



SUBNATIONAL DEVELOPMENTALISM FOR THE NEW CENTURY

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**Abstract**

Economic opening and the dearth of federal-sponsored sectoral industrial policies pose a novel challenge for subnational governments at the dawn of the new century. This paper will argue that rather than the Mexican state entirely abandoning industrial policy, what really happened was that developmentalist functions were transferred to or appropriated by the subnational level. To do so, two states in the Mexican Republic whose sectoral industrial policies sharply contrast with the federal government-level backpedaling were examined. The literature of “new developmentalism” will serve as the backdrop to this new subnational role in Mexico, marking a divergence from the neoliberal paradigm at the federal level.

**Keywords:** Nuevo León, Querétaro, industrial policy, subnational governments, new developmentalism, industrial clusters.

**INTRODUCTION**

The Mexican state’s “relative abandonment” of industrial policy really began to register in 1982, a stance that has eminently prevailed into the present day (Trejo, 2017, p. 85). By the turn of the century, the governors quickly realized that the federal government had turned away from the interventionism it had so blatantly pursued over the course of the twentieth century. And, to make the situation worse for the states, the accelerated adoption of a neoliberal model in the nineteen-eighties and nineties prompted even bigger challenges for domestic industry.

These new challenges arose in the midst of the advent of the internationalization of industry, in which open markets made it possible for the large multinationals to crowd out domestic industries (Carrillo and Salinas, 2010). With that said, the *maquiladora* industry model emerged as the principal tool for industrialization in Mexico, especially after the North American Free Trade Agreement (NAFTA) was signed. As the model sank in, domestic industry was displaced, wages became increasingly precarious, and the (primarily foreign) export industry and domestic industry grew further apart (Peters, 2000).

As a result, the Mexican government’s abdication of its role as industry policymaker and investor in development exacerbated the challenges facing the national industries. This new context placed new importance on the subnational governments to achieve progress and bring about industrial transformations. In this regard, as will be argued throughout this paper, rather than the government withdrawing from industrial affairs altogether, the role of development driver began to shift to the subnational level. Local governments took the helm in the face of burgeoning democratization and decentralization in Mexico.

It is precisely this transfer of functions or roles that this paper sets out to explore, using case studies in the states of Nuevo León and Querétaro. As will be seen over the course of these sections, the industrial policies pursued at the federal and subnational levels began to diverge from one another: the federal level exhibited a neoliberal bent, the subnational playing a more proactive or interventionist role.

With all of the above in mind, the following is a summary of the sections of this paper. The goal of the next section is to provide an overview of national industrial policy over the past 30 years and why the academic literature has tended to define the policy as mere “rhetoric” (Moreno-Brid, 2013) or the outcome of state abandonment (Trejo, 2017). Likewise, this section introduces one of the central arguments developed in this paper, which is: the federal government’s abandonment of industrial policy pushed state governments in Mexico to center stage, and spurred aggressive competition among the states, which came to be known as the race to the bottom (OCDE, 2009). After that, the method used to select the case studies (Nuevo León and Querétaro), followed by an examination of, one, Nuevo León’s industrial policies in this century and then two, Querétaro’s industrial policies in the same period, policies that certainly echo the so-called “new developmentalism” (Trubek, 2013). Finally, by way of conclusion, this paper will deal with the main similarities between the two case studies as part of their efforts toward industrial transformation and the challenges to come to attain solid development at both the state and national level.

**THE ABSENCE OF INDUSTRIAL POLICIES:  
THE PARADIGM IN MEXICO STARTING IN 1982**

In 1994, when Mexican business owners skeptical of NAFTA asked Jaime Serra Puche, then Mexican Secretary of Trade and Industrial Development, about what industrial policy they could expect from the federal government, he responded: "the FTA *is* our industrial policy"; in the face of further questioning, the same official wound up saying that industrial policy, particularly a vertical one, was not viable within the confines of the new neoliberal economic model (Johnson, 1998, p. 137). A decade later, the industrial policy paradigm in Mexico had become entrenched in the lack thereof. By the twenty-first century, the constantly-parroted phrase when it came to industrial policy was "the best industrial policy is no policy" (Moreno-Brid, 2013). How is it that industrial policy practically disappeared altogether after previously having been the backbone of the federal government? And what was it that took the place of this missing industrial policy?

At the federal level, then-President Miguel de la Madrid resorted to privatizing state enterprises for prices substantially below their market value, in the end, benefiting the economic elites who had recently been upset by the nationalization of the banking sector (Johnson, 1998). On the other side of it, internationally, De la Madrid sought out the support of international bodies to pay off the country's public debt. The international backdrop against which this all happened, however, was that of the meteoric rise of neoliberalism, led along by Ronald Reagan, Margaret Thatcher, and financial bodies like the International Monetary Fund (IMF) and the World Bank (WB).

Mexico became the IMF's laboratory for testing out structural adjustments (Structural Adjustment Policies – SAP); with Mexico as its guinea pig, the IMF launched into granting monetary loans with the condition that the borrowing country enact its neoliberal reforms or measures (Panizza, 2009). These reforms were soon conceptualized into the Washington Consensus, a decalogue of economic adjustments consisting of privatizations, cuts to public spending, the liberalization of finances and trade, fiscal discipline, promotion of foreign investment, and more.

In parallel, while De la Madrid was still in office, Mexico joined the General Agreement on Trade and Tariffs (GATT), which would later become the World Trade Organization (WTO). The premise of the GATT was free trade and the subsequent breaking down of trade barriers, both tariff and non-tariff. When Mexico joined GATT, it seemed to close the door on any chance to resuscitate the import substitution industrialization (ISI) model or industrial protectionism.

This new economic reality in Mexico was further reinforced in the Carlos Salinas de Gortari (1998-1994) administration when NAFTA was signed. Likewise, as a result of the IMF structural measures, public investment was sharply curtailed: from 1935 to 1982, public investment grew at an annual rate higher than 8%; from 1983 to the year 2000, it fell to as low as 2% (Calva, 2010), in turn spurring greater dependence on private investment and foreign capital, which seemed increasingly hesitant to gamble on Mexican industrialization in the wake of poor economic performance since the early nineteen-eighties.

Starting in 1994, the top business associations, like the Business Coordinating Council (Coparmex) and the National Transformation Industry Chamber (Canacintra) came together to denounce the negotiations spearheaded by the then president as part of NAFTA, not to mention the unconditional favoritism shown toward large banking groups and the lack of any sort of industrial policy to guide the process (Johnson, 1998). It was then when the industrial bigwigs began to demand the resuscitation of industrial policy, both vertical and horizontal, in an attempt to foster the competitiveness of national industry. To these demands, the Secretary of Trade and Industrial Development simply responded: "NAFTA *is* our industrial policy (...) we as a government have already done our job, now you do yours" (Johnson, 1998, p. 137). Given this utter lack of steering and the dearth of industrial policy in the midst of opening up the economy to abroad, initially, domestic industries began to be displaced by the large multinationals (Fouquet, 2007; Carrillo and Salinas, 2010).

After the change of government in 1994 and in the wake of the economic crisis unleashed that same year, the regional disparities in Mexico widened. As Hiskey told it (2005), the early years after the 1994 crisis evinced how disparate subnational capacities to respond to the federal government's abandonment of economic development were. The most developed states in the central and northern regions of the country boasted capacities and infrastructure considerably superior to those of their southern neighbors. This difference became even more important considering that solid industrial infrastructure was key to attract what seemed to be, in this new economic model, the sole source of investment: foreign capital.

Although the majority of the private industrial sector was clamoring for the federal government to pick up industrial policy again (Johnson, 1998), President Ernesto Zedillo Ponce de León's initiatives in these areas had no major impact, given that they were primarily centered on regulatory improvements and horizontal competitiveness policies (López, 2007). The trade liberalization implemented over the two decades prior, as the federal government itself acknowledged, led to the over-distancing of domestic industrial suppliers; nevertheless, the federal government ruled out any chance of industrial subsidies or sectoral policies (Moreno-Brid, 2013). The adoption of the *maquiladora* model in Mexico, predicated on cheap labor and little or no added value for domestic industries, became quickly entrenched, with adverse effects.

In the Vicente Fox Quesada (2000-2006) administration, an initial pledge to drive the development of strategic sectors soon lost steam halfway through the six-year term. The "lost opportunities" of the Fox government and the economic reforms he failed to enact were considered one of the reasons why Mexico lost out on competitive advantages as compared to the Asian economies (Whitehead, 2006, p. 152).

Over the two National Action Party (PAN) administrations from 2000 to 2012, the slogan of the era was "the best industrial policy was no industrial policy" (Guajardo, 2014). The two PAN administrations emphasized, by contrast, attracting foreign direct investment as the prime engine of economic development. This was another trend that, according to López (2007), gradually came into focus starting in 1982, its basic premise consisting of substituting the demand and needs of the domestic sector for those of the foreign. In broad strokes, beginning in 1982, this absence of targeted industrial policies was considered one of the main differences between Mexico, with a primarily foreign export industry divorced from

domestic industry, and the Asian Tigers, currently home to national industries that are competitive internationally (Palma, 2009).

In parallel, the federal government's abandonment of economic development (Trejo, 2017) sparked a "race to the bottom" (OCDE, 2009). In the words of a former delegate of the Secretariat of the Economy, this lack of steering and the dearth of a coordinated and well-rounded industrial policy in the country and the states aggravated the investment "cannibalism" already common in Mexico. As a result, regional inequalities worsened and the domestic industries fell increasingly out of step with global value chains (see Peters, 2000; Hiskey, 2005).

In the aughts, as will be seen in the following sections, several states began to recognize that the negative fallout from the *maquiladora* model had spread after NAFTA and started to formulate the first plans or approaches to sectoral industrial policies centered on added value, linking up the domestic industries, and creating higher-skilled jobs.

## WHY COMPARE NUEVO LEÓN AND QUERÉTARO?

This research uses two case studies to compare two Mexican states using the Most Different Design System (see Landman, 2000). In other words, these are two substantially different cases, Nuevo León and Querétaro, which managed to reach a similar end, in this case, they have figured out how to adopt sectoral industrial policies that have pushed their development indices to above the national average.

Table 1. Top Five Mexican States by Annual Growth Rate 2005 to 2014

<i>State</i>	<i>Annual growth rate (%)</i>
Querétaro	5.0
Aguascalientes	4.7
Quintana Roo	4.4
Zacatecas	4.1
Nuevo León	4.0

Source: Márquez, 2015.

These industrial policies, as will be shown below, are inclined toward what several authors have coined the "new developmentalism" (Trubek, 2013; Schneider, 2015). This new developmentalism is backed principally by the following strategies: acceptance of a greater role for the State in directing investment, public-private partnerships, export promotion, the linking up of local industries, support for private enterprises over state enterprises, and an emphasis on productive FDI (Trubej, 2013).

Nuevo León is home to the eighth-largest population in Mexico and is ranked third in terms of size. It was a pioneering industrial state in Mexico and since the early twentieth century it has been considered the "industrial crown" of the country. Toward the end of the nineteenth century and the early decades of the twentieth, Nuevo León underwent its first industrial transformation spurred along by the local political and economic elite.

In clear contrast, Querétaro is one of the smaller Mexican states. Located in the Bajío zone, it is twenty-first in terms of population size and twenty-seventh in terms of territory. In the nineteen-fifties, when Nuevo León was already at the forefront of industry in Mexico, Querétaro was still one of the poorest and most marginalized states in the country, with predominantly rural prospects. However, Querétaro at present is usually ranked among the top five states for industrial activity in Mexico (INEGI, 2016; Márquez, 2015). Moreover, its first industrial transformation happened in the time period known as the "Mexican miracle" (1940-1980), in an age and context substantially different from Nuevo León's first industrial transformation.

Table 2. Comparing Nuevo León and Querétaro

<i>State</i>	<i>Geographic location</i>	<i>Timing of first industrial transformation</i>	<i>Size</i>	<i>Federation budget in millions of pesos</i>	<i>Parties in power in the twenty-first century</i>
Nuevo León	Northeast	Pioneer in industrialization during the Porfirio years	64,156 km <sup>2</sup> (13th in Mexico); population of approximately 5 million (8th)	52,242.8	PRI prevalent at the state level; only loss was to the PAN in 1997. First victory for an independent governor in 2015.
Querétaro	Bajo (central-west)	Relatively late to the industrialization game, until the second half of the twentieth century	11,699 km <sup>2</sup> (27 <sup>th</sup> in Mexico); population of approximately 2 million (21 <sup>st</sup> )	22,477.2	Continuous alternating between the two main parties in the country (PRI and PAN). PAN won in 1997 and 2003; PRI in 2009; PAN in 2015 again.

Source: Created by the author.

How was it then that these two states, so substantially different from one another, got involved in industrial transformation projects with similar directives and achieved the highest growth rates? Looking at the comparative framework, this was certainly one of the questions into which this paper is designed to delve. Although the industrialization process ranges across a wide number of variables, this subnational comparison will examine the common patterns and variables underpinning these two states' superior performance.

Table 2 is an attempt to include the variables customarily considered in industrialization studies. Gerschenkron, for example, underscores the importance of the "considerable accumulation" of economic resources (1962, p. 35), while Hirschman (1958, p. 53) also highlights the scarcity of industrial capital or a scant industrial budget as a traditional obstacle to industrial transformation. On the flipside, Gallup, Sachs, and Mellinger (1999) asserted the relevance of geography to development, while authors like Brian (1994) emphasize the importance of the timing of industrialized processes.

The aim of using the MDDS method for these subnational units is to point out the principal factors or "independent variables," the presence of "binding agents" (Hirschman, 1958), and political continuity. It is this context of binding agents (in this case, the state governors as promoters of development) and political continuity that managed to get these transformative and sustainable institutions up and running for industrialization in these two states, with a spotlight on the importance of institutions in economic development (see Hausman *et al.*, 2008).

Nevertheless, the idea is not to assert that binding agents and continuity are sufficient to bring about industrial transformation projects, because other variables are certainly important, too. For example, in the case of Mexico, it seems unthinkable to imagine any sort of substantial industrial transformation in the southern states of Chiapas or Guerrero, considering the regional disparities they face, which Dávila, Kessel, and Levy (2002) called the "distortion of comparative advantages" across the regions in the country.

Rather, what this paper is saying, from the very beginning, is that, in the words of De Schweinitz (1964, p. 7), these independent variables were "necessary but insufficient conditions." The dependent variable in the case studies tackled here was the implementation of industrial policies targeted toward strategic sectors. With that said, one of the arguments at the heart of this paper is that the binding agents backed by political opportunity had the chance to capitalize on a favorable constellation of factors—including geography, timing, synergies between the government and society, investment, and alliances with other levels of government, to name a few.

To dive deeper into industrial policies in Mexico and its states in this century, this paper began with semi-structured questionnaires administered to state and federal officials working in the state secretariats of undersecretariats of economic development (in Nuevo León and Querétaro), and the federal delegations of the Secretariat of the Economy, respectively.

## THE CASE OF NUEVO LEÓN

At the dawn of the José Natividad González Parás (2003-2009) administration, neither the incoming state government nor the local business owners were convinced by the federal government's response to the new global context facing the Mexican economy. The expansion of the *maquiladora* industry in the wake of the signing of NAFTA had sent, even by then, a considerable number of Nuevo León's native companies into bankruptcy (Fouquet, 2007). Moreover, Nuevo León had begun to lose its comparative advantage with the rest of the states in the north offering cheap labor to the foreign *maquiladora* companies (*Ibid.*). As the country flung open its gates, Governor González (2004) called for a transformation

of industry in Nuevo León. In his State Development Plan, the then-leader of the state declared that one of his main objectives would be to reposition Nuevo León as a modern Mexican state with industrial and educational advantages on the new international agenda.

The process, since the very beginning, was conceived of through a model known as the “triple helix” (interviews, 2015), resting on state, academic, and business sectors. Second, an ambitious suite of fiscal and business incentives were implemented for the private sector—tax breaks, donated real estate, business and legal advising, infrastructure improvements, etc. Via these mechanisms, González deployed a wide array of incentives, aiming to “maximize induced decision-making,” in the words of Hirschman (1958, p. 10) for local and foreign investors.

As such, the state government started to encourage partnerships with state universities and the business sector, taking a more inclusive stance. The number one project to consolidate the “triple helix” model, also decreed in the State Plan, was the undertaking known as the *Monterrey, International City of Knowledge*. It would later be called by its acronym, MTYCIC, and basically revolved around four principal objectives: 1) promote technological development and set up knowledge-based enterprises; 2) raise awareness of the high-quality education available in Nuevo León to the entire world; 3) develop the urban infrastructure necessary to serve as the backbone of economic development for the state; 4) ensure that the public and private sector would be highly competitive (González, 2004). MTYCIC was backed, in turn, by the Knowledge-Based Development Promotion Act in Nuevo León, published in March 2004. Beyond the objective of fueling knowledge-based development, Article 1 underscored coordination across the public, private, and academic sectors as the core of creating technological and scientific development.

This law created the State of Nuevo León Science and Technology Council, with a Citizen Participation Council as the promoting and advisory body. This latter council has 14 members, including the Nuevo León Secretary of Economic Development, the Secretary of Education, and 11 representatives of the academic, scientific, social, cultural, and business sectors. This institutionalized framework of relationships between the state and society rapidly exceeded initial expectations. With additional support from the National Science and Technology Council (Conacyt), the aforementioned law and its synergistic mechanisms permitted the formation of a 70 million pesos fund destined for productive and infrastructure investments in the MTYCIC project (Armendáriz, 2004).

Soon after, the state government set itself the task of defining: “the strategic knowledge areas likely to foster greater growth in the region,” according to the State Development Plan (González, 2004, p. 158). As such, the strategic sectors to be promoted as part of this project were defined by the Nuevo León government in conjunction with the three top universities in the region: Monterrey Tech, the Autonomous University of Nuevo León (UANL), and University of Monterrey (UdeM).

The strategic areas chosen were as follows: biotechnology, health, information technology and telecommunications, advanced materials, and mechatronics. However, the first task was far from fulfilling the role required by the subnational government and the academic and business sectors. The 70 million pesos raised appeared to therefore be just an initial payment to get the overall project of restoring competitiveness to Nuevo León off the ground and make sure, along the way, that the knowledge economy would have a competitive advantage. The governor then set the goal of boosting investment in research and development to at least 1% of the gross state product (GSP) of Nuevo León before the end of his administration (González, 2007). Moreover, both the state and society put together a plan to make the Knowledge Community real and tangible in the region, specifically inclined toward industrial and technological innovation.

Thus was born the Industrial and Technology Innovation Park (PIIT, in Spanish), the brainchild of the Nuevo León Science and Technology Council, a 70-hectare campus located close to the International Airport of Monterrey. Initial investors in the industrial park included the UANL research center and Conacyt, which forecast their inauguration for the first quarter of 2007 (*Milenio*, 2006). Likewise, the Monterrey Tech, UdeM, and State Association of Information Technology Companies (composed of 42 companies in the field) research centers soon pledged significant investments in the PIIT. These information technology companies, for example, invested 100 million pesos in the PIIT in exchange for 15,000 square meters of space donated to them by the state government (*Milenio*, 2006).

After witnessing the positive response of the private and academic sector, Governor González became convinced that the state government needed to ramp up its commitment. He therefore decreed another law to provide the legal framework for this industrial transformation: the Industry Development and Employment Act. Its main objective was to spur national and foreign investment in the highest-productivity sectors, create high-value-added jobs, and solidify the state's competitiveness, hand in hand with social welfare.

Likewise, the aforementioned law emphasized collaboration between companies and research centers in those sectors that had been defined as strategic, in an effort to consolidate the “knowledge economy.” The sectors listed in the law were the same sectors that had recently been defined through the joint efforts of the government of Nuevo León and the academic sector, as well as other sectors of both national and subnational priority. Moreover, to decide on which incentives would be developed and approved, a State Investment Promotion Council was assembled, presided over by the governor and directed by the Secretary of Economic Development, to which six other advisors were added (from the secretariats or other related public agencies), as well as two representatives from the private, civil, labor, and academic worlds.

Equally important were the incentives in the law: discounts of up to 95% on state taxes; scholarships to train workers; construction of up to 100% of the infrastructure works promoting productive investments within the PIIT; donation, sale, leasing, or trust for real estate for industrial projects; advising to build relationships with local suppliers; and, finally, advising on the formalities to file before municipal, state, and federal authorities.

Through this framework of incentives, local, national, and international investment skyrocketed, and many of these investments set up in the PIIT. The top local and national companies, like Cemex, Alfa, Cydsa, and Gamesa, entered into negotiations with the SEDEC, PIIT, and MTYCIC authorities to define incentives for themselves and gain a foothold in the PIIT. The multinationals also began to negotiate with the same authorities. These companies included Pepsi, Motorola, Schneider, and AMD Technologies.

To back these investments, the Group of Ten (a group of the top ten largest companies in Nuevo León) launched a private capital fund to develop and support innovation projects in the productive industries. At the beginning, the group contributed 15 million dollars, while the government of Nuevo León threw in two million (Ramírez, 2007).

The results of the project began to emerge in the second half of the González Parás administration. That year (2007), the state of Nuevo León received the largest percentage of productive investment as part of its scheduled budget; exports from two of the state's strategic sectors, the automotive and household appliances, rose by 24% and 11.45%, respectively; exports in general increased by eight billion dollars, 6.5% more than in the same period the year before (González, 2007; INEGI, 2016). By 2008, moreover, the government shored up its commitment to industrial policy, allocating 350 million pesos of the public budget to the second phase of the PIIT (Vélez, 2008).

The fact that the successor to Governor González came from the same party lent continuity to his industrial policy. When the Institutional Revolutionary Party (PRI) Governor Rodrigo Medina (2009-2015) stepped in to the new administration, Nuevo León once again enjoyed an outstanding reputation in national industrial development. The positive results the state enjoyed once again set it apart as an industrial and technology leader. Equally, the State Secretariat of Economic Development (SEDEC, in Spanish) began to take on a more proactive role in public economic development policy.

In this new proactive role, the cornerstone of state economic development continued to be the same Investment Development and Employment Act (Interviews, 2015) and the three-legged association model among the public, private, and academic sectors manifest in the state's strategic clusters. Now, however, the main focus shifted to how to remedy the traditional deficiency ailing Mexican industries: "national content" (Peters, 2000; Gereffi, 2015), or the so-called "backward linkages" and "forward linkages" (Hirschman, 1958) within the global value chains. To do so, the state kept fortifying the "industrial clusters" strategy in an attempt to link local industries up with export productive chains.

According to a former Secretary of Economic development in the state (Interviews, 2014), Nuevo León became Mexico's pioneer in terms of economic "clustering": the framework of industrial and economic cooperation built via the "virtuous partnering of collaborative production" across economic agents from the same sector. In the Nuevo León automotive cluster, for example, the government furnishes annual economic support of three million pesos and took responsibility for leasing the cluster's offices in exchange for activity reports and tracking targets (Interviews, 2014).

Nuevo León's clustering strategies during the Governor Medina administration (2009-2015) showed signs of success, launching high-tech projects with local companies in various fields. These included designing software to monitor the mental activity of an aeronautics pilot (Investigación y Desarrollo, 2014a) and nanocomponents for manufacturing in the automotive and aeronautics sectors (Investigación y Desarrollo, 2014b). The Nuevo León nanotechnology company incubator was ranked among the top ten best in the world (Buendía, 2014). Moreover, the first self-flying Mexican plane was designed and built there (Sánchez, 2014), and companies based in the state began to print the first 3D industrial prototypes (Agencia ID, 2015). These and many other projects were based out of the PIIT.

In the first five years of the Medina administration, Nuevo León's economy grew 27.3%, exceeding the country's growth of 17.9% by nearly 10 percentage points, while manufacturing export growth amounted to 11% of the country's total in 2014 (Medina, 2014; INEGI, 2016). The continuity of sectoral policies for clusters, in turn, generated solid productive chains and high degrees of forward and backward linkages among local suppliers in the high-tech export industry, based on input-product indices (Martínez and Corrales, 2017). Likewise, the *Made in Nuevo León* program supported over 500 local enterprises in registering their trademarks, attending international fairs, and training on export measures.

## THE CASE OF QUERÉTARO

Ever since Querétaro underwent an industrial transformation in the mid-twentieth century, the automotive sector began to function for the state as an anchor of its industrialization. This sector is, therefore, an example of how the industrial scaling-up can lead to economic development with positive impacts for local industry. However, after losing its comparative advantage against other states in the north with the signing of the FTA, the state government started to support local suppliers, working on industrial capacity-building. State officials (Interviews, 2015) narrated how this strengthening of state industry was carried out through the Local Supplier Development Program: encouraging the shift from labor-intensive metal-mechanics processes to more technology-demanding processes, like plastics injections, and, recently, the development of the electronic equipment required for automobiles.

Burgeoning interest in technology capacities and human capital in the automotive sector, as well as the state's strategic location, attracted what would seem to be an even bigger challenge for industry: the aeronautics sector. As will be told in this section, the continuity of subnational initiatives became one of the cornerstones of the challenge facing the state of Querétaro as it endeavored to regain its competitive advantages for industry.

As in the case of Nuevo León, in the midst of a new international context, Querétaro deviated considerably from the federal government's neoliberal practices, because the initial adoption of purely *maquiladora* models after NAFTA was

signed substantially displaced local suppliers and made industrial wages precarious (Carrillo and Salinas, 2010). As a result, Querétaro formulated an industrial policy agenda predicated on public-private collaboration, driving the best-trained human capital, industrial modernization, and the building of comparative advantages in the strategic sectors defined by the state government previously. An array of policies echo what the broader literature has denominated the “new state activism” or the “new developmentalism” (see Trubek, 2013).

Mexico’s presidency has tended to alternate parties since the PAN made it to the federal government, and the country has begun to seem increasingly divided in its approach to economic development. However, one of the conflicts that received the most press coverage under the Fox administration was the decisive opportunity for an industrial relaunch in Querétaro: an attempt to build the new Mexico City International Airport.

On October 22, 2001, Fox decreed the expropriation of 5,391 hectares of land nearby Mexico City to resolve the increasing saturation of the Benito Juárez International Airport in the capital (Díaz, 2014). The rural land owners of the properties, however, proved to be an insurmountable obstacle to the presidential initiative, denouncing what they held to be unfair compensation. After repeated protests, the discontent managed to garner a retraction of the initiative to expropriate the lands and carry out the related projects.

This frustrated initiative was seen as an opportunity in another jurisdiction: Querétaro. Governor Ignacio Loyola Vera (1997-2003), also of the PAN, was facing the same issue in Querétaro, where the international airport was equally overcrowded and antiquated. His project for a new airport, by contrast, had the support of the state’s industrial sectors and widespread consent from the citizenry. This joint initiative between the governors and industrials was presented to then-President Fox as a temporary solution to the oversaturation of the capital’s airport. The project rapidly earned presidential support, as it would also serve to alleviate some of the air transit problem facing Mexico City (Molinari, 2004). The support crystallized in the form of a federal government pledge to contribute 30% of the airport’s costs (*Op. cit.*, 2004), considering that Querétaro had one of the most meager state budgets given its size (CEFP, 2016).

Querétaro therefore sought the opportunity to build a comparative advantage in the aeronautics sector by way of a top-level anchor company. According to state officials, this would create a comparative advantage, not only on the international stage, but also in the “(national) race to the bottom,” as the other states would offer aggressive incentives, like tax exemptions, economic resources, and lands.

The consequence was that the state-industry partnership in Querétaro lobbied in favor of the state as the ideal host to receive investment in the aeronautics sector, as it was home to the right human capital and industrial infrastructure, both consolidated principally via the automotive sector. As such, when the aeronautics multinational Bombardier announced its intentions to build a plant in Mexico in 2006, Querétaro was chosen as its destination. The main factors underlying Bombardier’s decision included the states’ geographic location, its industrial infrastructure, its experience in the automotive sector, and, above all, the existence of trained human capital, a commitment shored up by the launch of the Querétaro Aeronautics University in 2007 (UNAQ).

But in the aughts, Querétaro was far from having consolidated economic development. When the José Calzada (2009-2015) administration began, the state suffered from a considerable trade deficit. In fact, Querétaro’s trade deficit in the manufacturing industry had risen over 50%, from 1.947 billion dollars in 2005 to 2.925 billion in 2008 (Calzada, 2010), a sign of the negative fallout of the *maquiladora* model in the state.

On another note, political discontinuity threatened once again to derail the pending development projects in Querétaro: Governor Calzada was from the PRI, while the two previous governors had been from the PAN. As Byung (1987) described, the lack of meritocratic bureaucracy in Mexico had proven to be an obstacle to economic development, in marked contrast to the bureaucracy in South Korea, for example.

Nevertheless, Governor Calzada set aside political differences and kept the same Secretariat of Sustainable Development from the previous administration in place. This “continuity” therefore became one of the central pillars of the jumpstarted industrialization in Querétaro (Interviews, 2015). Leaving the same Secretariat team in place was key to the state’s industrial policies, as the team had an 18-year track record. The programs to improve productive linkages in industry in Querétaro were extended, run by the capable hands of the same team that had started them up, as well as human capital training programs for industry and certification programs for local suppliers in Querétaro’s most competitive sectors: the automotive and aeronautics sectors (Calzada, 2010).

Equally, the state plan implemented several sectoral development strategies, whose end game was to fortify synergies between the state and society. Thus, the clusters strategy was implemented likewise in Querétaro, following in the footsteps of Nuevo León. Its aeronautics cluster was the first of its kind in Mexico, joined later on by IT, automotive, and biotechnology clusters.

The objective of the 2009-2015 administration in Querétaro was to scale up industry in the state toward activities with higher-technology value and productive value with an emphasis on developing local supply chains. In the more consolidated sectors, like the automotive and electronics, this entailed multiplying industrial linkages between Tier 3 companies in the aeronautics sector and local producers. This strategy was underpinned precisely by the strategic clusters and the Aeronautics Suppliers Development Program, as well as supported by certification programs and economic incentives, at both the subnational and federal level (Carrillo and Salinas, 2010).

The governors’ initiative to attract FDI to the aeronautics sector led them to travel, alongside the Secretariat of Sustainable Development, to numerous trade missions around the world. By 2014, Querétaro, had firmed up its position as the top receiver of aeronautics FDI with 48.4% of the national total, with Baja California trailing in second place at

12.5% (Torres, 2015). Likewise, the state began to consolidate an infrastructure space for the aeronautics sector as a sign of state commitment to the sector. After Bombardier pledged to invest over 200 million dollars to set up shop in Querétaro, the state government donated 78 hectares around the International Airport of Querétaro to open the Aeronautics Industrial Park (Nuñez, 2007). There, as part of the policy to drive human capital, the state government invested 400 million pesos in the first aeronautics university of Mexico: UNAQ (Álvarez, 2007).

In a matter of just 10 years, the state came to be considered a “success story” of development in the aeronautics sector; it went from having two companies to over 80 in the sector, training eight thousand professionals in the field and attracting over 1.5 billion dollars in a sector of high-quality employment (Tzitzitzi and Feix, 2015). Likewise, for the first time in decades, Querétaro managed a positive trade balance of 200 million dollars (Calzada, 2014). In the automotive industry specifically, the state of Querétaro enjoyed a “structural change” via the participation of “local car parts suppliers” and lowered dependency on the export economy (Banda *et al.*, 2016, pp. 53-54). Based on these results in the automotive industry, the Undersecretary of Economic Development has replicated the supplier development program for the aeronautics sector. Altogether, between 2005 and 2014, Querétaro was the Mexican state with the highest average annual economic growth, with a rate of 5% (Márquez, 2015, based on INEGI).

## CONCLUSIONS

The paradigm shift to an open economy in which the Mexican government took its hands off the industrial policy wheel had an impact on local industries and wages; the domestic industry became detached in large part from the foreign export industry (Gereffi, 2015) and industrial wages lost nearly 77% of their purchasing power (Esquivel, 2015). The impact was underscored by the case studies—addressed here—at the turn of the new century. The competitiveness of the local industries in Nuevo León and Querétaro declined, as did working conditions (Fouquet, 2007; Carrillo and Salinas, 2010, respectively). It became evident that the federal government’s withdrawal from industrial policy was not the optimal response to the new internationalization.

As such, subnational governments stepped into the driver’s seat to reposition their states as national industrial leaders by building new competitive advantages for their state industries. And here emerged the divergence between state and federal economic policy. The federal government’s neoliberal public policies, espousing minimal intervention, contrasted sharply with the vertical industrial policies favored in Nuevo León and Querétaro, predicated on strategic and sectoral incentives, and promoting local suppliers and competitive jobs. These subnational policies for the new century were marked by several key factors.

First, the importance of “binding agents” for economic development. Hirschman (1958) devised the concept for economic development to refer to agents able to conceive of the industrial policies necessary for development, together with the ability to forge the necessary linkages between the actors and sectors that needed to be involved. In the case studies, the governors implemented the relevant strategies (sectoral industrial policies), as well as the best collaboration mechanisms (clusters or the “triple helix” model) to crystallize a solid industrial transformation project. Little by little, the secretariats or undersecretariats of economic development began to take over from the governors, as the bodies charged with handling the aforementioned industrial policies, giving rise to stronger institutionalization for the industrial policies.

Second, in order for these agents’ long-term policies to yield fruit, political continuity was essential. In the case of Querétaro, Governor Calzada’s decision to leave in place the same Sustainable Development Secretariat team for his administration gave the state the consistency and continuity it so needed in industrial policy matters. In Nuevo León, two consecutive administrations from the same party made it possible to ramp up similar industrial policies.

Third, the clusters seem to be another one of the successful feats of these subnational governments. This echoes the literature’s recent focus on institutionalizing public-private partnerships for development. As Hausman, Rodrik, and Sabel (2008) and Schneider (2015) posited, public-private partnership institutions have become the cornerstone of success in recent economic development stories. To the former group of authors, a “good industrial policy” is at its core a set of “institutional adjustments and practices that organize this collaboration (public-private) effectively” (Hausman *et al.*, 2008, p. 4). The success of the public-private partnership model is reflected in the growth rates in the two case study states in the decade from 2005 to 2014, in which Querétaro was ranked first and Nuevo León fifth, with rates of 5% and 4%, respectively (Márquez, 2015). It was likewise reflected in high wages in these states as compared to the rest of the country, with Querétaro in third place and Nuevo León in fourth, behind only Mexico City and Campeche (Rosales, 2017).

Now, it would be rash to call Querétaro and Nuevo León successful cases of industrial transformation at this point in time. The problem of dependency on foreign technologies and the fact that the export economy is quite isolated from the domestic economy are both still prevalent issues in Mexico. The industrial strategies in these two states, however, seem to be the first steps taken by subnational governments that have acknowledged for years now the limitations of the *maquiladora* model, which rests on cheap labor as its comparative advantage.

The subnational governments’ emphasis on linking up local suppliers to global value chains seems to be a good starting play. However, in order to achieve a transition to self-sufficient or independent domestic industries, industrial policies should turn an eye to technology transfer, as happened in the Asian Tigers (López, 2007), and, later on, in China (Vogel, 2011) in the second half of the twentieth century. Or, even look to Brazil in the same time period, which sought to develop the electronics and aeronautics industries, offering multinationals access to the domestic or regional market in exchange for transferring licenses and technology patents (Evans, 1995). To implement a plan of this sort in Mexico, nevertheless, the federal government would need to step into a coordinating role to put an end to the spiraling regional inequality and



the “cannibalization” and appeasements to which the country bore witness in the so-called “race to the bottom” among the states (OCDE, 2009).

On the part of the federal government, it is a good sign that to date, it has begun to adopt the industrial policies implemented by the states analyzed here, producing multi-level governance feedback. In 2016, it mapped out the economy’s strategic sectors by state (Secretaría de Economía, 2016)—supported by the implementation of clusters in Nuevo León and other states. Similarly, the federal government, under the auspices of the National Institute of the Entrepreneur, has begun to release calls for developing suppliers, with a similar approach to the program Querétaro has been running for over a decade now.

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