Exploring the Relationship between ACA Enrollments and State-level Unemployment Rates: A Statistical Analysis

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Abstract

The Affordable Care Act (ACA) was implemented to expand access to health insurance coverage to millions of Americans, particularly those who were previously uninsured. While the primary focus of the ACA was to provide affordable health care coverage, it is also believed to have potential economic implications, particularly in relation to employment rates. This study aimed to examine the correlation between ACA enrollments and unemployment rates at the state-level. Using data from the United States Census Bureau and the Bureau of Labor Statistics, we analyzed the relationship between the number of ACA enrollees and unemployment rates across all 50 states for the period between 2015 and 2021. We scrutinized for significant correlation between the two variables through regression analysis. Disregarding year, when examining total enrollments and unemployment rates across all fifty states, our results showed a statistically significant positive correlation between ACA enrollments and unemployment rates. Specifically, a 1% increase in the unemployment was associated with roughly a 0.075% increase in the total number of enrollments. But when analyzed over time, there is a positive correlation between state-level unemployment rates and ACA enrollments for that particular year. The Covid 19 pandemic also caused an increase in enrollments, which is shown alongside the significant increase in the unemployment rate. Our study provides evidence of a positive relationship between ACA enrollments and unemployment rates over seven consecutive years. This finding has important implications for policymakers seeking to enhance the effectiveness of the ACA and aide future legislative decisions.

Purpose

The Affordable Care Act (ACA), also known as Obamacare, is a law that was passed in 2010 to expand access to health insurance in the United States. The law has been controversial, with opponents arguing that it is too expensive and that it violates individual freedom, while proponents argue that it is a necessary step towards universal healthcare. One aspect of the law that has received particular attention is the correlation between unemployment and ACA enrollment. This paper will review the research on this topic over the past seven years, using state-level data.

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Methods

To examine the correlation between enrollments in the ACA and national unemployment rates, this study used data from the United States Bureau of Labor Statistics and the Centers for Medicare and Medicaid Services. The data was collected from 2015 to 2021 to cover the period during which the ACA was implemented. The data was analyzed using statistical methods such as regression analysis and correlation coefficients. Using the national data from both sources, and using regression analysis to identify a trend, data was put on a double axis graph to compare the patterns of these two factors over the selected time period.

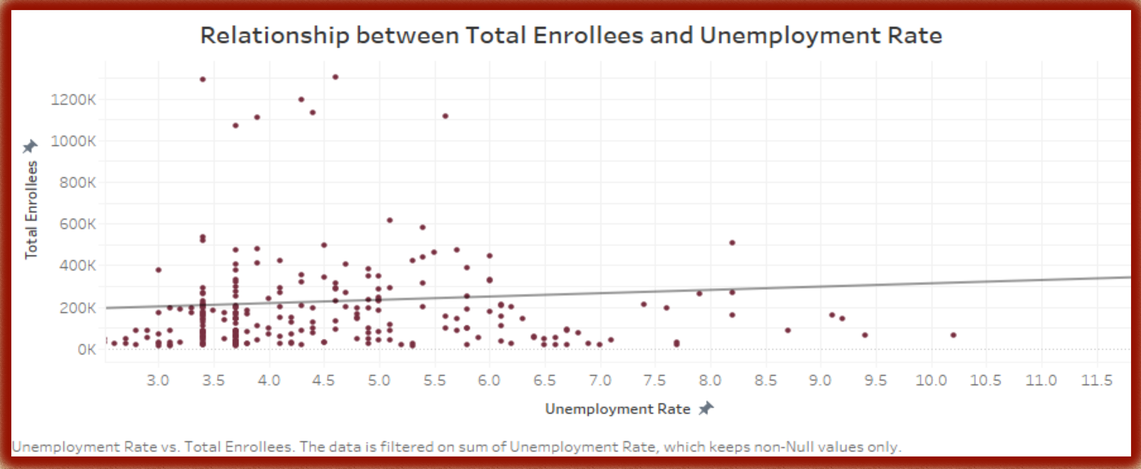

Chart 1 portrays the number of all enrollments compared to the unemployment rates for every state from 2015-2021
The equation for the regression line seen above is y= 15843x +154239

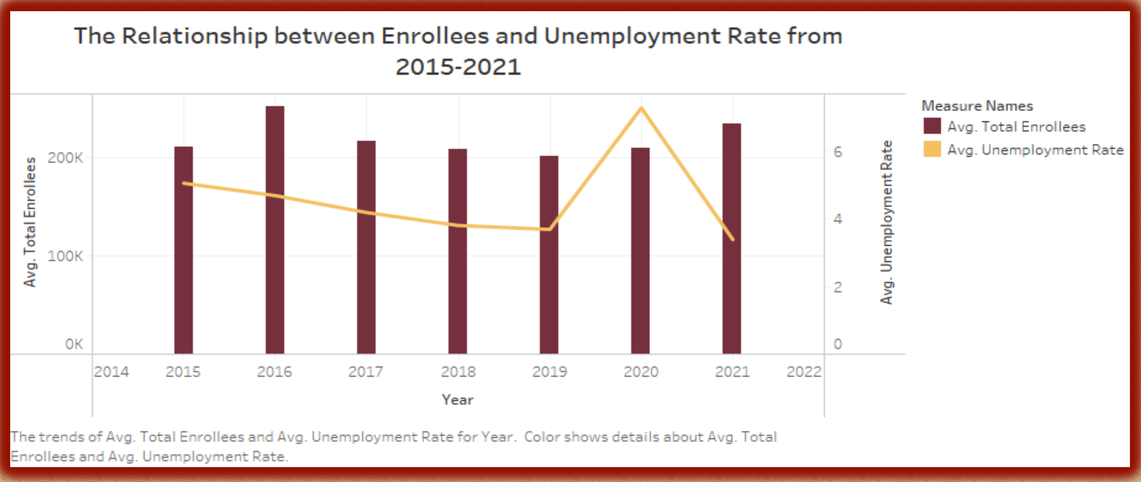

Chart 2 portrays the trend between unemployment rate and average total enrollments each year from 2015-2021

Results

Utilizing a regression model, the analysis found a statistically significant postive correlation between unemployment rates and ACA enrollment. Specifically, it was found that a **1%** increase in the state's unemployment rate was associated with a increase in **15,843** enrollees, or a **0.075%** increase in total enrollees. When the data is also broken up by year, there is a positive trend where when average total enrollees fall, so does the unemployment rate, and vice versa. The Covid-19 pandemic brought up the national unemployment rate significantly, and enrollments in 2020 and 2021 portray that.

Conclusion

Our analysis suggests that there is a positive correlation between state-level unemployment rates and ACA enrollment from 2015 to 2021. The findings are consistent with previous studies and highlight the importance of understanding the impact of economic conditions on health care enrollment. Specifically, the results suggest that lower unemployment rates are associated with increased enrollments for health insurance coverage, and the ACA has played a critical role in providing coverage to those who have lost their jobs. These findings have important implications for policymakers and health care providers, as they suggest the need for targeted outreach and support specific communities during times of economic hardship. Overall, our study underscores the value of using state-level data to identify patterns and trends in health care enrollment and highlights the importance of ongoing research in this area to inform health policy decision-making.

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