MA615 himework2

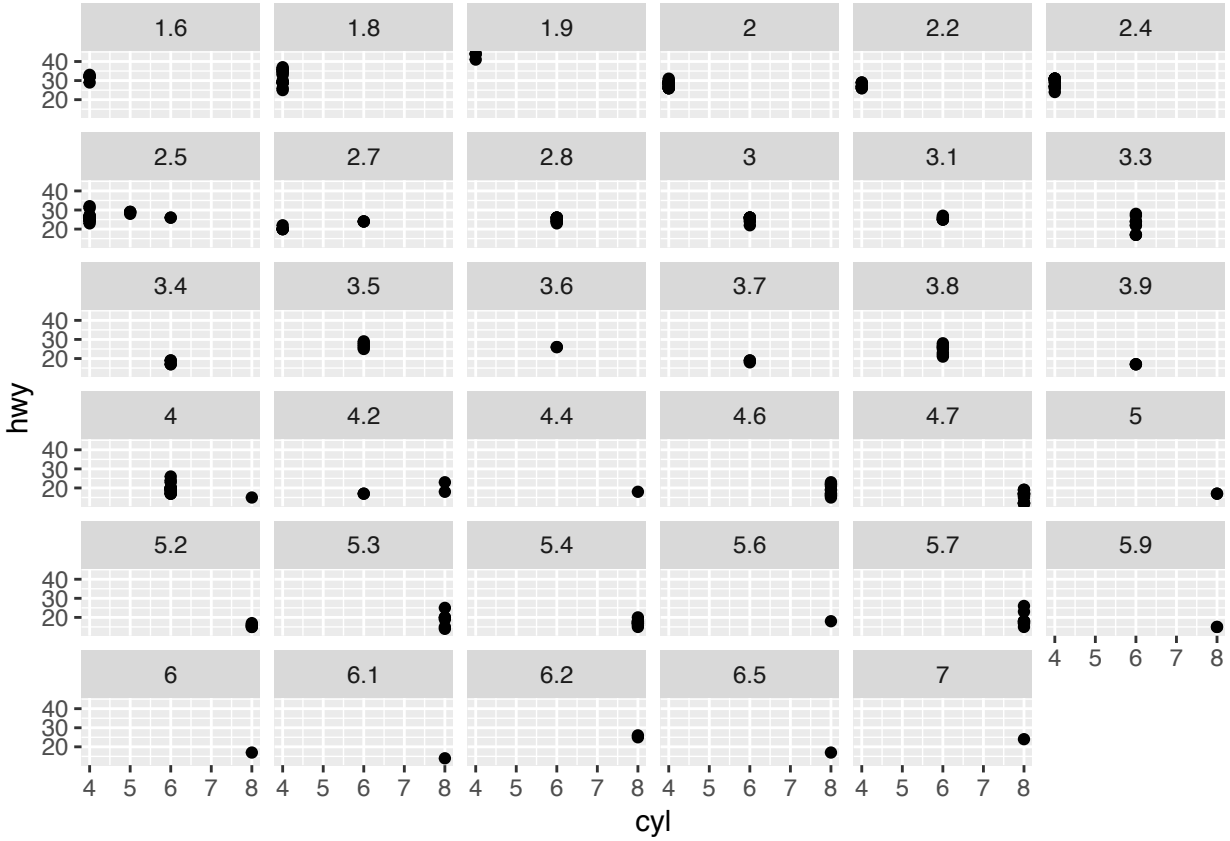
Jianhaoyan

9/21/2018

Question1

What happens if you facet on a continuous variable?

```
ggplot(data = mpg)+geom_point(mapping = aes(x=cyl,y=hwy))+facet_wrap(~displ)
```

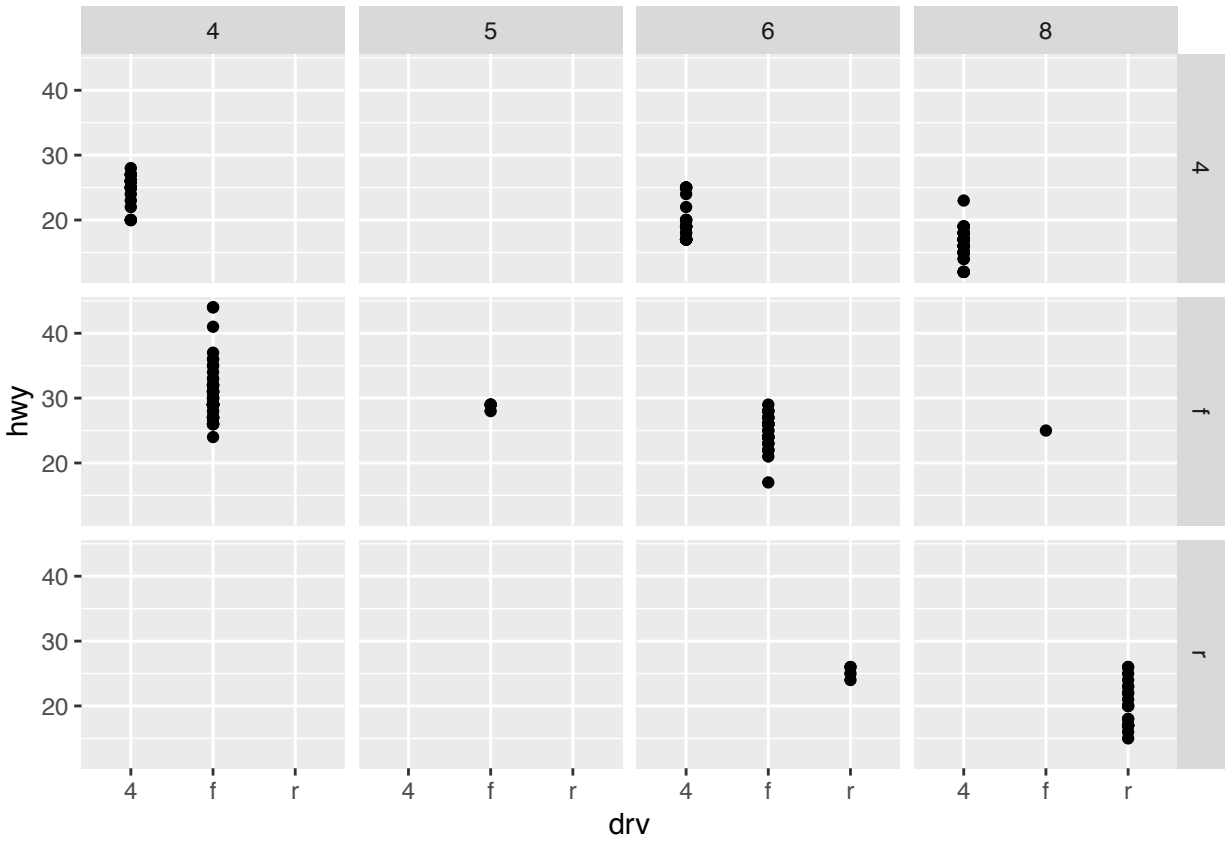



```
##You'll get facets of each unique variable.
```

Question 2

What do the empty cells in plot with facet_grid(drv ~ cyl) mean? How do they relate to this plot?

```
ggplot(data=mpg)+geom_point(mapping = aes(x=drv,y=hwy))+facet_grid(drv~cyl)
```




```
##The empty cells mean that there is data missing under the certain circumstances. In this plot, r with
```

Question 3

What plots does the following code make? What does . do?

```
ggplot(data = mpg) +
  geom_point(mapping = aes(x = displ, y = hwy)) +
  facet_grid(drv ~ .)
```

homework2shiny

JianhaoYan

September 16, 2018

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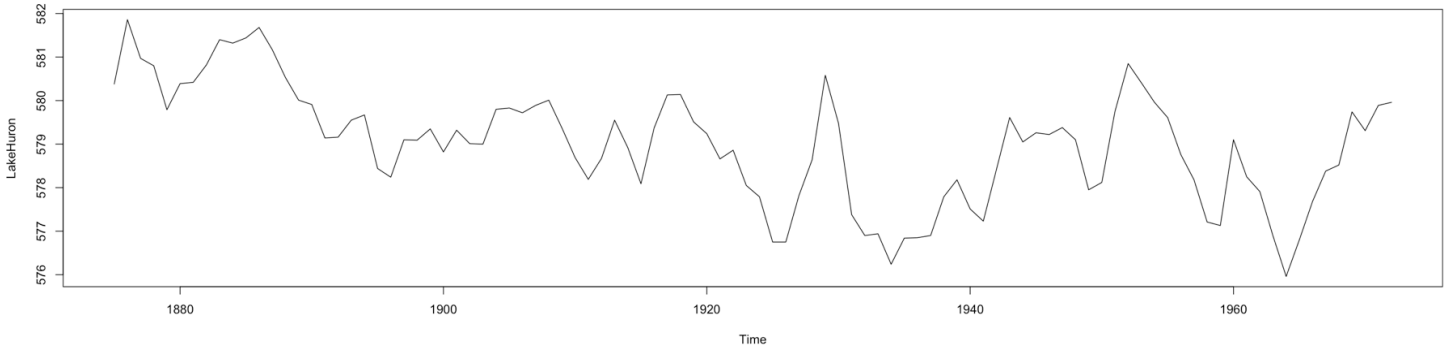
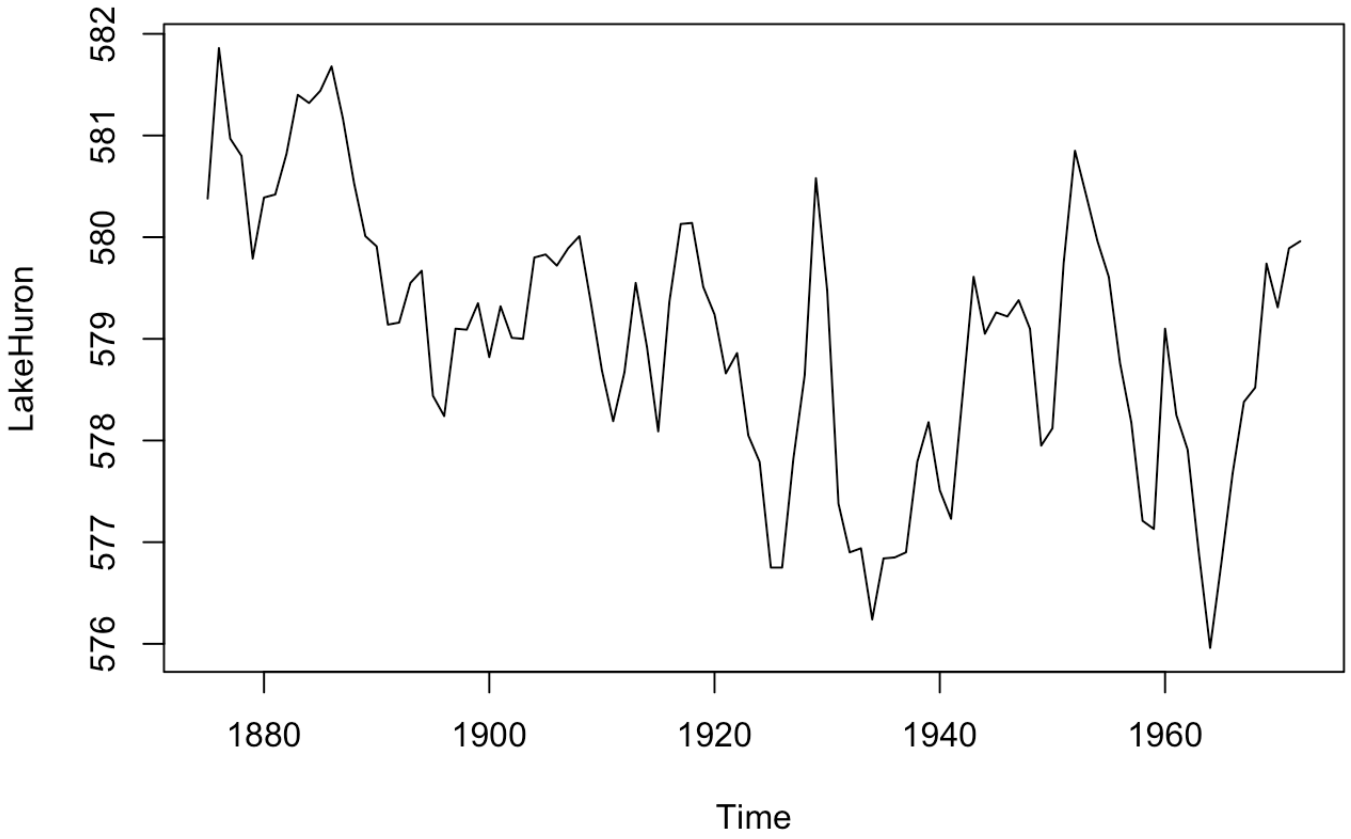
☐ Add smoother?



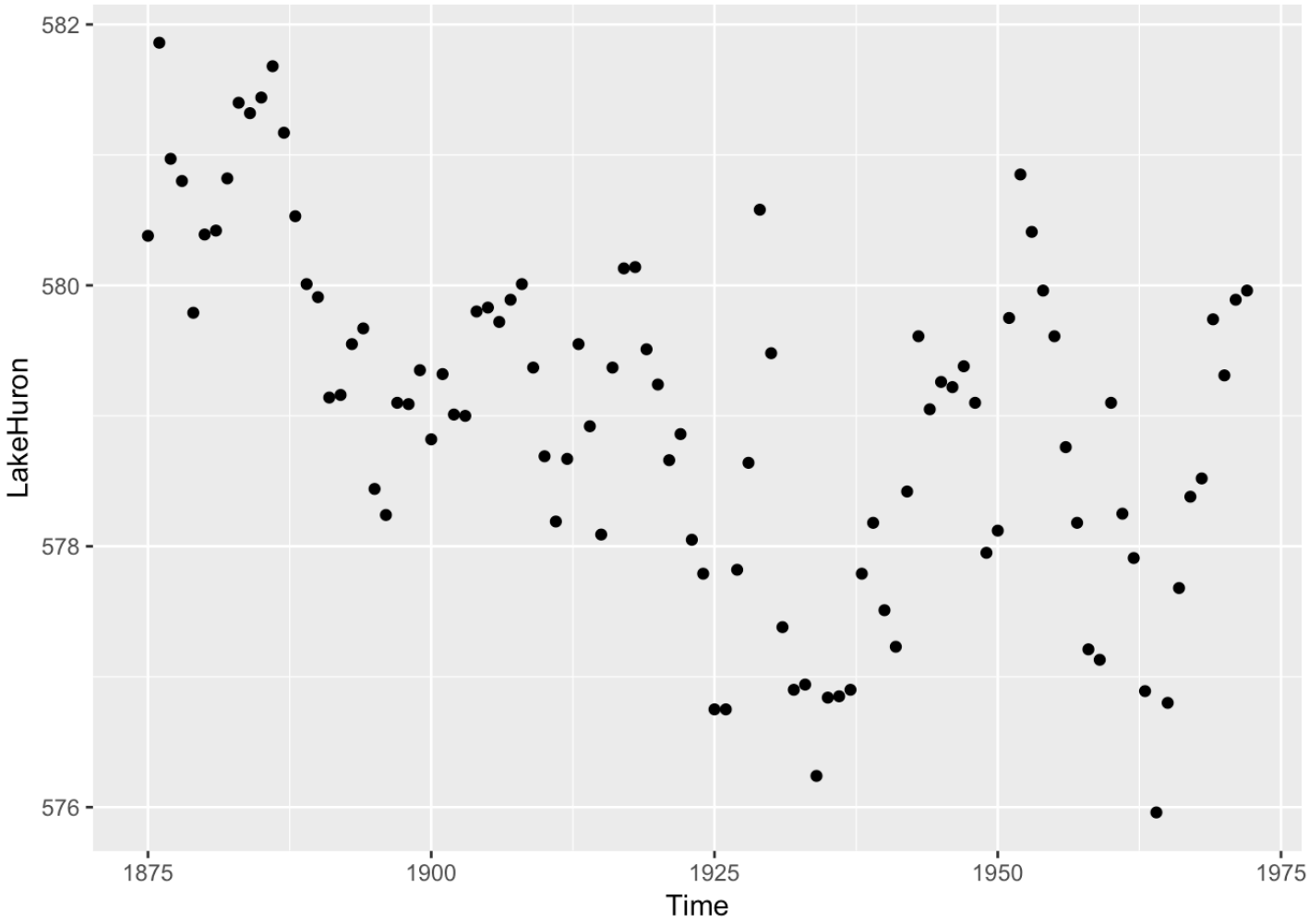
##using ggplot two

```
library(ggplot2)
plot(LakeHuron)
```




```
# Deal with the data's format
Time<-c(1875:1972)
# Plot with scatters
ggplot(data = as.data.frame(LakeHuron),mapping = aes(x=Time,y=LakeHuron))+geom_point(
)
```

```
## Don't know how to automatically pick scale for object of type ts. Defaulting to co
ntinuous.
```




```
# Plot with lines
ggplot(data = as.data.frame(LakeHuron),mapping = aes(x=Time,y=LakeHuron))+geom_point(
)+geom_line(color="red")
```

```
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ntinuous.
```
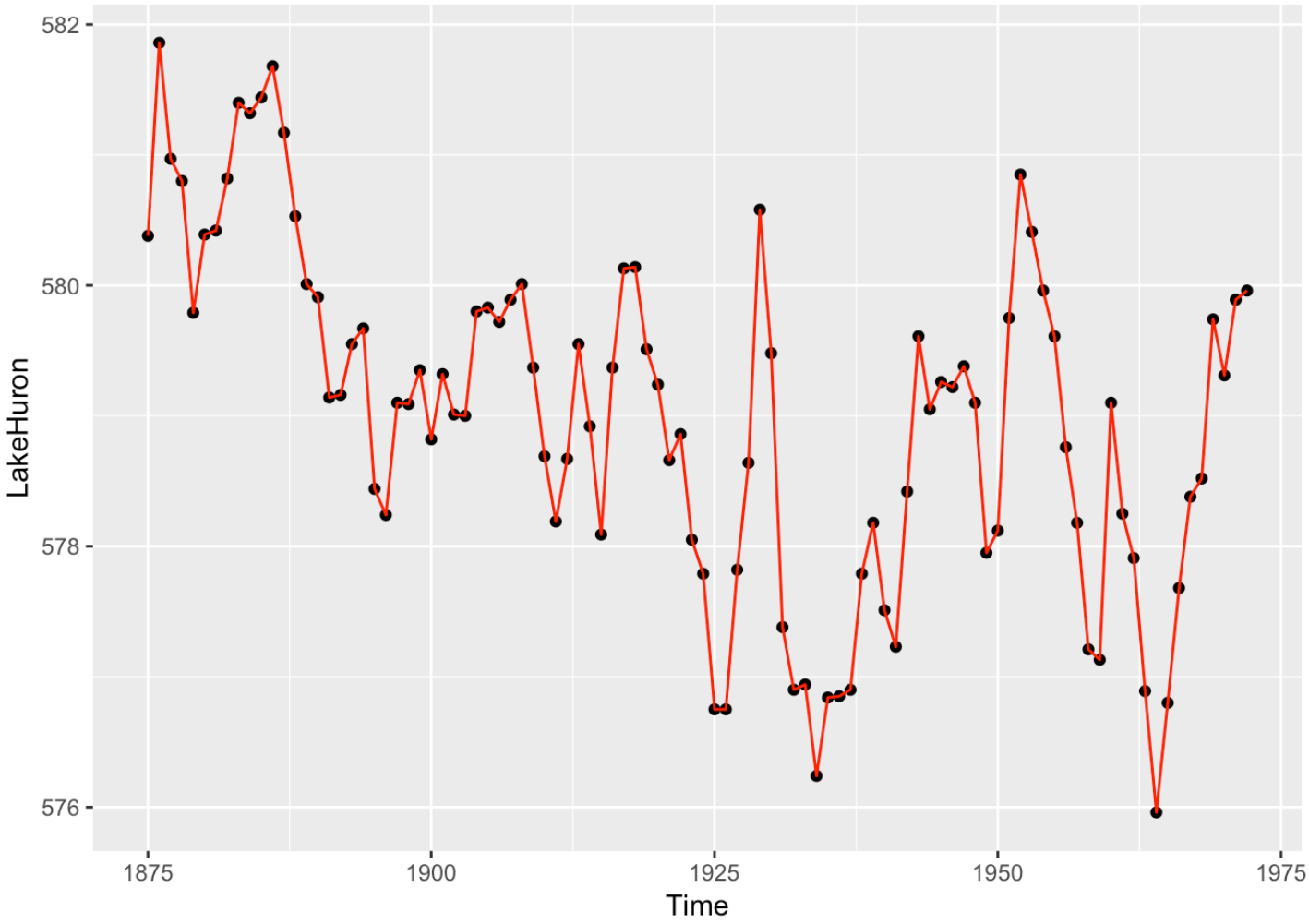
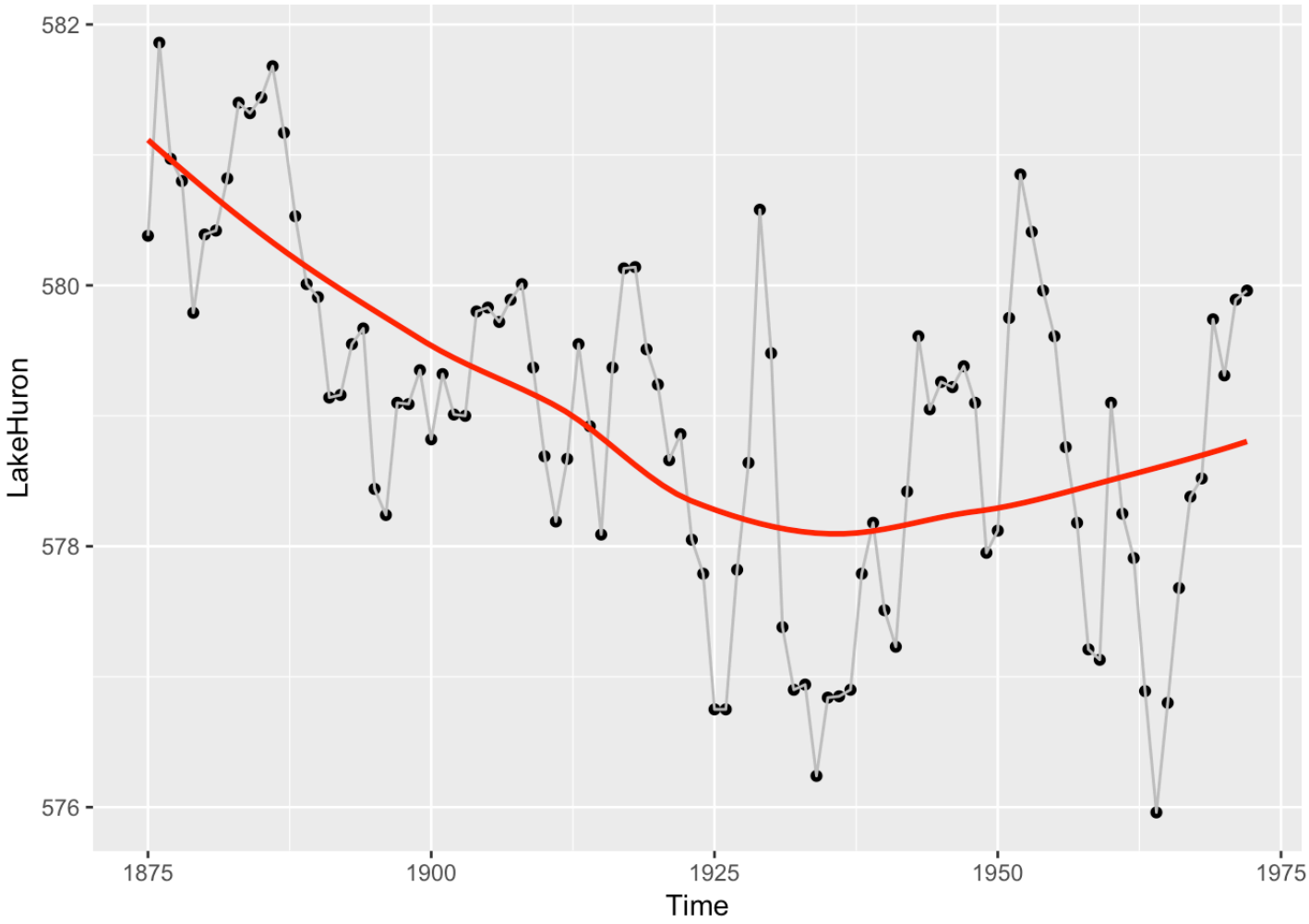




```
# Plot with smoother
ggplot(data = as.data.frame(LakeHuron),mapping = aes(x=Time,y=LakeHuron))+geom_point(
)+geom_line(color="gray")+geom_smooth(stat = "smooth",color="red",se=F)
```

```
## Don't know how to automatically pick scale for object of type ts. Defaulting to co
ntinuous.
```

```
## `geom_smooth()` using method = 'loess' and formula 'y ~ x'
```



Embedded Application

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Tabsets

Distribution type:

- (•) Normal
- ( ) Uniform
- ( ) Log-normal
- ( ) Exponential

Number of observations:

1 500 1,000

1 101 201 301 401 501 601 701 801 901 1,000

Plot | Summary | Table

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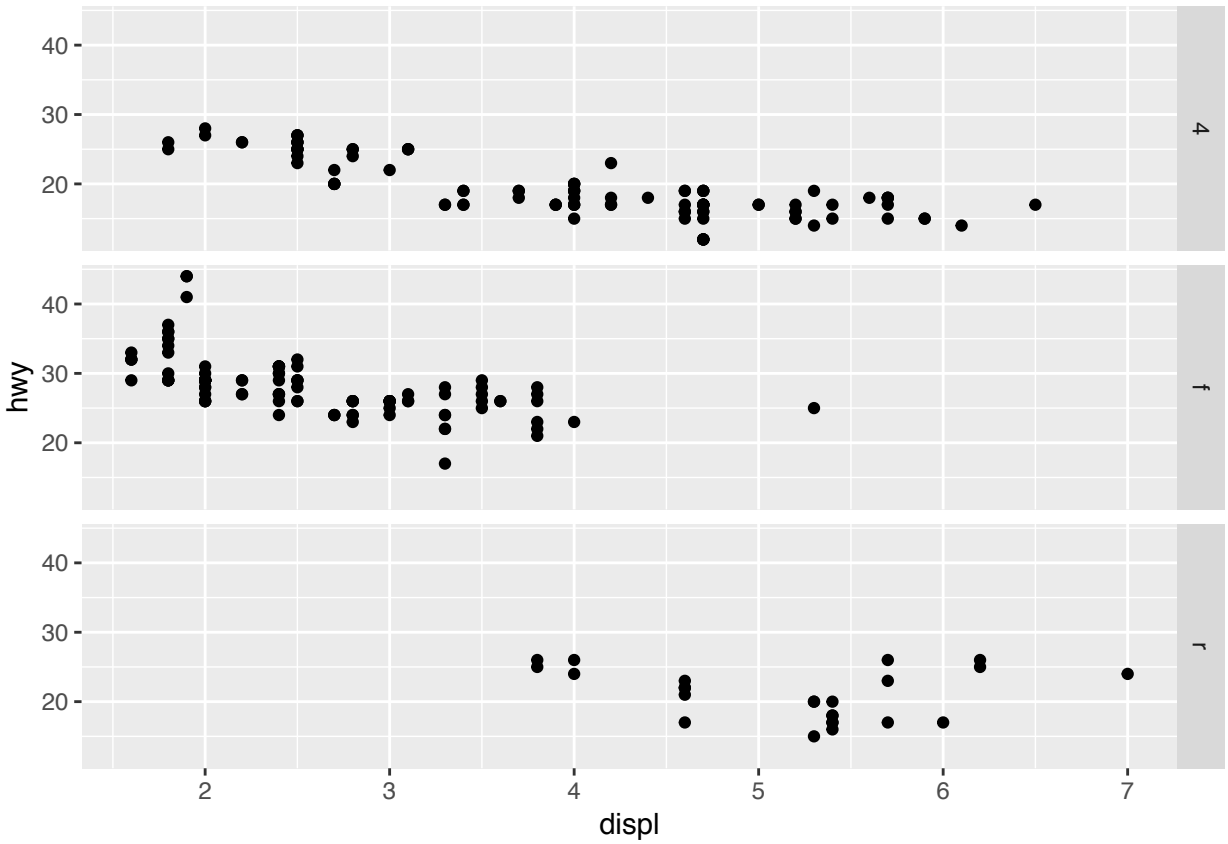
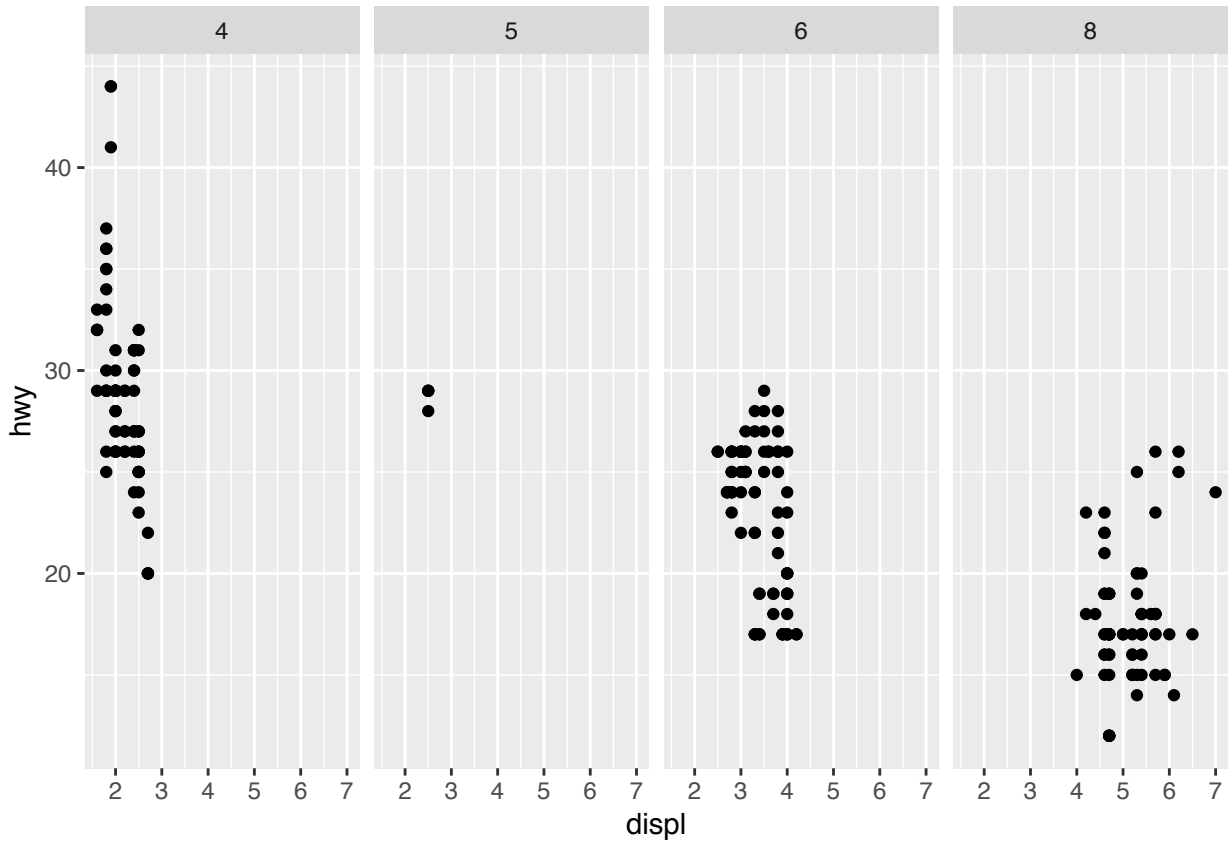



```
ggplot(data = mpg) +
  geom_point(mapping = aes(x = displ, y = hwy)) +
  facet_grid(. ~ cyl)
```

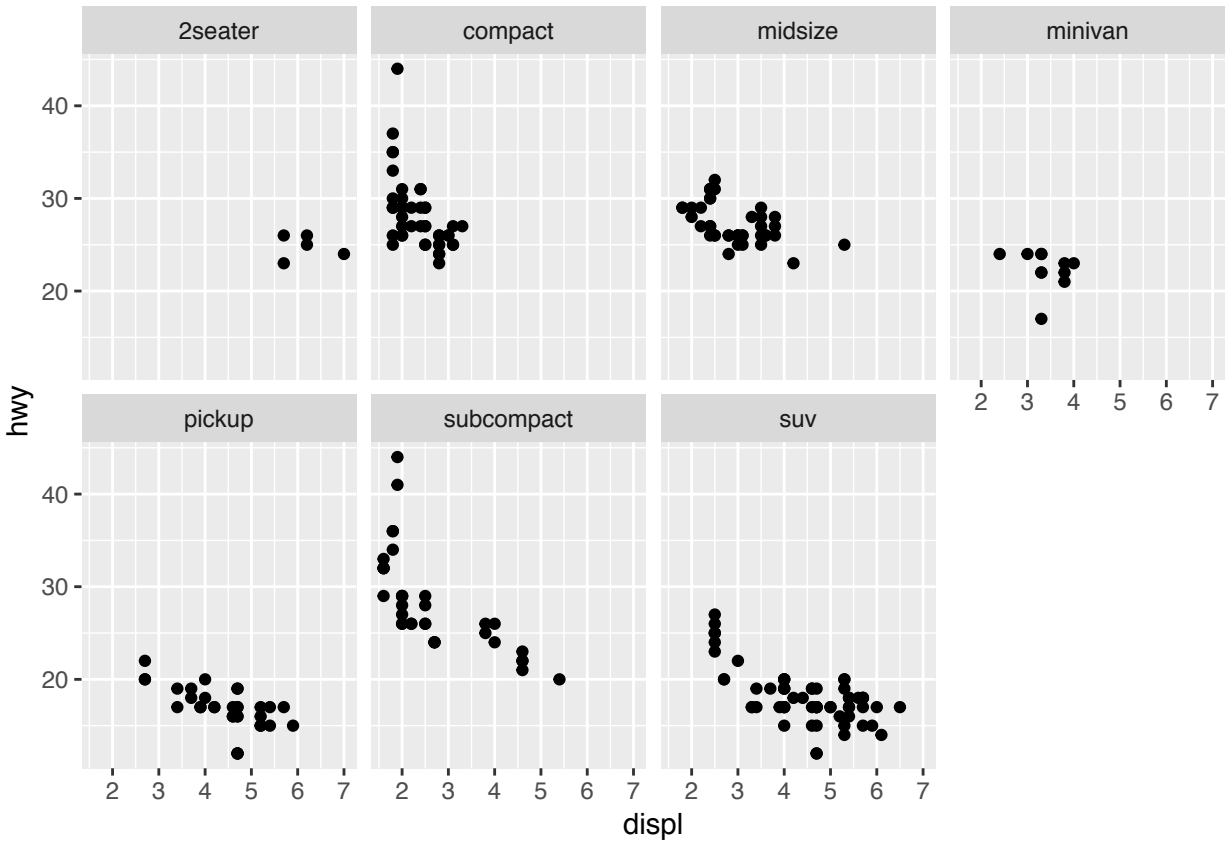



```
##"."means that facet will have just one variable with one dimension.
```

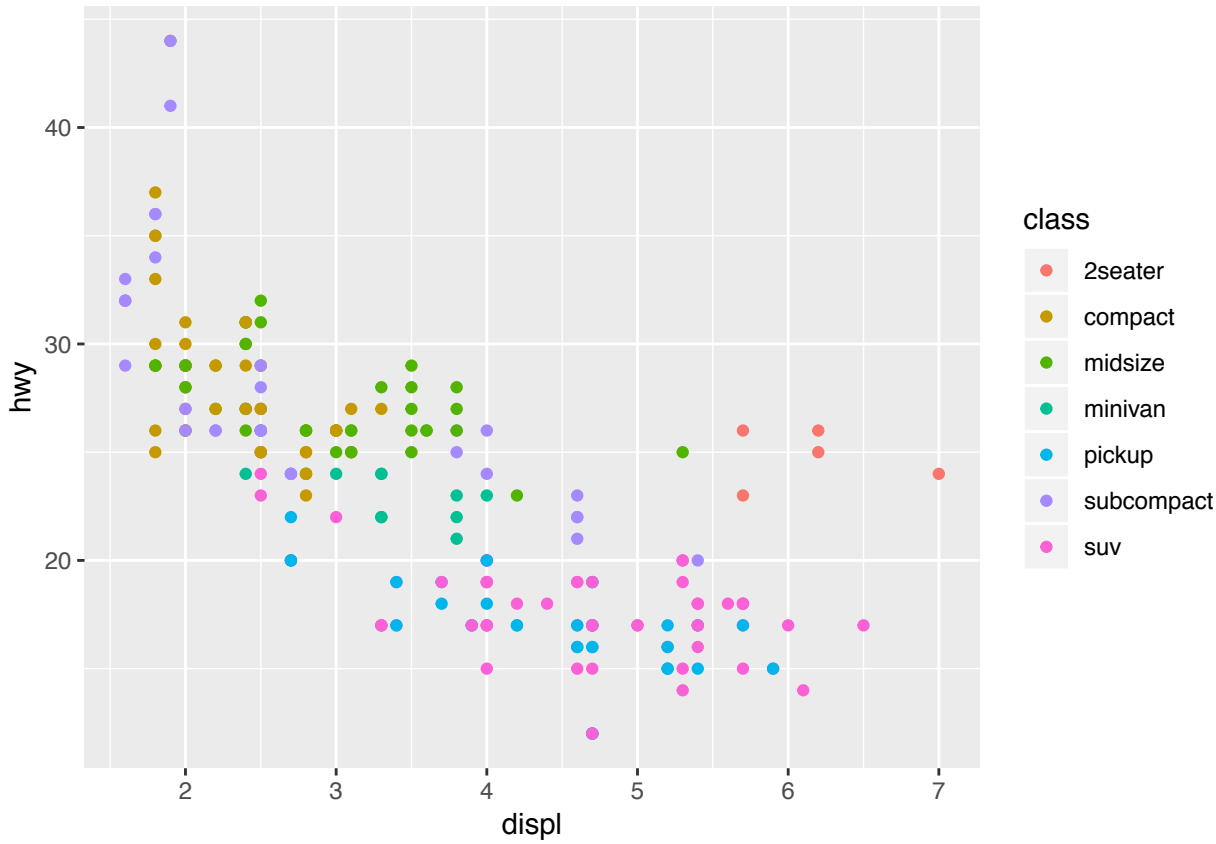
Question 4

What are the advantages to using faceting instead of the colour aesthetic? What are the disadvantages? How might the balance change if you had a larger dataset?

```
ggplot(data = mpg) +
  geom_point(mapping = aes(x = displ, y = hwy)) +
  facet_wrap(~ class, nrow = 2)
```




```
ggplot(data = mpg) +
  geom_point(mapping = aes(x = displ, y = hwy,color=class))
```




```
##The advantage of using facet is that it can give you the much more directly impression of the datafra
```

Question 4

Read ?facet_wrap. What does nrow do? What does ncol do? What other options control the layout of the individual panels? Why doesn't facet_grid() have nrow and ncol arguments?

```
?facet_wrap
##nrow and ncol just means how many rows and columns that you want all of your facets to layout.
##Because the facet_grid with twwo variables.
```

Question 5

When using facet_grid() you should usually put the variable with more unique levels in the columns. Why?

```
##If the variables are identical, the code is meaningless.
```

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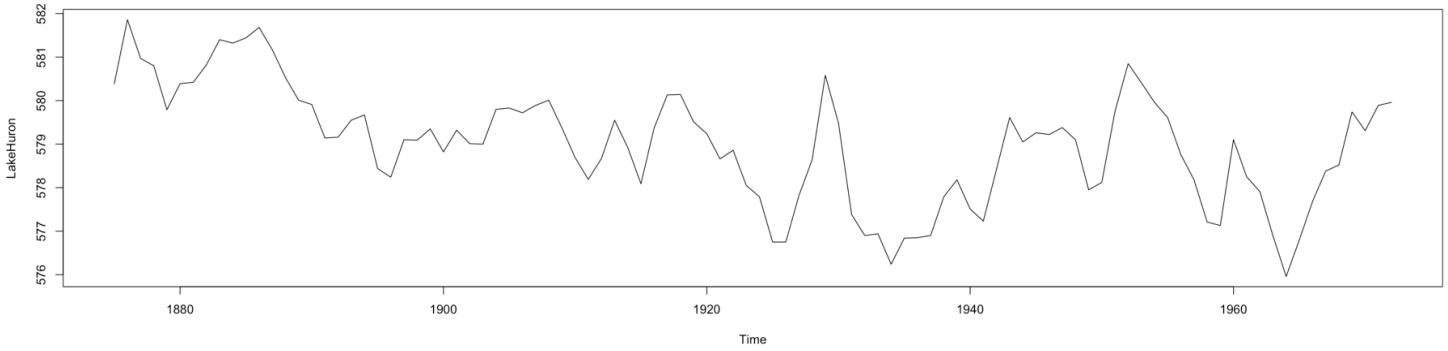

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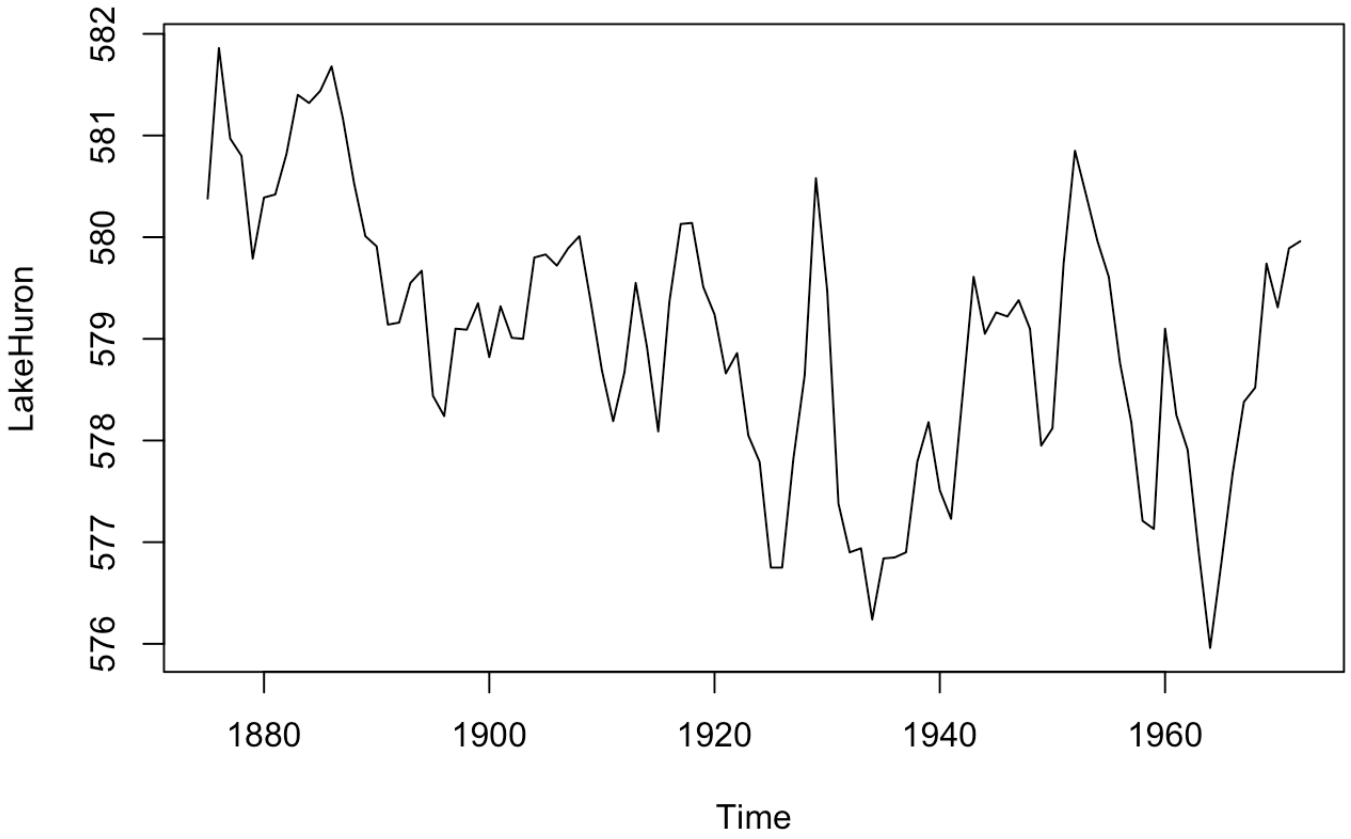


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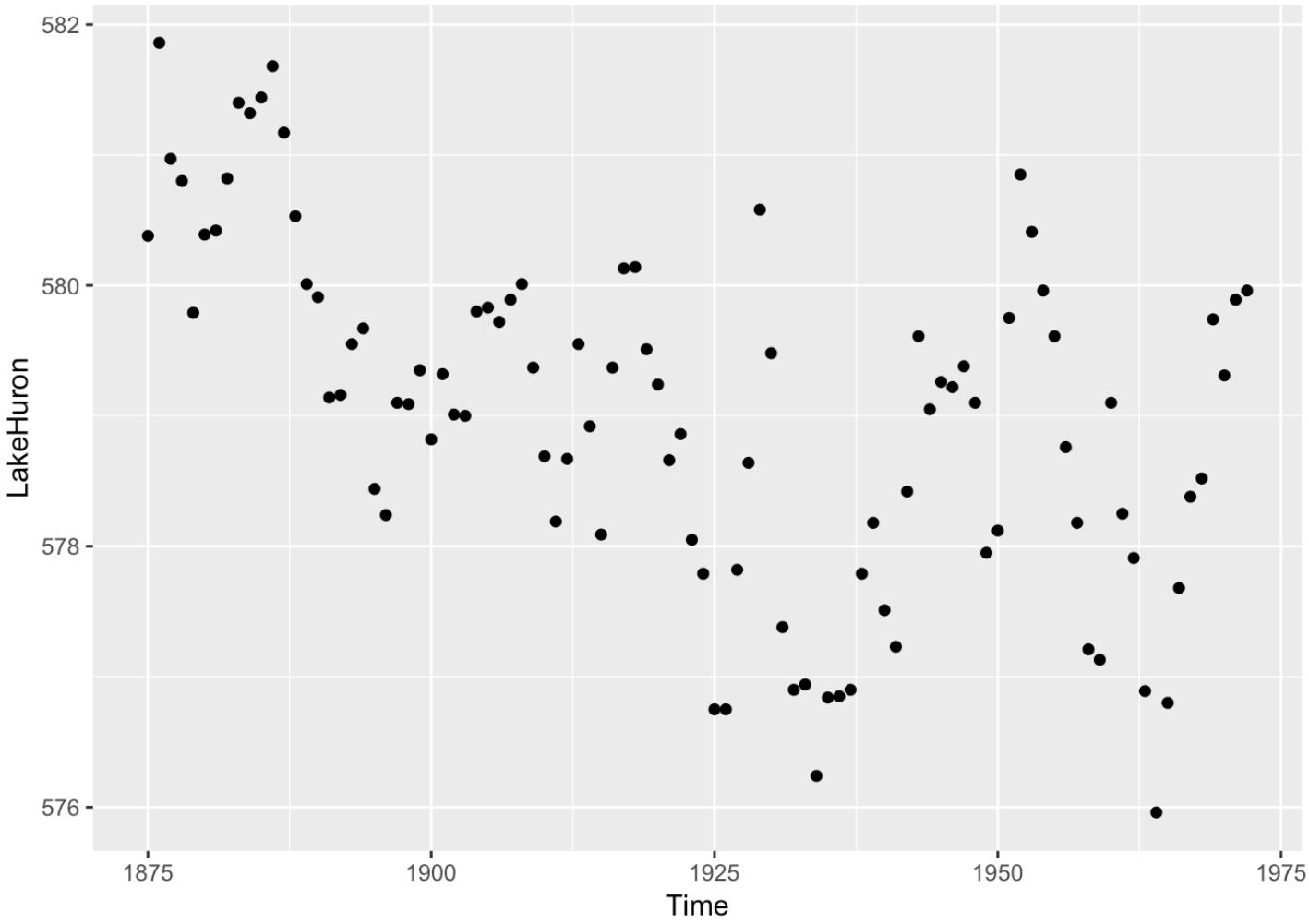


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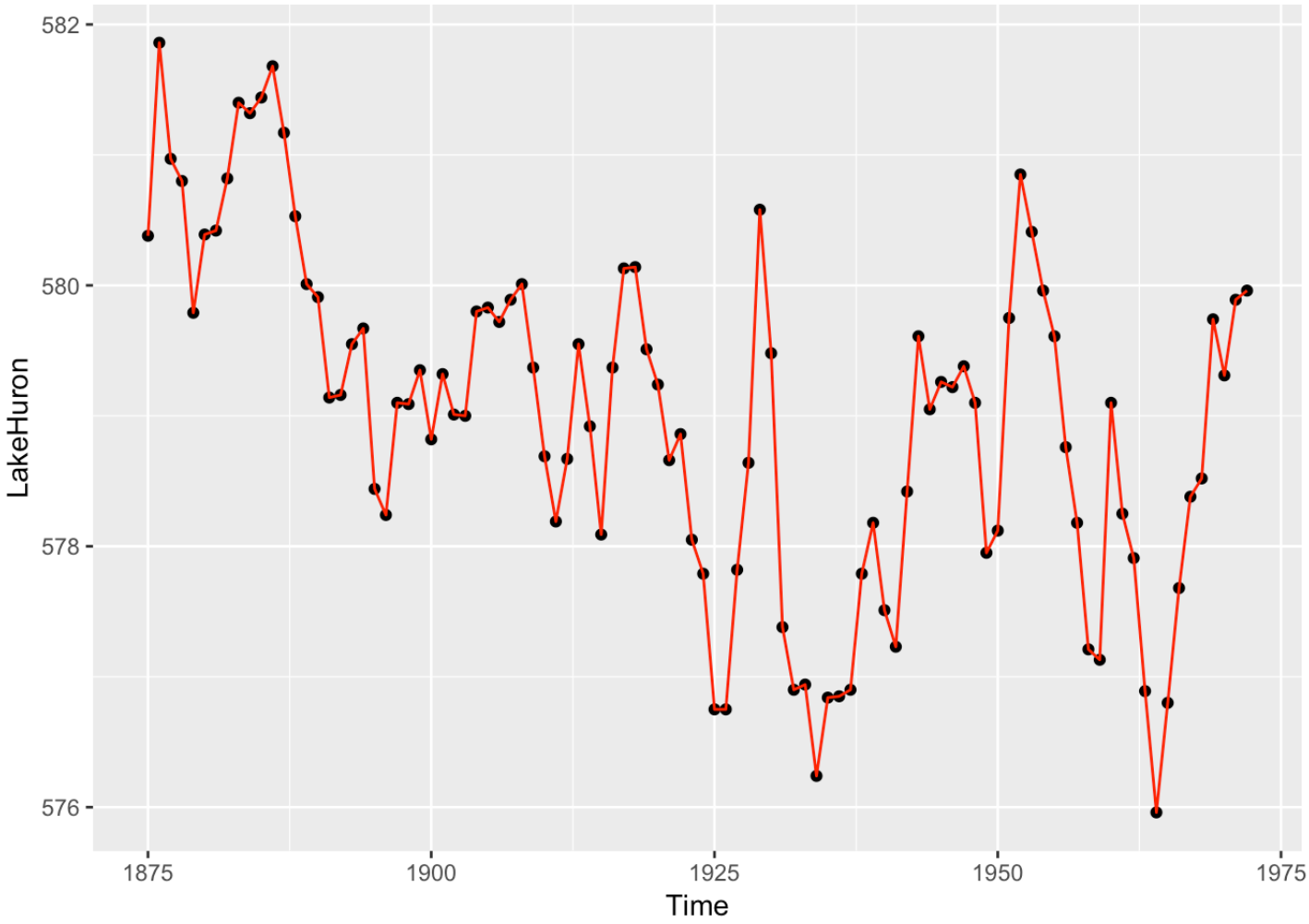


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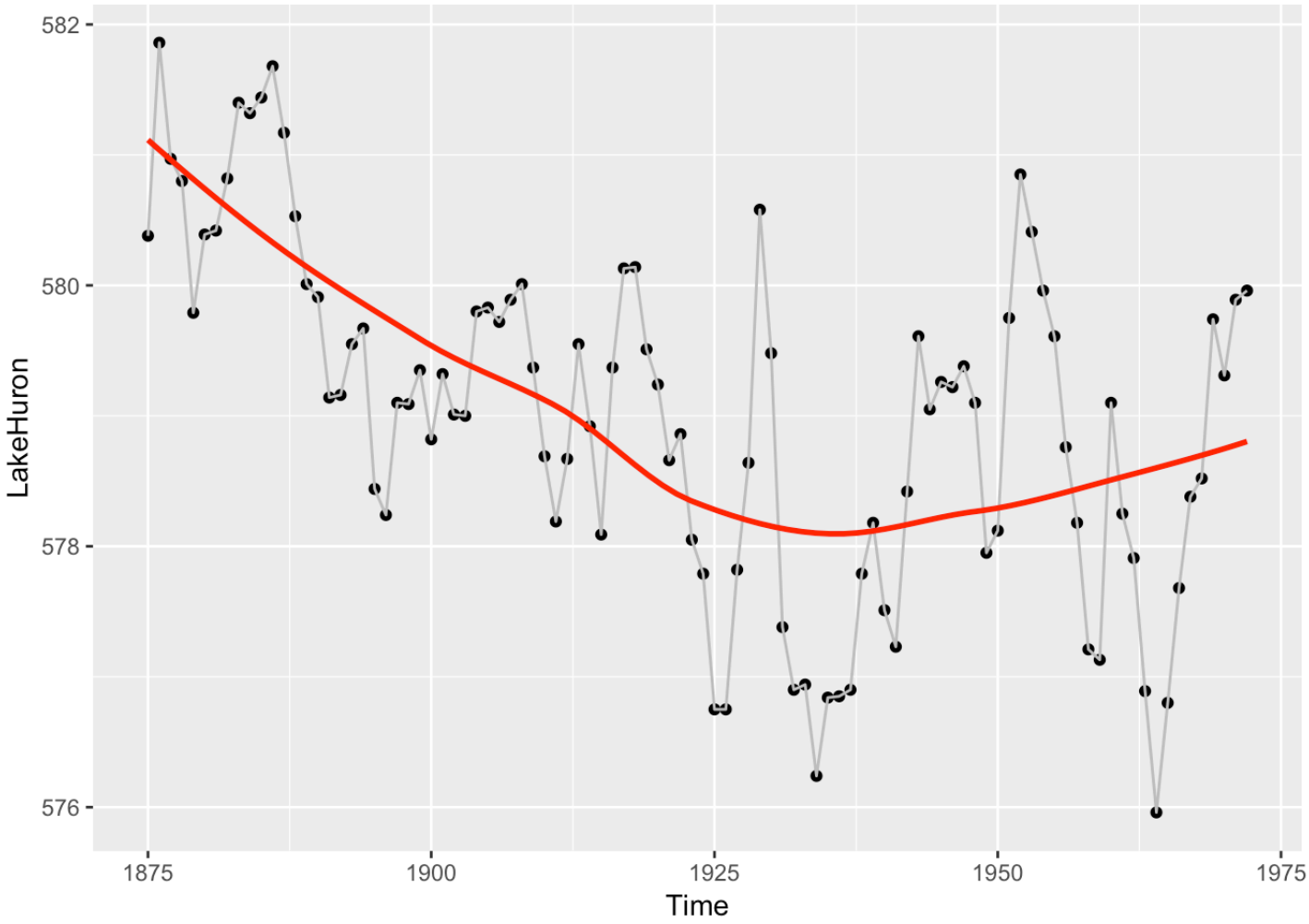

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