

Abstract: Sun Belt Region Energy Production and Functionality

Brandon McCutchen, Cameron Young

ABSTRACT: The Sun Belt region contains parts of around 18 states and takes up about 36% of the continental United States according to most studies. It spans from coast to coast and covers the entire southern border. This region got its name in 1969 and has since been known for its diverse landscapes, business opportunities, famous cities and energy production. We want to know what the Sun Belt region brings to the table and can it bring more. What makes this region so unique? We believe that this vast region is very important because of the large cities it contains as well as its environment. We believe that we have gathered key facts and studies showing that this region is extremely important to the well-being of our country and that it can grow in its production as time goes on.

Rising Sea Levels in Miami and Southern Florida Abstract

Allison Baldwin, Corey Devlin

ABSTRACT: Miami is the most vulnerable city, in the United States, to rising sea levels. Caused from thermal expansion and melting glaciers, rising sea levels threatens homes along the coast of Southern Florida. This problem will lead to many environmental issues, including shoreline erosion, stronger storm surges and more frequent flooding. This research paper explores why the state of Florida is more heavily affected by rising sea levels, the current problems caused by this issue, what Miami is doing in response and what the consequences will be if no action is taken. Further research concluded Florida's geologic makeup and the slowing of the Gulf Stream are intensifying the consequences of rising sea levels. Miami's current problems include destruction of freshwater marshes, health risks from overflowing sewers and urban canals, and an increase in housing costs. If there is no action taken, Miami will suffer economically. Loss of beaches will decrease Miami's tourism and agriculture will suffer as a result of lack of fresh water. South Florida has one of the most complex water systems, but it cannot cope with the rising sea levels. Millions of dollars have been spent on temporary measures in Miami. Permanent solutions need to be found, otherwise the impacts of rising sea levels will become more noticeable and harder to reverse.

Air Pollution

Charles Wood, Karlie Thorson, & Tim Burke

ABSTRACT: The region of California faces many challenges as being the heaviest populated state in the United States comes along with a significant amount of problems. One of the most alarming issues that we have determined to cover in this paper is the effects pollution has with this area as it is often referred to as the most polluted area in the United States. The main goal for this report was to find the reason for this massive amounts of pollution, what are the negative effects of mass pollution, and what are some solutions to reduce pollution. We go on to look at the some of the various reasons why California has high pollution rate and the effects that are the caused from pollution. Some of the reasons includes poor urban planning, high population and other fossil fuel emissions. Effects of being introduced to extreme pollution are, birth

deficiencies, decrease in the quality of food and economic downturns. We look at the destructive nature of these qualities and try a work a solution to help reduce or eliminate the amount of pollutants are being put into the ecosystem in order to help save it and the populations that it holds.

Urban Sprawl: Understand It or Regret it- Are you being affected?

Allison Lopez-Bock, Jessie Roth, and William Halley

ABSTRACT: Urban sprawl is the uncontrolled expansion of urban areas to accommodate increasing populations and is an issue seen mostly in large, growing cities. Urban sprawl causes a variety of problems affecting the environment, residential areas, transportation, and public health; thus, it can truly impact many aspects of our lives. The research question we want to discuss in this project is: What are the major negative effects of urban sprawl as seen in New York City, Dallas, and Portland, and how are these cities combating this issue? Research shows that New York has a hard time implementing new techniques that stop urban sprawl because of its age but improving transportation services looks to be an effective way of stopping sprawl. What we've seen in Dallas is it struggles with poorly planned city infrastructure due to its rapid growth. Although efforts have been made to improve its current circumstances, the main issue for making progress are old codes, policies, and financial regulations that were put in place during the 20th century. Portland differs from these two cities because of its efforts to curtail urban sprawl through Urban Growth Boundaries (UGB). Despite numerous studies, there is still debate on whether or not UGB's are helpful or harmful. We concluded that urban sprawl will progressively be an issue, especially for these fast-growing cities, therefore people and cities will continue to be affected by these issues. Cities will persist in trying to overcome their problems related to urban sprawl but ultimately, it's a complex issue that will always demand their attention and effort.

New England

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ABSTRACT: The New England region consists of Maine, Vermont, Massachusetts, New Hampshire, Rhode Island, and Connecticut and is known for its predominantly forested landscape. With a history of land use characterized by forest clearing for agriculture and other uses during European colonization, we have devoted our time to aggregate our research on how the forest will be shaped in the future in New England due to climate changes and other determinants. The reason behind this was to prevent from further forest loss. These forest provide critical benefits to the population in New England and it is an essential corridor for plant and animal movement throughout the entire region. Some possible solutions that we have come across to this issue is to approach the problems of climate change and how it's affecting the region. In addition, we would also like to talk about how to conserve and protect the land use in order to address the ongoing problem of parcelization and forest fragmentation. Therefore, a complete understanding of the influence of forest fragmentation will allow for forest risk management and improved spatial simulation model.

Walmartization

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ABSTRACT: Our research topic focuses on the influx of Walmart Stores and Walmartization in Rural America with an acute focus on answering the following question: Overall, how is Walmart beneficial or detrimental to local, rural communities? Our key findings indicate there are many positives and many negatives to Walmartization Rural America. Some positives being an increase in job availability, an opposition to poverty, and an overall growing dependence from the local community even on a personal level. However, we did find some conflicting data. The main negative aspects we focused on in our research was the increase in the number of local retailers who either struggle to remain open, or eventually close due to the inability to compete with Walmart's lower prices. Because local retailers/employers suffer from Walmartization, local employees/laborers suffer as well. Since Walmart is so consistently adamant about slashing prices and saving, the expense must be taken out of something else. We found that laborers suffer due to wage cuts while working for Walmart. A few solutions to counterbalance the negatives brought on by Walmart are: local retailers turning to niche markets not directly competing with Walmart, and for local officials to educate themselves on the current research on Walmartization allowing them to make more educated decisions about subsidizing or incentivizing Walmart to develop in their communities.

Water Scarcity in Nevada, Problems and Solutions

Brandon Baumann, Wayne Willeford

ABSTRACT: Nevada is the driest state in the United States. The southern region of Nevada accounts for nearly all of the state's water demand and this region averages only four inches of precipitation per year. These numbers are especially troubling when projections have water demands in the state to increase by 85 percent by 2065. Lake Mead the main body of water the southern region draws its water from has had its water levels fall drastically over the past 20 years. Taking all this into account, what possible solutions or policy ideas can be put into action in order to help the state of Nevada in terms of their lack of water? There are three main solutions that can be applied to Nevada's lack of water problem. The first is community conservation of water or creating ways to limit water use such as switching to AstroTurf for a lawn instead of natural grass. The Southern Nevada Water Authority is trying to create a viable pipeline into Las Vegas to help the city better access the states available water. The last solution is for new construction projects be built with water conversation guidelines to conserve water as best as possible. The solutions proposed are temporary and overall a permanent solution must be formulated by the citizens and government of the state of Nevada.

California Wildfires and How We Can Stop Them

Haylee Gross, Sentell Dickson, Miranda Saltzgeber

ABSTRACT: Wildfires in California have been responsible for hundreds and thousands of acres destroyed and even cost human lives in several situations. This paper addresses the reason these wildfires have started, how they affect the people and environment around them, and how we can prevent them from happening in the future. The government has spent billions of dollars trying to prevent these fires agriculturally, but nothing has helped significantly yet. New technology is being discovered each year to predict these fires and help the residents of California.