Veteran Population Data for the 41st Congression District

Contents

```
#install.packages("readxl")
#install.packages("kableExtra")
#install.packages("ggplot2")
#install.packages("sp")
#install.packages("gghighlight")
#tinytex::install_tinytex()
```

Veteran Overview

In general this doucment with outlines the history of VA facilities in the area, Veteran Needs and demographics, as well as the Capacity, Quality, and Accesibility of nearby CBOCs and VA Medical Centers.

History -

In the 1970's the current VA's were established around Riverside. Jerry Lewis, Rep for Redlands, was on the appropriations committee.

Veteran Population and Needs in Riverside County

This data is the US census data from 2017 showing current breakdown of Veteran Population in Riverside County. We have a total of 140,000 veterans making up about 8% of the population.
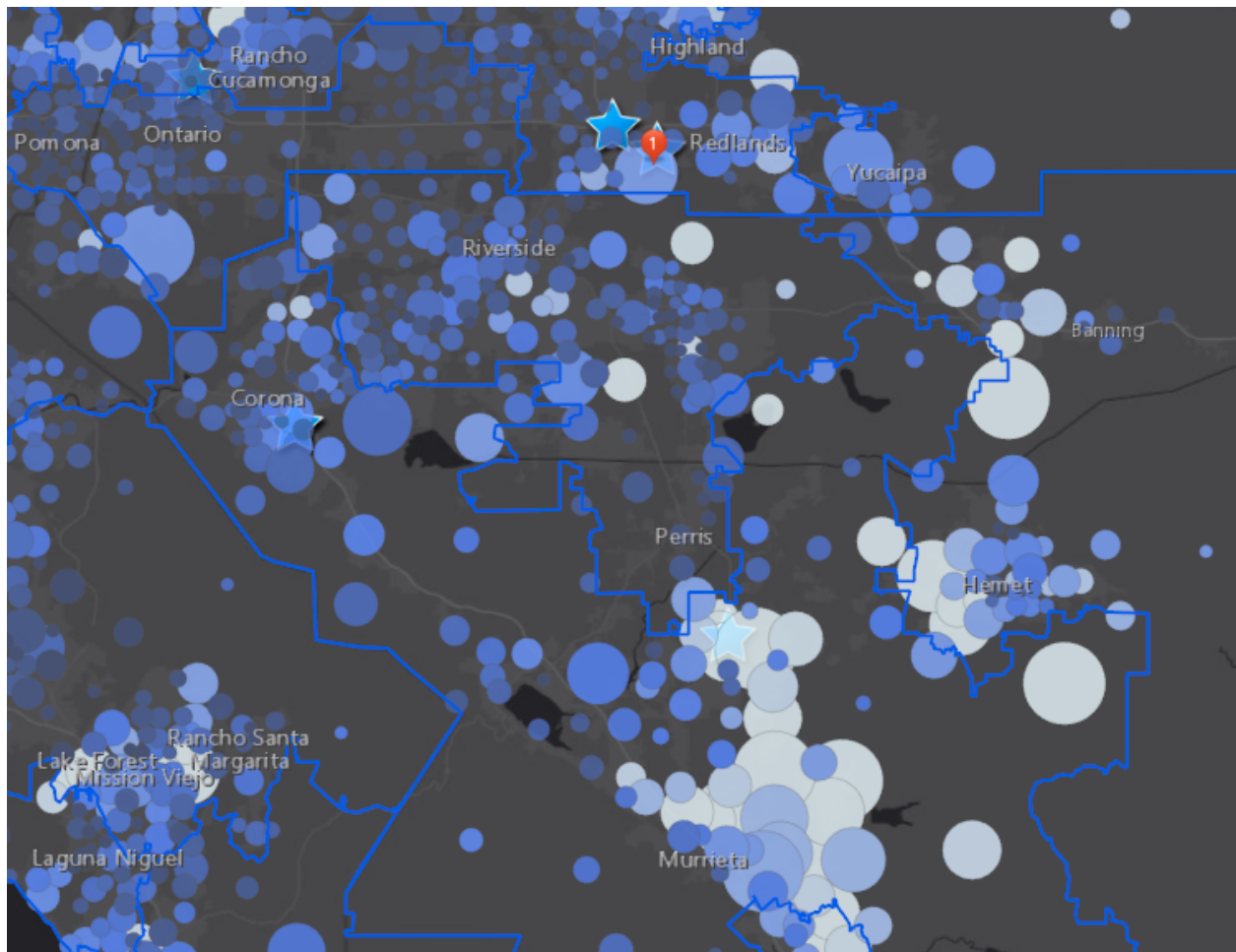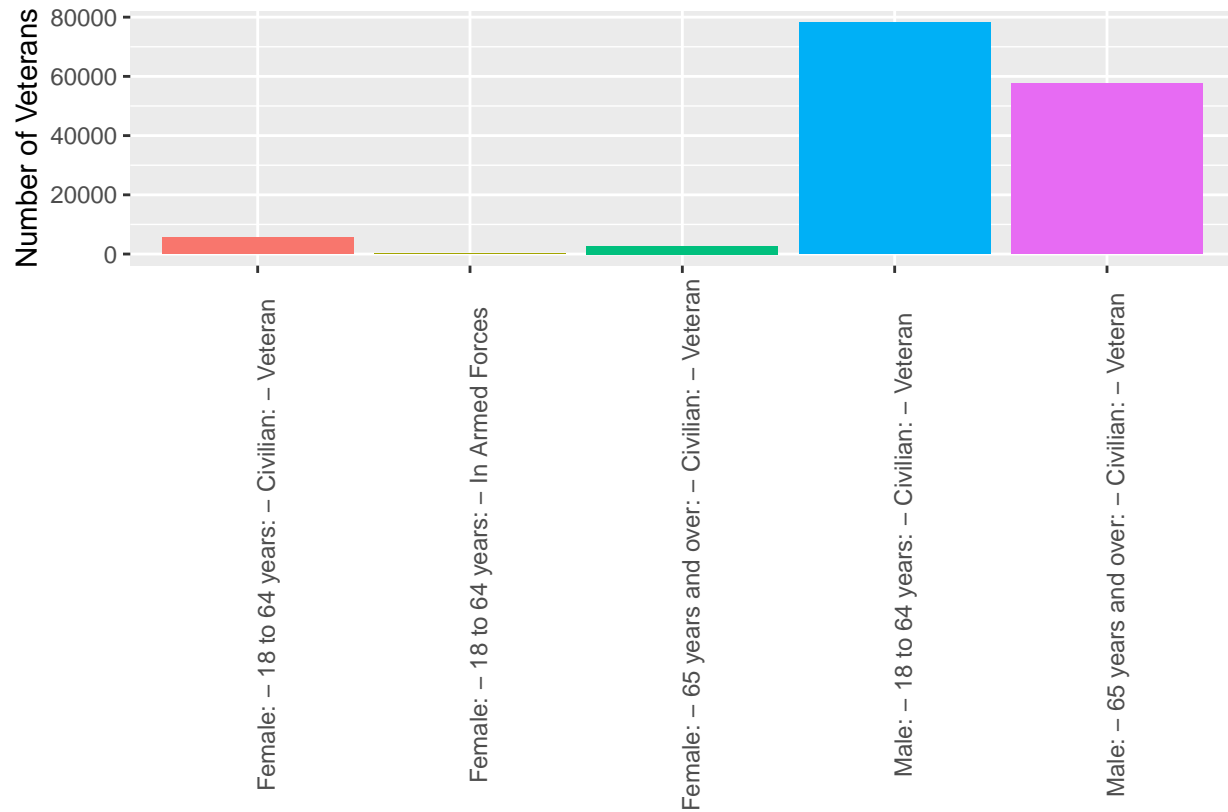
Figure 1: Veterans in Riverside County

Male: - 18 to 64 years: - In Armed Forces	2106
Male: - 18 to 64 years: - Civilian: - Veteran	78233
Male: - 65 years and over: - Civilian: - Veteran	57718
Female: - 18 to 64 years: - In Armed Forces	310
Female: - 18 to 64 years: - Civilian: - Veteran	5514
Female: - 65 years and over: - Civilian: - Veteran	2709

```r
library(readxl)
library(kableExtra)
library(ggplot2)
library(reshape2)
library(sp)
library(gghighlight)

income <- read_excel("Data.xlsx", sheet = "B21007")
income <- as.data.frame(income)

income %>%
  kable() %>%
  kable_styling(bootstrap_options = c("striped", "hover"))
```

Code	Age	Disability	Location	Margin of Error	Population	Percent A
HD01_VD51	65+ years	No disability	Congressional District 36	607	1359	0.2
HD01_VD51	65+ years	No disability	Congressional District 04	499	1148	0.1
HD01_VD21	35 to 54 years	No disability	Congressional District 23	535	963	0.1
HD01_VD21	35 to 54 years	No disability	Congressional District 53	707	1041	0.1
HD01_VD06	18 to 34 years	No disability	Congressional District 23	632	832	0.1
HD01_VD51	65+ years	No disability	Congressional District 01	406	889	0.1
HD01_VD50	65+ years	With a disability	Congressional District 43	530	867	0.1
HD01_VD35	55 to 64 years	With a disability	Congressional District 12	720	908	0.1
HD01_VD50	65+ years	With a disability	Congressional District 11	635	848	0.1
HD01_VD21	35 to 54 years	No disability	Congressional District 06	562	860	0.1
HD01_VD51	65+ years	No disability	Congressional District 47	403	888	0.1
HD01_VD50	65+ years	With a disability	Congressional District 01	341	837	0.1
HD01_VD36	55 to 64 years	No disability	Congressional District 47	562	882	0.1
HD01_VD21	35 to 54 years	No disability	Congressional District 05	591	862	0.1
HD01_VD36	55 to 64 years	No disability	Congressional District 37	498	755	0.1
HD01_VD50	65+ years	With a disability	Congressional District 24	409	821	0.1
HD01_VD35	55 to 64 years	With a disability	Congressional District 31	577	714	0.1
HD01_VD21	35 to 54 years	No disability	Congressional District 01	466	716	0.1
HD01_VD50	65+ years	With a disability	Congressional District 23	356	644	0.1
HD01_VD50	65+ years	With a disability	Congressional District 04	475	741	0.1
HD01_VD21	35 to 54 years	No disability	Congressional District 07	918	637	0.1
HD01_VD21	35 to 54 years	No disability	Congressional District 25	518	696	0.1
HD01_VD51	65+ years	No disability	Congressional District 18	452	671	0.1
HD01_VD50	65+ years	With a disability	Congressional District 08	352	717	0.1
HD01_VD51	65+ years	No disability	Congressional District 03	532	642	0.1
HD01_VD50	65+ years	With a disability	Congressional District 31	409	619	0.1
HD01_VD35	55 to 64 years	With a disability	Congressional District 37	507	640	0.1
HD01_VD50	65+ years	With a disability	Congressional District 16	433	595	0.1
HD01_VD51	65+ years	No disability	Congressional District 53	421	645	0.1
HD01_VD51	65+ years	No disability	Congressional District 30	398	645	0.1
HD01_VD51	65+ years	No disability	Congressional District 08	480	682	0.1
HD01_VD35	55 to 64 years	With a disability	Congressional District 13	508	661	0.1
HD01_VD51	65+ years	No disability	Congressional District 07	286	594	0.1
HD01_VD35	55 to 64 years	With a disability	Congressional District 16	393	571	0.1
HD01_VD50	65+ years	With a disability	Congressional District 53	406	618	0.1
HD01_VD06	18 to 34 years	No disability	Congressional District 49	597	574	0.1
HD01_VD50	65+ years	With a disability	Congressional District 37	391	599	0.1
HD01_VD50	65+ years	With a disability	Congressional District 28	322	513	0.1
HD01_VD51	65+ years	No disability	Congressional District 52	324	623	0.1
HD01_VD50	65+ years	With a disability	Congressional District 05	325	623	0.1
HD01_VD35	55 to 64 years	With a disability	Congressional District 23	381	518	0.1
HD01_VD21	35 to 54 years	No disability	Congressional District 50	453	559	0.1
HD01_VD51	65+ years	No disability	Congressional District 34	326	623	0.1
HD01_VD51	65+ years	No disability	Congressional District 38	260	571	0.1
HD01_VD36	55 to 64 years	No disability	Congressional District 13	550	589	0.1
HD01_VD50	65+ years	With a disability	Congressional District 27	449	538	0.1
HD01_VD50	65+ years	With a disability	Congressional District 02	521	654	0.0
HD01_VD36	55 to 64 years	No disability	Congressional District 49	625	506	0.0
HD01_VD21	35 to 54 years	No disability	Congressional District 20	610	591	0.0
HD01_VD06	18 to 34 years	No disability	Congressional District 34	385	591	0.0
HD01_VD51	65+ years	No disability	Congressional District 25	368	543	0.0
HD01_VD21	35 to 54 years	No disability	Congressional District 12	446	554	0.0
HD01_VD50	65+ years	With a disability	Congressional District 12	370	554	0.0
HD01_VD51	65+ years	No disability	Congressional District 50	417	518	0.0
HD01_VD51	65+ years	No disability	Congressional District 27	358	506	0.0
HD01_VD06	18 to 34 years	No disability	Congressional District 50	314	512	0.0
HD01_VD50	65+ years	With a disability	Congressional District 36	361	573	0.0

```r
income.m <- melt(income, id = c("Age", "Disability", "Location", "Percent Affected", "Error"))

class(income.m$`Per Capita`)
```

```
## [1] "NULL"
```

```r
dodge=position_dodge(width=0)
p1 <- ggplot(income.m, aes(x=Location, y=income.m$`Percent Affected`, color=Age, shape=Disability)) +
  geom_point(alpha=0.9, position=dodge) + ylab("Percent of District Affected") + coord_flip()  + ggtitl



# subset data and create new object based on column query

str(income.m$Disability)
```

```
##  chr [1:1696] "No disability" "No disability" "No disability" ...
```

```r
income.dis <- income.m[income.m$Disability == "With a disability" ,]

p2 <- ggplot(income.dis, aes(x=Location, y=income.dis$`Percent Affected`, color=Age)) +
  geom_point(alpha=0.9, position=dodge) + ylab("Percent of District Affected") + coord_flip() + ggtitle

str(income.m$Age)
```

```
##  chr [1:1696] "65+ years" "65+ years" "35 to 54 years" ...
```

```r
income.old <- income.m[income.m$Age == "65+ years" ,]

p3 <- ggplot(income.old, aes(x=Location, y=income.old$`Percent Affected`)) +
  geom_bar(stat= "identity", fill="mediumorchid1") + ylab("Percent of District Affected") + coord_flip(

str(income.m$Location)
```

```
##  chr [1:1696] "Congressional District 36" "Congressional District 04" ...
```
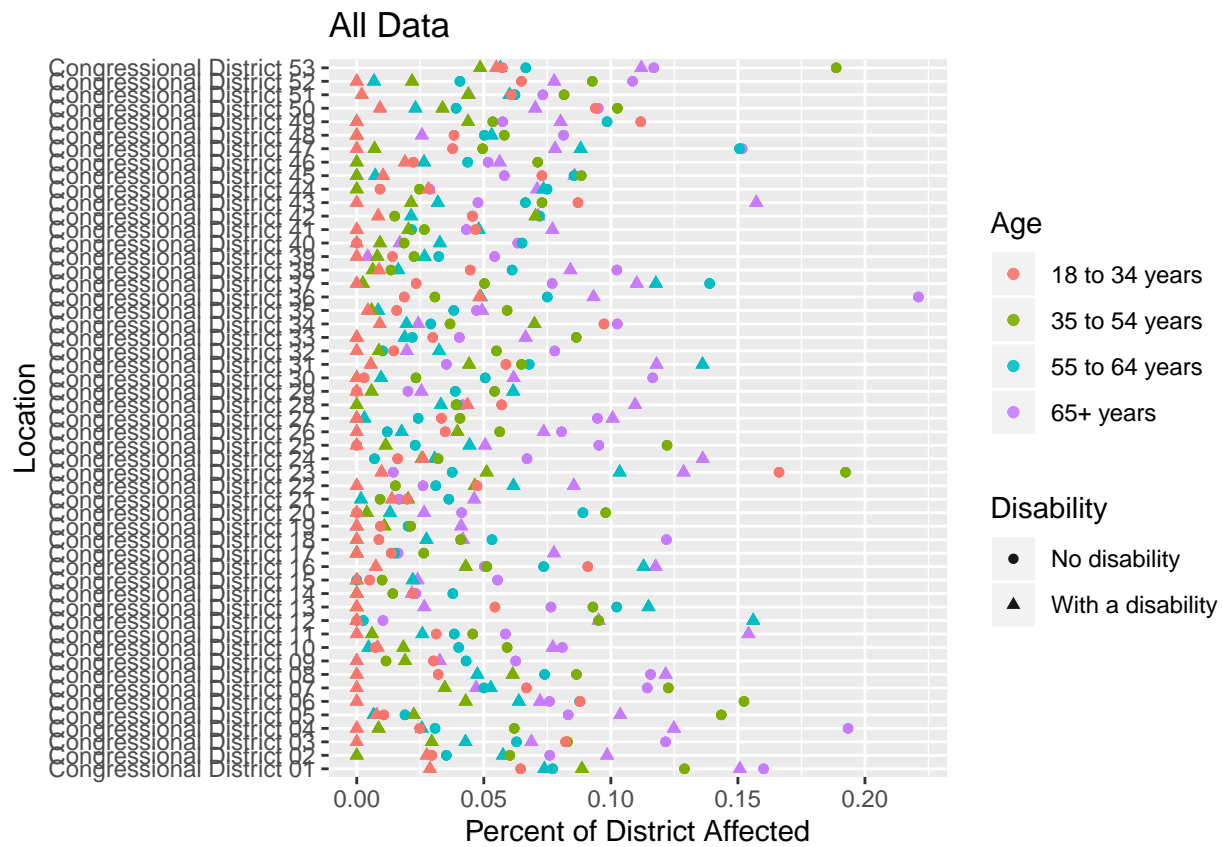
```r
income.here <- income.m[income.m$Location == "Congressional District 41" ,]

p4 <- ggplot(income.here, aes(x=Age, y=income.here$`Percent Affected`, fill=Disability)) +
  geom_bar(stat="identity") + ylab("Percent of District Affected")  + ggtitle("District 41")

p1
```
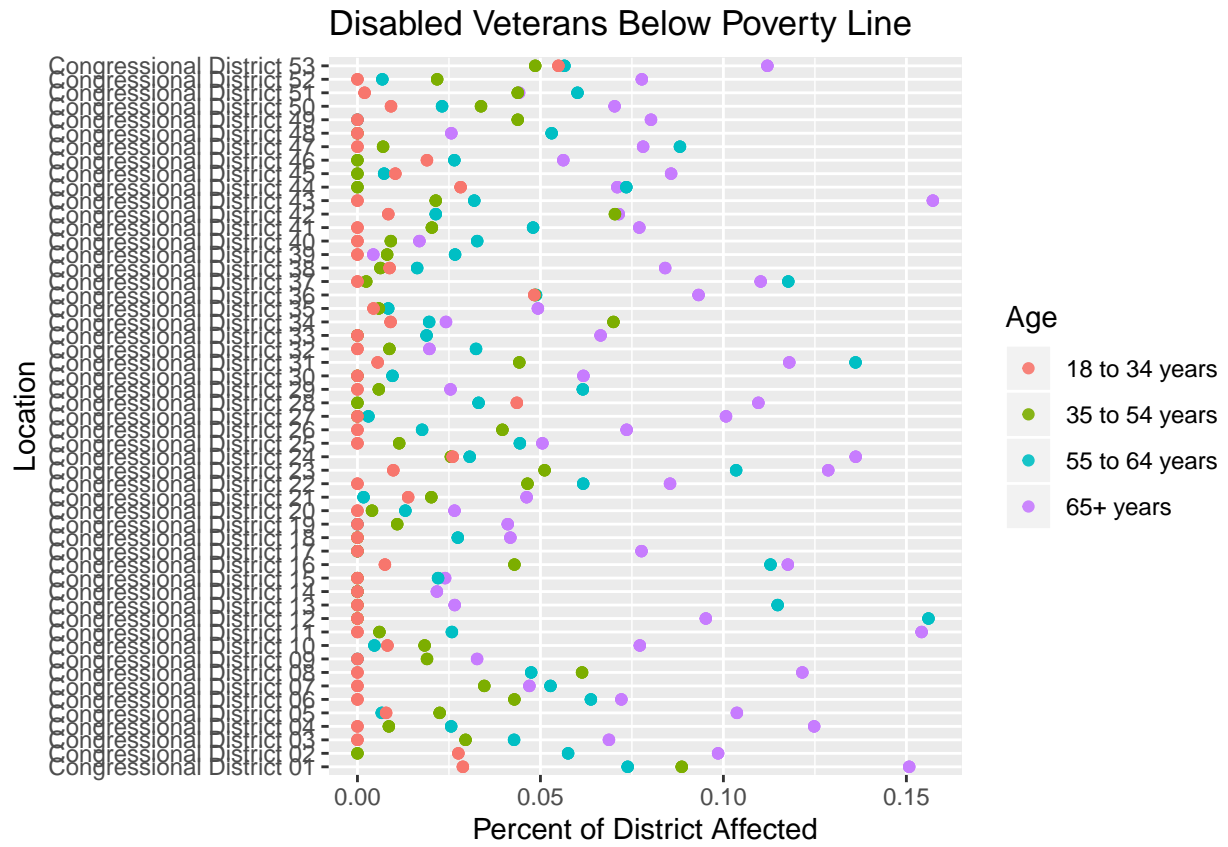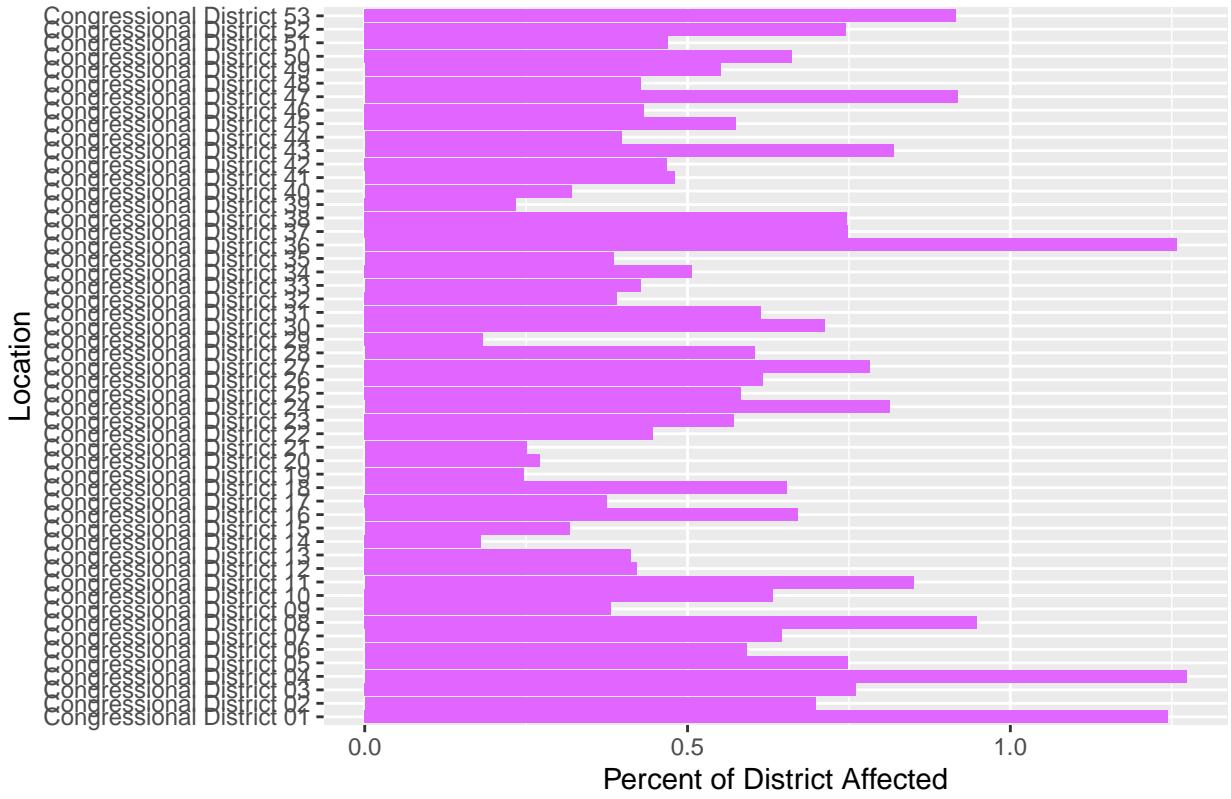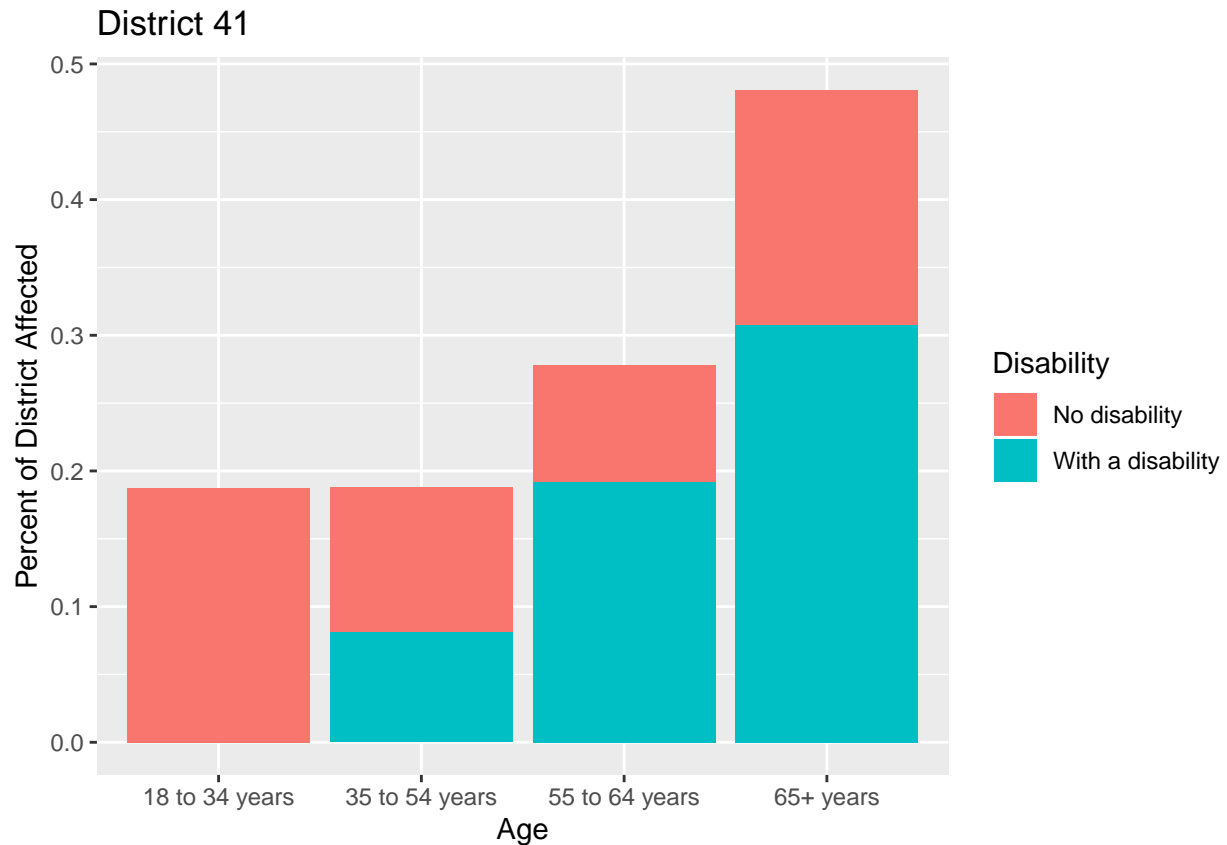
All Data

p2

Disabled Veterans Below Poverty Line

p3

Senior Veterans Below Poverty Line

Congressional District 53
Congressional District 52
Congressional District 51
Congressional District 50
Congressional District 49
Congressional District 48
Congressional District 47
Congressional District 46
Congressional District 45
Congressional District 44
Congressional District 43
Congressional District 42
Congressional District 41
Congressional District 40
Congressional District 39
Congressional District 38
Congressional District 37
Congressional District 36
Congressional District 35
Congressional District 34
Congressional District 33
Congressional District 32
Congressional District 31
Congressional District 30
Congressional District 29
Congressional District 28
Congressional District 27
Congressional District 26
Congressional District 25
Congressional District 24
Congressional District 23
Congressional District 22
Congressional District 21
Congressional District 20
Congressional District 19
Congressional District 18
Congressional District 17
Congressional District 16
Congressional District 15
Congressional District 14
Congressional District 13
Congressional District 12
Congressional District 11
Congressional District 10
Congressional District 09
Congressional District 08
Congressional District 07
Congressional District 06
Congressional District 05
Congressional District 04
Congressional District 03
Congressional District 02
Congressional District 01

Percent of District Affected

p4

District 41


```r
pdf("demos.pdf")
# set plot so it is 2x2 in one plot canvas
par(mfrow=c(2,2))
p1
p2
p3
p4
dev.off()
```
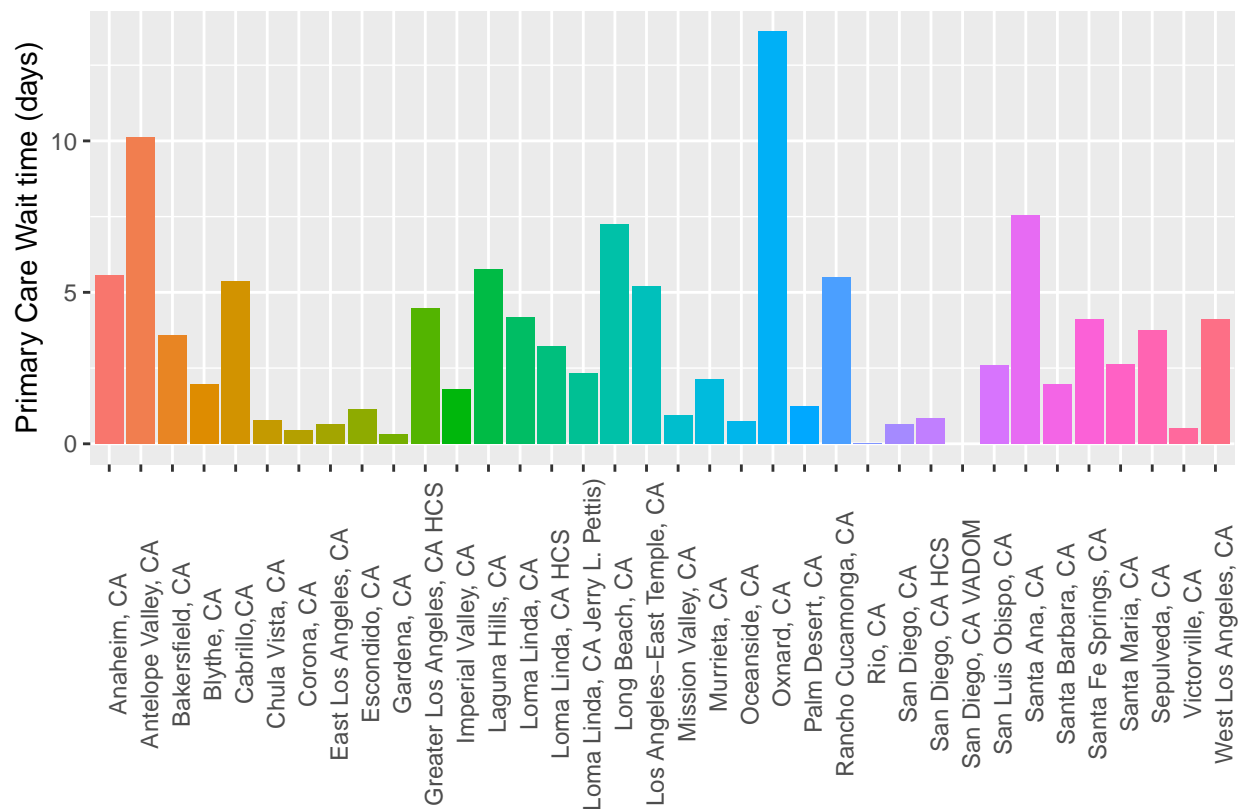
```
## pdf
##   2
```

–A trend that it may be increasing. Show a figure of vet population over time.

VA Capacity

Capacity - VA health care locations compared to demographics, kinds of care/specialties outpaitent services number of patients Mental Health Community based clinics are based on Health Centers Trajectory of capacity Ecancer telemedicine
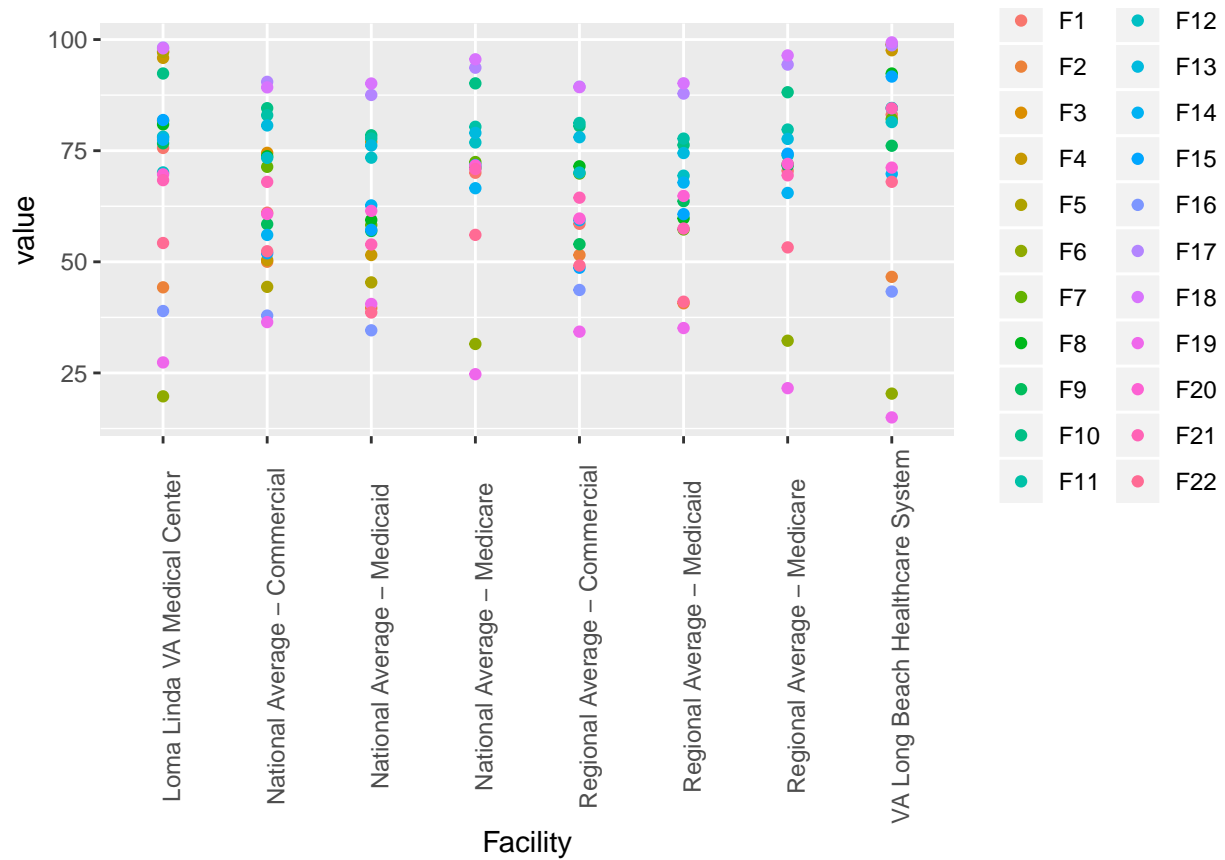
VA Clinic Quality

This is VA data for VA clinics in California

Quality - Complaint data, Ratings, Long beach data from Gerry, Takano may be able to get data for $600 per patient, cost of patient is actualy $200

This VA data focuses on quality rating of Medical Centers in California.

```
## pdf
##   2
```

As a reference for these data points:

Codes	Condition
F1	Colorectal Cancer Screening
F2	Flu Vaccinations for Adults Ages 18-64
F3	Medical Assistance with Smoking and Tobacco Use Cessation - Advising Smokers To Quit
F4	Medical Assistance with Smoking and Tobacco Use Cessation - Discussing Cessation Medications
F5	Medical Assistance with Smoking and Tobacco Use Cessation - Discussing Cessation Strategies
F6	Non-Recommended PSA-Based Screening in Older Men
F7	Breast Cancer Screening
F8	Cervical Cancer Screening
F9	Controlling High Blood Pressure
F10	Persistence of Beta-Blocker Treatment after a Heart Attack
F11	Statin Therapy for Patients With Cardiovascular Disease Received Statin Therapy - 21-75 years (Male)
F12	Statin Therapy for Patients With Cardiovascular Disease Received Statin Therapy - 40-75 years (Female)
F13	Statin Therapy for Patients With Cardiovascular Disease Received Statin Therapy - Total
F14	Comprehensive Diabetes Care - Blood Pressure Control (<140/90)
F15	Comprehensive Diabetes Care - Eye Exams
F16	Comprehensive Diabetes Care - HbA1c Control (<7% for a selected population)
F17	Comprehensive Diabetes Care - HbA1c Testing
F18	Comprehensive Diabetes Care - Medical Attention for Nephropathy
F19	Comprehensive Diabetes Care - Poor HbA1c Control
F20	Statin Therapy for Patients With Diabetes Received Statin Therapy
F21	Antidepressant Medication Management - Effective Acute Phase Treatment
F22	Antidepressant Medication Management - Effective Continuation Phase Treatment

VA Accessiblity

Waittimes, transportation/drive times, San bernadino,

Conclusion:

Students here for UCR for veterans. Major bus route, 91, 215.

Ideal outcome: Winning contract for 5 CBOCs, over building one here. RFP Hybrid, community owned, Va owned. CBOCs are lucrative

To Do:

Learn more about Arcadia location that just opened- Nepalitono, june, shift, their case for clinic - provides access to those without a car.

Email Ignacio about getting VA rank and branch info for va clinics so we can look at the needs of each branch and what will be needed here as far as services go.