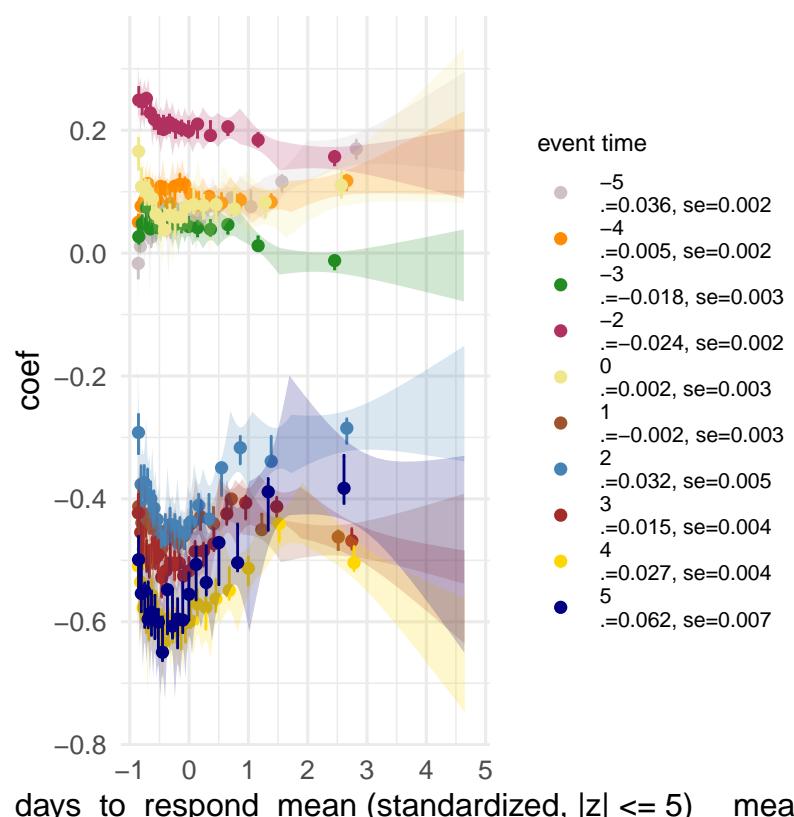
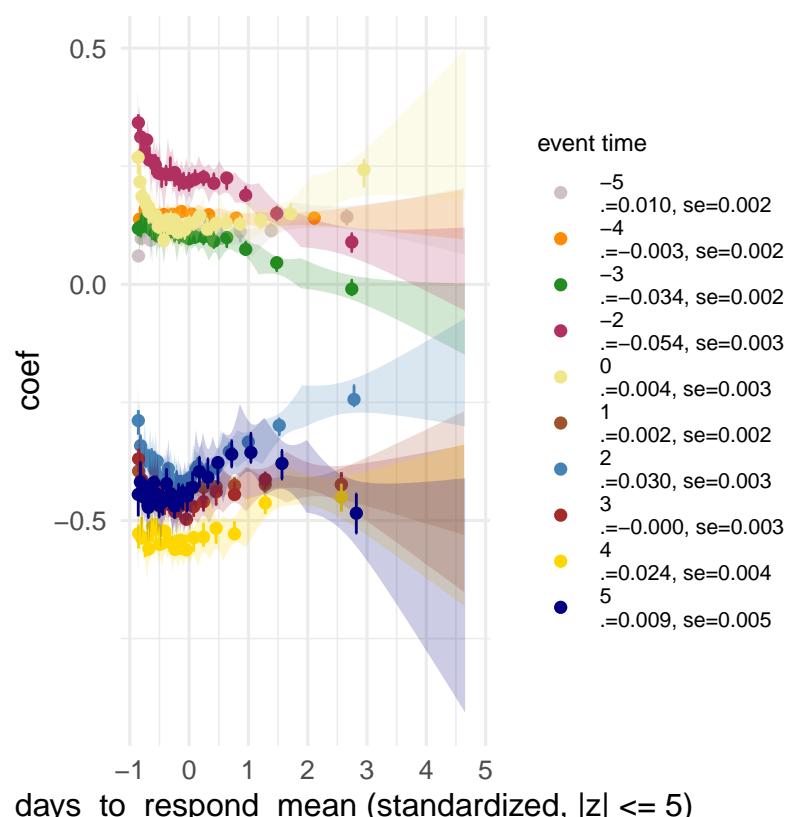


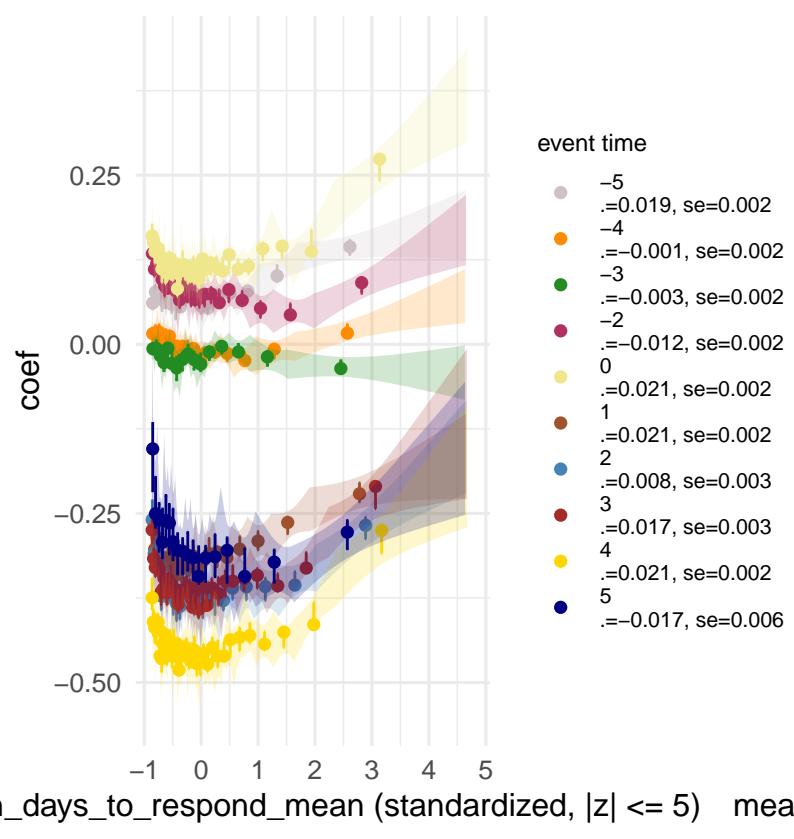
Binscatter of Event-study Coefficients  
 Outcome: pull\_request\_opened (rolling5, top15)  
 talent\_investment → feedback  
 response\_time → mean\_days\_to\_respond  
 Rank: 2, Importance: 0.116



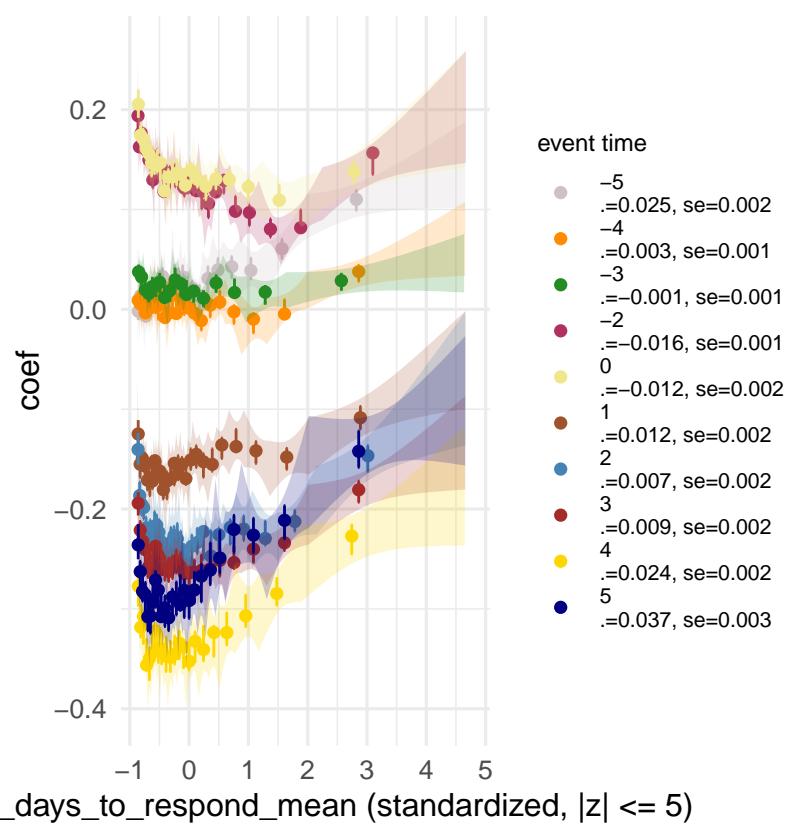
Binscatter of Event-study Coefficients  
 Outcome: pull\_request\_merged (rolling5, top15)  
 talent\_investment → feedback  
 response\_time → mean\_days\_to\_respond  
 Rank: 1, Importance: 0.149



Binscatter of Event-study Coefficients  
 Outcome: overall\_new\_release\_count (rolling5, top15)  
 talent\_investment → feedback  
 response\_time → mean\_days\_to\_respond  
 Rank: 2, Importance: 0.133

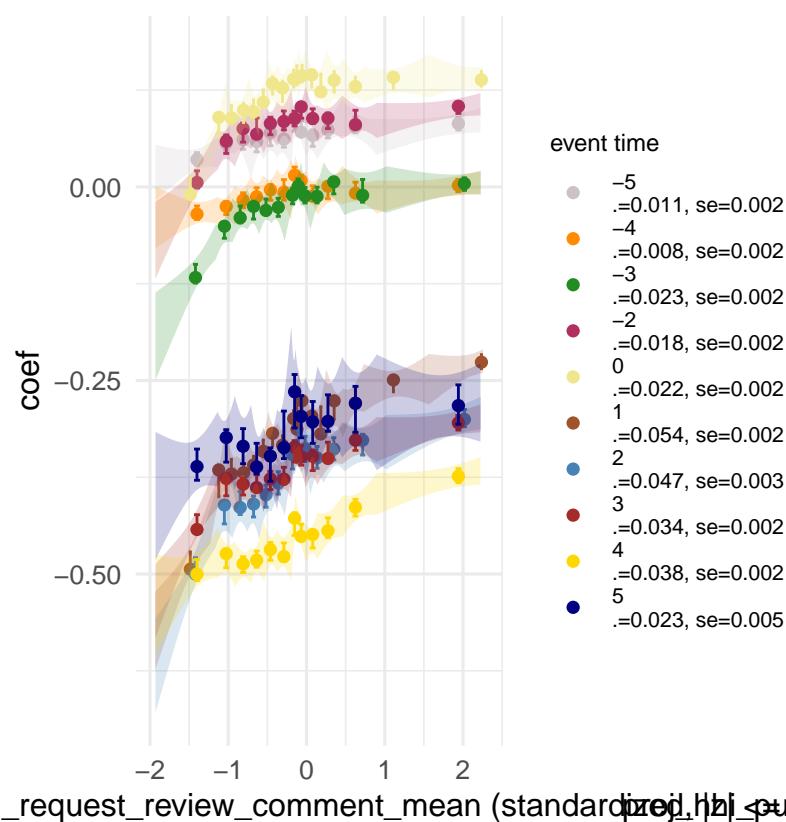


Binscatter of Event-study Coefficients  
 Outcome: major\_minor\_release\_count (rolling5, top15)  
 talent\_investment → feedback  
 response\_time → mean\_days\_to\_respond  
 Rank: 2, Importance: 0.141



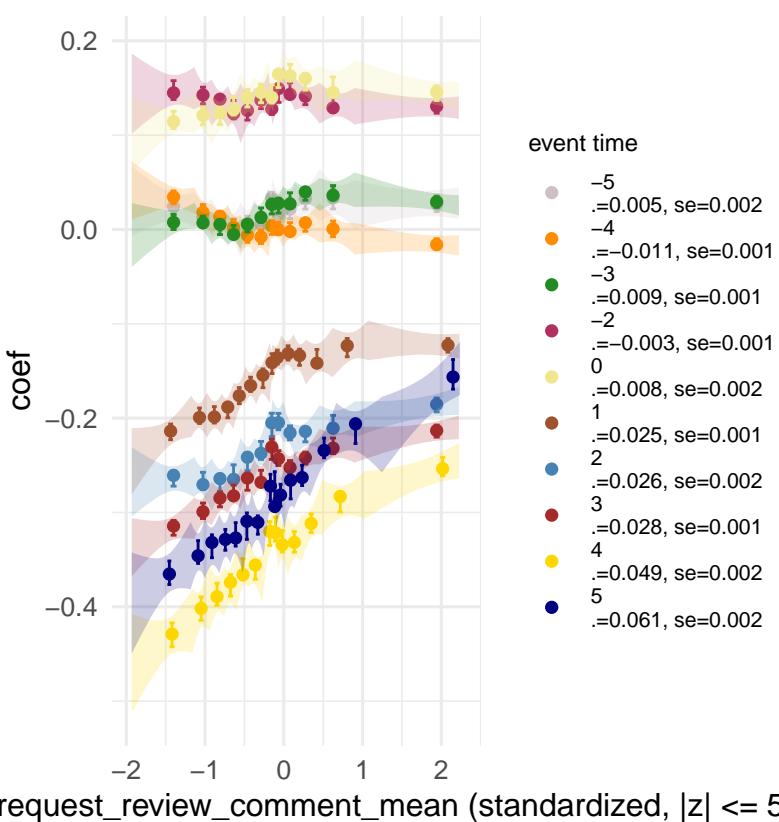
### Binscatter of Event-study Coefficients

Outcome: overall\_new\_release\_count (rolling5, to\_out5)  
 knowledge\_redundancy → collaboration  
 $hh_i \rightarrow proj\_hh_i$  pull\_request\_review\_comment  
 Rank: 1, Importance: 0.14



### Binscatter of Event-study Coefficients

Outcome: major\_minor\_release\_count (rolling5, to\_out5)  
 knowledge\_redundancy → collaboration  
 $hh_i \rightarrow proj\_hh_i$  pull\_request\_review\_comment  
 Rank: 5, Importance: 0.0792



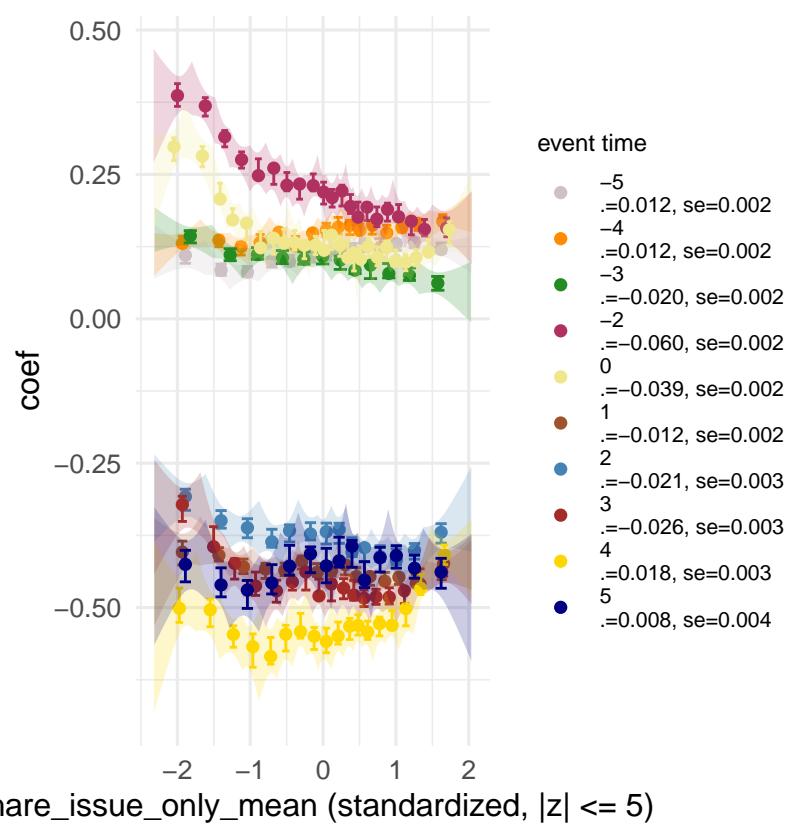
# Binscatter of Event-study Coefficients

Outcome: pull\_request\_merged (rolling5, top15)

knowledge\_redundancy → broad\_expertise

issue\_pr\_share → share\_issue\_only

Rank: 3, Importance: 0.101



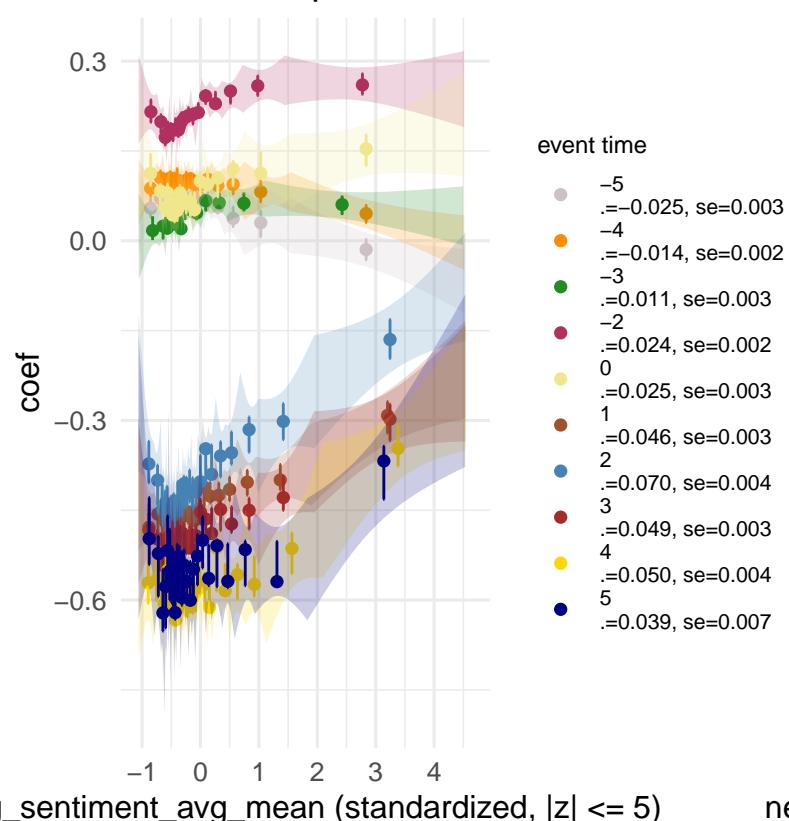
# Binscatter of Event-study Coefficients

Outcome: pull\_request\_opened (rolling5, top15)

talent\_investment → feedback

response\_sentiment → neg\_sentiment\_avg

Rank: 4, Importance: 0.0863



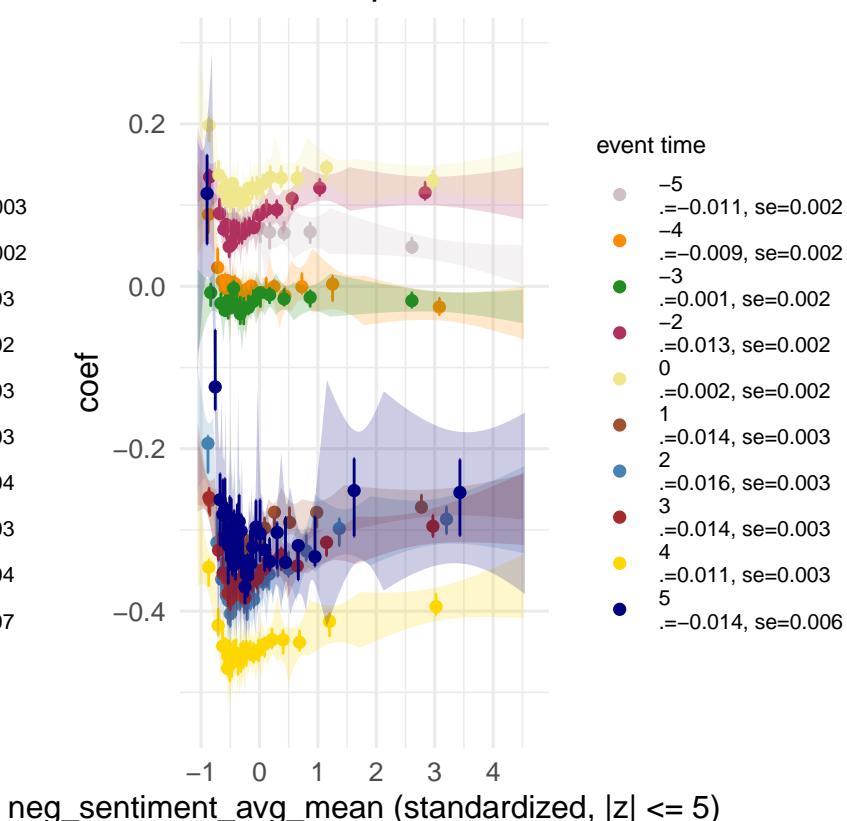
# Binscatter of Event-study Coefficients

Outcome: overall\_new\_release\_count (roll

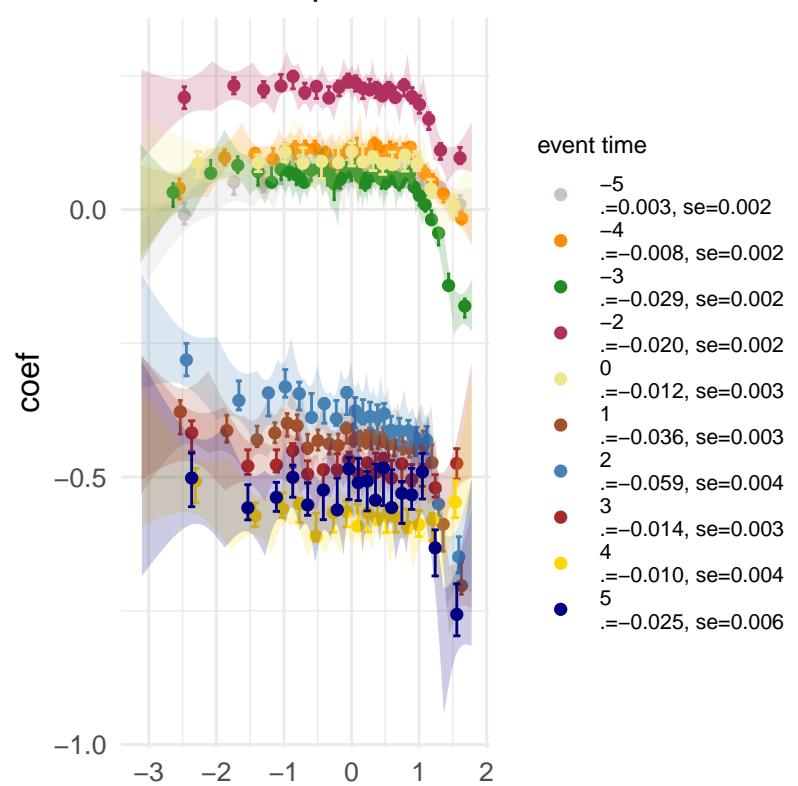
talent\_investment → feedback

response\_sentiment → neg\_sentiment\_avg

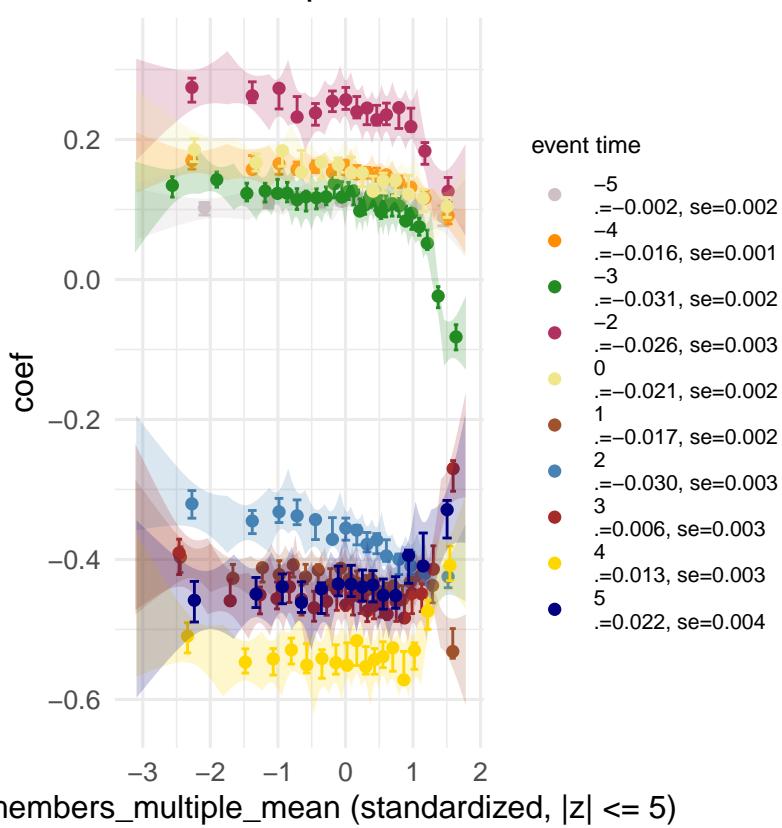
Rank: 4, Importance: 0.118



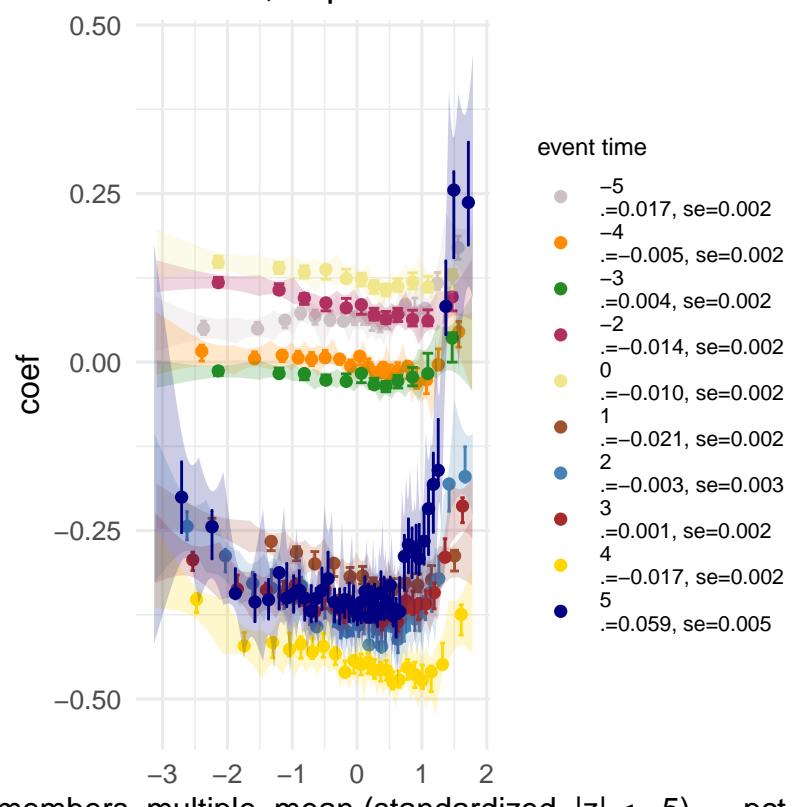
Binscatter of Event-study Coefficients  
 Outcome: pull\_request\_opened (rolling5, top15)  
 knowledge\_redundancy → collaboration  
 member\_count → pct\_members\_multiple  
 Rank: 1, Importance: 0.145



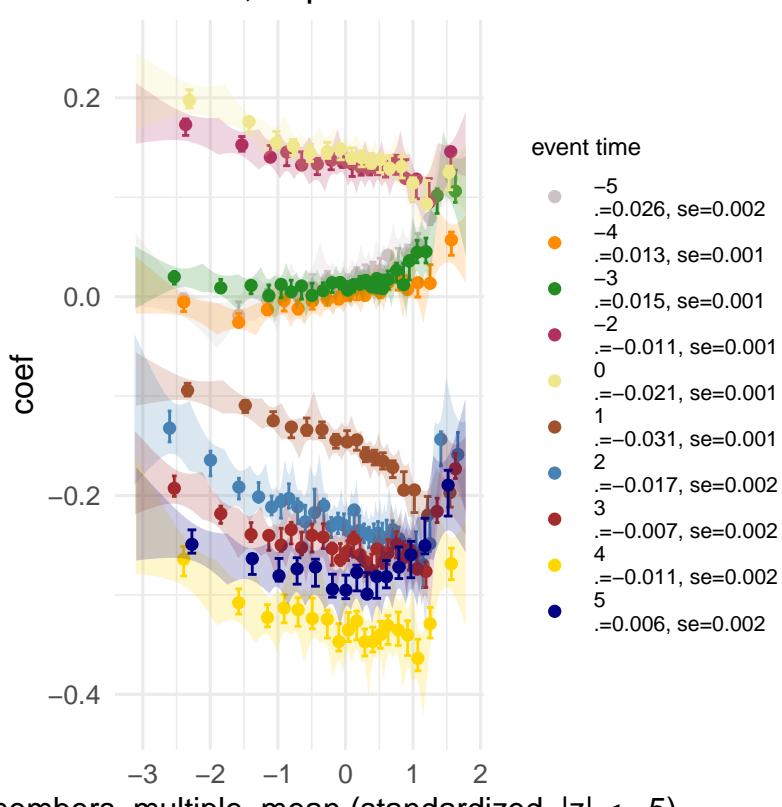
Binscatter of Event-study Coefficients  
 Outcome: pull\_request\_merged (rolling5, top15)  
 knowledge\_redundancy → collaboration  
 member\_count → pct\_members\_multiple  
 Rank: 7, Importance: 0.0803



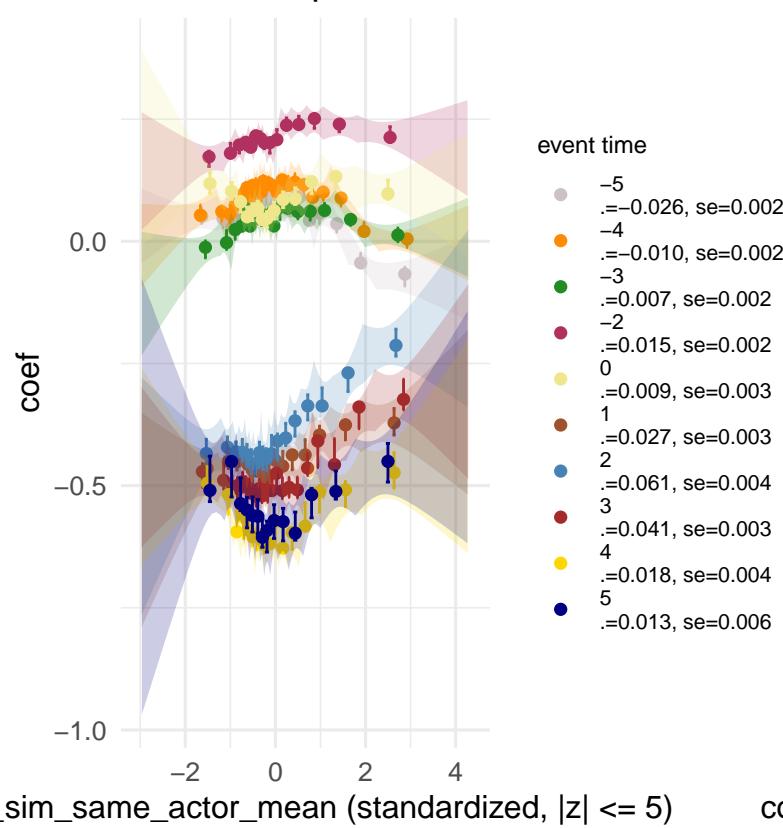
Binscatter of Event-study Coefficients  
 Outcome: overall\_new\_release\_count (rolling5, top15)  
 knowledge\_redundancy → collaboration  
 member\_count → pct\_members\_multiple  
 Rank: 6, Importance: 0.1



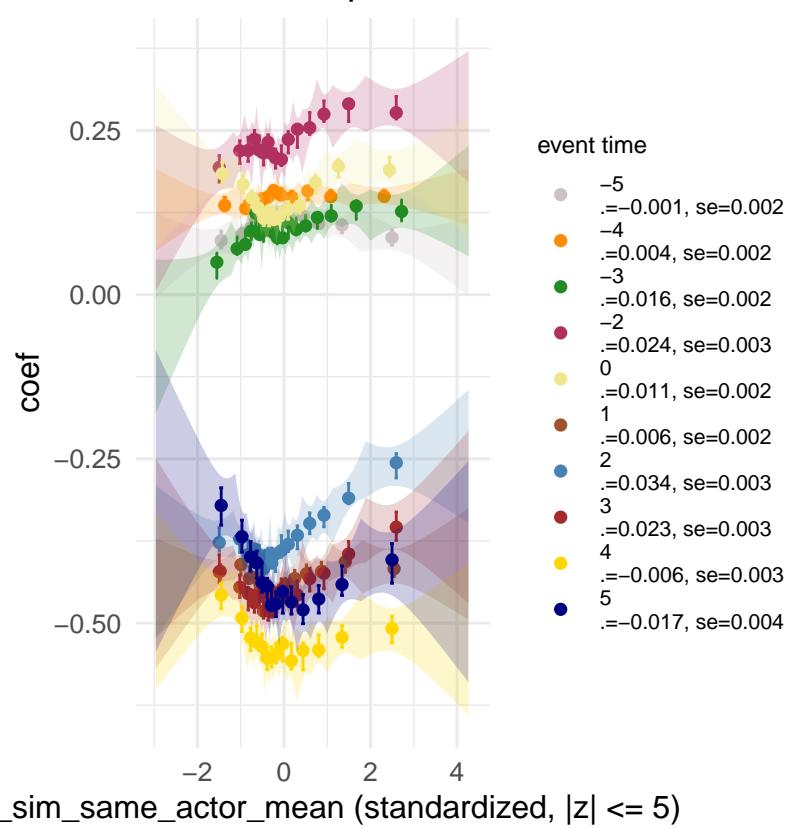
Binscatter of Event-study Coefficients  
 Outcome: major\_minor\_release\_count (rolling5, top15)  
 knowledge\_redundancy → collaboration  
 member\_count → pct\_members\_multiple  
 Rank: 3, Importance: 0.136



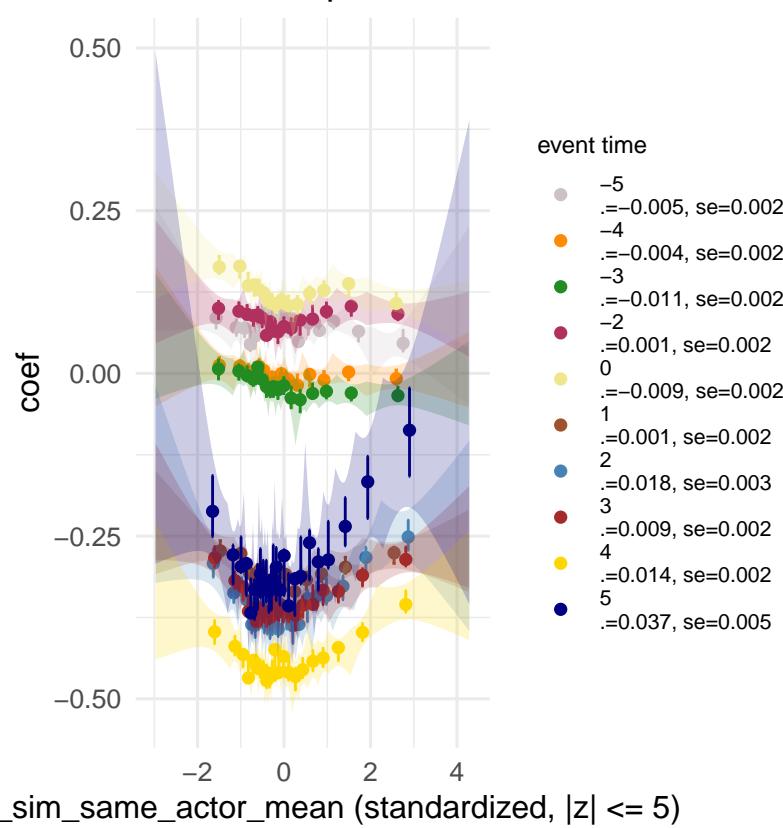
Binscatter of Event-study Coefficients  
 Outcome: pull\_request\_opened (rolling5, top15)  
 knowledge\_redundancy → broad\_expertise  
 discussion\_content → cos\_sim\_same\_actor  
 Rank: 3, Importance: 0.102



Binscatter of Event-study Coefficients  
 Outcome: pull\_request\_merged (rolling5, top15)  
 knowledge\_redundancy → broad\_expertise  
 discussion\_content → cos\_sim\_same\_actor  
 Rank: 10, Importance: 0.0456



Binscatter of Event-study Coefficients  
 Outcome: overall\_new\_release\_count (rolling5, top15)  
 knowledge\_redundancy → broad\_expertise  
 discussion\_content → cos\_sim\_same\_actor  
 Rank: 3, Importance: 0.128



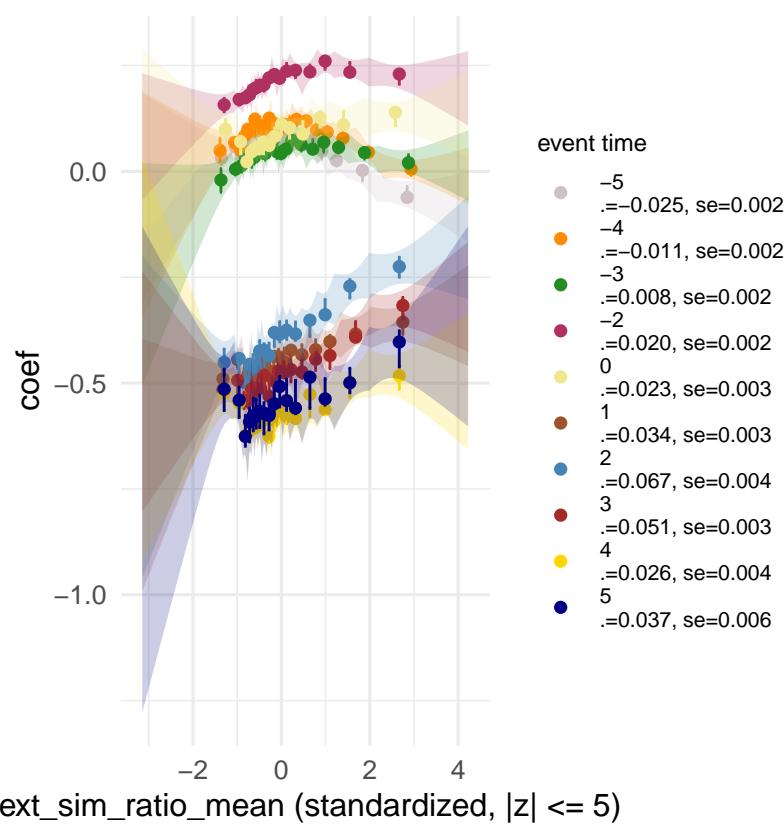
### Binscatter of Event-study Coefficients

Outcome: pull\_request\_opened (rolling5, top15)

knowledge\_redundancy → broad\_expertise

discussion\_content → text\_sim\_ratio

Rank: 9, Importance: 0.0587



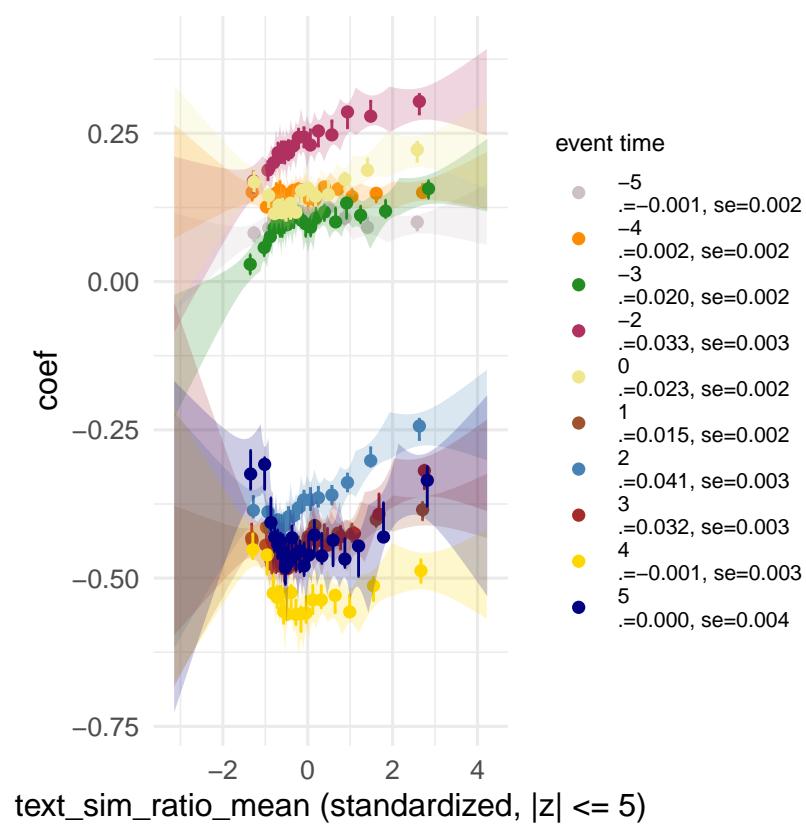
### Binscatter of Event-study Coefficients

Outcome: pull\_request\_merged (rolling5, top15)

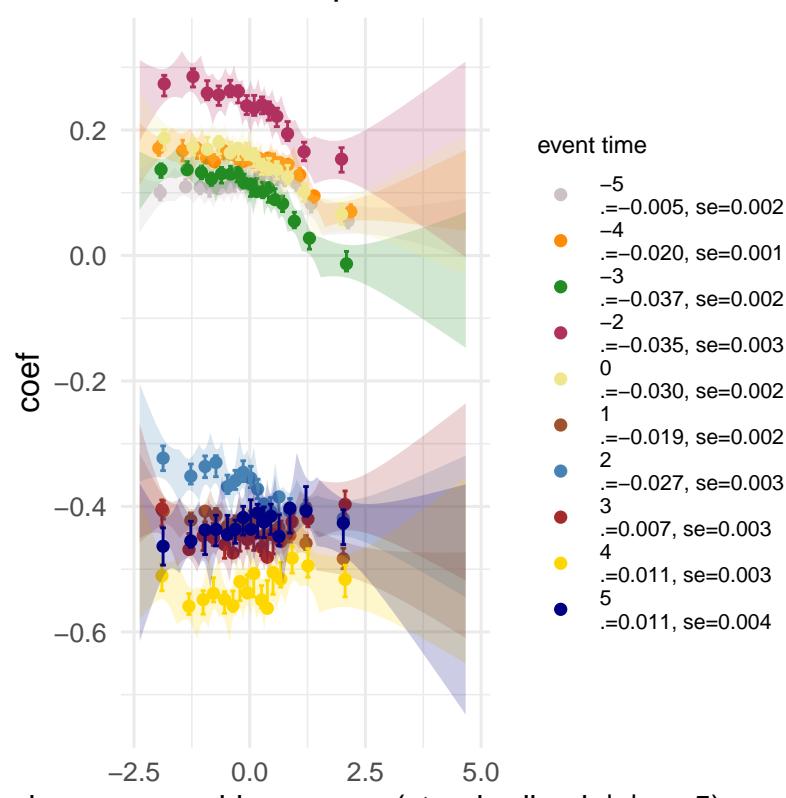
knowledge\_redundancy → broad\_expertise

discussion\_content → text\_sim\_ratio

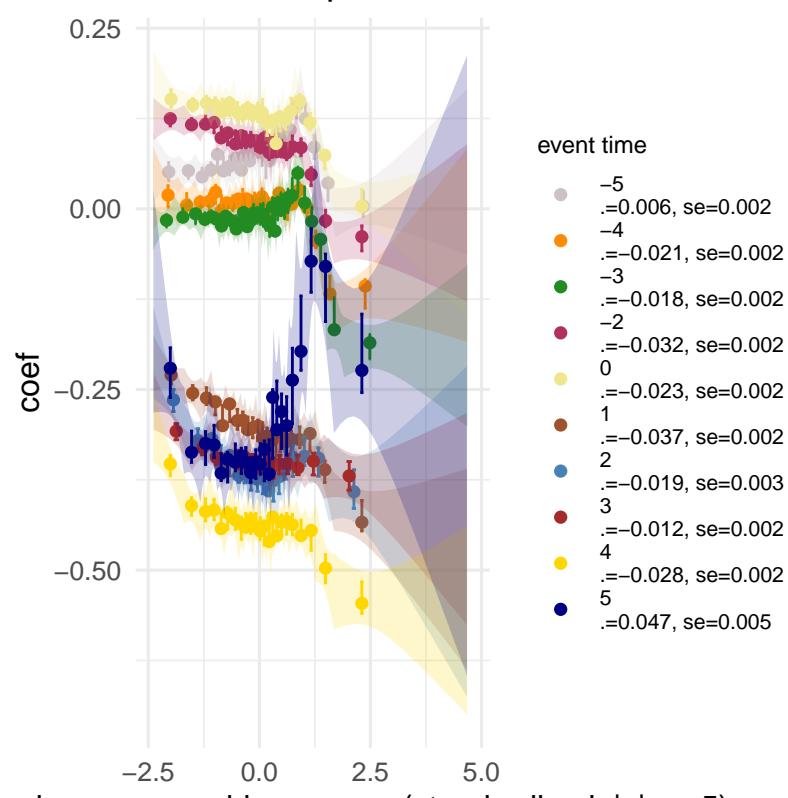
Rank: 2, Importance: 0.13



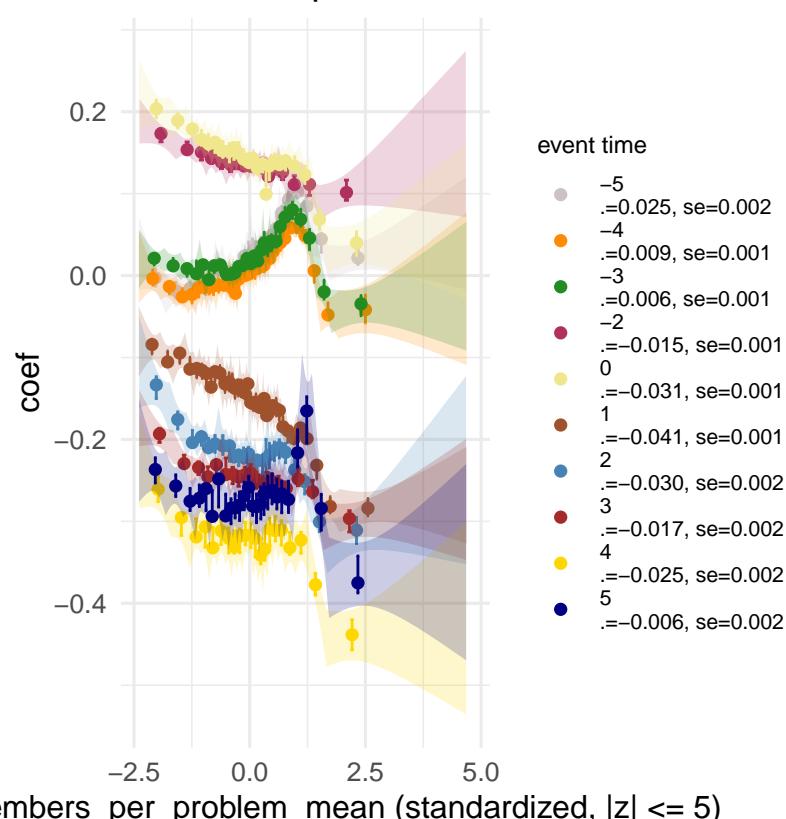
Binscatter of Event-study Coefficients  
 Outcome: pull\_request\_merged (rolling5, top15)  
 knowledge\_redundancy → collaboration  
 member\_count → avg\_members\_per\_problem  
 Rank: 12, Importance: 0.0221



Binscatter of Event-study Coefficients  
 Outcome: overall\_new\_release\_count (rolling5, top15)  
 knowledge\_redundancy → collaboration  
 member\_count → avg\_members\_per\_problem  
 Rank: 5, Importance: 0.118



Binscatter of Event-study Coefficients  
 Outcome: major\_minor\_release\_count (rolling5, top15)  
 knowledge\_redundancy → collaboration  
 member\_count → avg\_members\_per\_problem  
 Rank: 1, Importance: 0.149



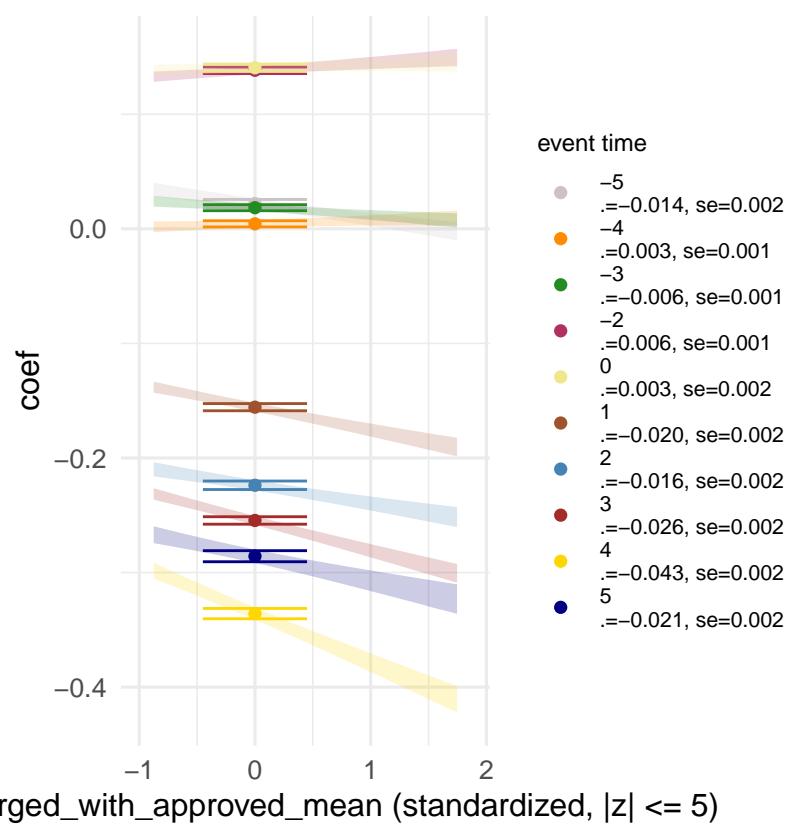
# Binscatter of Event-study Coefficients

Outcome: major\_minor\_release\_count (rolling5, top15)

knowledge\_redundancy → supervision

merged\_with\_review → pct\_merged\_with\_approved

Rank: 6, Importance: 0.0706



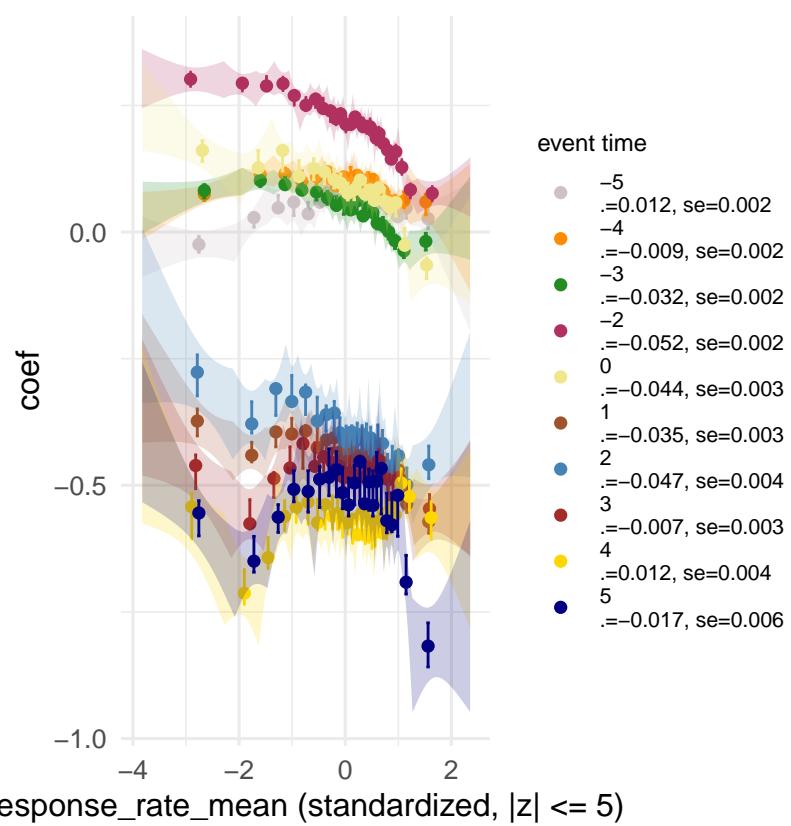
# Binscatter of Event-study Coefficients

Outcome: pull\_request\_opened (rolling5, top15)

talent\_investment → feedback

response\_rate → response\_rate

Rank: 6, Importance: 0.0741



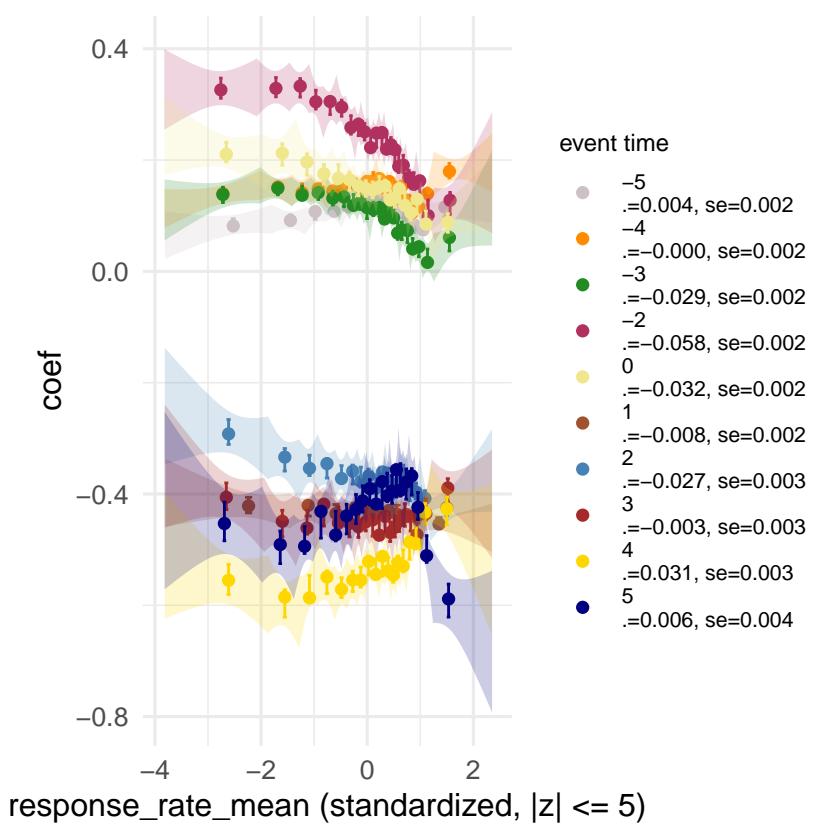
# Binscatter of Event-study Coefficients

Outcome: pull\_request\_merged (rolling5, t)

talent\_investment → feedback

response\_rate → response\_rate

Rank: 6, Importance: 0.0804



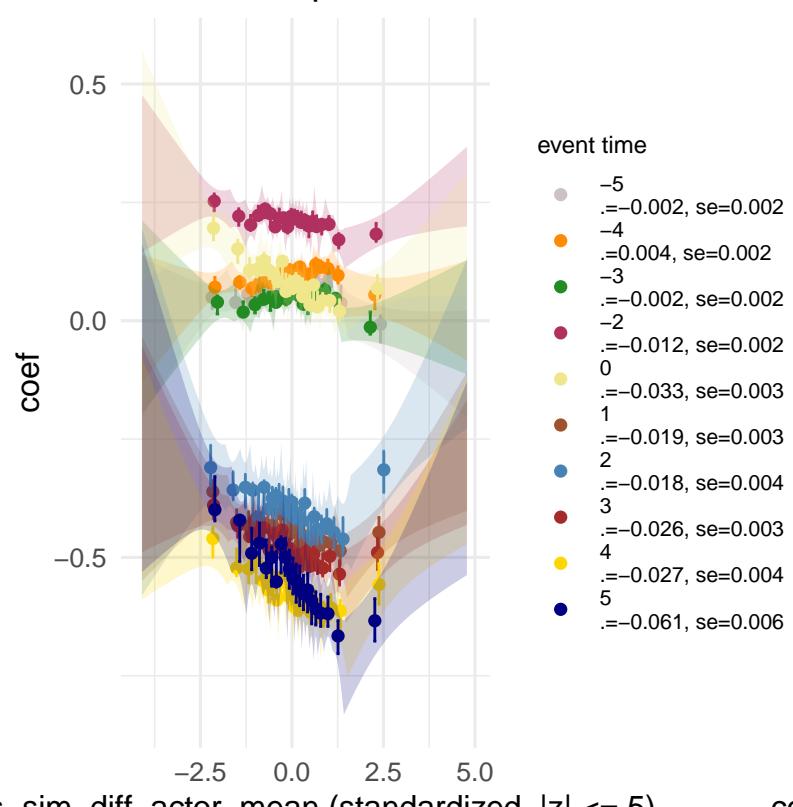
### Binscatter of Event-study Coefficients

Outcome: pull\_request\_opened (rolling5, top15)

knowledge\_redundancy → broad\_expertise

discussion\_content → cos\_sim\_diff\_actor

Rank: 7, Importance: 0.0687



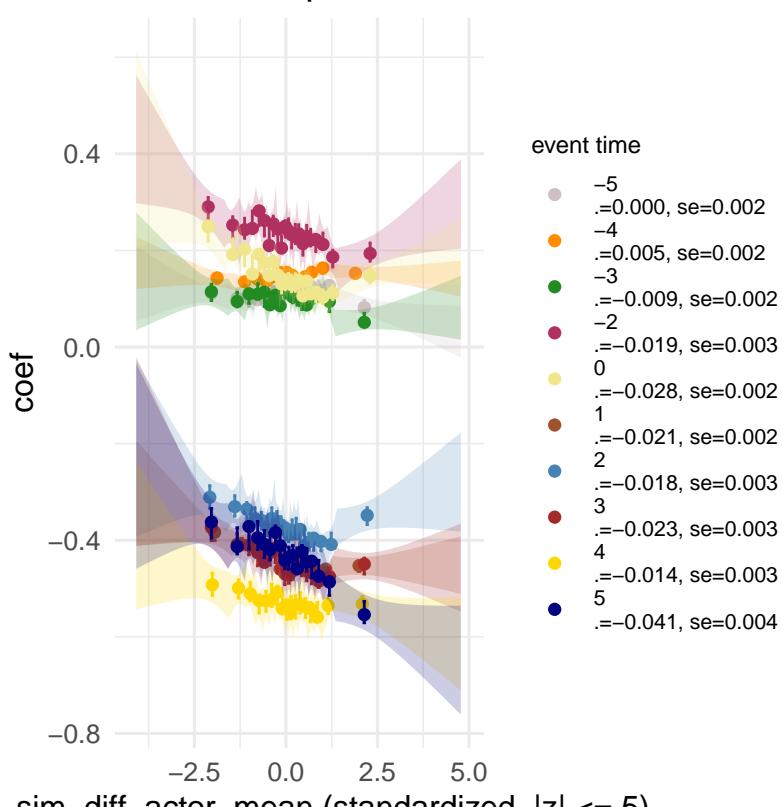
### Binscatter of Event-study Coefficients

Outcome: pull\_request\_merged (rolling5, t)

knowledge\_redundancy → broad\_expertise

discussion\_content → cos\_sim\_diff\_actor

Rank: 5, Importance: 0.0899



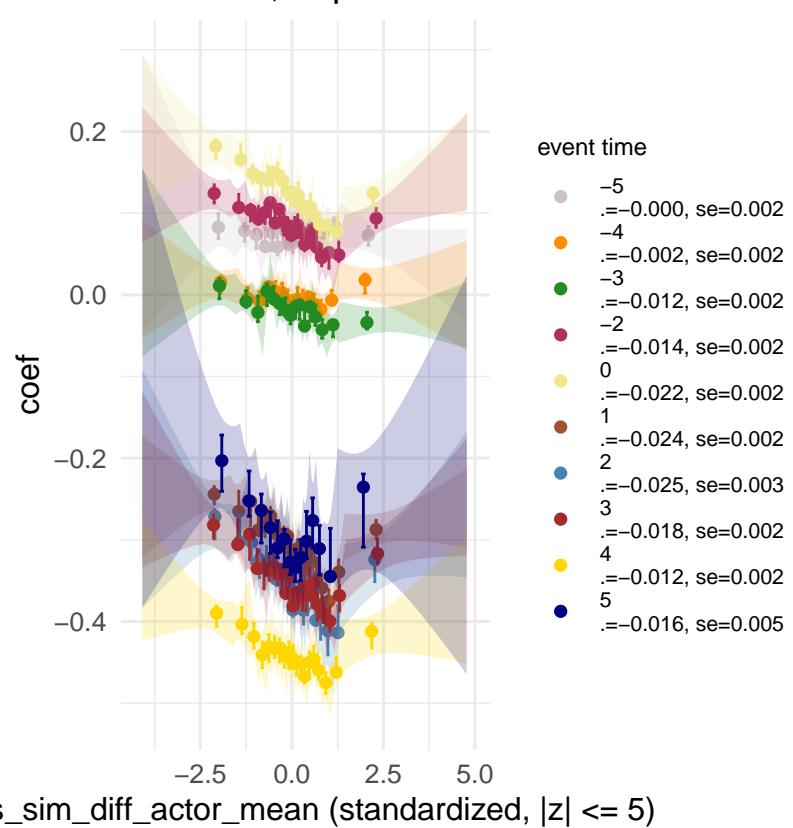
### Binscatter of Event-study Coefficients

Outcome: overall\_new\_release\_count (rolling5, top15)

knowledge\_redundancy → broad\_expertise

discussion\_content → cos\_sim\_diff\_actor

Rank: 10, Importance: 0.0305

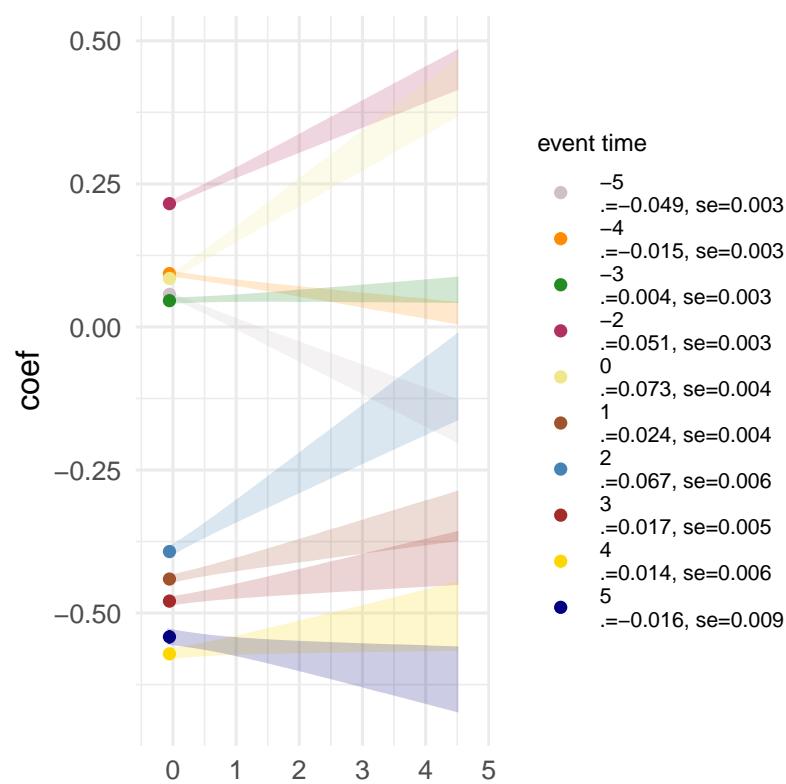


### Binscatter of Event-study Coefficients

Outcome: pull\_request\_opened (rolling5, top15)  
talent\_investment → growth\_opportunity

merge\_review\_pr → pull\_request\_merged\_rate\_weighted\_mean

Rank: 12, Importance: 0.0414

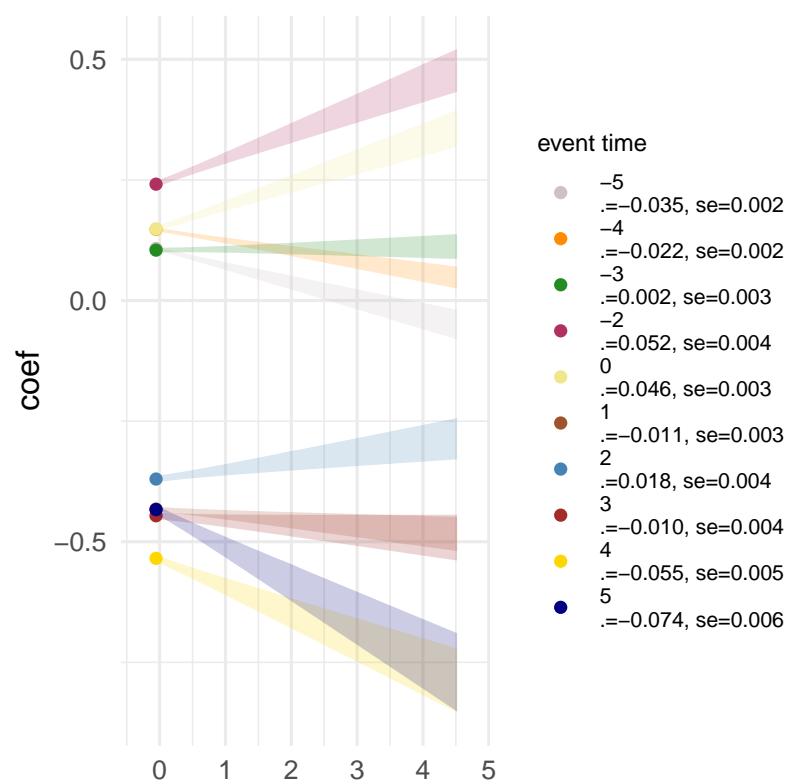


### Binscatter of Event-study Coefficients

Outcome: pull\_request\_merged (rolling5, top15)  
talent\_investment → growth\_opportunity

merge\_review\_pr → pull\_request\_merged\_rate\_weighted\_mean

Rank: 8, Importance: 0.0673

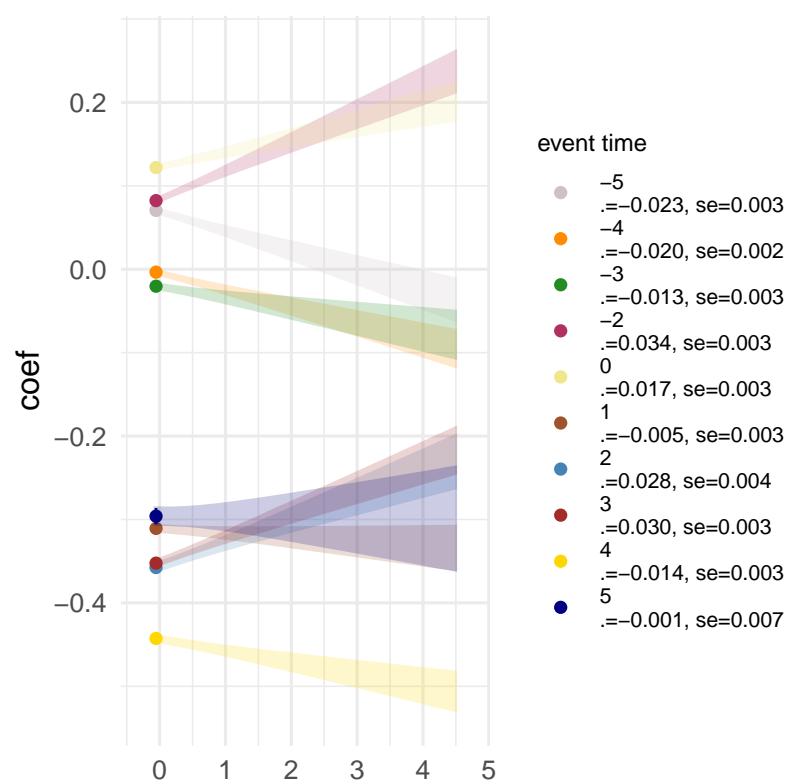


### Binscatter of Event-study Coefficients

Outcome: overall\_new\_release\_count (rolling5, top15)  
talent\_investment → growth\_opportunity

merge\_review\_pr → pull\_request\_merged\_rate\_weighted\_mean

Rank: 7, Importance: 0.0887

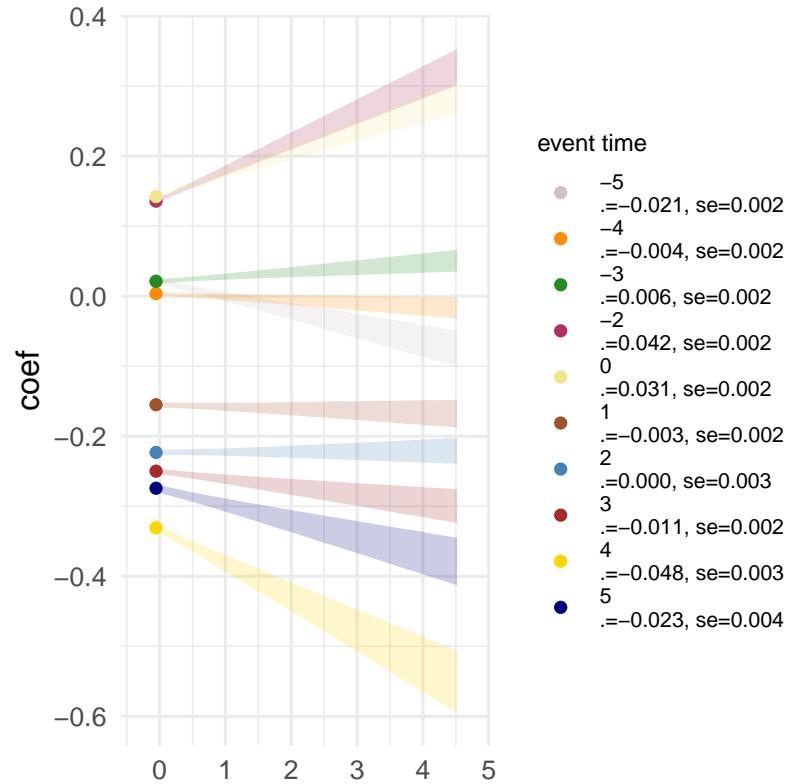


### Binscatter of Event-study Coefficients

Outcome: major\_minor\_release\_count (rolling5, top15)  
talent\_investment → growth\_opportunity

merge\_review\_pr → pull\_request\_merged\_rate\_weighted\_mean

Rank: 4, Importance: 0.0918



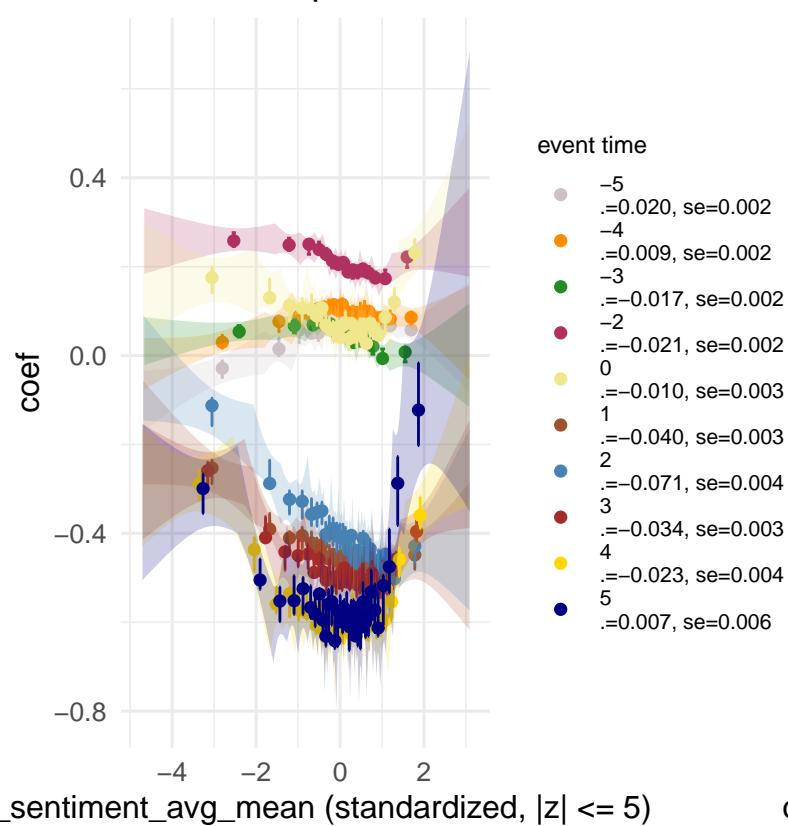
# Binscatter of Event-study Coefficients

Outcome: pull\_request\_opened (rolling5, top15)

talent\_investment → feedback

response\_sentiment → ov\_sentiment\_avg

Rank: 5, Importance: 0.0809



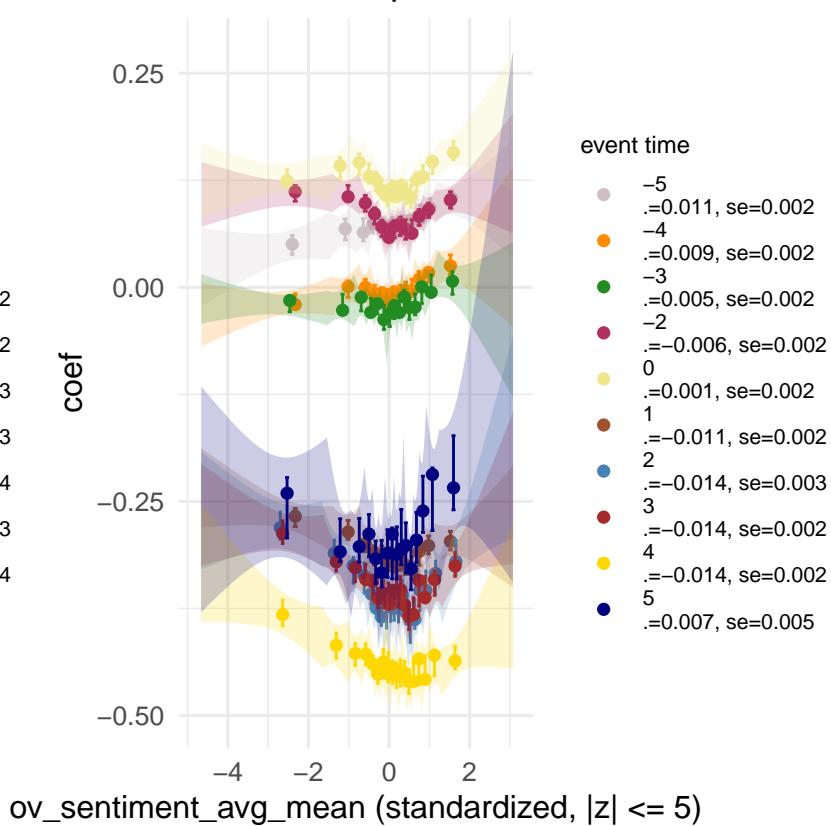
# Binscatter of Event-study Coefficients

Outcome: overall\_new\_release\_count (rolling5, top15)

talent\_investment → feedback

response\_sentiment → ov\_sentiment\_avg

Rank: 11, Importance: 0.0148



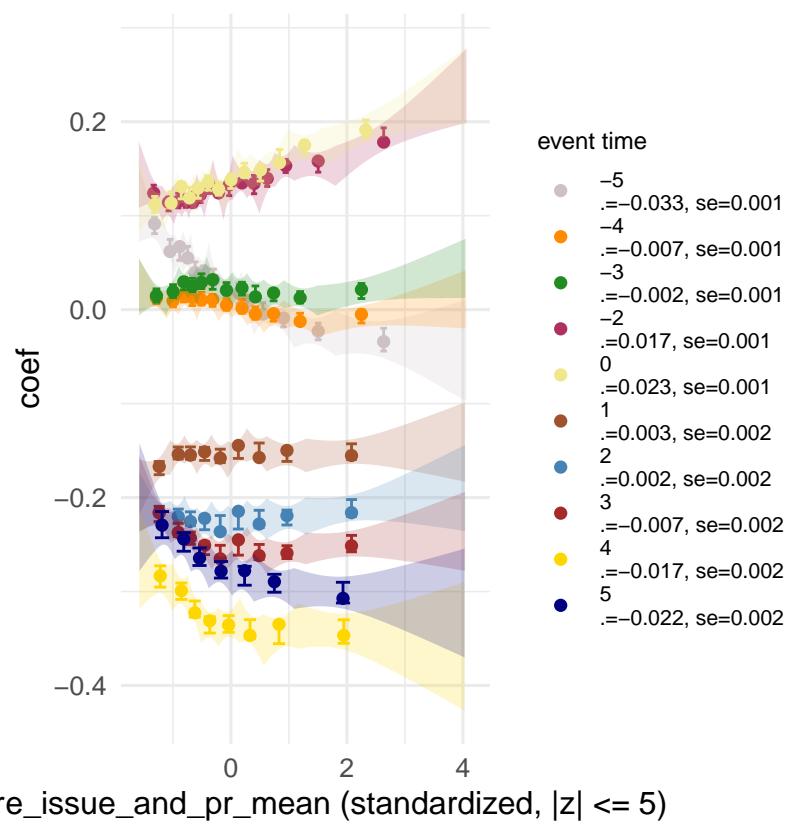
# Binscatter of Event-study Coefficients

Outcome: major\_minor\_release\_count (rolling5, top15)

knowledge\_redundancy → broad\_expertise

issue\_pr\_share → share\_issue\_and\_pr

Rank: 8, Importance: 0.0609



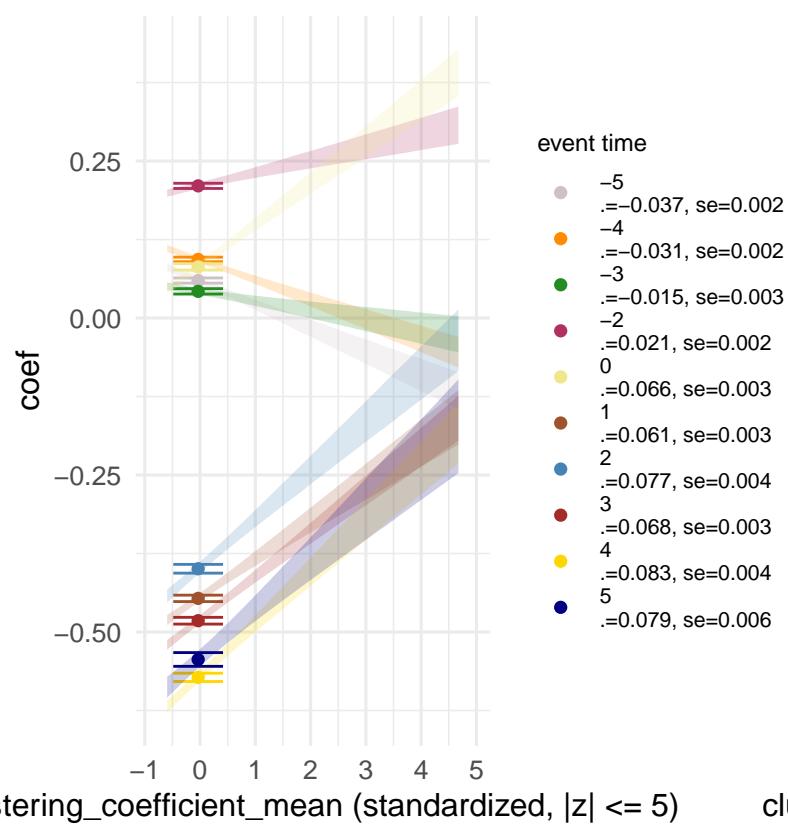
### Binscatter of Event-study Coefficients

Outcome: pull\_request\_opened (rolling5, top15)

talent\_investment → organizational\_closeness

network\_clustering\_coefficient → clustering\_coefficient

Rank: 8, Importance: 0.0672



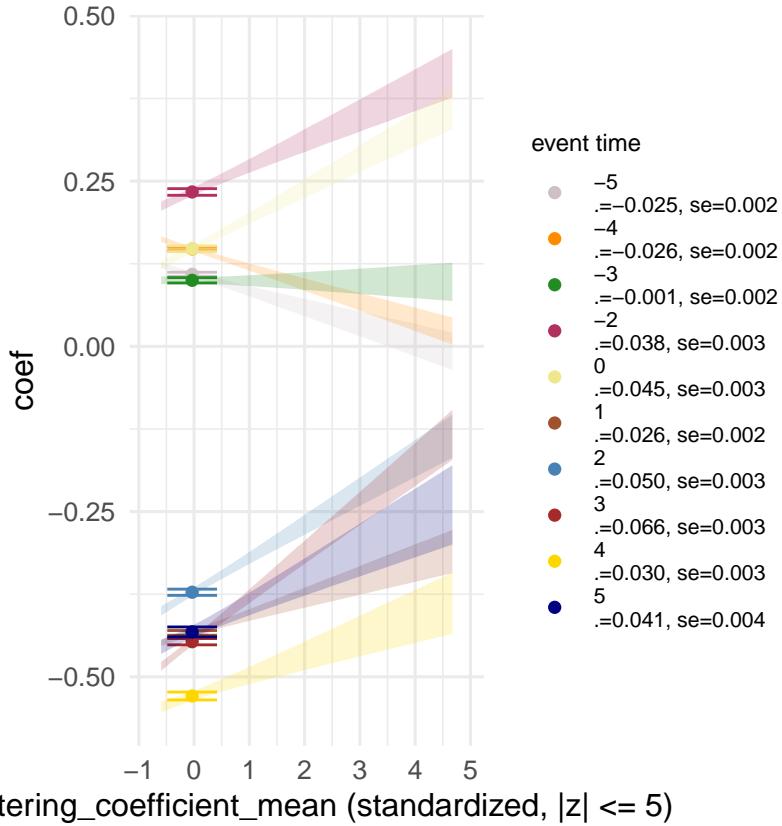
### Binscatter of Event-study Coefficients

Outcome: pull\_request\_merged (rolling5,

talent\_investment → organizational\_closeness

network\_clustering\_coefficient → clustering\_coefficient

Rank: 9, Importance: 0.0583



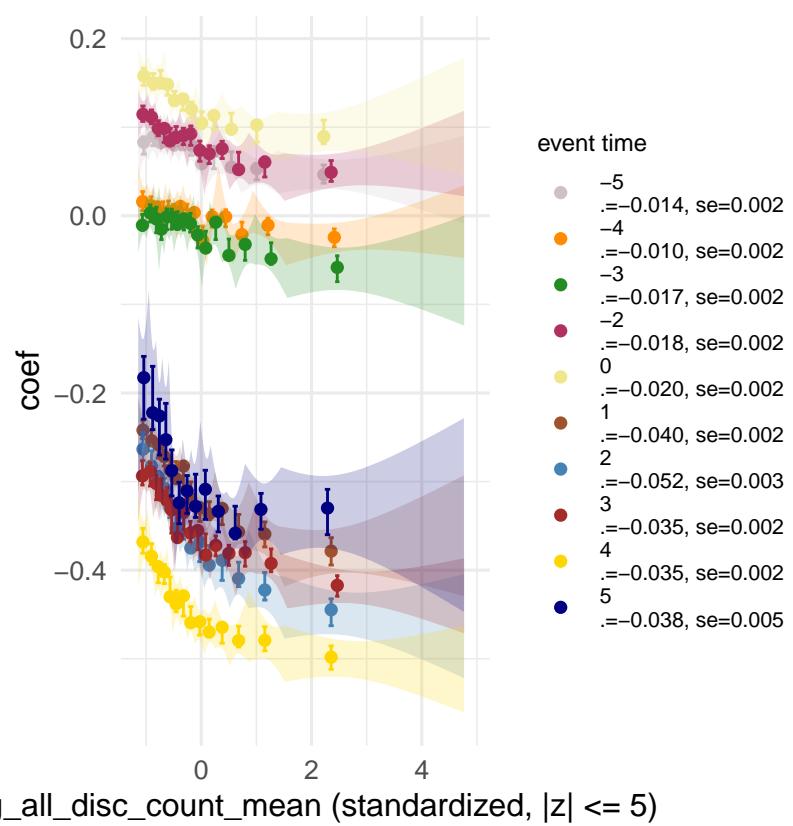
# Binscatter of Event-study Coefficients

Outcome: overall\_new\_release\_count (rolling5, top15)

knowledge\_redundancy → supervision

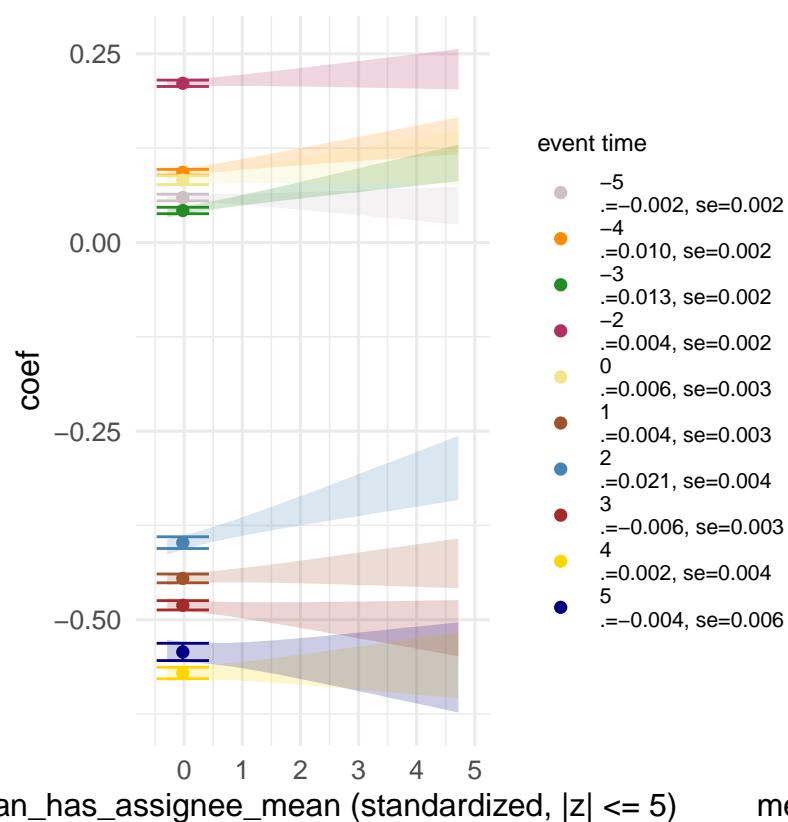
discussion\_quantity → avg\_all\_disc\_count

Rank: 9, Importance: 0.0311



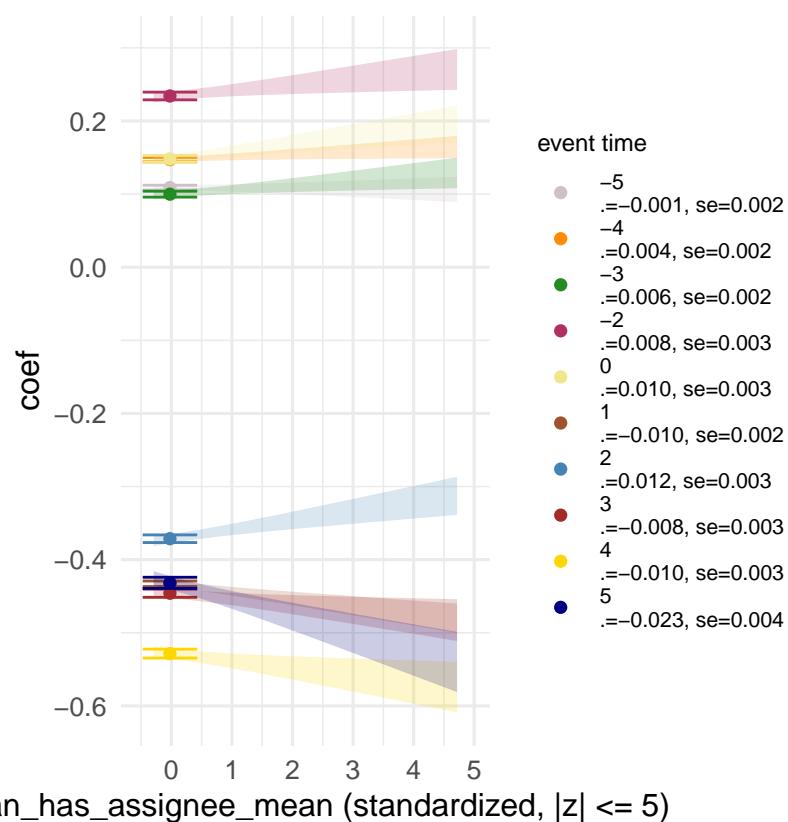
### Binscatter of Event-study Coefficients

Outcome: pull\_request\_opened (rolling5, top15)  
 organizational\_routines → organized\_assignment  
 discussion\_assignees → mean\_has\_assignee  
 Rank: 11, Importance: 0.0418



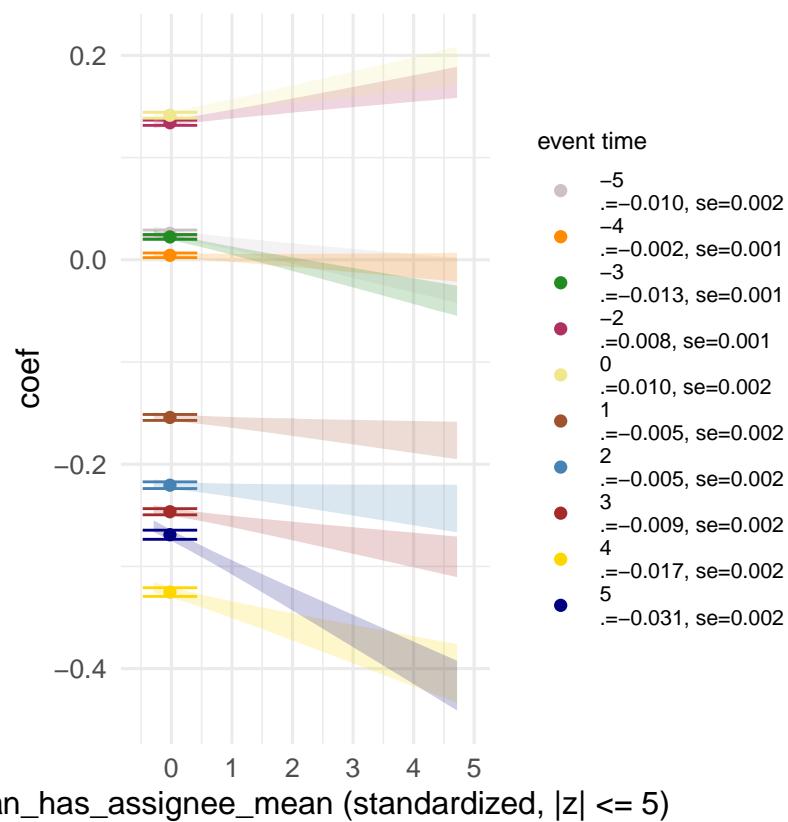
### Binscatter of Event-study Coefficients

Outcome: pull\_request\_merged (rolling5, top15)  
 organizational\_routines → organized\_assignment  
 discussion\_assignees → mean\_has\_assignee  
 Rank: 4, Importance: 0.0998



### Binscatter of Event-study Coefficients

Outcome: major\_minor\_release\_count (rolling5, top15)  
 organizational\_routines → organized\_assignment  
 discussion\_assignees → mean\_has\_assignee  
 Rank: 12, Importance: 0.0257



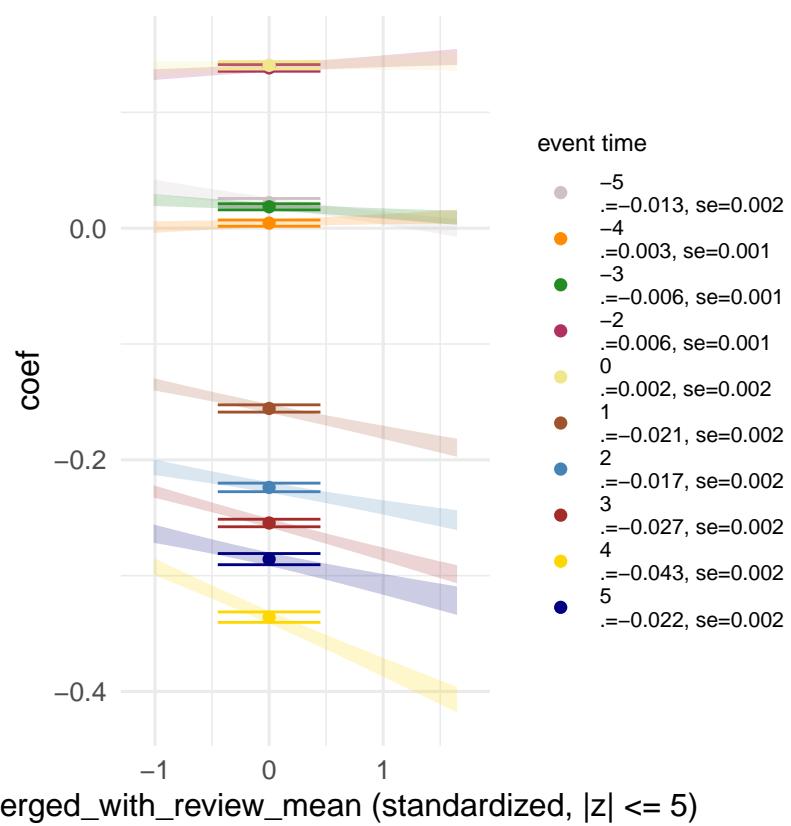
# Binscatter of Event-study Coefficients

Outcome: major\_minor\_release\_count (rolling5, top15)

knowledge\_redundancy → supervision

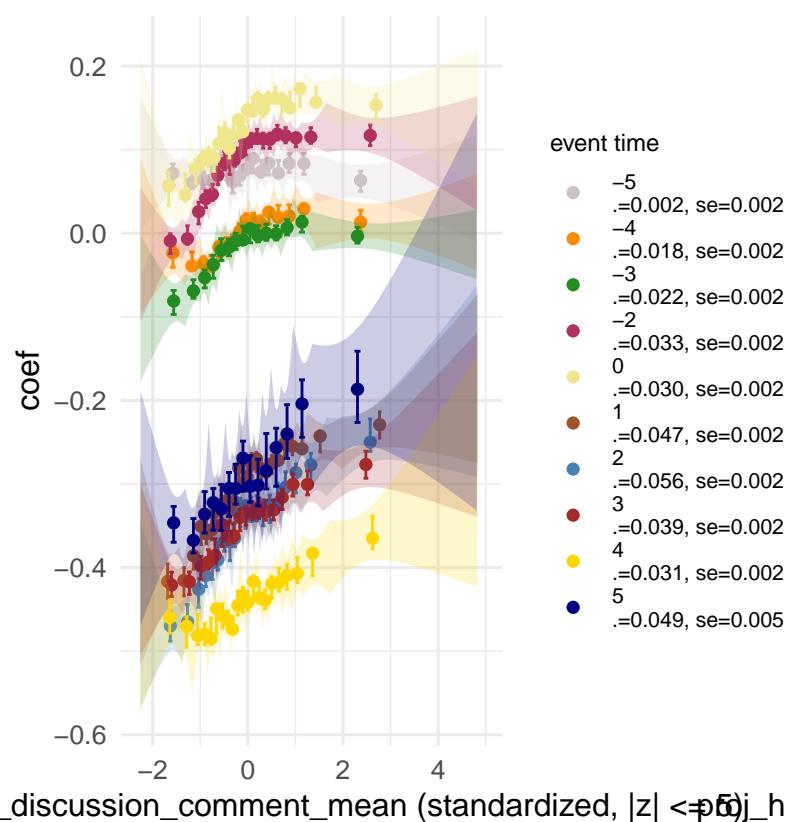
merged\_with\_review → pct\_merged\_with\_review

Rank: 9, Importance: 0.0547



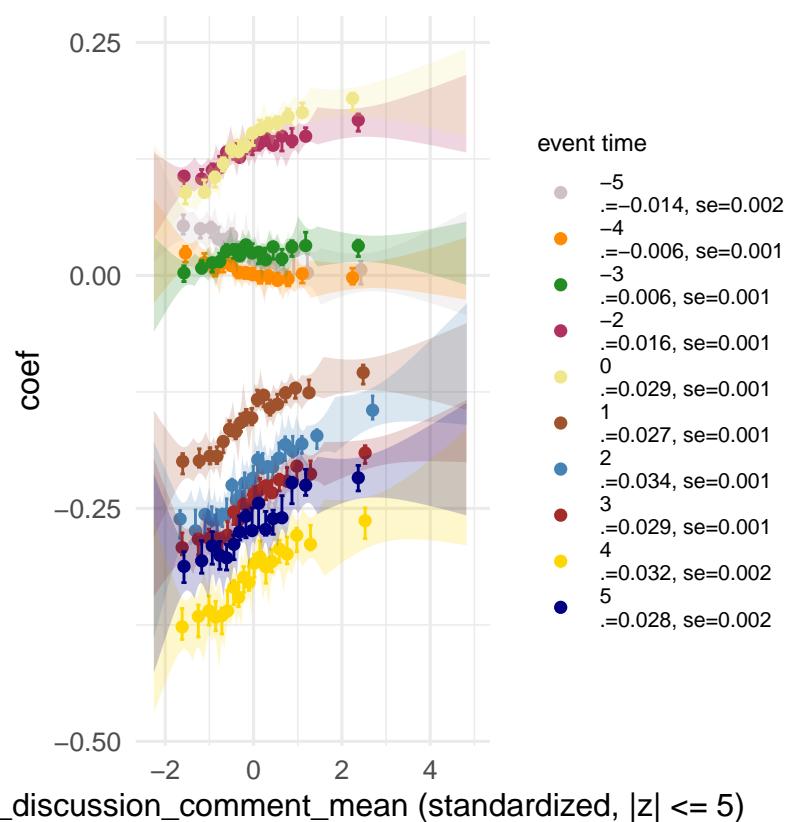
### Binscatter of Event-study Coefficients

Outcome: overall\_new\_release\_count (rolling5, top10)  
 knowledge\_redundancy → collaboration  
 hhi → proj\_hhi\_discussion\_comment  
 Rank: 8, Importance: 0.0567

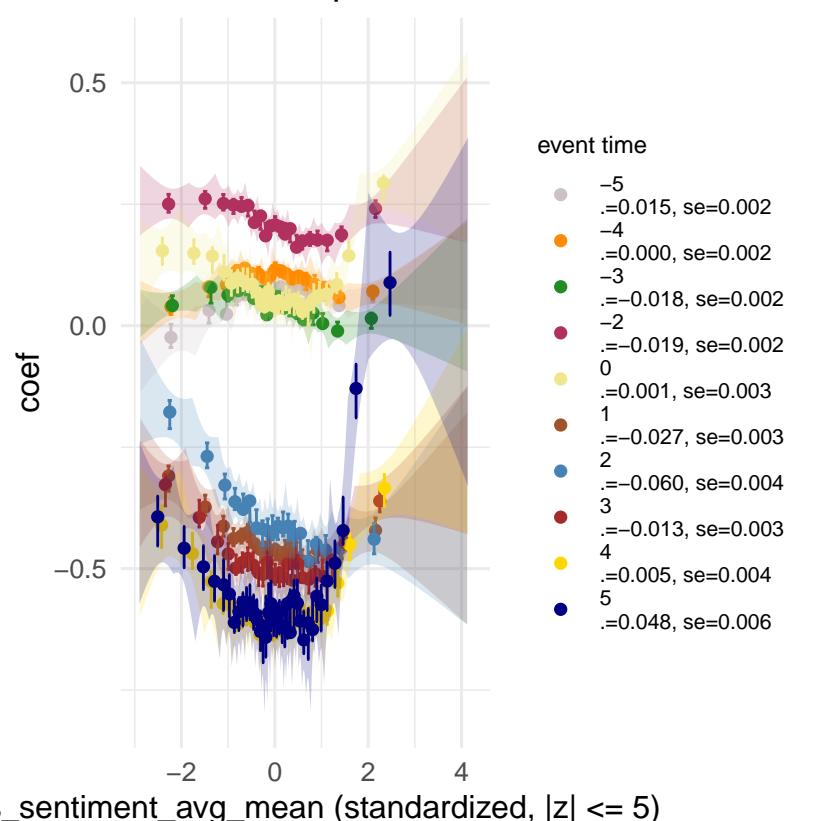


### Binscatter of Event-study Coefficients

Outcome: major\_minor\_release\_count (rolling5, top10)  
 knowledge\_redundancy → collaboration  
 hhi → proj\_hhi\_discussion\_comment  
 Rank: 11, Importance: 0.0312



Binscatter of Event-study Coefficients  
Outcome: pull\_request\_opened (rolling5, top15)  
talent\_investment → feedback  
response\_sentiment → pos\_sentiment\_avg  
Rank: 10, Importance: 0.0522



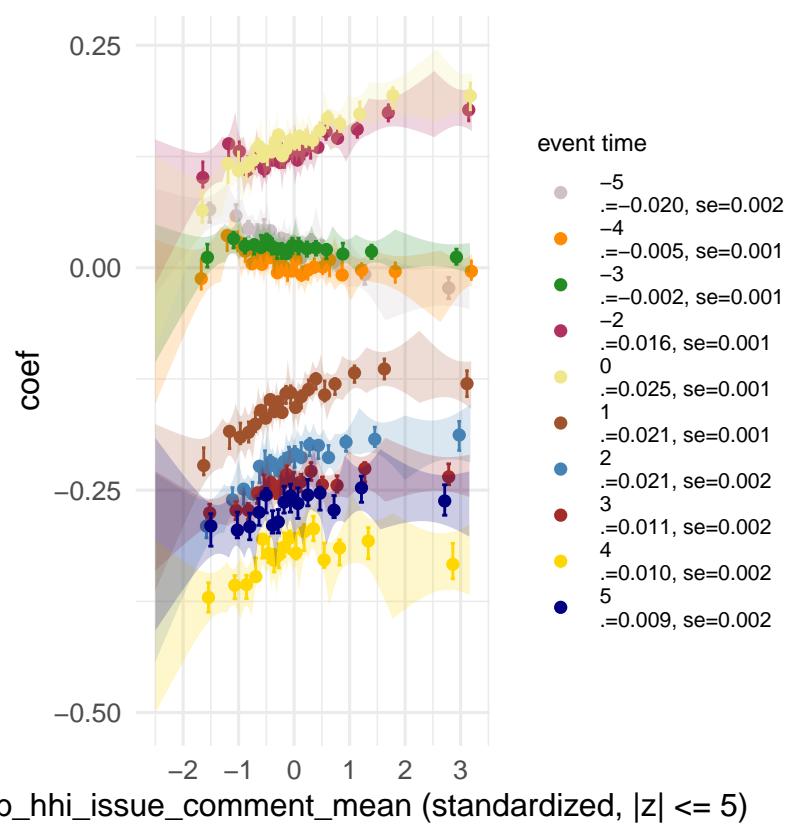
# Binscatter of Event-study Coefficients

Outcome: major\_minor\_release\_count (rolling5, top15)

knowledge\_redundancy → collaboration

problem\_hhi → proj\_prob\_hhi\_issue\_comment

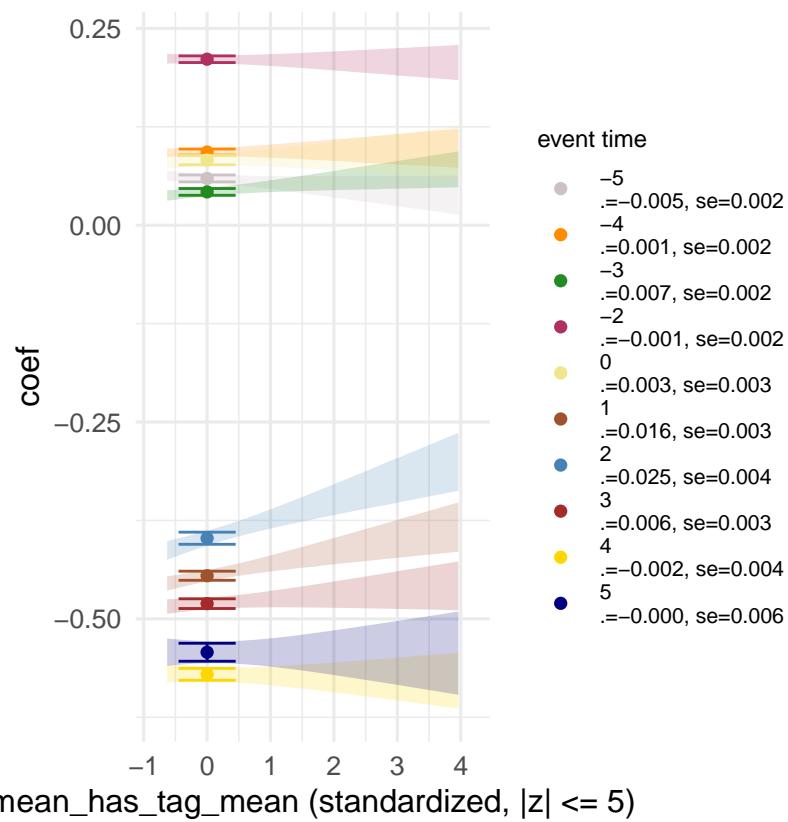
Rank: 10, Importance: 0.0498



### Binscatter of Event-study Coefficients

Outcome: pull\_request\_opened (rolling5, top15)  
 organizational\_routines → organized\_assignment  
 discussion\_labels → mean\_has\_tag

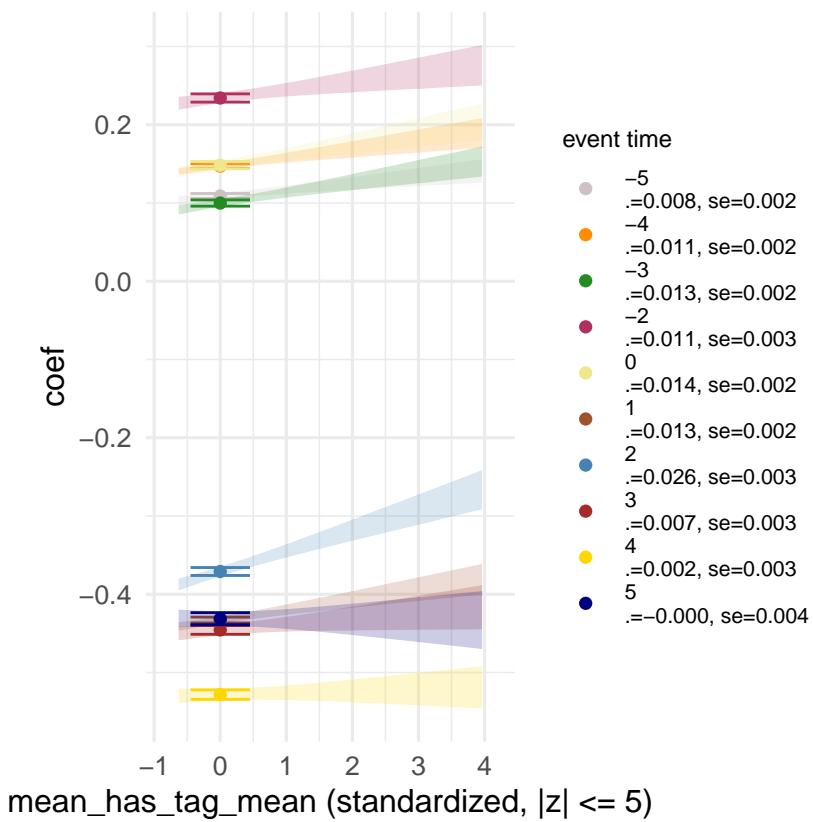
Rank: 13, Importance: 0.0275



### Binscatter of Event-study Coefficients

Outcome: pull\_request\_merged (rolling5, top15)  
 organizational\_routines → organized\_assignment  
 discussion\_labels → mean\_has\_tag

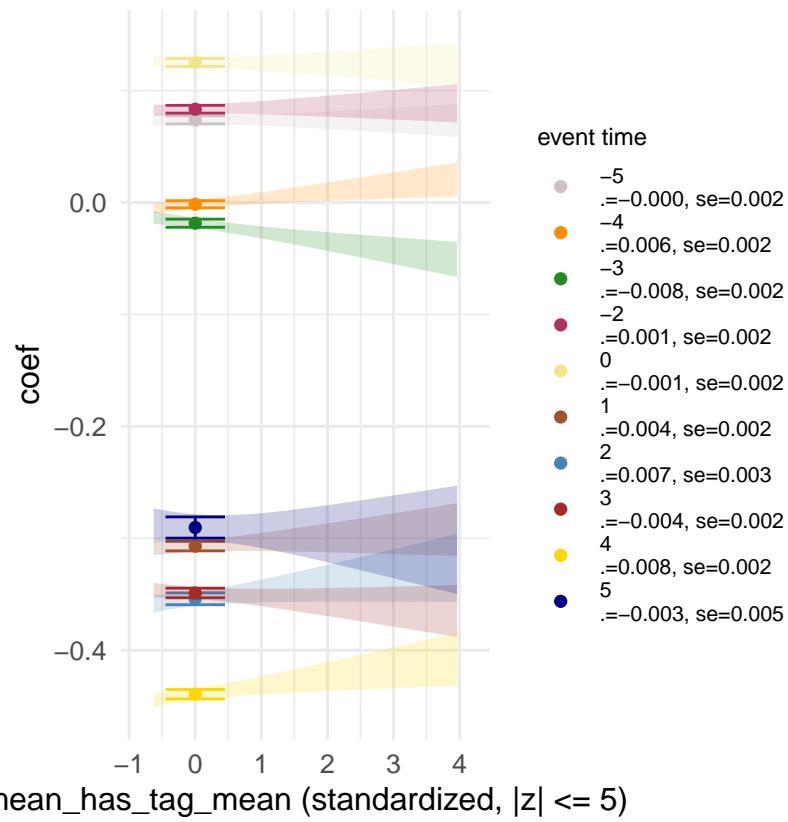
Rank: 11, Importance: 0.0294



### Binscatter of Event-study Coefficients

Outcome: overall\_new\_release\_count (rolling5, top15)  
 organizational\_routines → organized\_assignment  
 discussion\_labels → mean\_has\_tag

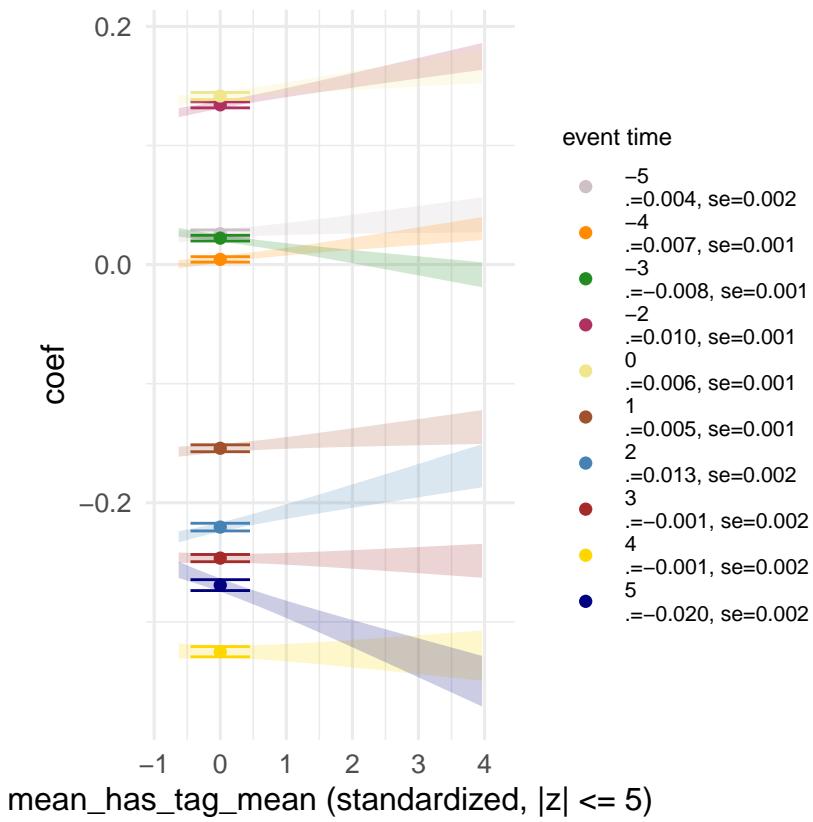
Rank: 14, Importance: 0.0105



### Binscatter of Event-study Coefficients

Outcome: major\_minor\_release\_count (rolling5, top15)  
 organizational\_routines → organized\_assignment  
 discussion\_labels → mean\_has\_tag

Rank: 7, Importance: 0.0619



### Binscatter of Event-study Coefficients

Outcome: pull\_request\_opened (rolling5, top15)  
 talent\_investment → growth\_opportunity

merge\_review\_pr → any\_activity\_rate\_weighted  
 merge\_review\_pr → any\_activity\_rate\_weighted

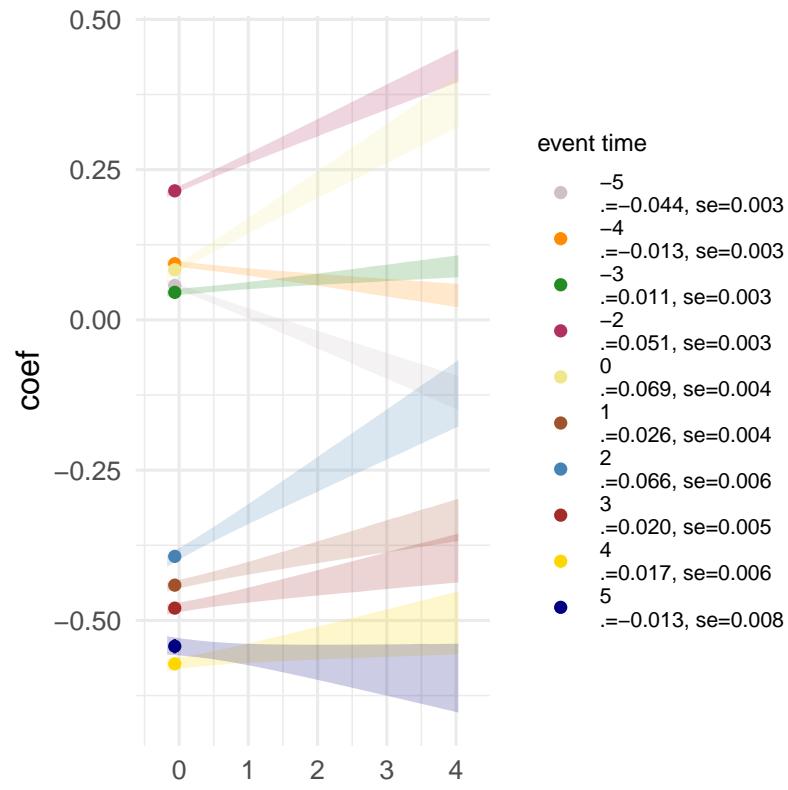
Rank: 15, Importance: 0.0112

### Binscatter of Event-study Coefficients

Outcome: pull\_request\_merged (rolling5, top15)  
 talent\_investment → growth\_opportunity

merge\_review\_pr → any\_activity\_rate\_weighted  
 merge\_review\_pr → any\_activity\_rate\_weighted

Rank: 15, Importance: 0.00747



activity\_rate\_weighted\_mean (standardized, |z| <= 5) any\_activity\_rate\_weighted\_mean (standardized, |z| <= 5)

### Binscatter of Event-study Coefficients

Outcome: overall\_new\_release\_count (rolling5, top15)  
 talent\_investment → growth\_opportunity

merge\_review\_pr → any\_activity\_rate\_weighted

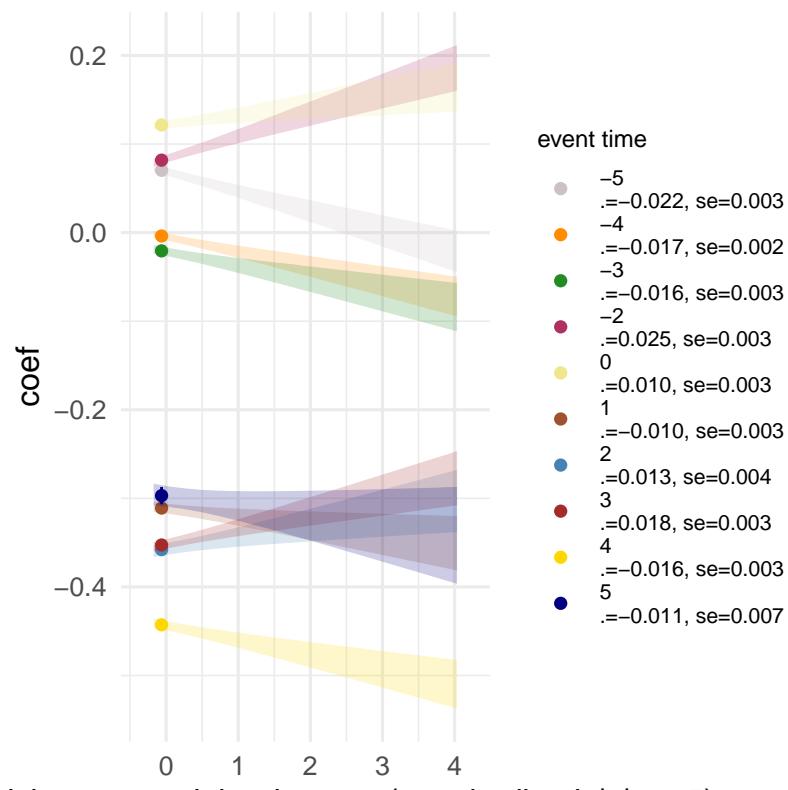
Rank: 12, Importance: 0.0134

### Binscatter of Event-study Coefficients

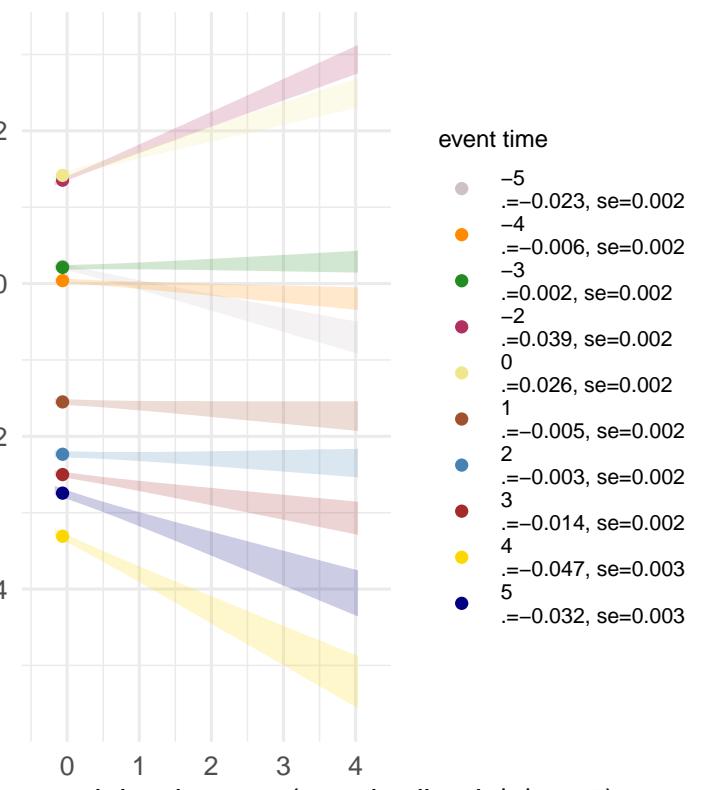
Outcome: major\_minor\_release\_count (rolling5, top15)  
 talent\_investment → growth\_opportunity

merge\_review\_pr → any\_activity\_rate\_weighted

Rank: 13, Importance: 0.0207



activity\_rate\_weighted\_mean (standardized, |z| <= 5) any\_activity\_rate\_weighted\_mean (standardized, |z| <= 5)



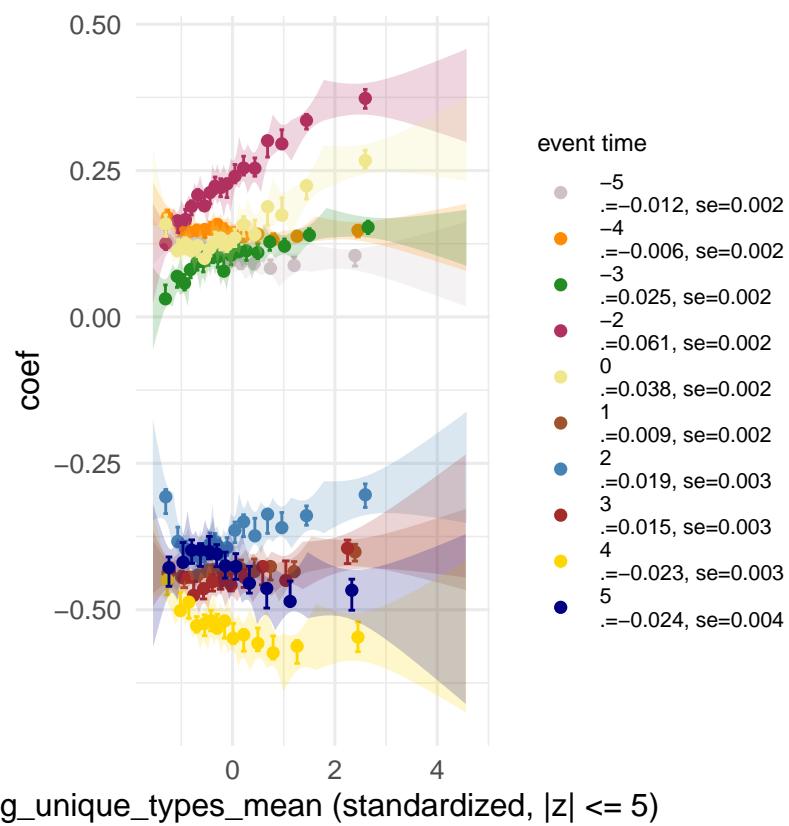
# Binscatter of Event-study Coefficients

Outcome: pull\_request\_merged (rolling5, top15)

knowledge\_redundancy → broad\_expertise

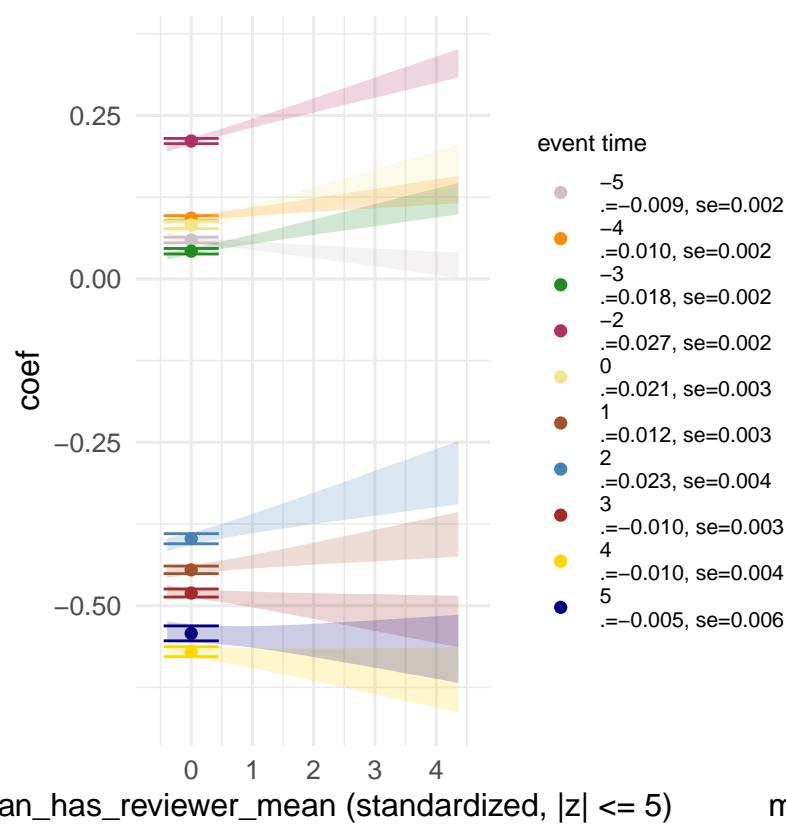
activity\_diversity\_count → avg\_unique\_types

Rank: 14, Importance: 0.0188



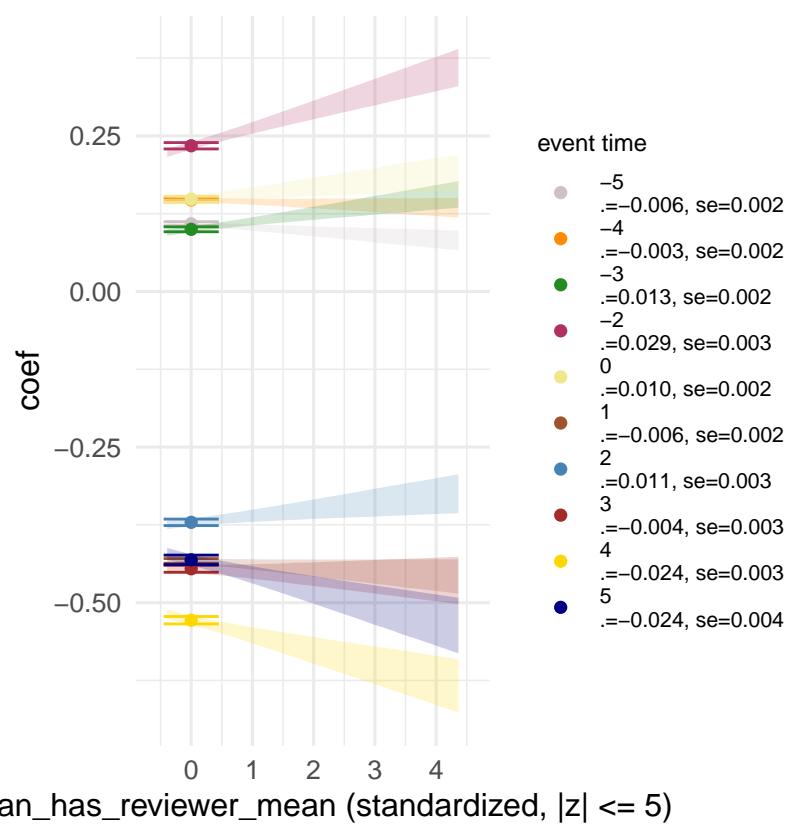
### Binscatter of Event-study Coefficients

Outcome: pull\_request\_opened (rolling5, top15)  
 organizational\_routines → organized\_assignment  
 pr\_reviewers → mean\_has\_reviewer  
 Rank: 14, Importance: 0.0272



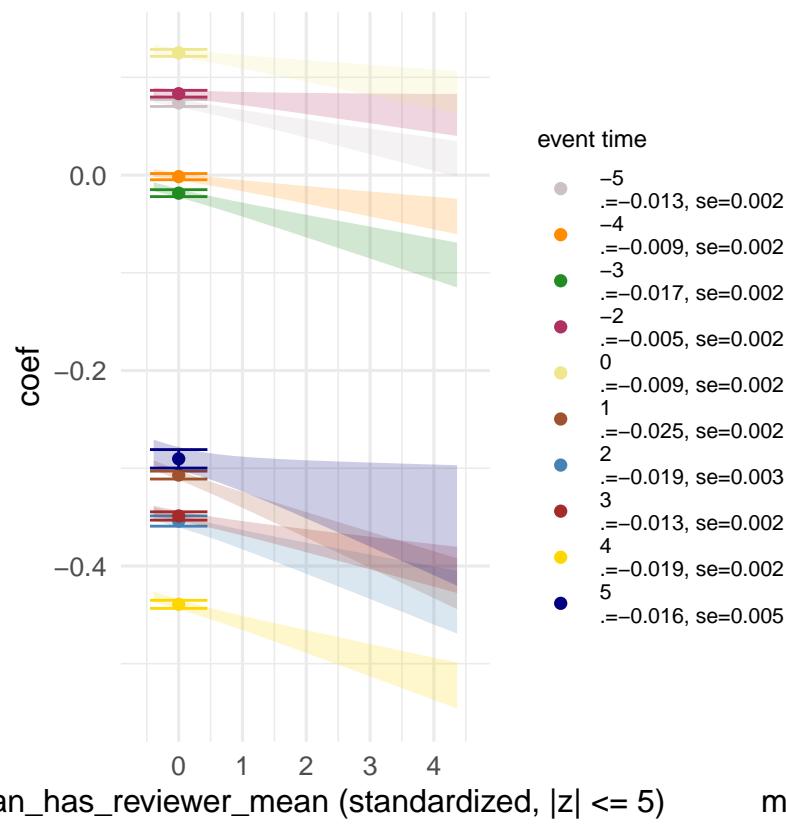
### Binscatter of Event-study Coefficients

Outcome: pull\_request\_merged (rolling5, top15)  
 organizational\_routines → organized\_assignment  
 pr\_reviewers → mean\_has\_reviewer  
 Rank: 13, Importance: 0.0206



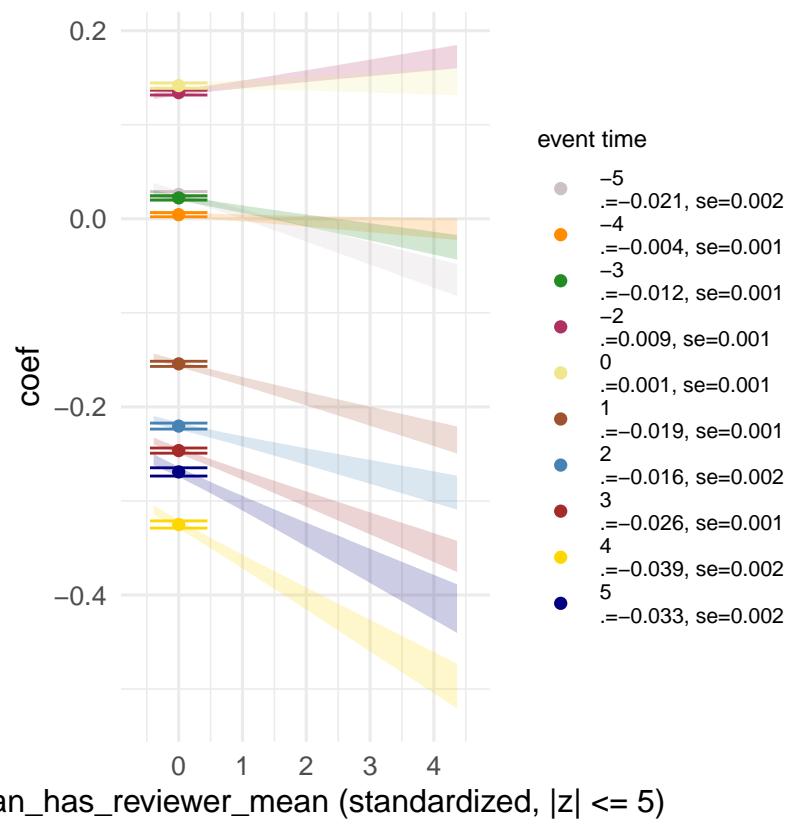
### Binscatter of Event-study Coefficients

Outcome: overall\_new\_release\_count (rolling5, top15)  
 organizational\_routines → organized\_assignment  
 pr\_reviewers → mean\_has\_reviewer  
 Rank: 15, Importance: 0.0064



### Binscatter of Event-study Coefficients

Outcome: major\_minor\_release\_count (rolling5, top15)  
 organizational\_routines → organized\_assignment  
 pr\_reviewers → mean\_has\_reviewer  
 Rank: 14, Importance: 0.0192



# Binscatter of Event-study Coefficients

Outcome: major\_minor\_release\_count (rolling5, top15)

knowledge\_redundancy → collaboration

problem\_hhi → proj\_prob\_hhi\_pull\_request\_review

Rank: 15, Importance: 0.00832

