**The REG Procedure**
**Model: MODEL1**
**Dependent Variable: BOOKS**

| Number of Observations Read | 10 |
|---|---|
| Number of Observations Used | 10 |

### Forward Selection: Step 1

### Variable ENROLLMENT Entered: R-Square = 0.5602 and C(p) = 6.0588

| Analysis of Variance | | | | | |
|---|---|---|---|---|---|
| Source | DF | Sum of Squares | Mean Square | F Value | Pr > F |
| Model | 1 | 43.69702 | 43.69702 | 10.19 | 0.0128 |
| Error | 8 | 34.30298 | 4.28787 | | |
| Corrected Total | 9 | 78.00000 | | | |

| Variable | Parameter Estimate | Standard Error | Type II SS | F Value | Pr > F |
|---|---|---|---|---|---|
| Intercept | 1.53094 | 1.01341 | 9.78565 | 2.28 | 0.1693 |
| ENROLLMENT | 0.17763 | 0.05564 | 43.69702 | 10.19 | 0.0128 |

**Bounds on condition number: 1, 1**

### Forward Selection: Step 2

### Variable HIGHEST_DEGREE Entered: R-Square = 0.6370 and C(p) = 5.9529

| Analysis of Variance | | | | | |
|---|---|---|---|---|---|
| Source | DF | Sum of Squares | Mean Square | F Value | Pr > F |
| Model | 2 | 49.68736 | 24.84368 | 6.14 | 0.0288 |
| Error | 7 | 28.31264 | 4.04466 | | |
| Corrected Total | 9 | 78.00000 | | | |

| Variable | Parameter Estimate | Standard Error | Type II SS | F Value | Pr > F |
|---|---|---|---|---|---|
| Intercept | -0.19936 | 1.72923 | 0.05376 | 0.01 | 0.9115 |
| ENROLLMENT | 0.14147 | 0.06167 | 21.28156 | 5.26 | 0.0555 |
| HIGHEST_DEGREE | 1.06332 | 0.87373 | 5.99034 | 1.48 | 0.2630 |

**Bounds on condition number: 1.3023, 5.2094**

# The REG Procedure
## Model: MODEL1
## Dependent Variable: BOOKS

### Forward Selection: Step 3

### Variable AREA Entered: R-Square = 0.7812 and C(p) = 4.0000

| Analysis of Variance | | | | | |
|---|---|---|---|---|---|
| Source | DF | Sum of Squares | Mean Square | F Value | Pr > F |
| **Model** | 3 | 60.93207 | 20.31069 | 7.14 | 0.0209 |
| **Error** | 6 | 17.06793 | 2.84465 | | |
| **Corrected Total** | 9 | 78.00000 | | | |

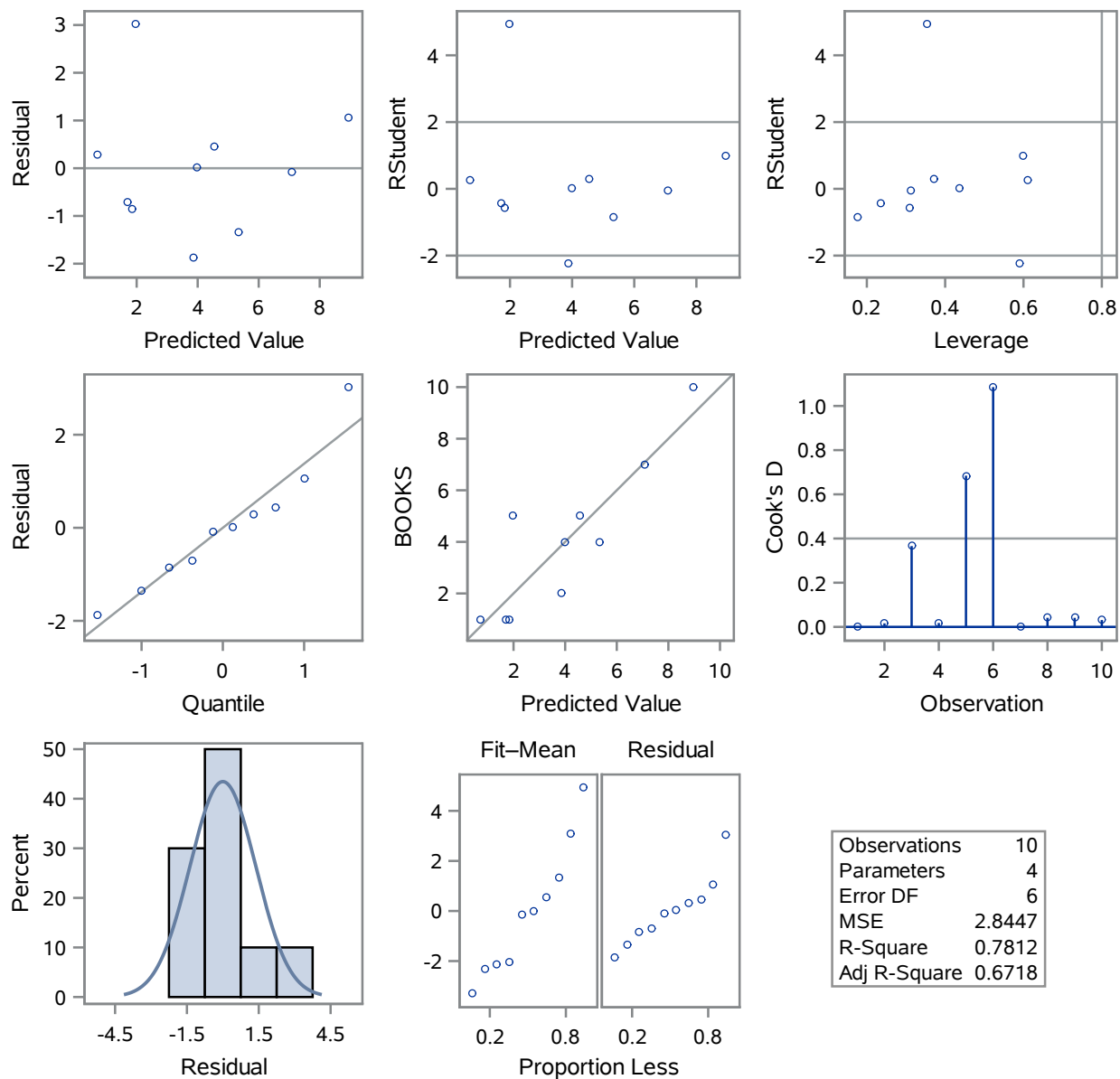| Variable | Parameter Estimate | Standard Error | Type II SS | F Value | Pr > F |
|---|---|---|---|---|---|
| **Intercept** | -4.39541 | 2.56070 | 8.38127 | 2.95 | 0.1369 |
| **ENROLLMENT** | 0.11445 | 0.05348 | 13.02949 | 4.58 | 0.0761 |
| **HIGHEST_DEGREE** | 2.51818 | 1.03555 | 16.82124 | 5.91 | 0.0510 |
| **AREA** | 0.01208 | 0.00608 | 11.24472 | 3.95 | 0.0940 |

### Bounds on condition number: 2.6011, 18.158

### All variables have been entered into the model.

| Summary of Forward Selection | | | | | | | |
|---|---|---|---|---|---|---|---|
| Step | Variable Entered | Number Vars In | Partial R-Square | Model R-Square | C(p) | F Value | Pr > F |
| **1** | ENROLLMENT | 1 | 0.5602 | 0.5602 | 6.0588 | 10.19 | 0.0128 |
| **2** | HIGHEST_DEGREE | 2 | 0.0768 | 0.6370 | 5.9529 | 1.48 | 0.2630 |
| **3** | AREA | 3 | 0.1442 | 0.7812 | 4.0000 | 3.95 | 0.0940 |

**The REG Procedure**
**Model: MODEL1**
**Dependent Variable: BOOKS**



Fit Diagnostics for BOOKS

**The REG Procedure**
**Model: MODEL1**
**Dependent Variable: BOOKS**



Residual by Regressors for BOOKS