

Decuir-Viruez, Maria Luisa

Conference Paper

Institutional Factors and Economic Growth in Mexico - Two regional case studies - Aguascalientes and Veracruz (1970-2000)

45th Congress of the European Regional Science Association: "Land Use and Water Management in a Sustainable Network Society", 23-27 August 2005, Amsterdam, The Netherlands

Provided in Cooperation with:

European Regional Science Association (ERSA)

Suggested Citation: Decuir-Viruez, Maria Luisa (2005) : Institutional Factors and Economic Growth in Mexico - Two regional case studies - Aguascalientes and Veracruz (1970-2000), 45th Congress of the European Regional Science Association: "Land Use and Water Management in a Sustainable Network Society", 23-27 August 2005, Amsterdam, The Netherlands, European Regional Science Association (ERSA), Louvain-la-Neuve

This Version is available at:

<https://hdl.handle.net/10419/117456>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.

Paper to be presented at the 45th ERSA Congress 2005 on
"LAND USE AND WATER MANAGEMENT IN A SUSTAINABLE NETWORK SOCIETY".

Vrije Universiteit Amsterdam

August 23th-27th , 2005

Young Scientist Sessions

INSTITUTIONAL FACTORS AND ECONOMIC GROWTH.
TWO REGIONAL CASE STUDIES: AGUASCALIENTES AND VERACRUZ (1970-2000)
Maria Luisa Decuir -Viruez

University of Kent
Department of Economics
Canterbury, Kent CT2 7NP
Tel. (44) 227 827679 Fax. (44) 227 827850
Email: ld24@kent.ac.uk

August, 2005

Preliminary

Keywords: Institutions, Regional Growth, Mexico, Aguascalientes, Veracruz.

Abstract

This paper examines the role of institutional factors in the economic growth of Mexican regions. Following on from the documents presented at the ERSA Annual Conferences of 2003/4, it contains an analysis of two of these regions and seeks to illustrate the characteristics and evolution of their institutional frameworks as well as their relationship with economic growth. The regions are Aguascalientes - one of the most successful cases in Mexico in the period 1970 to 2000 - and Veracruz - one of the most lagging regions for the same period. The aim of this paper is to find the institutional elements (incentives, rules, laws and informal agreements) that are behind the economic variables, and, ultimately, to evaluate whether they have helped these regions to have better results in terms of growth. Market orientation, the strategic sectors, their instruments of promotion and export and Foreign Direct Investment projects (fiscal incentives, installation and administrative facilities) were all evaluated at local level. The fluctuations of local public finances and the level of financial autonomy were also included in the analysis. In order to evaluate the relationship between of these variables and growth, we perform a series of OLS regressions with dummy variables for the periods 1970-1985, 1985-1994 and 1994-2000. With the results of this paper this research intends to contribute to the understanding of the relationship between institutional features and regional growth.

JEL: R11

Introduction

The principal objective of this research is to show how institutions affect growth in the regions of Mexico. Institutions can be understood in many different ways; in this research we have selected a group of characteristics that can be identified with formal and informal institutional features, following North (1991) definition as “the rules of the game or the man-designed limits that determine the forms of social relationships and the incentives that modify human interaction”.

The research has focused on the role of the local government and those institutional characteristics that explain how the local economic strategy has had an effect on growth. These institutional characteristics has been limited to those existing in the productive sphere of the regions and within it, we have focused on those relations with *local economic activity, exports, FDI flows, and local public finances*.

Previously, we have measured and identified a typology of regions; the results showed dynamic (non traditional) and passive (traditional) economic policies (Decuir, 2004). The final aim of the project is to evaluate whether a particular institutional structure can promote or hinder regional economic growth¹.

A complementary aspect to be considered in our institution definition is a group of characteristics related to the social capital of the localities. These are: *trust-preference for a political party, turnout level, polarization of population, level of insecurity and institutional density*. The reason for including them in the set of variables is mainly to absorb some informal institutional links; such information can depict different scenarios for a particular economic variable.

The criteria for selecting the variables used in the earlier phases of this research (Decuir, 2003) were constrained by the temporal and geographical availability of the information. Only the variables that were recorded for the period 1970-2000 for each one of the thirty-

¹ *Complementary aspects considered in the institutional aspects are the characteristics of the social links in the localities. These elements are the political preferences, the turnout level, the polarization of population, the level of insecurity and the institutional density. This information could absorb some informal institutional links; these indicators are able to depict different scenarios for a particular economic variable.*

two Mexican states were included. Despite the lack of information, the variables selected do show connections with the local institutional features. In order to strengthen the analysis, we considered it was necessary to identify and analyse the characteristics behind the variables. This was done through direct contact with the local authorities documenting the economic, political and social information. In a period in which quantitative information is scarce and institutional indicators are absent, the case studies provided detailed information about the local institutional development.

The case studies prepared for this research are two regions selected by a cluster analysis. One case illustrates a successful region (Aguascalientes) and the second one a lagging region (Veracruz)². This document is divided in five sections. The first section refers to the methodology used for the case studies. The second and third sections summarize the main characteristics of the studies, some OLS regression with dummy variables have been included. A series of tables are included in the appendix, in which the institutional changes are presented with more detail.

I. Methodology

The principal steps in the methodology employed for the case studies are explained in this section. This research proposes that this exercise could be used in future studies for other regions. In order to find the institutional characteristics of Aguascalientes and Veracruz³ the main aspects researched were: a) The economic strategy; b) The export activities; c) The local FDI flows and d) The local public finances management

The information gathered data from each one of the past local administrations (1970-2000), in some cases it refers to the periods: 1968-1974, 1974-1980, 1980-1986, 1986-1992, 1992-1998 and the first two years of 1998-2004. The techniques employed were mainly documental research (official reports, newspapers and memories from historical archives, as well as local newspapers). In addition, if conditions were favourable, some interviews

² These states were selected from the cluster analysis previously prepared, Aguascalientes belongs to Cluster 7 and Veracruz to Cluster 3. (Decuir 2004)

³ June and July 2004

with key informants and authorities were included⁴. These qualitative aspects are added to the quantitative information found before.

Identification of the Region

The first step consists in identifying each state with a particular political party for each period. This information sets a starting point for analysis, as it defines whether a state has remained under the control of the Partido Revolucionario Institucional (PRI)⁵ or has moved to an opposition political party (Acción Nacional –PAN or another). The result is compared with the data regarding trust-preference for a political party and the level of turnout. Indirectly, the identification of the region can also involve the other group of characteristics of social capital: the levels of polarization and insecurity. In this way, the informal institutional features help to define a particular scenario for a local government, which has a specific economic strategy.

Orientation: The local economic strategy.

The second action is to recognize the main objective market of local economic strategy, the strategic sector(s) and formal measures that have been implemented to promote the economic activity. Such measures correspond to the rules given by the federal and local governments. The possibility of informal arrangements is also taken into account in this section. The information supports in an indirect way the explanation of the performance of the regions through the variable of Economic Growth.

External Links: Exports and FDI

The next stage aims to identify the characteristics and the importance of the export sector and Foreign Direct Investment (FDI) flows in the economic strategy, as well as the formal measures that have been implemented to promote these activities. Such measures correspond to the rules made by the federal and local governments. The possibility of informal arrangements for promoting export-oriented activities and FDI flows is also taken into account in this section. Finally, we investigate how the agents become involved in this

⁴ *The interviews with academics and ex-members of the local governments were realised in the region in July 2004. For Veracruz, there were not proper conditions for realising any interview. However, for Aguascalientes we interviewed: Ex-Governor of Aguascalientes Refugio Esparza; Ex-Minister of Local Government Carlos Lozano; President of the Labour Union (CTM) Alfredo Gonzalez.*

⁵ *PRI is a political party that had ruled Mexico for 70 years (in the national and sub-national levels).*

activity. The information obtained supports and explains the behaviour of the export and FDI variables.

Local Public Finances

Although this section refers mainly to the data of local public finances, it also tries to collect information about principal modifications of fiscal regulations, priorities and sources in the budget of local government. The aim of this section is to provide an institutional explanation for the behaviour of public investment and expenditure, as well as assess the financial autonomy in each region in the period 1970-2000.

Others

A final step aims to collect information about organizations and associations involved in productive aspects we have considered before. The industrial census helps to calculate the institutional density of each state (Putnam's and Olson's types)⁶. This step identifies particular characteristics of the institutional structures in each region with more detail; followed by the evaluation of this classification with the economic growth attained. Literacy, ethnic population and crime rates are also included as factors that could separate sectors within a population.

II. General Characteristics of Regions

According to the cluster analysis, Aguascalientes belongs to a group of regions that in 1970 had a moderate level of financial autonomy⁷, independent from central government⁸, with a strong initial level of human capital (literate and low ethnicity), institutional density⁹, although with a poor participation in elections. Its exports were slightly above the mean. In the following thirty years, the cluster has controlled the size of its public expenditure and investment, and also has increased its exports and FDI flows. Its population became more participative in elections and defined its preference for opposition parties. The cluster

⁶ Associations classified according to their objectives: rent-seeking aims (Olson's) or social network development (Putnam's). Olson-type includes: entrepreneurial, commercial and production groups; labour unions; professional associations. Putnam-type considers social and religious and handicapped assistance groups, civil organizations, social, recreational and sport associations.

⁷ Financial Autonomy is measure as the ratio of tax income and public revenue, in order to see how important local sources of income are.

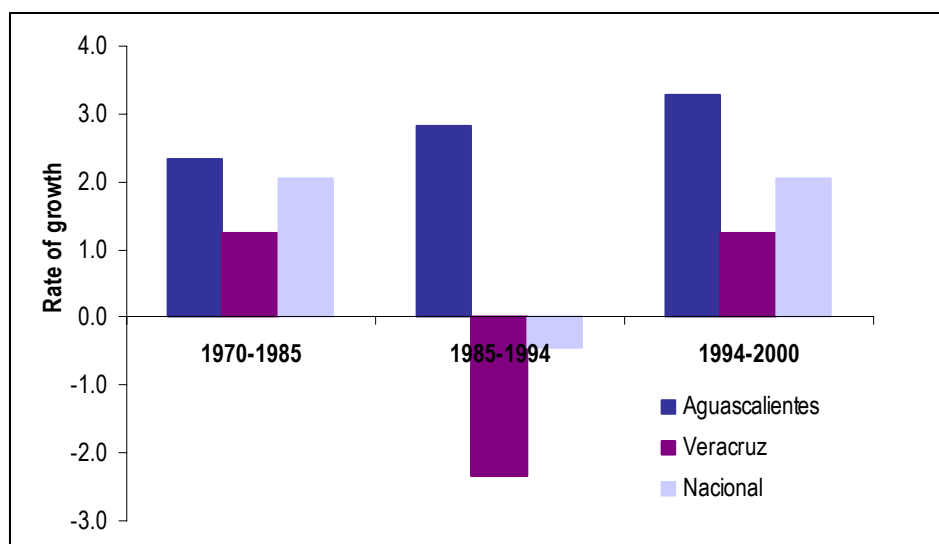
⁸ This independence refers to the size of public investment and expenditure with respect to the GDP

⁹ It refers to the number of associations per 10,000 habitants.

adopted non traditional economic policies and also became more involved in the global flows of exports and foreign investment.

In contrast, the second case: Veracruz belongs to a cluster composed by regions which size of public investment and expenditure were below national mean, with exception of its administrative expenditure in 1970. Their financial autonomy was not high and the levels of exports and Foreign Direct Investment were below the mean of the country. Meanwhile, their population had a low literacy rate and was not participative in elections. In the following years, these regions became traditional and more dependent on central government after 1985. The public investment increased more when compared with other regions, meanwhile internal income capacity declined. Additionally, the exports and FDI flows decreased during the period. Not only the cluster adopted traditional economic policies but also remained behind in the global flows of exports and foreign investment. This profile is accompanied by a low literacy rate, a preference for PRI and an important ethnic population.

Figure 1. Growth Rate of GDP per capita



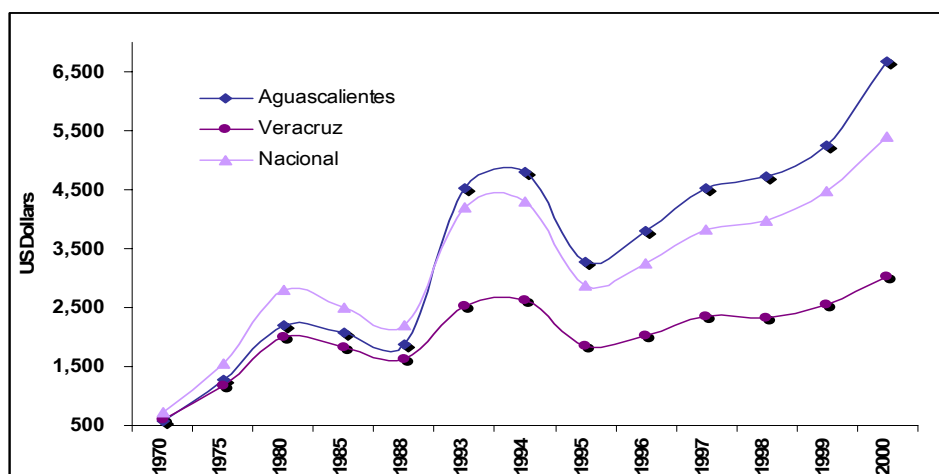
Source: INEGI, 2000

a) Differences in Growth and Levels of GDP per capita

Aguascalientes has been growing at an average annual rate of 2.7 in the period 1970-2000 and has performed at a constant positive rate above the national mean in each one of our

phases of study (1970-1985, 1985-1994 and 1994-2000). It has been the third highest rate of growth for the whole period. Meanwhile, Veracruz grew at an average rate of 0.2 percent in the same period; which is among the bottom-ten states (23rd position). This state has always been below the national rate. The fall in 1985-1994 was more drastic for Veracruz than for Aguascalientes, as we can see in figure (1)

Figure 2. Levels of GDP per capita



Source: INEGI, 2000

In terms of GDP per capita levels, Aguascalientes also shows a better development than the national income - at least after 1993. In 2000, this represents 2.20 times the initial amount of 1970. The GDP per capita of Aguascalientes represented 0.79 times the national level in 1970 and increased to 1.19 times in 2000. In international terms, Aguascalientes has progressed from a standard of life similar to Gabon in 1970 (US \$ 670 per capita) to that of the Seychelles in 2000 (US \$6'730)¹⁰.

Veracruz has had a decreasing trend since 1985 and always below the national income. Despite the new increasing tendency observed after 1996, the GDP per capita of 2000 only represents 1.05 times the initial amount of 1970. It appears that, between 1970 and 2000, Veracruz has not improved in terms of growth and levels of GDP per capita. There is an increasing distance between the local and the national average: the GDP per capita in Veracruz represented 0.81 times the national level in 1970 and dropped to 0.58 in 2000. As an international reference, this state began with a standard of living similar to Gabon in

¹⁰ These estimations are based on World Bank and INEGI database.

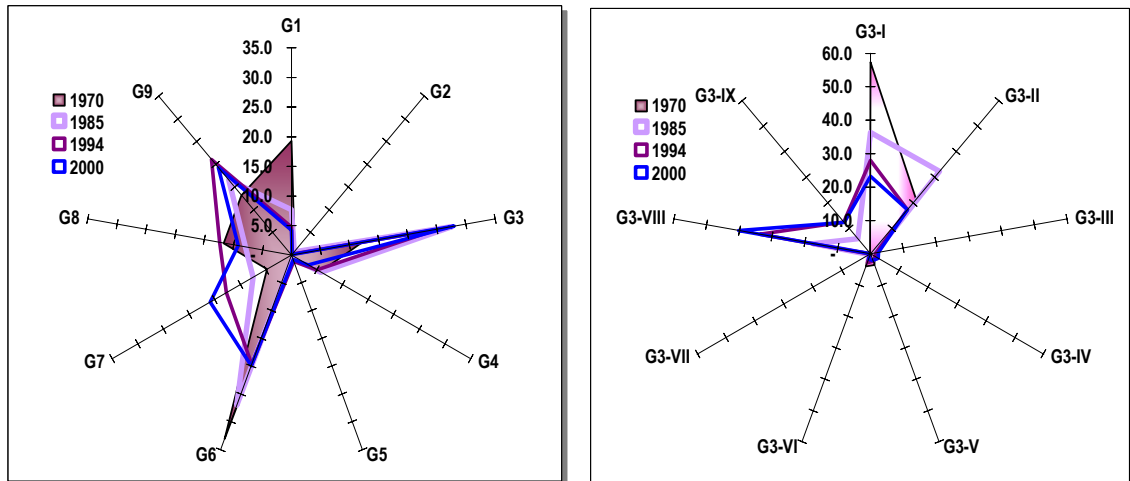
1970 (US \$ 670 per capita) and reached levels similar to South Africa in 2000 (US \$ 3,060)¹¹.

The questions that arise in our research are: which institutional characteristics are behind these rates? Is the result due to national or local government actions? How has the local government managed its economic strategy? We will try to answer these questions in the following sections.

b) Territory and GDP contribution

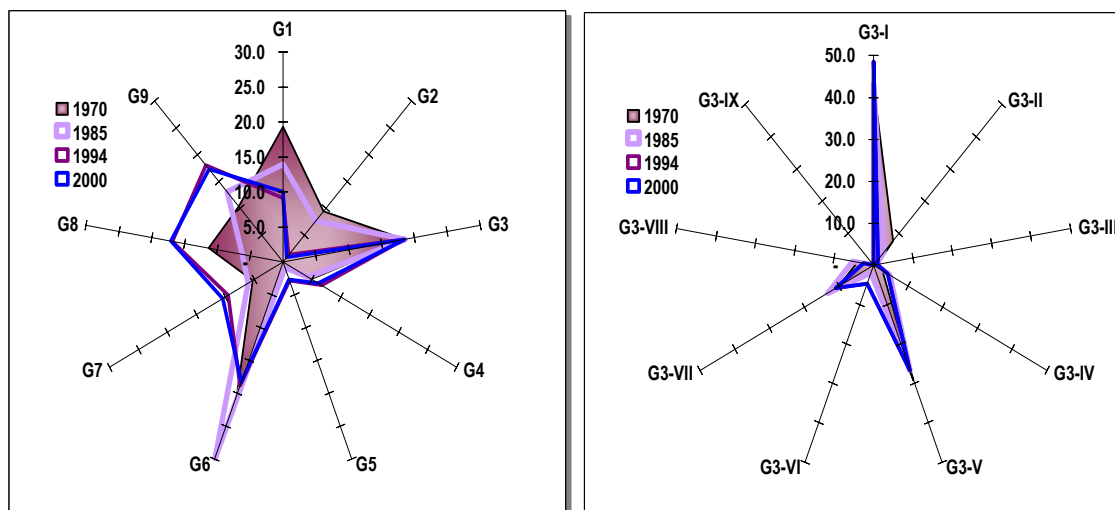
It is important to mention that in terms of territory, Aguascalientes and Veracruz are very different, meanwhile the first one represents 0.3 percent of the Mexican territory, and the second one is 3.7 percent. A similar trend is observed in their contribution to the national GDP: Aguascalientes with 0.95 percent and Veracruz with 5 percent. Despite these difference, our focus is on the institutional characteristics, in the form the local and federal authorities modify their local economic strategic and the consequences on terms of growth.

**Figure 3 Aguascalientes. Productive Specialization 1970-2000
General Activity and Manufacturing Industry**



¹¹ The estimation is based on World Bank and INEGI database.

**Figure 4. Veracruz. Productive Specialization 1970-2000
General Activity and Manufacturing Industry**



*Note: G1- Agriculture, Silviculture and Fishing; G2 - Mining Industry; G3 - Manufacturing Industry; G3-I - Food, Beverage and Tobacco Industries; G3-II - Textile, Garment and Leather Industries; G3-III - Wood and Wooden Products Industries; G3-IV - Paper, Paper Product, Printing and Publishing; G3-V - Industrial Chemicals, Petroleum, Rubber and Plastic Products; G3-VI - Non-metallic Mineral Product Industries except petroleum and coal products; G3-VII - Basic Metallic Minerals Industries; G3-VIII - Metallic Products, Machinery and Equipment; G3-IX - Other Manufactured Products; G4 - Construction Industry; G5 - Electricity, Water and Gas; G6 - Commerce, Restaurant and Hotels; G7 - Transport, Storage and Communications; G8 - Financing Services, Insurance, Estate Agent's and Renting Activities; G9 - Communal, Social and Personal Services.
Source: INEGI, 2000.*

c) Changes in Productive Specialization

Aguascalientes has undergone a process of productive transformation, from an output dominated by agriculture towards one supported by manufacturing industry. This transformation evolved from food, beverage, tobacco and textile industries, to machinery and equipment production between 1970 and 2000 (Figure 3). This transformation was mainly a consequence of a series of local and federal measures taken at the end of the Seventies.

In contrast, the productive specialization of Veracruz has slowly evolved from an agricultural economy towards a services one from 1970 to 2000 (Figure 4). Its manufacturing sector has maintained a constant importance (18 percent of local GDP) based on natural resources exploitation (food, chemical products and basic metal industries). The evolution of Veracruz's specialization and performance has been mainly defined by Federal authorities, who have considered the energy sector a priority.

In the following sections, we explore the connections between the changes of the productive transformation and the institutional factors. Firstly, we show how federal and local government modified the productive profile, strategic market and sectors. Secondly, we review the main features in terms of public finances in order to evaluate the dependence or autonomy of the regions. This is followed by an examination of the characteristics of the external links. Finally, we include the characteristics of the informal institutions. The results presented in the next section have been summarised from the two original case studies, therefore we only present the most important features.

III. Aguascalientes: The successful case

1. The formal Institutional factor: The action capacity of Local government

a) General Activity¹²

According to this research, throughout the change in the productive specialization and market orientation of Aguascalientes in the period 1970-2000, national and local institutional measures have been influential in the following ways: firstly, the economic base of this region moved from agriculture to industrial activities. Within the latter, the focus shifted from textile and food packing industries to the metal-mechanical. This change is a consequence of the decentralisation process in the seventies. Meanwhile the most recent transformation –towards electronics and software production – has been decided by local authorities.

Through the projects “*Alianza para la produccion*” and the Plan of Industry and External Promotion 1983-1988, the National Economic Policy established the metal-mechanic sector as the important one. This was favoured by administrative facilities (incentives and credits) and financial resources for the construction of industrial corridors (FIDEIN)¹³. After 1986, the interference of federal authorities has lessened, with the external promotion of the state taken up more by the local authorities since then.

¹² More detailed information could be found in the table 1 in the appendix..

¹³ This is the trusteeship for the industrial development. (*Fideicomiso de Conjuntos, Parques, Ciudades Industriales y Centros Comerciales*).

Before 1986, the economic strategy of Aguascalientes limited its local authorities to provide a good infrastructure for the urban and industrial sectors. The first efforts towards its own economic strategy were begun in 1974, with the creation of the first Plan of Development for the state and the Office of Industrial Promotion. During the next administration (1980-1986), which corresponded to the period of the national crisis and macroeconomic reforms, the local authorities continued with the economic planning of the region and local industrial promotion¹⁴.

The next institutional modification -between 1986 and 1992- created laws and a committee for economic promotion. The external links were also emphasized with informal meetings and missions. In 1994, the last administration of PRI formalised the external promotion of industry through the creation the Commission of Economic Development and External Commerce. The final administration of our study (1998-2004) –under opposition party- instigated two changes in the economic strategy: a modification of the productive specialization towards electronics and software, and the creation of clusters which involved the educational, technological and research institutions. Finally in 1999, the local authorities issued the Law of Economic Promotion, Investment and Employment, which gave powers to the Secretary of Economic Development to establish measures to boost the economic activity of the state.

b) Public Finances and Income Capacity generation¹⁵

Public investment in Aguascalientes has changed its principal targets throughout the period 1970-2000. The resources from central government during the Seventies and Eighties helped to transform it from a rural agricultural region to a more urban industrial area. Between 1978 and 1981 public investment fostered the industrial sector by ensuring the provision of an adequate infrastructure. After 1982, the size of public investment decreased and the federal priorities were the development of social objectives and infrastructure

¹⁴ *In the following years, numerous enterprises were established in Aguascalientes: Distribuidora Estrategica, Lavaquik, Pietro Paolo Desseana, Pasteurizadora la Hacienda, Bordados Vianney, Texas Instruments de Mexico, Grupo Chinoín, Tejido GARCAMP, Spimex, Aceros Industrializados de Aguascalientes, Moretana, in 1987. In 1990, another group of enterprises were launched in this region, such as NISSAN Mexicana, Omnibus Integrales, XEROX, Agroindustrial Quezada, LAPROTEX, MABA, SANOI, KANTO, SEIKI, TACHI's, NISSHO IWAÍy and DUPONT.*

¹⁵ *More detailed information could be found in the table 2 in the appendix.*

projects (communication and transport). Meanwhile, the industrial development and economic promotion of Aguascalientes became a responsibility of local authorities.

In the OLS regression performed with different dummy variables for the three phases of study (1970-1985; 1985-1994; and 1994-2000); we find a negative relationship between the ratio of public investment (PI) and regional GDP with the growth of the GDP per capita for all phases. (Regression b) in Table 4a)¹⁶.

The public revenue of Aguascalientes used to be composed mainly of taxes in the Seventies. Since 1981, federal transfer became the main source. Temporarily, the process of privatisation provided extraordinary resources with the selling of public enterprises (1993-1994).

The generation of income by local authorities has decreased from 70 percent to 6 percent, this is the amount of internal resources as a proportion of total revenue. Among the measures used to increase revenue locally between 1968 and 1992, there have been administrative concessions, fiscal control program, and taxable land inventory. Some new taxes were created in 1990. However none of these measures achieved an increase in tax collection.

The federal transfers (“Participaciones”) were the main source of income and gave autonomy only to the municipalities. The decentralisation process managed to transfer fiscal powers and resources to municipalities after 1990, giving the local government (state) the role of intermediary. The process of decentralisation is an important issue in the analysis of the real financial autonomy of the Mexican regions; -however, because this topic deals with municipal level issues, it will not be considered in this research.

¹⁶ For this study, we have identified three phases: the period of Import Substitution Model (1970-1985), the early liberalization of the economy (1985-1994) and the NAFTA time (1994-2000). We use the coefficient sign as an indicative instrument of the relationships between the variables. This is because the results are not statistically significant and have a low explanation power. For regression b) the variables used were Public Investment (PI) as ratio of the regional GDP and the annual growth rate of Aguascalientes GDP. The observations covered this period 1970-2000. The sources of this data are INEGI (2000) and SIREM (2004).

In order to assess the relationship between financial autonomy and growth, an OLS regression (with dummy variables for the different periods) was performed¹⁷. The results show a positive relationship between the ratio of Internal Income and Total Regional Revenue with the growth of GDP per capita for Aguascalientes in the phase 1994-2000. Meanwhile in the two previous phases the coefficient is negative. Although none coefficient is significant, it could be expected that after an economy has grown, public revenue would increase when its main component is related to the income level (such as taxes).

Public expenditure of Aguascalientes has decreased the amount directed to administrative purposes, following the reforms implemented in the Eighties. The debt was reduced and under control since 1986. The proportion used for Economic promotion has decreased meanwhile municipal transfers have increased since the Eighties.

The decrease in the collection of taxes has been substituted by federal transfers “participaciones”. In terms of financial autonomy at state level, the region has made efforts to increase collection levels and to reduce fiscal evasion. The results have not been positive in the last two decades, despite the creation of taxes and the updating of the land and taxpayer registries. Aguascalientes could not be considered a financially independent region, although in comparison with the rest of Mexico, it is one of the least dependent states.

According to the OLS regressions performed, we find no relationship between the ratio of public expenditure and regional GDP with the growth rate of GDP per capita. (Regression a) in Table 4a)¹⁸. The coefficients are very close to zero. Considering the sign of coefficient, public expenditure has not been an instrument to promote growth in this region.

¹⁷ For regression c) the variables were Internal Income (INTINC) as ratio of total public revenue and the annual growth rate of Aguascalientes GDP. The observations covered the period 1970-2000. The sources of this data are INEGI (2000) and SIREM (2004).

¹⁸ The coefficient sign is used as an indicative instrument of the relationships between the variables. The results are not statistically significant and have a low explanation power. For regression a) the variables used were Public Expenditure (PE) as ratio of the regional GDP and the annual growth rate of Veracruz GDP. The observations covered the period 1970-2000. The sources of this data are INEGI (2000) and SIREM (2004).

c) External Links: Exports and FDI¹⁹

The composition of exports in have changed late seventies from agricultural and livestock products to manufacturing goods, which include textile, motor and electronics. This transformation continued in the Nineties towards sectors of higher added-value (software). The promotion of the export sector was mainly done by central government through national institutions, such as the Mexican Institute for Foreign Trade (IMCE) and the National bank of Foreign Trade (BANCOMEXT). However, since 1971, local authorities of Aguascalientes initiated a local committee for export promotion. For 1986, the exports of the state were identified with the most productive sectors. The export promotion during the Eighties was a joint-effort between local and federal government. The first local institution created with this aim was the Committee for the Promotion of Economic Development (COIDEA) in 1987. In the following years, the industrial policy had a strong component of export activity. The local plan 1992-1998 had a particular section for export activity.

2. The informal Institutional factors and networks

A more organized society

Aguascalientes has been characterized since 1970 by a high institutional density, in the case of the associations that aim to develop social links (identified as Putnam-type). This refers to social, religious and handicapped assistance groups, civil organizations, social, recreational and sport associations. However, the dominant type of association has evolved from recreational in the seventies (bowling and billiard rooms) to those dedicated to social assistance and recreational activities. This has coincided with the productive transformation towards a more industrial state, and a smaller government seeking sound public finances.

In the case of associations with an economic profit interest (named Olson-type), density has increased between 1970 and 1999 at a slow speed. The commercial and production groups were scarce when central government was more involved in the local economic strategy (Seventies), but the number increased when Aguascalientes was expanding economically under a more open policy.

¹⁹ *More detailed information could be found in the table 3 in the appendix..*

A more participative society.

The civic behaviour of the region has become more participative in the elections. When central government used to be more involved, the participation was not high. Between 1970 and 1982, -the period in which the PRI dominated all the electoral processes-, there was a strong connection between the national president and the governor of Aguascalientes. In 1970, there were at least 7 PRI votes for each one the opposition received. Since 1982, there has been continual reduction in the preference for PRI. The ratio fell to 1.7 votes in 1988, the year of the most controversial elections in which the electoral computing system collapsed and the victory was unfairly gained by the PRI.

The preference for the PRI experienced a major collapse when the opposition party (PAN) won the capital city of Aguascalientes in 1995; following the presidential elections of 1994, when the vote's ratio was almost one to one. In 1998, governor elections were won by the opposition. The cluster analysis shows that the population of Aguascalientes became more participative in elections between 1970 and 1994, with a stronger preference for opposition parties. Herrera (1996) denominates this action as "modern votes", where by the urban, educated and individual vote dominates the peripheral, that traditional vote for the PRI²⁰.

Some prices for urbanization with stable conditions: literacy and no ethnic conflicts.

Aguascalientes had one of the lowest rates of crime in the country between 1970 and 1980; however after 1981 the number of offences related to drugs issues became more common. A decade later, as a consequence of the rising number of these crimes, the many criminal associations and gangs that threatened the public increased the insecurity of the state. Moreover, the rise in the population, the change in productive activities and the intensive urbanization, have all increased the insecurity of the state in the recent years. Nevertheless the crime rate is low compared with the national average. The price, it seems, of becoming a pole of growth is that Aguascalientes has become less safe; this being the result of the evolution from a small town to a big city, with the typical troubles they have²¹.

²⁰ Herrera, E. (1996: 111)

²¹ Herrera, E. (1996:106).

Despite this problem, Aguascalientes has a homogeneous population. This is due mainly to a high level of literacy since 1970, -even higher than the national average. During these years, it has risen from 83.4 to 95.2 percent; meanwhile, the average years of education in Aguascalientes have increased from 3.5 to 8.4 years from 1970 to 2000. Another factor that reduces the risk of polarization is the percentage of indigenous population, which has decreased from 7.8 percent in 1970 to 0.2 in 2000 -less than 1 percent of the total indigenous population of the country.

IV. Veracruz: The lagging case

1. The formal Institutional factor: The action capacity of Local government

a) General Activity²²

Veracruz maintained a productive specialization strongly based on the agricultural sector, oil and raw material industries. Moreover, the food and chemical industries were the activities with greater participation in the output. This profile has been defined by the public enterprises situated in the state. After the Eighties, the productive profile of Veracruz combines these activities with a considerable commercial sector. The attempts to diversify the economic activities, -particular the industrial sector- have not been successful.

National Economic Policy through the Plan for Industrial Development (1977) created the expectation of acceleration in the industrialisation of Veracruz. This was planned to be achieved by means of administrative facilities (incentives and credits) in priority zones and the giving of financial resources for the construction of industrial corridors, such as “El Fambroyan”. Simultaneously, public investment favoured the petrochemical parks in the region, which resulted in more success than the industrial parks.

The financial crises in 1982 and 1994 diverted the national and local priorities and resources. Not only had the region to follow the adjustment measures in terms of public finances, but it was also affected by the reduction in the flow of public investment in to the strategic sectors. Nevertheless, the participation of the central government in the region has

²² *More detailed information could be found in the table 5 in the appendix.*

been strong until 1997²³, and at the end of the century, the region relies on the financing and export promotion programs granted by the national development banks.

In the case of the local economic strategy of Veracruz, this one has been limited by the national plans and programs. From 1970 to 1985, the role of local government consisted in employing the federal financial resources according to the national rules (National Plan of Industrial Development) and formalizing the land properties registry. The control of the local economic strategy was assumed by the Office of Industry, Commerce and Statistic in 1975; four years later this role was taken by the Commissions of Regional Development and Socio Economic Development.

The crises in 1982 and 1994 modified the objectives of diversifying the industrial sector towards attending to the emergencies of social and financial support. It was not until in 1997, when the local government could set the formal organizations and institutions that could encourage the local economic activity. However this strategy has two considered two issues: firstly, to alleviate the problems of extreme poverty and income inequalities and secondly, to integrate its primary and industrial sectors to the global markets with a ten-year lag. These activities were assigned to the Local Council of Economic Promotion and the Secretary of Economic Development²⁴.

b) Public Finances and Income Capacity generation²⁵

Public investment in Veracruz has maintained the energy sector as a priority from 1970 to 2000. Despite the federal authorities having defined the primary sector as a priority in this region, it has lost its importance in the regional GDP and moreover, the public investment received has decreased.

²³ *The industrial structure of Veracruz has been very vulnerable and dependent on the financial and industrial programs and projects of the central government. Many of the enterprises depend of the performance of the oil and iron industries. The public enterprises located in this state have defined also the relationship of the central and local governments (Amezcuca, 1990).*

²⁴ *The last administration with the creation of the Law of Economic promotion could be considered as the first formal institutions that has local interests.*

²⁵ *More detailed information could be found in the table 6 in the appendix..*

This situation has constrained the options and affected the attempts of the local authorities to diversify the industrial activity. Oil production has been dominant in the region and the rest of the industries have developed around it and depend on the performance of that sector. The dependence on these resources -through public investment in the energy sector- has conditioned any change in productive specialization in Veracruz.

From 1970 to 1982 Veracruz received an increasing proportion of public investment due to the expansionary policy of the federal government and the priority of oil production in the national plan. Since 1985, the resources were considerably reduced. However, public investment has increased slightly from 5 to 7 percent of the GDP after 1994. According to the OLS regression performed, we find a *positive* relationship between the ratio of public investment (PI) and regional GDP with the growth of the GDP per capita for the first and third phases (Regression b) in Table 8a)²⁶. There is a negative relationship in the period of crisis, recovery and adjustment of the Mexican Economy (1985-1994). The dependence of Veracruz on the public investment flows seems to have a connection with the growth trend.

Similar to Aguascalientes, the public revenue in Veracruz used to receive more taxes in the Seventies than in the last two decades. The local laws over certain activities allowed the local authorities to receive more income from the taxpayers, but at the end of Eighties all these instruments were cancelled. With no other option, the local government collected resources from the land registry, which is the reason why the following administrations (1982-1998) had as priority to enhance and update the land registry.

The crisis in the Eighties and Nineties forced the local government to restrict resources. Simultaneously, the scheme of "*participaciones*" transformed the main source of income. It increased the financial autonomy of the municipalities, but placed the regional government only as an agent that transfers resources to them.

The management of the public finances in Veracruz can be described as austere and less independent from central government in the period 1970 - 2000. Only in the last

²⁶ We use the coefficient sign as an indicative instrument of the relationships between the variables. This is because the results are not statistically significant and have a low explanation power. For regression b) the variables used were Public Investment (PI) as ratio of the regional GDP and the annual rate of growth of the GDP of Veracruz. The observations covered the period 1970-2000. The sources of this data are INEGI (2000) and SIREM (2004).

administration 1998-2004, new taxes were created in order to obtain resources for the promotion of local activities.

In order to assess the relationship between financial autonomy and growth, an OLS regression (with dummy variables for the different periods) was performed²⁷. The results show a positive relationship between the ratio of Internal Income and Total Regional Revenue with the growth of GDP per capita for Veracruz in the phases 1970-1985 and 1994-2000. In contrast, there is a *significant negative relationship* in the period 1985-1994. Considering these findings, we observe that a greater proportion of internal sources of regional public revenue are more likely to coincide with a period of positive growth. In the period 1985-1994, the increase of one percent in the internal income (INTINC) is related to a decrease of -0.95 percent in the rate of growth. Finally, in the phase 1994-2000, this effect coincides with an increase of 2.26 percent in growth.

The public expenditure reduced the amount directed to administrative purposes, following the reforms implemented in the Eighties and the federal measures to solve the financial crises. Another feature observed is the reduction of public debt and the increase in the resources directed to economic promotion. After 1983, municipal support became relevant in the local public finances.

The decrease in the collection of taxes has been substituted by the resources given the “*participaciones*”. However, other concepts could help the region to develop greater financial autonomy, such as fines, products, rights. On balance, there is no financial autonomy in Veracruz; the last administrations have not expressed any interest in developing this condition.

Despite the changes in composition, the size of public expenditure has increased, increasing from 6 to 14 percent between 1993 and 2000. According to the results of the OLS regression performed with different dummy variables for the three phases of study (1970-1985; 1985-1994 and 1994-2000); we find a *negative* relationship between the ratio of

²⁷ For regression c) the variables used were Internal Income (INTINC) as ratio of the total public revenue and the annual rate of growth of the GDP of Veracruz. The observations covered the period 1970-2000. The sources of this data are INEGI (2000) and SIREM (2004).

public expenditure and regional GDP with the growth of the GDP per capita for the first and second phases (Regression a) in Table 8b)²⁸. There is a small positive relationship in the period 1994-2000, when the ratio has increased from 8 to 14 percent. Considering the signs of the coefficients, public expenditure has not been an instrument to promote growth in this region.

c) External Links: Exports and FDI²⁹

The composition of exports of Veracruz has changed in the last years of the Nineties from coffee to manufacturing goods. Despite the changes, the export sector does not have a dynamic specialization; it still depends on oil and raw material production.

The promotion of the sector has been done by the central authorities since the Seventies, until 1995 there is a local organization and a series of institutions in charge of developing this sector. However, the main event that stimulated the export sector was the devaluation in 1995.

FDI was seen as a complement in the Seventies when the role of the local government was passive. The promotion and the registry of FDI was control led by central government. A more active performance is seen in the Nineties with the development of maquiladoras³⁰ in the region. However, the size of the FDI flows is relatively small.

2. The informal Institutional factors and networks

A society developing its organization.

Considering the Putnam-type institutional density, Veracruz has had slightly lower levels than the national average and from 1970 to 2000, the coverage increased from 1.5 to 4.5 associations for each 10,000 habitants. Similar to Aguascalientes, there is a reduction in the coverage in 1982, followed by an important development in 1994 and 1999. This behaviour

²⁸ *The coefficient sign is used as an indicative instrument of the relationships between the variables. The results are not statistically significant and have a low explanation power. For regression a) the variables used were Public Expenditure (PE) as ratio of the regional GDP and the annual rate of growth of the GDP of Veracruz. The observations covered the period 1970-2000. The sources of this data are INEGI (2000) and SIREM (2004).*

²⁹ *More detailed information could be found in the table 7 in the appendix.*

³⁰ *This type of industry refers to factories that import materials and equipment on a duty- and tariff-free basis for assembly or manufacturing, which later are exported.*

suggests that the development of groups that contribute to strengthen the trust and cooperation links tend to increase after the economic conditions improved in the region, as the data for 1999 illustrates. Considering the type of associations that constituted this density for Veracruz, we found that in 1970 the most common organizations were billiards, bowling and dancing rooms, night clubs and cabarets. In 1980, the dominant associations were the recreational and sport organizations, but also the political and religious associations. All these groups continued a strong development in 1989. For the last two censuses, Veracruz was the fourth state with the greatest number of recreational and sport associations.

The Olson-type institutional density for Veracruz has been greater than the national average since 1976. The coverage has increased from 0.1 to almost 2 associations per 10,000 inhabitants; greater than national standards. From 1970 to 1981, the number of commercial chambers and professional associations represented 4 percent of the national level; there were at least 80 centers. In 1986, commercial and production groups had an important development which was observable in the increasing number of associations registered, which included almost 12 percent of the total number in the country. In 1989 this percentage increased to 15 percent with 727 associations. In the most recent years, the number has oscillated between 800 and 1200. In the strong period of central government intervention and the closed economy, the number of profit-seeking groups was limited. However after 1986, the number of this type of associations increased even more than in Mexico City. The Olson-type associations in Veracruz show an increasing tendency regardless of the regional growth rate.

In the light of these results, we could indicate that the presence of Putnam associations in Veracruz has evolved from entertainment activities to the development of social assistance groups between 1970 and 2000. But the development of this institutional infrastructure has another characteristic. Veracruz has a reduction in the number of these of associations in the phases of crisis and transformation of the national economy (1985-1994).

A participative society with constant preference

Veracruz has been a region characterized by a high turnout in the presidential elections reaching levels above 70 percent, with exception of 1988. This region comprises between 7 and 8 percent of the electors in Mexico, a factor that makes Veracruz a strategic point for the national electoral battles. The local elections (1980, 1986, 1992 and 1998) have had a lower level of participation (less than 57 percent) and the last two reported a non participation rate of 59 and 49 percent, respectively. A feature observed in the turnout pattern of this state is the increase in the participation after the phase of crisis and transformation (1985-1994).

The political preference of Veracruz has slowly changed from PRI to Opposition parties; the preference in votes between the two major political parties (PRI and PAN) has decreased from 12 to 1 between 1970 and 2000.

The case of Veracruz illustrates two changes in its civic behaviour: firstly, the reduction in the turnout and secondly, the decrease in the number of votes in favour of PRI. From 1970 to 1994, Veracruz was among the main suppliers of votes for this political party³¹. At the beginning of the phase of crisis and transformation (1985-1994), the preference for PRI was high (24 votes per each opposition vote). It is also the phase, in which the electors start supporting the opposition parties. Despite the reduction in the ratio of votes between PRI and PAN, the region has not had a governor that belongs to the opposition parties (PAN, PRD).

Challenges for the region

During the period 1970-2000, Veracruz has accounted to between 3 and 5 percent of the total number of crimes in the country. Considering the density of crime, the ratio has increased from 0.5 to 1.3 crimes per 10,000 habitants. The highest levels of insecurity correspond to 1981, 1988 and 1995. The first peak is attributed to a rise in the actions infringing health laws –such as drug traffic-, fraud and smuggling. Meanwhile, in 1988 and 1995, the main causes of insecurity were the cases of fraud and stealing whilst occurred in

³¹ *Tabasco, Guerrero, Oaxaca, Chiapas and Hidalgo are the others main centres with the strongest preference for PRI.*

Veracruz. The increasing tendency of the crime density coincides with the period of economic difficulties in the region caused by the crisis of 1982 and its recovery process until 1991³². Within the period of analysis, the most insecure year for Veracruz was 1995 in which the number of cases of theft was the highest in the whole country.

Analysing the features that could reduce the polarization³³ of population, we observe that Veracruz was among the bottom-ten states in terms of literacy rate in 1970, in which 32 percent of its population did not know how to write and speak in the official language. From 1970 to 2000, the conditions of literacy improved in the region, reaching a level of 85 percent; however, the rate is still among the lowest five positions, five percentage points below the national mean. In terms of the average years of education in Veracruz, this has increased from 2.7 to 8.4.

Therefore, the factors that reduce the polarization of the population have mixed results. On one side, the degree of literacy has slowly improved having a positive effect in the reducing polarization. On the other hand, the ethnicity represents an important challenge for the region³⁴, as the level of indigenous population has slightly decreased from 11.4 percent to 10.4 between 1970 and 2000. Finally, the increase in insecurity has undermined the local social infrastructure in the last two decades.

In summary, Veracruz is a state that had developed a level of institutional infrastructure, but still below the national standards. However, the relationship with growth differs according to the type of association analysed. The density of Putnam-type associations increased only when the region had some growth (1970-1985 and 1994-2000). Meanwhile, the Olson associations have been increasing despite the tendency of the regional growth. This situation suggests that not all the Olson associations could be related with growth promotion. It is important to highlight that the institutional infrastructure of this region – when is compared with the rest of the country- is behind the national standards.

³² *Considering the phase 1985-1994, Veracruz finished with more crimes committed in 1994.*

³³ *This polarization refers to the division in the population that could occur due to lack of trust.*

³⁴ *The huasteco, nahuatl, otomi, popoloca, totonaca, zapoteca are the main ethnic groups existing in Veracruz, which meant 10 percent of the national ethnic population in 2000.*

In terms of social links, we observe a population that is less participative, with some degree of polarity given the levels of illiteracy and ethnicity. However the pattern of political preferences has still the PRI as the first option. As mentioned before, the crises and the transformation between 1985 and 1994 had strong effects on Veracruz. Not only the economic priorities were modified and the resources were diverted to solve the emergency, but also the institutional and the conditions were affected.

Conclusions

In the period 1970-2000, Aguascalientes has had ideal conditions for obtaining positive results in terms of GDP. The plans and programs have identified appropriate sectors and markets, given incentives and modified the productive profile. The macroeconomic reforms have affected its local public finances, but this has had a strong effect on growth because the dependence from central government is low. There is no financial autonomy, although there is fiscal equilibrium. Since the Seventies, the exterior links have been relevant, local government reacted before other regions and in the Eighties; this region is ready to compete with them. The social context is strong, which has reinforced the institutional changes. In terms of the associations, we observed that these ones increase after the region grows, especially those develop social links.

In the period 1970-2000, Veracruz did not have ideal conditions for obtaining high rates of growth. The control of the local economy by central authorities has limited the diversification of economic activities. The macroeconomic reforms affected public finances, reducing public investment and expenditure. The effect was strong due to the important dependence from central government. There is no financial autonomy. Export sector specialization is very limited and has been controlled by federal authorities. The sector was promoted after the NAFTA started to function, when not only had to improve its exporting sector but also compete with other regions. Meanwhile, the social context has implied challenges for the local authorities; low literacy, ethnicity and crimes had weakened the links of the population. Instead of supporting the local economic strategy, they represent problems that also need to be alleviated. In terms of associations, the Putnam associations develop after regions have grown.

References

- Decuir (2003) “The institutional factors of economic growth in Mexico” ERSA Congress 2003, Finland. Available at <http://www.ersa.org/ersaconfs/ersa03/cdrom/papers/264.pdf>.
- Decuir (2004) Measuring the Institutional Factors in the Economic Growth of the Mexican Regions 1970-2000. ERSA Congress 2004. Porto.
- Herrera, E (1996) Aguascalientes. Sociedad, Economía, Política, Cultura. Biblioteca de las Entidades Federativas. Centro de Investigaciones Interdisciplinarias en Ciencias y Humanidades. UNAM. 148p
- INEGI (1970-2000) . IX, X, XI Censos General de población y Vivienda. 1970, 1980, 1990 y 2000. México
- INEGI (1985) Anuario de Estadísticas Estatales. México.
- INEGI (1985) Finanzas Públicas, Estatales y Municipales 1970-1982. México.
- INEGI (1985) Sistema de Cuentas Nacionales de México. Estructura Económica Regional, Producto Interno Bruto por Entidad Federativa. 1970,1975,1980. México.
- INEGI (1990). Estadísticas de Seguridad y Orden Público. 1976-1989
- INEGI (1994). Estadísticas Judiciales No. 2. 1990-1993.
- INEGI (1999) Finanzas Públicas, Estatales y Municipales 1996-1999. México
- INEGI (1999) Sistema de Cuentas Nacionales de México. Producto Interno Bruto por Entidad Federativa 1993-1996. Aguascalientes.
- INEGI (2001). Finanzas Públicas Estatales y Municipales 1997-2000. México
- INEGI (2002). Estadísticas Judiciales en Materia Penal. N° 10.
- North, D. (1991) “Institutions”. Journal of Economic Perspectives, Vol. 5, No. 1. (Winter, 1991), pp. 97-112.
- World Bank (2000). World Development Indicators. . 1960-2000. CD-ROM

Aguascalientes

- Barberena, M.(1987). Primer Informe de Gobierno. Gobierno de Aguascalientes, Aguascalientes, México 180p.
- ----- (1987b). Primer Informe de Gobierno. Anexo Gráfico Estadístico. Gobierno de Aguascalientes, Aguascalientes, México 150p.
- ----- (1988). Segundo Informe de Gobierno. Gobierno de Aguascalientes, Aguascalientes, México 90p.
- ----- (1988b). Segundo Informe de Gobierno. Anexo Gráfico Estadístico. Gobierno de Aguascalientes, Aguascalientes, México. 212p.
- ----- (1989). Evaluación a mitad de la Jornada 3. Gobierno de Aguascalientes, Aguascalientes, México 165p.
- ----- (1989b). Tercer Informe de gobierno. Anexo Gráfico Estadístico. Gobierno de Aguascalientes, Aguascalientes, México 166p.
- ----- (1990). Cuarto Informe de Gobierno. Gobierno de Aguascalientes, Aguascalientes, México. 86p.
- ----- (1990b). Cuarto Informe de Gobierno. Anexo Gráfico Estadístico. Gobierno de Aguascalientes, Aguascalientes, México. 86p.
- ----- (1991). Quinto Informe de Gobierno. Gobierno de Aguascalientes, Aguascalientes, México. 92p.

- ----- (1991b). Quinto Informe de Gobierno. Anexo Gráfico Estadístico. Gobierno de Aguascalientes, Aguascalientes, México 96p.
- ----- (1992). Sexto Informe de Gobierno. Gobierno de Aguascalientes, Aguascalientes, México. 112p.
- ----- (1992b). Sexto Informe de Gobierno. Perfil Socioeconómico de Aguascalientes. Gobierno de Aguascalientes, Aguascalientes, México Noviembre 15.
- Camacho, F. (2000) Abriendo Fronteras. La Industria Automotriz, Textil y del Vestido en Aguascalientes. Instituto Cultural de Aguascalientes. Mexico. 300p.
- Esparza, R. (1975). Evaluación de un esfuerzo. Primer Informe de gobierno. Gobierno del Estado de Aguascalientes. Aguascalientes, México. 143p.
- ----- (1976). Evaluación de un esfuerzo II. Segundo Informe de Gobierno. Gobierno del Estado de Aguascalientes. Aguascalientes, México. 102p.
- ----- (1977). Evaluación de un esfuerzo III. Tercer Informe de Gobierno. Gobierno del Estado de Aguascalientes. Aguascalientes, México. 145p.
- ----- (1978). Evaluación de un esfuerzo IV. Cuarto Informe de Gobierno. Gobierno del Estado de Aguascalientes. Aguascalientes, México. 184p.
- ----- (1979). Evaluación de un esfuerzo V. Quinto Informe de Gobierno. Gobierno del Estado de Aguascalientes. Aguascalientes, México 225p.
- ----- (1980). Evaluación de un esfuerzo 1974-1980. Gobierno del Estado de Aguascalientes. Aguascalientes, México. 574p.
- ----- (1998). Charlas Informales. Algo de política y otras facetas. Instituto Cultural Aguascalientes. Primera Edición 1998.
- González, G. (1992) Desarrollo Económico y Social del Estado de Aguascalientes 1986-1992. Instituto de Investigaciones Económicas y Sociales. Lucas Alaman, A.C. México.
- Granados, O. (1992). Aguascalientes. Los retos frente al siglo XXI. Plan Estatal de Desarrollo 1992-1998. Poder Ejecutivo del Estado de Aguascalientes. México.
- ----- (1993). Primer Informe de Gobierno. Gobierno de Aguascalientes, Aguascalientes, México 100p.
- ----- (1994). Segundo Informe de Gobierno. Gobierno de Aguascalientes, Aguascalientes, México 79p.
- ----- (1995). Tercer Informe de Gobierno. Gobierno de Aguascalientes, Aguascalientes, México 77p.
- ----- (1997). Quinto Informe de Gobierno. Gobierno de Aguascalientes, Aguascalientes, México 190p.
- ----- (1998). Crecimiento Económico y empleo productivo. Aguascalientes hacia el siglo XXI. Gobierno del Estado de Aguascalientes 1992-1998.
- ----- (1998b). Finanzas públicas: instrumentos estratégicos. Aguascalientes hacia el siglo XXI. Gobierno del Estado de Aguascalientes 1992-1998.
- Guel, F. (1969). Primer Informe de Gobierno 1969-1970. Gobierno del Estado de Aguascalientes. Aguascalientes. México. 74p.
- ----- (1970). Segundo Informe de Gobierno 1970-1971. Gobierno del Estado de Aguascalientes. Aguascalientes. México. 74p.
- ----- (1971). Tercer Informe de Gobierno 1971-1972. Gobierno del Estado de Aguascalientes. Aguascalientes. México. 69p.

- ----- (1972). Cuarto Informe de Gobierno 1972-1973. Gobierno del Estado de Aguascalientes. Aguascalientes. México. 72p.
- ----- (1973). Quinto Informe de Gobierno 1973-1974. Gobierno del Estado de Aguascalientes. Aguascalientes. México. 76p.
- ----- (1974). Testimonio de una obra de gobierno 1968-1974. Gobierno del Estado de Aguascalientes. Aguascalientes. México 62p.
- ----- (1974). Testimonio de una obra de gobierno 1968-1974. Gobierno del Estado de Aguascalientes. Aguascalientes. 62p.
- Landeros, R.(1981) Primer Informe de Gobierno. Gobierno de Aguascalientes, Aguascalientes, México. 66p
- ----- (1982) Segundo Informe de Gobierno. Gobierno de Aguascalientes, Aguascalientes, México.123p
- ----- (1983) A tres años: La Tarea de un Pueblo. Gobierno de Aguascalientes, Aguascalientes, México.175p
- ----- (1984) Cuarto Informe de Gobierno. Gobierno de Aguascalientes, Aguascalientes, México.150p.
- ----- (1985) Quinto Informe de Gobierno. Gobierno de Aguascalientes, Aguascalientes, México.168p.
- ----- (1986) Sexto Informe de Gobierno. Gobierno de Aguascalientes, Aguascalientes, México.168p.
- ----- (1986b) Pueblo y Gobierno. Testimonio de una tarea cumplida. Gobierno de Aguascalientes, Aguascalientes, México.157p.
- Reyes, A. (1993) ¿Elecciones o designaciones? 50 Anos de Historia Electoral en Aguascalientes. Ensayos contemporáneos. Instituto Cultural de Aguascalientes. Mexico.
- ----- (1996) “El inicio de la alternancia en Aguascalientes” Gobierno del Estado de Aguascalientes. Oficina de la Coordinación de Asesores. Enero-Febrero.
- Salmeron, F.(1998) Intermediarios del progreso. Política y crecimiento urbano en Aguascalientes. Gobierno del Estado de Aguascalientes. Instituto Cultural de Aguascalientes. México. 314p.
- Secretaria de Programación y Presupuesto / Secretaria de Hacienda y Crédito Publico (1983). Informe sobre el gasto publico. México.

Veracruz

- Amezcua, H. (1990). Veracruz. Sociedad, Economía, Política, Cultura. Biblioteca de las Entidades Federativas. Centro de Investigaciones Interdisciplinarias en Ciencias y Humanidades. UNAM. 160p
- Blezquez, Carmen. (1986). Estado de Veracruz. Informes de sus gobernadores 1826-1986. Tomo XVIII, XIX, XX, XXI y XXII. Xalapa. 1ª Edición.
- Chirinos, P. (1993) Primer Informe de Gobierno. Gobierno del Estado de Veracruz. México.
- ----- (1995) Tercer Informe de Gobierno. Gobierno del Estado de Veracruz. México.
- ----- (1996) Cuarto Informe de Gobierno. Gobierno del Estado de Veracruz. México.

- ----- (1997) Quinto Informe de Gobierno. Gobierno del Estado de Veracruz. México.
- ----- (1998) Memoria del Estado de Veracruz. Seis años de Gobierno 1992-1998. Gobierno del Estado de Veracruz. México.
- Alemán, M. (1999) Primer Informe de Gobierno. Gobierno del Estado de Veracruz, México.
- ----- (2000) Segundo Informe de Gobierno. Gobierno del Estado de Veracruz, México.
- Gutiérrez, F. (1987) Primer Informe de Gobierno. Gobierno del Estado de Veracruz. México.
- ----- (1988) Segundo Informe de Gobierno. Gobierno del Estado de Veracruz. México.
- Delgado, D. (1989) Tercer Informe de Gobierno. Gobierno del Estado de Veracruz. México
- ----- (1990) Cuarto Informe de Gobierno. Gobierno del Estado de Veracruz. México
- ----- (1991) Quinto Informe de Gobierno. Gobierno del Estado de Veracruz. México
- ----- (1992) Sexto Informe de Gobierno. Gobierno del Estado de Veracruz. México

APPENDIX

Table 1. Main Institutional Changes in Aguascalientes Economic Strategy 1970-2000

Year	Priorities	Laws/Plans	Measures: Programs	Organization
FEDERAL				
1970	<p>Defines the agricultural sector as the main activity</p> <p>Decentralisation Process</p> <p>Metal mechanic sector as priority</p>	<p>Alianza para la producción (1976)</p>	<p>Financing Programs Supporting Activities Commercialization Programs</p> <p>Fiscal Incentives Construction of Industrial Parks (Ciudad Industrial in Aguascalientes 1972)</p> <p>Fiscal Incentives Credits Granting Financing programs Import Licenses and fiscal promotion certificate: CEPROFIS Trusteeships: FIDEIN, FOGAIN, FOMIN, FONEP, FONEI.</p>	<p>Local Branch of the Secretary of Industry and Commerce</p> <p>NAFINSA Agricultural Cooperative Bank</p> <p>Creation of Local Branches: Entrepreneurial Chambers for textiles and industry (1974).</p>
1985	<p>Decentralize Economic Activity creating poles of growth</p>	<p>National Plan of Development 1983-1988</p> <p>National Plan of Industrial and Export Promotion</p>	<p>Fiscal Incentives for National and Foreign Investment Credit Granting</p> <p>Second Industrial Corridor in Aguascalientes (North-South 1986)</p> <p>Three Future industrial corridors: Del Valle, Vergel and Altect. The last two supported by private sector.</p>	
1994	<p>Discipline of public finances and recover economic stability</p>	<p>Alliance for the Economic Recovery</p>		
<p><i>Source: Based on the reports of governors of Aguascalientes in the period 1970-2000.</i></p>				

Table 2. Main Institutional Changes in Aguascalientes Economic Strategy 1970-2000

Year	Priorities	Laws/Plans	Measures: Programs	Organization
LOCAL				
1970	Local government provide basic infrastructure services	Local Plan of Development (1979) / Urban Development Plan Unique Agreement of Coordination	Congress for the fruit and agricultural producers Creation of a Institute for textile sector	Creation of the Office of Industrial Promotion (1974) Committee for Social Development Promotion (1978) Committee for Public Administration
1985	Provide infrastructure in communications, transport and administrative services Promote the potential export sectors Optimization of public resources, sound finances and promotion of export sector	Local Development Plan 1980-1986 Local Industrial Plan 1980-1986 Changes to the Foreign Investment Law Plan Aguascalientes 1986-1992	Organization of Exhibitions, Congress and meetings Construction and promotion of the Industrial Corridors Administrate and promote the incentives for foreign investors Promote Financing programs Creation of Trusteeships for export promotion Organization of seminars, exhibitions and commercial missions to promote exports. Incentives, Credits and Assistant programs for SMEs. Program of International Technical Cooperation for SMEs	Creation of the Secretary of Industrial and Commerce Promotion Committee for planning COIDEA Consultative group Local Council of Industrial Promotion
1994	Promote local, national and foreign investment in the region in high competitive sectors More participative society with a governmental service of quality.	Local Development Plan 1992-1998 Law of Economic Promotion, Employment and Production (1999) Industrial Program 2020	Financing Programs through local funds: Asuncion and Aguascalientes.	Committee for Economic Development and External Commerce Secretary of Economic Development.
2000	Promotion of SMEs, subcontracting and new sectors of high technology.		Programs of Clusters of high technology	
<i>Source: Based on the reports of governors of Aguascalientes in the period 1970-2000.</i>				

Table 3. Main Institutional Changes in Aguascalientes Economic Strategy for the external sector 1970-2000

Year	Priorities	Laws/Plans	Measures: Programs	Organization
FEDERAL				
1970	National Market	Export National Program	Exhibitions in US, Canada. Fiscal Incentives for FDI projects. Concessions of foreign investors (1986)	Mexican Institute for External Commerce (1974)
1985	Attract FDI projects and develop external sector	Law of Foreign Investment (1986)	Trusteeships and Credits for export promotion. Creation of commercial agencies and the interior customs office Decentralization of textile fees.	National Bank of External Commerce (1987)
1994				
<i>Source: Based on the reports of governors of Aguascalientes in the period 1970-2000.</i>				

Year	Priorities	Laws/Plans	Measures: Programs	Organization
LOCAL				
1970	Agriculture sector and National Market		First Seminar of Export promotion (1970)	
1985	Promote Joint investment		Contacts with commercial offices abroad	
1994	Attract FDI projects and develop export sector Include SMEs in Export activity and promote subcontracting programs	Export orientation of the Local plan of development 1992-1998	Commercial missions Intensive programs of diffusion: Visits, fairs, exhibitions.	Committee of Economic Development CEDECO
<i>Source: Based on the reports of governors of Aguascalientes in the period 1970-2000.</i>				

Table 4a. Some Regressions for Aguascalientes 1970-2000

Dependent Variable: Rate of growth of GDP per capita (Aguascalientes)

	Constant	PE	PE*D8594	PE*D9400	R²	Adjusted R²
a)	2.4920	0.0059	0.0026	0.0232	0.02	-0.10
	0.7855	0.0577	0.0549	0.4542		
	Constant	PI(-1)	PI(-1)*D8594	PI(-1)*D9400	R²	Adjusted R²
b)	6.4343	-0.6474	-0.0739	-0.4635	0.09	-0.01
	2.8303	-1.6231	-0.2464	-0.7100		
	Constant	INTINC	INTINC*D8594	INTINC*D9400	R²	Adjusted R²
c)	3.2103	-0.1724	-0.3359	0.6930	0.01	-0.10
	2.6493	-0.1970	-0.3265	0.5245		

Significant at 5%

Table 4b. Some Regressions for Aguascalientes 1970-2000

Dependent Variable: Rate of growth of GDP per capita (Aguascalientes)

	Constant	X	X*D8594	X*D9400	R²	Adjusted R²
d)	2.7167	-0.2255	0.2060	0.3458	0.02	-0.09
	2.8381	-0.2379	0.2339	0.3750		
	Constant	FDI			R²	Adjusted R²
e)	6.6392	-3.1580			0.05	-0.14
	1.0381	-0.5050				

Significant at 5%

Table 5. Main Institutional Changes in Veracruz Economic Strategy 1970-2000

Year	Priorities	Laws/Plans	Measures: Programs	Organization
FEDERAL				
1970	Veracruz as one of the main food producers. Promotion of SMEs, agriculture industries, the national investment projects and the FDI as complement Self-sufficiency food production After Crisis of 1982: Maintain the productive plant and the employment level.	Alianza para la producción National Plan of Industrial Development (1977) Sistema de Autosuficiencia Alimentario (SAM) (1980) Law of Agriculture Promotion (1980) Programa Inmediato de Reordenación Económica (1983)	Trusteeship for the Industrial Center “Fambroyán” (Fiscal Incentives in priorities zones) Establishment facilities and subsidized prices in public services. Industrial Park “Fambroyán” (later B. Pagliani) transferred to local authorities in 1982. PIDER: Financing Support for Agriculture Activities.	Local Offices of the Mexican Institute for Coffee, the office of National fruit-production National Center of Sugar Industry (CNI), the National Institute of Coffee (INMECAFE) and NAFIN Creation of the public enterprises FERTIMEX (1984)
1985	Development of Agriculture sector and modernization of the infrastructure Prices Control Food Production Self Sufficiency, Diversification of Industry (1989)	National Program of Solidarity PECE Program for Production Organization	Financing programs for industrial Sector Activities in Industrial Parks are defined (Metal-mechanical, Agro-industries and Chemical Industries) Commerce of basic grains is protected and regulated. Trusteeship for industrial zones and parks.	NAFIN CONASUPO NAFIN
1994	Discipline of public finances and recover economic stability	Alliance for the Economic Recovery and Alliance for the Agriculture(1995) Reform of Constitutional Article 27 and Agricultural Law	Negotiations of liabilities among financial institutions and enterprises. Financing programs for SMEs and export-oriented enterprises. Promote the export activities and investment projects in the region (1998)	NAFIN, National Bank of Foreign Trade (BNCE) Creation of the Local office for the Mexican Council of Foreign Trade
2000				

Source: Based on the reports of governors of Veracruz in the period 1970-2000.

Table 6. Main Institutional Changes in Veracruz Economic Strategy 1970-2000

Year	Priorities	Laws/Plans	Measures: Programs	Organization
LOCAL				
1970	<p>Promotion of industries based on natural resources.</p> <p>Industrial Project based on: the decentralization, industrial parks, promotion of internal and external markets, incentives granted by the Federal Law of Industrial Promotion and the PNID.</p> <p>Primary activities become priorities</p>	<p>Law of Industrial Promotion (1970)</p> <p>Industrial Development program (PNID) (1979)</p> <p>The Urban and Rural Development Plan (1979)</p> <p>Local Agriculture and Forestry Programme (1980-1982)</p>	<p>Fiscal Incentives for National Investors and Technological Assistance</p> <p>First Meeting for the development of the industrial pole (Tuxpan-Rica)</p> <p>Trusteeships for SMEs</p> <p>Construction of an Industrial park in Cordoba by local entrepreneurs.</p> <p>Credits Granting and Financial Support.</p>	<p>Office for municipal planning and development is created (1968)</p> <p>Office of Industry, Commerce and Statistics (1975)</p> <p>Creation of the Commission of Regional Development and Committee of Socio-Economic Development (1979)</p>
1985	<p>Immediate Actions to attend priorities (physical and social infrastructure)</p> <p>Diversify industrial sector.</p>	<p>Local Law of Planning (1986)</p> <p>Local Development Plan 1987-1992</p> <p>Local Programme for Industrial, and Commercial Modernization (1990)</p>	<p>Reactivation of Agriculture: Credits granting, inputs, technical assistance, organization of producers)</p> <p>Support of Raw Material Industry and Commerce: regulation, organization and technological support.</p> <p>Fund of Industrial Promotion of Veracruz (1991)</p>	<p>Planning Committee for Veracruz Development</p> <p>Local Committee for Municipal Development (1990)</p> <p>Center for the development of Micro-enterprises(1993)</p>

(Continue) Table 6. Main Institutional Changes in Veracruz Economic Strategy 1970-2000

Year	Priorities	Laws/Plans	Measures: Programs	Organization
1994	Alleviate poverty and inequalities. Maintain the employment level.	Local Plan of Development 1993-1998 Local Economic Promotion Law (1997)	Protection Mechanism in the granting process of the economic incentives for investment Creation of the first private industrial park Ixtac (1998)	Permanent Consulting Council for the Economic Development of Veracruz (1994) Local Council of Quality (1994) Institute for the Quality for Veracruz (INVECA)
2000	Maintain sound finances, encourage economic activities, attract investment, jobs creation, alleviate extreme poverty and income inequalities.	Development Plan and Economic Development Program for Veracruz 1999-2004	Organization in charge of controlling the concession of economic incentives. Measures to integrate the local economy to the national and international markets. New plans for four new public industrial parks: Panuco, Orizaba, Nanchital and Las Bajadas.	Secretary of Economic Development Local Council of Economic Promotion Local Council of Regulation Enhancement (2000) Council of Investment in Veracruz (COINVER)

Source: Based on the reports of governors of Veracruz in the period 1970-2000.

Table 7. Main Institutional Changes in Veracruz Economic Strategy for the external sector 1970-2000

Year	Priorities	Laws/Plans	Measures: Programs	Organization
FEDERAL				
1970	Industrial project included an export promotion policy	National Plan of Industrial Development	International Promotion and informal contacts with investors from Japan, Yugoslavia, France and Italy. IMCE organized: fairs, missions, courses, seminars (1974-1975).	Creation of the Local offices for the Commission of Foreign Trade and the Mexican Institute of Foreign Trade (IMCE) (1972)
1985			Trusteeships for the internationalization of Veracruz. Courses of export training, commercial missions to Japan and Corea. Fiscal concessions to Maquila industries.	National Bank of Foreign Trade (BANCOMEXT)
1994			ALTEX PITEX ECEX	National Bank of Foreign Trade (BANCOMEXT) and SECOFI
<i>Source: Based on the reports of governors of Veracruz in the period 1970-2000.</i>				

Year	Priorities	Laws/Plans	Measures: Programs	Organization
LOCAL				
1970				
1985		Law of Economic Promotion	Promote exports and FDI projects Promotion of NAFTA regulations among producers and foreign investors	Creation of the Coordination of International Projects (1989) Commission for Export Promotion COMPEX (1992)
1994	Integrate Veracruz to the National and International Market	Law of Economic Promotion 1998	Local resources + Federal programs of export promotion	Local Program of Export promotion and foreign trade.
<i>Source: Based on the reports of governors of Veracruz in the period 1970-2000.</i>				

Table 8a. Some Regressions for Veracruz 1970-2000

Dependent Variable: Rate of growth of GDP per capita (Veracruz)

	Constant	PE	PE*D8594	PE*D9400	R²	Adjusted R²
a)	1.2640	-0.1340	-0.1939	0.1988	0.11	0.01
	0.7956	-0.3271	-0.9864	0.6938		
	Constant	PI(-1)	PI(-1)*D8594	PI(-1)*D9400	R²	Adjusted R²
b)	0.8794	0.0166	-0.2242	0.1527	0.18	0.08
	0.5730	0.2241	-1.5624	0.5291		
	Constant	INTINC	INTINC*D8594	INTINC*D9400	R²	Adjusted R²
c)	-0.3406	1.2895	-2.2395	1.9694	0.29	0.21
	-0.4571	1.8865	-2.6681	2.1843		

Significant at 5%

Table 8b. Some Regressions for Veracruz 1970-2000

Dependent Variable: Rate of growth of GDP per capita (Veracruz)

	Constant	X	X*D8594	X*D9400	R²	Adjusted R²
d)	0.4649	0.2893	0.4998	-0.2797	0.04	-0.07
	0.8026	0.5257	0.8638	-0.5112		
	Constant	FDI			R²	Adjusted R²
e)	1.6391	-1.6871			0.02	-0.18
	1.5572	-0.3084				

Significant at 5%

Map 1. Aguascalientes and Veracruz.

