|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Study** | **Dependent Variable(s)** | **Data Set** | **Analysis** | **Results** |
| **Li & Henry**  **[LH93]** | Maintainability (measured by LOC changed) | Two commercial systems written in Classic-Ada | Linear Regression | Concludes that NOC, LCOM, RFC, WMC, DIT all predict maintenance efforts beyond what can be predicted for size alone. |
| **Harrison et al [HCN98b]** | Size (LOC), testability (time to create automated tests), changeability (time to implement modifications), understandability (Boehm measures) | Five small projects written in C++ | Correlation analysis | No results on DIT and NOC as no inheritance in data set. Negative correlation between WMC and the time to create automated tests for software. WMC was found to be negatively correlated with understandability. Both WMC and LCOM were negatively correlated with changeability. |
| **Elish & Rine**  **[ER03]** | Stability | Three medium-sized FLOSS projects written in Java | Correlation analysis | CBO, DIT, LCOM, RFC, and WMC (particularly CBO and RFC) were all found to be negatively correlated with stability. |
| **Bruntink et al**  **[BvD06]** | Testability | Five medium/large-sized projects written in Java | Correlation analysis | Using the lines of test code and the number of test cases in the unit tests as a proxy for testability, they find that only DIT and NOC are predictors of testability. |
| **Badri et al**  **[BBT11]** | Testability | Two medium-sized FLOSS projects written in Java | Correlation analysis and logistic regression | Found a correlation between LCOM and unit test coverage, validating the use of OO metrics as a predictor of the testability of classes |
| **Saberwal et al**  **[SSK13]** | Bad code smells (binary determination) | One medium-sized FLOSS project written in Java | Logistic regression | RFC, LCOM, NOC and WMC found to be useful predictors of bad code smells. |