Poisson regression

- ▸ At this point, we are ready to perform our Poisson regression model analysis using the `glm` function.

- ▸ We fit the model and save it in the object `model1` and get a summary of the model.

Poisson Regression with R

```
model1 <- glm(num_awards ~ prog + math,
family="poisson", data=poissonreg)

summary(model1)
```

Poisson Regression with R

```
Call:
glm(formula = num_awards ~ prog + math,
      family = "poisson",
      data = poissonreg)

Deviance Residuals:
Min      1Q  Median     3Q     Max
-2.204  -0.844  -0.511   0.256   2.680
```

Poisson Regression with R

```
Coefficients:
Estimate Std. Error z value Pr(>|z|)
(Intercept)    -5.2471    0.6585   -7.97  1.6e-15 ***
progAcademic    1.0839    0.3583    3.03   0.0025 **
progVocational  0.3698    0.4411    0.84   0.4018
math            0.0702    0.0106    6.62  3.6e-11 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 '
```

Poisson Regression with R

```
(Dispersion parameter for poisson family taken to be 1)

Null deviance: 287.67  on 199  degrees of freedom
Residual deviance: 189.45  on 196  degrees of freedom
AIC: 373.5

Number of Fisher Scoring iterations: 6
```