

# SARA AVILA FORCADA

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## ENVIRONMENTAL ECONOMIST

### Office Contact Information

Economics 06A, UCB, Boulder CO, 80309  
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### Graduate Studies:

MA Economics, UCLA, 2001  
Visiting Student, Princeton University, 2012  
PhD Environmental Economics and Sustainable Development, UNAM, 2015.

### Undergraduate Studies:

BA, Economics, ITAM, Honor Student, 1998

### Current Position:

Fall 2019- present      Economics Instructor CU Boulder, Department of Economics.  
Fall 2016- present      Affiliated Researcher in Environmental Economics, FLACSO

### Teaching and Research Fields:

Primary fields: environmental economics, urban economics, sustainability, behavioral economics.  
Secondary fields: microeconomics, statistics

### Teaching Experience:

Spring 2013, Fall 2014,      Lecturer, Economics of the Environment, Columbia University  
Fall 2015  
Fall 2012,                      Lecturer, Globalization and Its Risks, Columbia University  
Spring 2009                      Lecturer, Economics of the Environment, UNAM  
Spring 2006,                      Lecturer, Advanced Microeconomics, ITAM  
Fall 2005,                         Lecturer, Applied Econometrics, ITAM  
Fall 2004, Fall 2006              Lecturer, Environmental Economics Seminary, ITAM

### Thesis Advisory Experience:

Fall 2017                         "Lessons from citizen participation in building bike lanes" by Nadjeli Babinet, Master in Energy and Environmental Policy.  
Spring 2018                      "Social justice in urban mobility, the case of Mexico City" by Carlos Tornel, Master in Energy and Environmental Policy.  
Fall 2018                         "A Day Without Car Program to reduce emissions: success or failure?" by Angeles Berlioz, Master in Energy and Environmental Policy.  
Spring 2019                      Alberto Gloria, "Energy consumption in the housing sector, a focus in overcrowded slumps"  
Francisco Pardo, "Solar energy use in the Mexican industry, a case study"  
Javier Piña, "Nudges for transportation, an experiment in the subway"  
Diego Roman, "Impact of density in energy consumption in medium sized cities in a developing country"  
Luis Alberto Sanchez, "Addressing heterogeneity in elasticity calculation of the residential electric market, a QUAIDS approach"

Crystal Torres “Energy consumption in Mexican households: electricity, gas and lumber”

**Other Employment:**

Sep 2001- Sep 2008	National Institute of Ecology, Director of Econometric Analysis and Modeling
Jan 2001- Sep 2001	Mexican Senate, Advisor to the Environmental Commission
1996-1999	Ministry of the Environment, Economic Advisor at the Environmental Economics Unit

**Grants and Scholarships:**

2016-2019	Grant CONACYT-SENER for research in energy efficiency in households.
2009-2010	Grant CONACYT-UNAM for research in incentives for conservation at Princeton University.
2009	Grant by the Latin American and the Caribbean Environmental Economics Program for research in fisheries conservation.
2009-2014	CONACYT PhD Scholarship
1998-2001	CONACYT-UCMEXUS Scholarship

**Publications:**

Avila-Forcada, S., Martinez-Cruz, A. L., Rodriguez-Ramirez, R., & Sanjurjo-Rivera, E. (2019). Transitioning to alternative livelihoods: The case of PACE-Vaquita. *Ocean & Coastal Management*, 104984.

Temkin B, Avila, S., & Martínez E. (2018). The differential impact of economic globalization and democracy on carbon emissions in rich and poor countries. *Revista Internacional de Contaminación Ambiental*, 34(1), 169-183.

Avila-Forcada, S., Martínez-Cruz, A. L., & Muñoz-Piña, C. (2012). Conservation of vaquita marina in the Northern Gulf of California. *Marine Policy*, 36(3), 613-622.

Aguilar-Ibarra A., Perez-Espejo R. & Avila S. (2010). Soluciones de la teoría económica para la contaminación del agua. In *Water Quality, a Multidisciplinary Approach*. UNAM: Instituto de Investigaciones Económicas.

(Economic Theory Solutions for Water Pollution)

Ávila, S., Muñoz, C., & Guevara A. (2008). Cómo evitar el agotamiento de los acuíferos en México: Análisis del desacoplamiento del subsidio a la tarifa eléctrica de bombeo agrícola, *Gaceta Ecológica*. (Avoiding aquifer degradation in Mexico: Analysis of decoupling the subsidy for the electric tariff of water pumping for agriculture)

Ávila, S., & Muñoz C. (2005). Tarifa 09: un subsidio y sus consecuencias. *Bien Común*, 11(131). (Electric Tariff: a Subsidy and its Consequences)

Ávila, S., Martínez, A., Mendoza, P., & Muñoz C. (2005). Los determinantes del retorno de envases de plástico en un sistema de depósito reembolso. *Gaceta Ecológica*, 75.

(Determinants of return of plastic containers in a deposit-refund system)

Ávila, S. (2004). Los derechos de propiedad intelectual y los países en desarrollo: el papel de las indicaciones geográficas. En *Comercio y medio ambiente; distorsiones, información y acceso a*

*mercados*. INE: México, D.F.

(Intellectual property rights in developing countries: the role of geographic indications)

Avila, S. (2004). Bienes y servicios relacionados con el medio ambiente. En *Comercio y medio ambiente; distorsiones, información y acceso a mercados*. INE: México, D.F

(Goods and services related with the environment)

Avila, S. y Muñoz, C., (2004). Effects of an environmental tax on pesticides in Mexico. *Industry and Environment*, 27 (2), 33-36.

Avila, S. (2002) Consideraciones finales de impuestos relacionados con el medio ambiente. En *Impuestos ambientales: lecciones en países de la OCDE y experiencias en México*, INE: México, D.F.

(Final considerations of environmentally related taxes: Lessons from OECD Countries and experiences in Mexico)

### **Working Papers:**

"Idiosyncratic variables and bike use in medium-sized cities."

Idiosyncratic traits enhance the explanatory power of models. I explore the characteristics of bike users in medium-sized cities in a Latin American context. Idiosyncratic variables and access to infrastructure divide the universe into two distinct groups, which I call: bike lovers and bike haters. Among those who believe that the car is necessary and live far away from the core of the city (bike haters), the results show that older people and women are less likely to bike. This result is typical in the literature. However, among those who live closer to the core of the city and do not believe that bike use is for poor people (bike lovers), age and gender do not have the usual effect. Older people and women are willing to bike, and education has a significant influence in this second group.

"The impact of Nudges in Residential Energy Consumption in the Tropics."

Nudges are shown to influence behavior and energy savings in households in several cities in the developed world. I conduct an experiment in Southern Mexico and measure the impact of knowing the neighbor's average energy consumption. Households receive a happy face if they consume less than average electricity and a sad face if they consume more than average electricity. I find that Mexicans have a stronger response to nudges than the literature shows for similar experiments in developed countries: sad faces encourage a decrease in energy consumption while a household with happy faces keeps the same rate of consumption.

(With Rodrigo Salazar) "Choice Architecture: behavioral economics and the design of public policy, examples in Latin America."

This article begins with a brief discussion about why Latin Americans might be different from developed world citizens and the implications for the use of nudges in Latin America. We consider the limited budget Latin American countries face, the lower level of trust in the governments, nudges in place that point in the "wrong" direction and we explore the possibility that we might be more prone to heuristics than developing countries. We then give two examples of nudges that were applied in the region: the elimination of salt-shakers from restaurant tables and the posting of arrows to guide the entrance and exit in the subway. Then, we use the tools of behavioral economics to explain why two policies fell short of their

expected results: the Education Reform and the Land Tenure Reform. We conclude that behavioral economics increases the tools for public policymaking and that its contributions are valuable in the Latin American context.