

**JAMES E. SAYRE**

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**Doctoral Studies** University of California, Berkeley  
Ph.D., Agricultural and Resource Economics, Expected completion May 2022  
DISSERTATION: “Essays in International Trade and Agricultural Economics”

PRIMARY FIELDS: International Trade, Agricultural and Resource Economics  
SECONDARY FIELDS: Development, Environment

Professor Thibault Fally  
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<b>Placement Officers</b>	<u>Professor Sofia Villas-Boas</u> sberto@berkeley.edu +1 (510) 409-4341	<u>Professor Max Auffhammer</u> auffhammer@berkeley.edu +1 (510) 643-5472	<u>Diana Lazo</u> lazo@berkeley.edu +1 (510) 642-3345
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<b>Prior Education</b>	<b>University of Minnesota</b>	B.Sc. Economics and Mathematics, <i>summa cum laude</i>	2016
	<b>Harvard College</b>	Visiting Undergraduate Student	2013-2014

<b>Teaching</b>	<b>UC Berkeley</b>	Economics C181, <i>International Trade</i> , Andres Rodriguez-Clare	Sp. 2020 & 2021
	<b>UC Berkeley</b>	Economics C181, <i>International Trade</i> , Thibault Fally	F. 2018 & 2020, Sp. 2018
	<b>UC Berkeley</b>	Public Policy 275, <i>Spatial Data and Analysis</i> , Solomon Hsiang	F. 2019

**Languages** English (native), Spanish (advanced)

<b>Grants, Fellowships, and Awards</b>	2021	John L. Simpson Graduate Student Research Fellowship in International Area Studies (\$7,500)
	2021, 2017	Giannini Foundation of Agricultural Economics Grant (\$24,675 & \$19,712, with Thibault Fally)
	2021	Outstanding Graduate Student Instructor Award
	2021	ARE Summer Research Grant (\$3,000)
	2020	Sponsored Projects for Undergraduate Research Grant (\$1,500, with Yeeun Moon)
	2020	Berkeley Economists for Equity Small Research Grant (\$1,000)
	2019	JPMCC International Commodities Symposium Best Paper Award (\$2,000)
	2019	The Sacheti Family Fellowship (\$1,500)
	2019	J-PAL Crime and Violence Initiative Exploratory Grant (\$9,800)
	2019	ARE Travel Grant (\$1,000) and Graduate Division Travel Grant (\$1,500)
	2017	Data Science for the 21st Century NSF Fellowship & Traineeship (\$50,000)
	Earlier	Charles and Myrtle Stroud Scholarship, National Scholarship for University of Minnesota Students, University of Minnesota Honors Program and College of Liberal Arts Dean’s List

<b>Research Papers</b>	<p><b>“Farm to Firm: Clustering and Returns to Scale in Agricultural Value Chains” (JOB MARKET PAPER)</b>  Across a number of countries, patterns of land usage are the opposite of what Ricardian specialization would suggest: crops in which a country has a higher comparative advantage in exports are produced with a smaller fraction of total arable land. I argue that this relationship is driven by crop-specific farm-to-firm linkages, which generate regions of high specialization in exporting and specific crop cultivation, but leave many regions without these linkages unable to specialize. Empirically, I show that farms located closer to exporters of a given crop are more likely to cultivate it. Using farm and firm microdata, I estimate the fixed costs of production for such intermediaries as well as input costs of production for exporting farms, which are partially driven by the costs of compliance with phytosanitary barriers. I then develop a model which can accommodate these patterns of clustering, and can explain aggregate patterns of land use. Finally, using model based counterfactual analysis, I examine which policies can best facilitate the goal of high value agricultural export promotion.</p> <p><b>“Commodity Trade Matters”</b> with Thibault Fally  <i>Reject and Resubmit</i>, American Economic Journal: Macroeconomics, 2019. <a href="#">NBER Working Paper #24965</a>.  Primary commodities are used as inputs into all production processes, yet they account for approximately 16 percent of world trade. Despite their share in trade, we show that the aggregate gains from trade are largely understated if we ignore key features of commodities: low price elasticities of demand (difficulty in finding substitutes), low price elasticities of supply, and high dispersion of natural resources across countries. We develop a general-equilibrium model of consumption, production, and input-output linkages that explicitly accounts for these features. Our simulations confirm that the gains from trade are significantly larger, especially when considering large trade cost changes.</p>
<b>Research in Progress</b>	<p><b>“The Promise of Crop Substitution Programs”</b>  Crop substitution programs have begun to attract the attention of policymakers eager to stem the production of illegal drugs while supporting the poor rural farmers who cultivate such products. However, drug policy researchers argue that such programs are unlikely to succeed due to “balloon effects”, the general equilibrium effects of a reduction in supply increasing production elsewhere. I study the context of Mexico, where the production of illegal drugs is roughly estimated to employ up to 450,000 people. I undertake a large remote sensing effort to detect opium poppy in major production zones, and coupled with panel data on the production of other agricultural crops, I estimate elasticities of substitution between illicit and licit crops. I then develop a model to understand what level of subsidies would be necessary to give rise to a substantial reduction of illegal drug production, as well as compare the welfare impacts of a price subsidy program to the effects of eradication campaigns.</p> <p><b>“The Long Run Impact of Colonization on Crop Choice”</b> with Abdoulaye Cisse  We examine the high degree of path dependence in crop specialization and in crop-specific export patterns in West Africa. We argue that such cultivation decisions can be partially attributed to crops these regions were historically forced to grow under European colonization. Using variation in demand for crops coming from colonists’ home countries of origin as well as historical maps of where crops were grown, we demonstrate that: (i) countries’ production patterns were driven by local demand in European markets, and (ii) countries that historically exported certain crops to Europe are subsequently more likely to cultivate as well as export those crops today and that this finding is not purely driven by agro-ecological conditions or trade costs.</p>
<b>Prior Employment</b>	<p><b>UC Berkeley</b>, Graduate Student Researcher (Profs. Thibault Fally &amp; Marco Gonzalez-Navarro) 2016 - 2020  <b>University of Minnesota</b>, Research Assistant (Professor Paul Glewwe) 2014 - 2015  <b>Harvard University</b>, Research Assistant (Professor Melissa Dell) 2013 - 2014</p>
<b>External Talks</b>	<p>2021 AAEA Meetings (Austin), Agricultural Policy Conference (Online), OSWEET (Online)  2020 WEAI Graduate Student Workshop (Online)  2019 JP Morgan Commodities Center International Commodities Symposium (CU Denver)  2018 Rocky Mountain Empirical Trade Conference (U of Ottawa), Society for Economic Dynamics Annual Meeting (ITAM), Tinbergen Institute Conference on International Trade (Amsterdam)</p>
<b>Refereeing</b>	<p><i>European Economic Review</i>, <i>The Economic Journal</i></p>
<b>Activities</b>	<p>2020 - 2021 Honors thesis advisor, Environmental Economics and Policy and Public Health Departments  2020 - 2021 Member of the ARE Diversity, Equity, and Inclusion Research and Pedagogy Subcommittee  2020 Tutor for the Berkeley Underrepresented Minorities in Economics group</p>