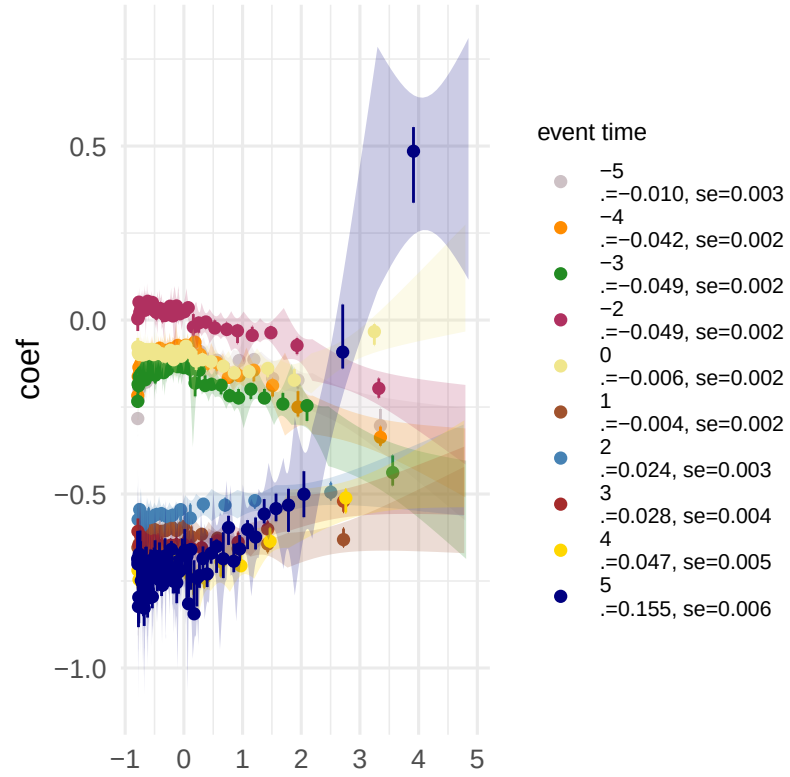
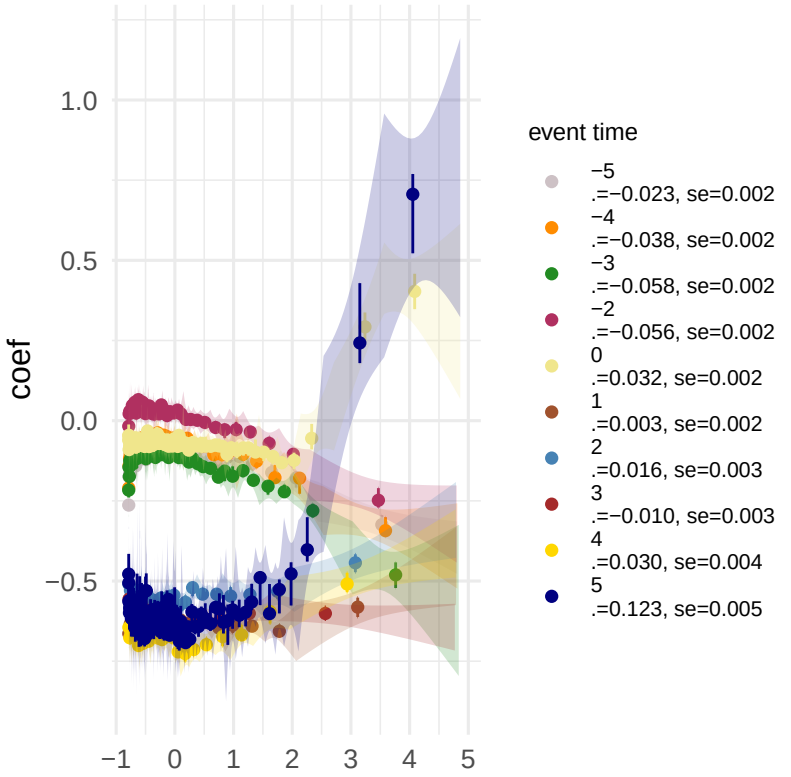
Binscatter of Event−study Coefficients
Outcome: pull_request_opened (rolling1, top15)
talent_investment −> feedback
response_time −> mean_days_to_respond
Rank: 2, Importance: 0.141



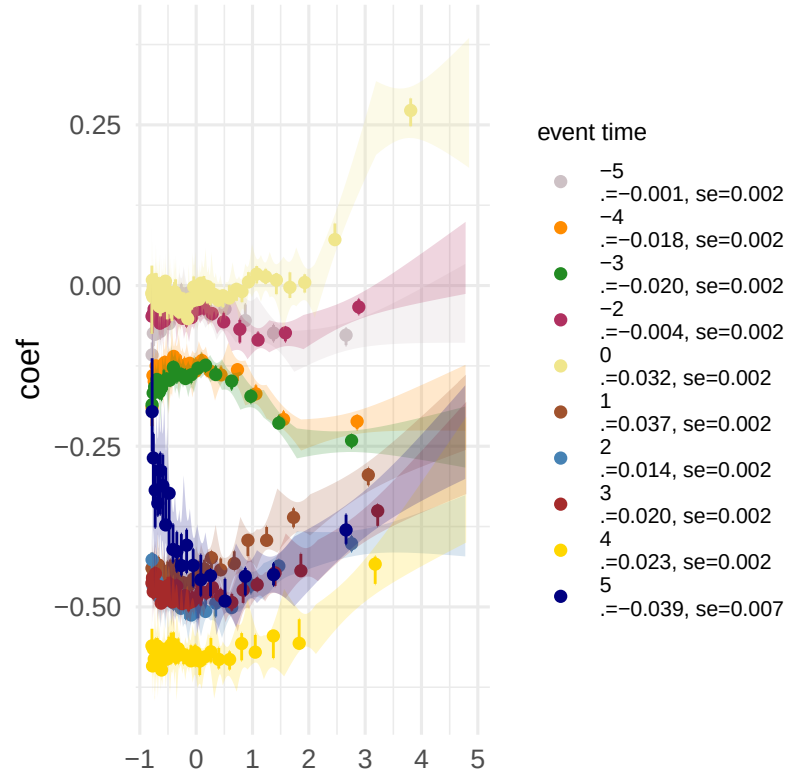
_days_to_respond_mean (standardized, |z| <= 5)

Binscatter of Event−study Coefficients
Outcome: pull_request_merged (rolling1, t
talent_investment −> feedback
response_time −> mean_days_to_respond
Rank: 1, Importance: 0.17

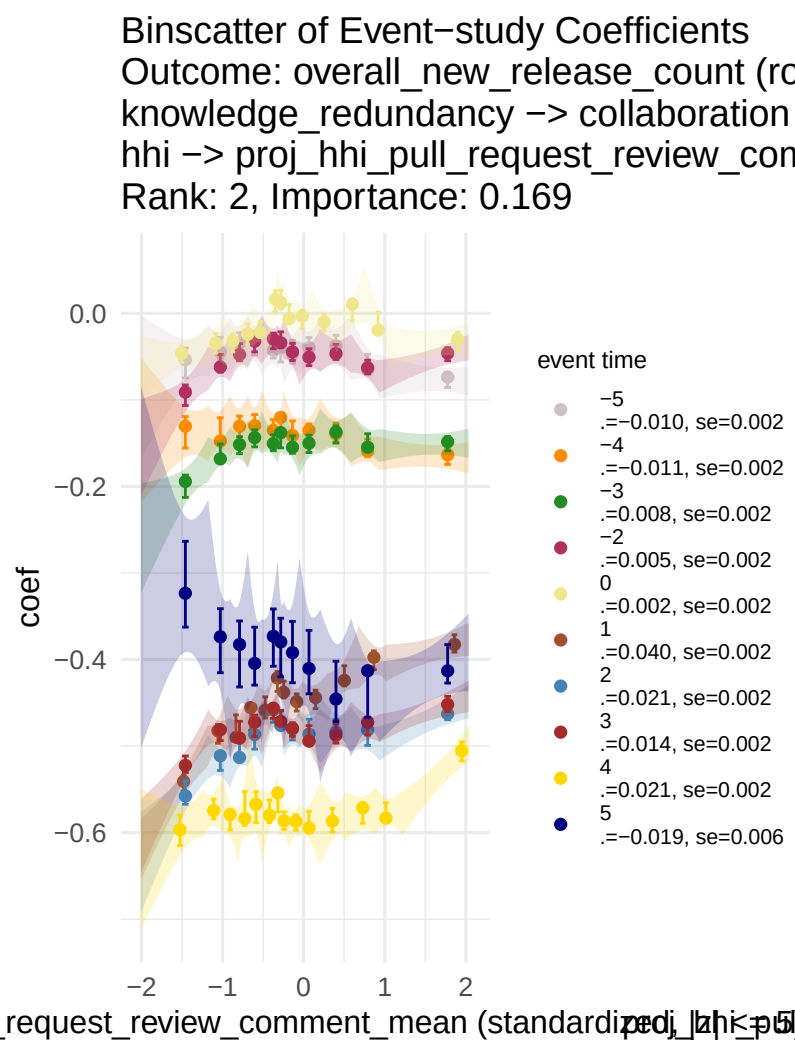


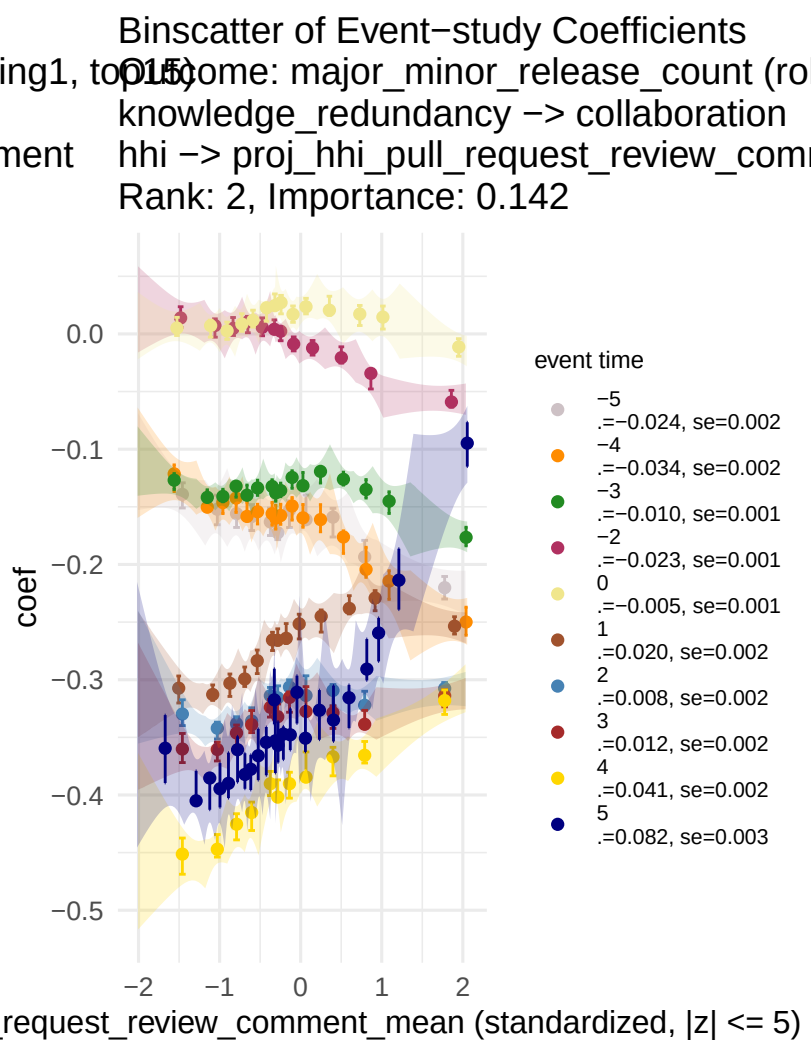
mean_days_to_respond_mean (standardized, |z| <= 5)

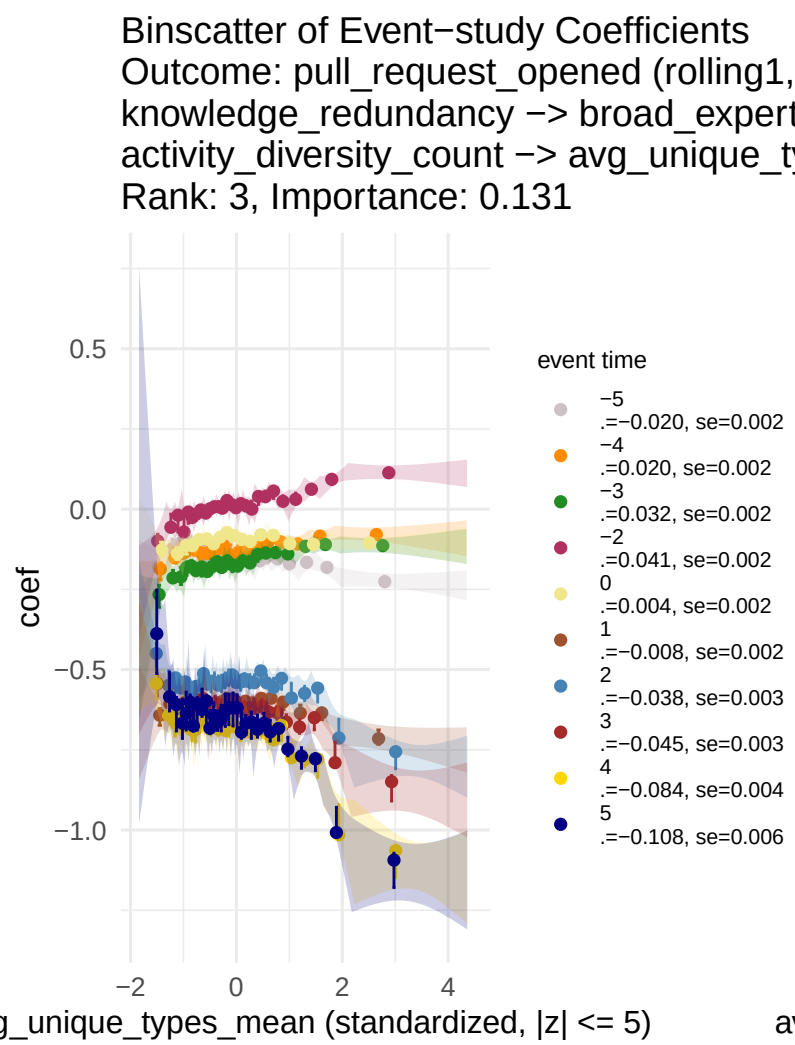
Binscatter of Event−study Coefficients
Outcome: overall_new_release_count (rolling1, top15)
talent_investment −> feedback
response_time −> mean_days_to_respond
Rank: 1, Importance: 0.177

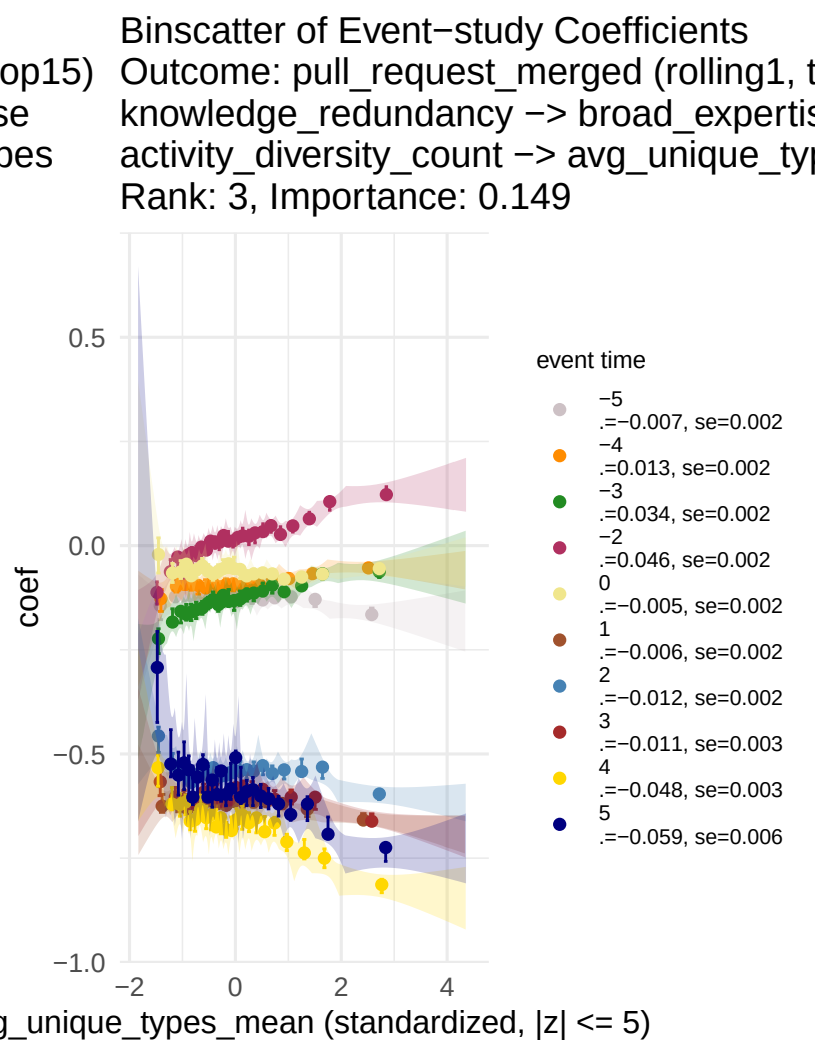


_days_to_respond_mean (standardized, |z| <= 5)

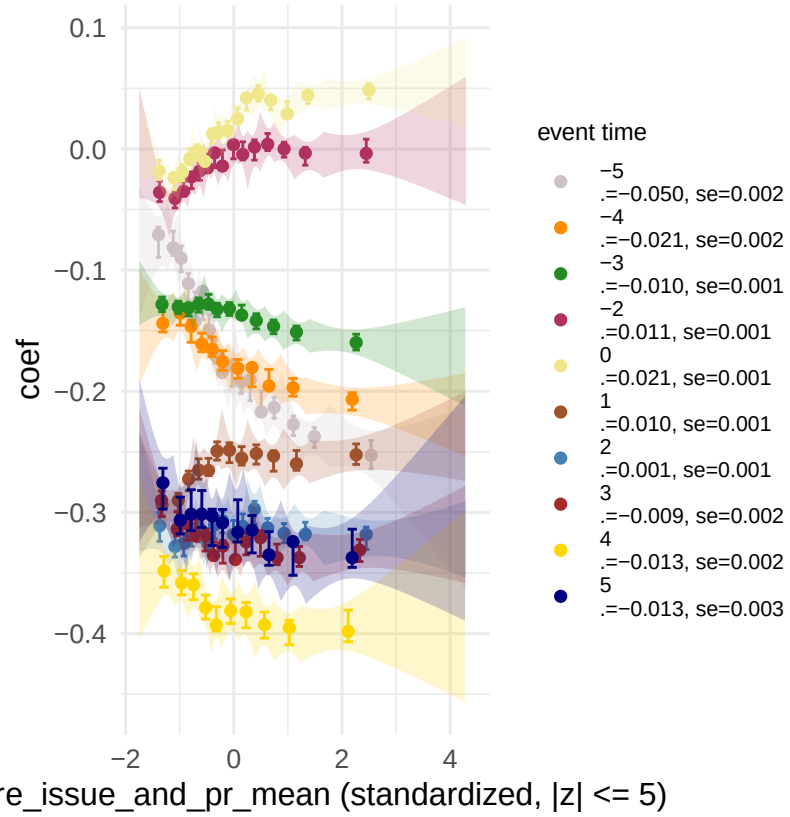

Binscatter of Event−study Coefficients
Outcome: overall_new_release_count (rolling1, to 0.5)
knowledge_redundancy −> collaboration
hhi −> proj_hhi_pull_request_review_comment
Rank: 2, Importance: 0.169
coef
0.0
−0.2
−0.4
−0.6
−2
−1
0
1
2
_request_review_comment_mean (standardized, |z| <= 5)
event time
−5
.=−0.010, se=0.002
−4
.=−0.011, se=0.002
−3
.=0.008, se=0.002
−2
.=0.005, se=0.002
0
.=0.002, se=0.002
1
.=0.040, se=0.002
2
.=0.021, se=0.002
3
.=0.014, se=0.002
4
.=0.021, se=0.002
5
.=−0.019, se=0.006


Binscatter of Event−study Coefficients
Outcome: major_minor_release_count (rol
knowledge_redundancy −> collaboration
hhi −> proj_hhi_pull_request_review_comm
Rank: 2, Importance: 0.142
coef
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
−2
−1
0
1
2
_request_review_comment_mean (standardized, |z| <= 5)
event time
−5
.=−0.024, se=0.002
−4
.=−0.034, se=0.002
−3
.=−0.010, se=0.001
−2
.=−0.023, se=0.001
0
.=−0.005, se=0.001
1
.=0.020, se=0.002
2
.=0.008, se=0.002
3
.=0.012, se=0.002
4
.=0.041, se=0.002
5
.=0.082, se=0.003

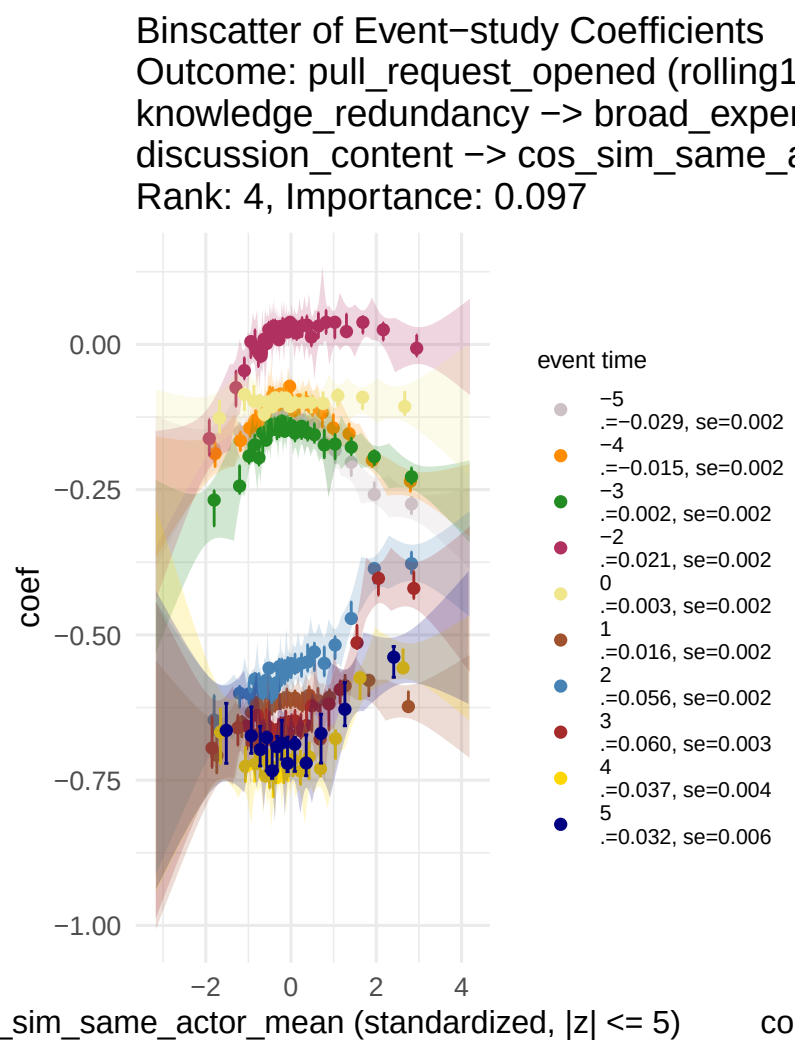

Binscatter of Event−study Coefficients
Outcome: pull_request_opened (rolling1, top15)
knowledge_redundancy −> broad_expertise
activity_diversity_count −> avg_unique_types
Rank: 3, Importance: 0.131
coef
0.5
0.0
−0.5
−1.0
−2
0
2
4
event time
−5
.=−0.020, se=0.002
−4
.=0.020, se=0.002
−3
.=0.032, se=0.002
−2
.=0.041, se=0.002
0
.=0.004, se=0.002
1
.=−0.008, se=0.002
2
.=−0.038, se=0.003
3
.=−0.045, se=0.003
4
.=−0.084, se=0.004
5
.=−0.108, se=0.006
g_unique_types_mean (standardized, |z| <= 5)

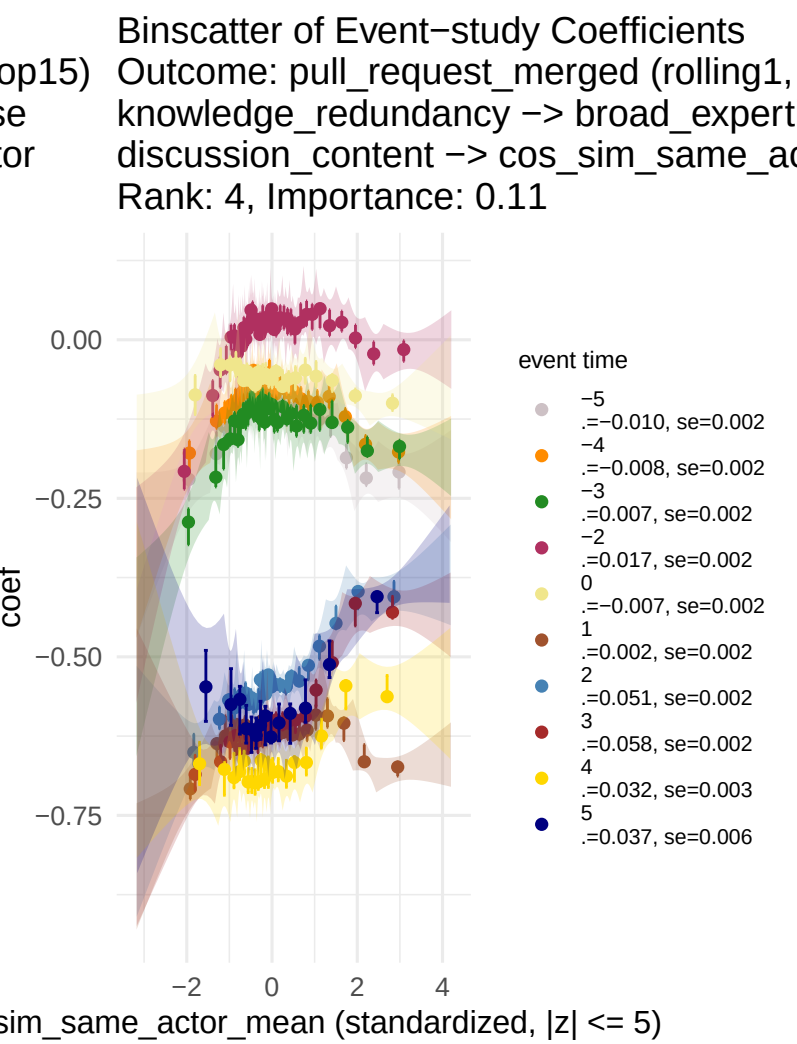

Binscatter of Event−study Coefficients
Outcome: pull_request_merged (rolling1, t
knowledge_redundancy −> broad_expertis
activity_diversity_count −> avg_unique_typ
Rank: 3, Importance: 0.149
coef
0.5
0.0
−0.5
−1.0
−2
0
2
4
event time
−5
.=−0.007, se=0.002
−4
.=0.013, se=0.002
−3
.=0.034, se=0.002
−2
.=0.046, se=0.002
0
.=−0.005, se=0.002
1
.=−0.006, se=0.002
2
.=−0.012, se=0.002
3
.=−0.011, se=0.003
4
.=−0.048, se=0.003
5
.=−0.059, se=0.006
avg_unique_types_mean (standardized, |z| <= 5)

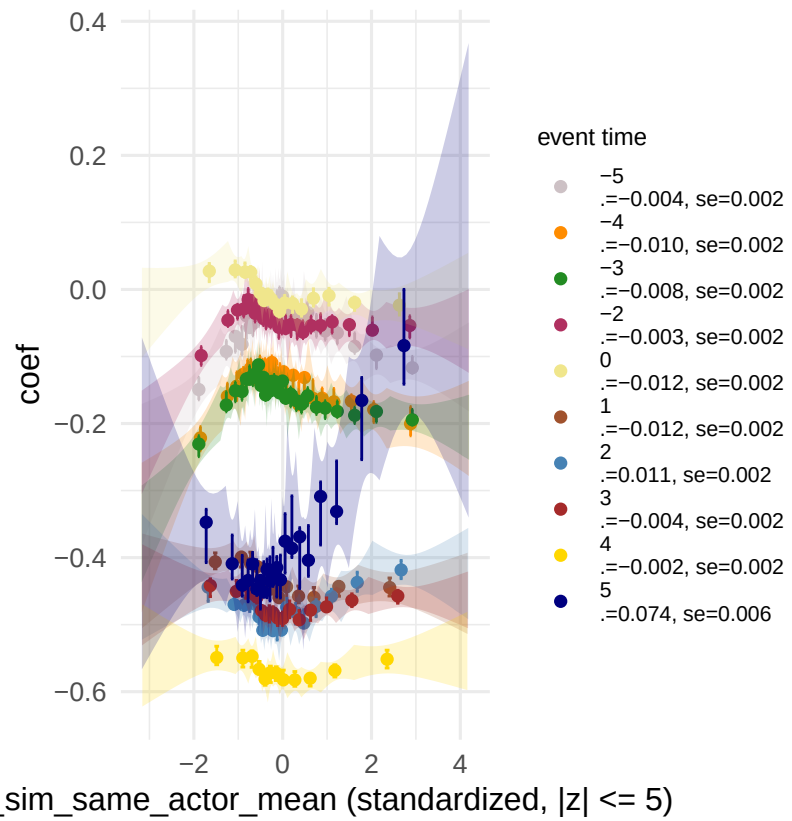
Binscatter of Event−study Coefficients
Outcome: major_minor_release_count (rolling1, top15)
knowledge_redundancy −> broad_expertise
issue_pr_share −> share_issue_and_pr
Rank: 3, Importance: 0.104



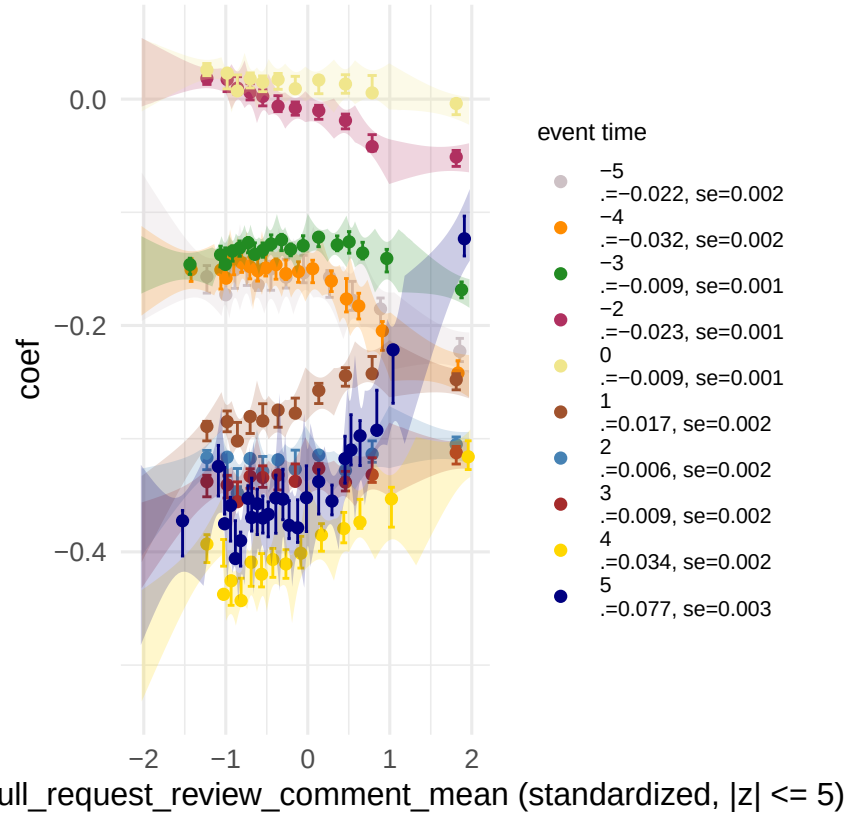
re_issue_and_pr_mean (standardized, |z| <= 5)


Binscatter of Event−study Coefficients
Outcome: pull_request_opened (rolling1, top15)
knowledge_redundancy −> broad_expertise
discussion_content −> cos_sim_same_actor
Rank: 4, Importance: 0.097
coef
0.00
−0.25
−0.50
−0.75
−1.00
−2
0
2
4
_sim_same_actor_mean (standardized, |z| <= 5)
event time
−5
.=−0.029, se=0.002
−4
.=−0.015, se=0.002
−3
.=0.002, se=0.002
−2
.=0.021, se=0.002
0
.=0.003, se=0.002
1
.=0.016, se=0.002
2
.=0.056, se=0.002
3
.=0.060, se=0.003
4
.=0.037, se=0.004
5
.=0.032, se=0.006

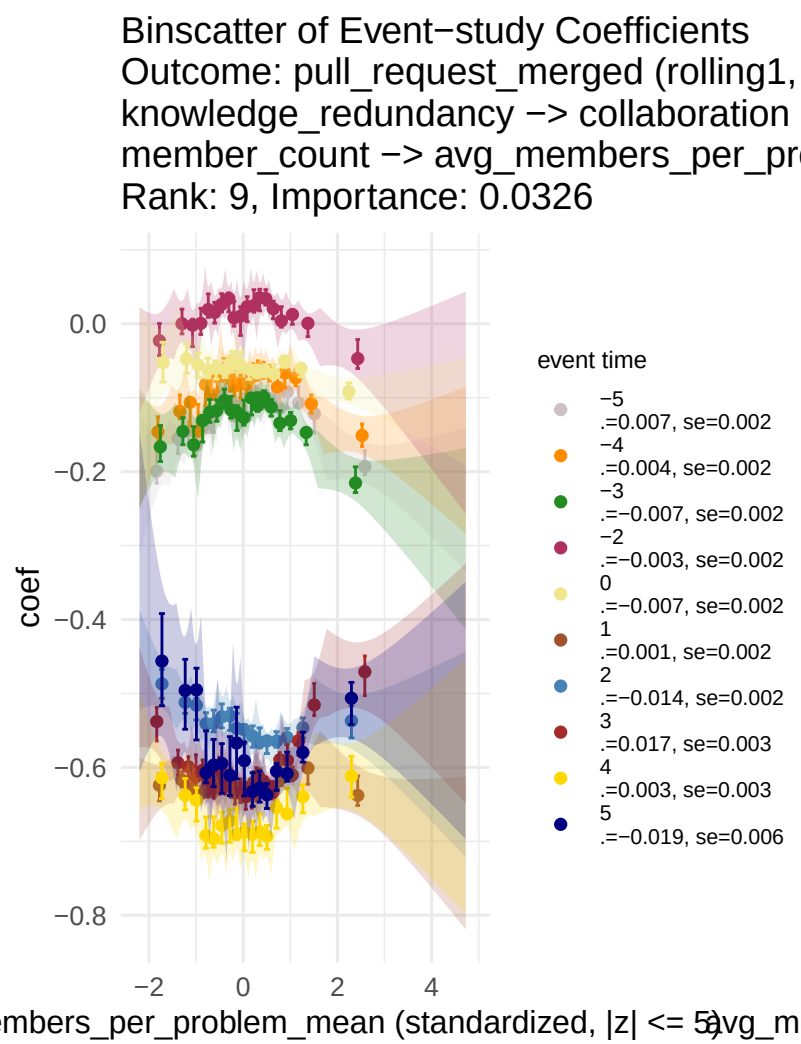

Binscatter of Event−study Coefficients
Outcome: pull_request_merged (rolling1,
knowledge_redundancy −> broad_expert
discussion_content −> cos_sim_same_ac
Rank: 4, Importance: 0.11
coef
0.00
−0.25
−0.50
−0.75
−2
0
2
4
cos_sim_same_actor_mean (standardized, |z| <= 5)
event time
−5
.=−0.010, se=0.002
−4
.=−0.008, se=0.002
−3
.=0.007, se=0.002
−2
.=0.017, se=0.002
0
.=−0.007, se=0.002
1
.=0.002, se=0.002
2
.=0.051, se=0.002
3
.=0.058, se=0.002
4
.=0.032, se=0.003
5
.=0.037, se=0.006

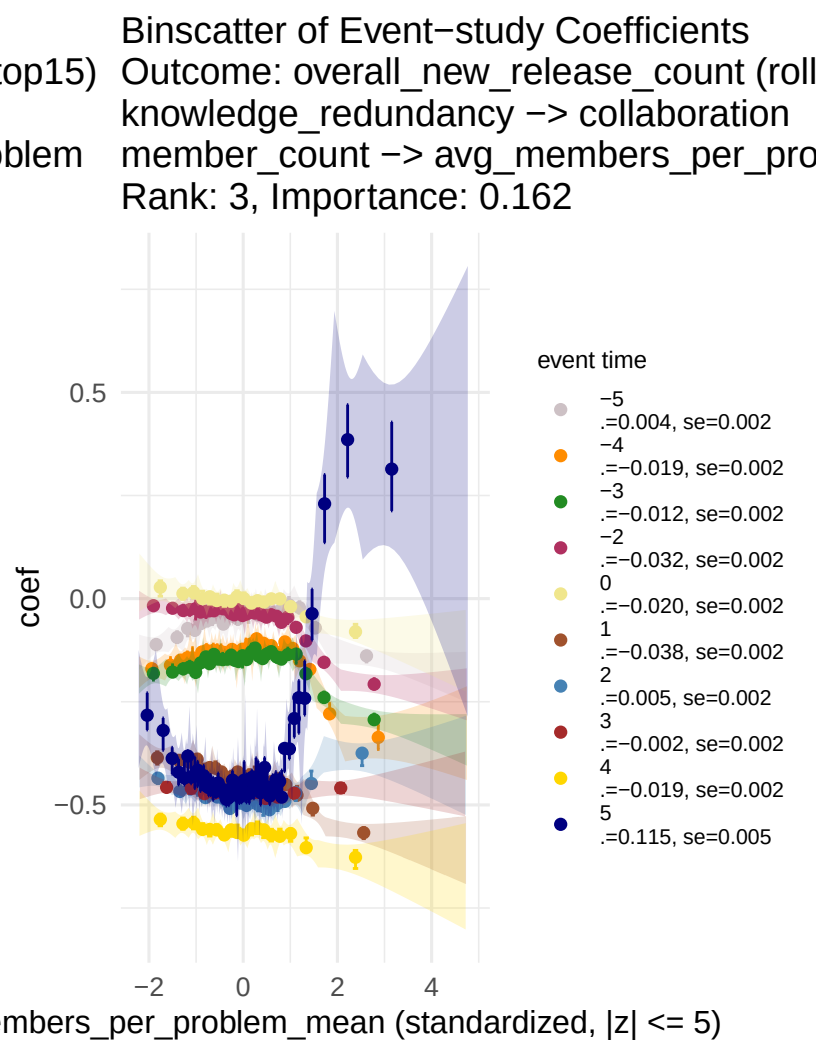

Binscatter of Event−study Coefficients
Outcome: overall_new_release_count (rolling1, top15)
knowledge_redundancy −> broad_expertise
discussion_content −> cos_sim_same_actor
Rank: 4, Importance: 0.144
coef
0.4
0.2
0.0
−0.2
−0.4
−0.6
−2
0
2
4
_sim_same_actor_mean (standardized, |z| <= 5)
event time
−5
.=−0.004, se=0.002
−4
.=−0.010, se=0.002
−3
.=−0.008, se=0.002
−2
.=−0.003, se=0.002
0
.=−0.012, se=0.002
1
.=−0.012, se=0.002
2
.=0.011, se=0.002
3
.=−0.004, se=0.002
4
.=−0.002, se=0.002
5
.=0.074, se=0.006

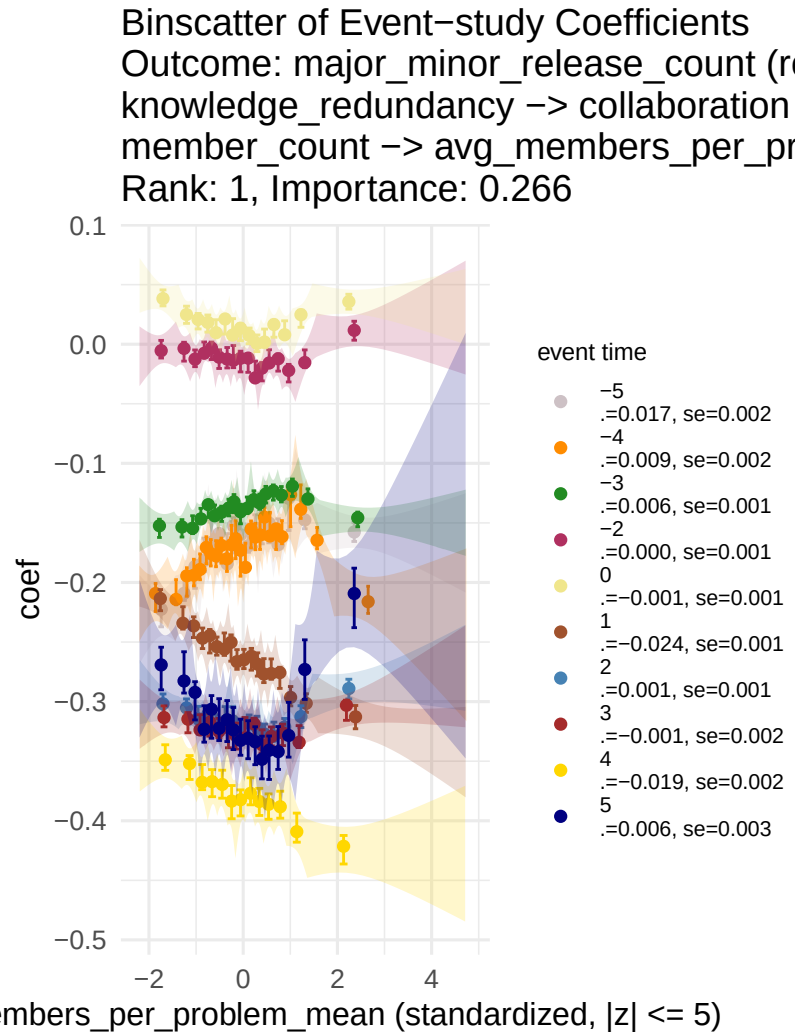
Binscatter of Event−study Coefficients
Outcome: major_minor_release_count (rolling1, top15)
knowledge_redundancy −> collaboration
problem_hhi −> proj_prob_hhi_pull_request_review_comment
Rank: 4, Importance: 0.0868

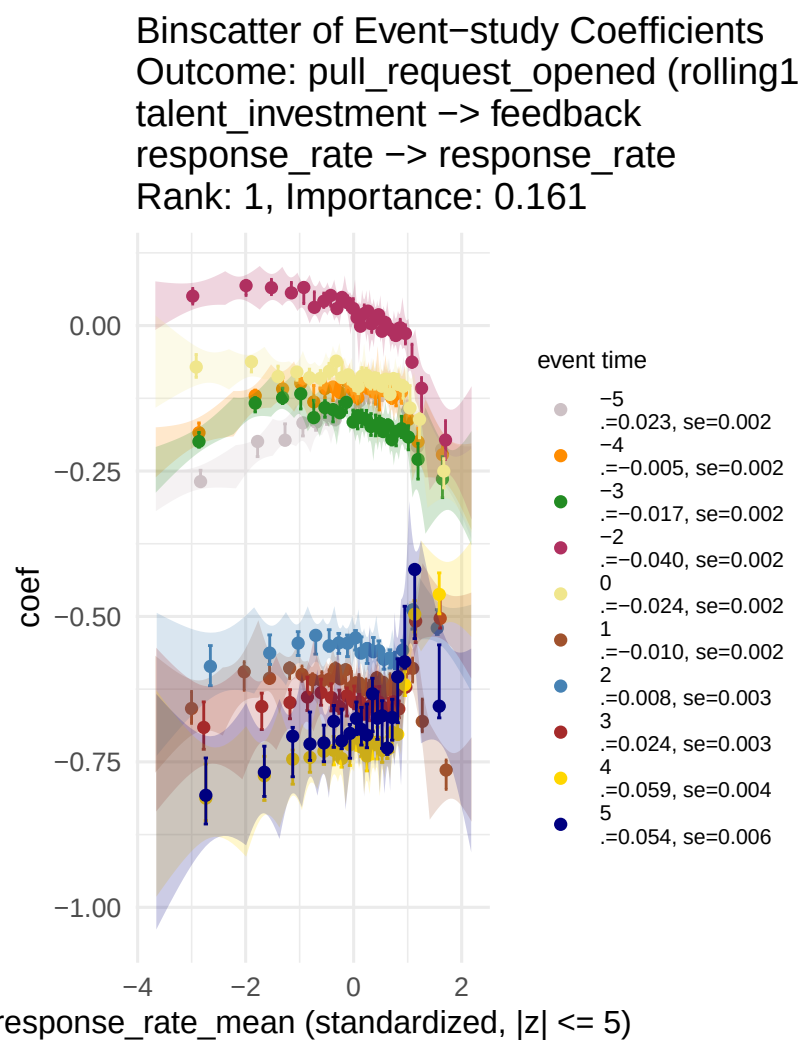


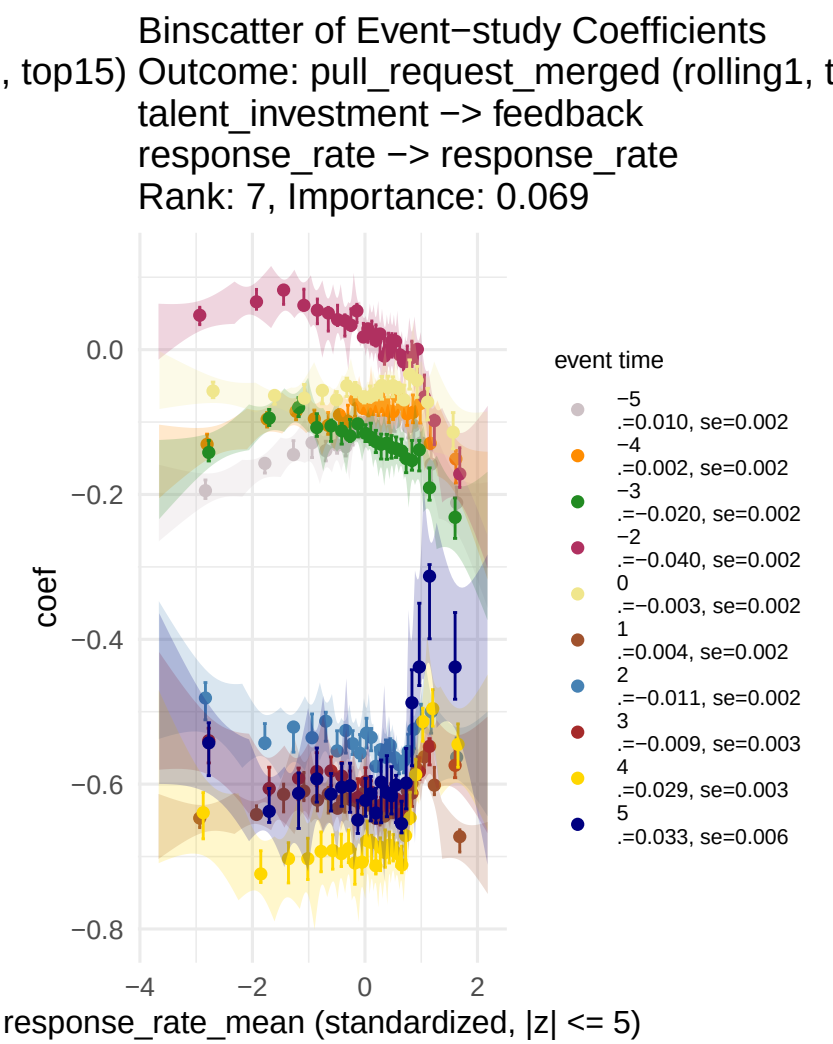
ull_request_review_comment_mean (standardized, |z| <= 5)

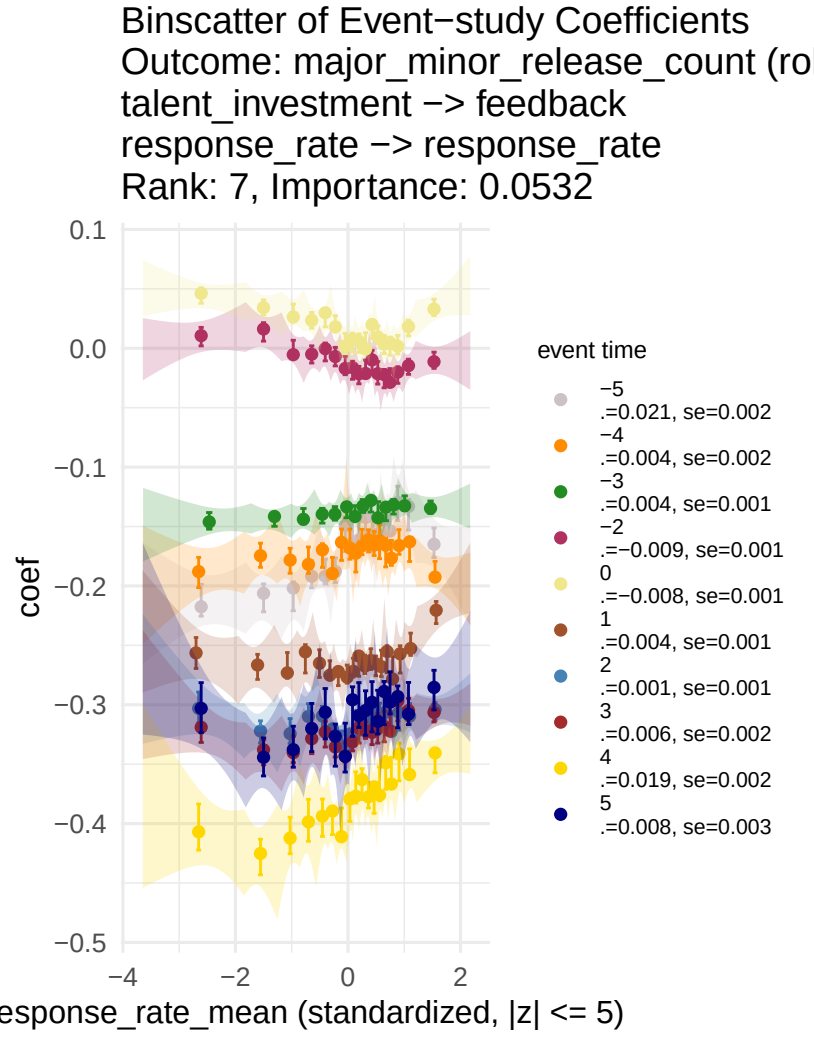

Binscatter of Event−study Coefficients
Outcome: pull_request_merged (rolling1, top15)
knowledge_redundancy −> collaboration
member_count −> avg_members_per_problem
Rank: 9, Importance: 0.0326
coef
0.0
−0.2
−0.4
−0.6
−0.8
−2
0
2
4
event time
−5
.=0.007, se=0.002
−4
.=0.004, se=0.002
−3
.=−0.007, se=0.002
−2
.=−0.003, se=0.002
0
.=−0.007, se=0.002
1
.=0.001, se=0.002
2
.=−0.014, se=0.002
3
.=0.017, se=0.003
4
.=0.003, se=0.003
5
.=−0.019, se=0.006
embers_per_problem_mean (standardized, |z| <= 5)

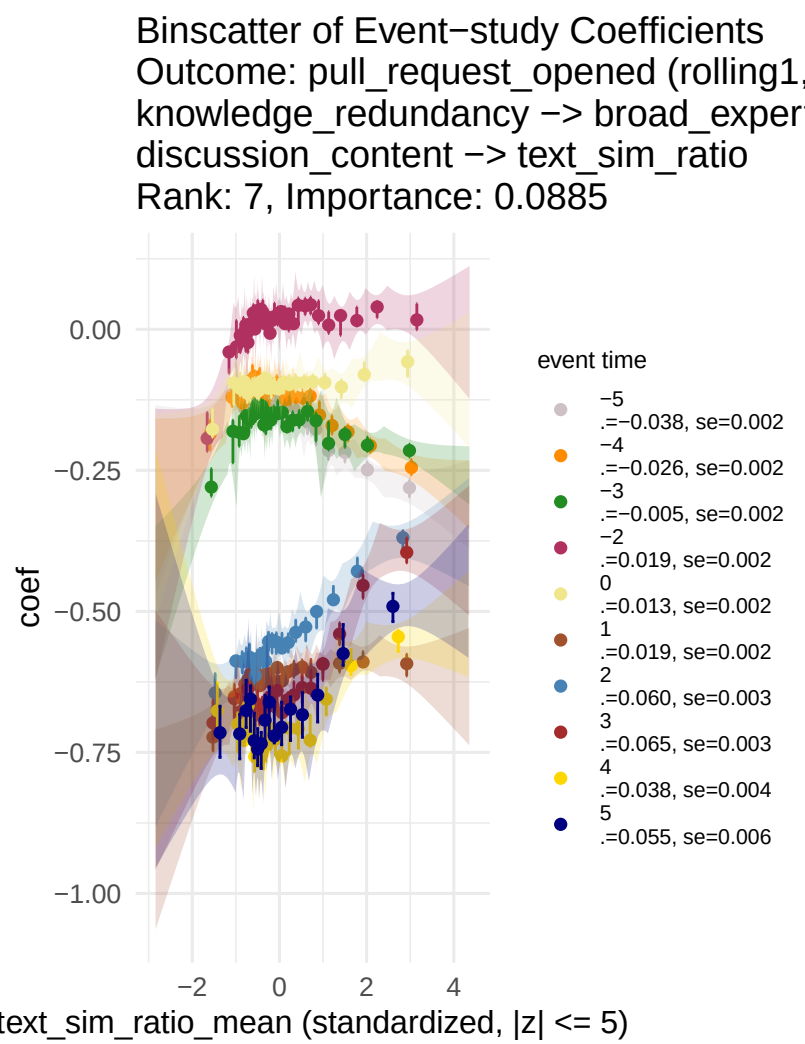

Binscatter of Event−study Coefficients
Outcome: overall_new_release_count (roll
knowledge_redundancy −> collaboration
member_count −> avg_members_per_pro
Rank: 3, Importance: 0.162
coef
0.5
0.0
−0.5
−2
0
2
4
event time
−5
.=0.004, se=0.002
−4
.=−0.019, se=0.002
−3
.=−0.012, se=0.002
−2
.=−0.032, se=0.002
0
.=−0.020, se=0.002
1
.=−0.038, se=0.002
2
.=0.005, se=0.002
3
.=−0.002, se=0.002
4
.=−0.019, se=0.002
5
.=0.115, se=0.005
avg_members_per_problem_mean (standardized, |z| <= 5)

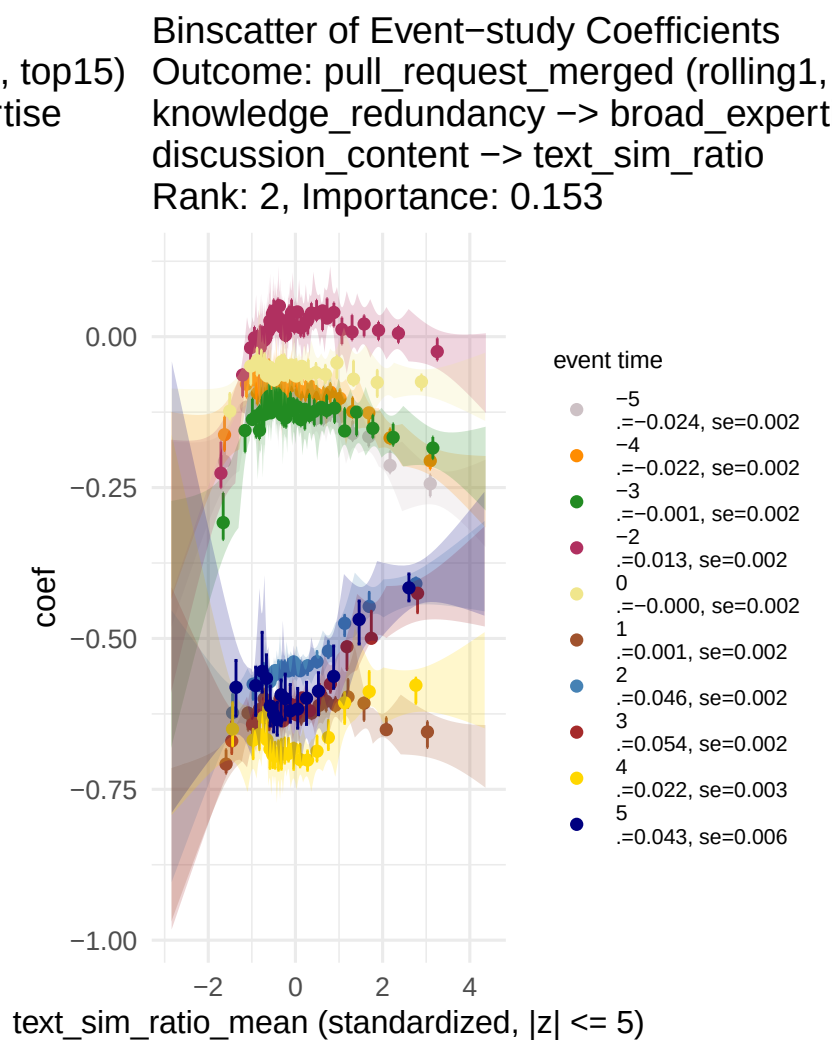

Binscatter of Event−study Coefficients
Outcome: major_minor_release_count (rolling1, top15)
knowledge_redundancy −> collaboration
member_count −> avg_members_per_problem
Rank: 1, Importance: 0.266
coef
0.1
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
−2
0
2
4
event time
−5
.=0.017, se=0.002
−4
.=0.009, se=0.002
−3
.=0.006, se=0.001
−2
.=0.000, se=0.001
0
.=−0.001, se=0.001
1
.=−0.024, se=0.001
2
.=0.001, se=0.001
3
.=−0.001, se=0.002
4
.=−0.019, se=0.002
5
.=0.006, se=0.003
embers_per_problem_mean (standardized, |z| <= 5)

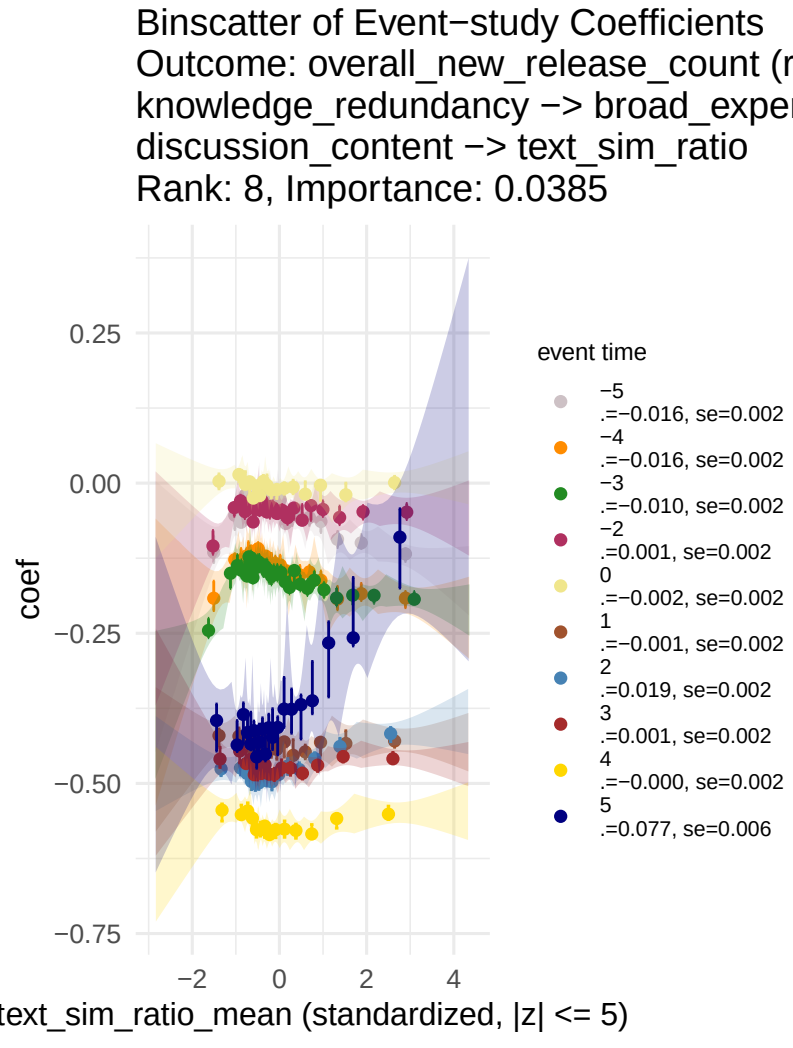

Binscatter of Event−study Coefficients
Outcome: pull_request_opened (rolling1, top15)
talent_investment −> feedback
response_rate −> response_rate
Rank: 1, Importance: 0.161
coef
response_rate_mean (standardized, |z| <= 5)
event time
−5 .=0.023, se=0.002
−4 .=−0.005, se=0.002
−3 .=−0.017, se=0.002
−2 .=−0.040, se=0.002
0 .=−0.024, se=0.002
1 .=−0.010, se=0.002
2 .=0.008, se=0.003
3 .=0.024, se=0.003
4 .=0.059, se=0.004
5 .=0.054, se=0.006

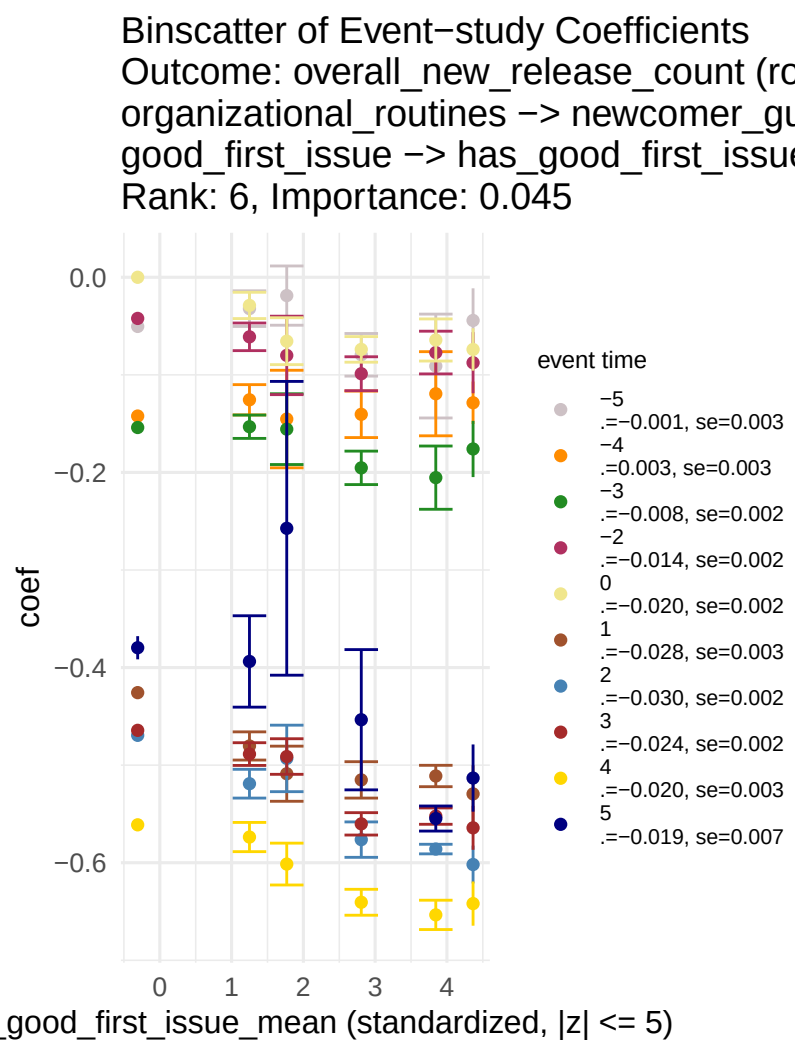

Binscatter of Event−study Coefficients
Outcome: pull_request_merged (rolling1, t
talent_investment −> feedback
response_rate −> response_rate
Rank: 7, Importance: 0.069
coef
response_rate_mean (standardized, |z| <= 5)
event time
−5 .=0.010, se=0.002
−4 .=0.002, se=0.002
−3 .=−0.020, se=0.002
−2 .=−0.040, se=0.002
0 .=−0.003, se=0.002
1 .=0.004, se=0.002
2 .=−0.011, se=0.002
3 .=−0.009, se=0.003
4 .=0.029, se=0.003
5 .=0.033, se=0.006

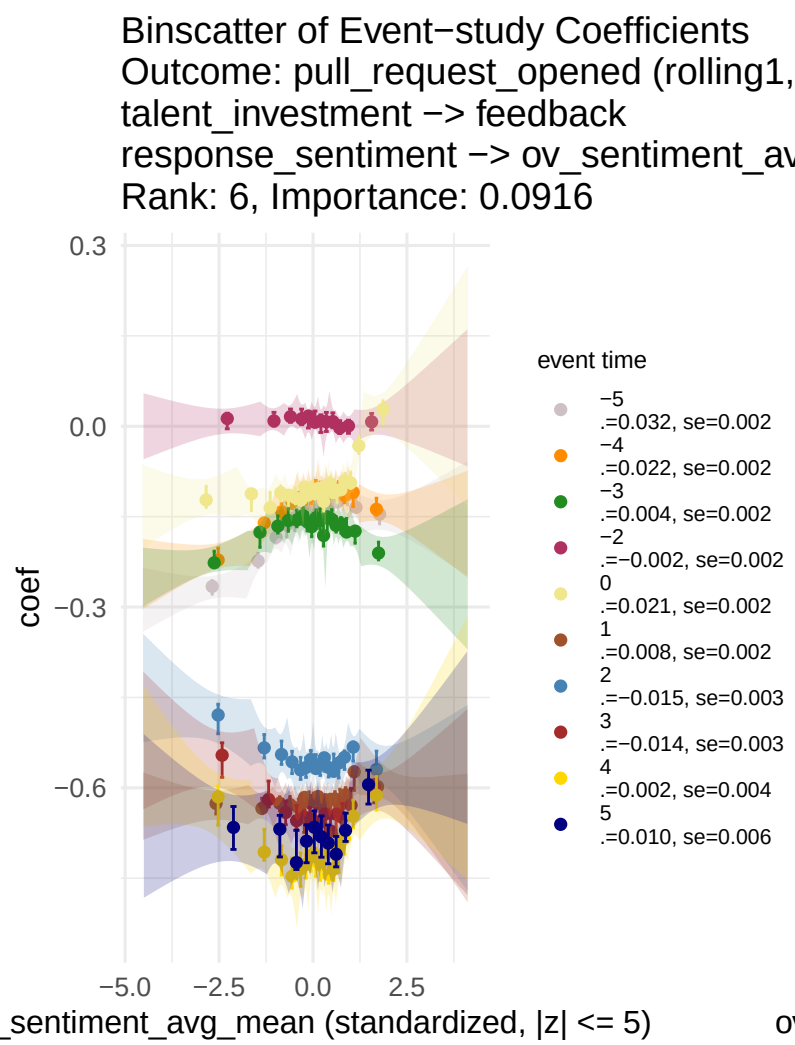

Binscatter of Event−study Coefficients
Outcome: major_minor_release_count (rolling1, top15)
talent_investment −> feedback
response_rate −> response_rate
Rank: 7, Importance: 0.0532
coef
response_rate_mean (standardized, |z| <= 5)
event time
−5 .=0.021, se=0.002
−4 .=0.004, se=0.002
−3 .=0.004, se=0.001
−2 .=−0.009, se=0.001
0 .=−0.008, se=0.001
1 .=0.004, se=0.001
2 .=0.001, se=0.001
3 .=0.006, se=0.002
4 .=0.019, se=0.002
5 .=0.008, se=0.003

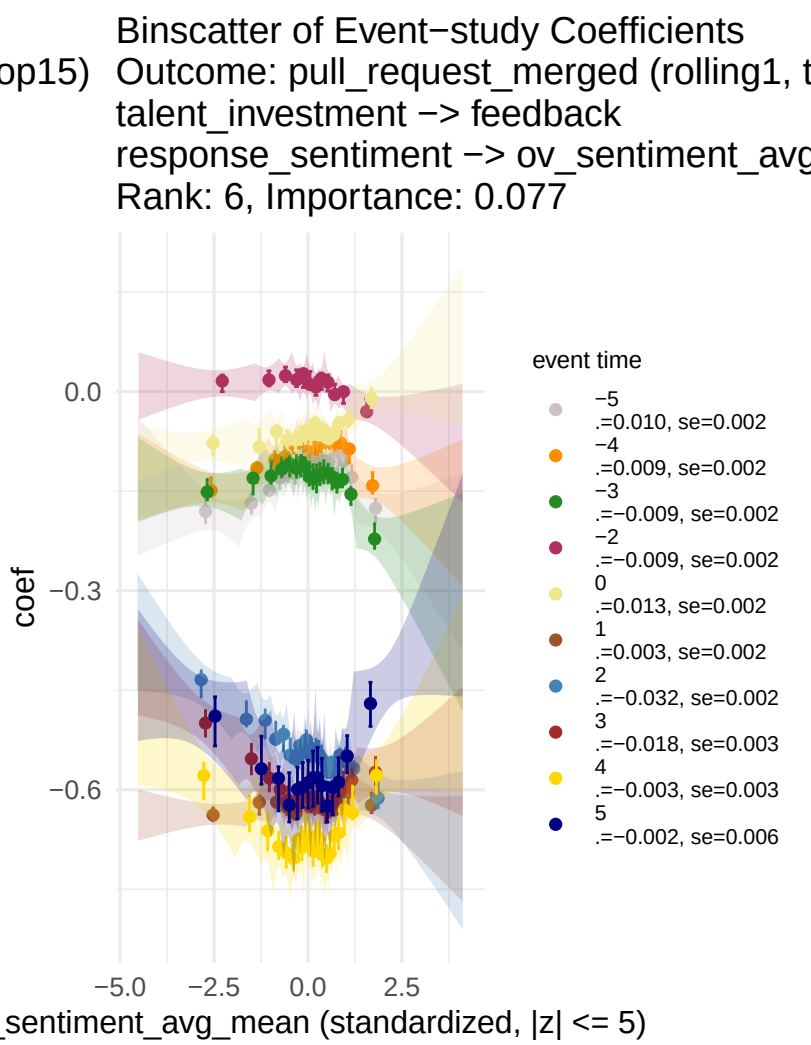

Binscatter of Event−study Coefficients
Outcome: pull_request_opened (rolling1, top15)
knowledge_redundancy −> broad_expertise
discussion_content −> text_sim_ratio
Rank: 7, Importance: 0.0885
coef
0.00
−0.25
−0.50
−0.75
−1.00
−2
0
2
4
text_sim_ratio_mean (standardized, |z| <= 5)
event time
−5 .=−0.038, se=0.002
−4 .=−0.026, se=0.002
−3 .=−0.005, se=0.002
−2 .=0.019, se=0.002
0 .=0.013, se=0.002
1 .=0.019, se=0.002
2 .=0.060, se=0.003
3 .=0.065, se=0.003
4 .=0.038, se=0.004
5 .=0.055, se=0.006

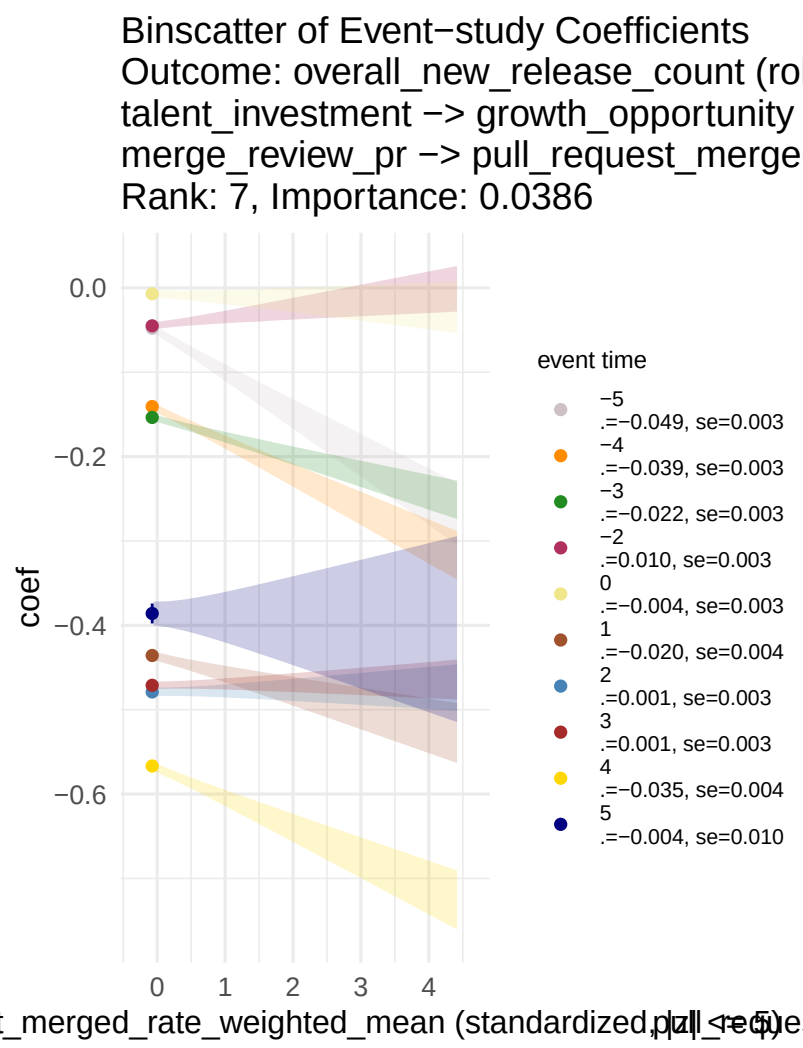

Binscatter of Event−study Coefficients
Outcome: pull_request_merged (rolling1,
knowledge_redundancy −> broad_expert
discussion_content −> text_sim_ratio
Rank: 2, Importance: 0.153
coef
0.00
−0.25
−0.50
−0.75
−1.00
−2
0
2
4
text_sim_ratio_mean (standardized, |z| <= 5)
event time
−5 .=−0.024, se=0.002
−4 .=−0.022, se=0.002
−3 .=−0.001, se=0.002
−2 .=0.013, se=0.002
0 .=−0.000, se=0.002
1 .=0.001, se=0.002
2 .=0.046, se=0.002
3 .=0.054, se=0.002
4 .=0.022, se=0.003
5 .=0.043, se=0.006

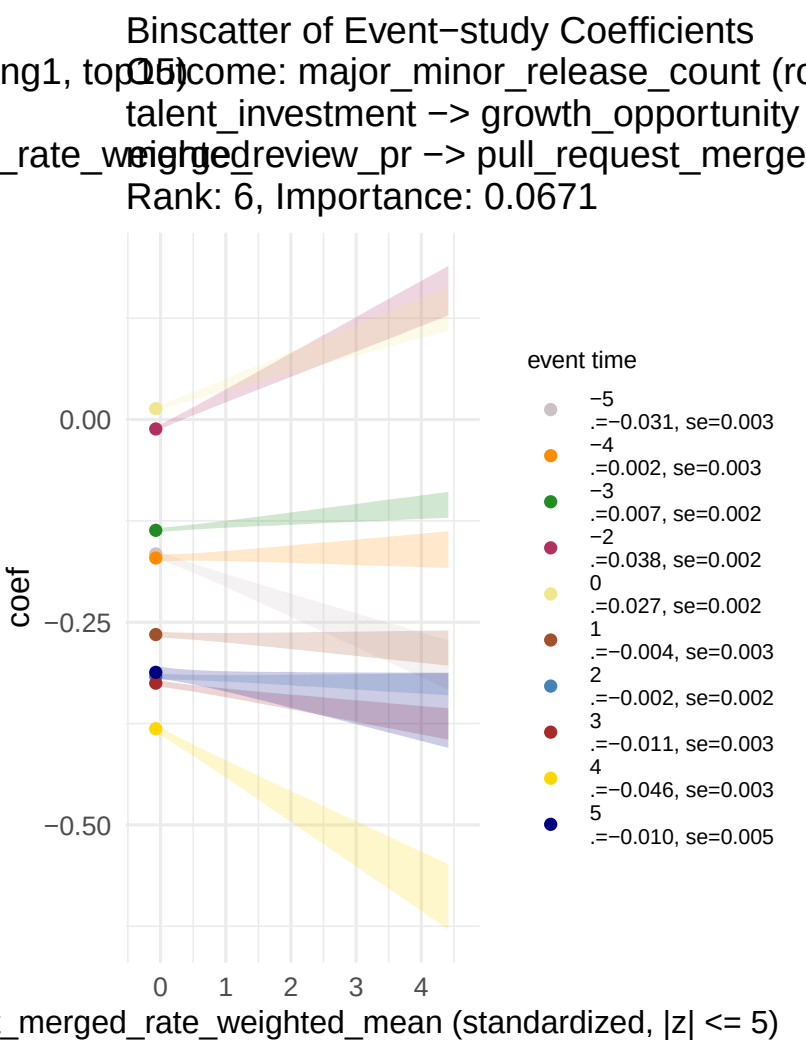

Binscatter of Event−study Coefficients
Outcome: overall_new_release_count (rolling1, top15)
knowledge_redundancy −> broad_expertise
discussion_content −> text_sim_ratio
Rank: 8, Importance: 0.0385
coef
0.25
0.00
−0.25
−0.50
−0.75
−2
0
2
4
text_sim_ratio_mean (standardized, |z| <= 5)
event time
−5 .=−0.016, se=0.002
−4 .=−0.016, se=0.002
−3 .=−0.010, se=0.002
−2 .=0.001, se=0.002
0 .=−0.002, se=0.002
1 .=−0.001, se=0.002
2 .=0.019, se=0.002
3 .=0.001, se=0.002
4 .=−0.000, se=0.002
5 .=0.077, se=0.006

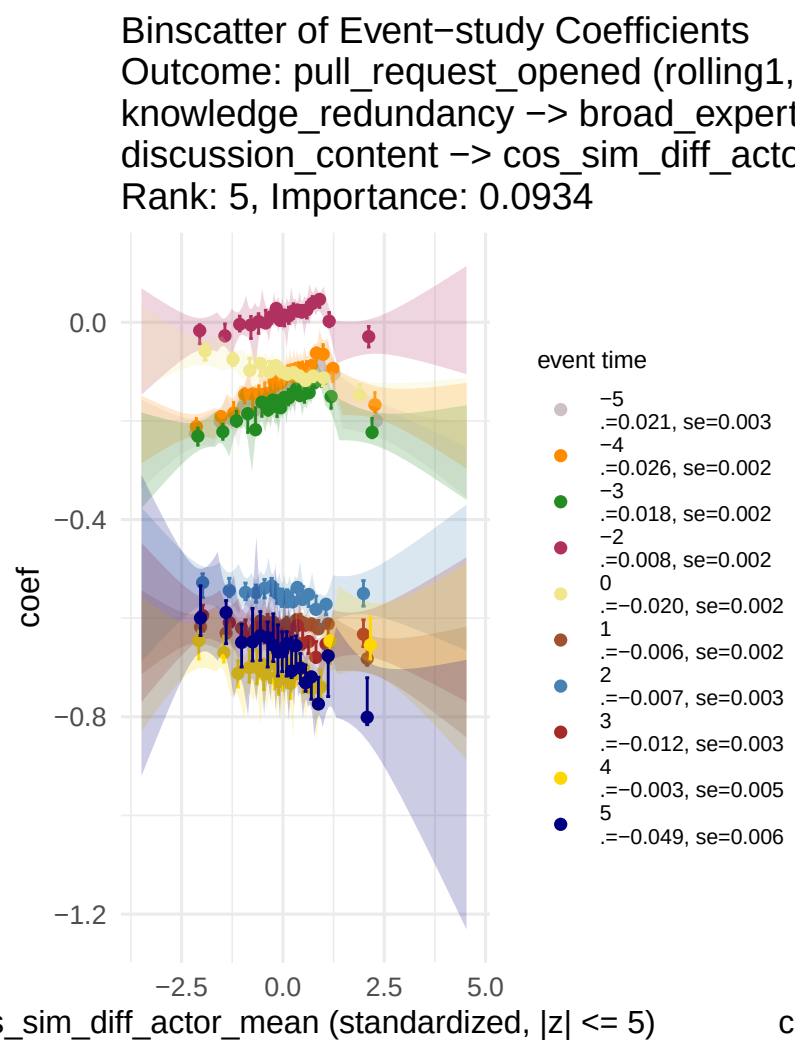

Binscatter of Event−study Coefficients
Outcome: overall_new_release_count (rolling1, top15)
organizational_routines −> newcomer_guidelines
good_first_issue −> has_good_first_issue
Rank: 6, Importance: 0.045
coef
0.0
−0.2
−0.4
−0.6
0
1
2
3
4
_good_first_issue_mean (standardized, |z| <= 5)
event time
−5
.=−0.001, se=0.003
−4
.=0.003, se=0.003
−3
.=−0.008, se=0.002
−2
.=−0.014, se=0.002
0
.=−0.020, se=0.002
1
.=−0.028, se=0.003
2
.=−0.030, se=0.002
3
.=−0.024, se=0.002
4
.=−0.020, se=0.003
5
.=−0.019, se=0.007

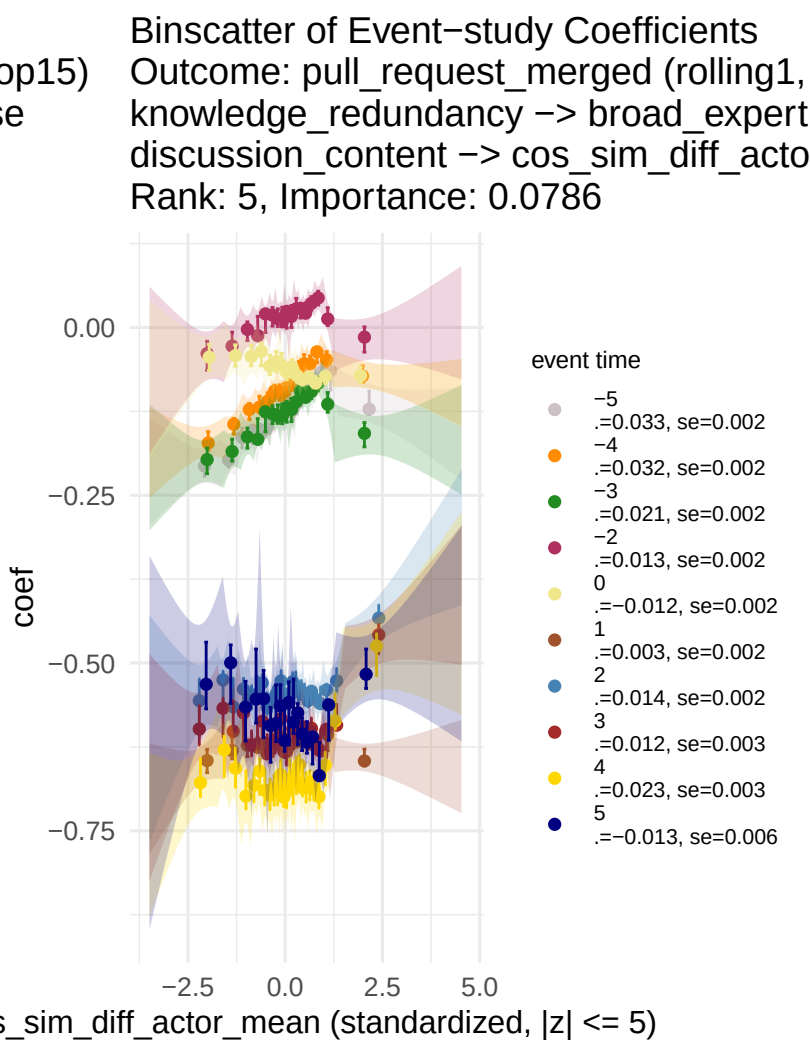

Binscatter of Event−study Coefficients
Outcome: pull_request_opened (rolling1, top15)
talent_investment −> feedback
response_sentiment −> ov_sentiment_avg
Rank: 6, Importance: 0.0916
coef
0.3
0.0
−0.3
−0.6
−5.0
−2.5
0.0
2.5
_sentiment_avg_mean (standardized, |z| <= 5)
event time
−5
.=0.032, se=0.002
−4
.=0.022, se=0.002
−3
.=0.004, se=0.002
−2
.=−0.002, se=0.002
0
.=0.021, se=0.002
1
.=0.008, se=0.002
2
.=−0.015, se=0.003
3
.=−0.014, se=0.003
4
.=0.002, se=0.004
5
.=0.010, se=0.006

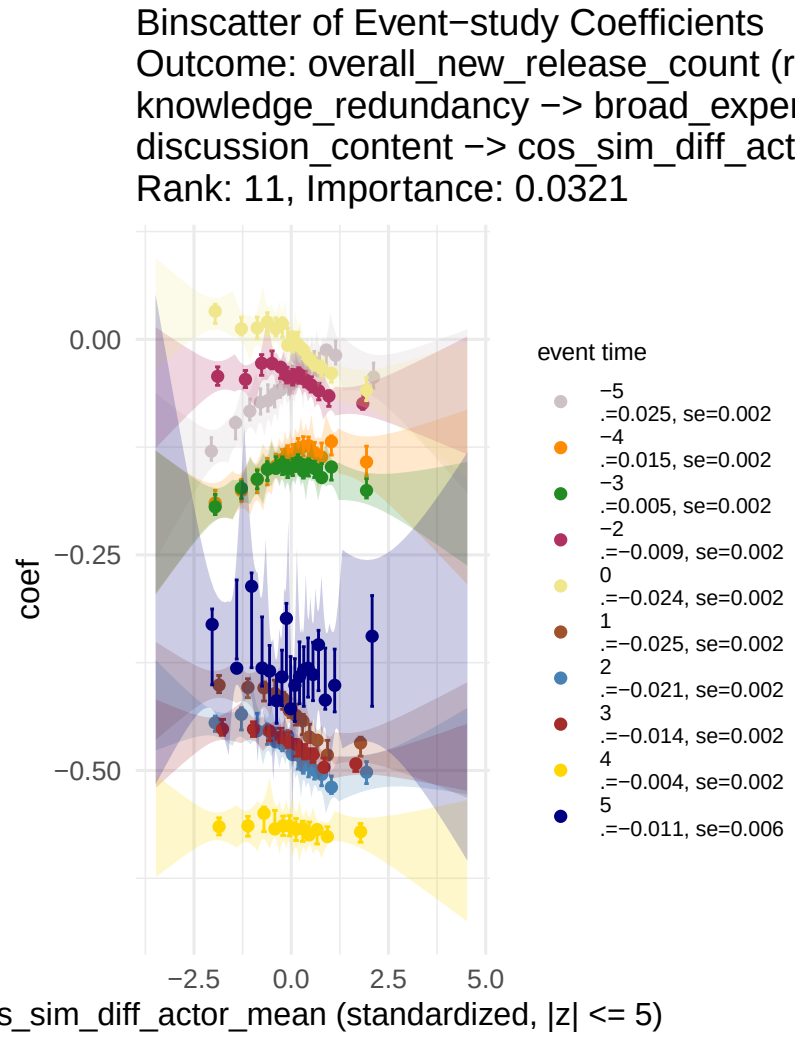

Binscatter of Event−study Coefficients
Outcome: pull_request_merged (rolling1, t
talent_investment −> feedback
response_sentiment −> ov_sentiment_avg
Rank: 6, Importance: 0.077
coef
0.0
−0.3
−0.6
−5.0
−2.5
0.0
2.5
ov_sentiment_avg_mean (standardized, |z| <= 5)
event time
−5
.=0.010, se=0.002
−4
.=0.009, se=0.002
−3
.=−0.009, se=0.002
−2
.=−0.009, se=0.002
0
.=0.013, se=0.002
1
.=0.003, se=0.002
2
.=−0.032, se=0.002
3
.=−0.018, se=0.003
4
.=−0.003, se=0.003
5
.=−0.002, se=0.006


Binscatter of Event−study Coefficients
Outcome: overall_new_release_count (rolling1, top15)
talent_investment −> growth_opportunity
merge_review_pr −> pull_request_merged_rate_weighted
Rank: 7, Importance: 0.0386
coef
0.0
−0.2
−0.4
−0.6
0
1
2
3
4
t_merged_rate_weighted_mean (standardized, |z| <= 5)
event time
−5
.=−0.049, se=0.003
−4
.=−0.039, se=0.003
−3
.=−0.022, se=0.003
−2
.=0.010, se=0.003
0
.=−0.004, se=0.003
1
.=−0.020, se=0.004
2
.=0.001, se=0.003
3
.=0.001, se=0.003
4
.=−0.035, se=0.004
5
.=−0.004, se=0.010

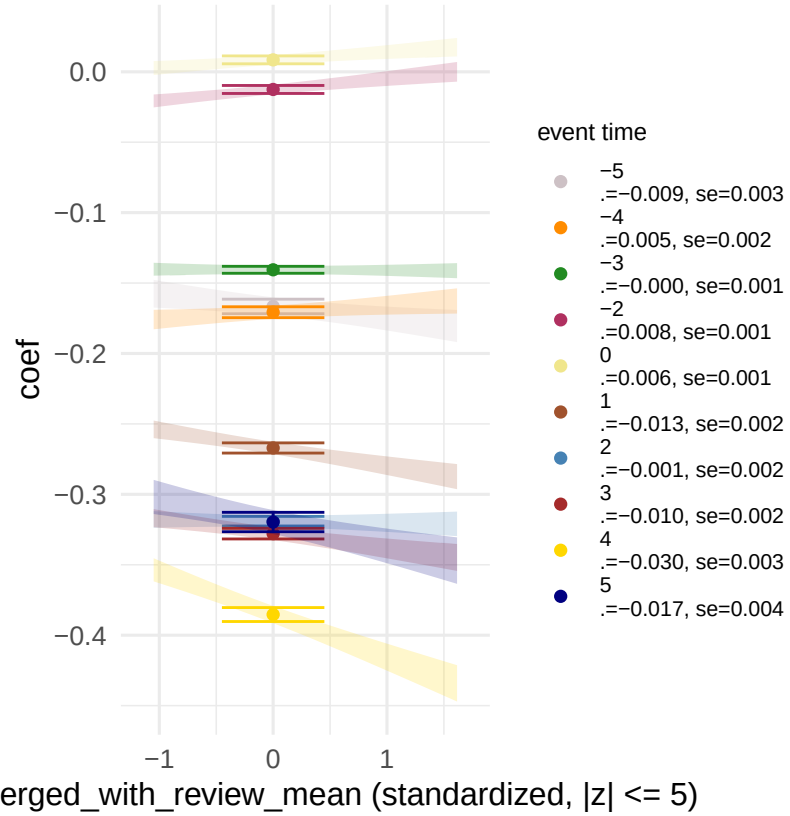

Binscatter of Event−study Coefficients
Outcome: major_minor_release_count (ro
talent_investment −> growth_opportunity
merge_review_pr −> pull_request_merge
Rank: 6, Importance: 0.0671
coef
0.00
−0.25
−0.50
0
1
2
3
4
pull_request_merged_rate_weighted_mean (standardized, |z| <= 5)
event time
−5
.=−0.031, se=0.003
−4
.=0.002, se=0.003
−3
.=0.007, se=0.002
−2
.=0.038, se=0.002
0
.=0.027, se=0.002
1
.=−0.004, se=0.003
2
.=−0.002, se=0.002
3
.=−0.011, se=0.003
4
.=−0.046, se=0.003
5
.=−0.010, se=0.005


Binscatter of Event−study Coefficients
Outcome: pull_request_opened (rolling1, top15)
knowledge_redundancy −> broad_expertise
discussion_content −> cos_sim_diff_actor
Rank: 5, Importance: 0.0934
coef
0.0
−0.4
−0.8
−1.2
−2.5
0.0
2.5
5.0
s_sim_diff_actor_mean (standardized, |z| <= 5)
event time
−5
.=0.021, se=0.003
−4
.=0.026, se=0.002
−3
.=0.018, se=0.002
−2
.=0.008, se=0.002
0
.=−0.020, se=0.002
1
.=−0.006, se=0.002
2
.=−0.007, se=0.003
3
.=−0.012, se=0.003
4
.=−0.003, se=0.005
5
.=−0.049, se=0.006

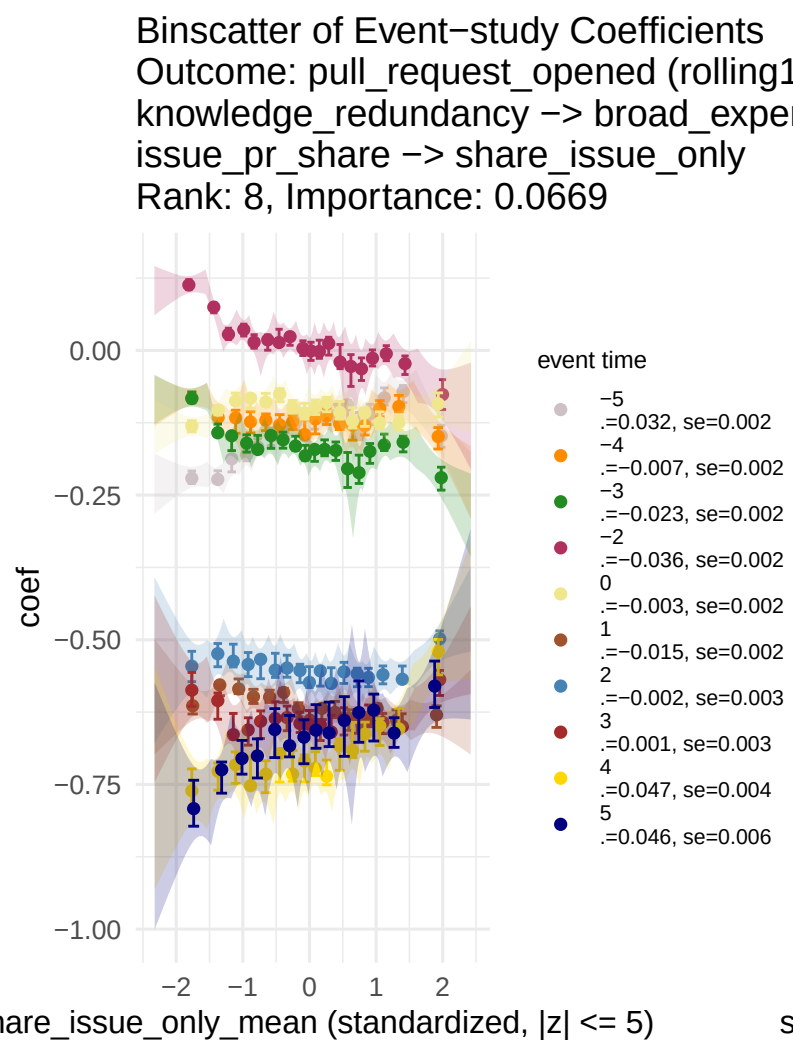

Binscatter of Event−study Coefficients
Outcome: pull_request_merged (rolling1,
knowledge_redundancy −> broad_expert
discussion_content −> cos_sim_diff_acto
Rank: 5, Importance: 0.0786
coef
0.00
−0.25
−0.50
−0.75
−2.5
0.0
2.5
5.0
cos_sim_diff_actor_mean (standardized, |z| <= 5)
event time
−5
.=0.033, se=0.002
−4
.=0.032, se=0.002
−3
.=0.021, se=0.002
−2
.=0.013, se=0.002
0
.=−0.012, se=0.002
1
.=0.003, se=0.002
2
.=0.014, se=0.002
3
.=0.012, se=0.003
4
.=0.023, se=0.003
5
.=−0.013, se=0.006

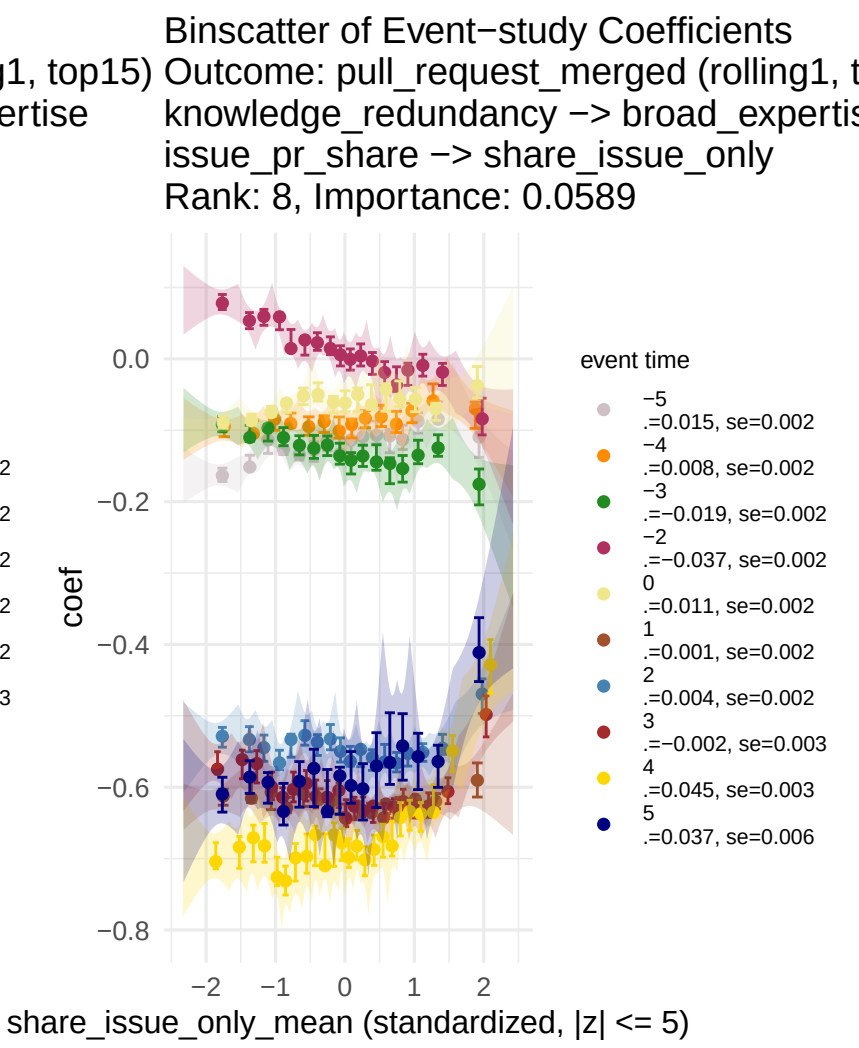

Binscatter of Event−study Coefficients
Outcome: overall_new_release_count (rolling1, top15)
knowledge_redundancy −> broad_expertise
discussion_content −> cos_sim_diff_actor
Rank: 11, Importance: 0.0321
coef
0.00
−0.25
−0.50
−2.5
0.0
2.5
5.0
s_sim_diff_actor_mean (standardized, |z| <= 5)
event time
−5
.=0.025, se=0.002
−4
.=0.015, se=0.002
−3
.=0.005, se=0.002
−2
.=−0.009, se=0.002
0
.=−0.024, se=0.002
1
.=−0.025, se=0.002
2
.=−0.021, se=0.002
3
.=−0.014, se=0.002
4
.=−0.004, se=0.002
5
.=−0.011, se=0.006

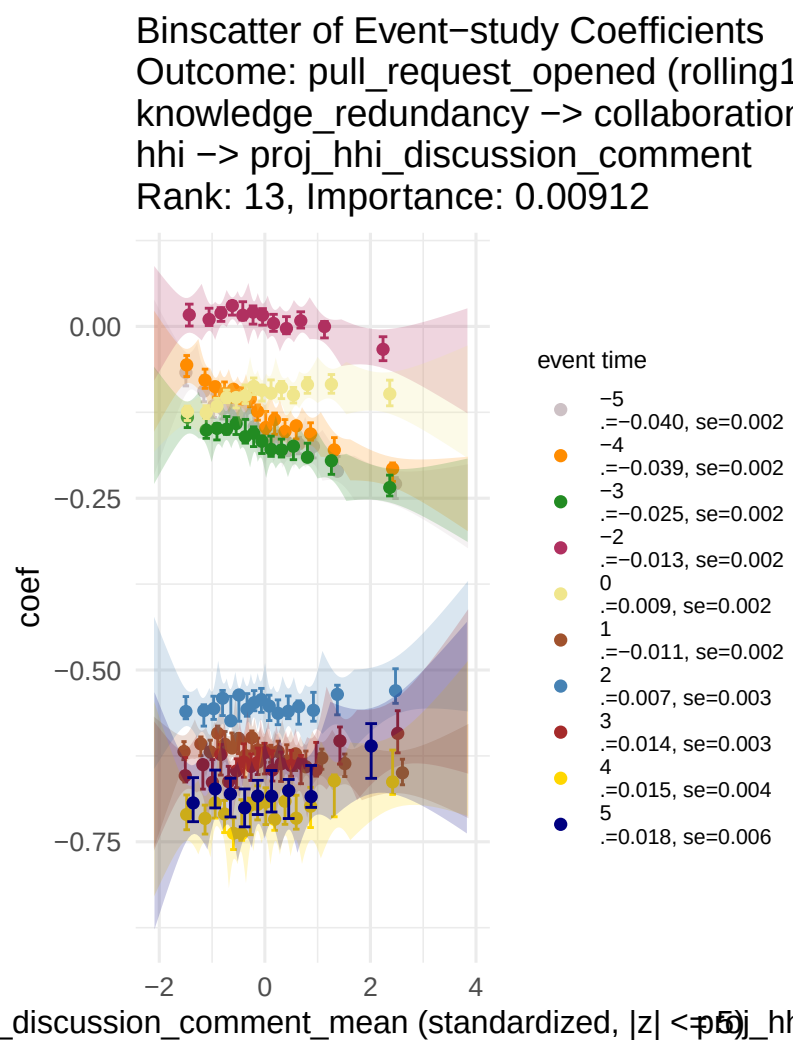
Binscatter of Event−study Coefficients
Outcome: major_minor_release_count (rolling1, top15)
knowledge_redundancy −> supervision
merged_with_review −> pct_merged_with_review
Rank: 8, Importance: 0.0472

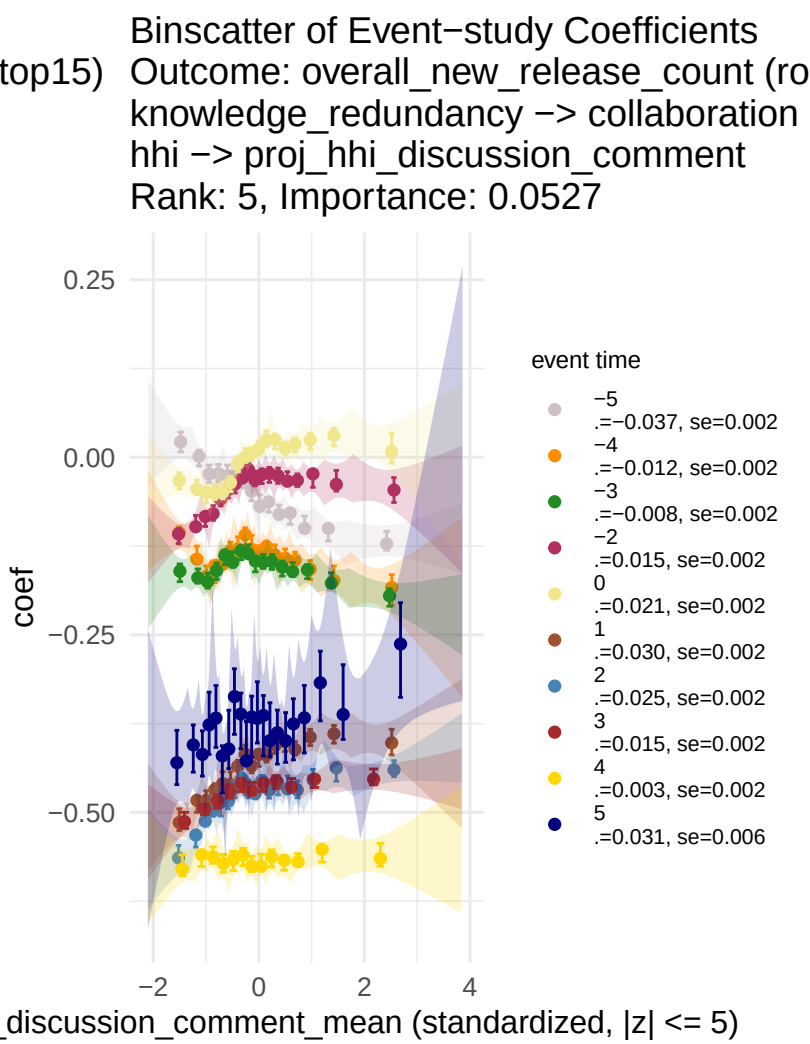


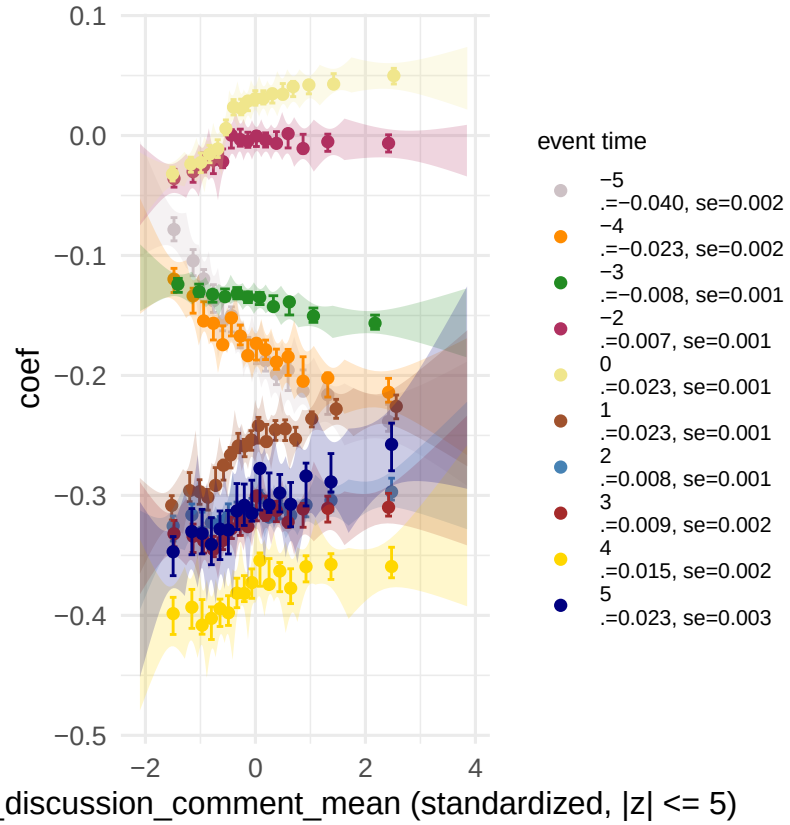
erged_with_review_mean (standardized, |z| <= 5)

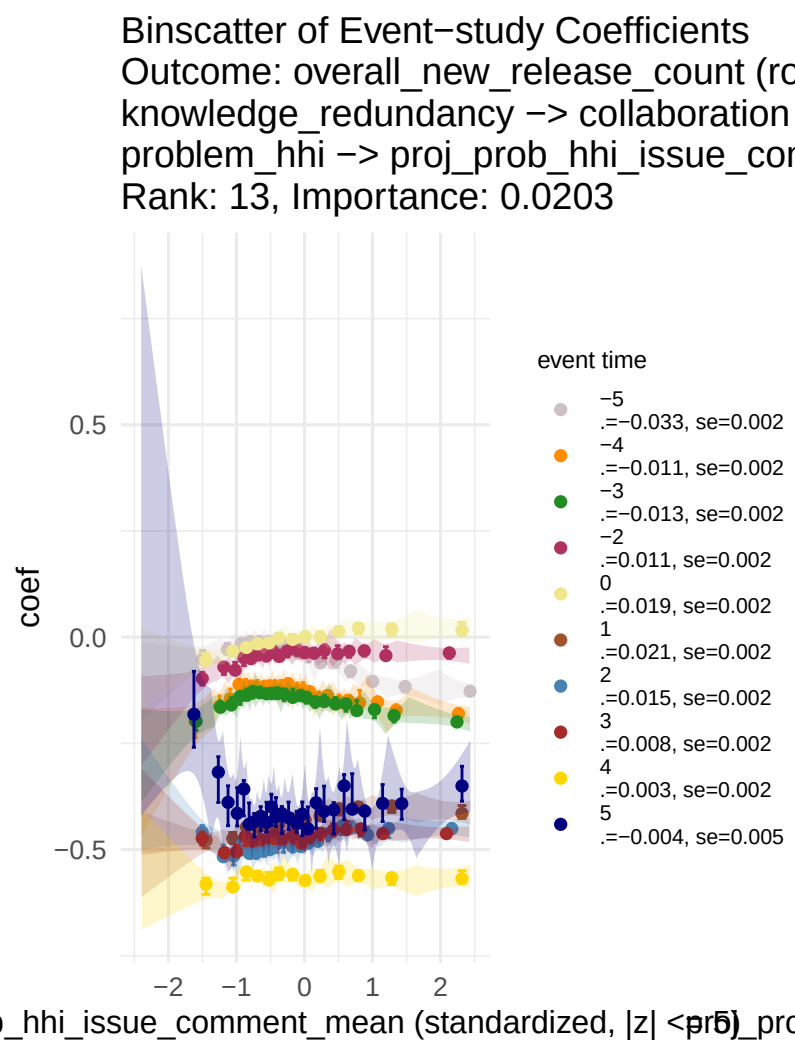

Binscatter of Event−study Coefficients
Outcome: pull_request_opened (rolling1, top15)
knowledge_redundancy −> broad_expertise
issue_pr_share −> share_issue_only
Rank: 8, Importance: 0.0669
coef
0.00
−0.25
−0.50
−0.75
−1.00
−2
−1
0
1
2
event time
−5
.=0.032, se=0.002
−4
.=−0.007, se=0.002
−3
.=−0.023, se=0.002
−2
.=−0.036, se=0.002
0
.=−0.003, se=0.002
1
.=−0.015, se=0.002
2
.=−0.002, se=0.003
3
.=0.001, se=0.003
4
.=0.047, se=0.004
5
.=0.046, se=0.006
hare_issue_only_mean (standardized, |z| <= 5)

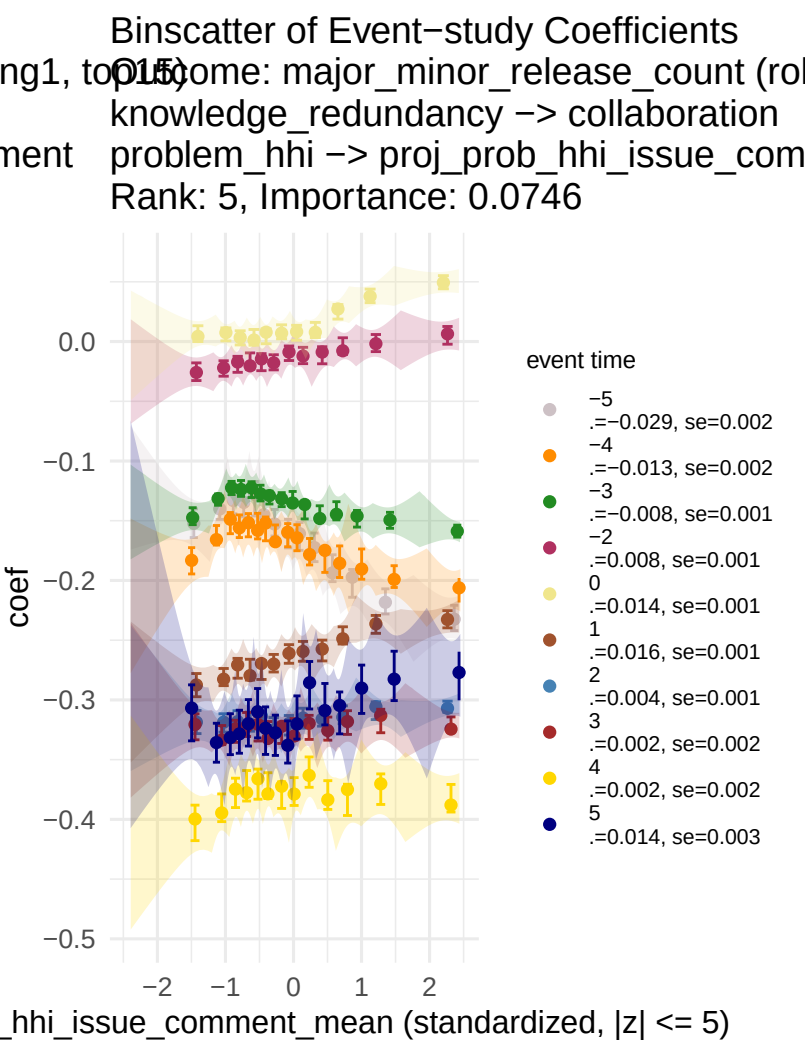

Binscatter of Event−study Coefficients
Outcome: pull_request_merged (rolling1, t
knowledge_redundancy −> broad_expertis
issue_pr_share −> share_issue_only
Rank: 8, Importance: 0.0589
coef
0.0
−0.2
−0.4
−0.6
−0.8
−2
−1
0
1
2
event time
−5
.=0.015, se=0.002
−4
.=0.008, se=0.002
−3
.=−0.019, se=0.002
−2
.=−0.037, se=0.002
0
.=0.011, se=0.002
1
.=0.001, se=0.002
2
.=0.004, se=0.002
3
.=−0.002, se=0.003
4
.=0.045, se=0.003
5
.=0.037, se=0.006
share_issue_only_mean (standardized, |z| <= 5)


Binscatter of Event−study Coefficients
Outcome: pull_request_opened (rolling1, top15)
knowledge_redundancy −> collaboration
hhi −> proj_hhi_discussion_comment
Rank: 13, Importance: 0.00912
coef
0.00
−0.25
−0.50
−0.75
−2
0
2
4
event time
−5
.=−0.040, se=0.002
−4
.=−0.039, se=0.002
−3
.=−0.025, se=0.002
−2
.=−0.013, se=0.002
0
.=0.009, se=0.002
1
.=−0.011, se=0.002
2
.=0.007, se=0.003
3
.=0.014, se=0.003
4
.=0.015, se=0.004
5
.=0.018, se=0.006
_discussion_comment_mean (standardized, |z| <= 5)

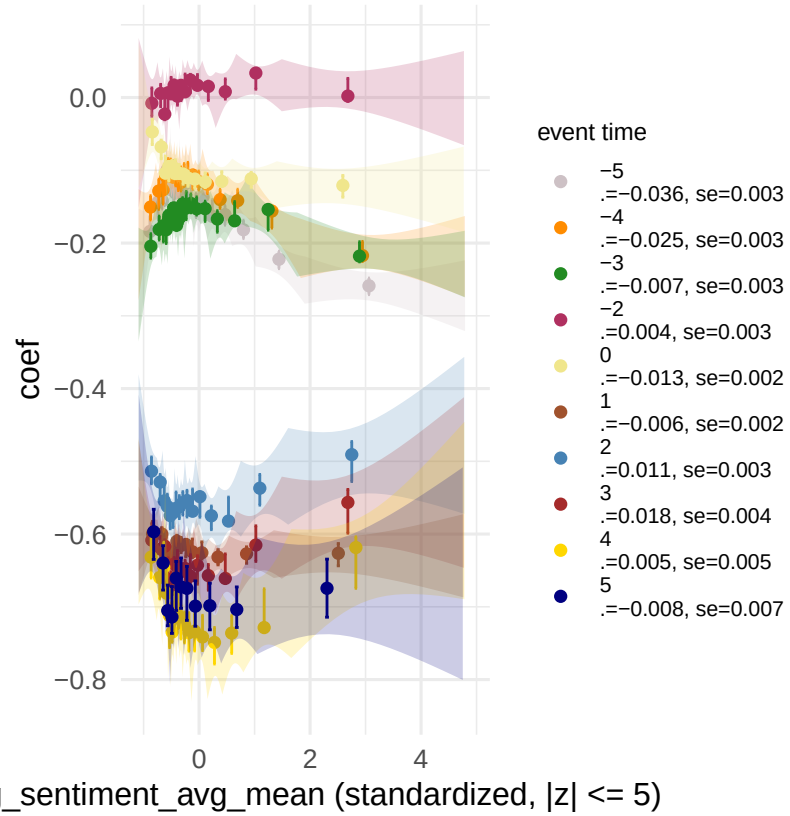

Binscatter of Event−study Coefficients
Outcome: overall_new_release_count (ro
knowledge_redundancy −> collaboration
hhi −> proj_hhi_discussion_comment
Rank: 5, Importance: 0.0527
coef
0.25
0.00
−0.25
−0.50
−2
0
2
4
event time
−5
.=−0.037, se=0.002
−4
.=−0.012, se=0.002
−3
.=−0.008, se=0.002
−2
.=0.015, se=0.002
0
.=0.021, se=0.002
1
.=0.030, se=0.002
2
.=0.025, se=0.002
3
.=0.015, se=0.002
4
.=0.003, se=0.002
5
.=0.031, se=0.006
proj_hhi_discussion_comment_mean (standardized, |z| <= 5)


Binscatter of Event−study Coefficients
Outcome: major_minor_release_count (rolling1, top15)
knowledge_redundancy −> collaboration
hhi −> proj_hhi_discussion_comment
Rank: 9, Importance: 0.0426
coef
0.1
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
−2
0
2
4
event time
−5
.=−0.040, se=0.002
−4
.=−0.023, se=0.002
−3
.=−0.008, se=0.001
−2
.=0.007, se=0.001
0
.=0.023, se=0.001
1
.=0.023, se=0.001
2
.=0.008, se=0.001
3
.=0.009, se=0.002
4
.=0.015, se=0.002
5
.=0.023, se=0.003
_discussion_comment_mean (standardized, |z| <= 5)

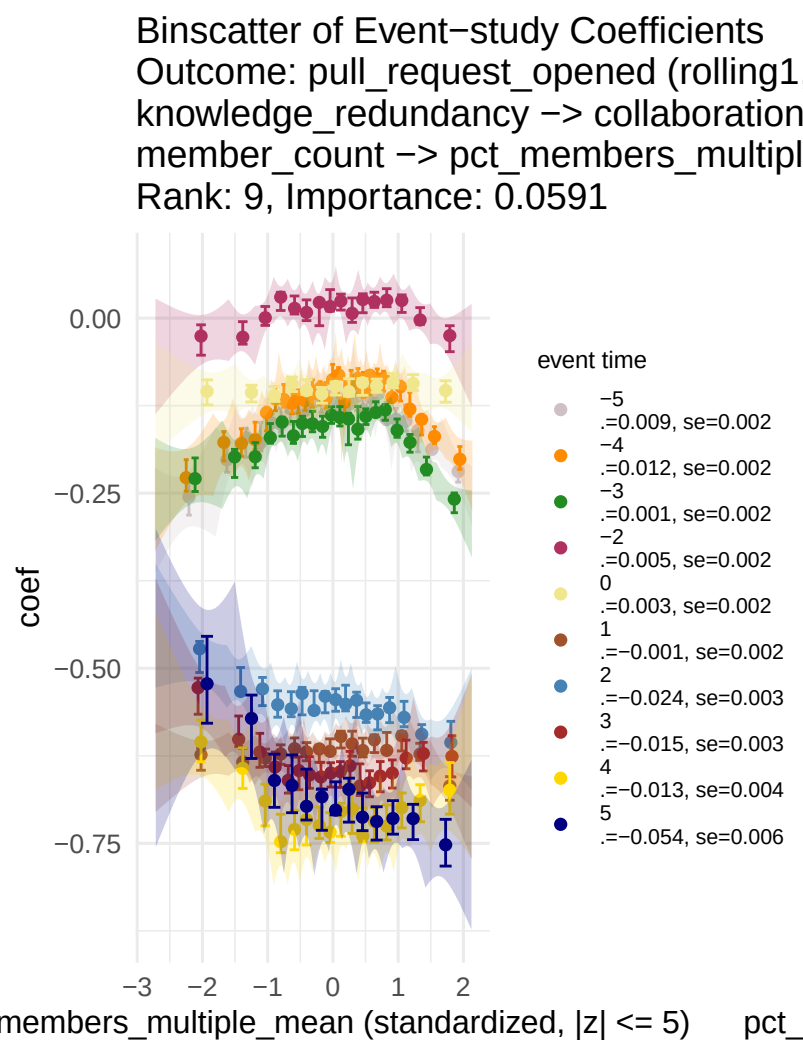

Binscatter of Event−study Coefficients
Outcome: overall_new_release_count (rolling1, to 15)
knowledge_redundancy −> collaboration
problem_hhi −> proj_prob_hhi_issue_comment
Rank: 13, Importance: 0.0203
coef
0.5
0.0
−0.5
−2
−1
0
1
2
b_hhi_issue_comment_mean (standardized, |z| <= 5)
event time
−5
.=−0.033, se=0.002
−4
.=−0.011, se=0.002
−3
.=−0.013, se=0.002
−2
.=0.011, se=0.002
0
.=0.019, se=0.002
1
.=0.021, se=0.002
2
.=0.015, se=0.002
3
.=0.008, se=0.002
4
.=0.003, se=0.002
5
.=−0.004, se=0.005

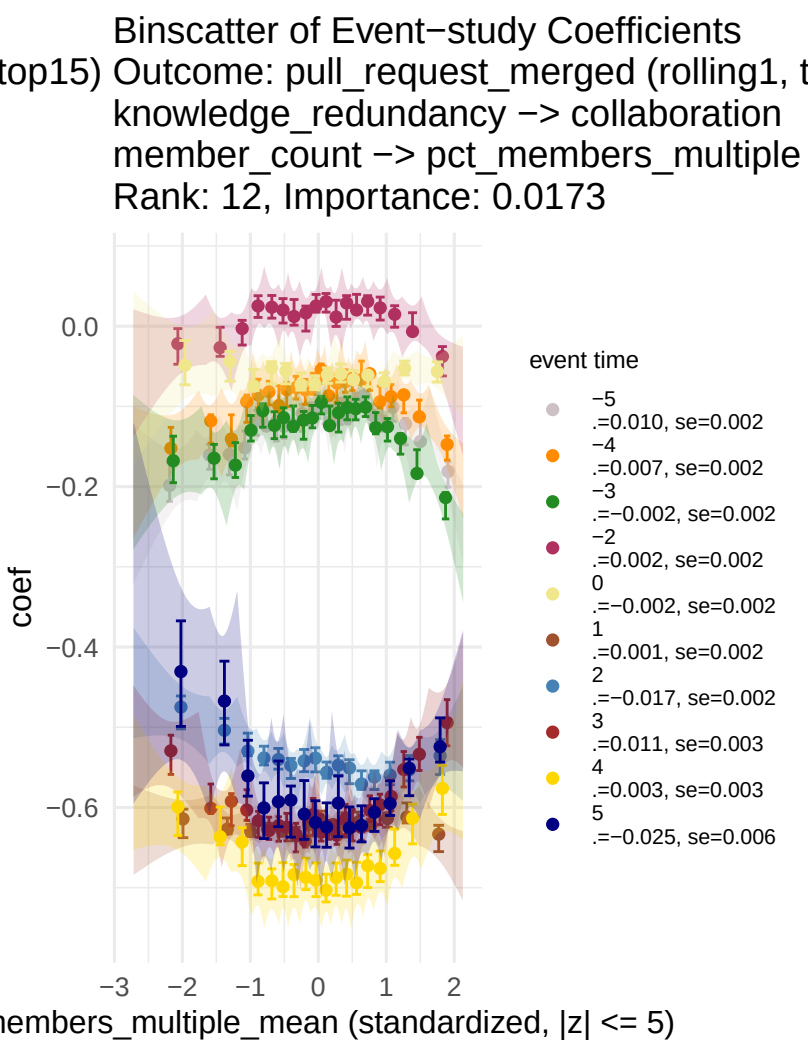

Binscatter of Event−study Coefficients
Outcome: major_minor_release_count (rol
knowledge_redundancy −> collaboration
problem_hhi −> proj_prob_hhi_issue_com
Rank: 5, Importance: 0.0746
coef
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
−2
−1
0
1
2
proj_prob_hhi_issue_comment_mean (standardized, |z| <= 5)
event time
−5
.=−0.029, se=0.002
−4
.=−0.013, se=0.002
−3
.=−0.008, se=0.001
−2
.=0.008, se=0.001
0
.=0.014, se=0.001
1
.=0.016, se=0.001
2
.=0.004, se=0.001
3
.=0.002, se=0.002
4
.=0.002, se=0.002
5
.=0.014, se=0.003

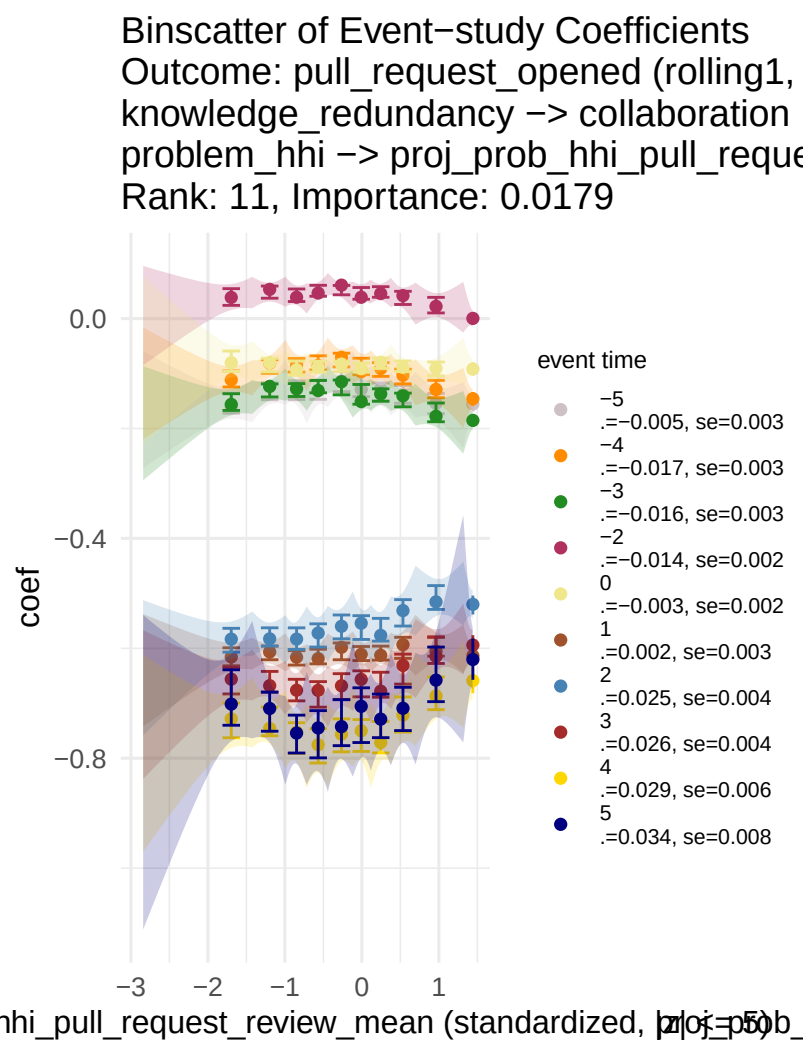
Binscatter of Event−study Coefficients
Outcome: pull_request_opened (rolling1, top15)
talent_investment −> feedback
response_sentiment −> neg_sentiment_avg
Rank: 10, Importance: 0.0203

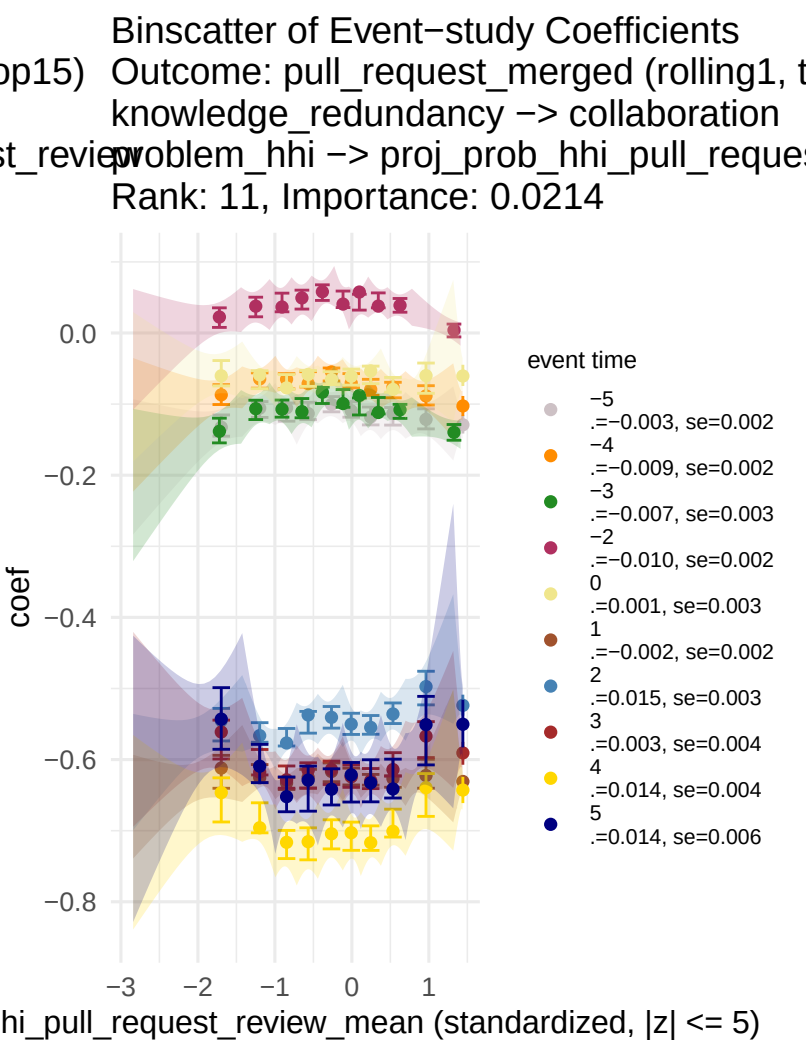


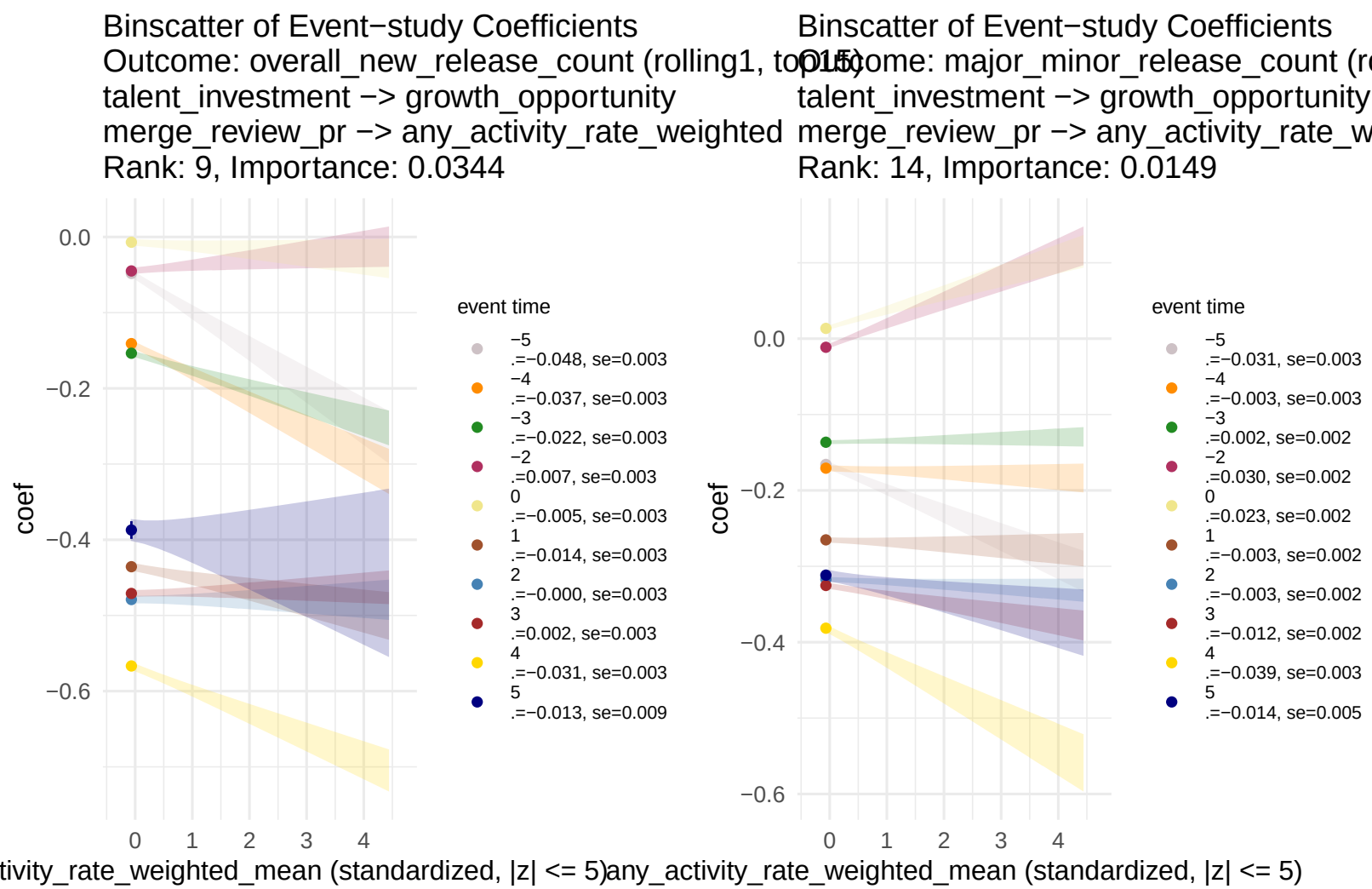
_sentiment_avg_mean (standardized, |z| <= 5)


Binscatter of Event−study Coefficients
Outcome: pull_request_opened (rolling1, top15)
knowledge_redundancy −> collaboration
member_count −> pct_members_multiple
Rank: 9, Importance: 0.0591
coef
0.00
−0.25
−0.50
−0.75
−3
−2
−1
0
1
2
members_multiple_mean (standardized, |z| <= 5)
event time
−5
.=0.009, se=0.002
−4
.=0.012, se=0.002
−3
.=0.001, se=0.002
−2
.=0.005, se=0.002
0
.=0.003, se=0.002
1
.=−0.001, se=0.002
2
.=−0.024, se=0.003
3
.=−0.015, se=0.003
4
.=−0.013, se=0.004
5
.=−0.054, se=0.006

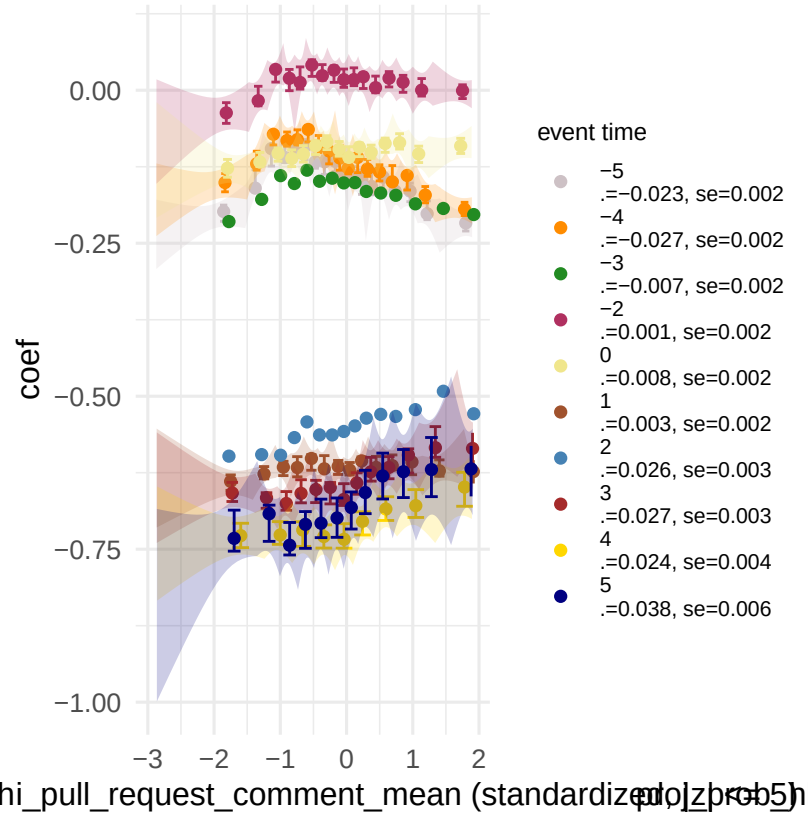

Binscatter of Event−study Coefficients
Outcome: pull_request_merged (rolling1, t
knowledge_redundancy −> collaboration
member_count −> pct_members_multiple
Rank: 12, Importance: 0.0173
coef
0.0
−0.2
−0.4
−0.6
−3
−2
−1
0
1
2
pct_members_multiple_mean (standardized, |z| <= 5)
event time
−5
.=0.010, se=0.002
−4
.=0.007, se=0.002
−3
.=−0.002, se=0.002
−2
.=0.002, se=0.002
0
.=−0.002, se=0.002
1
.=0.001, se=0.002
2
.=−0.017, se=0.002
3
.=0.011, se=0.003
4
.=0.003, se=0.003
5
.=−0.025, se=0.006


Binscatter of Event−study Coefficients
Outcome: pull_request_opened (rolling1, top15)
knowledge_redundancy −> collaboration
problem_hhi −> proj_prob_hhi_pull_request_review
Rank: 11, Importance: 0.0179
coef
0.0
−0.4
−0.8
−3
−2
−1
0
1
event time
−5
.=−0.005, se=0.003
−4
.=−0.017, se=0.003
−3
.=−0.016, se=0.003
−2
.=−0.014, se=0.002
0
.=−0.003, se=0.002
1
.=0.002, se=0.003
2
.=0.025, se=0.004
3
.=0.026, se=0.004
4
.=0.029, se=0.006
5
.=0.034, se=0.008
hhi_pull_request_review_mean (standardized, |z| <= 5)


Binscatter of Event−study Coefficients
Outcome: pull_request_merged (rolling1, t
knowledge_redundancy −> collaboration
problem_hhi −> proj_prob_hhi_pull_reque
Rank: 11, Importance: 0.0214
coef
0.0
−0.2
−0.4
−0.6
−0.8
−3
−2
−1
0
1
event time
−5
.=−0.003, se=0.002
−4
.=−0.009, se=0.002
−3
.=−0.007, se=0.003
−2
.=−0.010, se=0.002
0
.=0.001, se=0.003
1
.=−0.002, se=0.002
2
.=0.015, se=0.003
3
.=0.003, se=0.004
4
.=0.014, se=0.004
5
.=0.014, se=0.006
proj_prob_hhi_pull_request_review_mean (standardized, |z| <= 5)

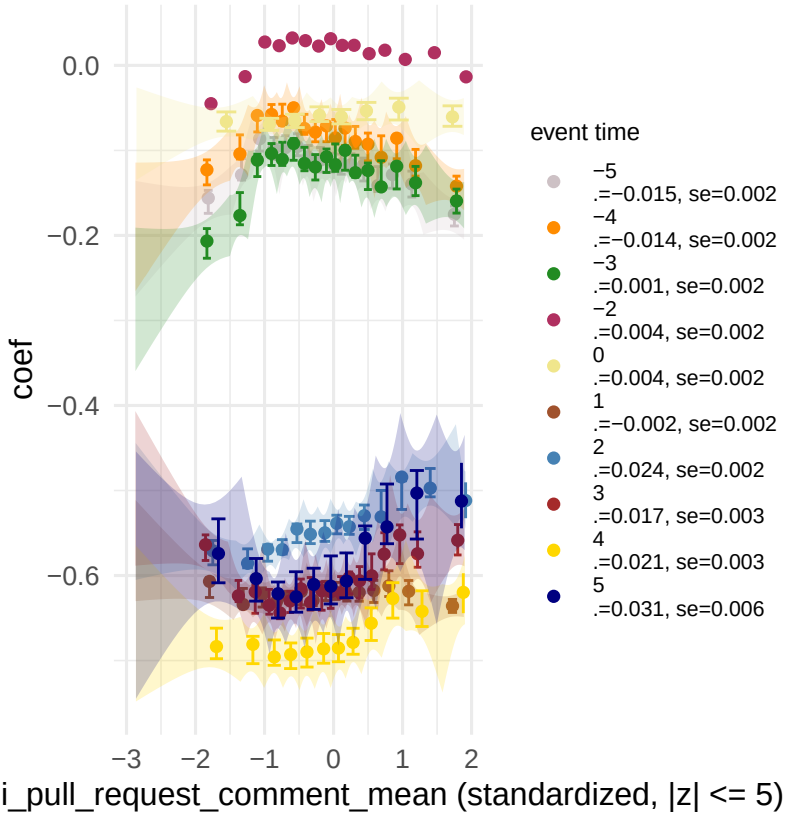

Binscatter of Event−study Coefficients
Outcome: overall_new_release_count (rolling1, to 0.15)
talent_investment −> growth_opportunity
merge_review_pr −> any_activity_rate_weighted
Rank: 9, Importance: 0.0344
coef
0.0
−0.2
−0.4
−0.6
0
1
2
3
4
event time
−5
.=−0.048, se=0.003
−4
.=−0.037, se=0.003
−3
.=−0.022, se=0.003
−2
.=0.007, se=0.003
0
.=−0.005, se=0.003
1
.=−0.014, se=0.003
2
.=−0.000, se=0.003
3
.=0.002, se=0.003
4
.=−0.031, se=0.003
5
.=−0.013, se=0.009
tivity_rate_weighted_mean (standardized, |z| <= 5)
Binscatter of Event−study Coefficients
Outcome: major_minor_release_count (rol
talent_investment −> growth_opportunity
merge_review_pr −> any_activity_rate_we
Rank: 14, Importance: 0.0149
coef
0.0
−0.2
−0.4
−0.6
0
1
2
3
4
event time
−5
.=−0.031, se=0.003
−4
.=−0.003, se=0.003
−3
.=0.002, se=0.002
−2
.=0.030, se=0.002
0
.=0.023, se=0.002
1
.=−0.003, se=0.002
2
.=−0.003, se=0.002
3
.=−0.012, se=0.002
4
.=−0.039, se=0.003
5
.=−0.014, se=0.005
any_activity_rate_weighted_mean (standardized, |z| <= 5)

Binscatter of Event−study Coefficients
Outcome: pull_request_opened (rolling1, top15)
knowledge_redundancy −> collaboration
problem_hhi −> proj_prob_hhi_pull_request_comment
Rank: 12, Importance: 0.0119



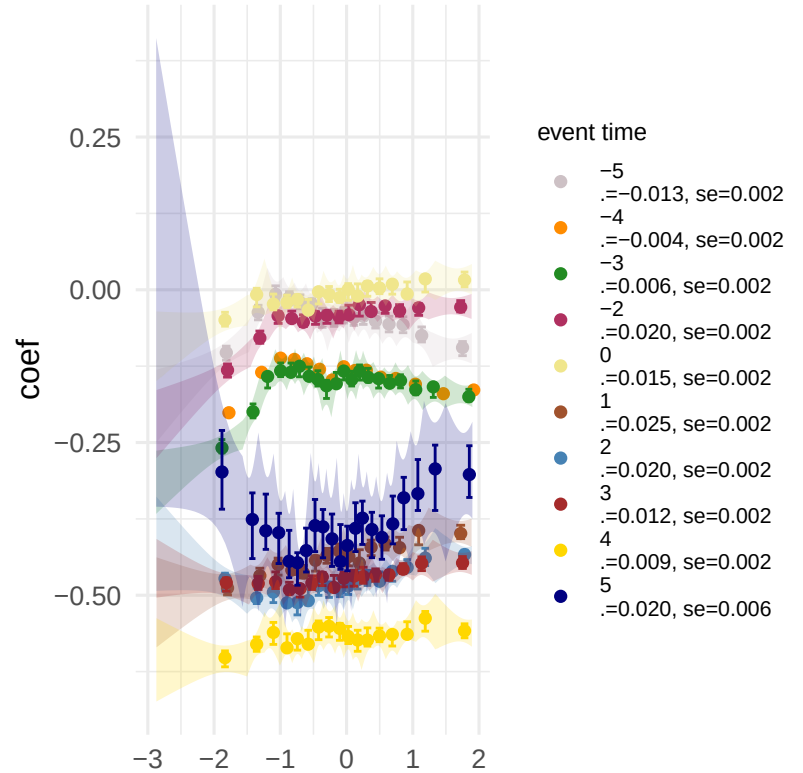
hi_pull_request_comment_mean (standardized, |z| <= 5)

Binscatter of Event−study Coefficients
Outcome: pull_request_merged (rolling1, t
knowledge_redundancy −> collaboration
problem_hhi −> proj_prob_hhi_pull_reques
Rank: 13, Importance: 0.0141

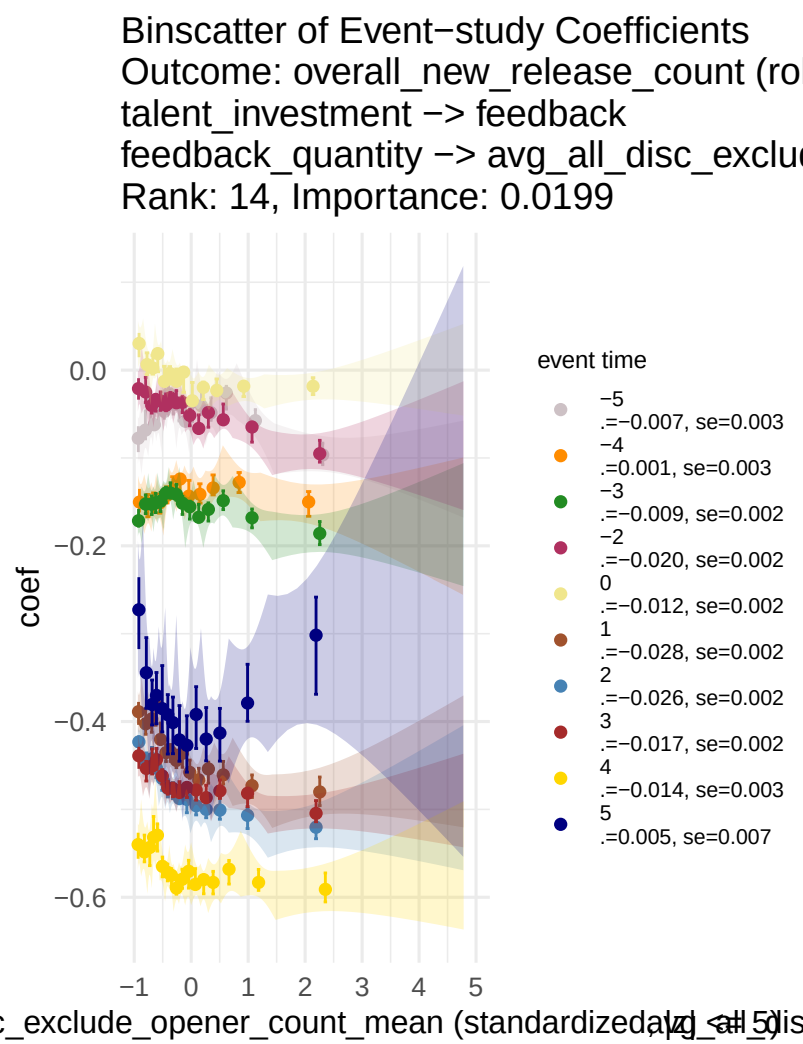


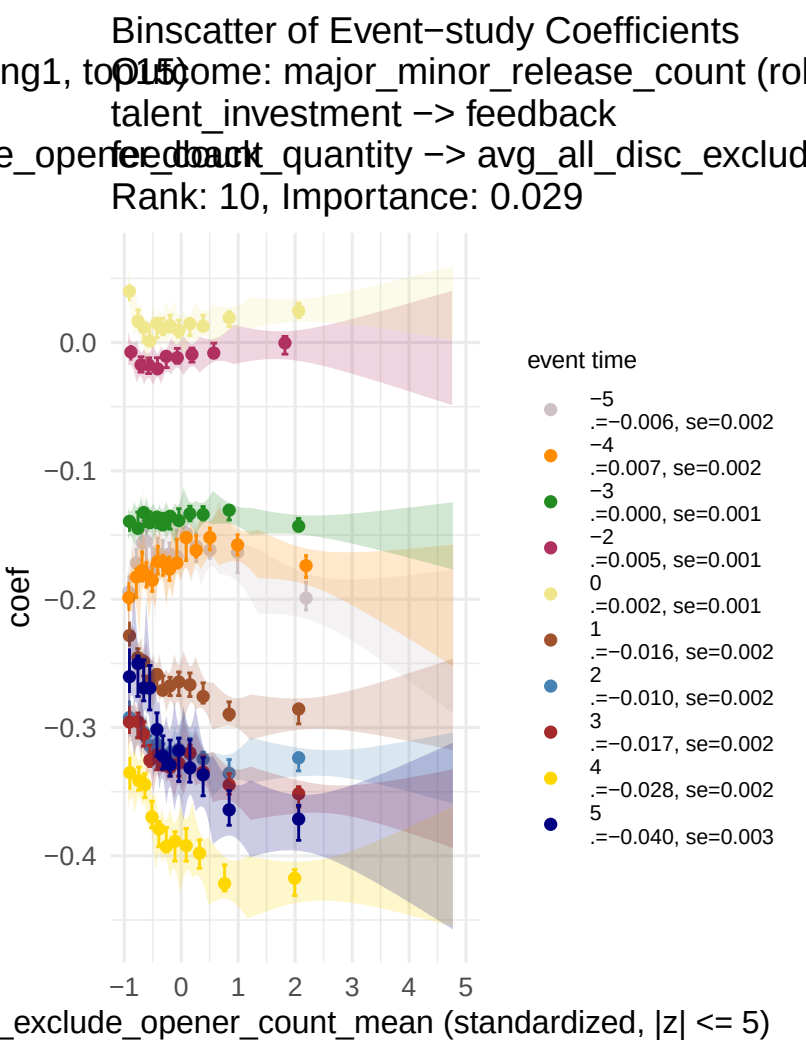
proj_prob_hhi_pull_request_comment_mean (standardized, |z| <= 5)

Binscatter of Event−study Coefficients
Outcome: overall_new_release_count (rolling1, top15)
knowledge_redundancy −> collaboration
problem_hhi −> proj_prob_hhi_pull_request_comment
Rank: 10, Importance: 0.0338

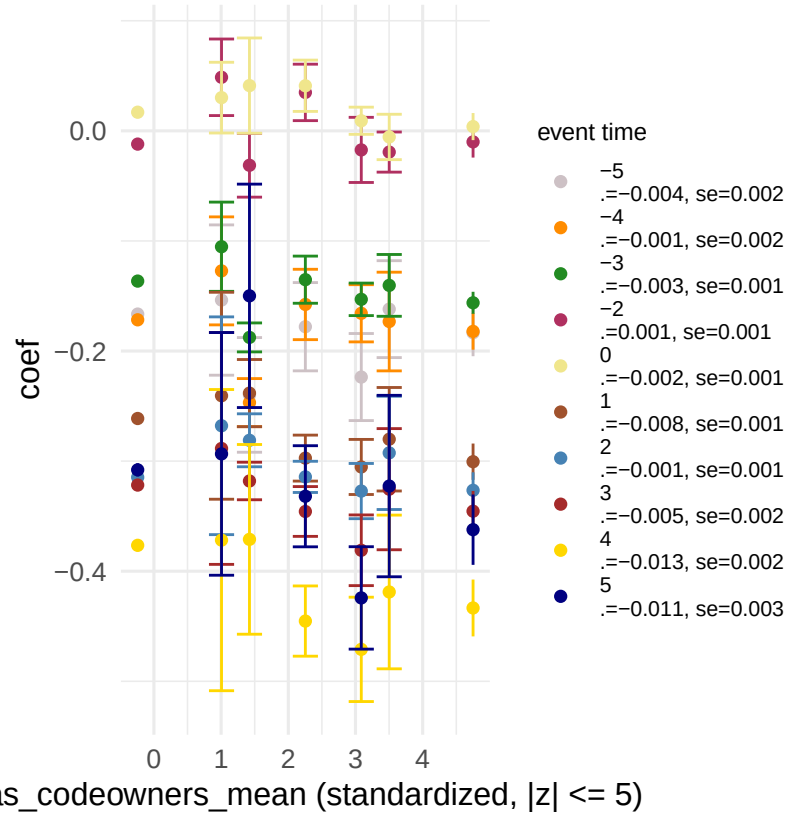


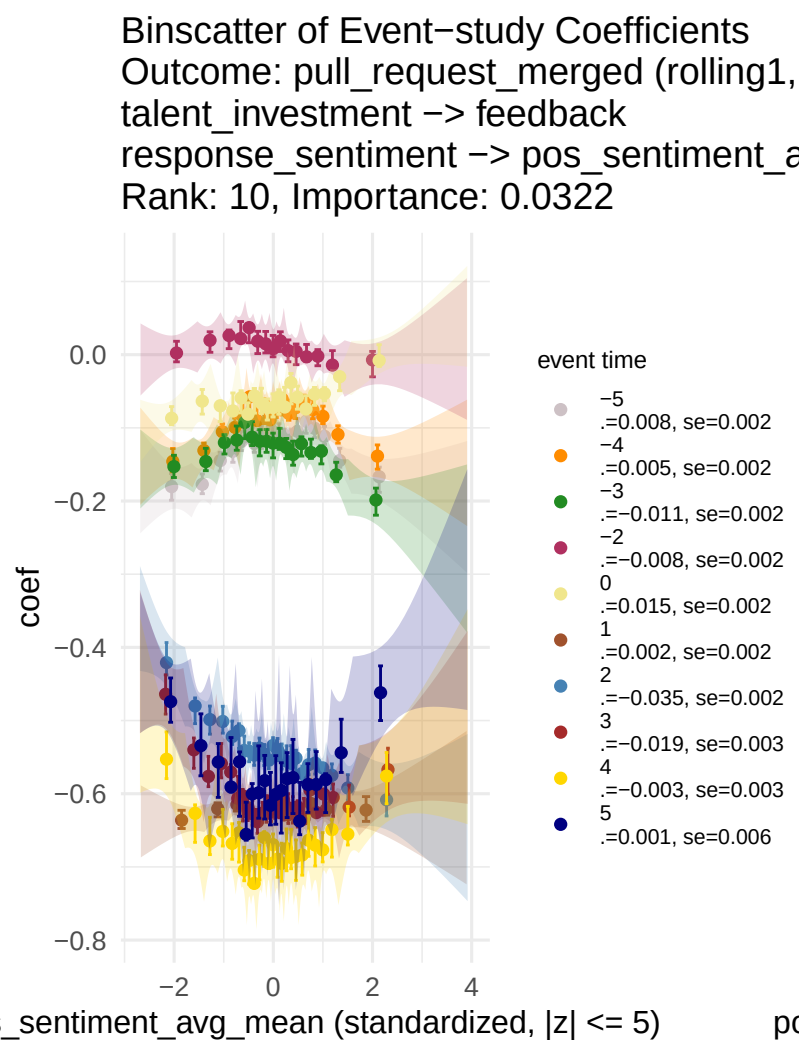
hi_pull_request_comment_mean (standardized, |z| <= 5)

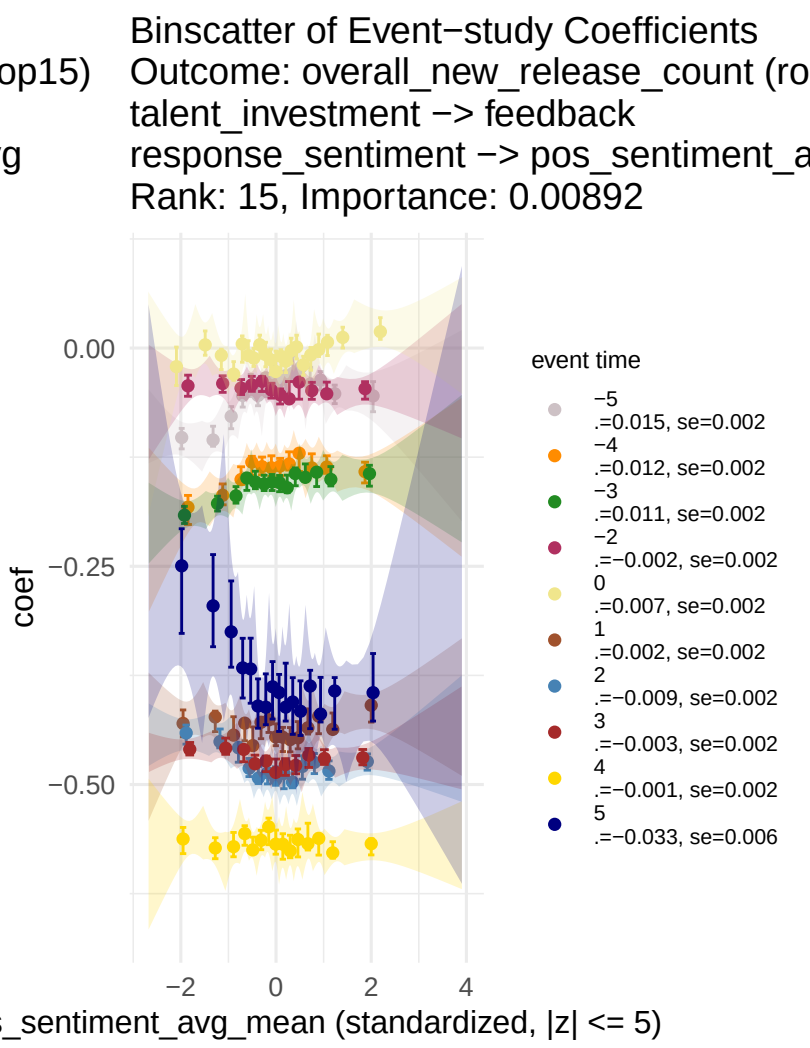

Binscatter of Event−study Coefficients
Outcome: overall_new_release_count (rolling1, to 15)
talent_investment −> feedback
feedback_quantity −> avg_all_disc_exclude_opener_count_mean
Rank: 14, Importance: 0.0199
coef
0.0
−0.2
−0.4
−0.6
−1
0
1
2
3
4
5
event time
−5
.=−0.007, se=0.003
−4
.=0.001, se=0.003
−3
.=−0.009, se=0.002
−2
.=−0.020, se=0.002
0
.=−0.012, se=0.002
1
.=−0.028, se=0.002
2
.=−0.026, se=0.002
3
.=−0.017, se=0.002
4
.=−0.014, se=0.003
5
.=0.005, se=0.007
c_exclude_opener_count_mean (standardized, |z| <= 5)


Binscatter of Event−study Coefficients
Outcome: major_minor_release_count (rol
talent_investment −> feedback
feedback_quantity −> avg_all_disc_exclud
Rank: 10, Importance: 0.029
coef
0.0
−0.1
−0.2
−0.3
−0.4
−1
0
1
2
3
4
5
event time
−5
.=−0.006, se=0.002
−4
.=0.007, se=0.002
−3
.=0.000, se=0.001
−2
.=0.005, se=0.001
0
.=0.002, se=0.001
1
.=−0.016, se=0.002
2
.=−0.010, se=0.002
3
.=−0.017, se=0.002
4
.=−0.028, se=0.002
5
.=−0.040, se=0.003
avg_all_disc_exclude_opener_count_mean (standardized, |z| <= 5)

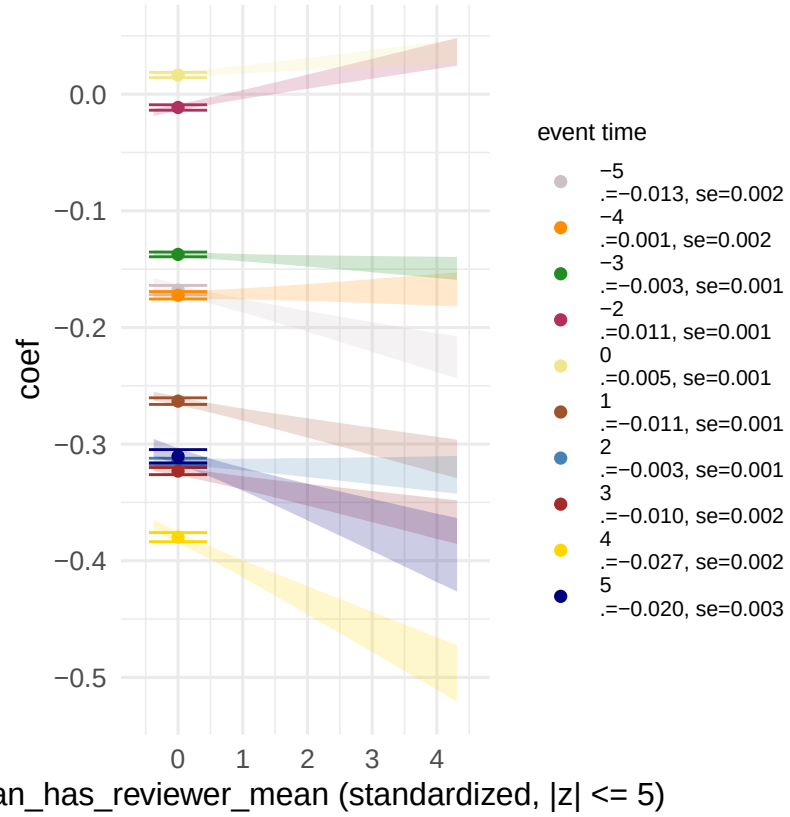
Binscatter of Event−study Coefficients
Outcome: major_minor_release_count (rolling1, top15)
organizational_routines −> organized_assignment
codeowners_file −> has_codeowners
Rank: 12, Importance: 0.0169




Binscatter of Event−study Coefficients
Outcome: pull_request_merged (rolling1, top15)
talent_investment −> feedback
response_sentiment −> pos_sentiment_avg
Rank: 10, Importance: 0.0322
coef
0.0
−0.2
−0.4
−0.6
−0.8
−2
0
2
4
_sentiment_avg_mean (standardized, |z| <= 5)
event time
−5
.=0.008, se=0.002
−4
.=0.005, se=0.002
−3
.=−0.011, se=0.002
−2
.=−0.008, se=0.002
0
.=0.015, se=0.002
1
.=0.002, se=0.002
2
.=−0.035, se=0.002
3
.=−0.019, se=0.003
4
.=−0.003, se=0.003
5
.=0.001, se=0.006

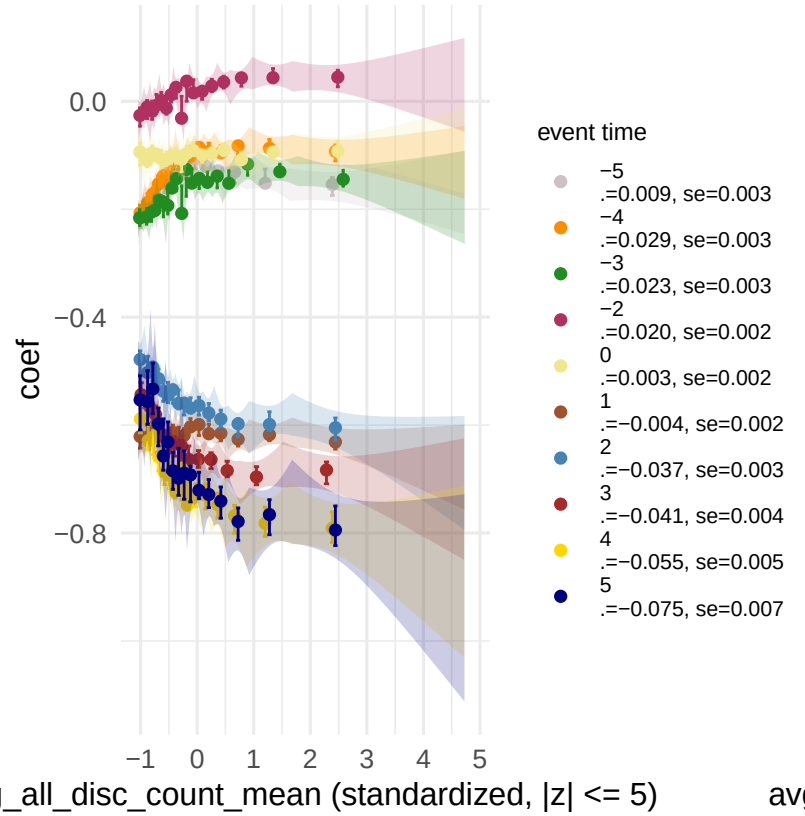

Binscatter of Event−study Coefficients
Outcome: overall_new_release_count (ro
talent_investment −> feedback
response_sentiment −> pos_sentiment_a
Rank: 15, Importance: 0.00892
coef
0.00
−0.25
−0.50
−2
0
2
4
pos_sentiment_avg_mean (standardized, |z| <= 5)
event time
−5
.=0.015, se=0.002
−4
.=0.012, se=0.002
−3
.=0.011, se=0.002
−2
.=−0.002, se=0.002
0
.=0.007, se=0.002
1
.=0.002, se=0.002
2
.=−0.009, se=0.002
3
.=−0.003, se=0.002
4
.=−0.001, se=0.002
5
.=−0.033, se=0.006

Binscatter of Event−study Coefficients
Outcome: major_minor_release_count (rolling1, top15)
organizational_routines −> organized_assignment
pr_reviewers −> mean_has_reviewer
Rank: 13, Importance: 0.0161



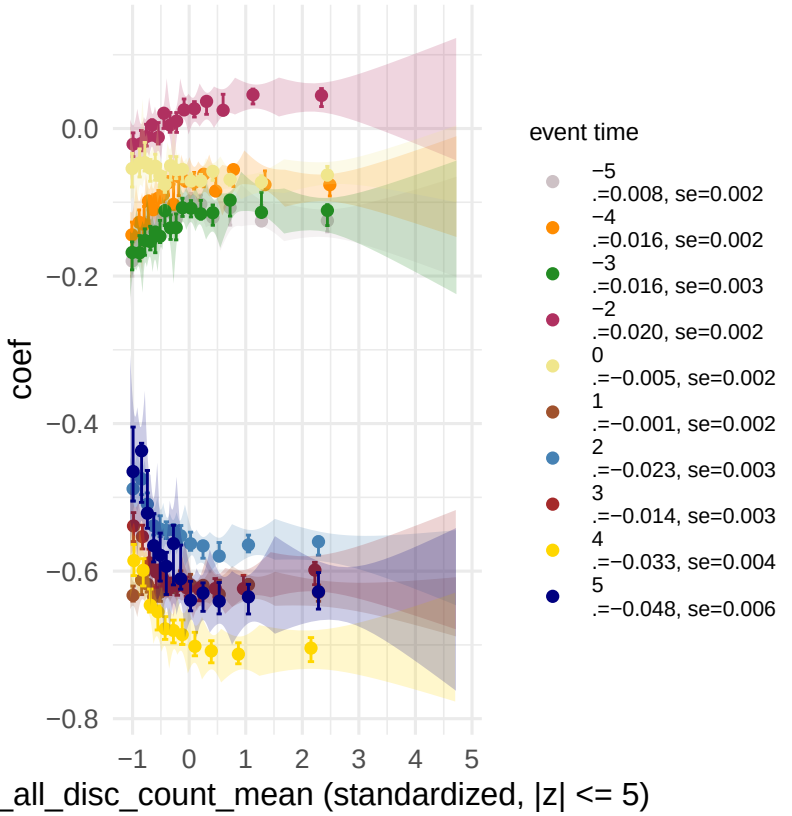
an_has_reviewer_mean (standardized, |z| <= 5)

Binscatter of Event−study Coefficients
Outcome: pull_request_opened (rolling1, top15)
knowledge_redundancy −> supervision
discussion_quantity −> avg_all_disc_count
Rank: 15, Importance: 0.00392



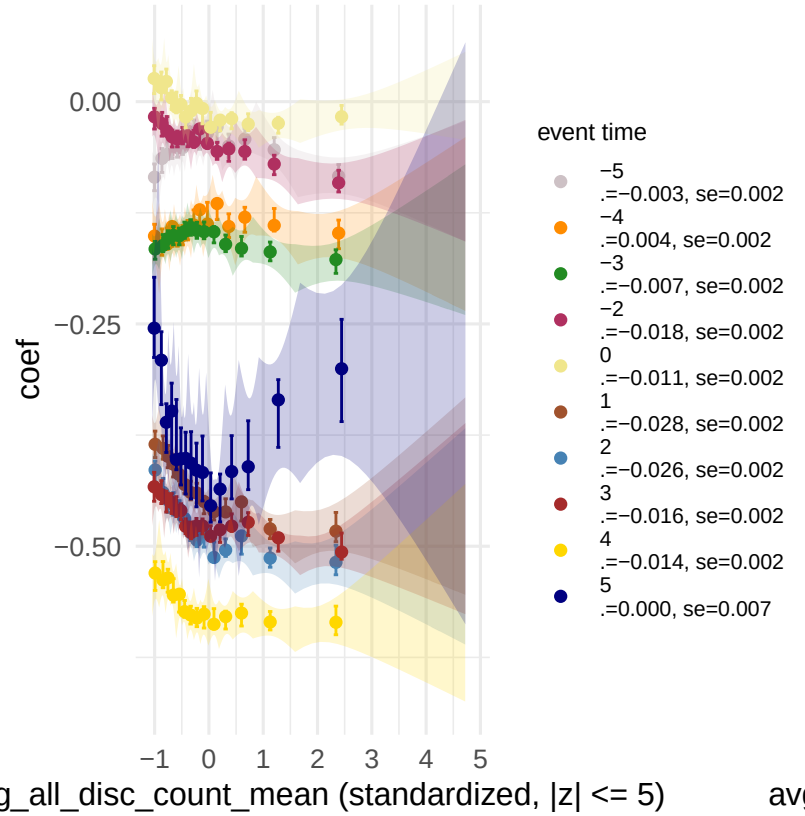
_all_disc_count_mean (standardized, |z| <= 5)

Binscatter of Event−study Coefficients
Outcome: pull_request_merged (rolling1, t
knowledge_redundancy −> supervision
discussion_quantity −> avg_all_disc_coun
Rank: 15, Importance: 0.00552



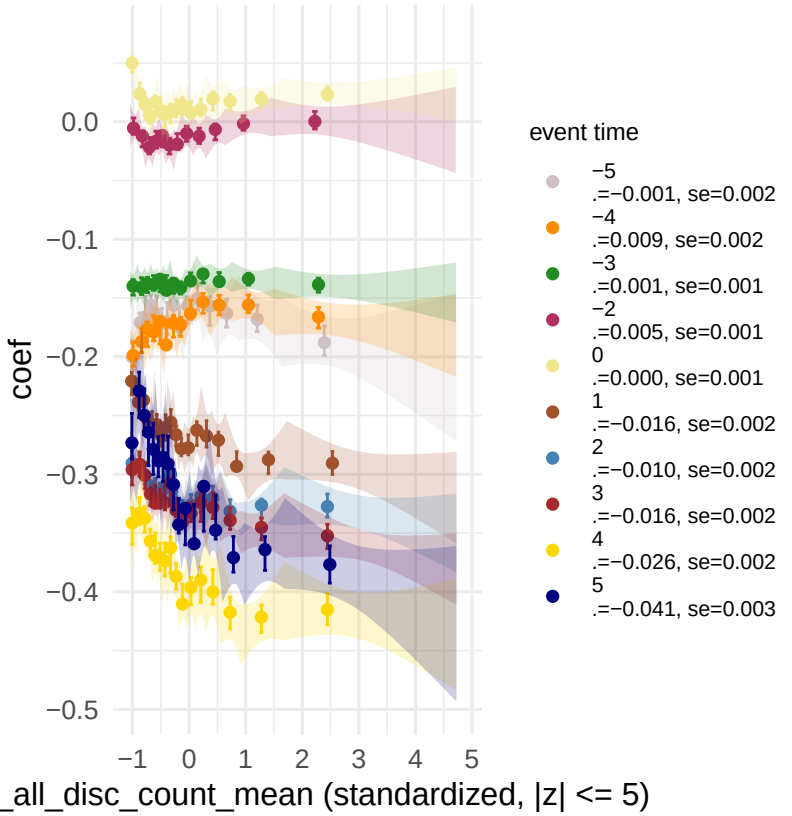
avg_all_disc_count_mean (standardized, |z| <= 5)

Binscatter of Event−study Coefficients
Outcome: overall_new_release_count (rolling1, top15)
knowledge_redundancy −> supervision
discussion_quantity −> avg_all_disc_count
Rank: 12, Importance: 0.0234

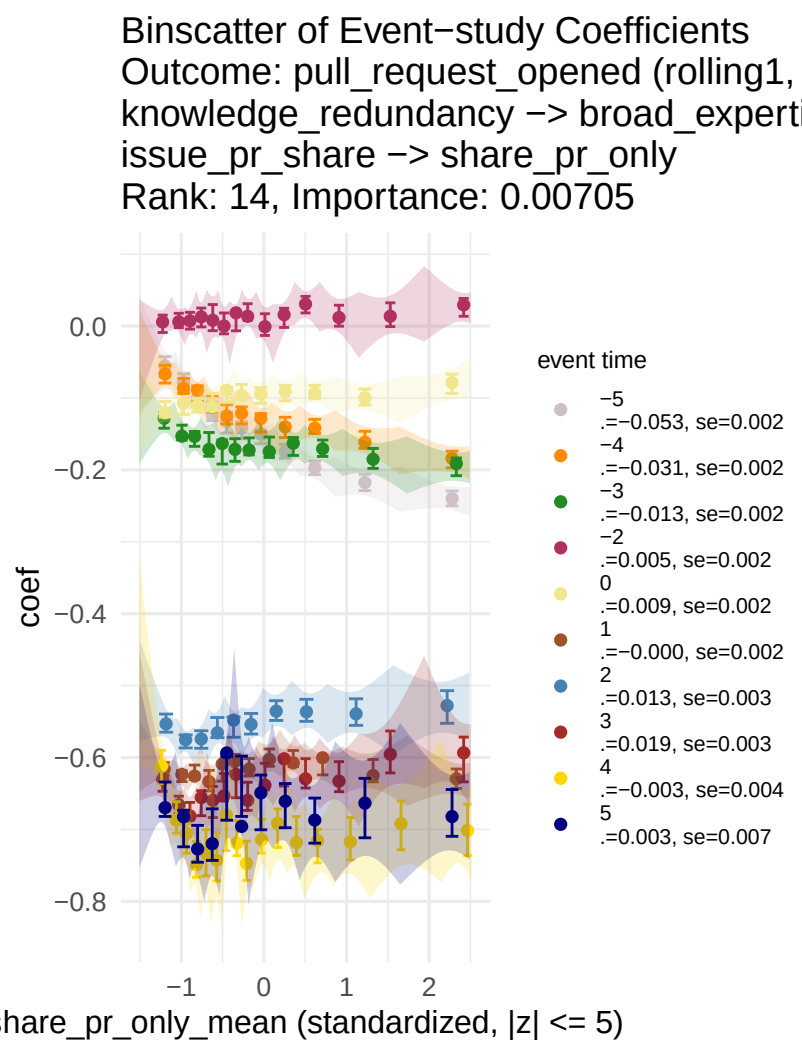


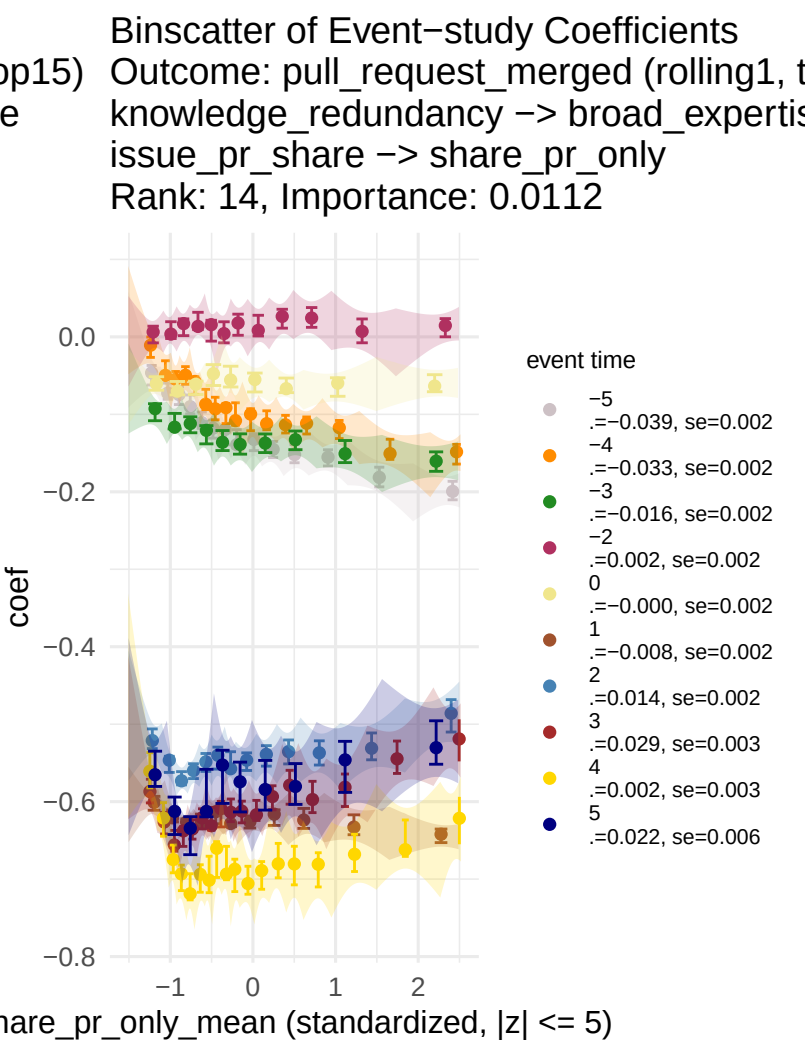
g_all_disc_count_mean (standardized, |z| <= 5)

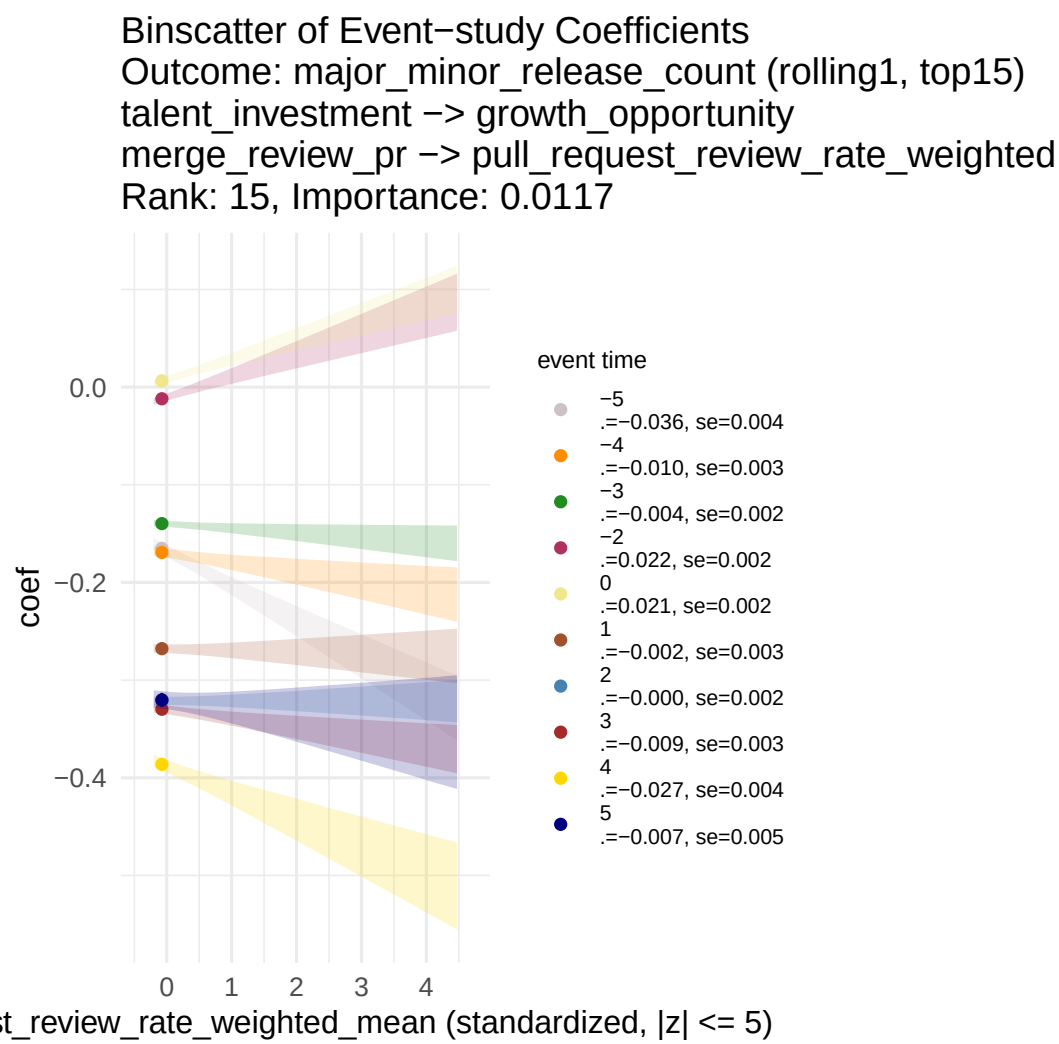
Binscatter of Event−study Coefficients
Outcome: major_minor_release_count (rol
knowledge_redundancy −> supervision
discussion_quantity −> avg_all_disc_coun
Rank: 11, Importance: 0.028



avg_all_disc_count_mean (standardized, |z| <= 5)


Binscatter of Event−study Coefficients
Outcome: pull_request_opened (rolling1, top15)
knowledge_redundancy −> broad_expertise
issue_pr_share −> share_pr_only
Rank: 14, Importance: 0.00705
coef
0.0
−0.2
−0.4
−0.6
−0.8
−1
0
1
2
share_pr_only_mean (standardized, |z| <= 5)
event time
−5
.=−0.053, se=0.002
−4
.=−0.031, se=0.002
−3
.=−0.013, se=0.002
−2
.=0.005, se=0.002
0
.=0.009, se=0.002
1
.=−0.000, se=0.002
2
.=0.013, se=0.003
3
.=0.019, se=0.003
4
.=−0.003, se=0.004
5
.=0.003, se=0.007


Binscatter of Event−study Coefficients
Outcome: pull_request_merged (rolling1, t
knowledge_redundancy −> broad_expertis
issue_pr_share −> share_pr_only
Rank: 14, Importance: 0.0112
coef
0.0
−0.2
−0.4
−0.6
−0.8
−1
0
1
2
share_pr_only_mean (standardized, |z| <= 5)
event time
−5
.=−0.039, se=0.002
−4
.=−0.033, se=0.002
−3
.=−0.016, se=0.002
−2
.=0.002, se=0.002
0
.=−0.000, se=0.002
1
.=−0.008, se=0.002
2
.=0.014, se=0.002
3
.=0.029, se=0.003
4
.=0.002, se=0.003
5
.=0.022, se=0.006


Binscatter of Event−study Coefficients
Outcome: major_minor_release_count (rolling1, top15)
talent_investment −> growth_opportunity
merge_review_pr −> pull_request_review_rate_weighted
Rank: 15, Importance: 0.0117
coef
0.0
−0.2
−0.4
0
1
2
3
4
st_review_rate_weighted_mean (standardized, |z| <= 5)
event time
−5
.=−0.036, se=0.004
−4
.=−0.010, se=0.003
−3
.=−0.004, se=0.002
−2
.=0.022, se=0.002
0
.=0.021, se=0.002
1
.=−0.002, se=0.003
2
.=−0.000, se=0.002
3
.=−0.009, se=0.003
4
.=−0.027, se=0.004
5
.=−0.007, se=0.005