THE ECONOMICS OF POPULATION GROWTH AND IMMIGRATION ON UNEMPLOYMENT RATE IN CALIFORNIA

Andres Perez Martinez

MAY 2, 2022

PROFESSOR MIN MIN THAW

Econ 145 Spring 2022

Abstract

The aim of the study is to analyze the economic effects of immigration in California on unemployment rate by looking at the impacts of inflation, labor force participation rate, and population growth on unemployment rate throughout a total of 37 different years (from 1983 to 2019). The evaluation is done using a time series analysis of the state of California. The results suggest that inflation has a small negative influence over unemployment, perfectly explained by the Philips curve theory, we notice that as one increases the other one must fall, it is up to policymakers which one to increase depending on the government needs. The results further indicate that population growth affects unemployment as it reduces job opportunities for the ever-expanding population. Based on the results of this research, it would be beneficial for policymakers to work around a higher level of inflation simply to be able to enjoy all of the benefits that come with low levels of unemployment in the short run.

Keywords: Unemployment, immigration, inflation, labor force participation rate, population growth, California.

Introduction

The United States is a country that attracts people from all over the world because of its diversity, quality of living, opportunities, and innovation. More specifically important states like California, New York, Texas, and Florida are states known for having high immigration influx and, consequently, high population growth rate. But all the characteristics that attract people to these states do not come for free, population growth and immigration cause some problems that have to be addressed in order to keep the economy of these states in a stable state. This research paper will utilize various government sources to analyze the relationship between population growth, immigration, and unemployment in California throughout the years to try to answer the question, does population growth and immigration cause unemployment? We will look at "low skilled" and "high skilled" immigration to California, GDP and labor force participation growth and we will see its effects on unemployment. It is important to understand that unemployment might also come from other fields and not just immigration, Frederick Treyz and Peter Evangelakis (2018) concluded that "natural population growth accounts for over half of the total 2.6 million person increase in the U.S. population, with international immigration contributing to about 45%

of total population growth" (p. 1). By assessing the relationship between unemployment and population growth and immigration in California throughout the years. The purpose of this research is to find whether population growth and immigration play a big role in unemployment rate or if there is little to no correlation between those variables.

Literature Review

Studies on the effects of immigration on unemployment usually show a vague positive correlation between these two variables with most articles explaining why the benefits and advantages of healthy immigrations surpass the disadvantages. The question is, are immigration and unemployment correlated enough to the point where we can decide whether unemployment is directly caused by immigration? or is unemployment caused by external variables and immigration is just an insignificant part of it? Sandra Sequeira et al. (2020) observed that "immigration resulted in large, long-run economic benefits. Counties with more historical immigration, have higher incomes, less unemployment, less poverty, more education, and higher shares of urban population. We also found that these economic benefits do not have long-run social costs" (p. 416). The author observed that immigration is usually beneficial in the long run and citizens usually helps locals with pensions and retirement.

Impacts & Long Run vs Short Run

Although most research findings came to the similar conclusion that immigration is ultimately beneficial and does not significantly increase unemployment (Kemnitz, 2003; Islam, 2007; Faccioli & Vella, 2021), there are many other authors whose findings show different outcomes, Kiguchi & Mountford (2019) claimed "Anticipated immigration still causes unemployment, vacancies, and investment to rise for the same reasons as above… This leads GDP per capita to rise on impact, only declining when the immigrants arrive." (p. 1331). These claims contradicted the results of the work of Kemnitz (2003), in his article about immigration, unemployment, and pensions he claimed that older people and highly skilled natives are the ones that benefit from immigration the most. Kemnitz found that those sorts of people are benefitted so much by immigration, that it is better for them to have more immigrants coming into the country. The main discrepancies between the results in these studies had to do with their data, but it may possibly also have to do with whether they were looking at the effects of immigration in the short run or the long run, Islam (2007) conducted a study on the effects of immigration on unemployment on the long run, he concluded

> In fact, in the long run, we can see some positive effects on employment, as indicated by the estimated long-run coefficient matrix. The link from unemployment to immigration in the short-run might not be surprising since over the period prior to the 1980s, and part of 1980s immigration levels tended to fall in recessionary times, though in the more recent periods we have seen an end to that approach to setting goals for the intake of immigrants. (p.63)

The time period was a main deciding factor on whether unemployment is affected or not. Research findings claim that we see an increase in unemployment rate as immigration increases in the short run and no effect on unemployment once in the long run (Islam, 2007; Sandra Sequeira et al. 2020; Kemnitz, 2003).

Origin and Destination Matter

There are many variables that affect the outcomes of the research. From how big of a sample data you have to the sources of the data, it can be problematic for researchers as population growth and immigration have a different effect on unemployment depending on the country of origin and destination, Youngho & Byung-Yeon (2018) believed the country of origin of the immigrant plays a huge role in how the destination country is impacted, they noted that people who move from a developed country to another developed country tended to stimulate the economy and generate economic growth. With Youngho and Byung-Yeon's article, it was established that the immigrants' country of origin had a huge effect on how immigrants affected the country of destination, but culture may be a key contributor on why this phenomenon is true. Faccioli & Vella (2021) conducted a study on immigration and its effects in Germany, they looked through the different immigration shocks to Germany and how it affected or benefitted German citizens. By analyzing data from 2006 to 2019 they determined that immigrants who came from a developed country and moved to another developed country tended to be, on average, more educated than those who came from developing countries or countries who were in any sort of geopolitical conflict. Not only that, but they also found that immigration shocks helped the local economy and decreased unemployment thanks to the dominant job-competition effect.

Geography

In the Faccioli & Vella (2021) study about immigration, they also compared the effects of immigration on Germany and the United States. They concluded that both economies reacted in a similar way to immigration shocks. They also found that increases in native citizens employment and economic growth were some of the effects these countries experienced with immigration throughout their history. The authors also stated that immigration did not create a loss among vastly exposed employment areas and that places with historically high immigrant influx tend to have higher income and less unemployment than those without (Faccioli & Vella, p. 3). Any conflicts between findings in these studies could be due to the source where the researchers got their data from and the way the data is formatted. Wasmer (2009) indicated that “The comparability of data across country is problematic: In the USA, monthly flow are aggregated into quarterly flows, whereas in Europe, labor force survey (LFS) data are based on yearly transitions, with typically a lot of infra-yearly transitions problems” (p. 779-780). Although the data between these two regions was formatted differently, Wasmer was able to compare the two by matching flows of unemployment and translating data from the United States from monthly to quarterly so it could be evaluated with that of the European datasets.

My Research

Due to lack of information and data regarding low and high skill immigrants moving into California I will have to include 3 equations for my research, the independent variable “labor force” (Kemnitz, 2003) will be included in the first equation and will be analyzed from 1985 to 2015, the second equation will include the independent variable “low skilled immigrants” (Kemnitz, 2003) and will be analyzed from 2009 to 2019, and the third equation will include the independent variable “high skilled immigrants” (Kemnitz, 2003) and will also be analyzed from 2009 to 2019. All of the previous equations will include dependent variable “unemployment” and share the following independent variables, which I will also be borrowing from the previously reviewed literature, Consumer Price Index (CPI) (Faccioli & Vella, 2021), and per capita income (Islam, 2007). Preceding studies have used these variables to understand the relationship between immigration and unemployment and therefore they will be suitable for my own research in the subject. For the main equation, I will be utilizing annual data from a 37-year period from 1983 to 2019, and for the other two secondary equations I will be utilizing annual data from a 10-year period, more specifically data from 2009 to 2019.

Economic Theory

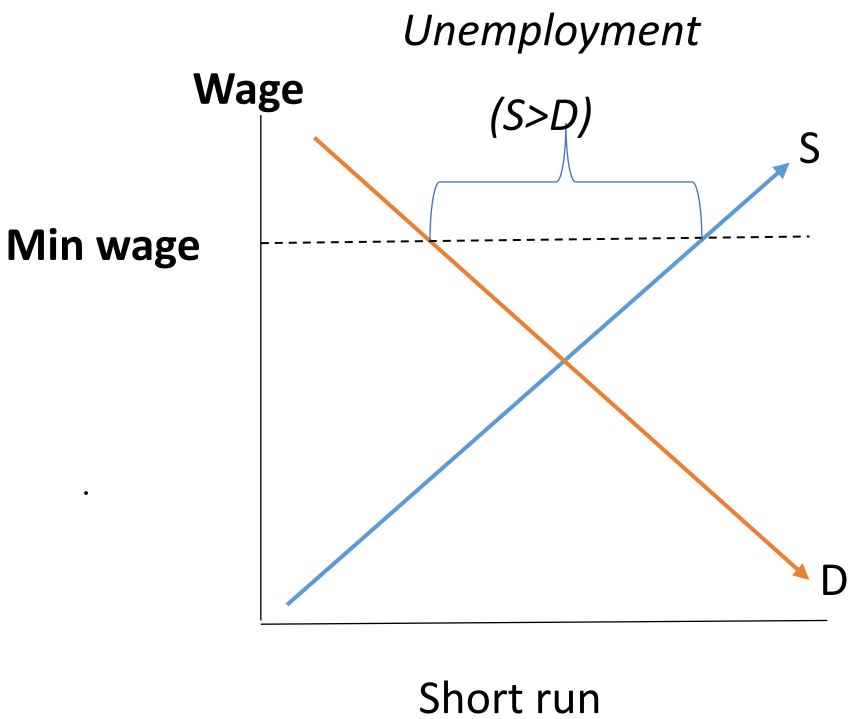

Figure 1.0

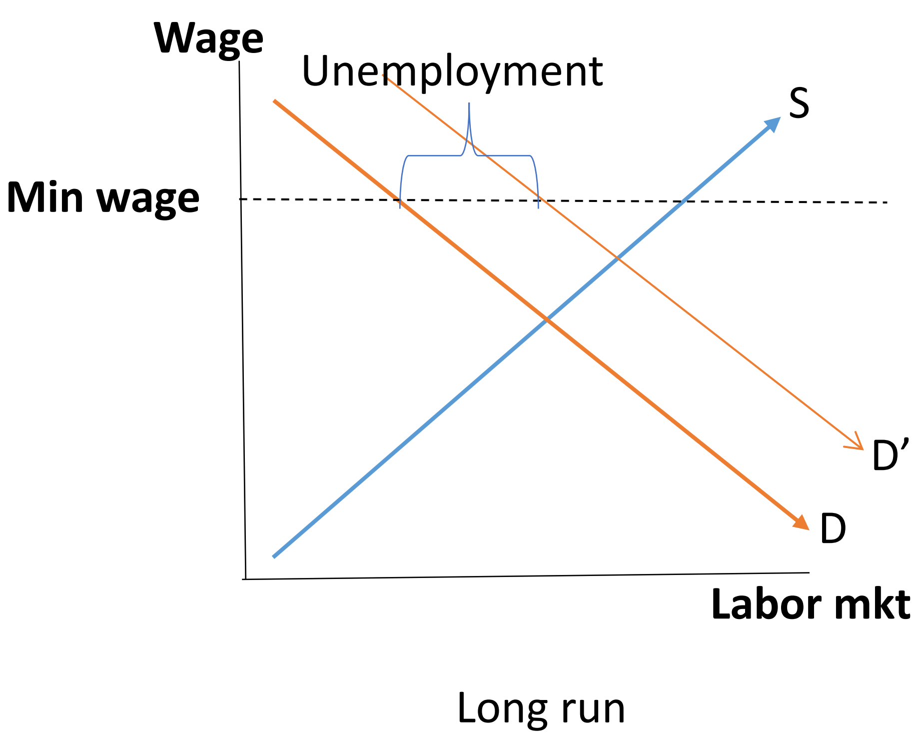

Figure 1.1

Both graphs demonstrate a simple supply and demand curve with labor market in the x axis and wage in the y axis. Figure 1.0 represents the short-run effect of immigrants coming into a country, we note that unemployment increases. In the short run, we see that the inclusion of minimum wage leads to higher unemployment rate. Figure 1.1 exemplifies the long-run effect of immigrants coming into a country, an increase in labor market (from population growth and immigration) causes unemployment to decrease and stabilize.

Methodology

Given that my research will entirely focus on California, I have decided to have time series data for my equation. The main equation will include data from 1983 to 2019 for a total of thirty-seven years and observations. Based on data from previous research found in the literature review, I will be using the following variables that come from the Federal Reserve Economic Data (FRED) and the California Department of Industrial Relations: California's labor force participation rate (%), California's inflation rate (% change), and California's population growth rate (% change). It is important to note that all of these previously mentioned variables are recorded annually.

Original Regression Model:

- $Y_t = \boldsymbol{\beta}_0 + \boldsymbol{\beta}_1 X1_t + \boldsymbol{\beta}_2 X2_t + \boldsymbol{\beta}_3 X3_t + \boldsymbol{\varepsilon}_t$

Variable	**Variable Name**	**Variable Description**
Y_t	CAUR	California Unemployment Rate
X_1	CINF	California's Inflation (%)
X_2	LFPR	California's Labor Force Participation Rate (%)

X_3	CPG	California's Population Growth (% change)
ε_t	Error	Estimated Error
n	# Observations	1983-2019= 37 observations

Descriptive Statistics Results

CAUR		*CINF*		*LFPR*		*CPG*	
Mean	7.1036036	Mean	2.908108	Mean	-0.14386	Mean	1.26202
Standard Error	0.35759077	Standard Error	0.205092	Standard Error	0.103014	Standard Error	0.121473
Median	6.75833333	Median	2.9	Median	-0.13671	Median	0.975
Mode	#N/A	Mode	2.6	Mode	#N/A	Mode	#N/A
Standard Deviation	2.17513972	Standard Deviation	1.247526	Standard Deviation	0.626607	Standard Deviation	0.738892
Sample Variance	4.7312328	Sample Variance	1.556321	Sample Variance	0.392636	Sample Variance	0.545961
Kurtosis	0.11372976	Kurtosis	4.9E-05	Kurtosis	-0.04021	Kurtosis	-0.73389
Skewness	0.91025676	Skewness	-0.03128	Skewness	-0.40927	Skewness	0.625025
Range	8.35833333	Range	5.8	Range	2.75747	Range	2.64827
Minimum	4.1	Minimum	-0.3	Minimum	-1.75506	Minimum	0.00037
Maximum	12.4583333	Maximum	5.5	Maximum	1.00241	Maximum	2.64864
Sum	262.833333	Sum	107.6	Sum	-5.32277	Sum	46.69474
Count	37	Count	37	Count	37	Count	37

Figure 2.0

We can see a lot of interesting statistics with the descriptive statistics results shown in figure 2.0. We can note that California's median unemployment from 1983 to 2019 is 6.75%. I think this is a good median as it is not far away from the numbers that we see today, it is consistent. The negative median (-.13%) of the labor force participation rate variable threw me off at first but looking at the original data and critically thinking about it, we can say that it makes sense, as it is a categorically small percentage change and also considering the labor force in California changed drastically from 1983 to 2019 due to various events. The descriptive statistics for every variable show coherent results.

Regression Results

With 37 observations my regression results show interesting relationship between variables, the significance of F and other values tell me my variables behave like I wanted them to. Originally, I was going to have observations from 1977 to 2019, but years 1977 to 1982 showed a lot of outliers that disrupted my results within variable CINF, so I decided to get rid of those years in order to get better outcomes. We start with simple linear regression analysis so we can analyze the individual effect of each independent variable with the unemployment rate, it will also serve as a way to see how the results might change when running a regression with all 3 independent variables.

SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.528660736							
R Square	0.279482174							
Adjusted R Square	0.25889595							
Standard Error	1.872521237							
Observations	37							
ANOVA								
	df	*SS*	*MS*	*F*	*Significance F*			
Regression	1	47.60262818	47.60263	13.57617	0.000769148			
Residual	35	122.7217524	3.506336					
Total	36	170.3243806						
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	9.784161111	0.789955956	12.3857	2.38E-14	8.180465263	11.387857	8.180465263	11.38785696
CINF	-0.92175305	0.250164608	-3.68459	0.000769	-1.4296142	-0.413892	-1.4296142	-0.413891892

Figure 2.1

I expected a negative relationship between the CINF and the dependent variable of unemployment rate (CAUR) because low levels of unemployment match with higher levels of inflation. The inverse relationship between these two variables can also be explained by the Philips curve theory, which states that inflation and unemployment have a stable and inverse relationship. This explains why countries who have higher inflation tend to have experience lower unemployment. We note that the coefficient of CINF is -0.936871, which means that, holding everything else constant, for every 1 percent increase in the inflation, unemployment will decrease by 0.936871 percent. There is only a slight influence between the two variables. Inflation is highly significant with an R^2 of roughly .279 and a smaller adjusted R^2 of .258, we can say that around 26% of the variation in unemployment is explained by inflation. Significance of F of the equation and the p value of CINF are both statistically significant at the 5% level, which means that this individual model is good.

SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.6225625							
R Square	0.3875841							
Adjusted R Square	0.3700865							
Standard Error	1.7263451							
Observations	37							
ANOVA								
	df	*SS*	*MS*	*F*	*Significance F*			
Regression	1	66.01502123	66.01502	22.1507	3.8812E-05			
Residual	35	104.3093594	2.980267					
Total	36	170.3243806						
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	6.7927106	0.291395369	23.31098	6.63E-23	6.201146576	7.384274673	6.201146576	7.384274673

LFPR	-2.1611	0.459178105	-4.70645	3.88E-05	-3.093281482	-1.22891926	-3.093281482	-1.22891926

Figure 2.2

As for the labor force participation rate (LFPR) variable, I expected it to have a negative relationship with the dependent variable, unemployment. The labor force participation rate indicates the percentage of all people of working age who are employed or are actively seeking work, so it makes sense that as unemployment rises labor force participation rate decreases or vice versa. LFPR has a coefficient of -1.947171 which means that, holding everything else constant, for every 1 percent increase in the labor force participation rate, unemployment will decrease by roughly 1.947171 percent. LFPR alone is highly significant with a R^2 of .38 and an adjusted R^2 of .37 expressing that about 37% of the variation in unemployment is explained by labor force participation rate. Both, significance of F and LFPR are statistically significant at the 5% level.

SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.08238325							
R Square	0.006787							
Adjusted R Square	-0.0215905							
Standard Error	2.19849552							
Observations	37							
ANOVA								
	df	*SS*	*MS*	*F*	*Significance F*			
Regression	1	1.155991582	1.155992	0.239168	0.627858274			
Residual	35	169.168389	4.833383					
Total	36	170.3243806						
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*

Intercept	7.40966713	0.722704207	10.2527	4.39E-12	5.94249959	8.8768347	5.94249959	8.87683467
CPG	-0.2425188	0.495899407	-0.48905	0.627858	-1.249248079	0.7642106	-1.24924808	0.76421056

Figure 2.3

The results for this last simple linear regression shows some irregularities. I expected the variable of variable CPG to have a positive relationship with the dependent variable unemployment. The growing population, both native and immigrants, will increase the labor supply which means that there will be less opportunities and jobs, the market will be oversaturated. The opposite could also be said. If the population growth starts slowing down, there will be more job openings and opportunities for the residents. The results show a negative coefficient of .24251 which does not align with theory or my predictions. According to the single linear regression results, none of the variables are significant at the 5% level, as all of them have a p-value lower than .05. It is important to note that all of the problems shown in this regression disappear when running a regression with all 3 independent variables (see Figure 2.5).

After looking at the unemployment and California's population growth regression results, I wanted to see how my regression would look like if I got rid of variable CPG (see Figure 2.4). Adding irrelevant variables could hinder with regression results by increasing the variances. Figure 2.3 shows a R^2 of .50 and an adjusted R^2 of .47 which means that roughly 47% of the variation in unemployment is explained by inflation and the labor force participation rate. We notice that both, variable CINF and LFPR, have negative coefficients which align with our expected signs. With a very statistically significant significance of F and variables that are significant at the 5% level, I would say that our regression model is a good one.

SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.71125777							
R Square	0.50588761							
Adjusted R Square	0.47682217							
Standard Error	1.57330102							
Observations	37							
ANOVA								
	df	*SS*	*MS*	*F*	*Significance F*			
Regression	2	86.16499361	43.0825	17.40513	6.23789E-06			
Residual	34	84.15938702	2.475276					
Total	36	170.3243806						
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	8.6976692	0.71854238	12.1046	7.07E-14	7.237415397	10.157923	7.237415397	10.15792301
CINF	-0.63460821	0.222423299	-2.85316	0.007317	-1.086626734	-0.18258968	-1.086626734	-0.182589676
LFPR	-1.74785228	0.442827636	-3.94703	0.000377	-2.647786317	-0.84791825	-2.647786317	-0.847918252

Figure 2.4

SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.776410777							
R Square	0.602813694							
Adjusted R Square	0.566705848							
Standard Error	1.43178752							
Observations	37							
ANOVA								
	df	*SS*	*MS*	*F*	*Significance F*			
Regression	3	102.6738691	34.224623	16.694812	8.96051E-07			

Residual	33	67.65051154	2.0500155					
Total	36	170.3243806						
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	8.173978353	0.679452908	12.0302353	1.305E-13	6.791621018	9.556335688	6.79162102	9.556335688
CINF	-0.936871806	0.22873091	-4.0959563	0.000256	-1.402228342	-0.47151527	-1.40222834	-0.47151527
LFPR	-1.947170869	0.409071628	-4.7599754	3.735E-05	-2.779433354	-1.114908385	-2.77943335	-1.11490839
CPG	1.088756418	0.383663562	2.83778947	0.0077108	0.308187032	1.869325805	0.30818703	1.869325805

Figure 2.5

Finally, we include all 3 independent variables and run the regression. We instantly notice a R^2 of .60 and an adjusted R^2 of .57 which tells us that 57% of the variances in California's unemployment rate are explained by inflation, labor force participation rate, and population growth. Looking at the change in adjusted R^2 from figure 2.3 to figure 2.4 we can see a small increase of almost .10. This change is due to the fact that we added variable CPG to the equation. We can safely say that it is not an irrelevant variable and that it helps the model. We also observe a change in CPGs p-value, the independent variable went from being statistically insignificant (Figure 2.3) to being statistically significant. All the variables have the expected signs and the overall results of the regression do not raise any red flags.

Limitations

Future research on this topic could benefit from having a larger number of observations on high skilled and low skilled immigrants coming into the country. My research could also have been benefitted by including reasonable regressions results for low skilled and high skilled immigrants, but there are just not enough observations as or right now for me to run a good regression that would produce good, meaningful results. Additionally, forthcoming research could also improve by having a bigger data set, finding information prior to 1983 was really challenging and it usually came from untrustworthy websites.

High Skilled vs Low Skilled Immigration Effects Prototype Model

Originally, I was going to test 3 equations and have 3 models to assess how high and low skilled immigrants impact unemployment in California, but limited data on that specific topic and an absurdly low number of observations resulted in flawed outcomes. For the second equation, I was going to use similar variables as the main equation but replace the variable California's labor force participation rate for the variable low skilled immigrants. Lastly, the third equation was going replace the variable California's labor force participation rate for the variable high skill immigrants. As stated before, due to lack of sufficient data, I was only able to find observations from 2010 to 2019 which is equal to n=10. It is also important to note that, for my research, we define high skilled immigrants as people who came into the United States after the year 2000 and have a bachelor's degree or higher (whether attained in their home country or in the United States), low skill immigrants are those who came into the United States after the year 2000 and did not complete, or have, a bachelor's degree or more. Ultimately, I concluded that immigrants, technically, do not count for population growth and so I decided to hold off the idea that high skilled and low skilled immigrants coming into California affect the population growth and consequently impact unemployment rate.

Prototype Regression Models:

- $Y_t = \boldsymbol{\beta}_0 + \boldsymbol{\beta}_1 X1_t + \boldsymbol{\beta}_2 X2_t + \boldsymbol{\beta}_3 X3_t + \boldsymbol{\varepsilon}_t$

Variable	**Variable Name**	**Variable Description**

Y_t	CAUR	California Unemployment Rate
X_1	CINF	California's Inflation (% change)
X_2	HIS or LSI	High or Low skilled Immigrants (1 of the 2 variables per equation)
X_3	CPG	California's Population Growth (% change)
ε_t	Error	Estimated Error
n	# Observations	2015-2019= 10 observations

Conclusion

Immigration has played a huge role in California's history; it essentially has an effect in every area of California's economy. Immigrants have been there in the past, in the present, and will be there in the future, so it is important to understand the effects they create in a economy. The effects of immigration on unemployment have been extensively documented throughout the years, with most researchers coming to the conclusion that the way immigration affects unemployment depends on the time frame. Research that focuses on the short run effect generally come to the conclusion that unemployment is negatively affected by immigration, and research that focuses on the long run effect typically see more benefits that come from immigration. In addition, whether or not immigration is seen as good or bad is measured by examining the consequences it brings to the people, short run analysis shows nothing but an increase in unemployment and a decline in GDP per capita, while long run analysis shows that a significant portion of the population, mostly old and high skilled people, benefits from immigration. The regression results show that inflation and unemployment have a negative relationship, and while easily explained by the Philips curve theory, in this context, it could be said that a deteriorating unemployment rate normally happens alongside a rising gross domestic product (GDP), higher wages, and higher industrial production. In other words, if inflation increases, we should see a decrease in unemployment.

Complications, and Recommendations. This research only looked at the effect of immigration on unemployment for the state of California, and it would be beneficial to see the effects on every U.S state or even the United States as a whole and all the other countries. I also think a panel data set would improve upon my research, by looking at different states throughout different years, we would have a clearer view of the different effects each state has had over the years. It goes without saying that the time constraints played a major role in the making of this research so a longer period of time would, most likely, cause improvement to the research.

Reference List

Islam, A. (2007). Immigration unemployment relationship: The evidence from Canada. *Australian Economic Papers*, *46*(1), 52–66.

https://web-p-ebscohost-com.proxy.lib.csus.edu/ehost/detail/detail?vid=11&sid=23c28a99-c692-4841-9b42-ebc630ffb073%40redis&bdata=#AN=0912906&db=ecn

Kang, Y., & Kim, B.-Y. (2018). Immigration and economic growth: Do origin and destination matter? *Applied Economics*, 50(46), 4968-4984. https://doi-org.proxy.lib.csus.edu/http://www.tandfonline.com/loi/raec20

Kemnitz, A. (2003). Immigration, unemployment and pensions. *Scandinavian Journal of Economics*, *105*(1), 31–47.

https://web-s-ebscohost-com.proxy.lib.csus.edu/ehost/detail/detail?vid=6&sid=ef95cd7d-41d0 4f0c-8064-70d9a598c777%40redis&bdata=#AN=0654209&db=ecn

Kiguchi, T., & Mountford, A. (2019). Immigration and unemployment: A macroeconomic Approach. *Macroeconomic Dynamics*, *23*(4), 1313–1339.

https://web-s-ebscohost-com.proxy.lib.csus.edu/ehost/detail/detail?vid=7&sid=ef95cd7d-41d0-4f0c-8064-70d9a598c777%40redis&bdata=#AN=1775874&db=ecn

Treyz, F., & Evangelakis, P. (2018). Immigration and United States Economic Growth. *Business Economics*, 53(3), 134–140. https://web-p-ebscohost-com.proxy.lib.csus.edu/ehost/detail/detail?vid=3&sid=3c337619-aaa2-4af3-b9f9-9610c5e45c3d%40redis&bdata=#AN=1779915&db=ecn

Maffei-Faccioli, N., & Vella, E. (2021). Does immigration grow the pie? Asymmetric evidence from Germany. *European Economic Review*, *138*.

https://web-s-ebscohost-com.proxy.lib.csus.edu/ehost/detail/detail?vid=3&sid=fb99ddb9-5ffa-4ce0-aebd-607db71b91db%40redis&bdata=#AN=1922004&db=ecn

Sequeira, S., Nunn, N., & Qian, N. (2020). Immigrants and the making of America. *Review of Economic Studies*, *87*(1), 382–419. https://doi-org.proxy.lib.csus.edu/https://academic.oup.com/restud/issue

https://web-p-ebscohost-com.proxy.lib.csus.edu/ehost/detail/detail?vid=21&sid=23c28a99-c692-4841-9b42-ebc630ffb073%40redis&bdata=#AN=1846002&db=ecn

Wasmer, E. (2009). Links between labor supply and unemployment: Theory and empirics. *Journal of Population Economics*, *22*(3), 773–802.

https://web-p-ebscohost-com.proxy.lib.csus.edu/ehost/detail/detail?vid=5&sid=3980b9e3-04cf-4c5e-bf22-07439d853b4d%40redis&bdata=#AN=1048708&db=ecn