Linear Regression Lab Wrap-Up

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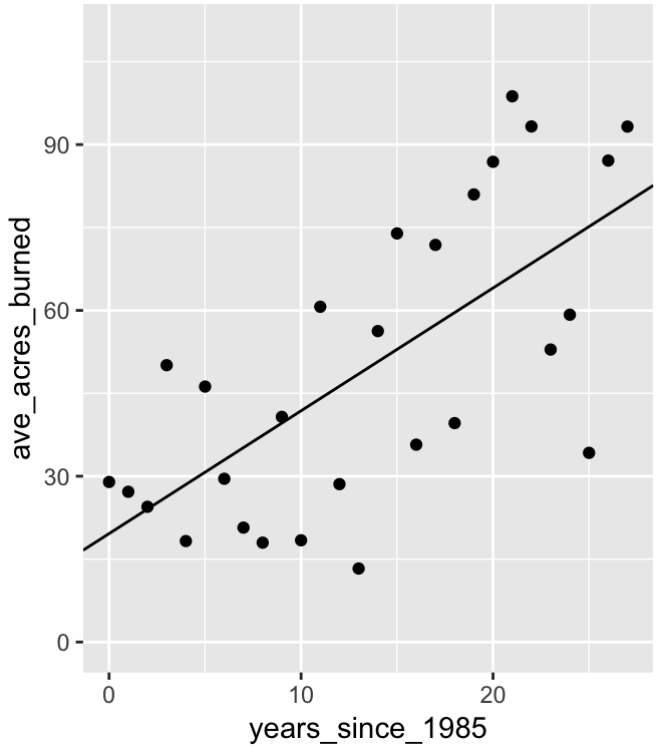
Question

Is there increasing severity of wildfires, as measured by average number of acres burned per fire?



Interpretation of Slope

```
lm_fit <- lm(ave_acres_burned ~ years_since_1985, data = wildfires)
coef(lm_fit)
```

```
##      (Intercept) years_since_1985
##        19.616453         2.221771
```

- For each additional year since 1985, the predicted number of acres burned increases by 2.22 acres.

```
lm_fit_year <- lm(ave_acres_burned ~ year, data = wildfires)
coef(lm_fit_year)
```

```
##  (Intercept)         year
## -4390.598311     2.221771
```

- For each additional year, the predicted number of acres burned increases by 2.22 acres.

Interpretation of Intercept

```
lm_fit <- lm(ave_acres_burned ~ years_since_1985, data = wildfires)
coef(lm_fit)
```

```
##      (Intercept) years_since_1985
##        19.616453         2.221771
```

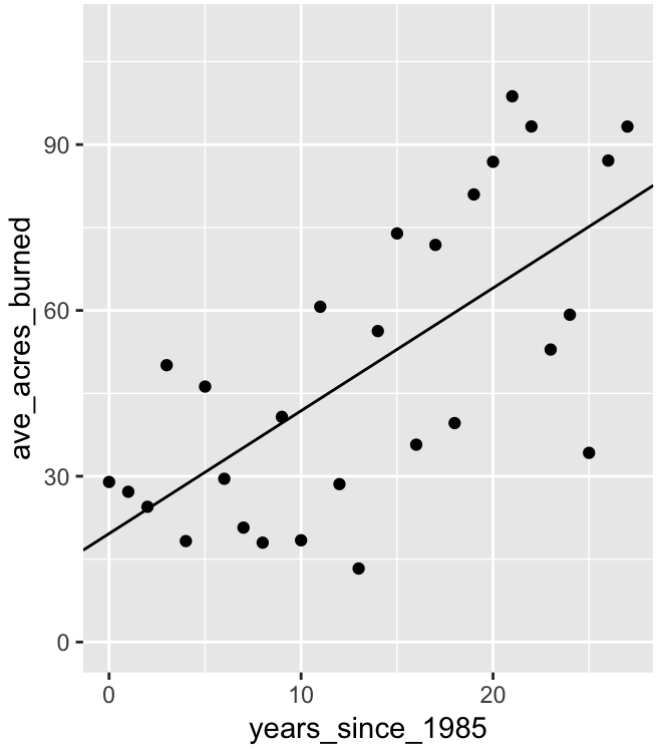
- Predicted average number of acres burned in 1985 is 19.6

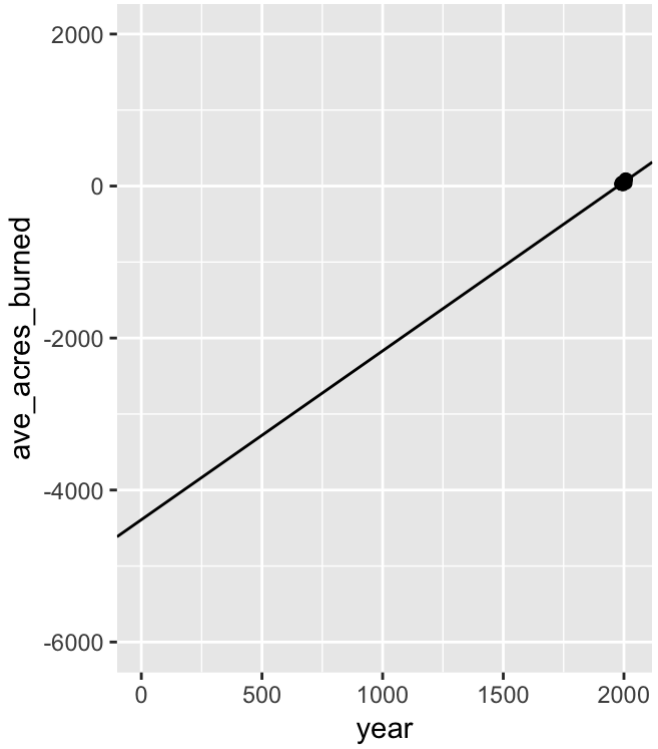
```
lm_fit_year <- lm(ave_acres_burned ~ year, data = wildfires)
coef(lm_fit_year)
```

```
##  (Intercept)         year
## -4390.598311     2.221771
```

- Predicted average number of acres burned in year 0 is -4390

What's going on?





Never Extrapolate Beyond the Data

An Important Message