**LEVY, SCOTT**

**ECO 770**

**HW #3**

*I worked on this assignment with Ray Tu.*

**Supplementary Question 1: 10 points total.**

In our homework folder, please read the 2-page paper titled JAMA.pdf and write a half-page typed summary on key points and takeaway.

*The question the author is addressing is whether or not current nutritional epidemiologic research is reliable with regard to the claims it makes about causal effects of nutritional factors. To begin with, the author points out some claims made by nutritional researchers that are clearly implausible at face value, like the example of eating 12 hazelnuts a day leading to several additional years of life expectancy. Then he points out the immense complexity in trying to isolate one nutrient out of a human’s entire food and chemical intake over a lifetime. As he illustrates, there are hundreds of thousands of different foods, and even the same foods can have different chemical makeups in some instances. Additionally, he shines a light on the self-serving nature of some of these studies, as they are often funded and conducted by advocates of certain diets. In effect, these studies can be shaped to only use the data that agrees with their predetermined outcome. Lastly, he claims that sometimes only portions of these studies are selectively presented, with only some data being reported from cohorts while ignoring all of the cohort’s other findings. The author still believes there are good scientists in the field, and that the field itself can offer worthwhile findings. But he feels that reform is needed and that funding agencies should use their power to help nutritional epidemiology gain more relevance.*

Second, please read the paper titled HOEKSTRA. Discuss, in one to two typed pages, (a) what the researchers are interested in studying (b) why the topic is important (c) their empirical strategy for identifying a causal effect. (d) discuss what the key takeaway of the paper is. (e) Finally, discuss any criticisms of the authors empirical work that might weaken the interpretation of the estimates they report as causal.

*The researchers are interested I studying whether laws that allow the use of lethal force in self-defense deter crime or encourage more violence. These laws, often known as “stand-your-ground” or “castle doctrine” laws, have been contrversial as they’ve become more prevalent in recent years.*

*This topic is important because we are literally talking about matters of life and death. Additionally, these stand-your-ground laws effect other long-standing doctrines carried over from English common law, such as the “duty to retreat” and the “castle doctrine.” These doctrines stated that lethal force was generally only acceptable when confronted by an intruder in your home (or your “castle”), and then when you were not at home you had a duty to retreat as a way of de-escalating the situation. These new laws are basically extending the castle docrine out into public areas, and allowing for situations where lethal force may become the first option of self-defense, instead of the last.*

*Their research strategy was threefold. First, they wanted to identify whetehr these stand-your-ground laws deterred crimes such as burglary, robbery, and assault. Second, they wanted to see whether or not the laws led to any increases in homicides. Lastly, they wanted to determine if any increases in homicides were due to “legally justifiable” reasons or not. To achieve this, they applied a difference-in-differences startegy whereby they analyzed state-level crime data from the FBI for the period of 2000 to 2010 and looked for differences in states that passed the laws as compared with states in a similar region of the country that did not pass them.*

*Their results showed that the laws had no noticeable affect on the crime rates of robbery, burglary, and assault. However, there was a noticeable increase in homicides. They estimate this homicide increase to be 8%, or roughly 600 additional homicides per year in the states that have passed stand-your-ground laws. The researchers then estimate that at least half of this increase in homicides is due to legally justifiable reasons, i.e. the use of the stand-your-ground law. They also make the somewhat murky argument that perhaps even all of the additional homicides are due to this when you account for possible underreporting by police.*

*Based on their findings, the researchers make the argument that stand-your-ground laws do not deter criminals in any way, even though they increase the chances that victims might use lethal force. They also make the argument that stand-your-ground laws directly increase homicides, by lessening any expected negative outcomes for a victim if they choose to use lethal force.*

*I believe there are some flaws in the researchers’ empirical approach, as I can think of numerous other factors that could come into play with respect to crime rates.*

*First, they seem to be focusing on entire states, but not accounting for all the various demographics within each state. Any given state is going to have various high crime and low crime areas. There will be cities, suburbs, rural areas, and so on each with their own set of statistics for various reasons.*

*Also, their comparison with neighboring states could also have some holes in it. Just because a state is in the same region of the country doesn’t mean they have the same political and socio-economic demographics. What if one state’s economy was crippled due to a major employer (like a car manufacturer) going out of business, while the state next door remained economically healthy and unaffected?*

*Additionally, they don’t seem to account for existing laws in the various states, such as gun sale laws, concealed carry laws, and so on. There is also the issue of politics, and the question of why these laws were passed in the states that passed them. It’s likely that laws were passed in states where crime is more of a problem than other states, and that is why they garnered the support they did. So clearly there are some questions about the empirical strategy the researchers applied.*

**Supplementary Question 2: 10 points total.**

Download the two data sets from FRED:

<https://fred.stlouisfed.org/series/CPILFESL>

<https://fred.stlouisfed.org/series/FEDFUNDS>

Restrict attention to data points between the years 1960 and 2019

On one stata graph, plot growth rate of the federal funds rate over time as well as the growth rate of the cpi over time. Feel free to decide what the most appropriate way to do this is: there are multiple ways of doing this. What we are interested is seeing in one single graph, how a measure of inflation compares to interest rates in the economy. E.g. year over year growth rates, or growth rates pegged to a base year, etc.



global path /Users/scott/Desktop/UNLV/ECO 770/HW3/

import delimited "$path/FEDFUNDS.csv",clear

save "$path/FEDFUNDS.dta"

import delimited "$path/CPILFESL.csv",clear

save "$path/CPILFESL.dta"

merge m:1 date using "$path/FEDFUNDS.dta"

drop if \_merge !=3

gen date2 = date(date, "YMD")

sort date2

format date2 %tdMon-CCYY

gen month = mofd(date2) // get date in month format

format month %tm

tsset month

gen cpilfesl\_delta = (cpilfesl/L12.cpilfesl-1)\*100

format date2 %tdMon-CCYY

rename fedfunds fed\_funds

rename cpilfesl\_delta CPI

line fed\_funds CPI date2, lwidth(medthin) lpattern("\_-." "\_\_#")

title("Federal Funds Rate VS CPI % Change" ,size(medlarge) color(green) ) lcolor(blue) xmtick(#35,tlcolor(red)) xlabel(, labcolor(green) ) ymtick(##10,tlcolor(red)) ylabel(#5, labcolor(green)

nogrid) xtitle(Date, color(green)) , ytitle(Rate, color(white) ) ,

graphregion(color(white)) plotregion(fcolor(gray))