

Flint MDEQ Water

Description:

Lead levels from 71 local taps in Flint, Michigan taken by the Michigan Department of Environmental Quality (MDEQ) after the source of Flint's water was first moved to the Flint River from Lake Huron. Loux and Gibson (2018) note that two of these observations were later dropped from the full data set for analyses as they "failed to meet sampling requirements" set forth by the EPA's Lead and Copper Rule (LCR). One of these samples (104 ppb) was removed because it was taken from a house with a filter and unfiltered home taps were supposed to be sampled. The other sample (20 ppb) came from a business and only homes were to be sampled. The EPA LCR requires mitigation if the 90th percentile of sampled lead levels is above 15ppb.

Variables:

sample: Tap sample id

lead: Lead level of the tap

removed: Takes value of 1 if the sample was dropped from an analysis and a value of 0 if it was kept

Code to Import:

```
flint <- read.csv("flint.mdeq.water.csv")
```

References/Links:

Loux T and Gibson AK. Using Flint, Michigan, lead data in introductory statistics, Teaching Statistics 2018:1-4.

<https://onlinelibrary.wiley.com/doi/abs/10.1111/test.12187>

Langkjær-Bain R, The murky tale of Flint's deceptive water data, Significance, 14 (2) (2017), 16–21.

<https://rss.onlinelibrary.wiley.com/doi/epdf/10.1111/j.1740-9713.2017.01016.x>