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=poisreg)

summary(model1)
```

Poisson Regression with R

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

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
```