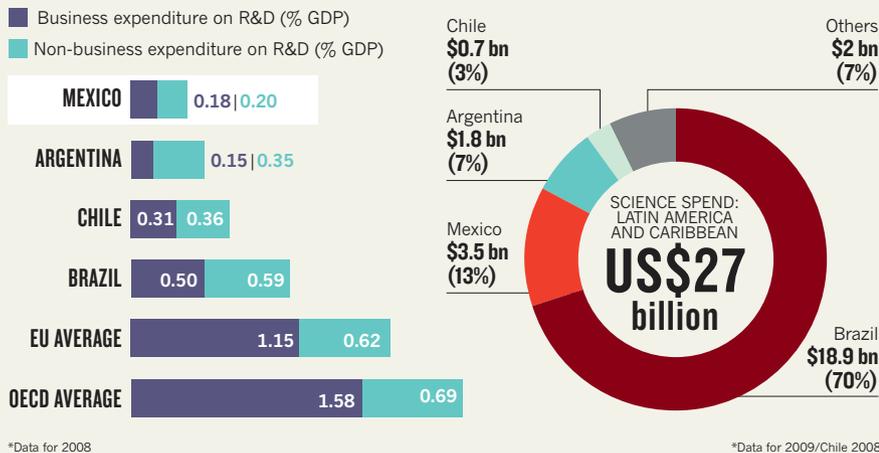


## PALTRY PESOS

Mexico's gross expenditure on research and development (R&D) relative to its gross domestic product (GDP) lags behind that of rivals in Latin America, the European Union (EU) and the Organisation for Economic Co-operation and Development (OECD).



innovation have not been a priority for Mexican decision-makers," says Juan Pedro Lacleste, head of the Scientific and Technological Consultative Forum, a leading think-tank for science based in Mexico City. "If you plant peanuts, you are going to harvest peanuts. What Mexican politicians have planted — have invested — is peanuts."

The presidential candidate who talks the most about reviving research is Andrés Manuel López Obrador, who leads the left-wing Party of the Democratic Revolution. Polls put him just ahead of Josefina Vázquez Mota of the right-leaning National Action Party, which has held the presidency since 2000, but behind Enrique Peña Nieto of the left-wing Institutional Revolutionary Party, which controlled the Mexican government for more than seven decades until 2000, and became a symbol of corruption and voter fraud.

In the most recent presidential election, in 2006, Obrador came second by such a narrow margin that he held regular protests for five months, during which time he named himself president and even set up an alternative government — machinations that have damaged his credibility this time around. His party, however, has deep roots in academia and enjoys wide support from scientists. René Drucker Colín, a neuropathologist and former coordinator of basic science at the National Autonomous University of Mexico in Mexico City, one of Latin America's biggest universities, is among the researchers who have taken to the campaign trail on Obrador's behalf.

Obrador plans to remedy what many researchers complain is a major handicap for Mexican science: the lack of a clear national research strategy with long-term commitments to nurturing particular fields. He has pledged to boost spending and promote the country's biggest science funder, the National Council on Science and Technology, to a fully fledged ministry — with Drucker Colín at its head — that would control the nation's entire science budget.

Peña Nieto, the current presidential front runner, has said less publicly about science. But in an e-mail to *Nature*, he wrote: "We need to create a National System for Innovation that promotes it through effective stimuli, intellectual property rights protection, better access to credit and coordination between the public and private sectors."

Industry contributes less than half of Mexico's GERD per GDP, and the country's scientists, including Pedro Lacleste, have long bemoaned the schism between industry and academic research. In the future, wrote Peña Nieto, "private funding will be instrumental to the success of the system".

Whoever wins the election, researchers are adamant that the time for broken promises is past. "If you take the difference between what they give and what they were supposed to be giving, they owe science a huge amount of money," says Franco López. ■

## POLITICS

# Science at stake in Mexican election

Presidential candidates vow to restore research reputation.

BY ERIK VANCE IN MEXICO CITY

Mexican scientists have watched with dismay as their country, Latin America's second-largest economy, has slipped down the research-spending ranks in recent years. Candidates in this week's presidential election have pledged to change that.

Back in 2000, presidential candidate Vicente Fox promised to raise Mexico's gross expenditure on research and development from about 0.4% to 1% of gross domestic product (GERD per GDP, often known as research intensity). Fox won, but despite legislation meant to guarantee the increase, Mexico's GERD per GDP has remained below 0.5%. Science has barely featured in campaigns for subsequent elections, presidential or otherwise.

Now it is back with a vengeance. In presidential debates, all three leading candidates have sworn to make good on Fox's promise. "This is the very first time that I have heard the candidates make positive pronouncements about science," says José Franco López, president of the Mexican Academy of Sciences in Mexico City. "Before, science was nowhere in their speeches. This time they are acknowledging that science and technology and innovation are engines for economic development."

The attention to research investment

comes as Mexico faces competition from other emerging economies. "Brazil has almost caught up with Mexico in GDP per capita, in less than a generation," says Andrew Selee, director of the Mexico Institute at the Woodrow Wilson Center in Washington, DC. "Mexicans are starting to ask why?"

For much of the twentieth century, Mexico was considered to be the leader in Latin American science. Yet although the country still has pockets of research excellence, Mexico's GERD per GDP now ranks among the very lowest in the world's top 40 economies (see 'Paltry pesos').

Brazil, by contrast, has consistently spent more than 1% of its GDP on research since 2006. Its gross expenditure on science, including industrial research, totals almost US\$20 billion per year — roughly five times Mexico's tally — despite cuts this year of almost 20% to the US\$3.8-billion budget of the Brazilian Ministry of Science, Technology and Innovation (L. Amorim *Science and Development Network* 6 March 2012).

"Knowledge, research, development and

**"This is the very first time that I have heard the candidates make positive pronouncements about science."**