# The UNIVARIATE Procedure
## Variable: logreturn

| Moments | | | |
|---|---|---|---|
| **N** | 3363 | **Sum Weights** | 3363 |
| **Mean** | -0.0001504 | **Sum Observations** | -0.5056391 |
| **Std Deviation** | 0.01557395 | **Variance** | 0.00024255 |
| **Skewness** | -0.6220446 | **Kurtosis** | 14.274787 |
| **Uncorrected SS** | 0.81552164 | **Corrected SS** | 0.81544561 |
| **Coeff Variation** | -10358.214 | **Std Error Mean** | 0.00026856 |

| Basic Statistical Measures | | | |
|---|---|---|---|
| **Location** | | **Variability** | |
| **Mean** | -0.00015 | **Std Deviation** | 0.01557 |
| **Median** | 0.00002 | **Variance** | 0.0002425 |
| **Mode** | 0.00000 | **Range** | 0.28712 |
| | | **Interquartile Range** | 0.01177 |

| Tests for Location: Mu0=0 | | | | |
|---|---|---|---|---|
| **Test** | **Statistic** | | **p Value** | |
| **Student's t** | **t** | -0.55986 | **Pr > \|t\|** | 0.5756 |
| **Sign** | **M** | 15 | **Pr >= \|M\|** | 0.6156 |
| **Signed Rank** | **S** | 41879.5 | **Pr >= \|S\|** | 0.4517 |

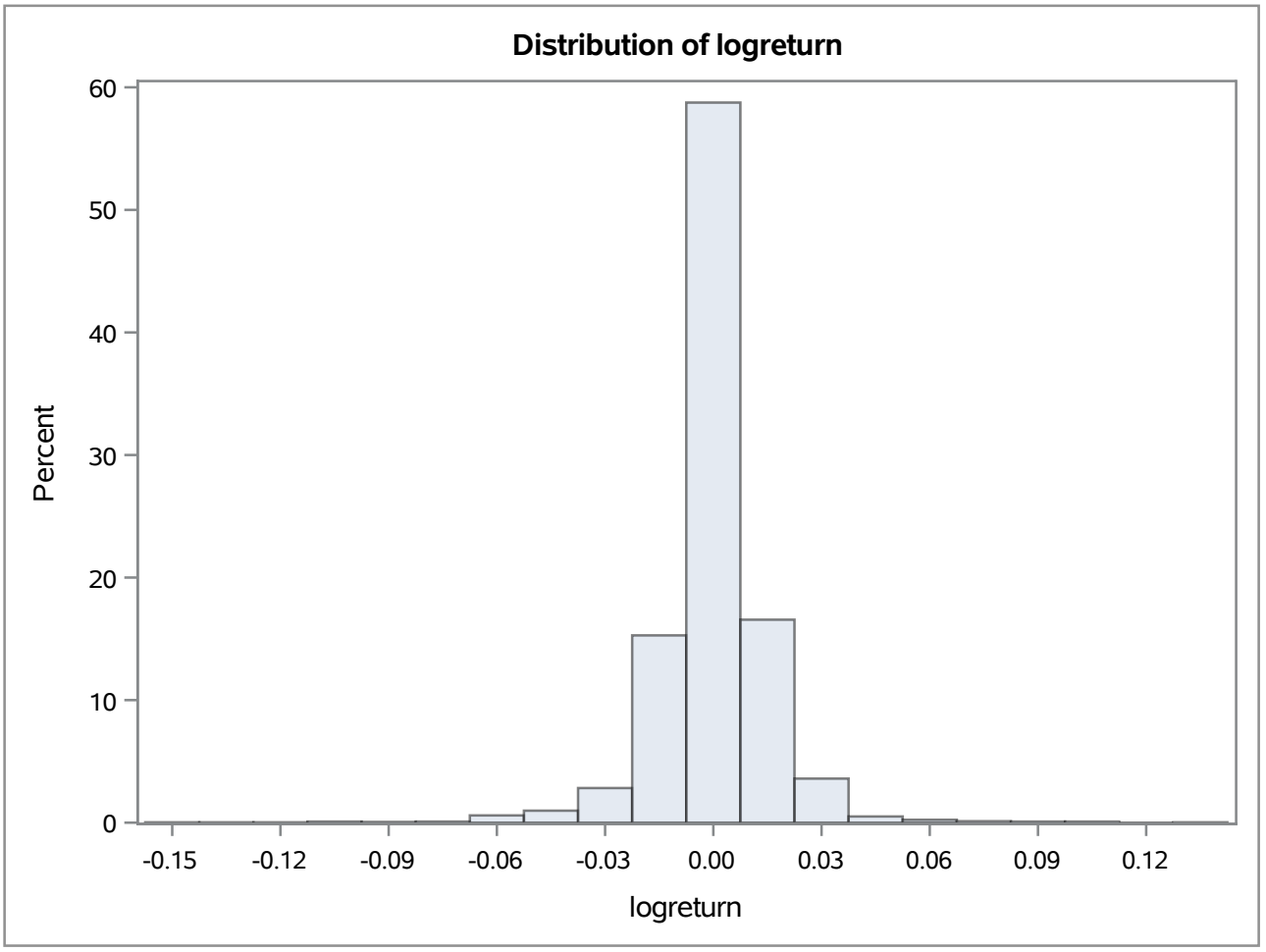
| Quantiles (Definition 5) | |
|---|---|
| **Level** | **Quantile** |
| **100% Max** | 1.34552E-01 |
| **99%** | 3.90101E-02 |
| **95%** | 2.09734E-02 |
| **90%** | 1.44925E-02 |
| **75% Q3** | 6.08513E-03 |
| **50% Median** | 1.62688E-05 |
| **25% Q1** | -5.68935E-03 |
| **10%** | -1.40416E-02 |
| **5%** | -2.16903E-02 |
| **1%** | -5.04059E-02 |
| **0% Min** | -1.52569E-01 |

## The UNIVARIATE Procedure
## Variable: logreturn

| Extreme Observations | | | |
|---|---|---|---|
| Lowest | | Highest | |
| Value | Obs | Value | Obs |
| -0.152569 | 451 | 0.0905906 | 597 |
| -0.142017 | 461 | 0.1000173 | 452 |
| -0.116025 | 462 | 0.1012539 | 468 |
| -0.108214 | 449 | 0.1058218 | 436 |
| -0.104581 | 3031 | 0.1345516 | 453 |

| Missing Values | | | |
|---|---|---|---|
| | | Percent Of | |
| Missing Value | Count | All Obs | Missing Obs |
| . | 1 | 0.03 | 100.00 |

**The UNIVARIATE Procedure**



## The UNIVARIATE Procedure
## Variable: x

| Moments | | | |
|---|---|---|---|
| **N** | 1653 | **Sum Weights** | 1653 |
| **Mean** | 0.00993623 | **Sum Observations** | 16.4245911 |
| **Std Deviation** | 0.01315129 | **Variance** | 0.00017296 |
| **Skewness** | 3.99426211 | **Kurtosis** | 25.5143227 |
| **Uncorrected SS** | 0.44892261 | **Corrected SS** | 0.28572407 |
| **Coeff Variation** | 132.356928 | **Std Error Mean** | 0.00032347 |

| Basic Statistical Measures | | | |
|---|---|---|---|
| **Location** | | **Variability** | |
| **Mean** | 0.009936 | **Std Deviation** | 0.01315 |
| **Median** | 0.005795 | **Variance** | 0.0001730 |
| **Mode** | . | **Range** | 0.15256 |
| | | **Interquartile Range** | 0.00950 |

| Tests for Location: Mu0=0 | | | | |
|---|---|---|---|---|
| **Test** | **Statistic** | | **p Value** | |
| **Student's t** | **t** | 30.71777 | **Pr > \|t\|** | <.0001 |
| **Sign** | **M** | 826.5 | **Pr >= \|M\|** | <.0001 |
| **Signed Rank** | **S** | 683515.5 | **Pr >= \|S\|** | <.0001 |

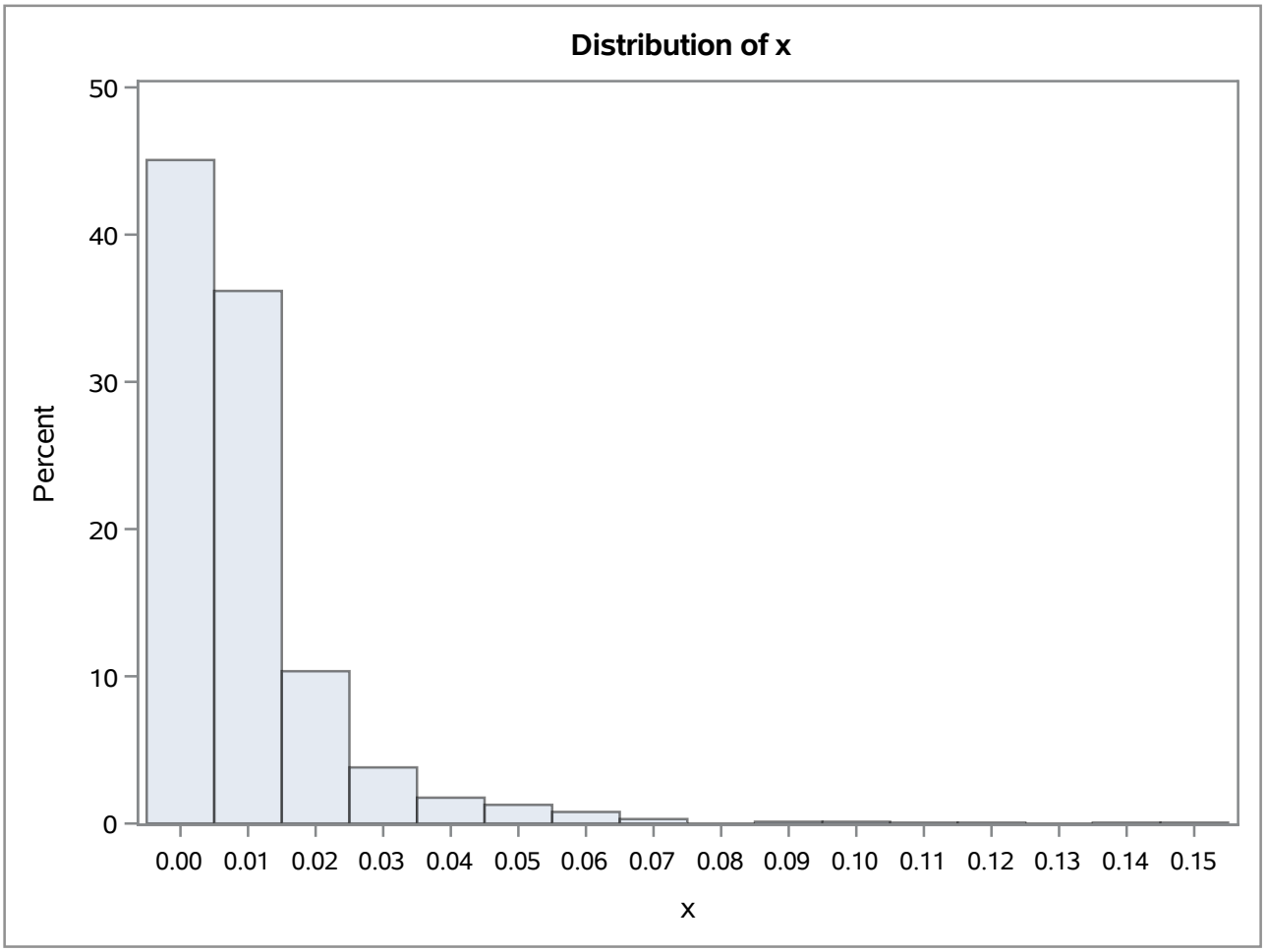
| Quantiles (Definition 5) | |
|---|---|
| **Level** | **Quantile** |
| **100% Max** | 1.52569E-01 |
| **99%** | 6.02035E-02 |
| **95%** | 3.30776E-02 |
| **90%** | 2.18645E-02 |
| **75% Q3** | 1.20845E-02 |
| **50% Median** | 5.79541E-03 |
| **25% Q1** | 2.58444E-03 |
| **10%** | 1.02697E-03 |
| **5%** | 4.32789E-04 |
| **1%** | 6.93159E-05 |
| **0% Min** | 7.53168E-06 |

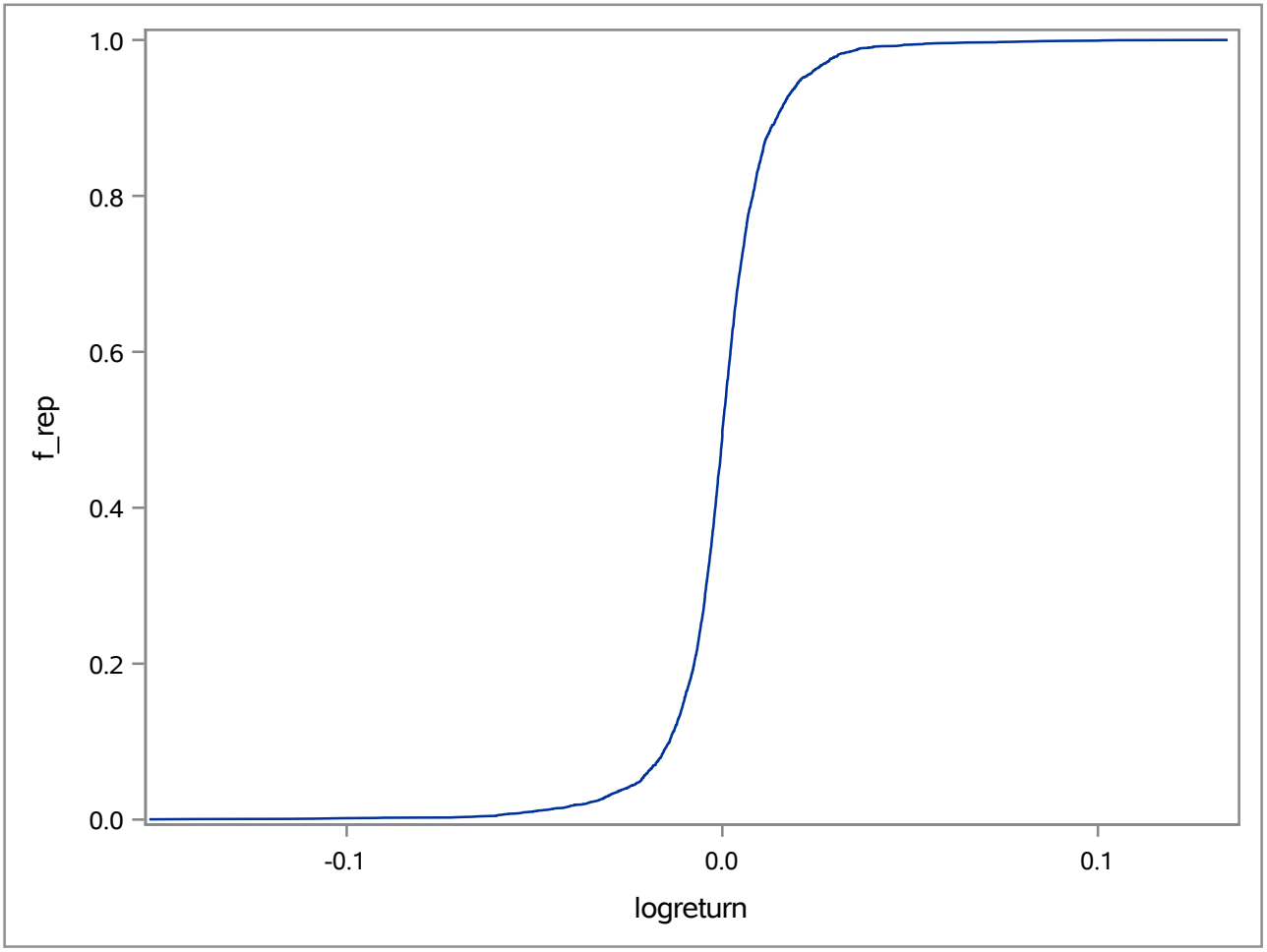
## The UNIVARIATE Procedure
## Variable: x

| Extreme Observations | | | |
|---|---|---|---|
| Lowest | | Highest | |
| Value | Obs | Value | Obs |
| 7.53168E-06 | 67 | 0.104581 | 1489 |
| 1.42346E-05 | 1394 | 0.108214 | 243 |
| 1.42701E-05 | 985 | 0.116025 | 253 |
| 1.43302E-05 | 1020 | 0.142017 | 252 |
| 1.57491E-05 | 1114 | 0.152569 | 245 |

| Missing Values | | | |
|---|---|---|---|
| | | Percent Of | |
| Missing Value | Count | All Obs | Missing Obs |
| . | 1 | 0.06 | 100.00 |

**The UNIVARIATE Procedure**




1.0
0.8
0.6
0.4
0.2
0.0
f_rep
-0.1
0.0
0.1
logreturn

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

| | |
|---|---|
| **Number of Observations Read** | 337 |
| **Number of Observations Used** | 336 |
| **Number of Observations with Missing Values** | 1 |

**Analysis of Variance**

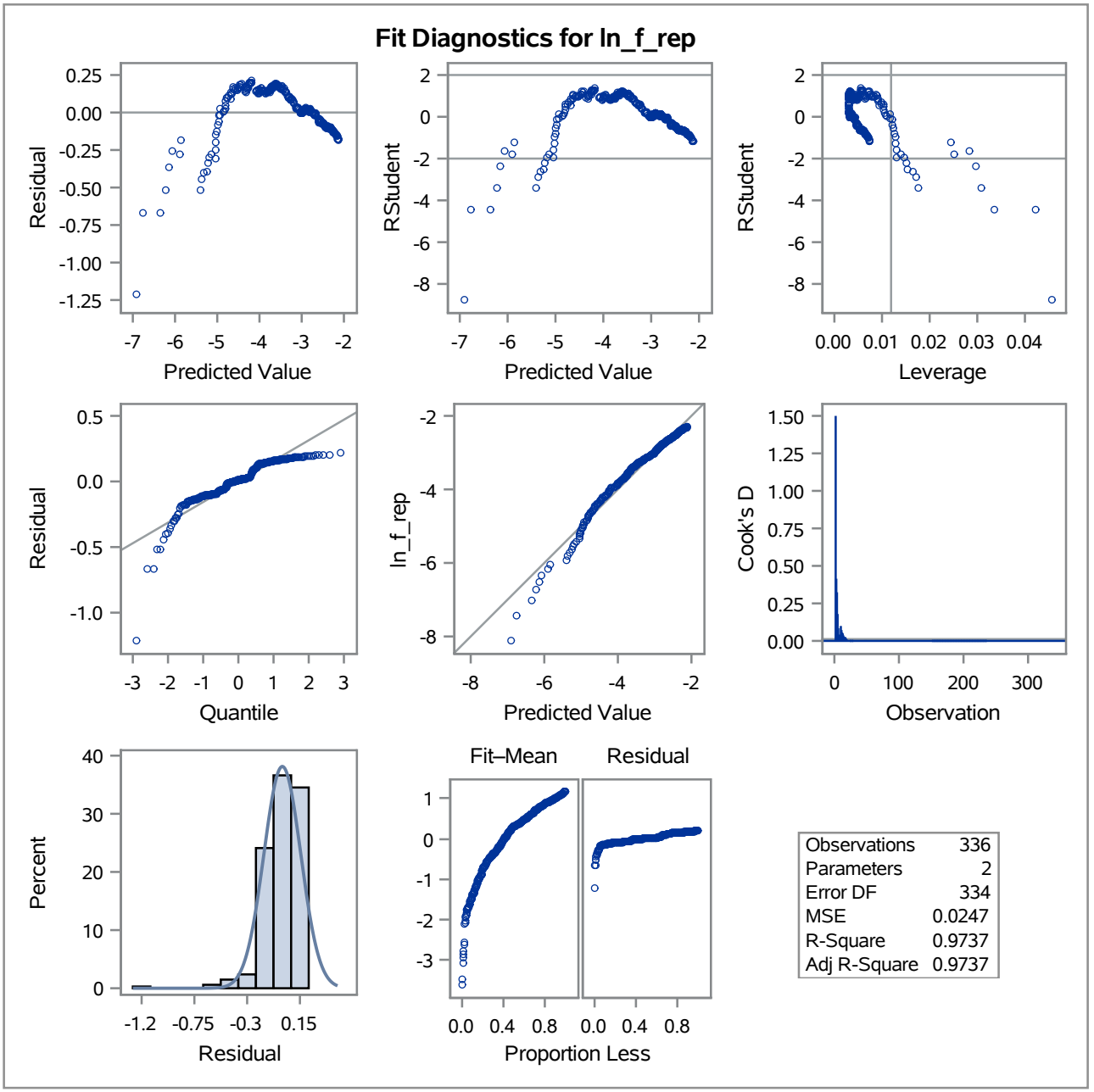
| Source | DF | Sum of Squares | Mean Square | F Value | Pr > F |
|---|---|---|---|---|---|
| **Model** | 1 | 305.74700 | 305.74700 | 12381.1 | <.0001 |
| **Error** | 334 | 8.24800 | 0.02469 | | |
| **Corrected Total** | 335 | 313.99500 | | | |

| | | | |
|---|---|---|---|
| **Root MSE** | 0.15715 | **R-Square** | 0.9737 |
| **Dependent Mean** | -3.29209 | **Adj R-Sq** | 0.9737 |
| **Coeff Var** | -4.77342 | | |

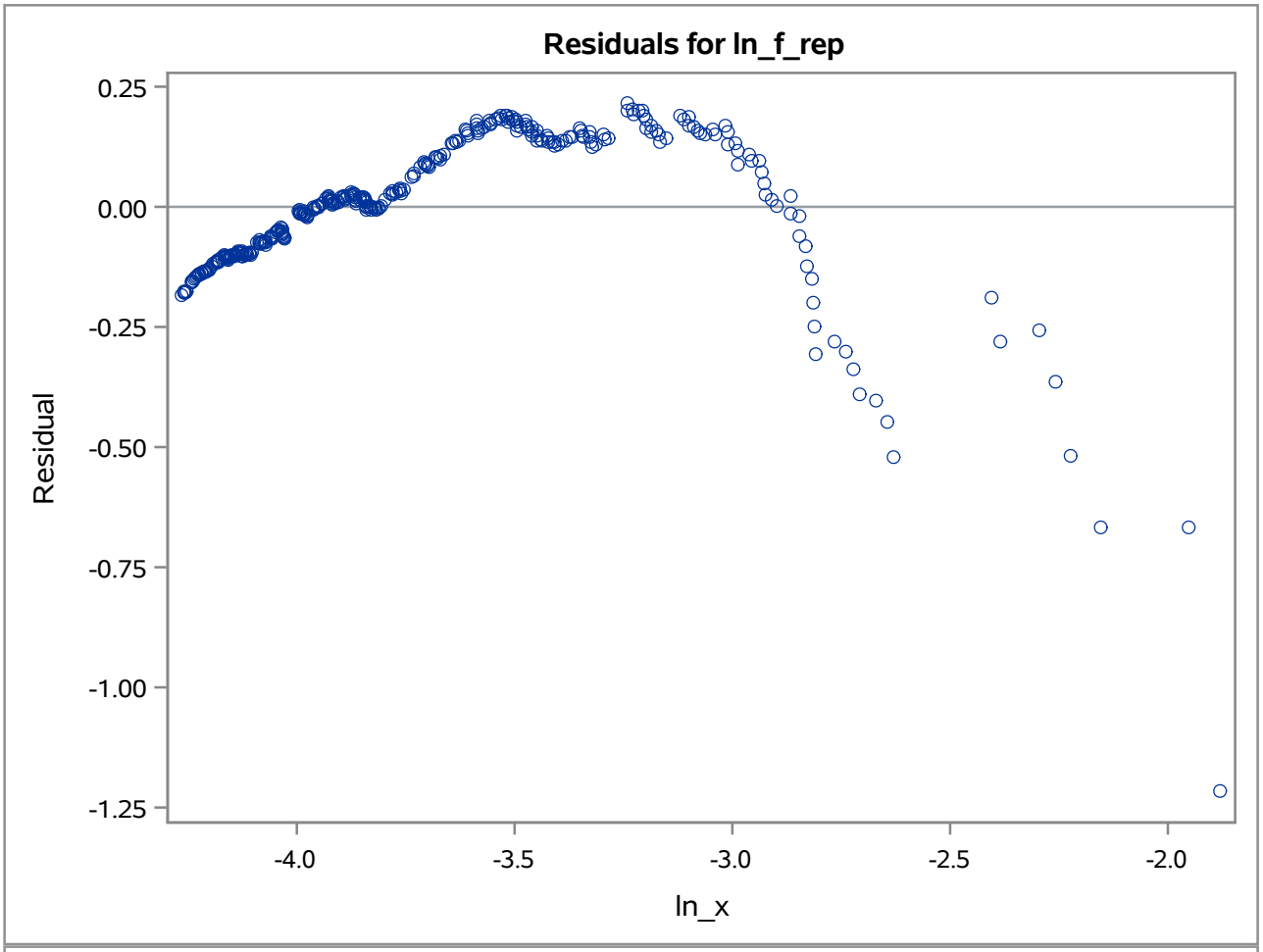
**Parameter Estimates**

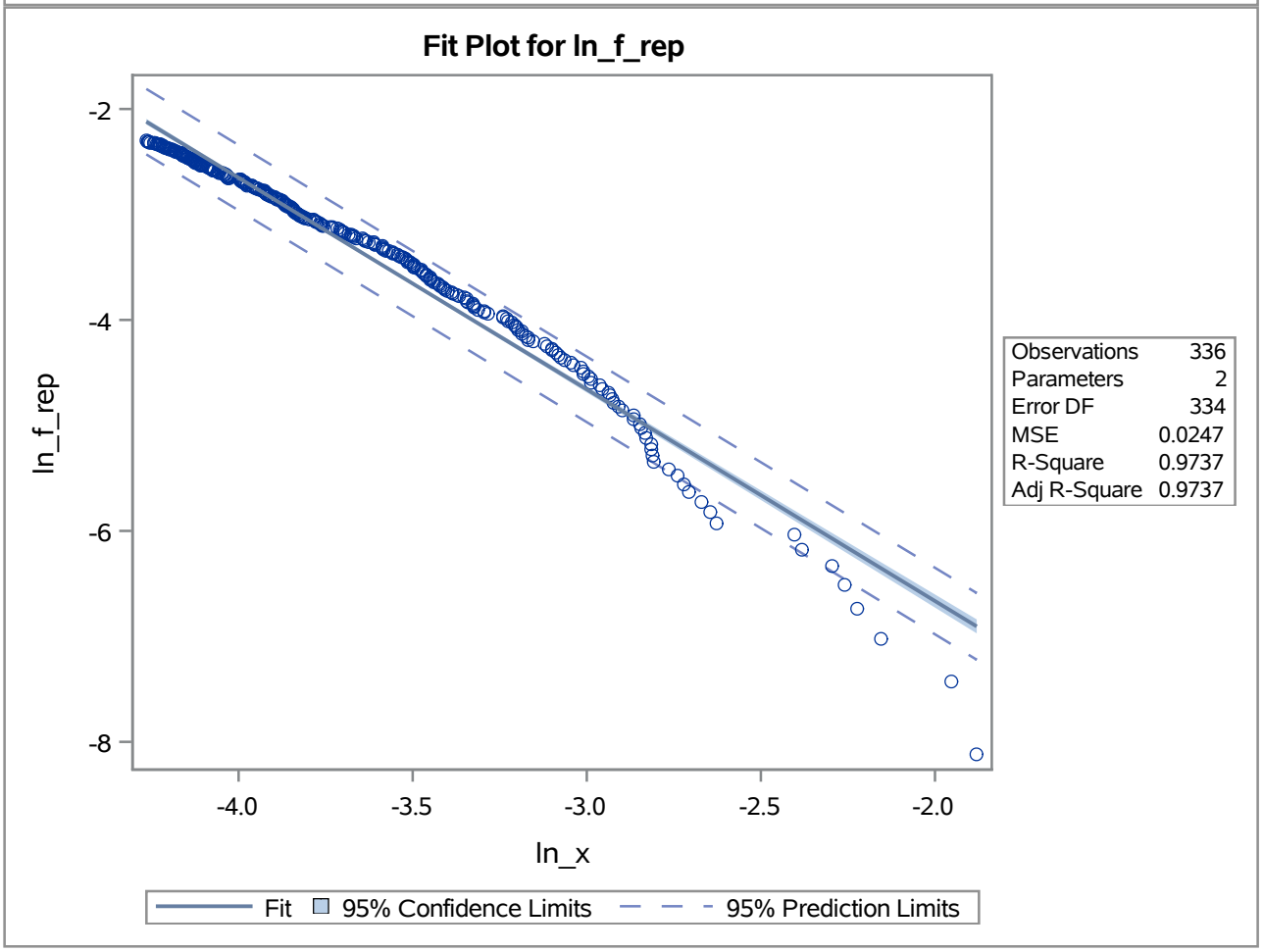
| Variable | DF | Parameter Estimate | Standard Error | t Value | Pr > \|t\| |
|---|---|---|---|---|---|
| **Intercept** | 1 | -10.67768 | 0.06693 | -159.54 | <.0001 |
| **ln_x** | 1 | -2.00646 | 0.01803 | -111.27 | <.0001 |

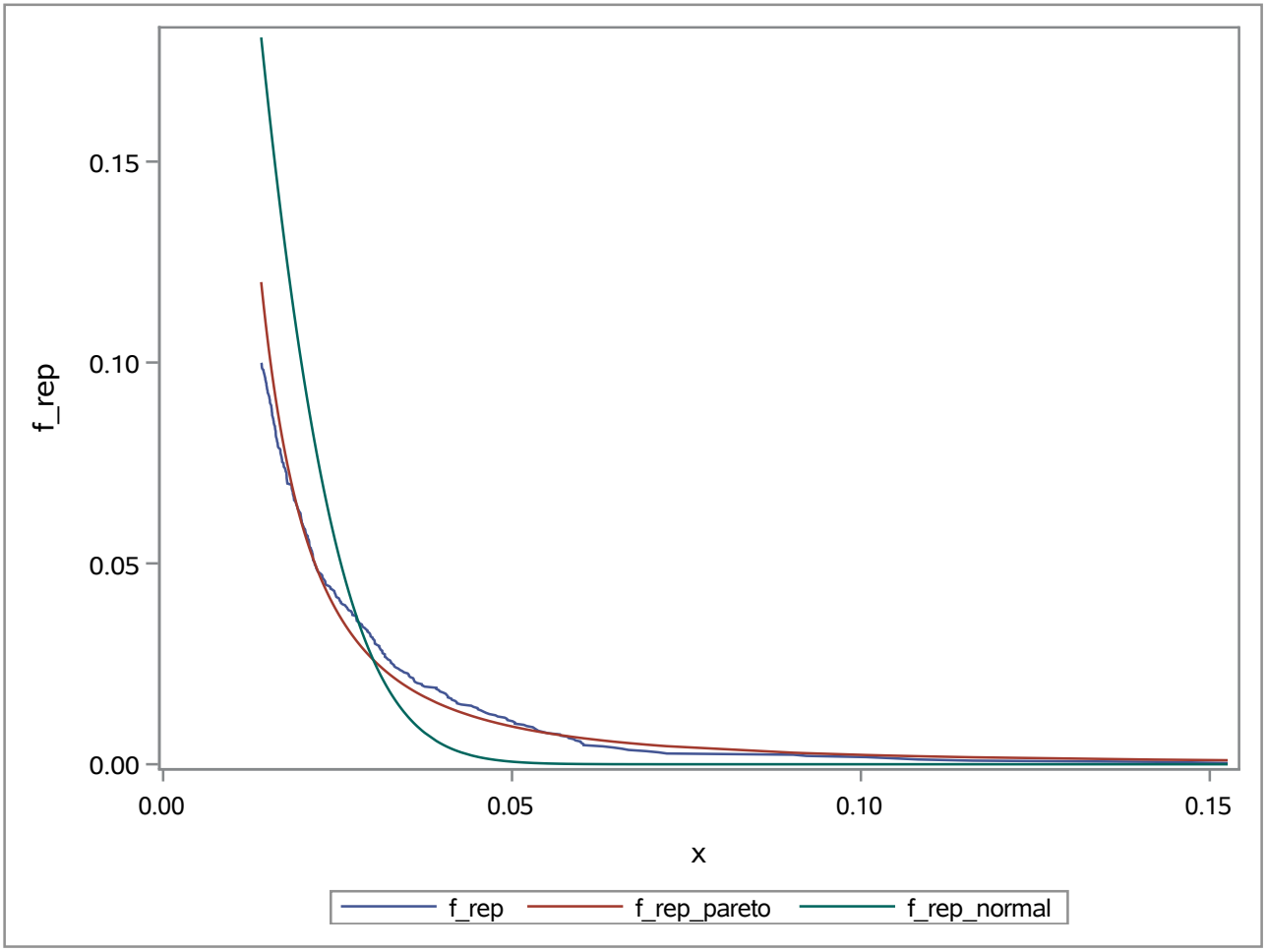
**The REG Procedure**
**Model: MODEL1**
**Dependent Variable: ln_f_rep**



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




0.15
0.10
0.05
0.00
f_rep
0.00
0.05
0.10
0.15
x
f_rep
f_rep_pareto
f_rep_normal