# uc3m Universidad Carlos III de Madrid

## Topics in Econometrics (A)

Academic Year: (2021 / 2022) Review date: 07-10-2021

Department assigned to the subject: Economics Department

Coordinating teacher: REES , DANIEL IRA Type: Electives ECTS Credits : 4.0

Year: 2 Semester: 2

## REQUIREMENTS (SUBJECTS THAT ARE ASSUMED TO BE KNOWN)

A graduate-level econometrics course or its equivalent is required.

#### **OBJECTIVES**

Risky behaviors (e.g., smoking, drug use, and poor dietary habits) impose billions of dollars of costs each year on the residents of the United States and other countries. This course teaches an economic approach to studying the determinants of risky behaviors with the goal of identifying effective policies. The extensive economic literature on the causes and consequences of risky behaviors will be studied. Students will use the statistical software package STATA and state-level data from the Fatality Analysis Reporting System (FARS) for the period 2005-2015 to complete several short homework assignments.

The specific goals of this course are to:

- 1. Understand the economic approach to studying crime and risky behaviors such as drug use.
- 2. Analyze the policies that affect crime and risky behaviors.
- 3. Transition from being a consumer of research to being a producer of research through the analysis of FARS data.
- 4. Understand the quasi-experimental approach to doing applied research, its limitations and its strengths.

Students will be expected to read and (with the help of the instructor) interpret original research in the economics, criminology, public health, and medical literatures. Students will be expected to complete the assigned readings in advance of each class and be prepared to discuss them.

## **DESCRIPTION OF CONTENTS: PROGRAMME**

Week 1. Measurement and the Experimental Ideal

#### Required Reading:

Angrist, Joshua and Jorn-Steffen Pischke 2010. The Credibility Revolution in Empirical Economics: How Better Research Design is taking the Con out of Econometrics. Journal of Economic Perspectives, 24 (2): 3-30.

Week 2. Regression Analysis

#### Required Reading:

Wooldridge, Jeffrey M. 2013. Introductory Econometrics: A Modern Approach (5th edition). Mason OH: South-Western, Chapters 2, 3 and 14.

Week 3. The Economics of Obesity

## Required Readings:

Cawley, John. The Impact of Obesity on Wages. 2004. Journal of Human Resources, 39(2): 451-474. Fletcher, Jason, David Frisvold, and Nathen Tefft. 2010. Can Soft Drink Taxes Reduce Population Weight? Contemporary Economic Policy, 28(1), 23-35.

Week 4. Addiction, Smoking, and Taxes

#### Required Reading:

Friedman, Abigail S. 2015. How Does Electronic Cigarette Access Affect Adolescent Smoking? Journal of Health Economics, 44: 300-308.

## Additional Reading:

Grafova, Irina B. and Frank P. Stafford. 2009. The Wage Effects of Personal Smoking History. Industrial and Labor Relations Review, 62 (3): 381-393.

Week 5. Identifying Peer Effects

## Required Reading:

Carrell, Scott E., Mark Hoekstra, and James E. West. 2011. Is Poor Fitness Contagious? Evidence from Randomly Assigned Friends. Journal of Public Economics, 95: 657-663.

#### Additional Reading:

Cohen-Cole, Ethan and Jason Fletcher. 2008. Detecting Implausible Social Network Effects in Acne, Height, and Headaches: Longitudinal Analysis. British Medical Journal, 337: a2533.

Week 6. Alcohol, Marijuana and Public Health

## Required Readings:

Dee, Thomas. 1999. State Alcohol Policies, Teen Drinking and Traffic Fatalities. Journal of Public Economics, 72(2): 289-315.

Anderson, D. Mark, Benjamin Hansen, and Daniel I. Rees. 2013. Medical Marijuana Laws, Traffic Fatalities, and Alcohol Consumption. Journal of Law and Economics, 56 (2): 333-369.

## Additional Reading:

Anderson, D. Mark and Daniel I. Rees 2021. The Public Health Effects of Legalizing Marijuana. NBER WP No. 28647.

Weeks 7. The Opioid Epidemic and "Deaths of Despair"

#### Required Reading:

Alpert, Abby, David Powell, Rosalie Liccardo Pacula. 2018. Supply-Side Drug Policy in the Presence of Substitutes: Evidence from the Introduction of Abuse-Deterrent Opioids. American Economic Journal: Economic Policy, 10 (4) 1-35.

#### Additional Readings:

Alpert, Abby E. William N. Evans, Ethan M.J. Lieber, and David Powell. 2019. Origins of the Opioid Crisis and Its Enduring Impacts. NBER WP No. 26500.

Week 8. COVID-19 and Health Behaviors

#### Required Reading:

Bazzi, Samuel, Martin Fiszbein, and Mesay Gebresilasse. 2020. Rugged Individualism and Collective (In)action during the Covid-19 Pandemic. NBER Working Paper No. 27776.

# Additional Readings:

Courtemanche, Charles, Joseph Garuccio, Anh Le, Joshua Pinkston, and Aaron Yelowitz. 2020. Strong Social Distancing Measures in The United States Reduced the COVID-19 Growth Rate. Health Affairs, Vol. 39 (7). Dave, Dhaval M., Andrew I. Friedson, Kyutaro Matsuzawa, Joseph J. Sabia, and Samuel Safford. 2020. Black Lives Matter Protests, Social Distancing, and COVID-19. NBER Working Paper No. 27408.

## LEARNING ACTIVITIES AND METHODOLOGY

Students are expected to attend class and to be engaged during lectures and discussions. In addition, you will be required to complete several homework assignments using FARS data.

#### ASSESSMENT SYSTEM

Grades will be determined based on your homework assignments (10%), final exam (70%), and class participation (20%).

% end-of-term-examination: 70

% of continuous assessment (assignments, laboratory, practicals...): 30

## **BASIC BIBLIOGRAPHY**

- Alpert, Abby, David Powell, Rosalie Liccardo Pacula Supply-Side Drug Policy in the Presence of

Substitutes: Evidence from the Introduction of Abuse-Deterrent Opioids, American Economic Journal: Economic Policy, 10 (4) 1-35, 2018

- Anderson, D. Mark, Benjamin Hansen, and Daniel I. Rees Medical Marijuana Laws, Traffic Fatalities, and Alcohol Consumption, Journal of Law and Economics, 56 (2): 333-369, 2013
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- Bazzi, Samuel, Martin Fiszbein, and Mesay Gebresilasse Rugged Individualism and Collective (In)action during the Covid-19 Pandemic, NBER Working Paper No. 27776, 2020
- Carrell, Scott E., Mark Hoekstra, and James E. West Is Poor Fitness Contagious? Evidence from Randomly Assigned Friends, Journal of Public Economics, 95: 657-663, 2011
- Cawley, John The Impact of Obesity on Wages, Journal of Human Resources, 39(2): 451-474, 2004
- Dee, Thomas State Alcohol Policies, Teen Drinking and Traffic Fatalities, Journal of Public Economics, 72(2): 289-315, 1999
- Fletcher, Jason, David Frisvold, and Nathen Tefft Can Soft Drink Taxes Reduce Population Weight?, Contemporary Economic Policy, 28(1), 23-35, 2010
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- Wooldridge, Jeffrey M. Introductory Econometrics: A Modern Approach (5th edition), Mason OH: South-Western, Chapters 2, 3 and 14, 2013

#### ADDITIONAL BIBLIOGRAPHY

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- Anderson, D. Mark and Daniel I. Rees The Public Health Effects of Legalizing Marijuana, NBER WP No. 28647, 2021
- Cohen-Cole, Ethan and Jason Fletcher Detecting Implausible Social Network Effects in Acne, Height, and Headaches: Longitudinal Analysis, British Medical Journal, 337: a2533, 2008
- Courtemanche, Charles, Joseph Garuccio, Anh Le, Joshua Pinkston, and Aaron Yelowitz Strong Social Distancing Measures in The United States Reduced the COVID-19 Growth Rate, Health Affairs, Vol. 39 (7), 2020
- Dave, Dhaval M., Andrew I. Friedson, Kyutaro Matsuzawa, Joseph J. Sabia, and Samuel Safford Black Lives Matter Protests, Social Distancing, and COVID-19, NBER Working Paper No. 27408, 2020
- Grafova, Irina B. and Frank P. Stafford The Wage Effects of Personal Smoking History, Industrial and Labor Relations Review, 62 (3): 381-393, 2009