

Rate of radio ownership

Code ▾

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```
# From CRAN
install.packages("geobr")
```

```
Error in install.packages : Updating loaded packages
```

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```
library(geobr)
```

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```
library(geobr)
```

```
Warning: package 'geobr' was built under R version 4.1.2
Registered S3 method overwritten by 'data.table':
  method      from
  print.data.table
Loading required namespace: sf
```

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```
library(ggplot2)
library(sf)
```

```
Warning: package 'sf' was built under R version 4.1.2
Linking to GEOS 3.10.2, GDAL 3.4.2, PROJ 8.2.1; sf_use_s2() is TRUE
```

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```
library(dplyr)
```

```
Attaching package: 'dplyr'

The following objects are masked from 'package:stats':

  filter, lag

The following objects are masked from 'package:base':

  intersect, setdiff, setequal, union
```

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```
library(tidyverse)
```

```
Registered S3 methods overwritten by 'dbplyr':
  method      from
  print.tbl_lazy
  print.tbl_sql
— Attaching packages ————— tidyverse 1.3.1 —
✓ tibble 3.1.4   ✓ purrr 0.3.4
✓ tidyr  1.1.3   ✓ stringr 1.4.0
✓ readr  2.0.1   ✓ forcats 0.5.1
— Conflicts ————— tidyverse_conflicts() —
x dplyr::filter() masks stats::filter()
x dplyr::lag()    masks stats::lag()
```

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```
library(haven)
```

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```
datasets <- list_geobr()
head(datasets)
```

function	geography
<chr>	<chr>
1 `read_country`	Country
2 `read_region`	Region
3 `read_state`	States
4 `read_meso_region`	Meso region
5 `read_micro_region`	Micro region
6 `read_intermediate_region`	Intermediate region

6 rows | 1-3 of 4 columns

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```
municipalities <- read_municipality(
  year=2020,
  showProgress = FALSE)
```

```
Using year 2020
```

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```
# read all states
states <- read_state(
  year=2019,
  showProgress = FALSE
)
```

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```
radio_data <- read_csv("radiomuniclean.csv")
```

```
Rows: 5565 Columns: 5
— Column specification —————
Delimiter: ","
chr (2): Municipality, State
dbl (3): code_muni, radio_rate, TV_rate

i Use `spec()` to retrieve the full column specification for this data.
i Specify the column types or set `show_col_types = FALSE` to quiet this message.
```

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```
media_muni <- merge(municipalities,radio_data,by="code_muni")
```

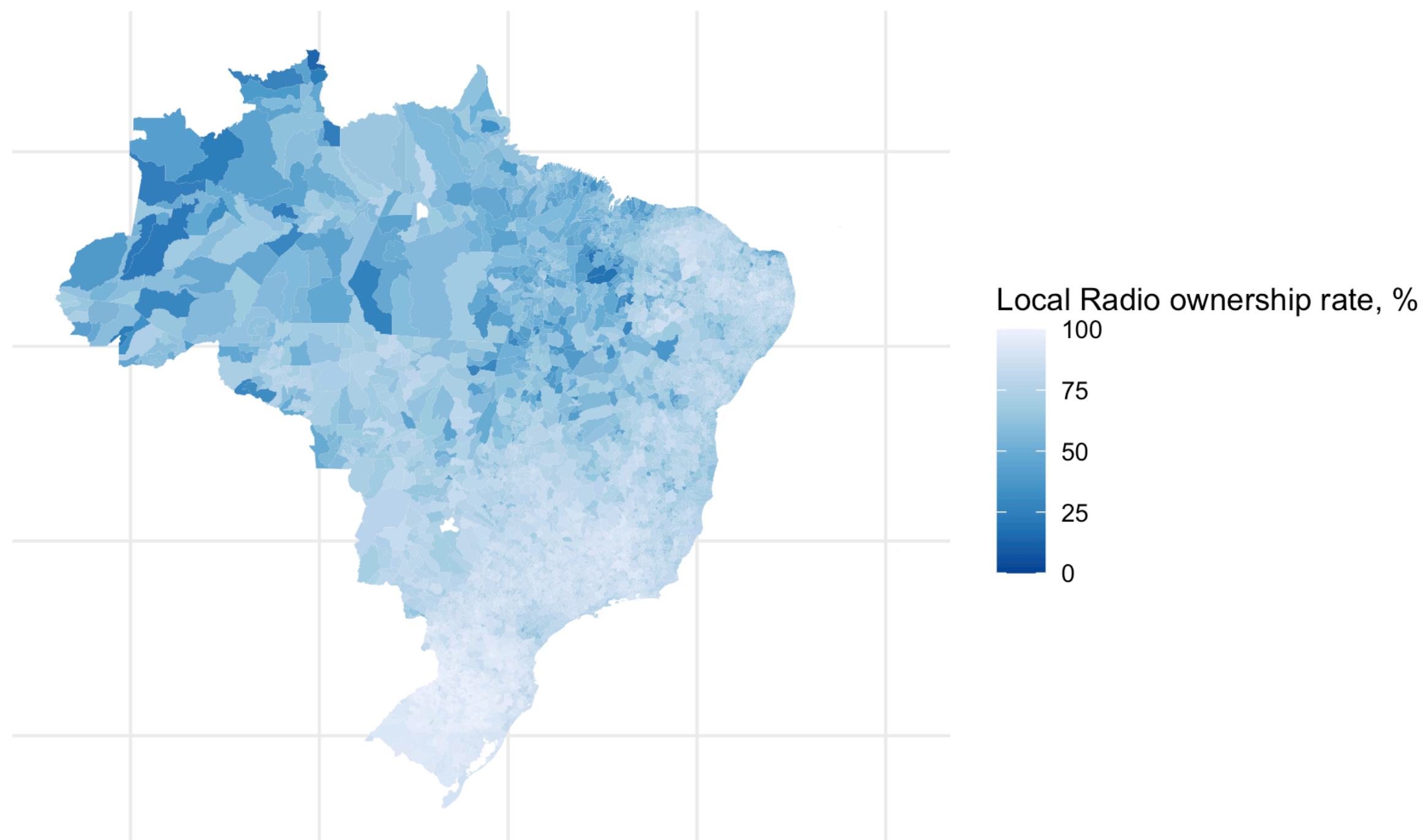
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```
# Remove plot axis
no_axis <- theme(axis.title=element_blank(),
  axis.text=element_blank(),
  axis.ticks=element_blank())
```

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```
ggplot() +
  geom_sf(data=media_muni, aes(fill=radio_rate), color= NA, size=.15) +
  labs(subtitle="Number of municipalities with Radio Ownership by Municipality, 2010", size=6) +
  scale_fill_distiller(palette = "Blues", name="Local Radio ownership rate, %", limits = c(0,100)) +
  theme_minimal() +
  no_axis
```

Number of municipalities with Radio Ownership by Municipality, 2010



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```
amazon_data <- media_muni[media_muni$State == "RR" | media_muni$State == "AP" | media_muni$State == "AM" | media_muni$State == "PA" | media_muni$State == "AM" | media_muni$State == "AC" | media_muni$State == "RO" | media_muni$State == "MT" | media_muni$State == "TO", ]
```

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```
ggplot() +
  geom_sf(data=amazon_data, aes(fill=radio_rate), color= NA, size=.15) +
  labs(subtitle="Number of municipalities with Radio Ownership by Municipality, 2010", size=8) +
  scale_fill_distiller(palette = "Blues", name="Local Radio ownership rate in Legal Amazon, %", limits = c(0,100)) +
  theme_minimal() +
  no_axis
```

Number of municipalities with Radio Ownership by Municipality, 2010

