

A Literature Review of Human Capital and Educational Policies in the United Mexican States Education System

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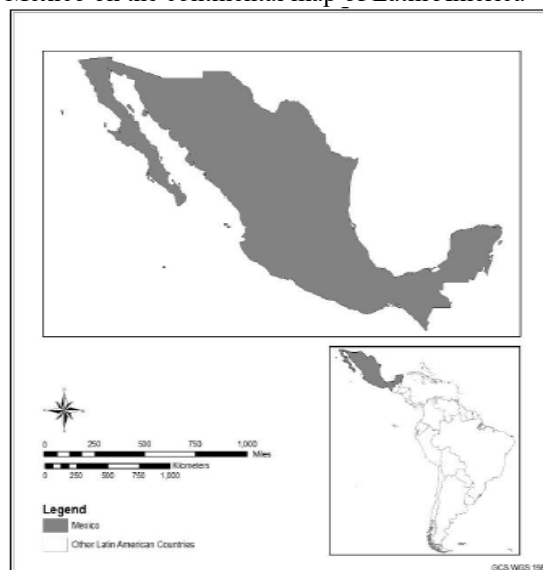
Abstract: The article's main contribution to the literature on Mexican education is its analysis of the country's education policies, with a comparison of key economic indicators alongside aggregate trends in Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Honduras, Nicaragua, Panama, Peru, El Salvador, Uruguay, and Venezuela. Few studies have examined Mexico's educational policies in this comparative context, making this work particularly valuable for economists, educationalists, and Mexico's economic development sector. The empirical data and literature cited in support of the findings can be found in (Osiobe, 2019; 2020a; 2020b; 2020c). This is not a self-citation but an empirical and theoretical backing for the recommendations presented, rendering the study a valuable and informative project.

I. Introduction:

The Estados Unidos Mexicanos, or the United States of Mexico, commonly known as Mexico, is a republic situated between the Caribbean Sea and the Gulf of Mexico to the east, and the Pacific Ocean to the west. It shares maritime borders with Cuba and Honduras. Mexico ranks as the 13th largest country in the world, the 3rd largest in North America, and the 3rd largest in Latin America (Google Earth, 2019). According to the GCI, Mexico is placed 46th out of 140 countries (Schwab, 2018). Its population was 126.2 million in 2018, making it the 11th most populous globally, the second in Latin America, and the most populous Spanish-speaking nation (World Development Index, 2019). In the 2018 Environmental Performance Index, Mexico ranked 72nd worldwide and 8th in Latin America (Yale Center for Environmental Law & Policy, 2018). In 1994, Mexico became the first Latin American country to join the Organisation for Economic Co-operation and Development (OECD). That same year, the peso's devaluation caused economic turmoil, leading to the worst recession in over fifty years.

Figure 1:

Mexico on the continental map of Latin America



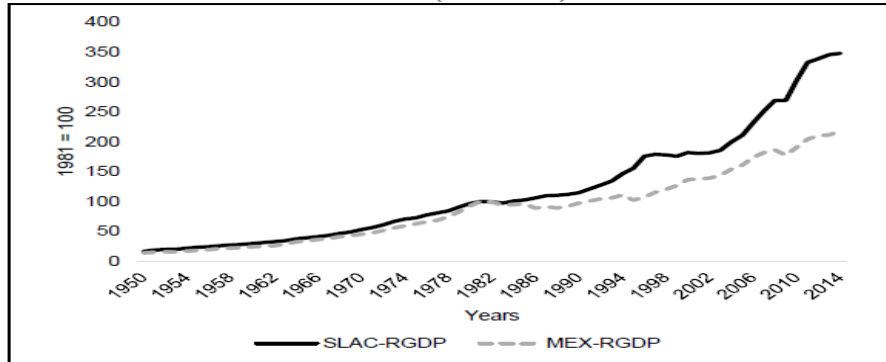
Author's creation (G.E., 2019).

*Gray specific country of interest

Today, the country continues to make economic progress; however, ongoing social and economic concerns include, but are not limited to, low Gross Domestic Product per capita (GDP per capita), high underemployment rates, and political, social, and economic inequalities in resource distribution, including limited opportunities for the Amerindian population. Mexico is governed in a decentralized way by the federal republic, which shares sovereignty with its 31 states, to promote economic growth, development, and stability as an active member of the USMCA, OECD, and UN. The study compares Latin American and Caribbean (LAC) countries, excluding Mexico, with Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Honduras, Nicaragua, Panama, Peru, El Salvador, Uruguay, and Venezuela.

Figure 2:

A comparison of our SLAC *R G D P p p p* at chained (in Mil. 2011 USD (average)) with that of Mexico (1950 – 2014) 1981 = 100



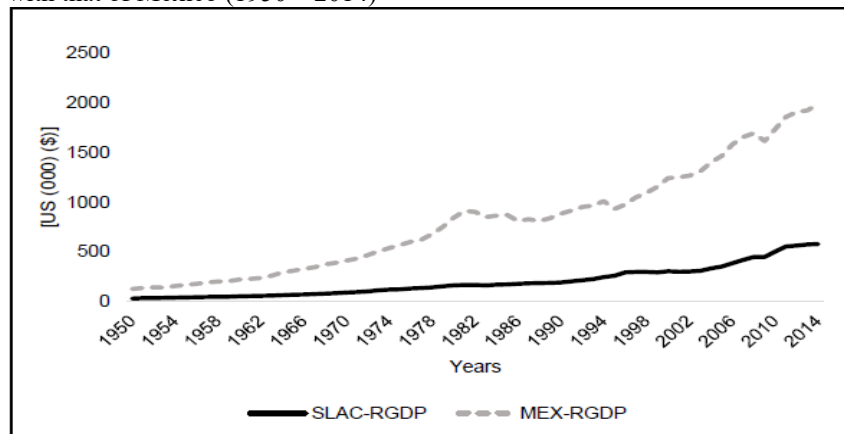
Source: (Penn World Tables (PWT), 2019).

Author's creation

Figure 2 displays Mexico's Real Gross Domestic Product purchasing power parity (*R G D P p p p*) index set at 100 in 1981, covering the period from 1950 to 2014, and compares it to our SLAC moving average. The figure indicates that Mexico slightly lagged behind the benchmark moving average throughout 1950–2014. When the data from Figure 3 are adjusted to the 1981 = 100 index to assess changes in Mexico's *R G D P p p p*, it becomes clear that Mexico's economic output, measured in this index, underperformed relative to the SLAC significantly from 1983 to 2014.

Figure 3:

A comparison of our SLAC *R G D P p p p* at chained (in Mil. 2011 USD (Average)) with that of Mexico (1950 – 2014)



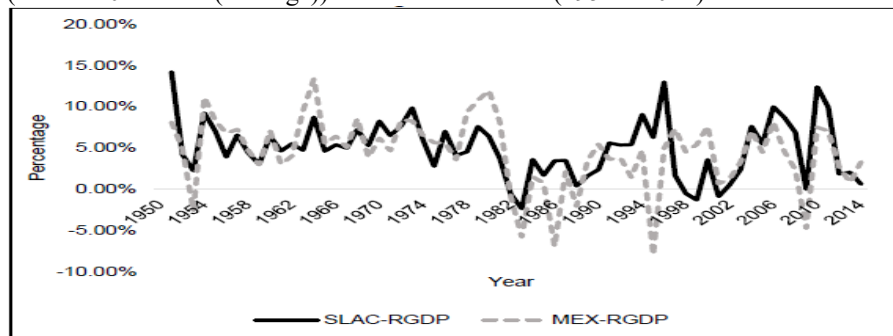
Source: (PWT, 2019).

Author's creation

It is interesting to observe an inverse relationship between the index 1981 = 100 (Figure 2) and the actual figures (Figure 3). Figure 3 presents Mexico's real *R G D P p p p* figures in comparison to the SLAC moving average from 1950 to 2014. The figure shows that Mexico's performance exceeds that of the benchmark moving average during that period.

The country faces a huge gap between the wealthy and the poor. The Mexican government reports that 9% of the population lives in extreme poverty and 33% in moderate poverty, totaling around 42% living below first-world living standards. Its main export is petroleum, and in 2005, Mexico produced 3.8 million barrels daily, ranking as the 5th largest producer worldwide. Currently, it falls below the top 10 oil producers and produces less than half of its peak output. Many American car manufacturers build a large portion of their vehicles in Mexico, with an estimated 89 of the top 100 auto-part companies having facilities there. A CNN report (Gillespie, 2018) estimated that remittances from the U.S. to Mexico were approximately \$26 billion in 2017, making Mexico the second-largest recipient of remittances globally, after India.

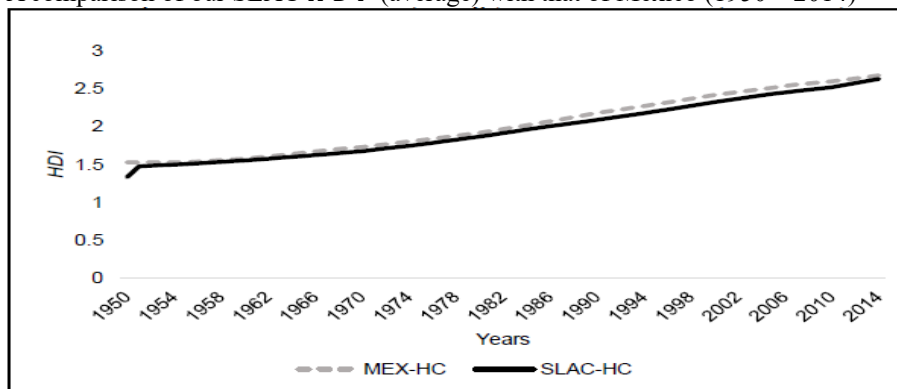
Figure 4:
A comparison of our SLAC % change of *R G D P p p p* at chained (in Mil. 2011 USD (Average)) with that of Mexico (1951 – 2014)



Source: (PWT, 2019).
Author's creation

Figure 4 demonstrates Mexico's economic volatility compared to the SLAC moving average. It indicates that from 1950 to 2014, Mexico's economy closely followed the SLAC, reflecting similar reactions to shocks. Even as economic links with the U.S. and Canada grew through USMCA, Mexico's economy stays resilient. Historically, the Roman Catholic Church has played a major role in Mexico's education system, with the first university in North America established in Mexico City by the church in 1551.

Figure 5:
A comparison of our SLAC *H D I* (average) with that of Mexico (1950 – 2014)



Source: (PWT, 2019).
Author's creation

In the 19th century, Mexico introduced mandatory primary education for children aged 7 to 15, while the country's education standards and regulations were raised. Following the 1910–1920 revolution, the government prioritized eliminating illiteracy, promoting rural education, and including Indigenous American peoples. Figure 5 displays Mexico's Human Development Index (HDI) in comparison to the SLAC moving average from 1950 to 2014. The figure shows Mexico slightly surpassing the benchmark average, indicating its HDI rate is marginally higher than that of the SLAC. Nonetheless, building a national identity through education has been challenging due to the country's linguistic diversity. Compared to other major SLACs such as Argentina and Brazil, Mexico's student participation rates remain low despite rapid growth in education access.

Thanks to the mandatory basic education policy nationwide, illiteracy rates among children aged 7–15 have dropped from 82% at the end of the 19th century to below 5% today. This decline in illiteracy has led to increased enrollment at all levels of education, with student numbers rising over twelve times to 36.4 million. In Mexico, the administration of the educational system is a shared responsibility among the national Secretaria de Educación Pública (SEP), the Ministry of Education (M.E.), and the 32 state jurisdictions. Since 1992, Mexico has decentralized its educational system, reducing the federal government's role in managing education.

II. Education Policy Orientation Main Findings:

- Spanish is the primary language employed in the educational system.
- The Mexican education system has the longest compulsory education timeline among all countries in our case study, extending up to upper secondary education.
- The government increased availability of Early Childhood Education and Care (ECEC).
- In 2013, the education system implemented a dual training approach that integrates classroom instruction with workplace learning.

III. Policies That Moved the Country Forward:

- In 2012, the Mexican education system enacted a constitutional reform bill, followed by an amendment to the Ley General de Educación for the general educational system in 2013..
- In 2014, a bill titled the Programa para la Inclusion y la Equidad Educativa was passed to promote program inclusion and equal education.
- A national scholarship initiative known as the Programa Nacional de Becas was established in 2014.
- The country established the Movimiento Contra el Abandono Escolar programs between 2013 and 2014 to decrease the school dropout rate.
- In 2017, the national education ministry launched the Nuevo Modelo Educativo, a new framework for education.

IV. Policies Implication and Recommendation:

As remarkable as these stated educational system policies are, they all come with unanticipated sets of problems both in the short- and long-run.

- To bridge the educational gaps between rural and urban areas and enhance the overall quality of the education system, it is recommended that Mexico adopt the Massive Open Online Course (MOOC) approach.
- It is recommended that the Mexican Ministry of Education expands Vocational Education and Training (VET).
- While the federal government has increased access to ECEC, it is advisable that the expansion be carried out at the state and municipal levels.
- The free primary education policy is a good idea, but it should be supported by efforts to improve student performance and inclusivity. This involves expanding the Programa para la Inclusion y la Equidad Educativa in rural areas, encouraging students to complete secondary education, and enhancing the quality and relevance of skills taught.
- It is advisable for the Mexican educational system to develop a mechanism for allocating financial and human resources that aligns with the requirements of the mainstream economy.

- It is advisable to allocate additional financial resources to support the physical infrastructure of the education system, including building construction, maintenance, and upgrades of facilities and transportation routes.

V. Contribution to Mexican Literature on Human Capital and Economic Growth:

Despite using an aggregate model, this study adds to the literature on Human Capital (HC), economic growth, and development by highlighting key educational policies implemented by the Mexican government. Research on Mexico's economy includes works by (Lustig, 1998; OECD, 2018; Young, 2006; Ibarra et al., 2000; Coatsworth, 1979; Coleman, 2005; Niederberger, 1979). Theoretical investigations into the relationship between HC and economic growth in Mexico are represented by (Garcia-Verdu, 2007; Aschauer, 1998; Lee & Mason, 2010; Mincer, 1958; Diaz-Bautista, 2000 & 2017; Gyimah-Brempong & Wilson, 2004; Kottaridi & Stengos, 2010; Rodriguez-Oreggia, 2005; Levin & Raut, 1997; Brock & German-Soto, 2013; Auty, 2001a & 2001b; Psacharopoulos et al., 2006; Taylor & Martin, 2001; Fuller et al., 1986; Becker, 1975). Nonetheless, some studies, such as (Quiggin, 1999 & 2002; Devarajan et al., 1996), did not support this relationship. To gain a clearer understanding of Mexico's unique socioeconomic issues and to develop significant insights and recommendations for the economy, future research should focus mainly on Mexico's specific context and how HC relates to economic growth.

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