

TABLE I
CONTRIBUTOR-LEVEL*, SECO-LEVEL†, AND/OR COMPANY-LEVEL‡
METRICS USED IN OUR STUDY.

RQs. Metrics	Description
RQ4 — Diversity	Gender (GD)†
	Technical (TD)*
	Corporate (CD) ‡
RQ5 — Productivity	Density (Den)*
	Time to first commit (TFC)*
	Retention (Rt)*
	Patch Acceptance Rate (PAR)*
RQ6 — Quality	Effort (Eft)*
	Bug-Inducing commits (SZZ)*,‡

Proportion of new contributors who self-declare as Male (m), Female (f) or Neutral (n) [38].

The number of different project teams (technology) new contributors are involved in [39].

The number of sponsoring companies that contribute commits to the SECO [2] [31].

Commit density, i.e., the median proportion of contributed churn over the submitted commits [40].

Number of days it takes for contributors to have their first commit accepted and merged into the codebase. [31]

The proportion of contributors, per category, still contributing to the codebase after N days [9] [31].

Probability of a contributor’s contribution (pull-request; PR) to be accepted (higher values are better) [31]:

$$PAR = \frac{\#Accepted_PRs}{\#Submitted_PRs} \quad (1)$$

A measure of the number of pull request versions (attempts) necessary before a contribution is accepted (lower values are better; minimum value of 1) [31]:

$$Eft = \frac{Median_ \#Attempts}{\#Actual_Commits} \quad (2)$$

Percentage of submitted commits that introduce bugs [41].