Determinants of Real Median Household Income in the United States Using Time-Series and Panel Data Analysis

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Abstract:

This paper's main objective was to explore the determinants of income inequality using real median household income in the United States. This paper utilizes time series analysis to examine the Gini coefficient, trends in the top 1%'s share of wealth, and the relationship between real median income and varying demographics. The Gini coefficient is a summary measure of income inequality in a country. Income inequality is how unevenly income is distributed throughout a population. The results show that there is a negative correlation between the top 1%'s share of total wealth and the United States Gini rating, and that inequality in the United States has been steadily increasing. This study utilizes panel data analysis through fixed effects, random effects, and pooled ordinary least squares. The study observed the two determinants that had the most impact on real median household income were poverty, which was significantly negative, and human capital, which was significantly positive.

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1.0 Introduction

Income inequality is a problem that not only effects transitional economies and developed economies, but the world at large in the past decades (Allison 2014). In accordance with the wealth hypothesis and Rubin & Segal (2015), as a country demonstrates economic growth they should also demonstrate a reduction in income inequality. This point however is a misconception, as most countries (the United States included) that have experienced economic growth, have not elicited the corresponding decrease in income inequality, thus leaving the question as to why ultimately unanswered.

This study seeks to resolves the unanswered questions regarding the relationship between economic growth and income inequality utilizing a methodology that mirrors Tsaurai (2020). In their work Tsaurai contradicts the preexisting theoretical literature conducted by Ayala et al (2001); Rubin & Segal (2015); Kaplan & Rauh (2010); Balassa (1978); Jacoby (2000); and Stiglitz (1998). Their rationale for doing so is that much of the existing work on income inequality only examines the issue from a single perspective lens and fails to acknowledge the exhaustive list of potential determinants. In addition to the issue noted by Tsaurai, it has also been observed that much of the current literature possesses a misconceived notion that there is a linear relation between determinants making it acceptable to generalize them, this is an issue that is addressed.

The area in which this paper differs from the literature of Tsaurai (2020), is that while they were focusing on the determinants of income in equality in transitional economies, this study analyzes the developed economy of the United States.

2.0 Income Inequality in the United States

Figure 1 shows the breakdown of the Gini Coefficient by country (World Bank 2022). The Gini Coefficient is defined based on the Lorenz Curve in which the percentiles of population according to income or wealth are graphed against the cumulative income or wealth of a population. The Gini Coefficient ranges from zero to one (often written as a percent) where zero is perfect equality, with every person earning the same amount, and one is perfect inequality, where a specific sect or group of people controls all of the wealth or income in a country and everyone else has nothing. Currently the top five countries with the lowest Gini Coefficient are

Slovenia (24.6), Czech Republic (25.0), Slovakia (25.0), Belarus (25.3), and Moldovia (25.7). The United States on the other hand is ranked 111th with a Gini Coefficient of 41.5 as of 2019.

Figure 1: Gini Coefficient by Country
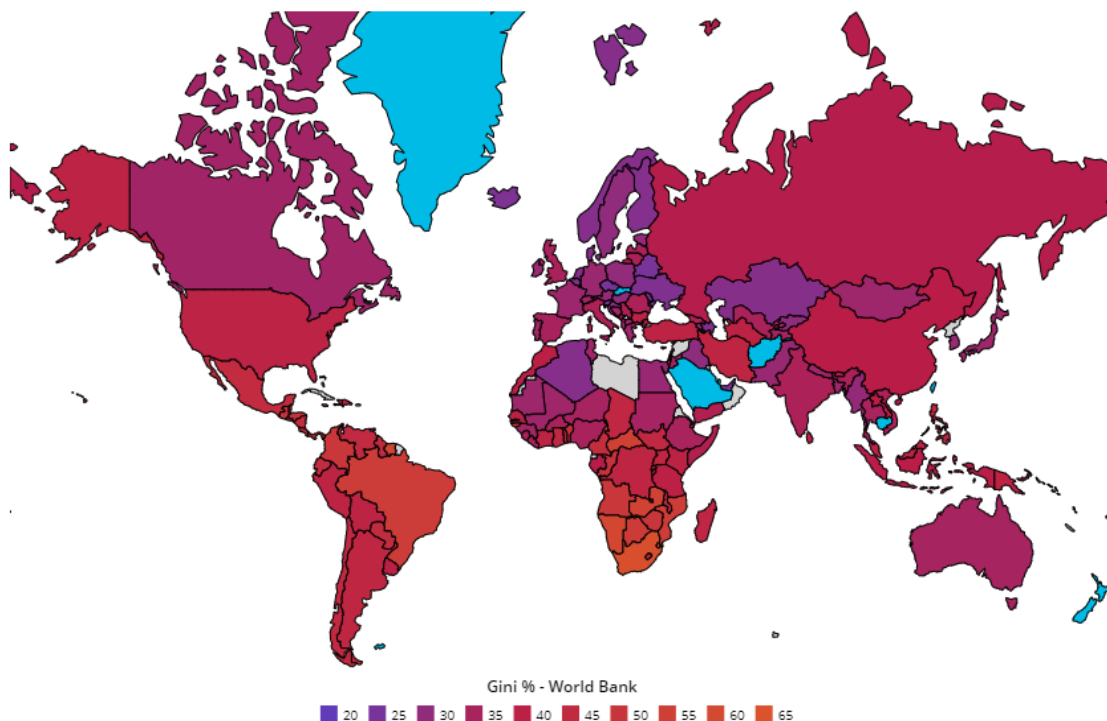
Source: World Bank Database (2022)

Figure 2 demonstrates the relationship between the top one percent's share of the total wealth and the United States Gini Coefficient. From 1990-2019 the United States top one percent has seen an increase in their total share by 27.92 percent, and the Gini coefficient has seen an increase of 9.21 percent. This demonstrates that there is a positive correlation between the two, so as the top one percent's share total share of the wealth increases so too will the Gini Coefficient within the United States.

Figure 2: Top 1% Share of Wealth vs. Gini Coefficient
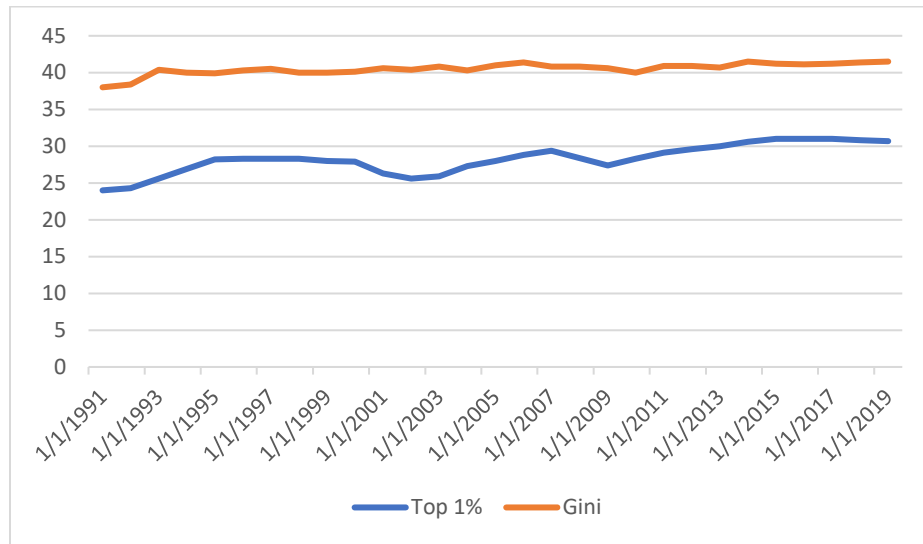
Source: Federal Reserve Economic Data

Figure 3 shows how income inequality is distributed across the United States. The five states with the highest level of income inequality are New York, Connecticut, Louisiana, California, and Florida. The five states with the lowest level of income inequality are Alaska, Utah, Wyoming, New Hampshire, and Hawaii.

Figure 3: Inequality Distribution Across the United States
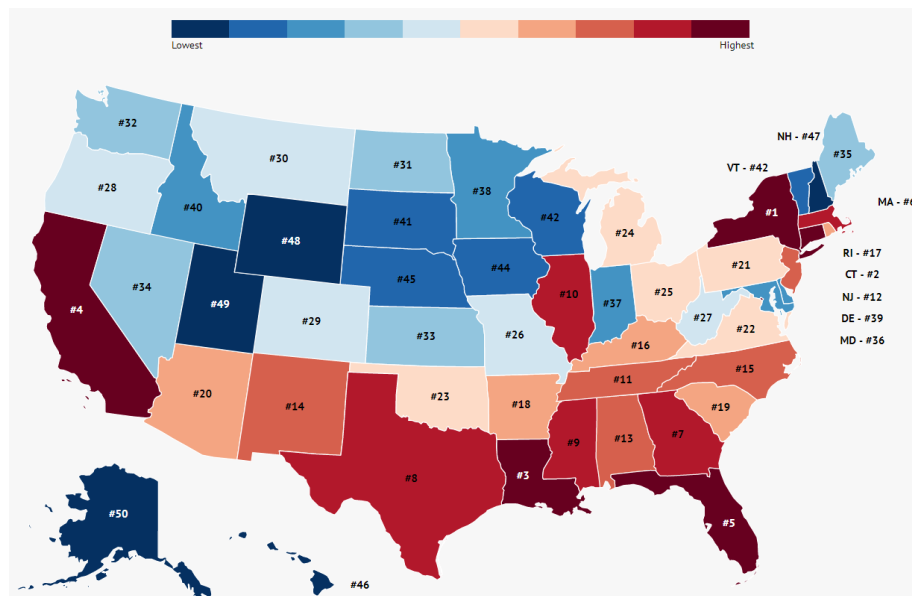
Source: United States Census Bureau (2021)

Figure 4 shows real median household income when observed through the demographics of race, gender, age, and educational attainment. Race broken up white, and nonwhite. Gender is broken up using the two rudimentary genders of male and female. Age is broken up into three groups, being 15-34, 35-64, and 65 and older. And educational attainment is broken into four groups that include: no high school diploma, high school diploma but no college, some college, and bachelor's degree or higher. The real median household income was adjusted for using 2020 CPI-U-Rs Dollars (Consumer Price Index Retroactive Series), and it utilizes current methods to present an estimate for all Urban Consumers (CPI-U) (U.S. Bureau of Labor Statistics). The three most affected groups from this figure are those without a high school diploma, those 65 years old or older, and women. It can also be observed that there is a significant variance between the real median household income of white individuals and nonwhite individuals.

Figure 4: Real Median Household Income vs. Demographics
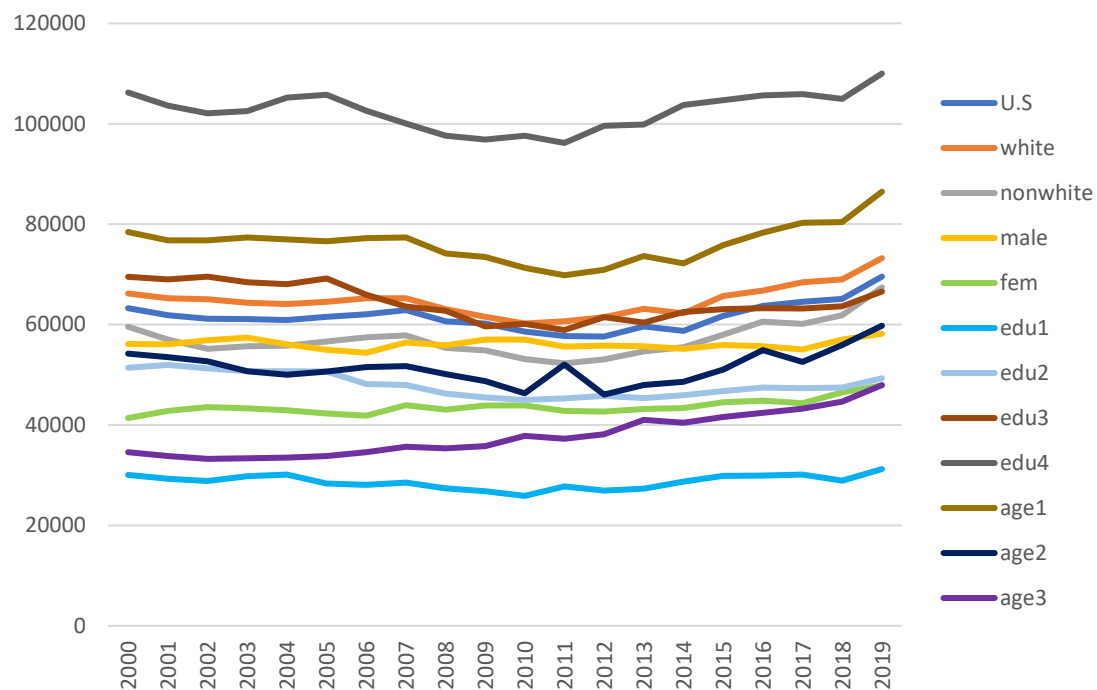
Source: United States Census Bureau Historical Income Tables (2019)

3.0 Literature Review

Who is it that suffers from income inequality? According to Alaya et al (2001) in a study done on OECD countries, those who are unemployed are the group most susceptible to the effects of income inequality. It was in this same study that it was also noted that unemployment is also responsible for inflating the effects of income inequality because in most cases those who are unemployed are poorer than those with jobs who hail from a wealthier background and have received a higher level of education. This point is expanded upon by Fuceri and Ostry (2019). In their study it was explained that demographics, unemployment, level of development and trade integration were some of the key drivers of income inequality. Paweenawat and McNown (2014), also discussed the effect of demographics while saying that gender differences of the head of the household, as well as differences in the composition of the household are significantly related to income inequality.

The study conducted by Rubin and Segal (2015), brings in the determinant of economic growth as it relates to income inequality. Through this it is discussed that according to the wealth hypothesis, if there is even the slightest increase in economic growth it will elicit a positive multiplier effect on the value of labor income, GDP per capita, and general wealth. All of this reduces the levels of income inequality present in a community. This is why the unit utilized for economic growth in this study is GDP per capita. Relating to economic growth trade openness also enhances economic growth (Balassa 1978). This trend is noted because trade openness allots local firms the opportunity to easily compete in international markets which has the ability to boost their expansion capacity and create employment. Inversely it was also noted by Kaplan and Rauh (2010), that economic growth can also be a driving factor for income inequality as it can cause more sensitivity to wealth than labor income. Additionally, Richmond and Triplett (2017) also noted that information and communication technology could potentially exacerbate income inequality. This was equated to the differences that ICT creates in the access to skills as not all socioeconomic classes have equal opportunities. On the opposite side of economic growth is the presence of poverty in an economy. Within the United States rural communities demonstrated a 2.4% higher rate of poverty than those of urban communities (USDA 2017). This was expanded upon by Akin-Olagunju and Omonona (2013) in their study of the households of Ibadan in the

Oyo State. Here it was revealed that there was a high presence of income inequality among rural households.

One of the most notable determinants that had a positive effect on real median household income was the presence of human capital development. The rationale behind this is described in Becker and Chiswick (1966) who mention hat high human capital development reduces the levels of income inequality at workplace and society in general. Education enhances the skills and competencies of individuals as well as their productivity. So, as it stands, those with a higher educational attainment have an increase's chance of making more money, as their human capital is raised.

As it was stated before, those who are unemployed, are directly associated with an individual who has less money. But according to Jacoby (2000), as infrastructure development increases, so too do the benefits and opportunities present to the poor, thus making them more connected to economic activities. This is disputed by Tsaurai and Nyoka (2019) however. In their literature they discuss the possibility that infrastructure development can demonstrate negative effects on the poor. Resources that has the potential to boost labor income for citizens through small loan provisions are now being diverted towards long term infrastructure development. Another, determinant that was also noted to have the potential to negatively affect lower socioeconomic classes is financial development. Dhrifi (2013) discusses that as financial development increases it also increases the income inequality gap because the rich are able to become richer due to their ability to access credit. This ability allows them to invest in income generating projects.

4.0 Data and Empirical Methodology

4.1 Data

This project draws data from the United States Census Bureau, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and Federal Reserve Economic Data (Fred). This data encompasses all fifty states from 2008-2019 and is utilized through panel data analysis. Summary Statistics for the data are provided in table 1.

Table 1: Summary Statistics

Variable	Observation	Mean	Std. Dev.	Min	Max
INC	600.00	62009.92	10262.62	35992.00	96765.00
UNEMPL	600.00	5.95	2.29	2.10	13.70
GROWTH	600.00	343435.70	429199.70	25999.25	3052645.00
POV	600.00	12.94	3.42	3.70	23.10
ICT	600.00	3083.25	9169.87	23.00	113659.90
OPEN	600.00	2337.21	3581.69	37.82	27371.12
HCAP	600.00	29.27	5.23	17.10	45.00
CREDIT	600.00	10607.75	20107.34	69.34	174053.30
LOANS	600.00	151000000.00	291000000.00	1565802.00	1640000000.00
TRANSP	600.00	16227.57	18389.72	1069.10	129829.40
PHONE	600.00	0.02	0.01	0.00	0.06
FIN	600.00	0.07	0.05	0.00	0.32

4.2 Pre-estimation Diagnosis

The Pearson Correlation method is the pre-estimation diagnosis that is covered under this subsection. According to table 2, the variables with were found to have a meaningful relationship with real median household income include unemployment, economic growth, poverty, information and communication technology, human capital, and finance. These results are backed says these variables are key determinants of income inequality. Trade openness, credit, transportation, and phone were all found to positively effect real median household income, although their results were insignificant. Loans were also insignificant, but they negatively impacted real median household income.

Table 2: Correlation Analysis

	INC	UNEMPL	GROWTH	POV	ICT	OPEN	HCAP	CREDIT	LOANS	TRANSP	PHONE	FIN
INC	1.0000											
UNEMPL	-0.3635*	1.0000										
GROWTH	0.1266*	0.0958*	1.0000									
POV	-0.8186*	0.5009*	0.0685	1.0000								
ICT	0.1789*	-0.0013	0.8081*	-0.0253	1.0000							
OPEN	0.0027	0.0973*	0.8407*	0.1663*	0.5419*	1.0000						
HCAP	0.8105*	-0.3282*	0.2291*	-0.6580*	0.2170*	0.0527	1.0000					
CREDIT	0.0616	0.0469	0.7570*	0.0677	0.5980*	0.5211*	0.2248*	1.0000				
LOANS	-0.0690	0.0245	0.2123*	0.0411	0.1609*	0.1378*	-0.0180	0.3020*	1.0000			
TRANSP	0.0744	0.0891*	0.9734*	0.1024*	0.7385*	0.8805*	0.1580*	0.6766*	0.1888*	1.0000		
PHONE	0.0328	0.1538*	0.3788*	0.0954*	0.2024*	0.2230*	0.1745*	0.3573*	0.0358	0.3998*	1.0000	
FIN	0.1919*	-0.1195*	0.0950*	-0.2518*	0.0653	-0.0114	0.2904*	0.3732*	0.4597*	0.0383	0.0425	1.0000
* Denotes 5% levels of significance, respectively.												

4.3 Empirical Model

The general model that this study is derived from is as follows:

$$INEQ_{it} = \beta_0 + \beta_1 UNEMPL_{it} + \beta_2 GROWTH_{it} + \beta_3 ICT_{it} + \beta_4 OPEN_{it} + \beta_5 HCAP_{it} + \beta_6 FDI_{it} + \beta_7 INFR_{it} + \beta_8 FIN_{it} + \varepsilon_{it}$$

Publicly available data for the fifty states excludes INEQ, ICT, HCAP, FDI, INFR, and FIN as they are defined by the first model, so the variables had to be adjusted accordingly to accurately represent this study. To this model we have added POV, CREDIT, LOANS, TRANSP, AND PHONE. The rationale behind adding poverty was to introduce an alternative perspective to economic growth. This perspective was discussed, but not included in Tsaurai (2020). The rationale behind the other four were to cover the variables that were not able to be included as much as possible in order to achieve comparable results. The reason that there is more than the base model is because the original variable encompassed a broader range of information then the data accessible for the fifty states, so additional data needed to be utilized.

The model utilized in this study can written as follows:

$$INC_{it} = \beta_0 + \beta_1 UNEMPL_{it} + \beta_2 Growth_{it} + \beta_3 POV_{it} + \beta_4 ICT_{it} + \beta_5 OPEN_{it} + \beta_6 HCAP_{it} + \beta_7 CREDIT_{it} + \beta_8 LOANS_{it} + \beta_9 TRANSP_{it} + \beta_{10} PHONE_{it} + \beta_{11} FIN_{it} + \varepsilon_{it}$$

Independent Variables

There are eleven independent variables within this model, each possessing an individual relationship to the dependent variable of real median household income. Their data, description, expected sign, and what they capture are provided by appendix A and B. The variables, descriptions, and proxies that were not included in this study and used by the model this study is based on are provided by appendix C.

5.0 Empirical Results

5.1 Hausman Test

As it is demonstrated in the table 3, a Hausman test was conducted on the data that included the fixed effects test, the random effects test, and the pooled ordinary least squares test. It was determined that at a significance level of 5% the best test to explain the empirical model is the fixed effects test because the prob>chi value of .0232 was under .05.

Table 3: Hausman Test

	- Coefficients -			
	(b) Fixed	(B) Random	(b-B) Difference	sqrt(diag(V_b-V_B)) Std. err.
UNEMPL	-13.91803	-10.45544	-3.462586	55.24206
GROWTH	0.0173576	0.010024	0.0073335	0.0066181
POV	-1151.419	-1235.965	84.54663	30.71191
ICT	-0.0353216	0.0053596	-0.0406812	0.0385111
OPEN	-0.5809396	-0.2346341	-0.3463055	0.1394739
HCAP	1096.071	1050.355	45.71601	91.01297
CREDIT	-0.0444673	-0.0423781	-0.0020891	0.0219339
LOANS	1.76E-06	8.90E-07	8.73E-07	8.30E-07
TRANSP	-0.2265371	-0.1572582	-0.0692789	0.0798912
PHONE	91259.2	46705.1	44554.11	25053.79
FIN	-16508.28	-14032.58	-2475.706	13811.6

b = Consistent under H0 and Ha; obtained from xtreg.

B = Inconsistent under Ha, efficient under H0; obtained from xtreg.

Test of H0: Difference in coefficients not systematic

chi2(5) = (b-B)'[(V_b-V_B)^(-1)](b-B)

= 13.02

Prob > chi2 = 0.0232

5.2 Regression Analysis

In table 4 the two variables of POV and HCAP were both significant at 1%. As educational attainment is a key factor in determining socioeconomic status, the results are consistent with Akin-Olagunju and Omonono (2013). Together they noted that rural households, which are more prone to poverty (USDA 2017), have high levels of income inequality, and that education reduced income inequality. Economic growth, trade openness, and phone were all significant at 5%, but trade openness significantly negatively impacted real median household income. This is backed up by Rubin and Segal (2015) and Kaplan and Rauh (2010). In there writings they state that a small increase in economic growth has got a positive multiplier effect on the value of labor income, GDP per capita, and the general wealth levels of the community. Economic growth and trade openness can also increase income inequality if it causes more

sensitivity to wealth than labor income, meaning if only a small portion of the population are benefiting. Phone is supported by Jacob (2000) who claims infrastructure development benefits the previously disadvantaged and the poor as they can now be able to easily gain access to productive opportunities and more readily connect to economic activities. This is also why transportation only significant at 10% because the poor can now enjoy low transportation and production costs through easily accessing better road infrastructure. It also makes sense that their significance is lower because as Tsaurai and Nyoka (2019) state, resources that could have been used to boost small loans would now have to be diverted towards these long-term infrastructure projects.

Table 4: Determinants of Income Inequality in the United States: Regression Analysis

	Pooled OLS	Fixed Effects	Random Effects
UNEMPL	-262.772***	-13.91803	-10.45544
GROWTH	0.0021799	0.017357**	0.010024**
POV	-1654.248***	-1151.419***	-1235.965***
ICT	0.0857997**	-0.0353216	0.0053596
OPEN	0.2750264**	-0.5809396**	-0.2346341
HCAP	932.469***	1096.071***	1050.355***
CREDIT	-0.0300183*	-0.0444673	-0.0423781
LOANS	-3.94E-07	1.76E-06	8.90E-07
TRANSP	-0.0753746	-0.2265371*	-0.1572582*
PHONE	20.00848	91259.2**	46705.1
FIN	-13149.81**	-16508.28	-14032.58
Number of States	50	50	50
Number of Observations	600	600	600
Adjusted R-Squared	0.8137	0.7564	0.7946
F-statistic	238.83	84.36	1160.19
Prob (F-statistic)	0.00	0.00	0.00

***, **, * Denote 1%. 5%, and 10% levels of significance, respectively.

6.0 Conclusion

This project's main objective was to explore the determinants of income inequality using real median household income. It accomplishes this thoroughly the utilization of time-series data in the analysis of the Gini coefficient, the top one percent's share of the wealth, and how the real median household income compares to varying demographics. It also accomplishes this through the use of a panel data analysis with a fixed effects regression, and random effects regression,

and a pooled ordinary least squares regression. The results of these regressions were that economic growth and human capital had a significant positive effect on real median household income, and that unemployment and poverty rate had significant negative effects on real median household income. These results demonstrated the opposite of the results found in Tsaurai (2019). This fact makes sense though because their dependent variable was the Gini coefficient, which directly analyses income inequality, whereas my dependent variable was real median household income. So, anything that negatively impact income inequality would inadvertently positively impact median income. The policy implications of this study are that the United States should be urged to continue implementing policies that aid in economic growth, and combat unemployment and poverty. Six potential recommendations for this could be: to decrease the mortgage interest tax deduction, then use the additional revenue as credit for first-time homebuyers; to utilize automatic savings for retirement plans; to reduce dependence on student loans while supporting success in postsecondary education; to offer universal savings accounts for children; to reform asset tests for safety net programs, because they can act as barriers to saving among low-income families, and to provide subsidies similar to those linked to tax time, in order to promote emergency savings. The United States government should also work to increase the accessibility to upper-level educational systems because a high level of human capital development has been demonstrated to significantly effect the real median household income for the better.

Appendix A: Variable Description and Data Source

Acronym	Description	Data Source
INC	Real median household income in state i at time t	U.S. Census Bureau Historical Data Tables
UNEMPL	Unemployment rate in state i at time t	Federal Reserve Economic Data
GROWTH	Economic growth in state i at time t	Federal Reserve Economic Data
POV	Poverty rate in state i at time t	Federal Reserve Economic Data
ICT	Information and communication technology in state i at time t	Federal Reserve Economic Data
OPEN	Trade openness in state i at time t	Federal Reserve Economic Data
HCAP	Human capital development in state i at time t	Federal Reserve Economic Data
CREDIT	Credit in state i at time t	Federal Reserve Economic Data
LOANS	Loans in in state i at time t	Federal Reserve Economic Data
TRANP	Transportation expenditures in state i at time t	Federal Reserve Economic Data
PHONE	Telephone expenditures in state i at time t	Federal Reserve Economic Data
FIN	Internal financing in state i at time t	Federal Reserve Economic Data

Appendix B: Variables and Expected Signs

Acronym	Variable Description	What it Captures	Expected Sign
INC	Real median household income	Income Inequality	
UNEMPL	Unemployment	Percentage of the total population involved in the labor force	-
GROWTH	Economic growth	Gross domestic product per capita	+/-
POV	Poverty	The percentage of the population living below the set standard of living	-
ICT	Information and communication technology	Accessibility to the internet	+
OPEN	Trade Openness	Total of exports and imports (% of GDP)	+/-
HCAP	Human capital development	Educational attainment (Bachelor's degree or higher)	+
CREDIT	Credit	Monetary authorities-central bank, credit Intermediation, and related Services	+
LOANS	Loans	Total loans and leases, net of unearned income for commercial banks	+
TRANSP	Transportation expenditures	Gross domestic product: transportation and utilities	+/-
PHONE	Telephone expenditures	Broadcasting (except internet) and telecommunications	+/-
FIN	Internal financing	Finance and insurance	+

Appendix C: Excluded Variables

Acronym	Proxy Used
ICT	Individuals using the internet (% of the population)
HCAP	Human capital development index
FDI	Net foreign direct investment (% of GDP)
INFR	Fixed telephone subscriptions (per one hundred people)
FIN	Market capitalization of listed domestic companies (% of GDP)

Work Cited

Afandi, A., Rantung, V.P., & Marashdeh, H. (2017). Determinants of income inequality. Economic Journal of Emerging Markets, 9(2), 159-171.

Akin-Olagunju, O.A., & Omonona, B.T. (2013). Determinants of income inequality among rural households of Ibadan, Oyo State, Nigeria. Nigerian Journal of Rural Sociology, 13(3), 27-37.

Allison, C., Fleisje, E., Glevey, W., & Johannes, W.L. (2014). Trends and key drivers of income inequality. Working Paper, Marshal Society, Cambridge.

Arellano, M., & Bond, S. (1991). Some tests of specification for panel data: Monte Carlo evidence and an application to employment equations. The Review of Economic Studies, 58(2), 277-297.

Ayala, L. Carbonell, J.R., & Martinez, R. (2001). The impact of unemployment on inequality and poverty in OECD countries. Economics of Transition, 9(2), 417-447.

Azher, B.A. (1995). Rural savings: Their magnitude, determinants, and mobilization. Pakistan Development Review, 34(4), 779-786.

Bahmani-Oskooee, M., Hegerty, S.W., & Wilmeth, H. (2008). Short run and long run determinants of income inequality: Evidence from 16 countries. Journal of Post Keynesian Economics, 30(3), 463-484.

Balassa, B. (1978). Exports and economic growth: further evidence. Journal of Development Economics, 5(2), 181- 189.

"Bureau of Economic Analysis." *U.S. Bureau of Economic Analysis (BEA)*, https://www.bea.gov/.

Bureau, US Census. *Census.gov*, 6 May 2022, https://www.census.gov/.

Education, Income, and Ability - JSTOR. https://www.jstor.org/stable/pdf/1831252.pdf.

"Federal Reserve Economic Data: Fred: St. Louis Fed." *FRED*, Federal Reserve Bank of St. Louis, https://fred.stlouisfed.org/.

Furceri, D., & Ostry, J.D. (2019). Robust determinants of income inequality. Oxford Review of Economic Policy, 35(3), 490-517.

Gini Coefficient by Country 2022, https://worldpopulationreview.com/country-rankings/gini-coefficient-by-country.

"ICYMI... Rural Families Headed by Single Adults Had Higher Poverty Rates than Urban Counterparts in 2017." *USDA ERS - Chart Detail*, https://www.ers.usda.gov/data-products/chart-gallery/gallery/chart-detail/?chartId=95521.

International Monetary Fund. (2015). World Economic Outlook: Adjusting to Lower Commodity Prices. Washington (October). Retrieved from https://www.imf.org/en/Publications/WEO/Issues/2016/12/31/WorldEconomic-Outlook-October-2015-Adjusting-to-Lower-Commodity-Prices-43229.

Jacoby, H. (2000). Access to rural markets and the benefits of rural roads. Economic Journal, 110(465), 713-737.

Kunofiwa Tsaurai. *An Empirical Study of the Determinants of Income Inequality*. https://www.abacademies.org/articles/An-Empirical-Study-of-The-Determinants-of-Income-Inequality-1528-2635-24-6-614.pdf.

Kaplan, S., & Rauh, J. (2010). Wall street and Main street: What contributes to the rise in the highest incomes?. Revised Financial Studies, 23, 1004-1050.

Levin, A., Lin, C.F., & Chu, C.S.J. (2002). Unit ro

Odhiambo, N.M. (2009). Finance-growth-poverty nexus in South Africa: A dynamic causality linkage. Journal of Socio-Economics, 38(2), 320-325.

Paweenawat, S.W., & McNown, R. (2014). The determinants of income inequality in Thailand: A synthetic cohort analysis. Journal of Asian Economics, 31, 10-21.

Public Disclosure Authorized Income Inequality and Poverty. https://www.researchgate.net/profile/Nanak-Kakwani/publication/37883350_Income_inequality_and_poverty_methods_of_estimation_and_policy_applications/links/57e0b63608aece48e9e20225/Income-inequality-and-poverty-methods-of-estimation-and-policy-applications.pdf?origin=publication_detail.

Richmond, K., & Triplett, R. (2017). ICT and income inequality: A cross-national perspective. International Journal of Applied Economics, 32(2), 1-20.

Rubin, A. & Segal, D. (2015). The effects of economic growth on income inequality in the US. Journal of Macroeconomics, 45, 258-273

Stead, R., & Wisniewsk M. (1996). Foundation quantitative methods for business. Prentice Hall. England. Stjepanovic, S. (2018). Income distribution determinants and inequality in Croatia. 34th International Scientific Conference on Economic and Social Development-XVIII International Social Congress, Moscow, 18-19 October.

Stiglitz, J.E. (1993). The role of the state in financial markets. The World Bank Economic Review, 7(suppl_1), 19-52. Su, B., & Heshmati, A. (2013). Analysis of the determinants of income and income gap between urban and rural China. China Economic Policy Review, 2(1), 1-29.

Tridico, P. (2018). The determinants of income inequality in OECD countries. Cambridge Journal of Economics, 42(4), 1009-1042.

Tsaurai, K., & Nyoka, C. (2019). Financial development-income inequality nexus in South Eastern European countries: Does the relationship vary with the level of inflation? International Journal of Services, Economics and Management, 10(2), 110-125.

U.S. Bureau of Labor Statistics, U.S. Bureau of Labor Statistics, 6 May 2022, https://www.bls.gov/.