Clare DiMaiolo

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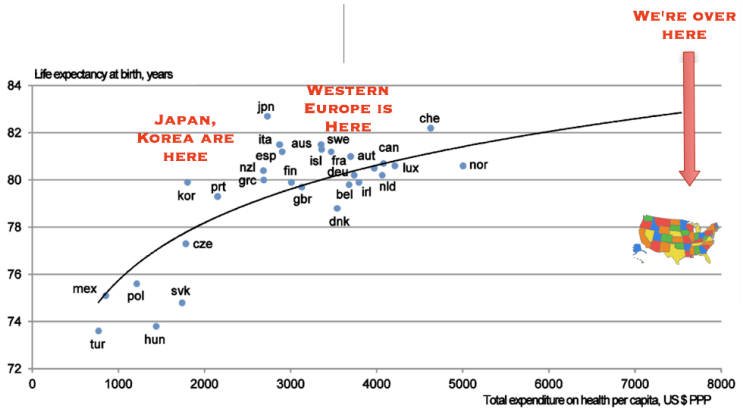
Adam Lubitz

The Impact of the Affordable Care Act on U.S. Health Care Coverage

This project explores the two-fold impact of the Affordable Care Act (ACA) on the take-up rates of health insurance, first through exploring the initial increase in take-up after the individual mandate was introduced in 2014, then showing the increase of Medicaid enrollment as a response to mandating health insurance.



The health care system in the United States is the most expensive compared to other developed nations, but yet we wield a below-anticipated life expectancy considering this spending. This is a result of our health care system's massive inequities: those who can afford private insurance (most often through employer provided insurance), tend to take on excessive plans that encourage over- and misuse of health insurance, while those who cannot afford insurance but do not qualify for Medicaid were, before the ACA, left with no health care option, which has a long-term effect on health, drastically lowering the United States life expectancy average. During the Obama administration, the Affordable Care Act was passed. Although this legalization had a number of goals, he primary one was to provide health insurance to those who otherwise would be uninsured. It did this in a few ways, most

notably through mandating health insurance and forbidding insurers from providing different health insurance packages to individuals with pre-existing conditions. Although these two tactics would bring down health care costs tremendously, the ACA also provides health care subsidies to eligible individuals. The ACA included numerous other changes and regulations to the tax code, the insurance market, and the medical industry with the intention of lowering the price of health care and making it more equitable. Additionally, the ACA suggested that states expand Medicaid coverage (a social insurance program funded through taxation that provides comprehensive health care to those affected by poverty) to include the coverage of single adults at a certain rate of poverty (defined and administered by each individual state). Connecticut, for example, chose to expand Medicaid, while Alabama chose not to. Beyond exploring the impacts of the ACA, this project explores the importance of expansive Medicaid coverage.

Health care is a deeply important topic that socially and economically affects the lives of all people in the United States. When individuals are uninsured and seek out necessary medical treatment that they cannot afford, they place additional costs on tax-payers (who take on higher taxes to pay for emergency care that goes unpaid by those without insurance) and those who are privately insured (who take on higher premiums which go towards unpaid hospital care). Beyond this, the uninsured population tends not to participate in preventative care treatments, like immunizations, leaving the rest of the insured population at risk for illness and disease. There are countless reasons why every person should care about insuring all people. Looking more closely at the Barnard audience, Barnard students must be especially aware of this issue since, considering the privileged positioning of much of the Barnard community, most of these students have never needed to consider where their medical care will come from. It is crucial for those who have never needed to fear for their provision of health care to be informed on the

importance of health care as a universal human right, using their privilege to demand health care justice.

One literary source that really guided this project was the written bill of the ACA. Although all 974 pages were not explored, it was important to use this text in order to solidify the details of the bill. Although it can be difficult to sift through such a legal presentation of the details, this source really enhanced the ability of this project to communicate the necessary facts about the ACA. This source became especially useful when paired with an interactive article discussing the success of the ACA from the New York Times. This source helped to explain the dense literature of the bill through real life implications, while provided data and figures. Additionally, this article was released at the end of 2014 and served as a reflection of the pros and cons of the first big wave of implementations of the ACA. This source went beyond simply summarizing the health insurance market in 2014, raising questions and suggestions for the future of the ACA. In addition to these sources, background information to support the development of this project came from Jonathan Gruber's *Public Finance and Public Policy* textbook, and his comic book, *Health Care Reform.* The textbook shared a perspective rooted in public sector economics, while the comic book was written for any audience to understand the implications of the ACA.

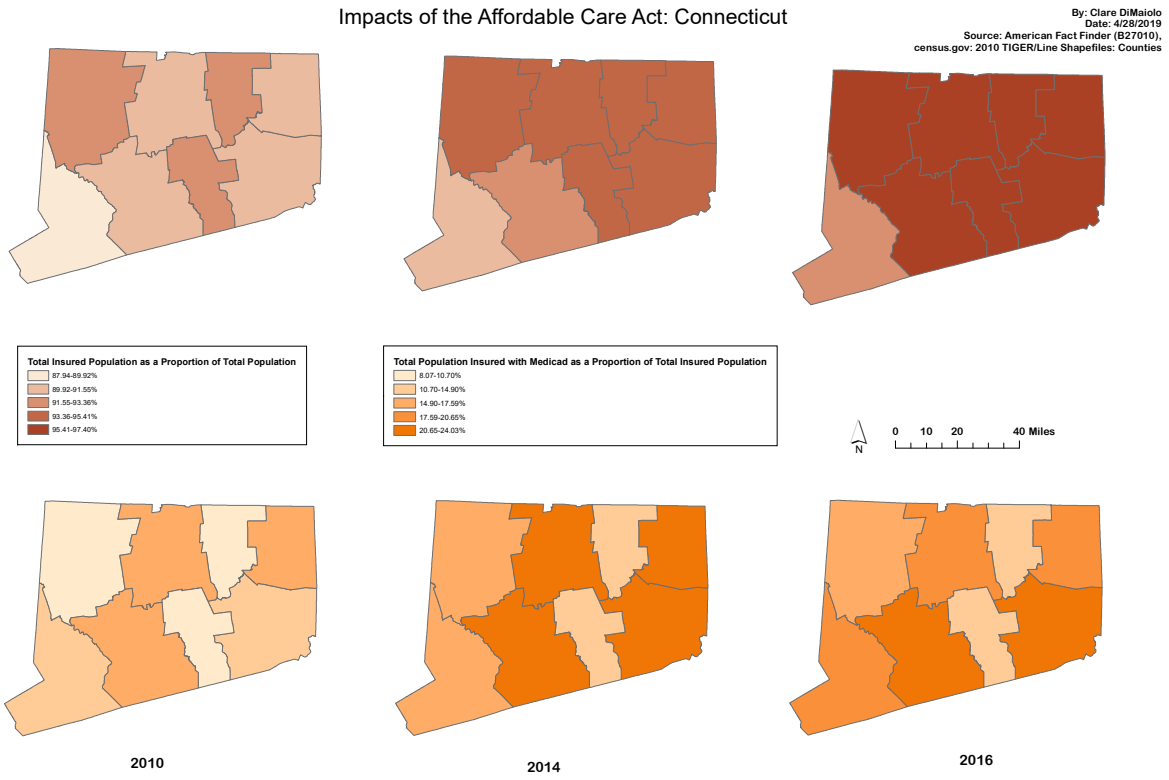
Data:

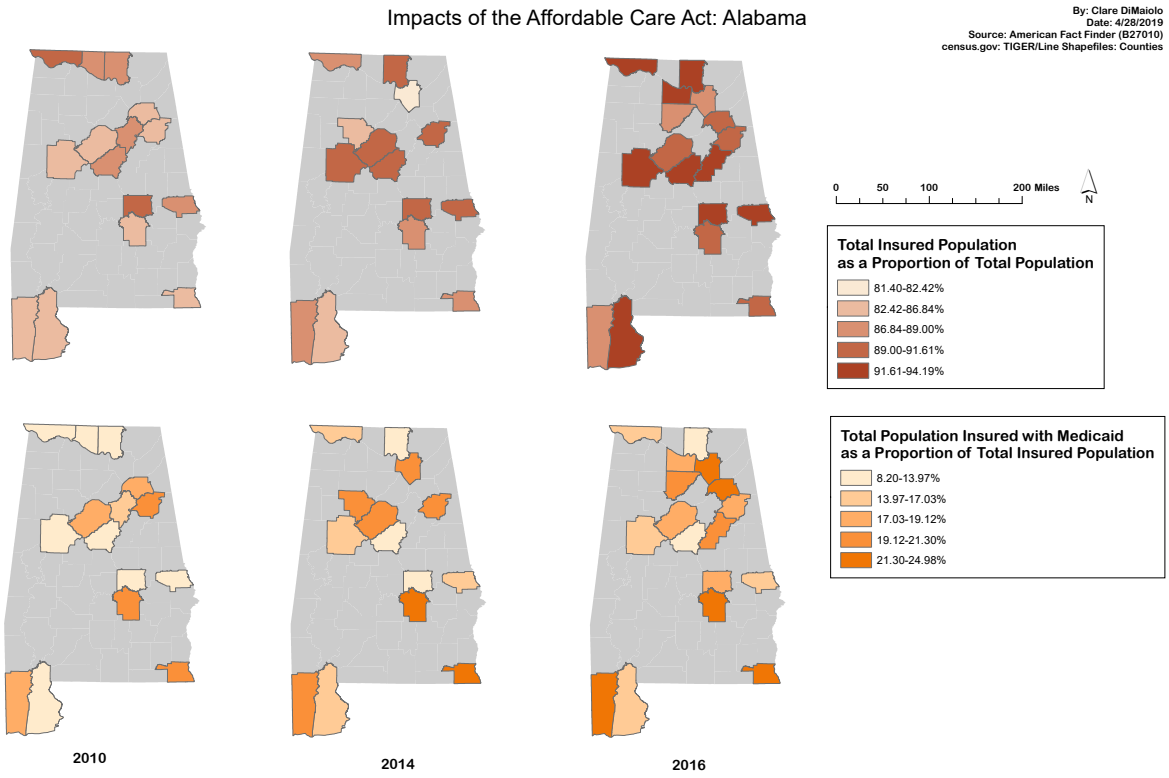
- American Community Survey, 1-year estimates for 2010, 2014, 2016 (B27010), "Types of Health Insurance Coverage by Age" (from American Fact Finder)
    - Consolidated the 109 columns provided in each of these tables and calculated the total population with health insurance as a proportion of total population and the

total population with Medicaid coverage as a proportion of the total insured population.

A majority of the methodology required to complete this project took place in excel. The data tables from American Fact Finder were rich with data, breaking up the variables by age group first, then type of insurance. When downloading the data, it was wonderful to have so many options of variables to display, allowing me to determine which variables were important as the goals of my project unfolded. However, it was also very overwhelming to sift through so much data. Determining which variables were necessary, which ones I could delete, and what types of excel functions I needed to perform was an important process that strengthened my data analysis abilities.

The most substantial mapping features I used during this project were joins to join my non-geographic data to a geographic coordinate system. This project also required an intense classification process. Classifying my data was challenging because each map represents fairly different ranges of data, which was important to display, while also showing the increase of health insurance take-up rates. This process required me to really understand the data of each map. I had to find the minimum and maximums for each map while also familiarizing myself with the spread of the data and the frequency of certain values. Once I was able to determine this, I manually classified my data, ensuring the ranges of data within my five classifications and colors for each range were correct and thorough, accurately reflecting the trends of the data.



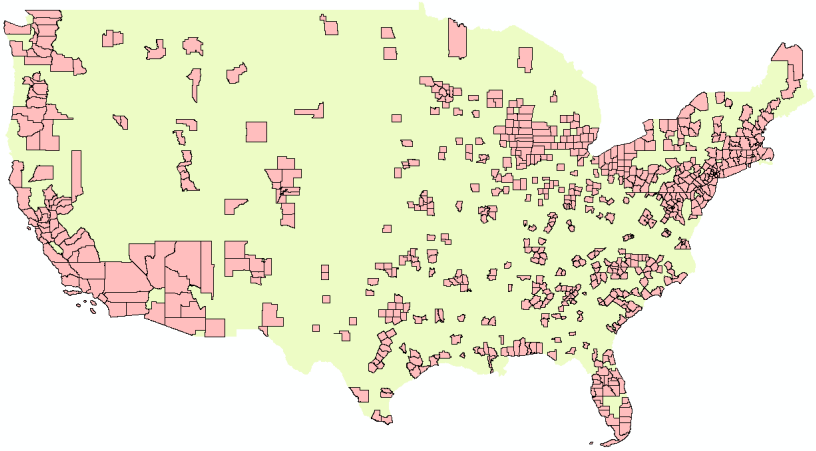


The results of this project highlight a few different findings. First, it is without a doubt that the ACA promoted take-up rates, increasing Connecticut's maximum percentage of insured

from 93.36% in 2010 to 97.4% in 2016. Connecticut's lower bound of percentage of insured increased by 5%, from a low of 87.94% in 2010 to 92.23% in 2016. Alabama saw similar increases in rates of insured, with their upper bound increasing from 89.05% in 2010 to 94.19% in 2016, and their lower bound increasing by 6%, from 82.42% in 2010 to 88.33% in 2016.

The results of this project, however, are unclear regarding the importance of Medicaid expansion. Both CT and AL saw nearly identical increases in take-up rates. Connecticut, though, a state that expanded Medicaid, saw huge increases in Medicaid participation, from a maximum of 10.7% in 2010 to a maximum of 23.36% in 2016. Alabama saw an increase from a maximum of 21.3% Medicaid participation in 2010 to a maximum of 24.98% in 2016. Considering that the population of insured increased in Alabama, it is no doubt that Medicaid participation also saw a minor increase. The question this fuzzy finding raises the following question: could a state like Alabama reach Connecticut levels of rates of insured (97.4% maximum in CT as opposed to 94.19% maximum in AL), if they provided expanded Medicaid coverage? Additionally, it is difficult to understand the implications of forcing Alabama residents to incur the costs of health care (via the mandate) without providing support through expanded Medicaid.

One aspect of this project that is both a limitation and a finding is the lack of available data surrounding rates of health insurance. In this map of the United States, one can see the abundance of missing health care data. This limitation made it difficult to determine



the best way to properly display the data for this project, ultimately leading to the decision to create a two-state comparison of Connecticut and Alabama. This limitation lead to the discovery that health care data collection is not valued enough by society, perhaps reflecting the societal value that the U.S. puts on health care in general. Another limitation is that the ACS data did not include Medicaid rates for individuals over 65. Although most people over 65 tend to receive Medicare benefits, a number of low-income elderly people require additional Medicaid benefits to fill in their spotty Medicare coverage. It's difficult to determine why this data was excluded: perhaps as a way to protect the identities of such a small number of Medicaid enrolled adults over 65 (since the ACS data is split by county), or as a result of non-comprehensive data collection. The final limitation is the recent fast-paced nature of changes to the health care system. Without the recent Trump administration repeal of the individual mandate, we could use these maps to make predictions about the future of health care rates since major ACA implementations in 2014. With the repeal of the mandate, though, it is unclear how rates of insured will change.

This project has provided interesting insight into the positive effects of the Affordable Care Act and the national value of health care data collection within the United States. Beyond recommending a re-implementation of the individual mandate, the results of this map also must be used to promote a universally utilized method of data collection regarding rates of insured all around the United States. In the future, this project could be improved by creating the maps in one data frame instead of multiple and by creating another comparative map after the conclusion of 2019, showing the impact of the repeal of the individual mandate. Additionally, this project could be expanded by assessing other historical changes to health insurance legislation in order to assess the sensitivity of health insurance participation as a result of policy changes.

Regardless, it is clear from this project that the Affordable Care Act succeeded in its goal of expanding health insurance enrollment, a change that positively strengthens many facets of our nation.

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