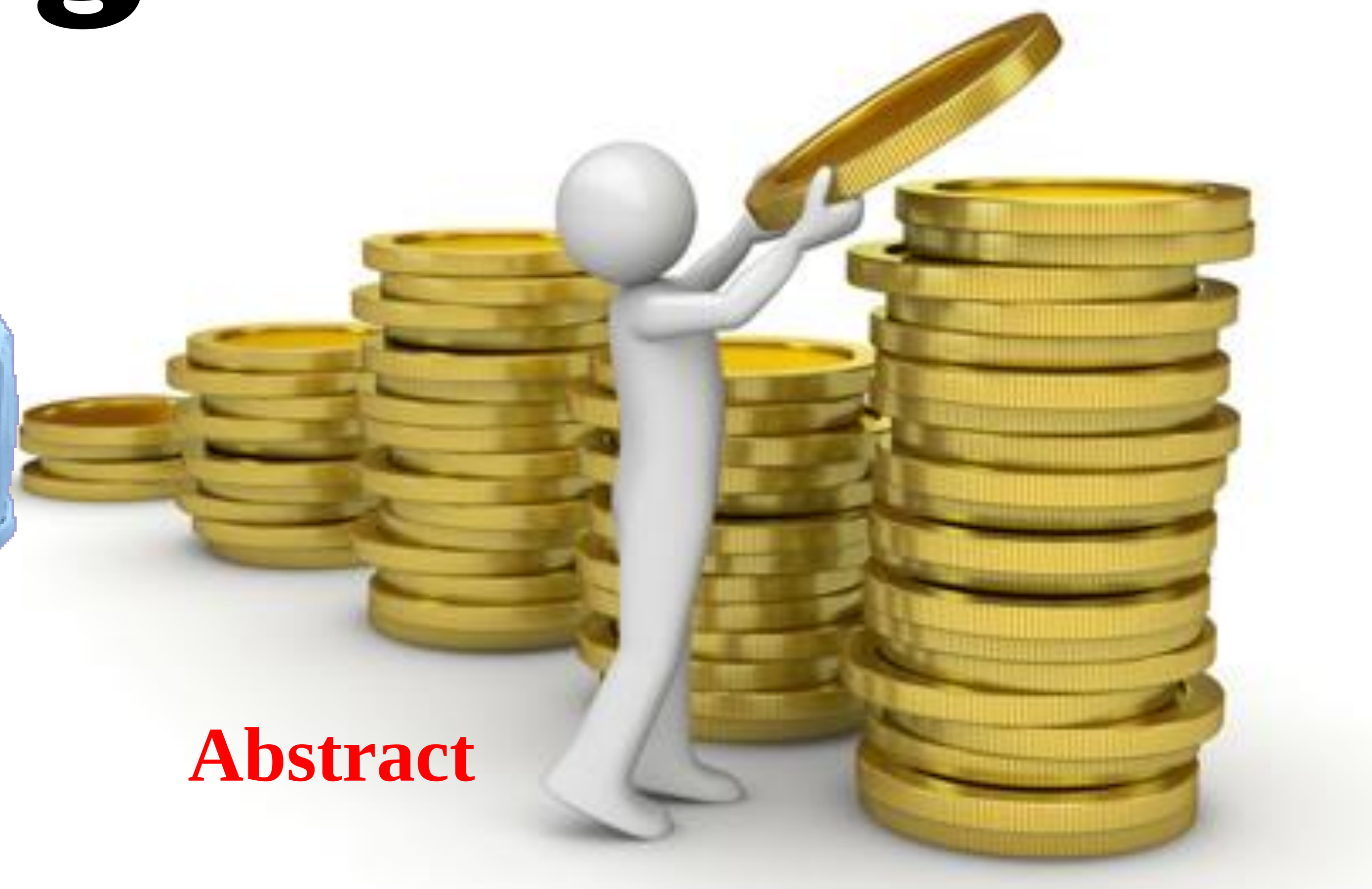
Physical And Environmental Factors That Can Bridge Income Inequality

Valeriya Marchenko

Mentor: Elizabeth Granitz

Major: Economics

College of Liberal Arts and Sciences

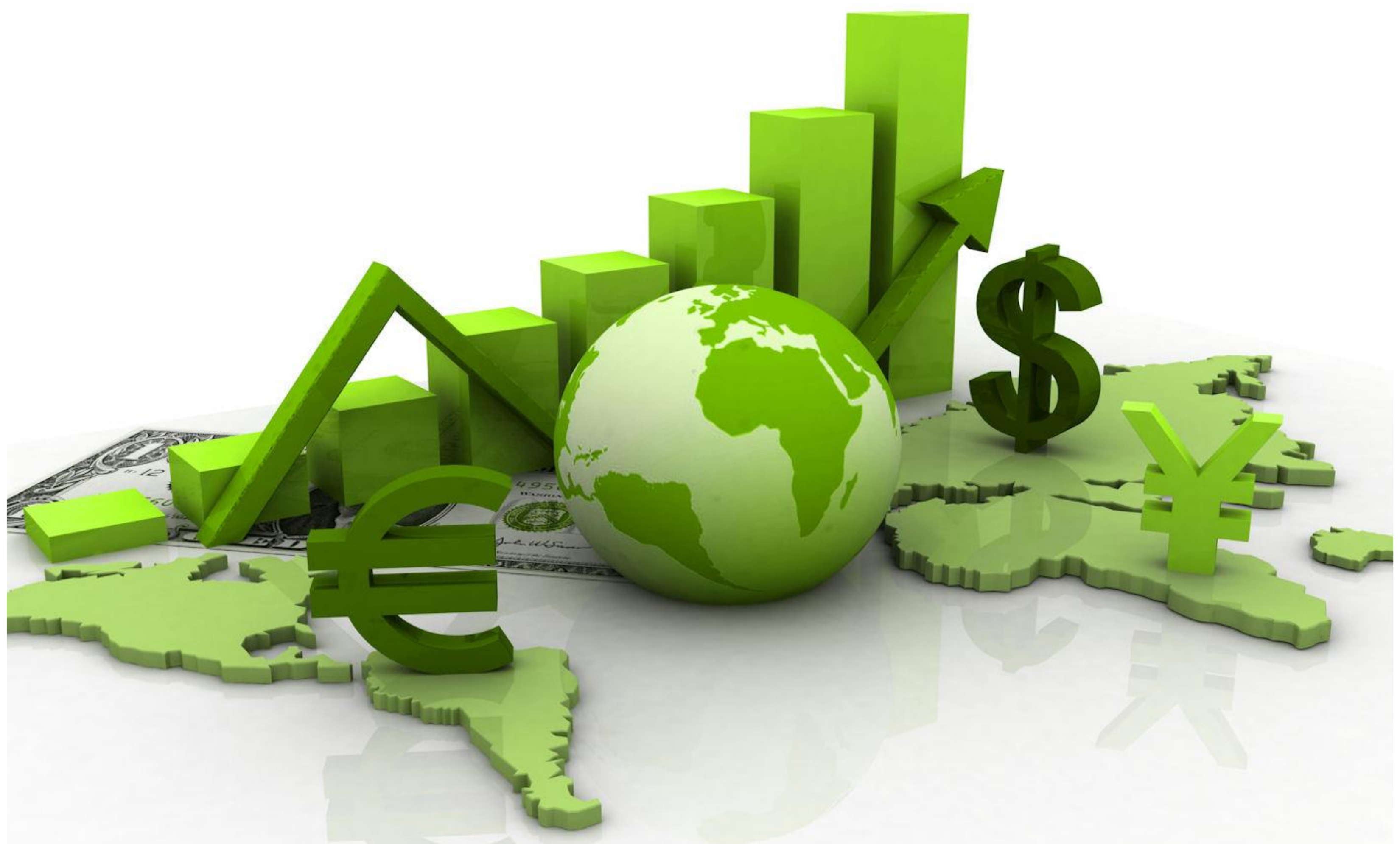


Abstract

Income plays an important role in day to day life. Many factors affect a state's median income. Some factors are personal traits such as self motivation and perseverance. A state's median income can be influenced by a variety of factors. Some factors are environmental, such as work place infrastructure and comfort, the ability to relocate, and geographical conditions such as location, climate and weather conditions. A state's ability to have a strong economy which helps provide jobs for its residents also depends on the educational attainment of it residents and how welcoming the state is to industry. In this paper, we will examine five attributes that help determine the level of median income in each state. We will estimate a regression model for these variables and examine how these variables affect the median- income.

Impact on Median Income

Independent Variables	Expected Sign
Unemployment Rate	-
College Undergraduate Attainment	+
Outpatient Visits	-
Average Summer Temperature	-
Worker Comfort Rate	+



Method

Using Ordinary Least Square Regression, we estimated the impact of unemployment rate (scale of 10), college undergraduate attainment (%), outpatient visit per 1000 patient, average summer temperature, and worker comfort rate (scale of 10) on median state income.

Analysis

	Median Income	Unemployment Rate	College Undergraduate Attainment	Average Summer Temperature	Worker Comfort Rate	Outpatient Visits
Mean	$66,774	5.81	0.27	71.2	6.53	0.27
Median	$66,272	5.85	0.26	71.5	6.45	0.26
Standard Deviation	$10,406	1.27	0.05	6	0.85	0.047
Minimum	$50,178	2.8	0.17	52.3	4.5	0.17
Maximum	$89,678	8	0.38	81.1	8.4	0.38

The median income for the states ranges from $89678 to $50178. Based on the summary statistics, each of the variable's mean and median are close to each other showing that there no significant outliers in the data set. The standard deviation describes how spread out from the mean the observations are. The standard deviation for income is $10406. College undergraduate attainment is the percent of the population that have graduated from college. This rate varies from 17% to 38% with a mean of 27%.

Income = 41,688 - 926 * Unemployment Rate + 128,290 * Undergraduate Attainment - 1.70573 * Outpatient Visits Per 1,000 - 316 * Average Summer Temperature + 3,430* worker comfort rate
(0.013) (1.97E-008) (0.052) (0.04) (0.004)

Policy Implications

There are only a couple of variables that a state can actually attempt to influence in order to impact median income. First possibility is to encourage more residents to complete their college education by making college more accessible and affordable. Second states with relatively high unemployment might try to implement programs that might assist unemployed workers in getting jobs. This might be job training, or incentives to firms to locate in the state to provide more jobs. Third would be to encourage firms to provide good working environments which on average make the workers feel more comfortable at their work place and therefore more productive meaning they can earn higher incomes.

The Mean Median Income Per State is $66,775. By increasing the Mean Median College Undergraduate Percentage Per State from 27% to 29%, the Mean Income is going to increase to $69,340. The difference is $2,566.