Community-Level Health Insurance Coverage by Race and Foreign-Born Status

To install your API key for use in future sessions, run this function with `install = TRUE`.

# 1. Introduction

Health Insurance is good, but there are disparities. This exercise looks at data from the 2021 release of the American Community Survey for King in Washington to examine spatial trends in lack of health care coverage for individuals aged 35-44, and patterns of association with Black identity and foreign born status.

Consider this paper to be a counterpart to Thamer, Richard, Casebeer, & Ray (1997).

# 2. Data

We pull data from the American Community Survey 5-Year release on:

* Health Insurance Coverage By Sex And Age ([Table B27001](https://www.socialexplorer.com/data/ACS2021_5yr/metadata/?ds=ACS21_5yr&table=B27010))
* Hispanic Or Latino Origin By Race ([Table B03002](https://www.socialexplorer.com/data/ACS2021_5yr/metadata/?ds=ACS21_5yr&table=B03002))
* Sex By Age For the Foreign-Born Population ([Table B05013](https://www.socialexplorer.com/data/ACS2021_5yr/metadata/?ds=ACS21_5yr&table=B05013))

Getting data from the 2017-2021 5-year ACS

Retrieving data for the year 2020

# 3. Spatial Patterns in King County

## 3.1 Uninsured Status

Figure [Figure 1](#fig-uninsured) shows rates of uninsured populations age 35-44 in census tracts across King.

|  |
| --- |
| Figure 1: Percent Uninsured in King County, Age 35-44 |

## 3.2 Race and Foreign-Born Identities

Next we examine other community characteristics.

|  |  |  |  |
| --- | --- | --- | --- |
| |  | | --- | | (a) Percent Black Non-Hispanic | | |  | | --- | | (b) Percent Foreign Born, Age 35-44 | |

Figure 2: Demographic Characteristics of King County

Maps [Figure 2 (a)](#fig-demographics-1) and [Figure 2 (b)](#fig-demographics-2) show distinctive patterns.

# 4. Statistical Associations

We use statistical regression methods to examine the associations between the rate of uninsured individuals and the community characteristics displayed in section [Section 3](#sec-maps).

The equation for Ordinary Least Squares is:

[Equation 1](#eq-ols) is a classic.

Table 1 shows that community composition in both foreign-born status and black non-Hispanic identity are significantly related to community uninsured status.

**Table** **:** Title

|  | Estimate | Std. Err. | t-stat | p-value |
| --- | --- | --- | --- | --- |
| (Intercept) | 0.038 | 0.008 | 4.697 | 0.000 |
| % Foreign Born, Age 35-44 | 0.045 | 0.020 | 2.270 | 0.024 |
| % Black Non-Hispanic | 0.414 | 0.052 | 7.973 | 0.000 |

# 5. References

Thamer, M., Richard, C., Casebeer, A. W., & Ray, N. F. (1997). Health insurance coverage among foreign-born US residents: The impact of race, ethnicity, and length of residence. *American Journal of Public Health*, *87*(1), 96–102. <https://doi.org/10.2105/AJPH.87.1.96>