

**SCOTT M. KAPLAN**

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**Doctoral Studies**

University of California, Berkeley  
PhD, Agricultural and Resource Economics. Expected completion: May 2021  
DISSERTATION: “Essays in Applied Microeconomics and Consumer Demand”

PRIMARY FIELDS: Industrial Organization, Consumer Economics, Applied Econometrics  
SECONDARY FIELDS: Agricultural Economics, Environmental Economics, Sports Economics

**References**

Professor Benjamin Handel  
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**Prior Education**

UC Berkeley	B.Sc. Environmental Economics & Policy and Environmental Science	2014
UC Berkeley	M.S. Agricultural and Resource Economics	2017

**Teaching**

UC Berkeley	Masters of Development Practice <i>“Summer Bootcamp” Instructor in Microeconomics</i>	2017-2020
UC Berkeley	Department of Agricultural and Resource Economics <i>Instructor of Record, Applied Econometrics (EEP 118)</i>	Summer 2018
UC Berkeley	Masters of Development Practice <i>Graduate Student Instructor, Intermediate Microeconomics (DEVP 222)</i>	2018-2020
UC Berkeley	Graduate Student Instructor Center <i>Teaching Workshop Instructor</i>	2019-2020

**Languages**

English (native)

<b>Grants, Fellowships, and Awards</b>	2020	Graduate Remote Instruction Innovation Fellow (\$4,000)
	2019	Sacheti Family Fellowship (\$2,500), Sloan Sports Analytics Conference: Best Poster Winner (\$500)
	2016-18	National Science Foundation Data Science Fellowship (\$52,000)
	2015	Honorable Mention, Agricultural and Applied Economics Association Quality of Communication Award (for "An Overview of California's Agricultural Adaptation to Climate Change")
	Earlier	UC Berkeley Sponsored Program for Undergraduate Research (SPUR) Grant (\$500), UC Berkeley Horace Albright Memorial Scholarship (\$2,000), UC Berkeley Leadership Scholarship (\$2,000)

### **Job Market Paper**

#### **“Entertainment Utility from Skill and Thrill” (JOB MARKET PAPER) – [Current Version Here.](#)**

This paper uses revealed preference methods to estimate demand for non-instrumental information in entertainment. I do this by examining the “thrill” associated with the trajectory of an event, which includes both suspense and surprise, and the “skill” of performers in an event. I apply the theory presented in Ely et al. (2015, JPE) to conduct an empirical analysis that examines the effect of thrill on consumer attention. I extend the Ely et al. (2015, JPE) framework by examining spectator preferences for characteristics of the performers themselves, which I call “skill.” I use game-specific, high-temporal frequency television ratings data from the National Basketball Association (NBA) to measure spectator responses to skill and thrill. First, I find that a doubling of skill present in a game leads to an approximately 11% increase in initial viewer turnout, while the expected thrill of a game has no statistically significant impact. Next, I show that thrill during a game increases viewership by 7-30%, while a doubling of skill on the court during a specific portion of a game leads to a 1.9-2.4% increase in viewership, depending on specification. Interestingly, I find a negative interactive effect between suspense and skill, suggesting that heightened suspense leads to differentially higher viewership with lower skill on the court. The findings suggest that skill of information-conveying agents primarily impacts viewership on the extensive margin (across games), while thrill is highly time-dependent and primarily impacts viewership on the intensive margin (within games). These findings have important implications for entertainment media companies, including leagues and television broadcasters, and advertisers.

### **Selected Publications**

#### **“The Economic Value of Popularity: Evidence from Superstars in the National Basketball Association”.** *SSRN Working Paper. February 2020.* [Link Here.](#)

This paper estimates spectator WTP for superstars in the NBA. Using microdata from an online secondary ticket marketplace and exogenous player absence announcements, I find 4-16% (\$7-\$42) reductions in prices when superstars are announced to miss games. Additionally, LeBron James and Stephen Curry exhibit even larger impacts in away game absences—21% (\$75/ticket) for LeBron and 18% (\$55/ticket) for Curry. The results suggest popularity is a more significant determinant of WTP than skill, and in line with existing superstar literature, popularity predicts price impacts convexly. This paper provides a novel methodology to estimate superstar value, generating implications for the entertainment industry.

#### **“Willingness to Pay vs. Willingness to Vote: Consumer and Voter Avoidance of Genetically Modified Foods.”** with G. Waterfield and D. Zilberman. *American Journal of Agricultural Economics* 102(2), 505-24. 2020. [Link Here.](#)

Many technologies face disapproval from some portion of the general public due to perceived risks or externalities. Individuals can respond to these controversial technologies as consumers by choosing favorable alternatives and as voters by supporting regulation. We examine the relationship between willingness to pay a premium for products that avoid a controversial technology and willingness to vote in favor of a ban or mandatory labeling, focusing on how this relationship is influenced by income and perceived risks. In a survey regarding genetically modified (GM) food, we find that the majority of respondents make consumer and voter choices that can be explained by a standard utility maximization framework. However, certain respondent characteristics are correlated with inconsistent choice patterns. In particular, low-income voters are overly supportive of regulation relative to their private willingness to pay. Voters who are uncertain about the safety of GM food also tend to be more in favor of regulation than their consumer choices would imply.

#### **“Soda Wars: The Effect of a Soda Tax Election on University Beverage Sales.”** with R. Taylor, S. Villas-Boas, and K. Jung. *Economic Inquiry* 57(3), 1480-96. 2019. [Link Here.](#)

We examine how soda sales changed due to the campaign attention and election outcome of a local excise tax on sugar-sweetened beverages. Using panel data of beverage sales from university retailers in Berkeley, CA, we estimate that soda purchases relative to control beverages significantly dropped immediately after the election, months before the tax was implemented in the city of Berkeley or on campus. Supplemental scanner data from off-campus retailers reveal this result is not unique to the university setting. Our findings suggest media coverage and election outcomes can have larger effects on purchasing behavior than the tax itself.

## Selected Publications

**“Hindered Growth.”** with M. Elitzur and D. Zilberman *Journal of Economic Dynamics and Control*, 111: 103807. 2020. [Link Here](#).

We develop a formalism to extract the exponential component from a growth process and describe the remainder with the optimal number of parameters. The method is demonstrated analyzing the time variation of Gross Domestic Product (GDP) and population in the US and UK, two nations with continuous data coverage going back more than 200 years. For each of the four datasets we find a successful description, with the deviation of long-term growth from a pure exponential requiring no more than a single free parameter; there is no significant gain from adding more parameters. We find persistent longterm growth patterns, consistent with Jones (1995) and showing directly from the data that population and GDP growth in different countries may follow different trajectories, illuminating their intrinsic differences.

**“Higher Sugar-Sweetened Beverage Retail Prices After Taxation in Oakland and San Francisco.”** with J. Falbe, M. Lee, N. Rojas, A.O. Hinojosa, and K. Madsen. *American Journal of Public Health* 110(7), 1017-23. 2020. [Link Here](#).

In July 2017 and January 2018, Oakland and San Francisco (SF), CA became two of the largest cities to implement SSB excise taxes (1-cent/fl oz paid by distributors). We examined the extent to which these taxes increased SSB retail prices, an important mechanism for reducing consumption. We collected pre-tax (April-May 2017) and post-tax (April-May 2018) retail prices of SSBs and non-SSBs from 155 stores across Oakland, SF, and comparison cities. Data were analyzed using difference-in-differences high-dimensional fixed effects regressions, weighted by regional beverage sales. Across all beverage sizes, the weighted average price of SSBs increased by 0.92 cents/oz (95%CI: 0.28-1.56) in Oakland and 1.00 (95%CI: 0.35-1.65) in SF, compared to that in untaxed cities. The tax did not significantly alter prices of water, 100% juice, or milk of any size examined. Diet soda only, among non-SSBs, exhibited a higher price increase for some sizes in taxed cities. Within 4-10 months of implementation, Oakland and SF's SSB excise taxes significantly increased SSB retail prices by approximately the amount of the taxes, a key mechanism for reducing consumption.

**“The Future of Autonomous Vehicles: Lessons from the Literature on Technology Adoption”** with Ben Gordon, Feras El-Zarwi, Joan Walker, and David Zilberman. *Applied Economic Perspectives and Policy* 41(4), 583-97. 2019. [Link Here](#).

The introduction and adoption of autonomous vehicles (AVs) will likely reshape the transportation system and many economic activities. The economic literature on technology adoption provides lessons on the diffusion of AVs and its social and economic impacts. We rely on the threshold model of diffusion, where heterogeneous agents make decisions pursuing their self-interests. We find that private ownership of AVs may prevail after a transition period, as was the case in other technologies like computers, tractors, and conventional vehicles. With technological progress, the cost of privately owning AVs may decline. Additionally, there will be an increase in vehicle miles traveled (VMT) per capita, there may be more vehicles on the road, and perhaps the transportation user-base will expand to include those currently facing limited mobility. Congestion is likely to depend on the tradeoff between the expansion of VMT and increased efficiency of AVs to communicate and help regulate traffic. Furthermore, differentiation of vehicles will increase as driving time becomes freed for other activities. These trends may lead to increased greenhouse gas emissions and expansion of the transportation sector. Finally, the technology will evolve and may result in complementary innovations needing to be addressed, including the "last 10 feet" problem. It is evident that the future of the transportation system governed by AVs is most likely not going to be sustainable. This necessitates the importance of developing and enforcing rigorous policies at the metropolitan level and TNC levels to ensure a sustainable evolution of the future of transportation mobility.

**“The Political Economy of Labeling.”** with D. Zilberman and B. Gordon. *Food Policy* 78, 6-13. 2018. [Link Here](#).

Labeling arrangements are introduced to provide information and affect market outcomes. Mandatory labeling of products like genetically-modified organisms (GMOs) is subject to controversy and political debate. The exact outcome depends on the specific public decision-making process (direct vote by the public vs. voting by representatives), the political power distribution among groups, and the workings of legislative and regulatory processes. This paper presents a conceptual framework to assess the welfare implications of labeling decisions that are decided by political processes. We identify conditions under which there are gains from mandatory labeling compared to no labeling, and find that the gain from passing a mandatory labeling proposition is larger if the voluntary labeling option is not available. The conclusions suggest that when mandatory labeling is not feasible politically, promoters of labeling will introduce voluntary labeling. The paper uses the results of this conceptual framework to analyze different case studies of labeling propositions, including Proposition 37 that was voted on in California in 2012. The findings suggest that labeling decisions may evolve with new scientific knowledge, new information technologies, and changing attitudes.

## Selected Publications

**“Recycling policies, behavior and convenience: Survey evidence from the CalRecycle program”** with P.Berck, G. Englander, S. Gold, S. He, J. Horsager, M. Sears, A. Stevens, C. Trachtman, R. Taylor, and S. Villas-Boas. *Forthcoming in Applied Economic Perspectives and Policy*.

A deposit-refund system, called the California Redemption Value (CRV) payment, was established in 1987, as part of AB2020, to increase recycling rates on eligible beverage containers purchased in California. After paying an initial tax, the consumer may return empty containers to a state-certified recycling center for a refund. To provide for convenient recycling without having retailers handle bottles, AB2020 also establishes convenience zones and requires that there be a recycling center, co-located with a supermarket within each zone. We empirically investigate how consumers define convenience in recycling opportunities and who recycles from data collected by us from conducting two surveys. The first survey discusses purchasing behavior, convenience, and all disposal methods, for a representative sample of 1000 households in California. The second survey focuses on recycling center users, with 628 surveys conducted at 88 randomly selected recycling centers throughout California. Surveyors asked recyclers questions regarding their recycling habits, sources of containers, and convenience, and requested a copy of their receipt for accurate data on recycling volume. Using these two surveys we (i) investigate the interaction between subsidies for certain types of recycling centers, the number of centers, and recycling behavior, (ii) delineate what makes recycling convenient in the eyes of consumers, (iii) estimate simulated behavior under alternative policy changes pertaining to the level of CRV, and (iv) provide estimates of diversion from trash and curbside disposal to recycling center return. We find that recycling centers located within convenience zones are not considered to be especially convenient by recyclers, often due to limited operating hours and use of cash vouchers. Consumers prioritize recycling centers that are nearby, have flexible operating hours, and short waiting times. While the CRV is inducing people to recycle, we find that an increase in the CRV would not lead to major increases in recycling, due to the small number of containers that enter trash streams. Finally, our best estimates suggest that a majority of diversion comes from trash streams, rather than curbside recycling.

## Research in Progress

**“Estimating worldwide benefits from a genetically improved banana: The use of CRISPR-Cas9 to control Fusarium Wilt Tropical Race 4”** with F.d.F Silva, F. Magdama, M. Potts, R.L.E Martinez, and D. Zilberman. *Revise and Resubmit at American Journal of Agricultural Economics*.

A big challenge to agricultural research is enhancing plant resistance for new plant diseases. Plant pathogens emerge sporadically and are a major source of crop production losses. In this paper, we develop a methodology to assess the economic benefits and impacts of developing and commercially introducing a genetically improved crop for an emerging plant disease. This framework incorporates both the dynamics of the spread of the disease as well as the diffusion of the solution in deriving the resulting expected net benefit, as well as its impact on farmers, producers who are affected by the disease, and producers who are not affected. We consider the time lag between the emergence of a disease and the availability of the new technology, which may be affected by regulatory and technical uncertainty. We apply our framework to the global market for bananas, which continues to be heavily impacted by *Fusarium oxysporum* f.sp. *cubense* Tropical race 4 (FocTR4). One possible solution to this problem is to use CRISPR-CAS9 gene modification technologies to develop disease-resistant varieties, yet timing of availability is uncertain due to both technological and regulatory uncertainties. We simulate welfare losses in the global market for bananas under different scenarios of disease and adoption of a solution. Our results indicate that without adoption of a solution, welfare losses range from US\$ 40-83 billion, but depending on how quickly a solution is adopted, these losses can be reduced by 71-94%. The expected benefit of adopting a solution is equal to \$45.37 billion dollars.

**“The Impact of Environmental Quality on Recreation: Evidence from Secondary Ticket Marketplace Microdata for Outdoor Professional Sporting Events”** with H. Gordon.

Climate, temperature, and air quality are important determinants that affect individual welfare and economic decision-making by policymakers. One important activity that is heavily dependent on these environmental factors is recreation. While there has been significant research using contingent valuation and other stated preference techniques to attempt to understand individual willingness-to-pay for recreation under different environmental conditions, there has been a relative lack of work using revealed preference metrics and market data. This work examines the impact of temperature and air quality on willingness-to-pay for recreation using high temporal frequency microdata from a large online secondary ticket marketplace for outdoor professional sporting events (Major League Baseball and the National Football League). We leverage temperature and air quality forecasts and actual realized observations to understand to what extent expected and actual environmental quality impacts ticket prices on this secondary market. Initial results suggest that air quality does not significantly affect ticket prices, while temperature does have the expected inverted u-shaped effect. These results are important in understanding to what extent environmental quality impacts recreation, and provides welfare implications associated with recreating under different environmental conditions.

<b>Research in Progress</b>	<p><b>“The Impact of Bay Area Sugar-Sweetened Beverage Taxes on Consumption and Nutrition.”</b> with J.White and Sofia B. Villas-Boas.</p> <p>This analysis studies the impacts of the recently passed Oakland and San Francisco sugar-sweetened beverage (SSB) taxes on several key health indicators. We use retail scanner datasets from IRI and The Nielsen Company, as well as nutritional information about sugar- and non-sugar sweetened beverage products from Label Insights, to measure the causal impact of tax implementation on (1) overall ounces consumed, (2) total calories consumed, and (3) consumption of added sugar. Initial findings suggest that the tax has a negative and statistically significant impact on ounces of SSB products sold in both Oakland and San Francisco compared to control regions. The magnitude of the effect in both cities is approximately 10%. Future research in this project will examine impacts on total calories consumed and consumption of added sugar.</p> <p><b>“Are Consumers Willing to Pay to Avoid Price Uncertainty? Evidence from the Vehicle Leasing Market”</b> with A. Hultgren and D. Wolfson.</p> <p>This paper aims to understand whether and to what extent automobile consumers are willing-to-pay to reduce uncertainty with respect to fuel expenditures. We leverage a unique setting to examine this effect: the automobile lease market. We observe all of the characteristics associated with an individual’s lease transaction, and specifically examine a consumer’s decision to take a "short" (3-year) versus a "long" (5-year) lease. Combining this with weekly gasoline price and gasoline price volatility data from 8 different regions across the United States, we attempt to determine whether a consumer is willing-to-pay some premium for a short-term lease because of the ability to reoptimize more quickly in response to volatility in gasoline prices at the time of purchase. We combine both simulation and reduced form methods to estimate the premium for a short- versus long-term lease in response to increases in gasoline price volatility. Preliminary analysis suggests that there is an economically and statistically significant price premium, ranging from approximately 0.5-1.1% of the amortized monthly lease price in response to a one standard deviation increase in gasoline price volatility, which is equivalent to \$4.00 - \$7.75 per month. Future work will estimate if there are differential effects in willingness-to-pay (WTP) for short-term leases for higher versus lower MPG vehicles, whether or not consumers respond to volatility differently when gas prices are increasing versus decreasing, examine outright purchases in the used car market, and estimate a structural random utility model of demand.</p>										
<b>Prior Employment</b>	<table border="0"> <tr> <td>UC Berkeley, Graduate Student Researcher (for David Zilberman)</td> <td style="text-align: right;">2015 - Present</td> </tr> <tr> <td>MARS Inc., Consultant, Catalyst Group</td> <td style="text-align: right;">Summer 2017</td> </tr> <tr> <td>MARS Inc., Summer Intern, Commercial Applied Research Team (CART)</td> <td style="text-align: right;">Summer 2016</td> </tr> <tr> <td>UC Berkeley, Full-Time Research Assistant to David Zilberman</td> <td style="text-align: right;">2014 - 2015</td> </tr> </table>	UC Berkeley, Graduate Student Researcher (for David Zilberman)	2015 - Present	MARS Inc., Consultant, Catalyst Group	Summer 2017	MARS Inc., Summer Intern, Commercial Applied Research Team (CART)	Summer 2016	UC Berkeley, Full-Time Research Assistant to David Zilberman	2014 - 2015		
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<b>Refereeing</b>	<i>Agricultural Economics, Applied Economic Perspectives and Policy, Public Health Nutrition, Journal of Sustainable Forestry</i>										
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