

descriptives

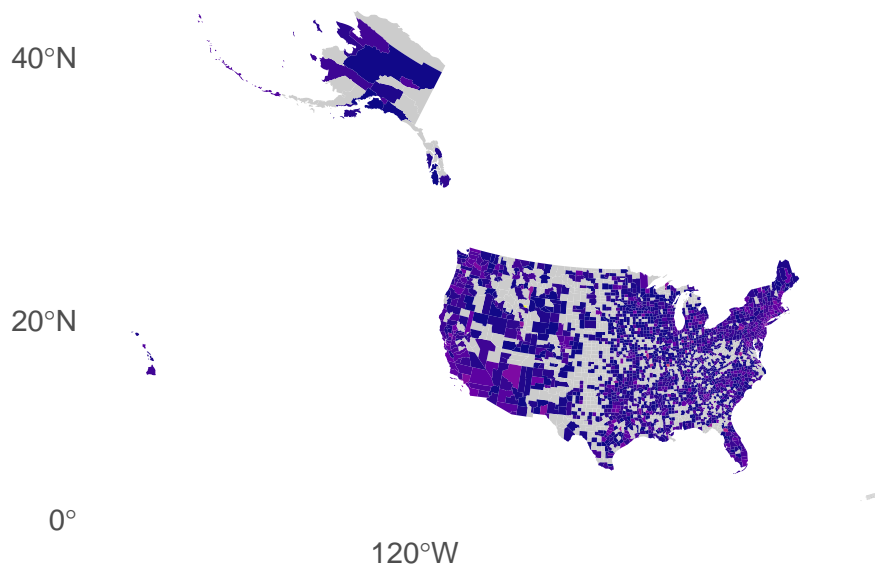
Maps

Maps with unstable estimates removed

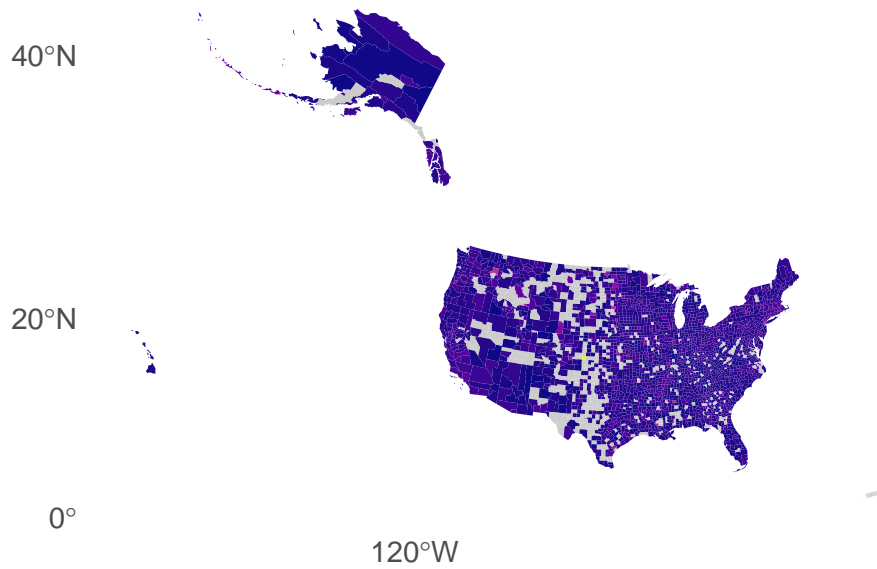
Note that BGV is a sum..... so counties without reliable estimates end up with $BGV = 0$. I manually set $BGV = 0$ to NA to produce these maps.

The coasts (California and New England) appear to have high tract and income disparities but possibly lower race disparities. Perhaps we should do some regional and/or state-level exploration.

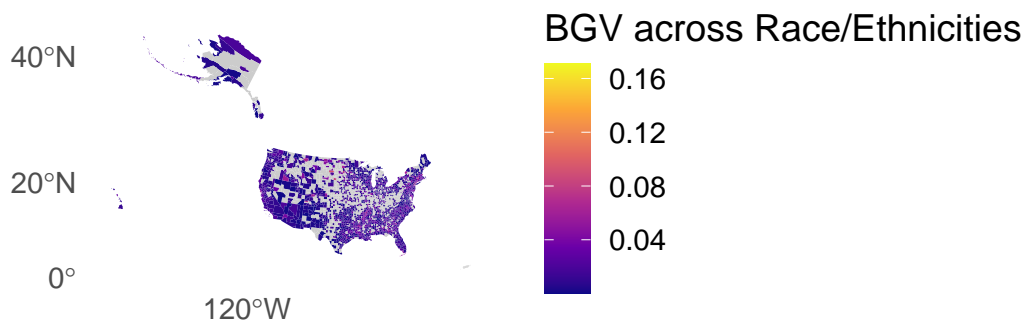
BGV across Tracts



BGV across Income

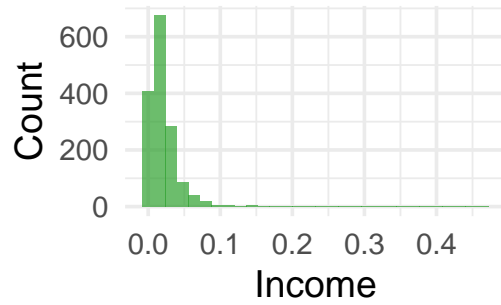
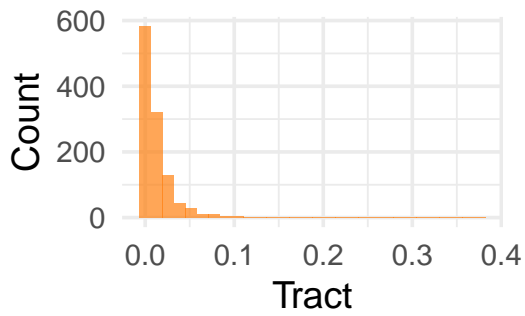
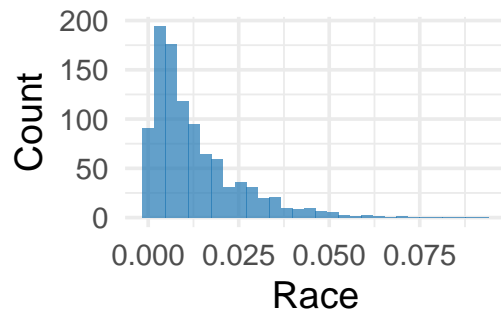


BGV across Race/Ethnicities

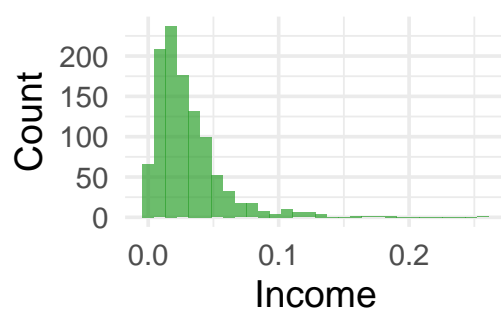
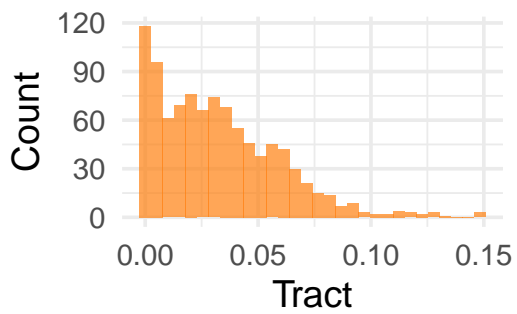
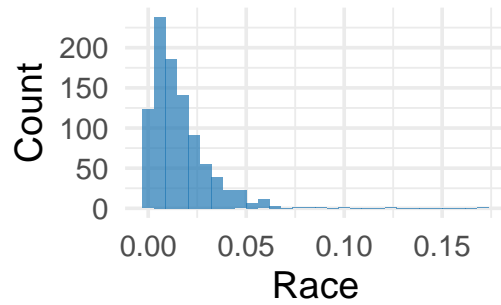


Histograms of Theil's indices for Race, Income, Tract

Theil's indices: Rural

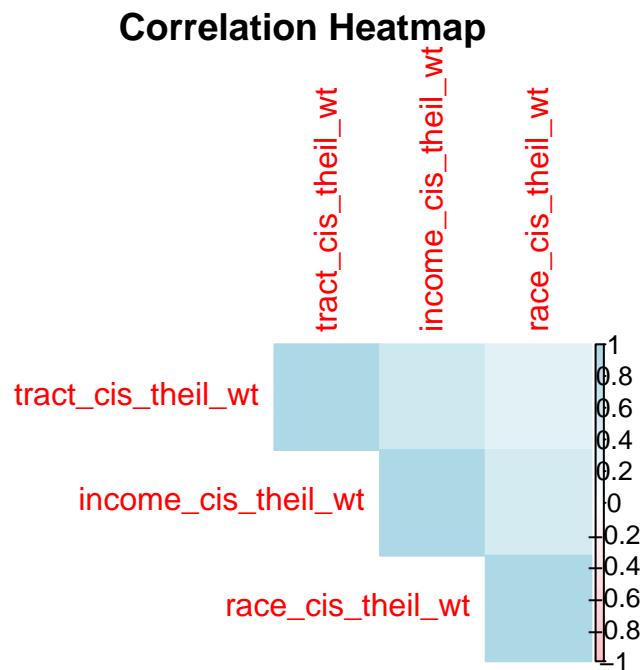


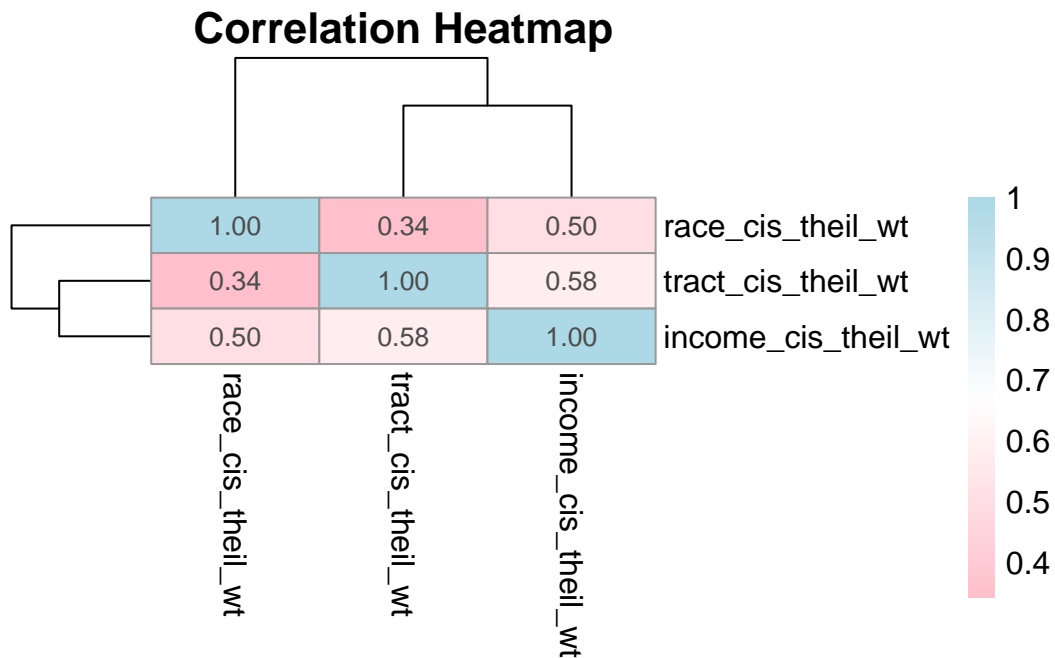
Theil's indices: Urban



Correlations

Tract disparities and income disparities are more strongly correlated than tract disparities and race disparities. Income and race disparities are /slightly/ more correlated than tract and race disparities. The correlations below are calculated using Pearson's correlation coefficient and assume Normality and linearity.





The strongest correlation occurs between tract and income, weakest between tract and race. All correlations are significant. The correlations below are calculated using Spearman's correlation test which is robust to nonlinear relationships.

Spearman's rank correlation rho

```
data: hist_data$race_cis_theil_wt and hist_data$income_cis_theil_wt
S = 585515386, p-value < 2.2e-16
alternative hypothesis: true rho is not equal to 0
sample estimates:
      rho
0.4661971
```

Spearman's rank correlation rho

```
data: hist_data$tract_cis_theil_wt and hist_data$income_cis_theil_wt
S = 716221522, p-value < 2.2e-16
alternative hypothesis: true rho is not equal to 0
sample estimates:
      rho
0.52657
```

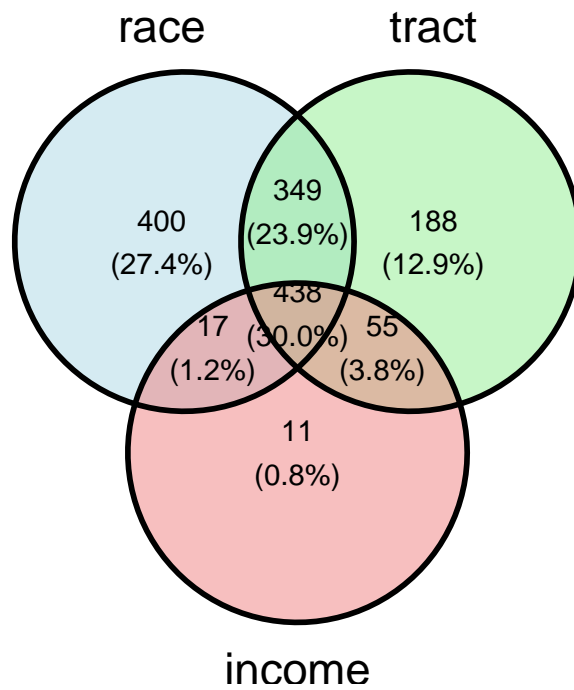
Missing Data by Category

Category	Count	Percent Missing
Race	1204	38.29517
Tract	1030	32.76081
Income	521	16.57125

Spearman's rank correlation rho

```
data: hist_data$tract_cis_theil_wt and hist_data$race_cis_theil_wt
S = 513401628, p-value < 2.2e-16
alternative hypothesis: true rho is not equal to 0
sample estimates:
rho
0.3696771
```

Missingness



Summary of Homeownership Rates by RUCC Group

RUCC Group	race_missing	income_missing	tract_missing	Data	
				Race Data Available (%)	Income D
Rural	963	418	817	50.81716	
Urban	241	103	213	79.67960	
Overall	1204	521	1030	61.70483	

Summary stats with two RUCC groups

Split is here: [https://www.ers.usda.gov/data-products/rural-urban-continuum-codes/documentation#:~:text=For%20Rural%2DUrban%20Continuum%20Codes,below%20250%2C000%20\(code%203\).](https://www.ers.usda.gov/data-products/rural-urban-continuum-codes/documentation#:~:text=For%20Rural%2DUrban%20Continuum%20Codes,below%20250%2C000%20(code%203).)