

Health Coverage in Rural America

How the rural poor are left behind

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Mod 2 Final Project

Plight of the Uninsured

- Can be **denied medical services** or receive substandard care
- Stress the Medicare/Medicaid systems and **overburden safety-net facilities**
- Force physicians into **ethically ambiguous**/conflict of interest situations
 - ◆ Physician income
 - ◆ Fraud risk to institution/liability
 - ◆ Exaggerating symptoms
- Push uninsured into **bad debt**

County Uninsured Rates

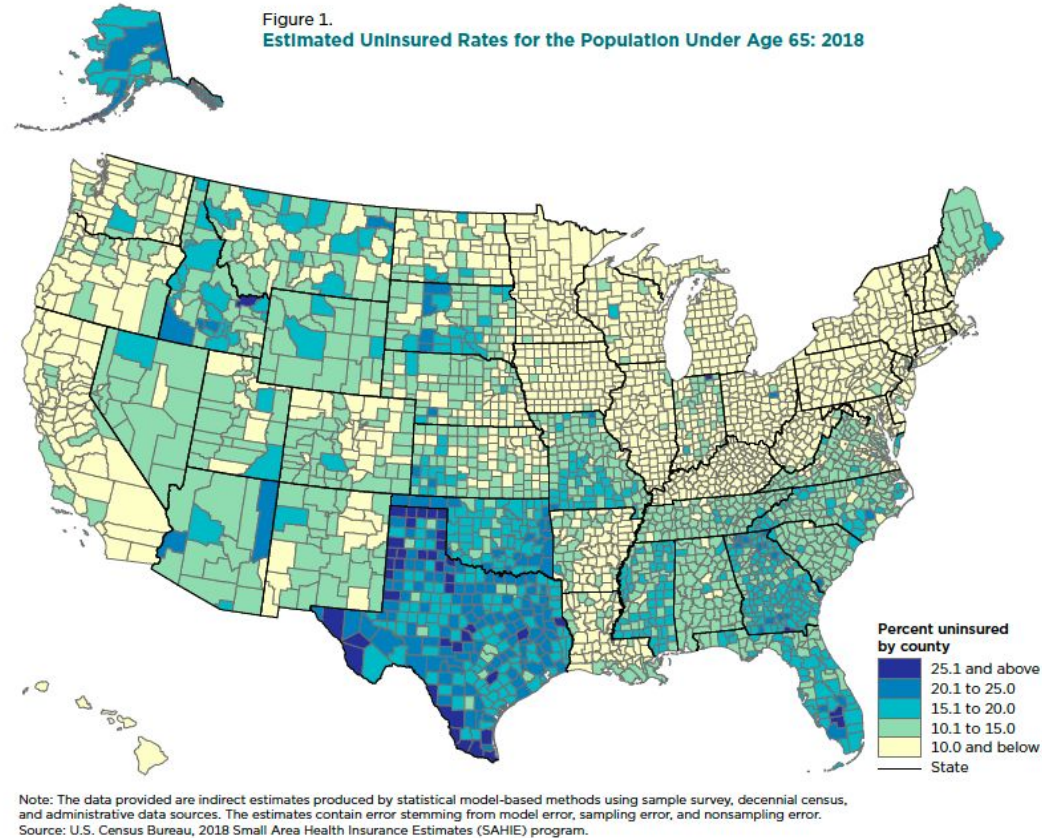
→ Rural counties have higher uninsured rates

→ Texas has the highest rate

So...

→ What drives this pattern?

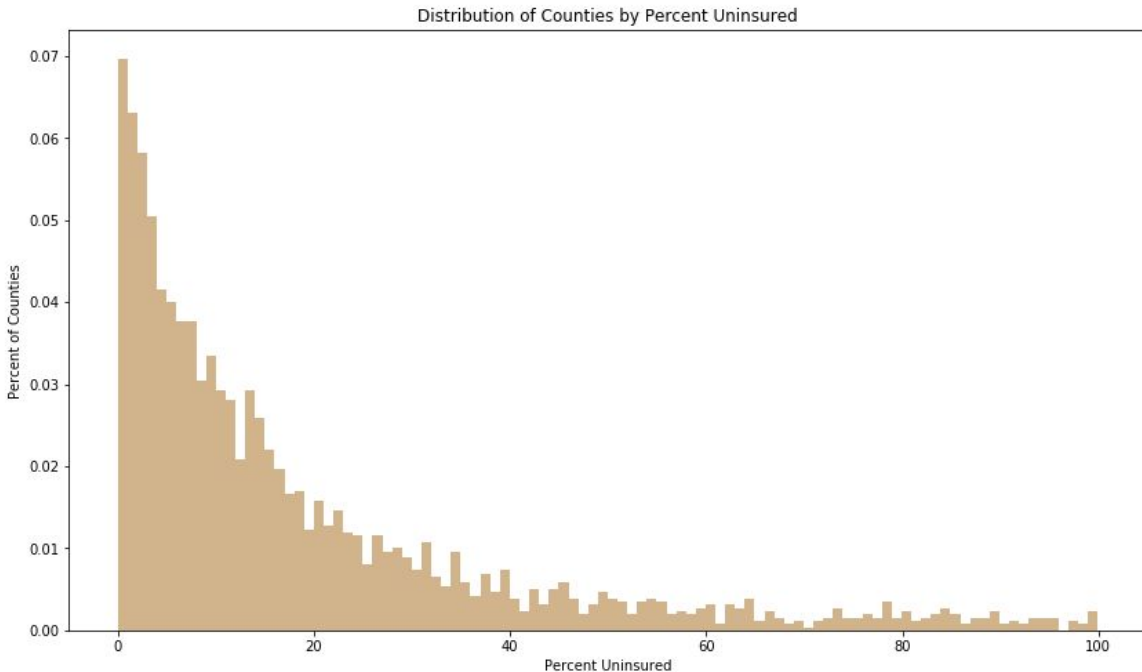
→ Why does it matter?



Walton, T.W. and K.A. Willyard, "Small Area Health Insurance Estimates: 2018," Current Population Reports, P30-07, U.S. Census Bureau, Washington, DC, 2020.

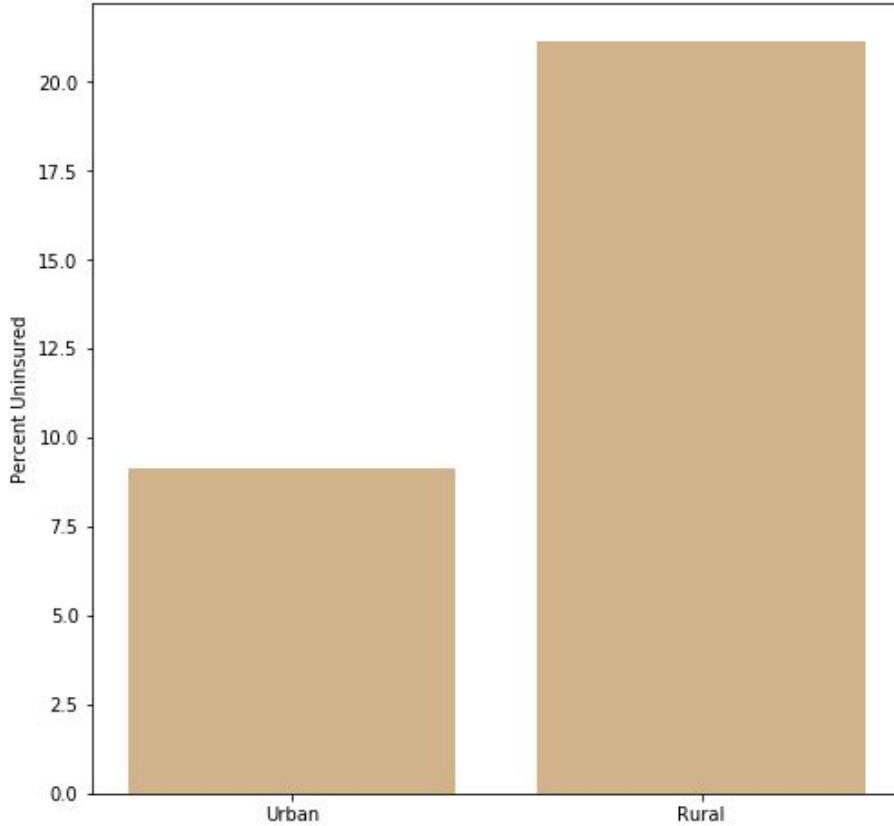
The Data

- CDC Community Health Indicators
- Census Bureau Demographic and Financial Information
- Covered every county in the US in 2017
- Imputed state means for missing values
- Dropped some missing rows from remote counties (ie Alaska)



- Most counties have less than 10% uninsured -- the national average

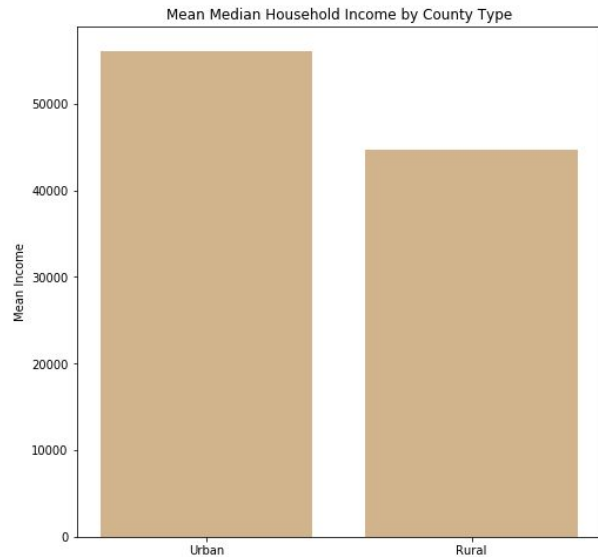
Mean Percent Uninsured by County Type



- Urban and Rural Uninsured Rates are significantly different
- 9% vs 21% on average

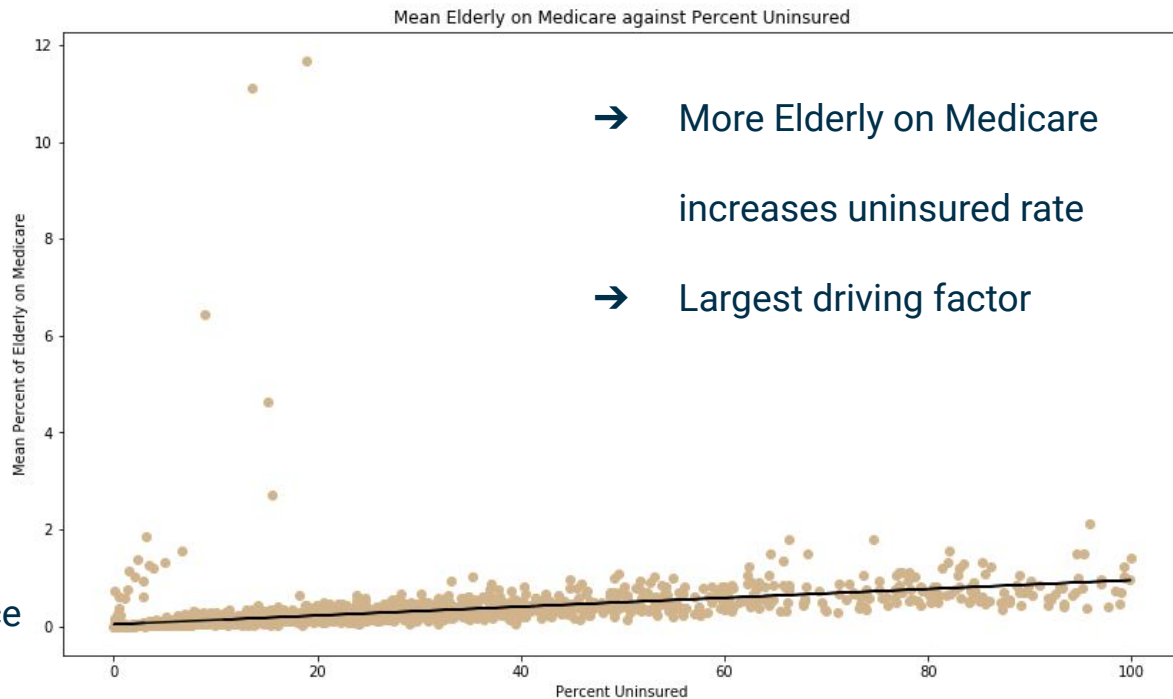
Difference in Rural and Urban County's Uninsured Rates

What factors impact
uninsured rates?



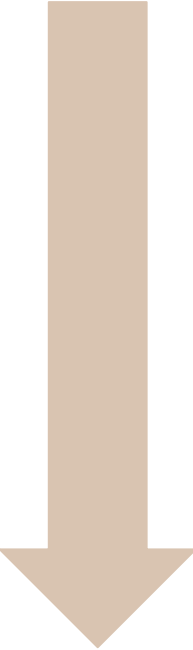
Average Income → significant difference


Urban Mean: 56k
Rural Mean: 44k



Some Important Features

Coefficients

- 
- Population Percent Urban -5.63
 - Median Household Income -2.44
 - High Blood Pressure -2.23
 - Area Percent Urban -1.92

- 
- Elderly on Medicare +6.55
 - Primary Care Physician Rate +3.58
 - Smoker Rate +1.92

Key Insights

- Urban and rural counties have **unequal rates of uninsured**
- Counties with a **higher Urban Population Percentage** have a smaller uninsured rate
- **Larger counties** (rural or urban) have a smaller uninsured rate
- **Smokers** and the **Elderly** were more likely to be uninsured

Future Directions

- A **personalized survey** to capture difficult to measure indicators like level of government mistrust, individualism vs collectivism, loss of work, etc.
- **Promote community health and charity programs** in private care facilities
- **5% of the uninsured are children** (2m), support initiatives to cover all children under Medicaid

Thank you!

Any Questions?

Sources

<https://healthdata.gov/dataset/community-health-status-indicators-chsi-combat-obesity-heart-disease-and-cancer>

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1495228/>

<https://www.census.gov/programs-surveys/geography/guidance/geo-areas/urban-rural/2010-urban-rural.html>

https://www.ers.usda.gov/webdocs/publications/85740/eib182_brochure%20format.pdf?v=6967.9

<https://journals.sagepub.com/doi/abs/10.1111/1467-8721.ep10768783>

<https://www.census.gov/library/stories/2019/04/health-insurance-rural-america.html>