



# The Fight over Science in Mexico

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A change to Mexico's constitution article dealing with education was promoted by president López Obrador and passed in May 2019. It mandated the approval of three general laws: The General Law on Education (September 2019), the General Law on Higher Education (April 2021), and the General Law on Science (May 2023). For several months, the academic community was divided between those in favor of and those against the proposed General Law on Science, given its centralized, authoritarian, and archaic vision of science and knowledge production.

The new law was passed in both chambers of the Mexican congress under questionable circumstances, and with violations to the congress rules due to human rights abuses by excluding academics working at private higher education institutions and students from CONACYT programs and scholarships. Therefore, a long legal battle over the fairness of the law began.

## Shaping Higher Education and Scientific Systems

Historically, governments have sought to control or shape educational and scientific policies, with the latter being more common. Sociologist Robert K. Merton noted that totalitarian regimes view academic freedom as a threat, while democratic regimes provide ideal environments for the development of science.

López Obrador has established several reforms that many in Mexico's academic community have characterized as populist. In basic education, these include curricular

### Abstract

Mexico's new General Law on Science has divided the academic community, given its centralized, authoritarian and archaic view of knowledge production. The future of science in Mexico looks grim, as academic communities are not only grappling with a lack of funding but also facing attacks on academic freedom and, in extreme cases, freedom of speech.

reforms that equate indigenous or community knowledge with scientific knowledge, the cancellation of teaching evaluations, and the elimination of standardized tests. In higher education, policies were designed—at least on paper—to ensure free education and access. Approximately 145 “new universities” were created to cater to low-income students who had limited access to the most prestigious higher education institutions in the country. However, these new universities were established in marginal and remote communities with few resources and no quality assurance mechanisms. Unfortunately, there is not enough public information about them to determine their impact on their communities or to evaluate their curricula, programs, teachers, and staff quality.

### The Law: Implications for Science

The recently approved law consolidates the policies implemented by CONACYT during this administration. CONACYT is the National Council of Science and Technology that was created in 1970 and has since then set national policies in this sector. The new law represents an important shift in what Mexico has been doing in terms of research and development. For instance, it has eliminated most scientific programs introduced by previous governments without evaluating their results, restricted private sector participation in innovation and technological development programs and policies, and destroyed institutions perceived as enemies of the regime, such as the Center for Research and Teaching in Economics (CIDE) and the Advisory Forum on Science and Technology (FCCyT). For example, the new director appointed in CIDE against the wishes of the academic community made a number of arbitrary decisions when it comes to hiring and firing faculty, and cut salaries.

This law has established a new organizational system for the scientific sector in the country. Furthermore, it has changed the name of CONACYT into CONAHCYT, adding an *H* (for *humanities*). Here are some of the main changes introduced by this law:

- It forms a directive council that involves fifteen representatives of secretaries of state, including the secretaries of defense and the navy. The council will exclude representatives from the National Autonomous University of Mexico (UNAM) or the National Association of Universities and Higher Education Institutions (ANUIES), as well as representatives of the states and the private sector. It will include only eight members unaffiliated with the government. One of the council’s main responsibilities is to establish a national research agenda, which will receive prioritized financial support from CONACYT.
- It transfers the rights of patents developed with CONACYT financing. While most financial agencies support the creation of knowledge, they do not usually seek ownership of discoveries. The new law eliminates the goal of allocating 1 percent of the gross national product to the sector, and replaces it with the requirement to spend more money than in the previous year, without considering the level of inflation. Thus, if the government increased spending by two pesos (less than one US dollar) the following year, the law would be considered fulfilled.
- The new law excludes the participation of academics and students from private higher education institutions in CONACYT programs unless they provide the necessary resources and sign bilateral agreements with the council. It also increases the centralization of activities in the sector, and reduces the role of states and municipalities, despite Mexico being a federal republic. It limits the autonomy of public research centers by controlling their governance. It modifies their governing bodies and academic evaluation processes, and diminishes their power to make decisions about their governance.

### Populism and Science

López Obrador’s government has taken an antiscientific position on several issues, including the recent pandemic. During the peak months, the president said that “good and honest people” would not contract COVID-19, despite having been infected with the virus three times. He also suggested that carrying a Christian amulet was sufficient protection against the virus.

During López Obrador’s presidency, there has been a drastic reduction in public funding for education and science. Moreover, academics have faced disqualifications, being

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regarded as an elitist group solely concerned with preserving their privileges instead of addressing the country's social problems.

The recently appointed director of CONACYT, María Elena Álvarez Buylla, has also made controversial comments, such as insinuating that the moon landing was not scientifically relevant, ignoring the fact that infrared ear thermometers, anti-icing systems, firefighter gear, solar energy harnessing, GPS, and LEDs were made possible thanks to US space programs. Furthermore, she has criticized biotechnology and transgenics, categorizing them as “neoliberal science.”

Although the director of CONACYT received a scholarship to study for her PhD at the University of California, Berkeley, she has been an accomplice to the government's denigration of the scientific community, particularly of those academics who have studied abroad. López Obrador once said that there are people who have studied at Harvard University who learned how to steal or aid in stealing. He said that it is implied that studying abroad is associated with an elitist, classist, and racist mentality. In his government's first four years, CONACYT scholarships to study abroad decreased by almost 50 percent compared to the previous government's first four years.

Once this populist government ends in 2024, Mexican education and science will be different, but not better. This is not to say that the Mexican scientific sector was performing well in the past, but some of its higher education institutions and research centers have survived and even produced knowledge, despite previous governments' lack of support. However, the future looks grim, as academic communities are not only grappling with a lack of funding but also facing attacks on academic freedom and, in extreme cases, freedom of speech. ▲

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