.66%

 Average
 -28.08%
 39.71%
 5.82%
 14.51%
 56.82%

 Source: CHPF. Thousands of millions of pesos 2005.

During Ernesto Zedillo's administration the state with the greater overinvestment was Hidalgo with 275.69%, whereas in the Vicente Fox's administration it was the Estado de México with 850.04%. An interesting fact is that during the Zedillo's administration Estado de México shows the greatest underspending on average (43.23%), while during the administration

of Vicente Fox, the state with greatest underspending on average was Quintana Roo with 34.57%.<sup>4</sup>

Figure 4 shows the states that had an overinvestment during the Zedillo administration. There are some states from the north of the country (Baja California Norte, Baja California Sur, Coahuila, Nuevo León and Tamaulipas), as well as some that can be called as low income (Guerrero, Oaxaca, Chiapas and Campeche).

Overspending Sobre-

FIGURE 4: OVERINVESTMENT IN PUBLIC INFRASTRUCTURE ZEDILLO ADMINISTRATION FOURTH AND FIFTH YEAR (1998 AND 1999)

Source: Own elaboration.

Figure 5 shows the states that had an overinvestment during the Fox's administration. In this map there is a great concentration at the Bajio and the central area of Mexico (Zacatecas, Morelia, Guanajuato, Queretaro, Hidalgo, Tlaxcala, Estado de México, D.F. and Morelos). In fact, only four out of the 13 states with overinvestment (Sonora, Chihuahua, Tabasco and Yucatán) are located in any other geographic region.

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<sup>&</sup>lt;sup>4</sup> This data appears in more detail in the Annex B.



FIGURE 5: OVERINVESTMENT IN PUBLIC INFRASTRUCTURE FOX ADMINISTRATION FOURTH AND FIFTH YEAR (2004 AND 2005)

In this section we separate the data among the different types of budgetary branches to see if we can explain the differences between the approved and the executed investment in infrastructure among the different types of budgetary branches in Mexico: autonomous, administrative, general and state-owned entities. If the president is using his discretional power to increase the expended resources in certain states, we want to analyze with detail the gap between approved and expended budget in the administrative branches.

#### 4.3. Autonomous branches<sup>5</sup>

Chiapas was the only state that received resources for infrastructure within the autonomous branches. These resources were granted by the Comisión Nacional de los Derechos Humanos (CNDH) for an initial amount of 1,504,204 pesos for which we observe an overinvestment of 60%.

#### 4.4. General branches

These branches receive this name since there is no direct responsible in the implementation of these resources. As a result, these branches are not included in the analysis. They include funds transferred by the federal government to the state governments, as well as the payments for the debt service.<sup>6</sup>

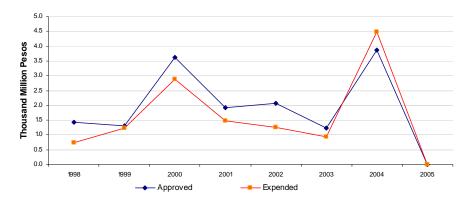
<sup>&</sup>lt;sup>5</sup> The autonomous branches concentrate the resources that the Legislative and Judicial Powers and the Instituto Federal Electoral possess. From fiscal year 2000 these branch also includes the Comisión Nacional de Derechos Humanos. The allocation criterion in these branches is centered in the autonomy of the institutions.

<sup>&</sup>lt;sup>6</sup> Branches 33 and 28 are among these branches. Annex C shows the difference between the approved budget and the executed for each state.

#### 4.5. State-owned entities

Figure 6 shows a similar tendency if the shared and without geographical classification resources are excluded.<sup>7</sup>

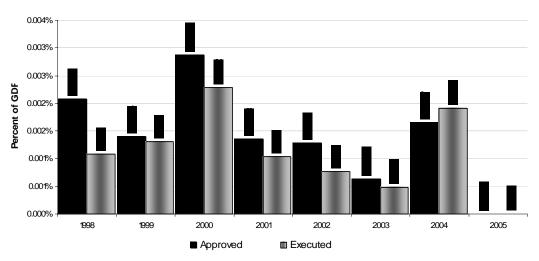
FIGURE 6: PUBLIC INFRASTRUCTURE SPENDING 1998-2005 A COMPARISON BETWEEN APPROVED AND EXECUTED RESOURCES STATE-OWNED ENTITIES



Source: Own CHPF. Indexed in 2005 pesos.

In 2005 all the resources lack of a geographical classification (Figure 7). The states that received the most and the least resources through these branches were almost the same.<sup>8</sup>

FIGURE 7: PUBLIC INFRASTRUCTURE SPENDING AS PERCENT OF THE GDP 1998-2005 STATE-OWNED ENTITIES



Source: CHPF. Indexed in 2005 pesos.

<sup>&</sup>lt;sup>7</sup> See in Annex D the growth of expenditure in state-owned entities (1998-2005).

<sup>&</sup>lt;sup>8</sup> Annex E shows the under spending and overinvestment for each year and state.

The state-owned entities show on average a decreasing under spending if the resources with specific geographic destiny are considered.

TABLE 8: INFRASTRUCTURE INVESTMENT TO STATES AND LOCAL GOVERNMENTS AS PERCENTAGE OF PROGRAMMABLE EXPENSES STATE-OWNED ENTITIES

Year	Approved (A)	Executed (E)	Difference (E-A)
1998	0.0013	0.0007	-0.0006
1999	0.0013	0.0012	-0.0001
2000	0.0033	0.0025	-0.0007
2001	0.0010	0.0013	0.0003
2002	0.0017	0.0010	-0.0007
2003	0.0010	0.0007	-0.0003
2004	0.0032	0.0032	0.0000
2005	0.0000	0.0000	0.0000
	·	Average	-0.0003

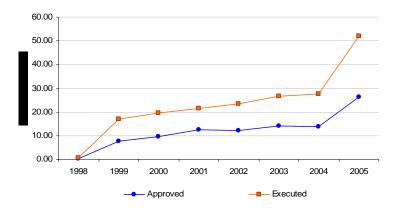
Source: CHPF 2005. Programmable expenses do not include the budgetary branch 33 nor 28.

#### 4.6. Administrative branches9

The investment through the administrative branches has increased since 1998. This trend is very similar to the Mexican oil prices during the last years. It is important to mention that when the resources without a specific geographic destination are excluded, the gap between the approved and executed investment increases (see figure 8).

FIGURE 8: PUBLIC INFRASTRUCTURE INVESTMENT TO STATE AND LOCAL GOVERNMENTS

1998-2005 ADMINISTRATIVE BRANCHES



Source: CHPF. Thousands of millions of pesos 2005.

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<sup>&</sup>lt;sup>9</sup> These branches include all the Secretariats and the Legal Advisory Office of the executive power, the Attorney General's Office, agricultural courts, and the National Council for Science and Technology (CONACYT).

#### 5. Econometric analysis

The evidence shows that there is a pattern of overspending between presidential administrations in the administrative branches. We want to link these budgetary deviations to political variables based on the preferences of the executive. We test the hypothesis that the gap between the approved and expended budget will increase if there is a coincidence between the political party of the president and the state government (intpart). As a first approximation, an OLS model is regress. We include the size of the population as a control variable (pob). The estimation results appear in Table 9. We found a positive correlation between the political coincidence between the president and the state governor with the size of this gap, during the period of analysis. This correlation suggest that those states in which the political party of the executive power matches the governor's, there is a higher probability that this difference will be higher.

Difference between approved and expended budget in Infrastucture

	1330-2000	
intpart	0.503***	
	[0.122]	
pob	0.000***	
-	[0.000]	
Observations	287	
R-squared	0,46	
<u> </u>		

TABLE 9

Standard errors in brackets

<sup>\*</sup> significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%

#### Conclusions

Most of the investment in infrastructure at the local level has been made through the FAIS, created in 1998 as a part of the budgetary branch 33. In fact, approximately 80% of the public investment in infrastructure comes from the FAIS, with the exception of metropolitan areas and municipalities with a population greater than 500,000 inhabitants, which have an important component of debt. There have been several studies that analyze the impact of the FAIS on the degree of marginalization at the local level in Mexico. There are also many studies about the impact of the budgetary branch 28.

However, there are other sources of funding that have not been analyzed before. The purpose of this paper is to revise the infrastructure investment data from CHPF 1998 to 2005. We find that the majority of this investment does not include the name of the place in which these resources are to be invested. In fact, this type of investment is the one most correlated with the oil prices. However, the main finding is that there is a gap between the approved and expended investment found in the administrative branches. For this reason, the role of the president in the execution of the public budget to invest in public infrastructure in Mexico was analyzed with more detail.

Since the president's political party lost its majority in Congress in 1997, there is a new way to approve and execute public resources in infrastructure in Mexico that needs to be analyzed in detail. We find that partisan considerations matter along the two different administrations and that president Fox was more directional than Zedillo. This evidence supports those who argue that politicians build their political support through the allocation of public resources. For example, when the political credibility of competitors is limited, there are incentives to develop patronage networks as a protective mechanism in situations of uncertainty generated by public institutions (Erdmann and Engel, 2006; Keefer and Khemani, 2004; Keefer and Vlaicu, 2005).

# Annex A

#### INVESTMENT IN INFRASTRUCTURE 1998-2005

Estado	1998	1999	2000	Promedio Zedillo	2001	2002	2003	2004	2005	Promedio Fox
Aguascalientes	40.868776	878.61418	995.7331	638.41	439.05923	341.61716	411.45172	449.82745	867.98834	501.99
Baja California	98.728792	1329.7615	1864.0601	1097.52	657.40794	633.74902	916.72237	1014.7981	1698.8699	984.31
Baja California Sur	49.707211	1158.3838	1213.2936	807.13	674.64653	342.19631	627.32296	700.07155	1269.1029	722.67
Campeche	58.492821	1125.4638	1295.5356	826.50	841.86697	754.9507	767.87025	857.12975	1508.8297	946.13
Chiapas	463.36758	961.15112	1021.0724	815.20	601.58191	513.01281	721.93519	934.60105	1573.3707	868.90
Chihuahua	173.9004	563.71704	1041.8777	593.17	423.81331	326.38349	458.43695	509.36667	779.54419	499.51
Coahuila	61.028715	1136.4072	1332.4734	843.30	763.50017	741.27198	924.81341	1065.327	1468.7357	992.73
Colima	101.42316	1156.9509	1374.2944	877.56	666.06649	534.78869	695.31551	812.16917	1164.2486	774.52
Compartidos	150.76042	0	0	50.25	0	21.209988	1.3254737	1.3110904	570.48635	118.87
DF	402.54351	314.34061	98.657589	271.85	128.09466	77.747273	84.718419	238.44246	127.63105	131.33
Durango	8.4368672	448.73525	318.89194	258.69	312.85391	427.0643	287.54741	394.11673	911.3468	466.59
Edo. de México	12.62305	32.436887	168.26244	71.11	370.82891	20.269397	12.817546	8.8345442	1.542201	82.86
Guanajuato	31.379569	465.06659	431.24294	309.23	538.59496	797.9484	674.23941	981.28698	1551.8059	908.78
Guerrero	65.827579	451.57597	365.44049	294.28	507.26266	487.54752	549.8407	949.97636	1282.966	755.52
Hidalgo	166.13299	649.14529	431.76319	415.68	505.67773	640.43648	344.52676	798.63597	1041.5672	666.17
Jalisco	44.737837	365.82292	426.63085	279.06	465.23887	631.0931	745.72567	503.76345	707.8388	610.73
Michoacán	50.517352	1840.2717	3074.7004	1655.16	636.22268	384.75852	432.50641	363.87701	673.63871	498.20
Morelos	60.538928	182.49063	166.89005	136.64	173.54397	183.30653	144.35434	949.82628	254.83258	341.17
Nayarit	3.997886	459.05536	329.07613	264.04	331.15931	243.42086	166.50648	133.91206	260.51949	227.10
Nuevo León	40.868776	878.61418	995.7331	638.41	439.05923	341.61716	411.45172	449.82745	867.98834	501.99
Oaxaca	38.935683	930.4216	741.87112	570.41	894.58762	1377.984	1584.1466	970.95964	1757.6514	1317.07
Puebla	33.037584	780.09271	558.51111	457.21	393.98138	417.96175	686.67964	480.70456	602.21193	516.31
Querétaro	11.266884	181.20175	249.57886	147.35	241.86731	270.52743	367.67069	558.84762	734.38917	434.66
Quintana Roo	10.549273	202.61569	256.5643	156.58	235.67298	339.05034	334.96705	341.31973	563.36209	362.87
Sin clasificación	102126.11	65774.963	67336.831	78412.63	51556.335	45940.368	44854.118	204485.72	217980.55	112963.42
Sinaloa	24.186752	332.3712	400.34351	252.30	426.20294	548.65344	283.0518	297.83025	629.12413	436.97
SLP	28.719702	492.00145	551.28593	357.34	472.58583	385.04526	466.01416	539.80696	848.71101	542.43
Sonora	20.764356	389.95282	422.064	277.59	405.53045	458.81386	397.07792	432.97113	1265.0384	591.89
Tabasco	10.644679	401.02043	635.8575	349.17	419.00943	410.58671	539.06628	502.03208	940.67756	562.27
Tamaulipas	61.878025	625.57411	753.80041	480.42	972.17482	1528.5912	859.55079	2819.7349	871.39006	1410.29
Tlaxcala	26.53938	142.05516	187.57325	118.72	210.67684	338.79799	202.43317	242.292	404.49391	279.74
Veracruz	41.778995	1511.1541	789.27449	780.74	734.9796	901.02406	790.10729	1032.1798	1297.7827	951.21
Yucatán	14.273698	262.9331	301.87609	193.03	229.45042	371.15241	603.44361	521.68091	1027.2364	550.59
Zacatecas	24.336419	641.20292	408.46454	358.00	800.37154	854.19464	517.19495	449.03424	982.21462	720.60
Promedio	3075.26	2560.75	2662.93	2766.31	1984.41	1840.80	1819.56	6640.95	7308.46	3918.83

Cifras en millones de pesos del 2005 Incluye compartidos y sin clasificación geográfica

# Annex B

#### COMPARISON ZEDILLO-FOX

Estado	1998	1999	2000	Promedio Zedillo	2001	2002	2003	2004	2005	Promedio Fox
Aguascalientes	-63.12%	129.39%	-3.33%	20.98%	-17.61%	-11.71%	-21.53%	-6.44%	-44.42%	-20.34%
Baja California	-53.45%	81.05%	1.44%	9.68%	-19.65%	-1.78%	-16.77%	7.06%	-22.04%	-10.64%
Baja California Sur	-62.97%	81.96%	-2.21%	5.59%	-5.26%	-11.56%	-12.50%	-2.54%	-34.77%	-13.33%
Campeche	-52.56%	108.08%	0.08%	18.53%	-15.33%	-10.75%	-35.49%	-0.27%	-46.21%	-21.61%
Chiapas	102.53%	-51.29%	17.10%	22.78%	-57.80%	-23.05%	-15.13%	8.52%	-9.44%	-19.38%
Chihuahua	-22.69%	-2.04%	3.15%	-7.20%	1.49%	-3.89%	-25.09%	12.72%	-1.38%	-3.23%
Coahuila	-62.57%	72.32%	-1.01%	2.91%	-4.52%	15.08%	-16.04%	3.18%	-37.02%	-7.86%
Colima	-47.46%	70.98%	-5.36%	6.06%	-17.70%	-19.53%	-23.37%	-6.19%	-39.32%	-21.22%
DF	-5.02%	-35.88%	-42.25%	-27.72%	-3.03%	-30.07%	13.26%	305.78%	211.71%	99.53%
Durango	-69.96%	9.65%	7.53%	-17.59%	10.63%	-24.95%	-10.00%	-25.49%	9.43%	-8.08%
Edo. de México	-53.05%	-33.41%	459.04%	124.19%	-1.73%	35.06%	62.72%	4.07%	1696.01%	359.23%
Guanajuato	-43.65%	1.73%	-24.08%	-22.00%	-36.47%	2.37%	7.59%	10.74%	119.33%	20.71%
Guerrero	10.71%	-8.44%	-6.66%	-1.46%	-38.97%	-4.90%	-22.07%	-0.48%	-44.90%	-22.26%
Hidalgo	461.34%	90.05%	-22.87%	176.17%	-6.82%	-22.52%	11.25%	18.89%	-12.58%	-2.36%
Jalisco	-66.20%	-3.95%	4.75%	-21.80%	-6.79%	-1.07%	-2.45%	-22.96%	-36.51%	-13.96%
Michoacán	-62.92%	33.59%	9.43%	-6.63%	40.68%	26.86%	-15.72%	0.54%	20.25%	14.52%
Morelos	-56.58%	45.81%	0.14%	-3.55%	-6.82%	65.74%	26.15%	100.98%	74.08%	52.03%
Nayarit	-85.46%	40.31%	4.36%	-13.60%	49.43%	-58.87%	-0.28%	9.99%	-18.90%	-3.73%
Nuevo León	-63.12%	129.39%	-3.33%	20.98%	-17.61%	-11.71%	-21.53%	-6.44%	-44.42%	-20.34%
Oaxaca	-28.25%	50.67%	14.07%	12.16%	-10.28%	-2.77%	-10.89%	-30.81%	-7.15%	-12.38%
Puebla	-75.19%	198.85%	1.19%	41.62%	-15.49%	-30.61%	-44.37%	-15.84%	-22.56%	-25.77%
Querétaro	-70.64%	16.32%	-11.69%	-22.00%	-4.46%	17.38%	6.77%	19.21%	7.06%	9.19%
Quintana Roo	-57.14%	-9.66%	7.41%	-19.79%	-48.46%	-15.56%	-39.59%	-47.70%	-21.44%	-34.55%
Sinaloa	-31.18%	25.98%	5.13%	-0.02%	-75.09%	-38.75%	-13.20%	8.98%	-14.94%	-26.60%
SLP	-49.93%	-15.15%	-23.69%	-29.59%	5.27%	-0.15%	21.69%	4.73%	-10.16%	4.28%
Sonora	-61.65%	12.12%	-0.11%	-16.54%	15.16%	56.37%	20.53%	7.42%	53.08%	30.51%
Tabasco	-71.44%	46.05%	7.06%	-6.11%	-19.37%	-16.50%	-16.26%	13.84%	-5.26%	-8.71%
Tamaulipas	3.61%	68.04%	-20.42%	17.08%	-6.21%	-6.15%	-15.37%	-3.62%	-9.84%	-8.24%
Tlaxcala	-37.27%	4.35%	7.97%	-8.31%	34.02%	-7.28%	-39.73%	54.11%	74.55%	23.13%
Veracruz	-48.36%	127.64%	-35.93%	14.45%	-30.13%	-39.86%	-19.19%	-1.80%	-7.50%	-19.69%
Yucatán	-51.28%	7.61%	4.06%	-13.20%	-39.82%	38.76%	-8.45%	23.90%	32.97%	9.47%
Zacatecas	-23.67%	-21.25%	11.43%	-11.16%	8.66%	12.10%	16.81%	20.19%	10.50%	13.65%

Annex C

#### Under spending and overspending for each year and state general branches

	1998	1999	2000	2001	2002	2003	2004	2005	Average
Estado					-				7.1.0.0.90
Aguascalientes	0.0	0.0	0.0	0.0	1.6	-7.9	-107.7	-134.1	-31.0
Baja California	0.0	0.0	0.0	0.0	-106.4	-26.4	-231.1	-288.2	-81.5
Baja California Sur	0.0	0.0	0.0	0.0	5.0	-10.9	-66.0	-93.7	-20.7
Campeche	0.0	0.0	0.0	0.0	-7.6	-9.4	-107.5	488.6	45.5
Coahuila	0.0	0.0	0.0	0.0	-18.5	-18.3	-280.8	-271.6	-73.6
Colima	0.0	0.0	0.0	0.0	3.2	-9.0	-136.3	-150.3	-75.6
	-11.7	0.0	0.0	0.0		-9.0	-130.3	105.6	-30.5
Chiapas					7.4				
Chihuahua	0.0	0.0	0.0	0.0	-10.8	-21.3	-202.7	-230.3	-58.1
DF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Durango	0.0	0.0	0.0	0.0	-18.7	-15.3	-133.2	-129.0	-37.0
Edo. de México	0.0	0.0	0.0	0.0	0.0	-50.6	-513.9	-597.9	-145.3
Guanajuato	0.0	0.0	0.0	0.0	-0.6	-22.7	-273.0	-314.3	-76.3
Guerrero	0.0	0.0	0.0	0.0	1.9	-19.5	-221.4	-257.4	-62.1
Hidalgo	0.0	0.0	0.0	0.0	9.2	-5.8	-181.7	-373.6	-69.0
Jalisco	0.0	0.0	0.0	0.0	-0.6	-29.2	-259.0	-338.1	-78.4
Michoacán	0.0	0.0	0.0	0.0	-1.8	-23.5	-216.9	-427.7	-83.7
Morelos	0.0	0.0	0.0	0.0	8.4	-12.7	-88.2	-174.2	-33.3
Nayarit	0.0	0.0	0.0	0.0	-12.8	-11.6	-157.6	-167.3	-43.7
Nuevo León	0.0	0.0	0.0	0.0	1.1	-24.6	-275.1	6.5	-36.5
Oaxaca	0.0	0.0	0.0	0.0	-16.1	-20.4	-160.8	-256.4	-56.7
Puebla	0.0	0.0	0.0	0.0	-31.0	-47.4	-322.5	-398.2	-99.9
Querétaro	0.0	0.0	0.0	0.0	0.6	0.0	-128.0	-180.4	-38.5
Quintana Roo	0.0	0.0	0.0	0.0	-53.0	-3.4	-137.2	-180.5	-46.8
SLP	0.0	0.0	0.0	0.0	-14.6	-18.7	-167.5	-218.1	-52.4
Sinaloa	0.0	0.0	0.0	0.0	-74.7	-38.6	-285.8	-397.4	-99.6
Sonora	0.0	0.0	0.0	0.0	-15.0	-26.1	-228.6	-287.4	-69.6
Tabasco	0.0	0.0	0.0	0.0	9.3	-15.1	-123.5	-205.9	-41.9
Tamaulipas	0.0	0.0	0.0	0.0	-38.4	-94.1	-266.4	-242.9	-80.2
Tlaxcala	0.0	0.0	0.0	0.0	2.9	-5.6	-73.6	-169.6	-30.7
Veracruz	0.0	0.0	0.0	0.0	-47.4	-71.7	-411.4	-418.2	-118.6
Yucatán	0.0	0.0	0.0	0.0	-9.9	-12.8	-166.9	-289.8	-59.9
Zacatecas	0.0	0.0	0.0	0.0	-15.6	-10.1	-139.7	-188.9	-44.3
TOTAL ANUAL	-11.7	0.0	0.0	0.0	-442.5	-710.1	6311.4	- 6780.8	-1782.1

Source: CHPF. Indexed in 2005 pesos. Includes shared and without geographic classification.

# Annex D

# PUBLIC INFRASTRUCTURE GROWTH RATE FROM YEAR TO YEAR STATE-OWNED ENTITIES

State	1999	2000	2001	2002	2003	2004	2005
Aguascalientes	-99%	21359%	-100%	-100%	-	-25%	-100%
Baja California	230%	171%	-100%	-100%	-	-68%	-100%
Baja California Sur	-93%	2512%	-97%	-100%	-	-18%	-100%
Campeche	-81%	1215%	-28%	-34%	-77%	-48%	-100%
Coahuila	-19%	276%	-86%	-87%	1509%	-62%	-100%
Colima	-41%	267%	-97%	-94%	25246%	443%	-100%
Chiapas	102%	138%	-62%	-72%	-28%	-76%	-100%
Chihuahua	366%	249%	-87%	-94%	277%	196%	-100%
DF	7%	-86%	142%	-88%	666%	239%	-100%
Durango	-64%	512%	-57%	-100%	-	-99%	-100%
Edo. de México	-	26064%	138%	-94%	-31%	-27%	-100%
Guanajuato	433%	51%	25%	-7%	-53%	509%	-100%
Guerrero	-65%	-45%	97%	-85%	13%	-98%	-100%
Hidalgo	-20%	43%	9%	8%	-68%	564%	-100%
Jalisco	-22%	226%	-43%	-82%	126%	39%	-100%
Michoacán	35%	240%	-91%	-84%	957%	-100%	-
Morelos	8%	25%	-85%	-67%	18%	31176%	-100%
Nayarit	206%	131%	-68%	-75%	14%	175%	-100%
Nuevo León	-99%	21359%	-100%	-100%	-	-25%	-100%
Oaxaca	68%	88%	-24%	-22%	-33%	-47%	-100%
Puebla	331%	113%	-54%	-72%	99%	2%	-100%
Querétaro	4%	696%	-60%	-90%	6%	-31%	-100%
Quintana Roo	7%	715%	-73%	-89%	115%	-22%	-100%
SLP	564%	75%	-18%	-90%	-20%	157%	-100%
Sinaloa	27%	301%	-80%	-17%	-32%	-100%	-
Sonora	-8%	161%	-87%	48%	8%	-58%	-100%
Tabasco	1165%	158%	-85%	-78%	35%	295%	-100%
Tamaulipas	581%	81%	34%	186%	-56%	524%	-100%
Tlaxcala	488%	235%	-77%	-100%	-	-100%	-
Veracruz	210%	64%	7%	-39%	167%	148%	-100%
Yucatán	-52%	1202%	-84%	-63%	372%	-78%	-100%
Zacatecas	75%	-33%	-98%	-100%	-	-73%	-100%
Compartidos	-	-	-	-	-	6%	333%
Sin Clasificar	-19%	19%	-15%	-8%	-10%	127%	-17%
Average	132%	2381%	-42%	-60%	1124%	984%	-83%

Annex E

#### Under spending and overspending for each year and state

	1998	1999	2000	2001	2002	2003	2004	2005	Average
State									
Aguascalientes	40.8	16.9	-2.5	-0.1	0.0	-4.2	-1.2	0.0	6.2
Baja California	66.0	-32.8	11.5	26.6	0.0	-24.3	-1.0	0.0	5.8
Baja California Sur	51.0	16.9	-2.5	-0.4	0.0	-6.5	-0.6	0.0	7.2
Campeche	40.2	17.1	-3.4	-39.8	0.4	-6.4	-1.5	0.0	0.8
Coahuila	61.0	22.3	2.8	-4.7	0.4	25.0	-2.7	0.0	13.0
Colima	47.7	49.5	74.2	130.7	78.7	116.8	5.5	0.0	62.9
Chiapas	27.0	9.3	0.2	-9.1	2.4	-3.7	-1.2	0.0	3.1
Chihuahua	67.7	-13.0	64.5	9.3	14.4	101.6	-25.4	0.0	27.4
Omnaanaa	01.11	10.0	0 1.0	0.0		101.0	-	0.0	
DF	30.4	79.4	7.6	3.9	65.4	-3.3	138.3	0.0	5.6
Durango	10.9	-0.2	-7.0	-2.7	50.0	52.6	-0.1	0.0	13.0
Edo. de México	0.0	-0.3	-99.4	6.5	-4.3	-4.4	-0.2	0.0	-12.8
Guanajuato	16.2	-19.9	100.1	71.8	166.9	-27.1	0.4	0.0	38.5
Guerrero	-1.5	-1.0	4.5	1.0	-0.3	-1.9	0.0	0.0	0.1
Hidalgo	-72.7	-35.2	76.0	94.1	94.7	-19.5	2.2	0.0	17.5
Jalisco	37.9	19.3	3.7	-0.3	35.6	38.8	41.9	0.0	22.1
Michoacán	14.8	7.3	-7.5	-2.6	1.3	-1.7	0.0	0.0	1.5
Morelos	37.4	-22.9	-2.4	31.5	-0.3	-2.5	430.4	-0.2	-48.7
Nayarit	10.9	4.9	10.2	0.9	0.3	-1.0	1.7	0.0	3.5
Nuevo León	40.8	16.9	-2.5	-0.1	0.0	-4.2	-1.2	0.0	6.2
Oaxaca	3.2	4.9	21.6	40.5	-1.6	7.3	0.3	0.0	9.5
Puebla	29.2	-33.8	9.4	9.7	90.3	-14.6	18.4	0.0	13.6
Querétaro	15.1	2.3	30.8	0.1	12.9	12.0	0.4	0.0	9.2
Quintana Roo	7.8	-1.7	16.2	-2.4	-1.5	0.0	-2.6	0.0	2.0
SLP	19.3	18.7	119.4	-24.7	-5.1	7.1	-15.4	0.0	14.9
Sinaloa	0.4	3.7	7.6	-10.2	1.3	-4.2	0.0	0.0	-0.2
Sonora	12.4	8.6	-17.5	-1.6	-3.9	-2.2	2.5	0.0	-0.2
Tabasco	13.8	11.2	49.8	10.6	-2.3	18.9	-20.4	0.0	10.2
Tamaulipas	4.8	-73.3	188.1	112.6	38.4	129.9	13.3	0.0	51.7
Tlaxcala	8.8	4.1	-3.9	3.1	0.5	-5.2	0.0	0.0	0.9
Veracruz	19.4	-8.1	112.7	-15.7	182.6	-74.0	-58.3	0.0	19.8
Yucatán	9.0	7.7	-8.0	4.8	3.6	3.0	1.3	0.0	2.7
Zacatecas	5.1	3.0	-2.6	0.2	0.0	-1.8	-0.5	0.0	0.4
TOTAL ANUAL	21.1	2.5	23.5	13.9	25.7	9.4	-19.2	0.0	9.6

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