

Erratum to our CHI'15 paper “Gender and Tenure Diversity in GitHub Teams”

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Erratum

This erratum concerns our paper “Gender and Tenure Diversity in GitHub Teams”, published in proceedings of the 2015 ACM CHI Conference on Human Factors in Computing Systems, pages 3789–3798 (DOI <http://dx.doi.org/10.1145/2702123.2702549>). A typo in our R code splitting the input data for the productivity models into small, medium, and large teams caused it to default to different cutoff points than we report in the paper. The results from Table 2 in the original paper (reproduced here in Table 1, with the correct caption) were in fact obtained for the following team sizes: Small ≤ 30 ; $30 < \text{Medium} \leq 70$; $70 < \text{Large}$. The correct results for the originally reported team sizes (Small ≤ 10 ; $10 < \text{Medium} \leq 30$; $30 < \text{Large}$) are presented here in Table 2.

The qualitative conclusions derived from interpreting these results remain valid: gender and tenure diversity (for commit tenure, i.e., experience across all of GitHub) have very significant, positive effects on productivity, across different team size segments, when controlled for other effects.

We do note few small changes in the other effects (e.g., `commit_tenure_med` for medium sized teams, the interaction `commit_tenure_med:commit_tenure_div` for small teams), that do not affect our conclusions. We will discuss these differences in detail in an upcoming extended version of the paper.

	Small Teams		Medium Teams		Large Teams	
	Coeffs (Errors)	Sum Sq.	Coeffs (Errors)	Sum Sq.	Coeffs (Errors)	Sum Sq.
(Intercept)	-0.16281 (0.04003)***		0.05540 (0.02247)*		0.10205 (0.02667)***	
scale(log(total_commits))	0.82962 (0.00772)***	3127.67***	0.92775 (0.01961)***	487.19***	0.84236 (0.03348)***	122.99***
scale(log(proj_age + 0.5))	-0.08517 (0.00760)***	696.09***	-0.15728 (0.01785)***	94.50***	-0.13490 (0.02363)***	26.06***
scale(log(num_team))	0.34781 (0.00742)***	388.06***	0.13788 (0.01216)***	14.09***	0.24916 (0.03403)***	6.01***
scale(log(total_committers))	-0.35371 (0.01068)***	874.25***	-0.16661 (0.02288)***	37.08***	-0.07542 (0.04020)	4.68
scale(log(forks + 0.5))	-0.11534 (0.00915)***	33.53***	-0.16243 (0.01951)***	9.75***	-0.14167 (0.03411)***	1.78***
scale(log(num_comments + 0.5))	0.06840 (0.00626)***	24.18***	0.08385 (0.01588)***	3.85***	0.07763 (0.02582)**	1.47**
scale(proj_tenure_med)	0.05559 (0.00770)***	24.64***	0.00500 (0.01651)	0.30	0.02607 (0.02667)	0.67
scale(proj_tenure_div)	-0.04899 (0.01126)***	7.37***	-0.10813 (0.01940)***	6.49***	-0.09226 (0.02208)***	1.97***
scale(commit_tenure_med)	-0.02622 (0.00754)***	12.80***	0.05927 (0.02100)**	0.00**	0.14005 (0.03104)***	0.50***
scale(commit_tenure_div)	0.01395 (0.00750)	0.53	0.07525 (0.02195)***	5.17***	0.12343 (0.03316)***	2.18***
scale(gender_div)	0.03137 (0.00564)***	8.59***	0.03765 (0.01043)***	2.20***	0.03992 (0.01522)***	0.84***
scale(proj_tenure_med):scale(proj_tenure_div)	0.01554 (0.00933)	1.00	0.02166 (0.02226)	0.16	0.05869 (0.02828)*	0.72*
scale(commit_tenure_med):scale(commit_tenure_div)	0.00622 (0.00498)	0.43	0.00045 (0.00966)	0.00	0.01893 (0.01190)	0.29

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

Table 1: Productivity Models, `log(num_commits)` is the response. Team sizes: Small ≤ 30 ; $30 < \text{Medium} \leq 70$; $70 < \text{Large}$.

	Small Teams		Medium Teams		Large Teams	
	Coeffs (Errors)	Sum Sq.	Coeffs (Errors)	Sum Sq.	Coeffs (Errors)	Sum Sq.
(Intercept)	-0.20824 (0.04729)***		-0.05593 (0.02933)		0.08543 (0.02040)***	
scale(log(total_commits))	0.75640 (0.01045)***	1425.05***	0.89139 (0.01052)***	1809.11***	0.89062 (0.01814)***	464.71***
scale(log(proj_age + 0.5))	-0.09812 (0.01088)***	517.88***	-0.08655 (0.01023)***	288.39***	-0.12995 (0.01388)***	77.89***
scale(log(num_team))	0.20511 (0.00848)***	120.39***	0.18422 (0.00769)***	63.89***	0.30912 (0.01739)***	36.99***
scale(log(total_committers))	-0.37025 (0.01468)***	622.05***	-0.27676 (0.01285)***	309.93***	-0.15526 (0.02261)***	32.08***
scale(log(forks + 0.5))	-0.08548 (0.01303)***	11.78***	-0.11467 (0.01107)***	20.73***	-0.18103 (0.01763)***	10.27***
scale(log(num_comments + 0.5))	0.05902 (0.00830)***	10.99***	0.07032 (0.00843)***	11.70***	0.09477 (0.01354)***	6.02***
scale(proj_tenure_med)	0.04263 (0.01167)***	6.11***	0.04222 (0.01042)***	14.26***	0.01234 (0.01318)	0.88
scale(proj_tenure_div)	-0.04529 (0.01478)**	4.39**	-0.10800 (0.01532)***	14.40***	-0.08256 (0.01533)***	4.19***
scale(commit_tenure_med)	-0.04039 (0.01058)***	11.19***	-0.00065 (0.01129)	3.79	0.05196 (0.01609)**	0.00**
scale(commit_tenure_div)	0.00147 (0.01059)	0.77	0.03840 (0.01132)***	6.09***	0.06340 (0.01658)***	4.13***
scale(gender_div)	0.04459 (0.00864)***	9.30***	0.03223 (0.00690)***	5.12***	0.02503 (0.00793)**	1.27**
scale(proj_tenure_med):scale(proj_tenure_div)	-0.00420 (0.01293)	0.00	0.01095 (0.01449)	0.13	0.01741 (0.01584)	0.17
scale(commit_tenure_med):scale(commit_tenure_div)	0.01575 (0.00793)*	1.35*	-0.00118 (0.00655)	0.01	0.00222 (0.00691)	0.01

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

Table 2: Productivity Models, `log(num_commits)` is the response. Team sizes: Small ≤ 10 ; $10 < \text{Medium} \leq 30$; $30 < \text{Large}$.