

## SETTINGS

Scenario: 1111

sample size = 5000

number of simulation replications = 1000

number of bootstrap replications = 250

transformation:  $0.5 \cdot \pi - \arcsin(\sqrt{1-u})$

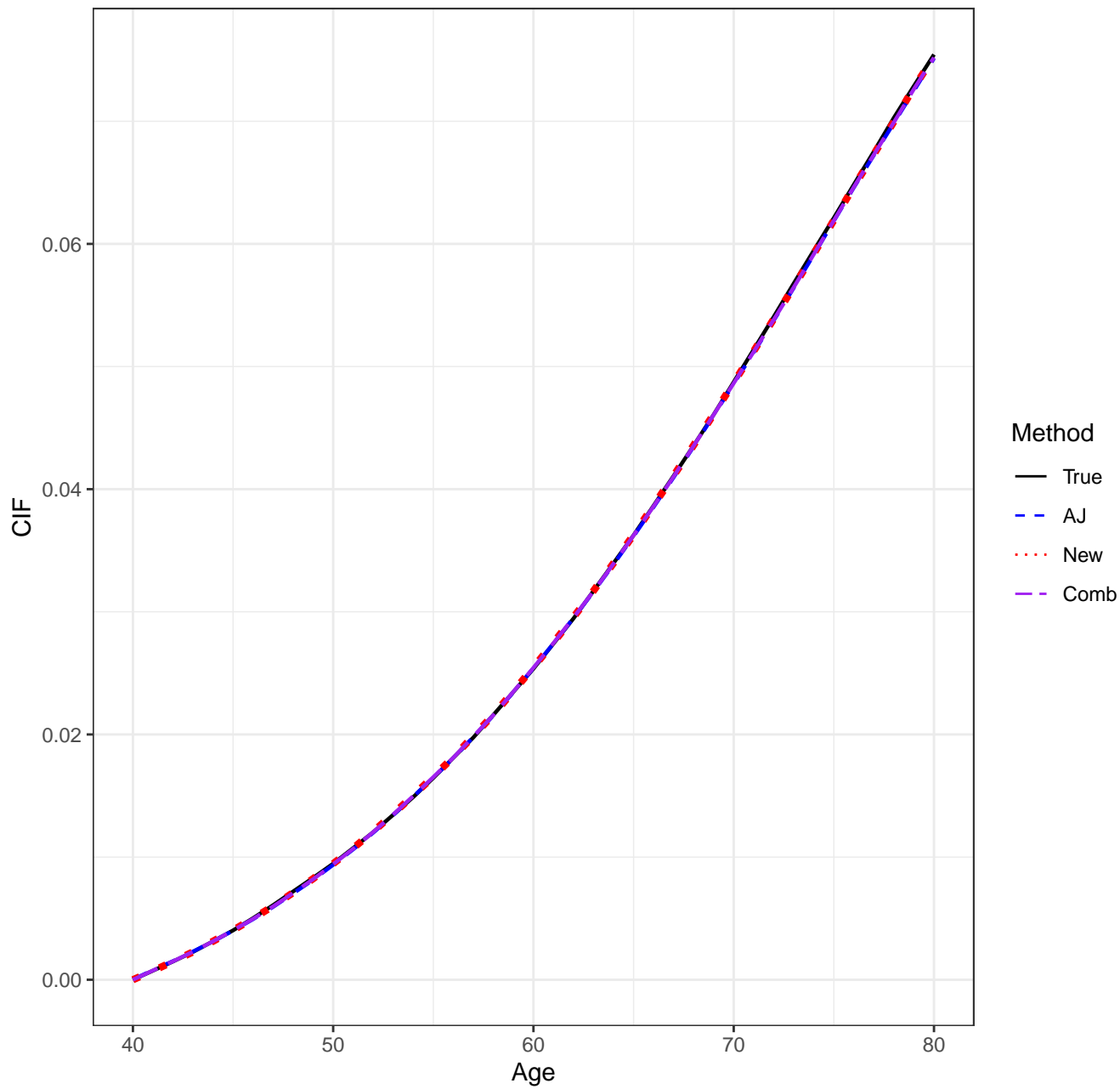
pointwise CI's done by: normal-theory

auxflg = FALSE

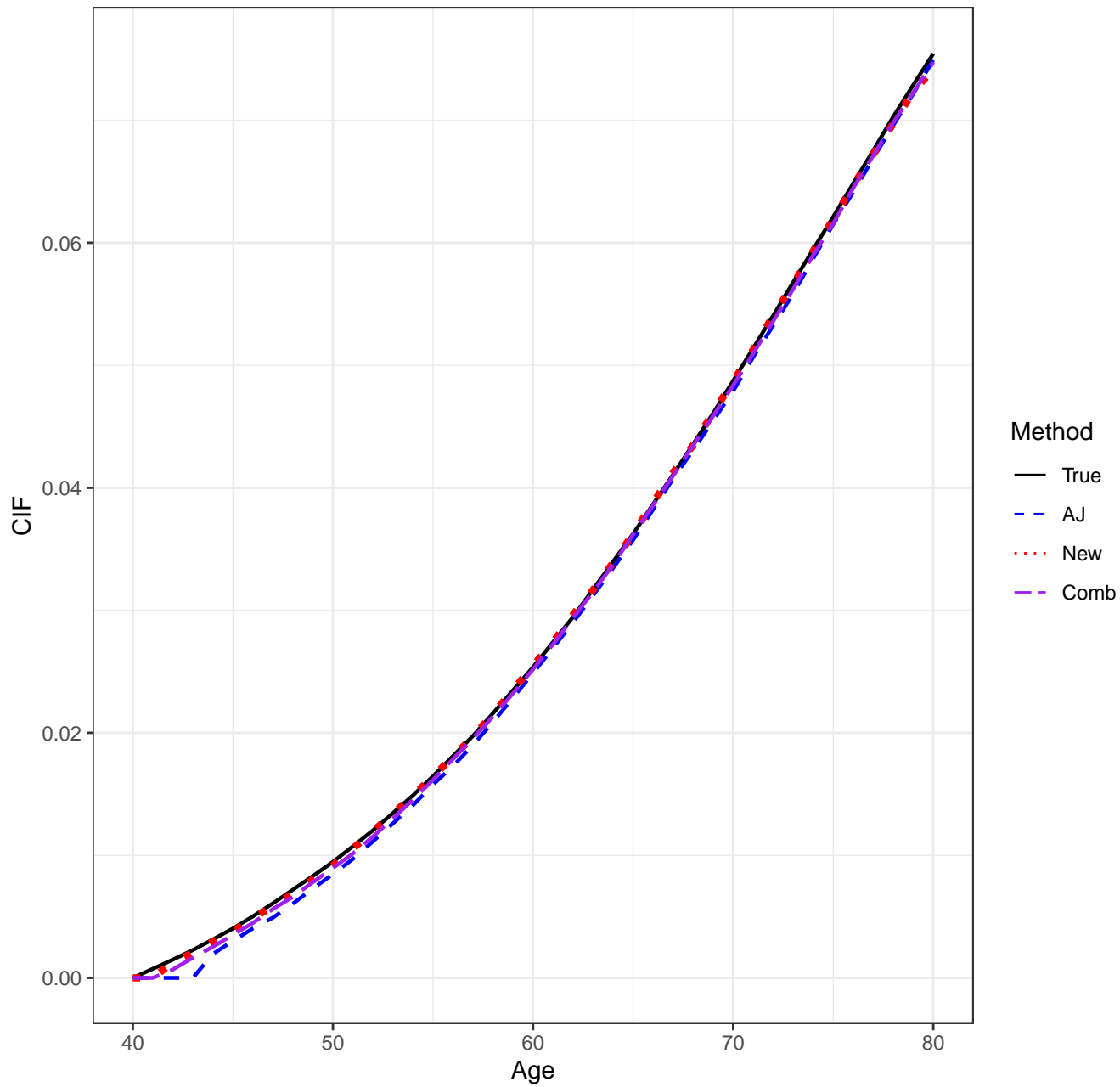
bootstrap weights: normal

Date/Time: 2024-01-11 22:42:49.49036

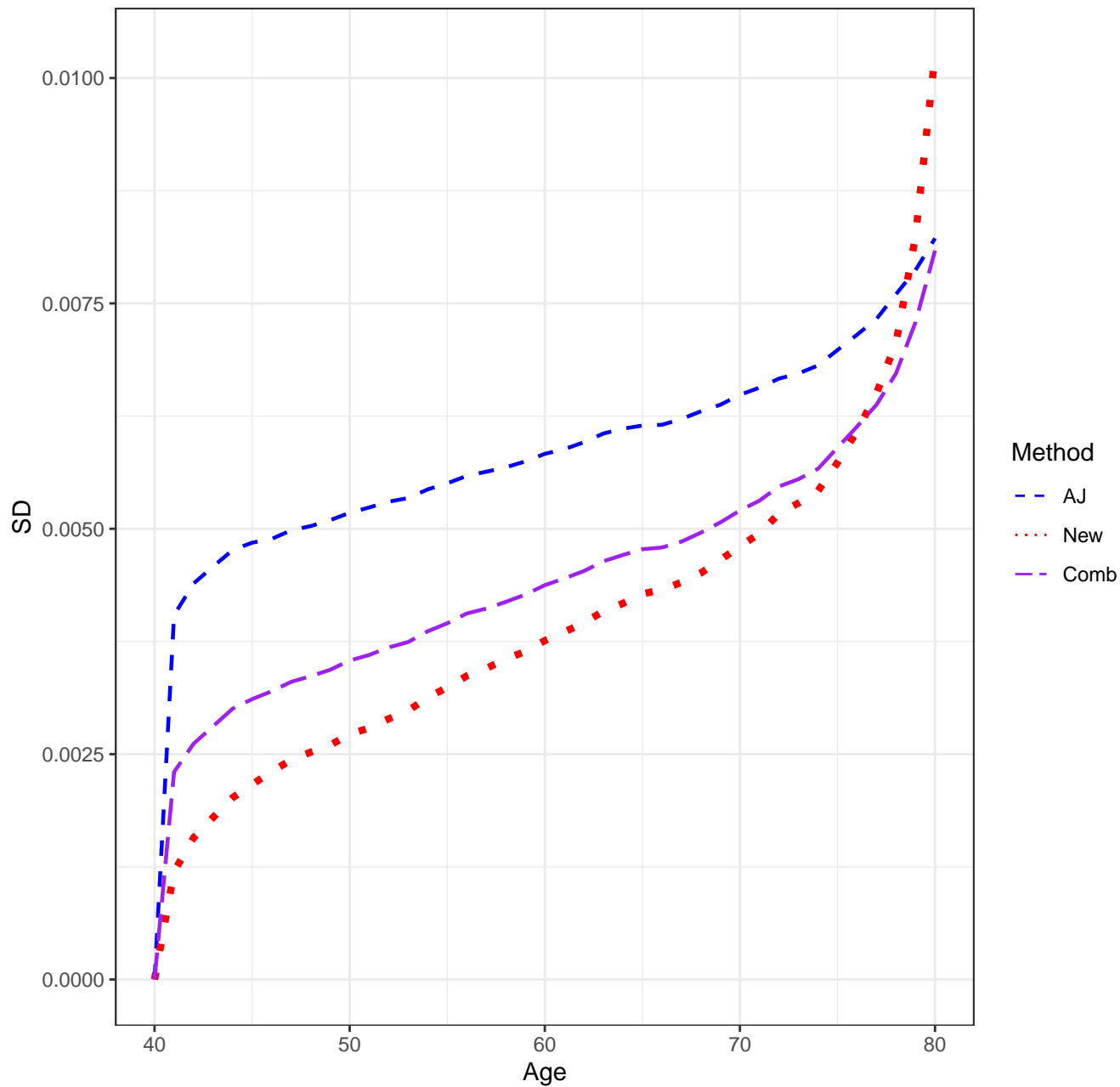
Scenario 1111, n=5000, Means



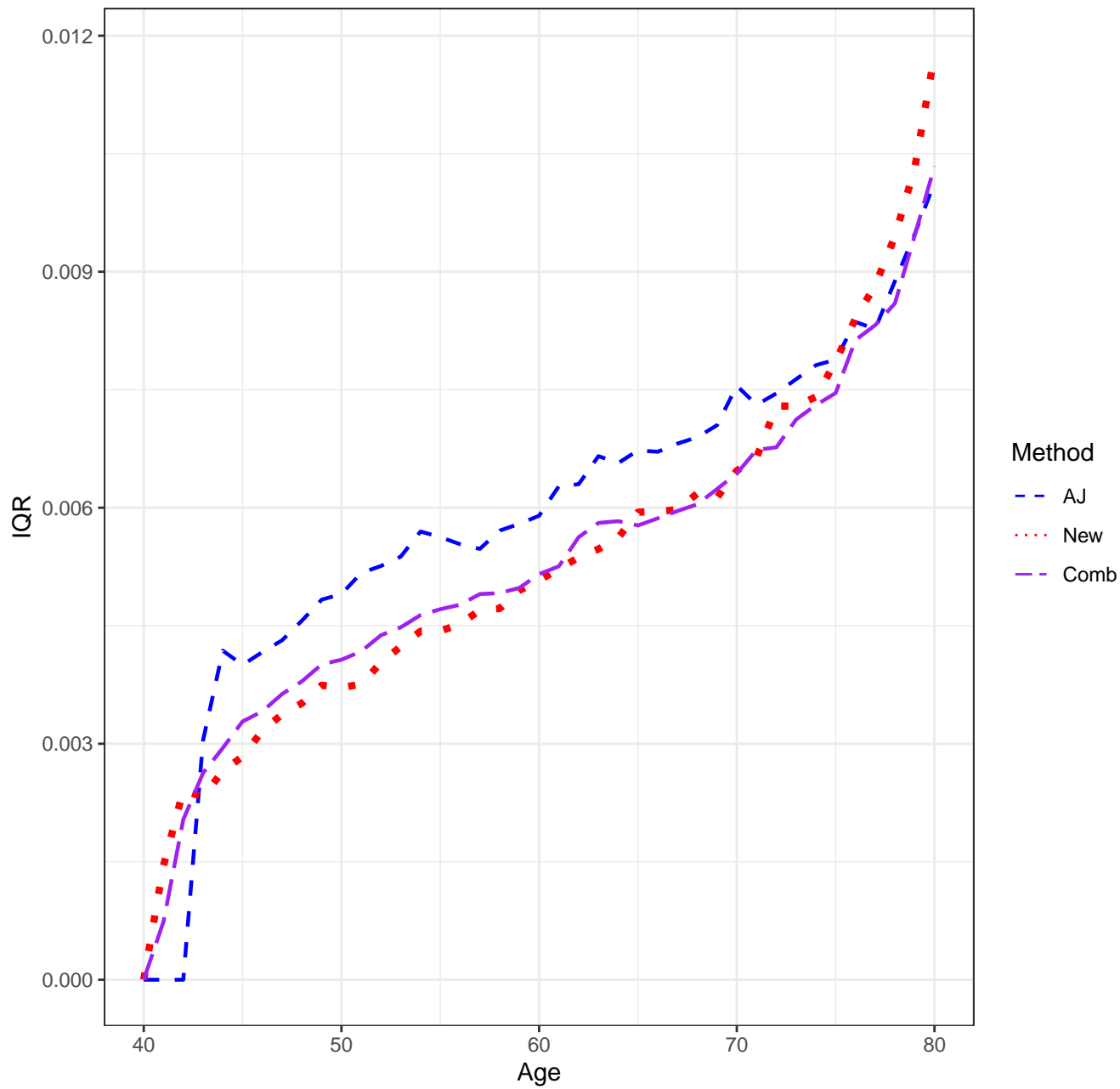
Scenario 1111, n=5000, Medians



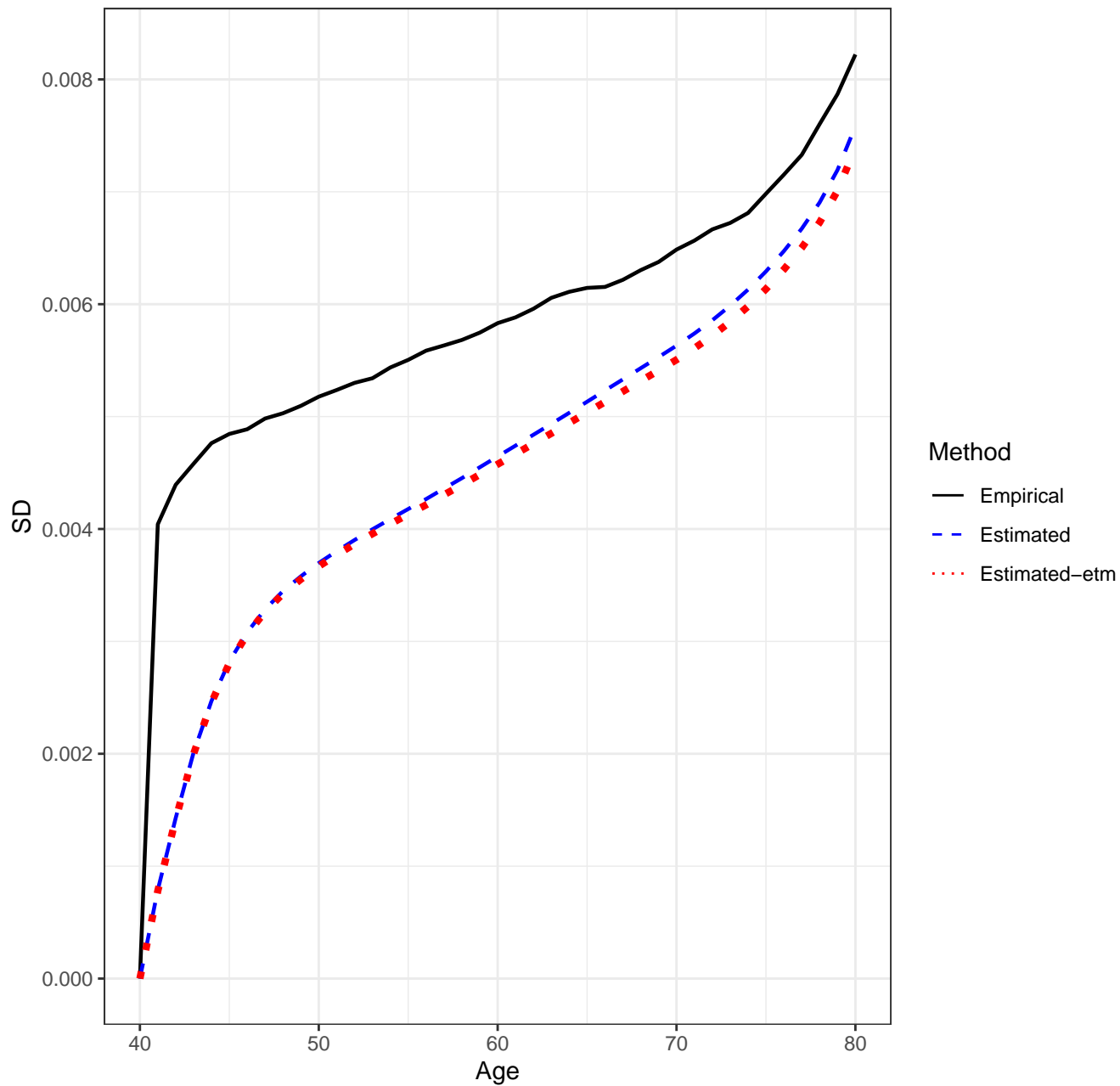
Scenario 1111, n=5000, SD'S



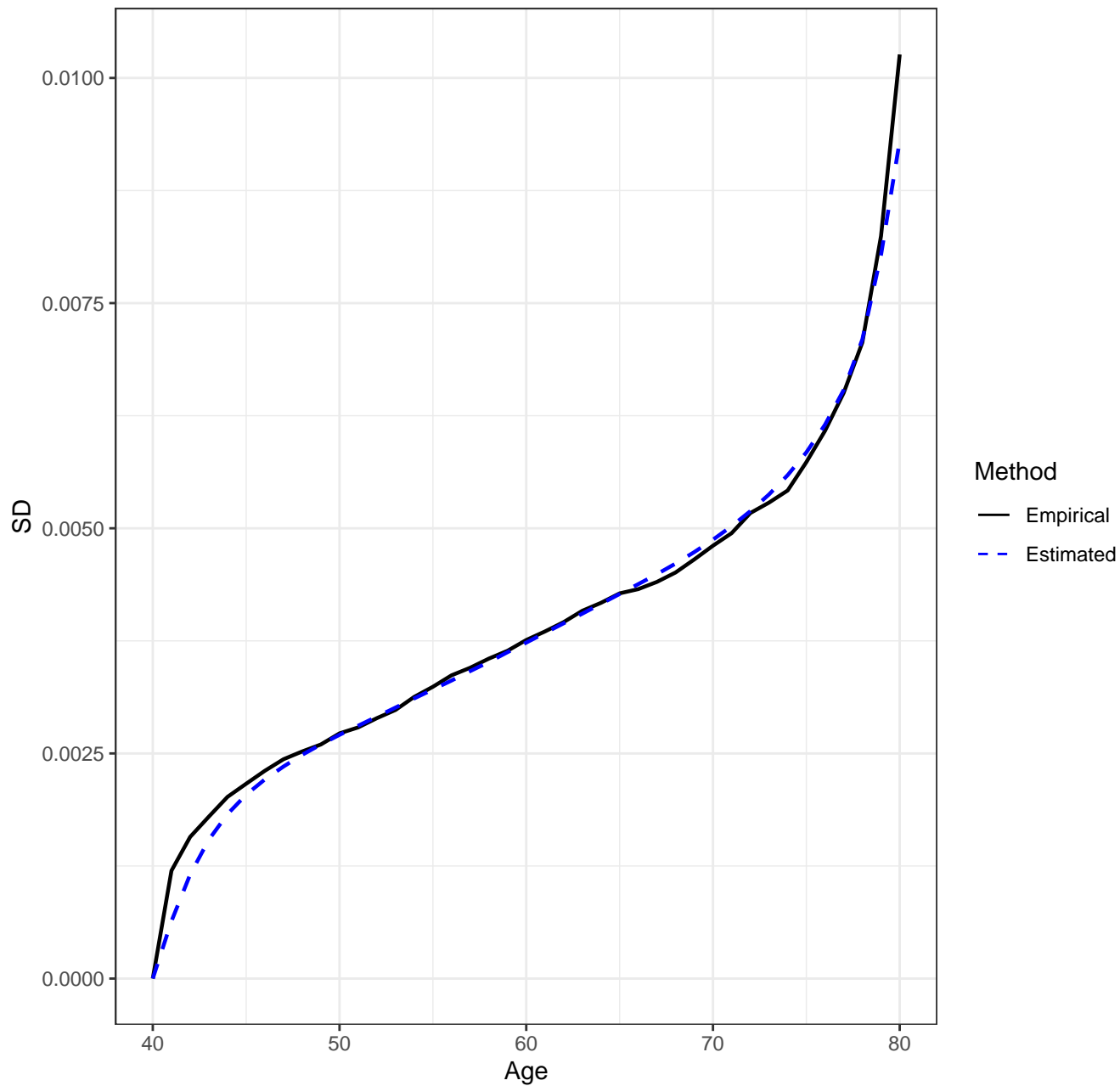
Scenario 1111, n=5000, IQR'S



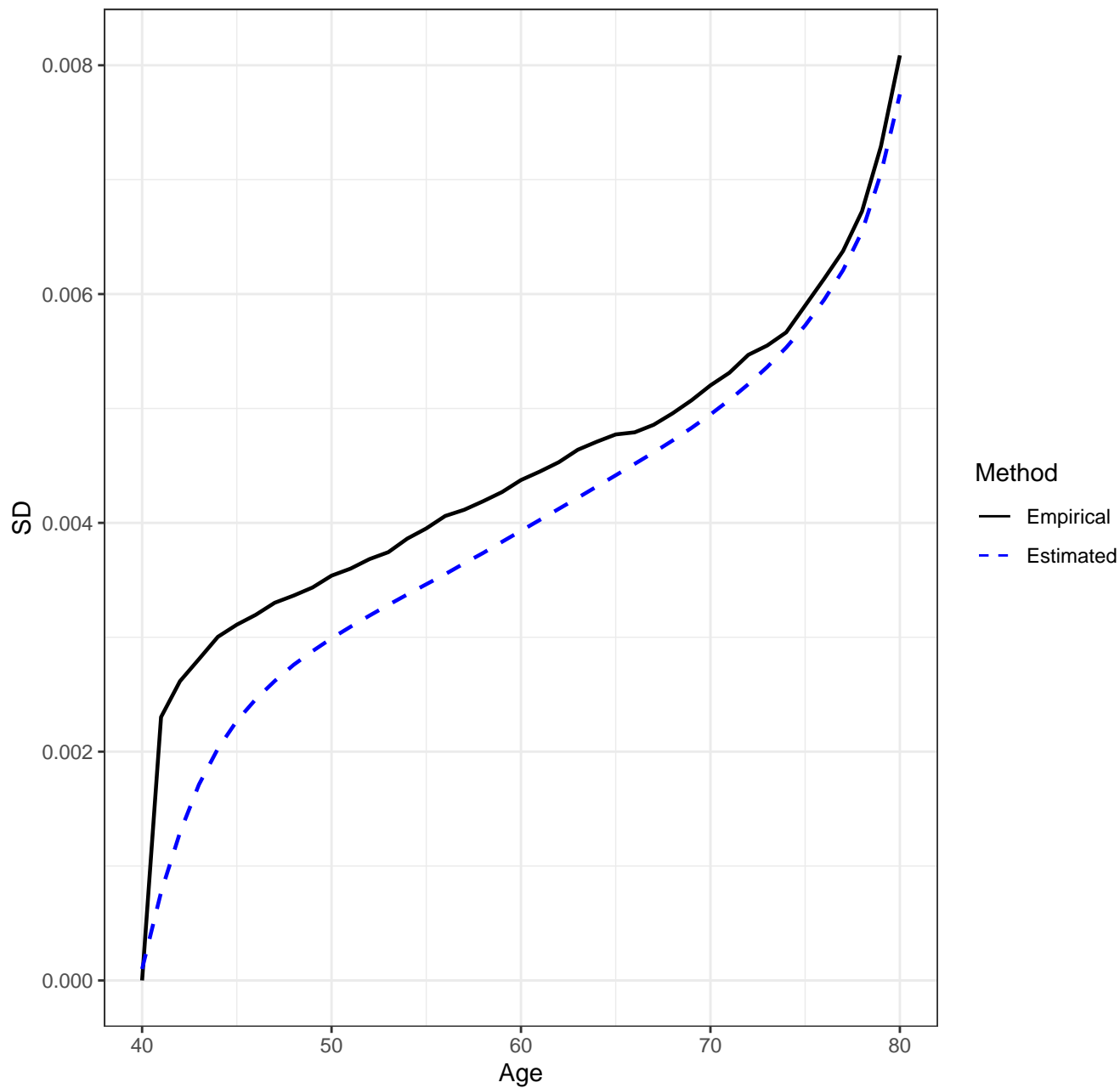
Scenario 1111, n=5000, AJ Estimator, Empirical vs. Estimated SD's



Scenario 1111, n=5000, New Estimator, Empirical vs. Estimated SD's

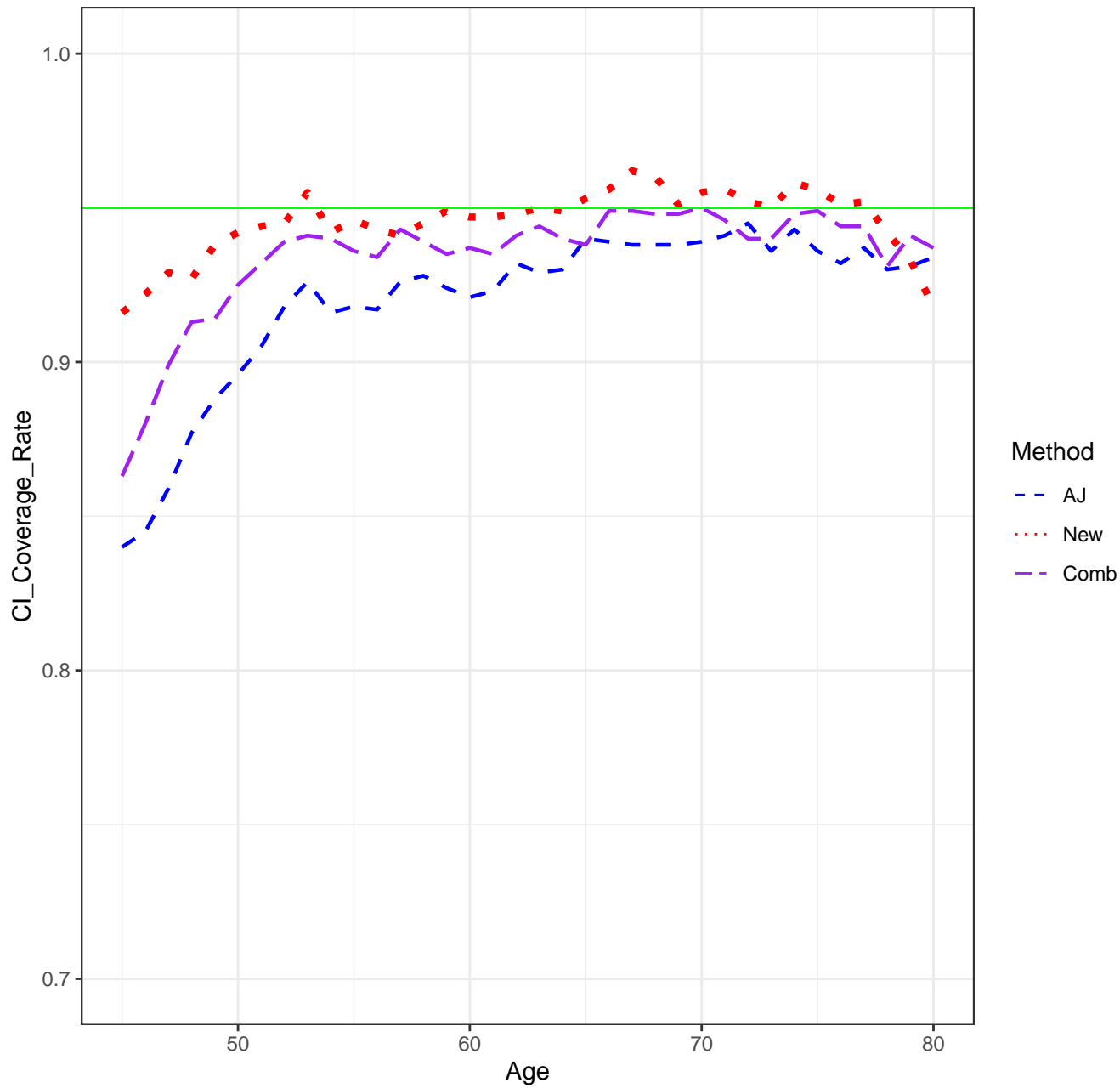


Scenario 1111, n=5000, Combined Estimator, Empirical vs. Estimated SD's

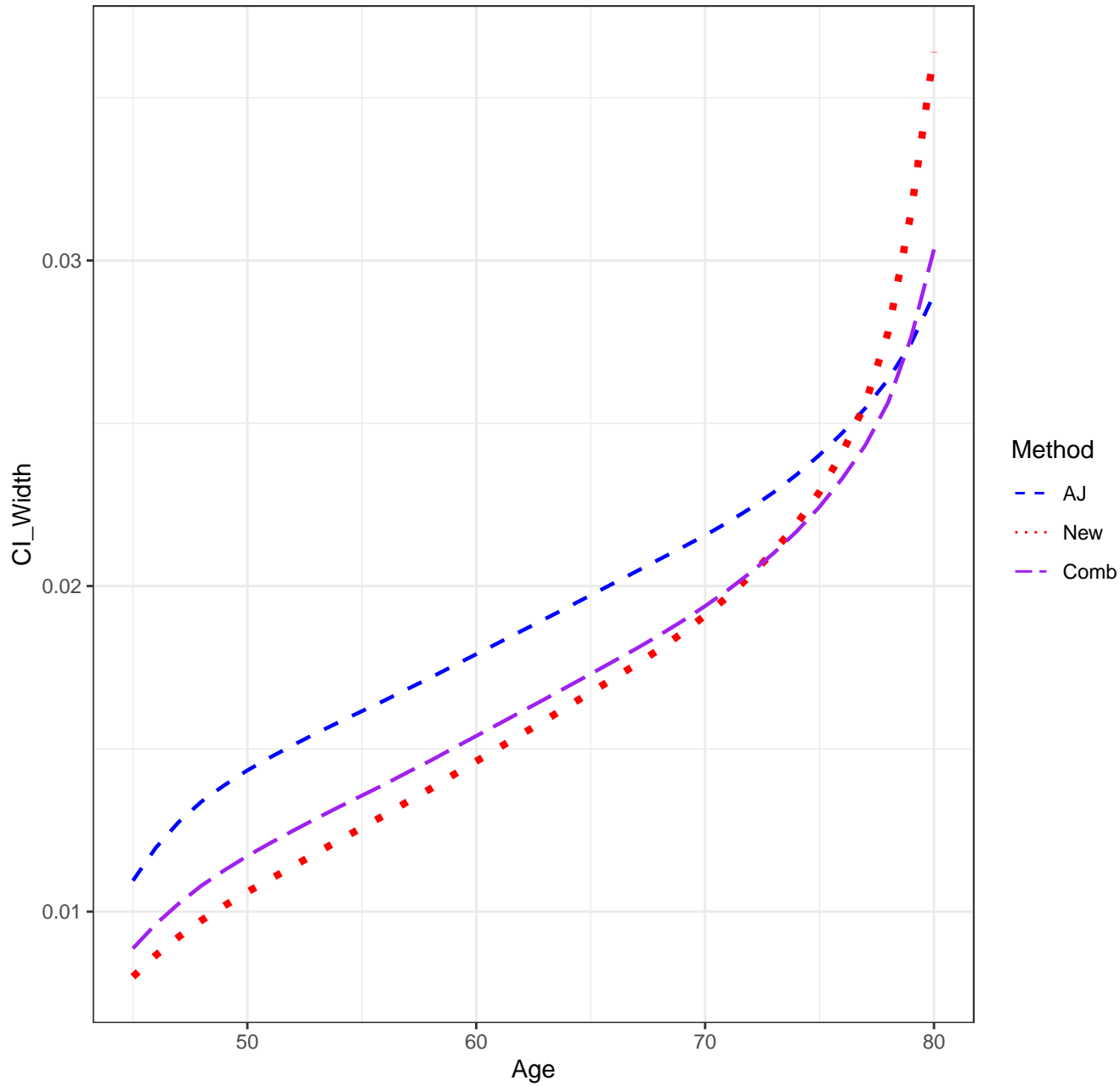




Scenario 1111, n=5000, CICR'S



Scenario 1111, n=5000, CI Width



## CONFIDENCE BAND COVERAGE RATES

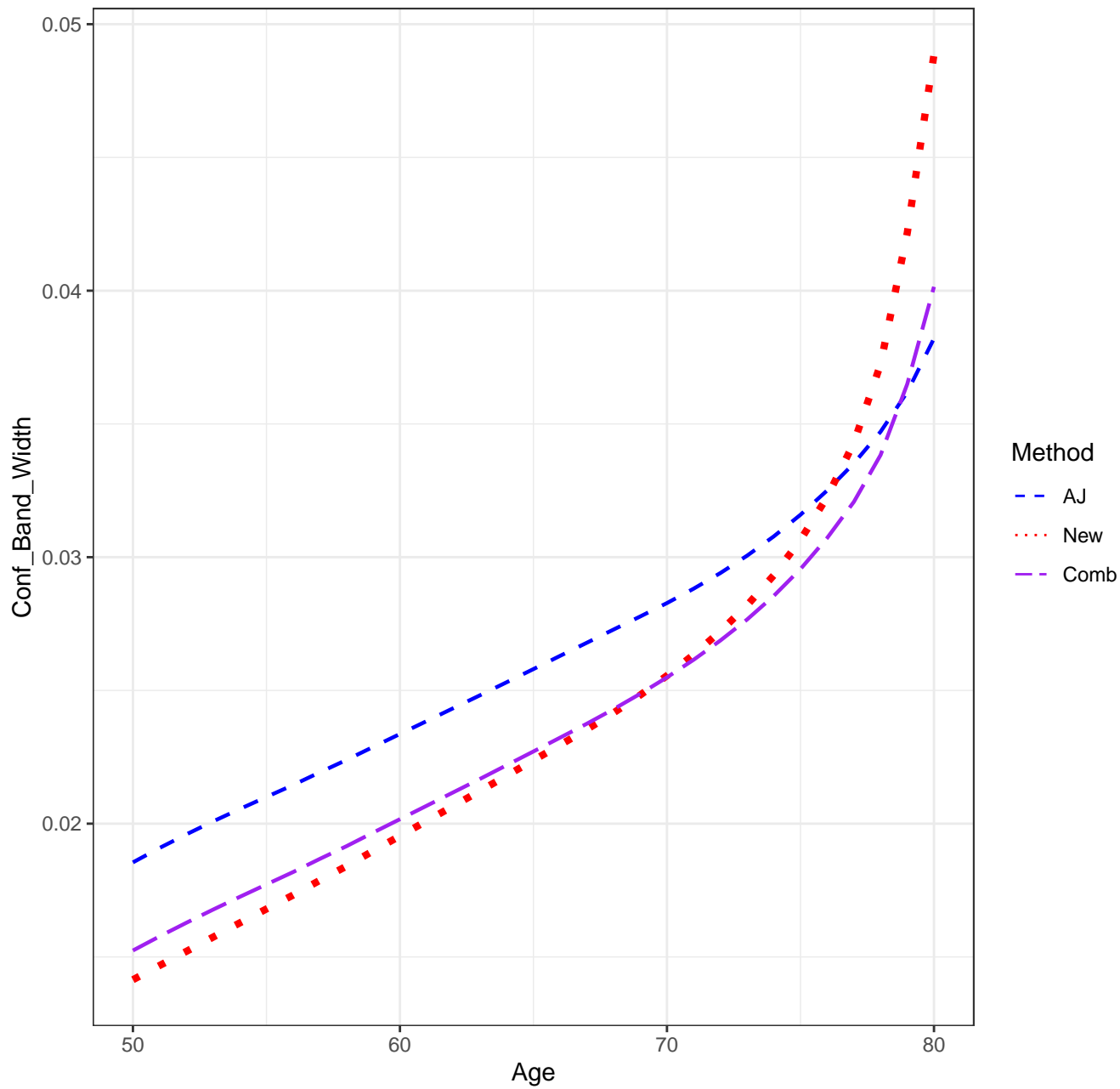
Scenario: 1111

AJ: 0.919

new: 0.923

Combo: 0.923

Scenario 1111, n=5000, Confidence Band Width



## SETTINGS

Scenario: 1112

sample size = 5000

number of simulation replications = 1000

number of bootstrap replications = 250

transformation:  $0.5 \cdot \pi - \arcsin(\sqrt{1-u})$

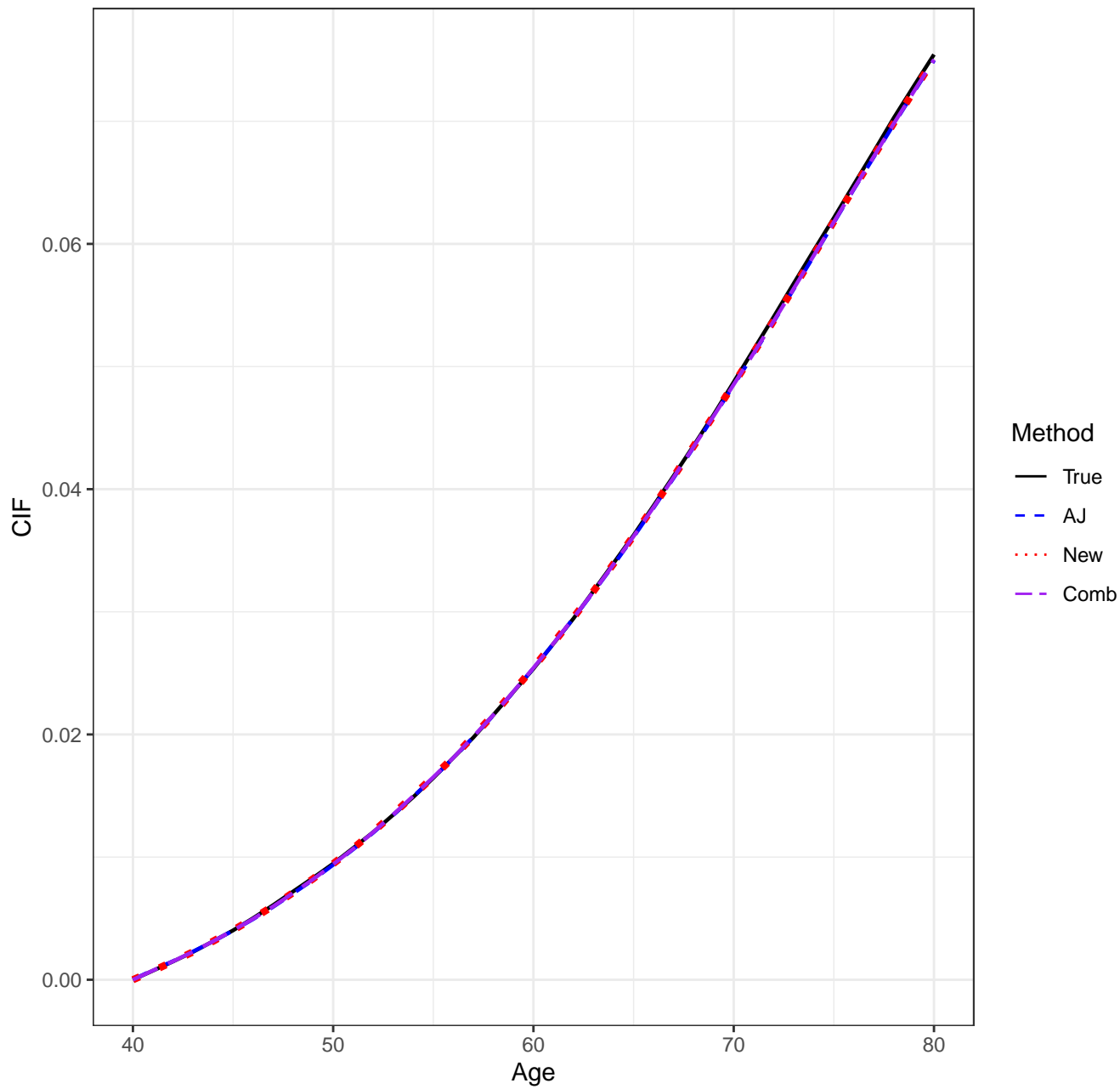
pointwise CI's done by: normal-theory

auxflg = FALSE

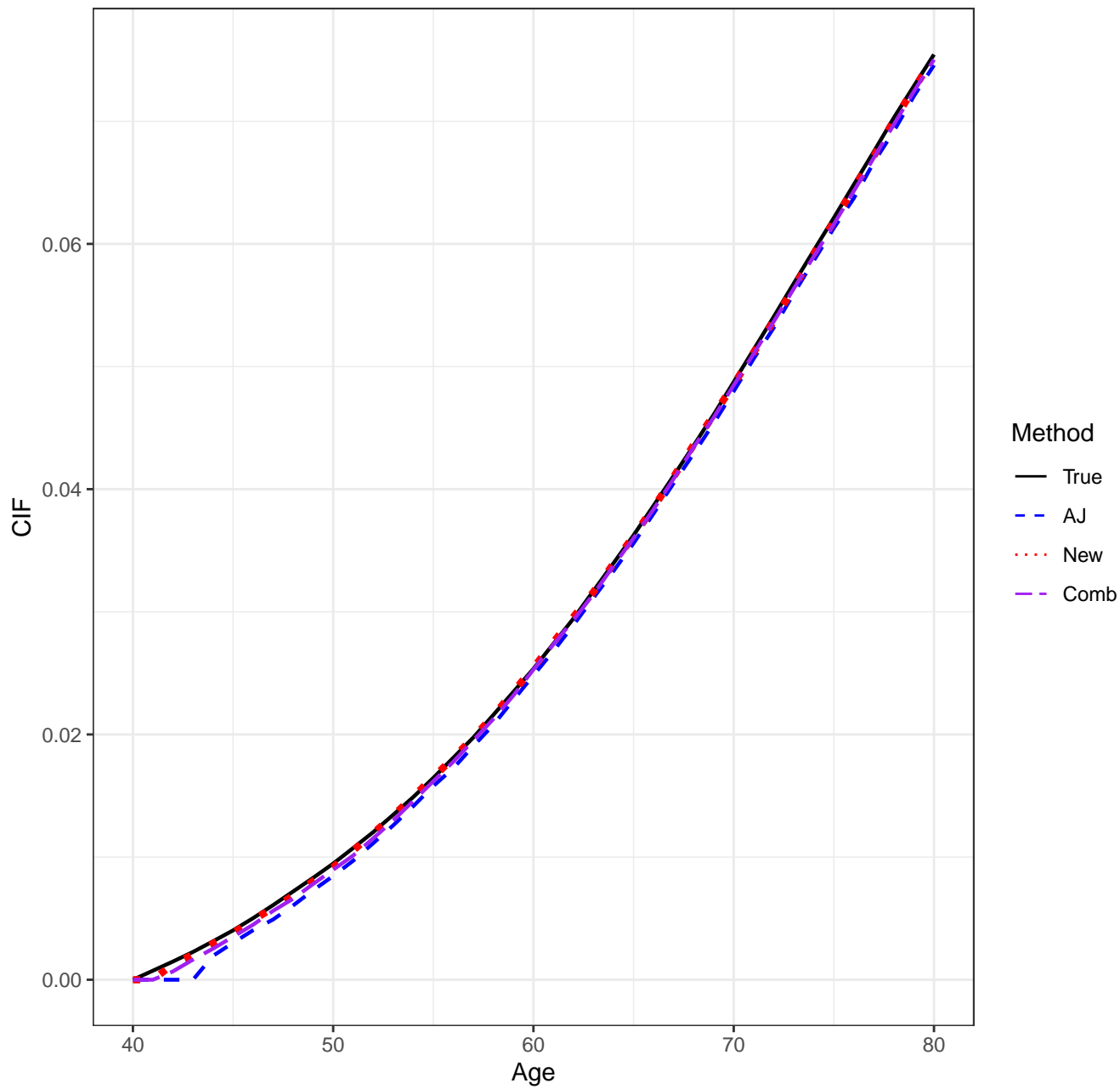
bootstrap weights: normal

Date/Time: 2024-01-15 11:21:00.049697

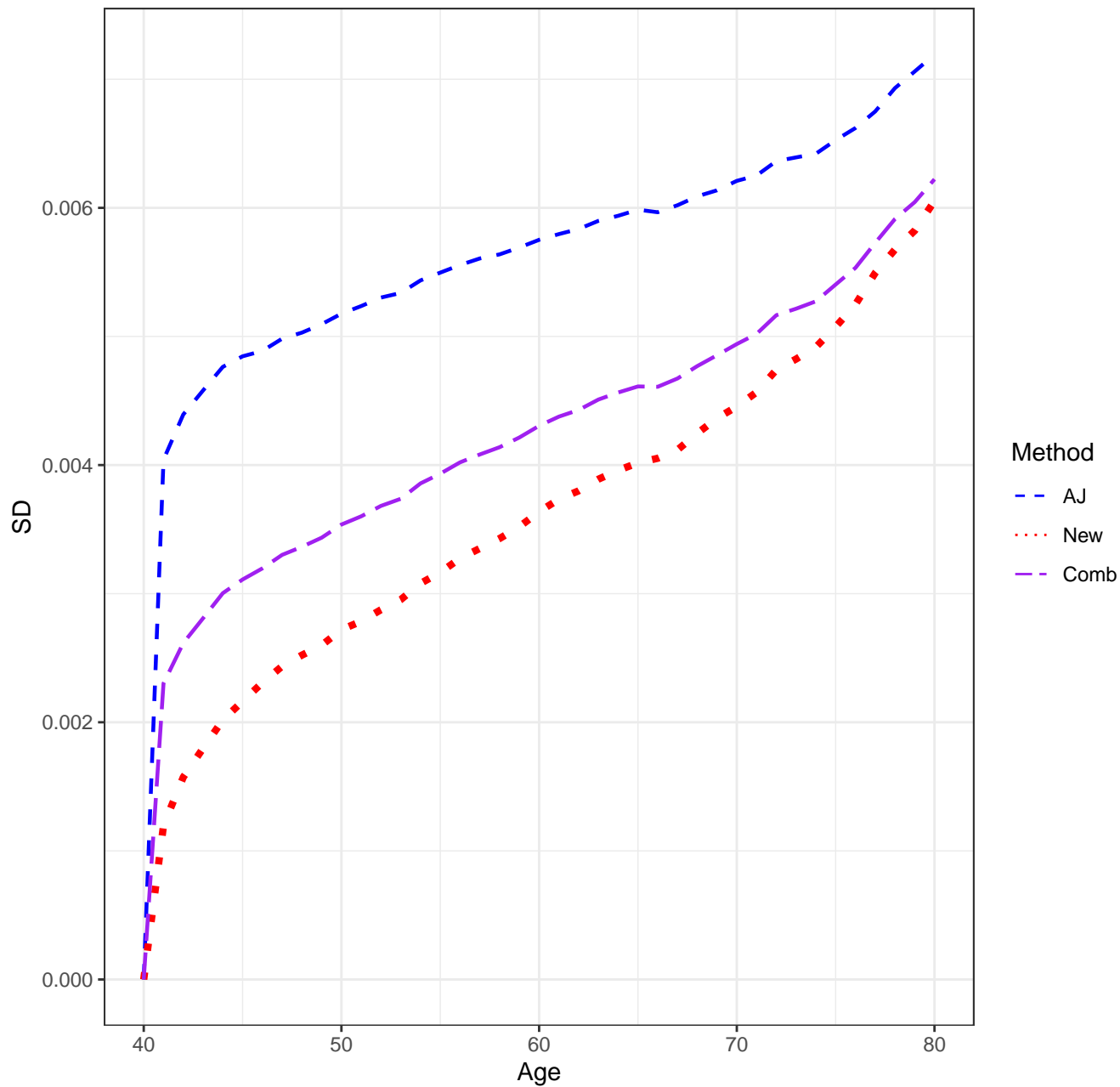
Scenario 1112, n=5000, Means



Scenario 1112, n=5000, Medians

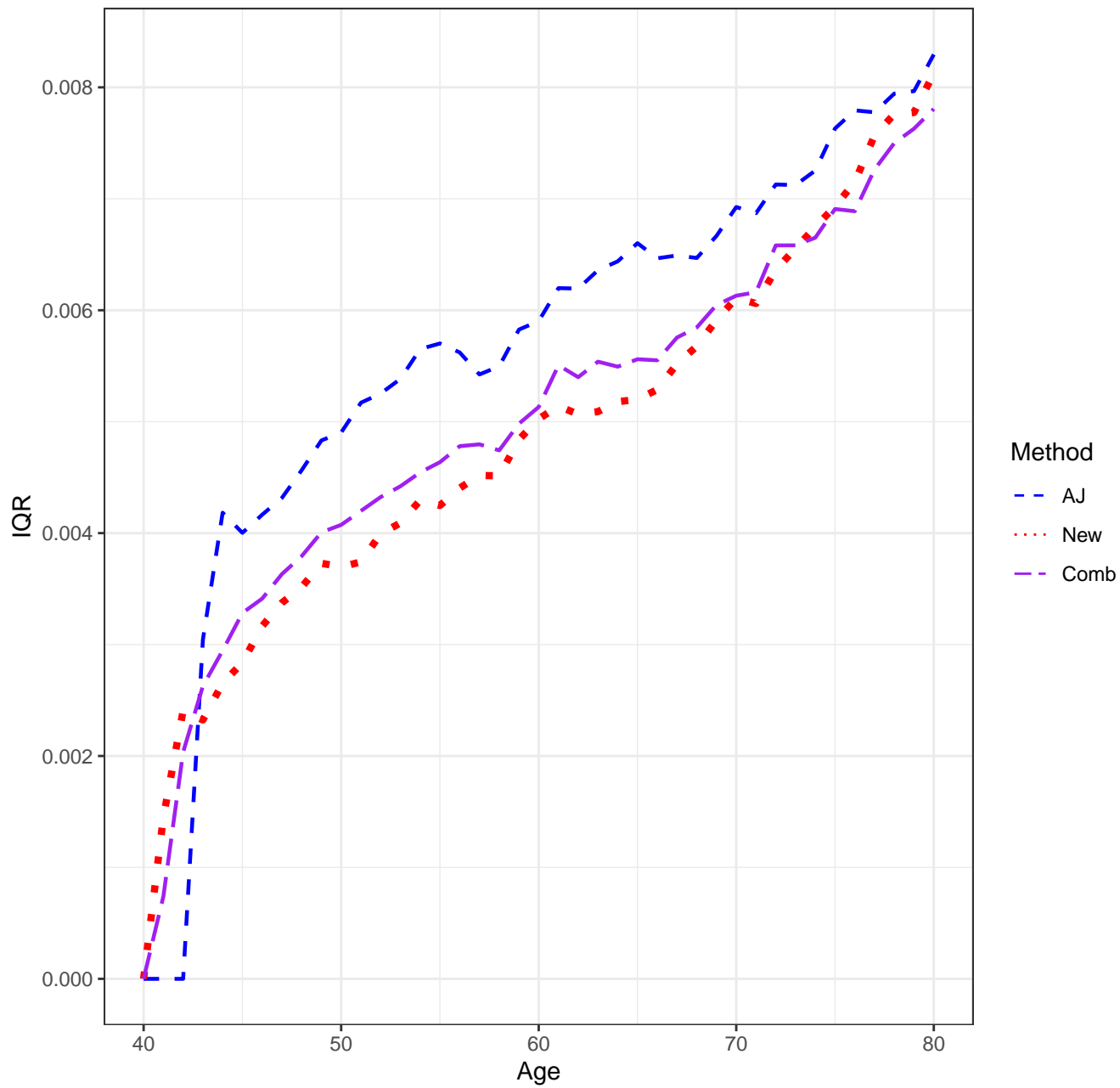


Scenario 1112, n=5000, SD'S

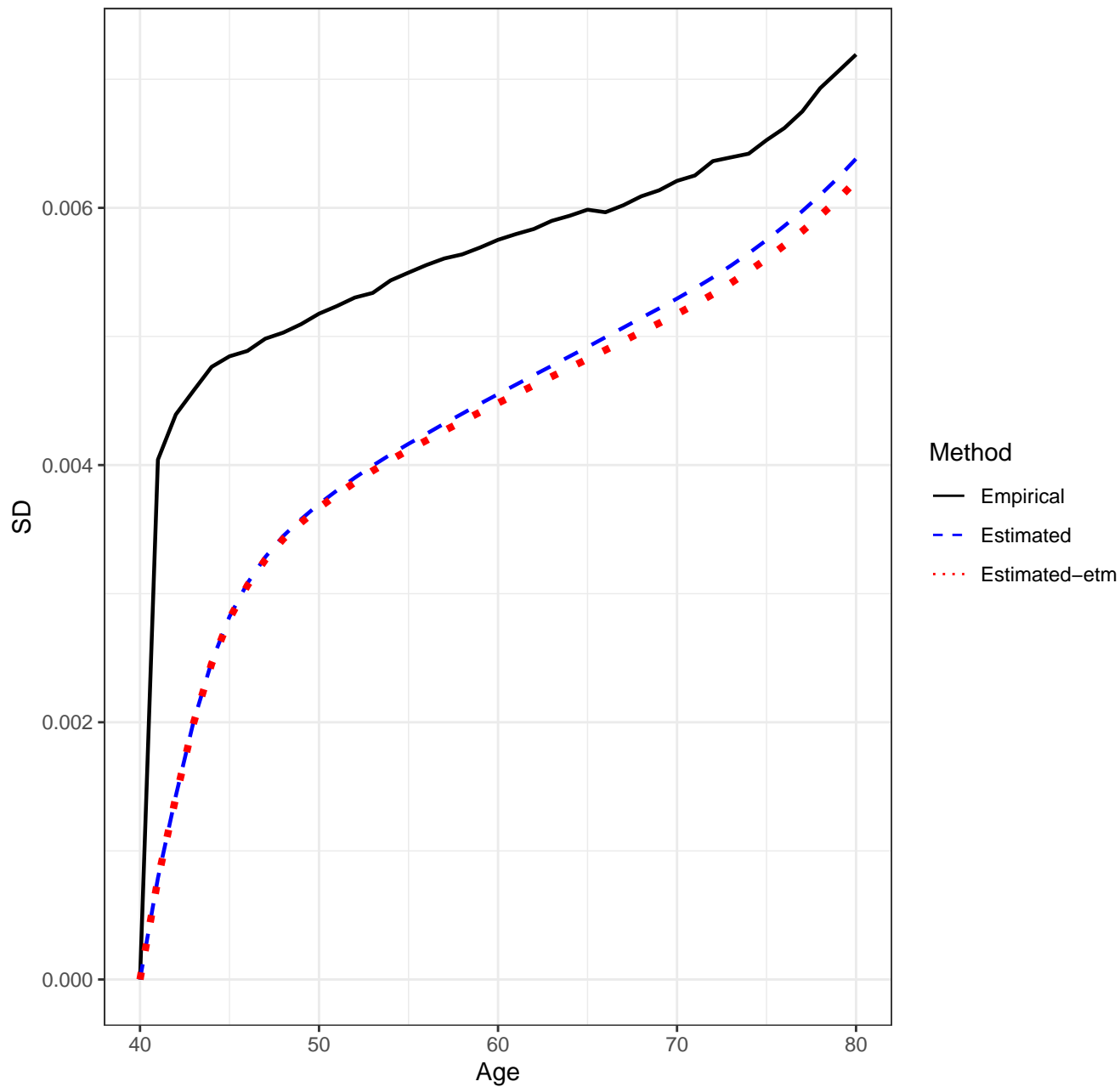




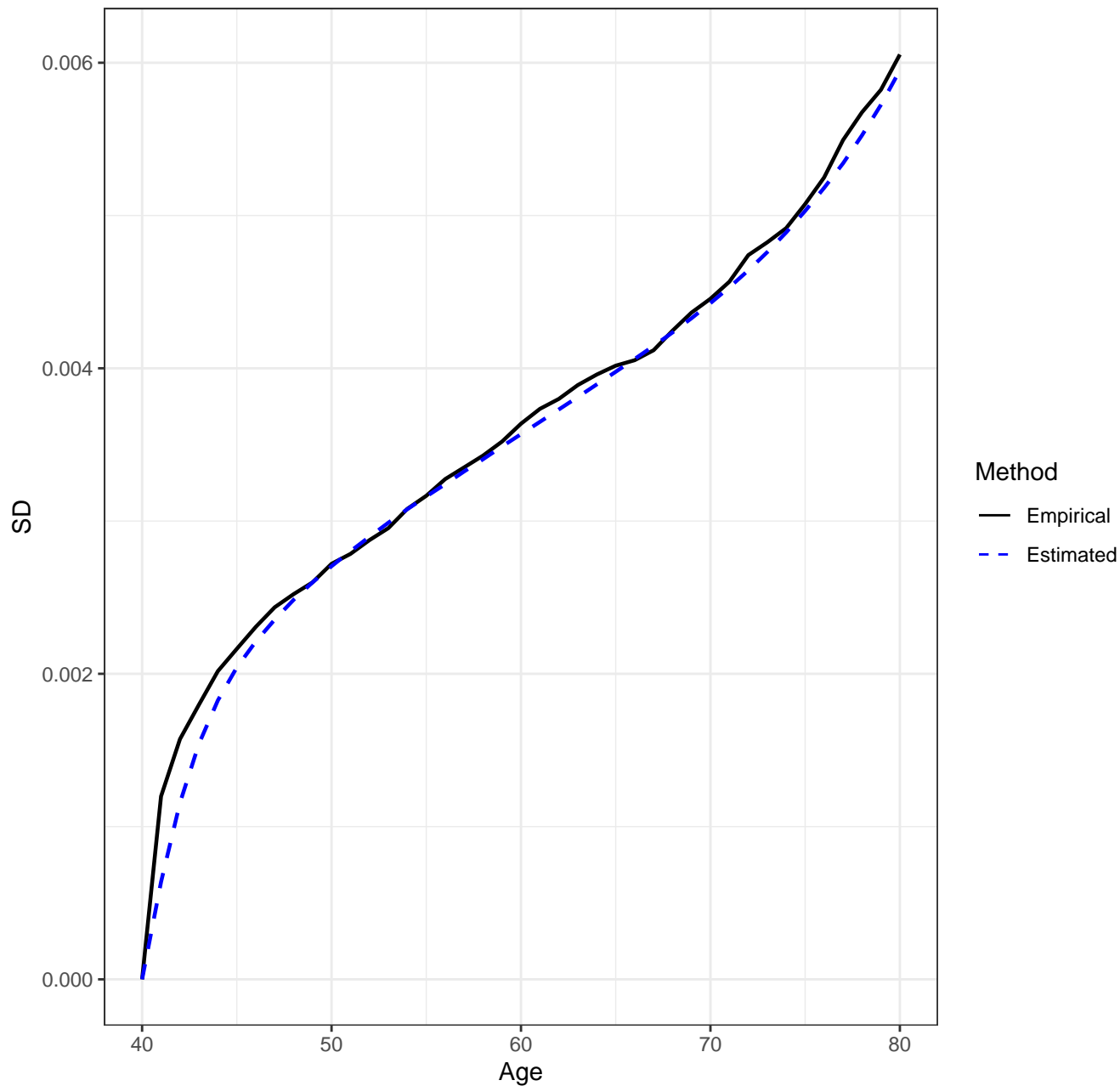
Scenario 1112, n=5000, IQR'S



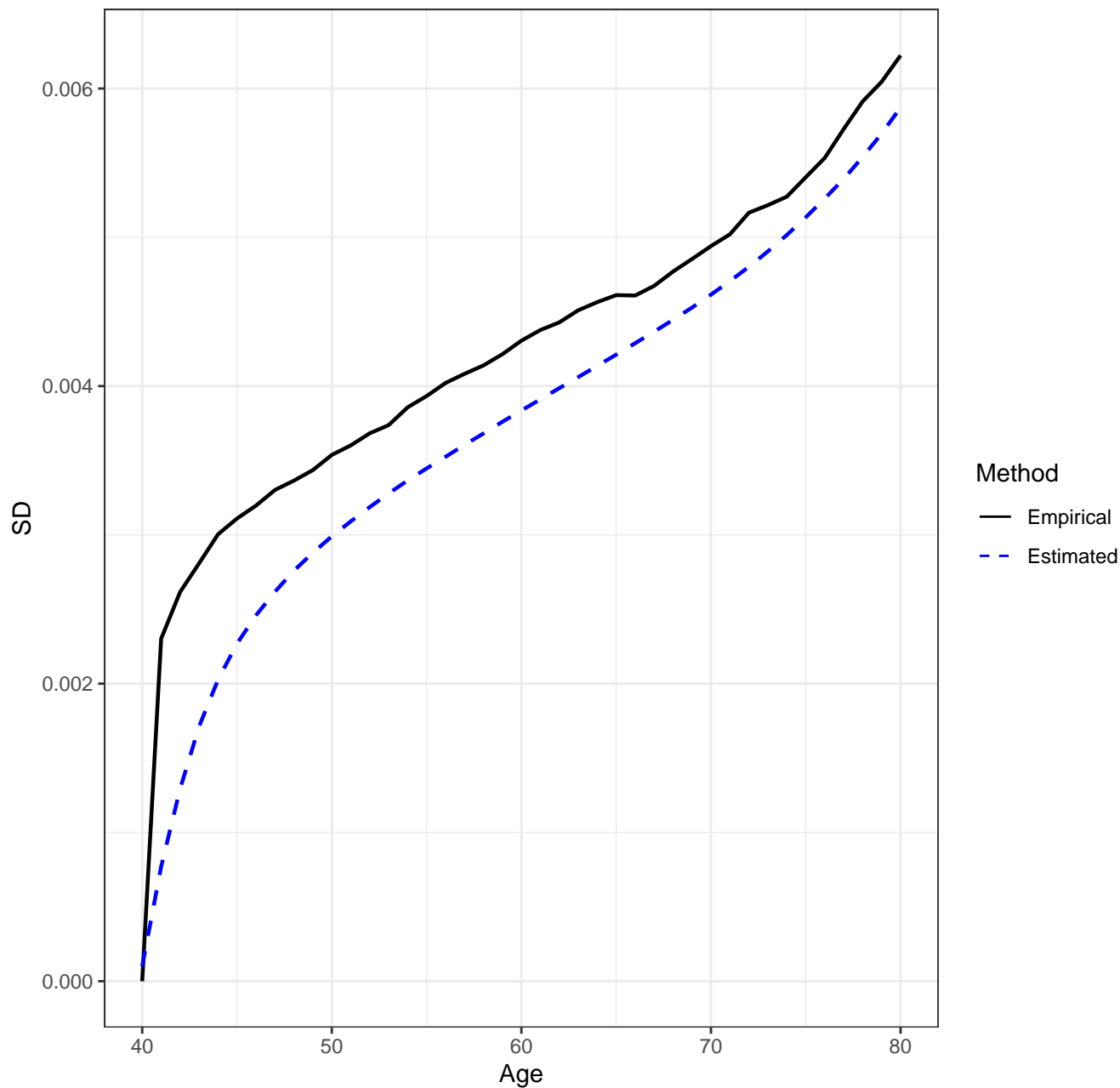
Scenario 1112, n=5000, AJ Estimator, Empirical vs. Estimated SD's



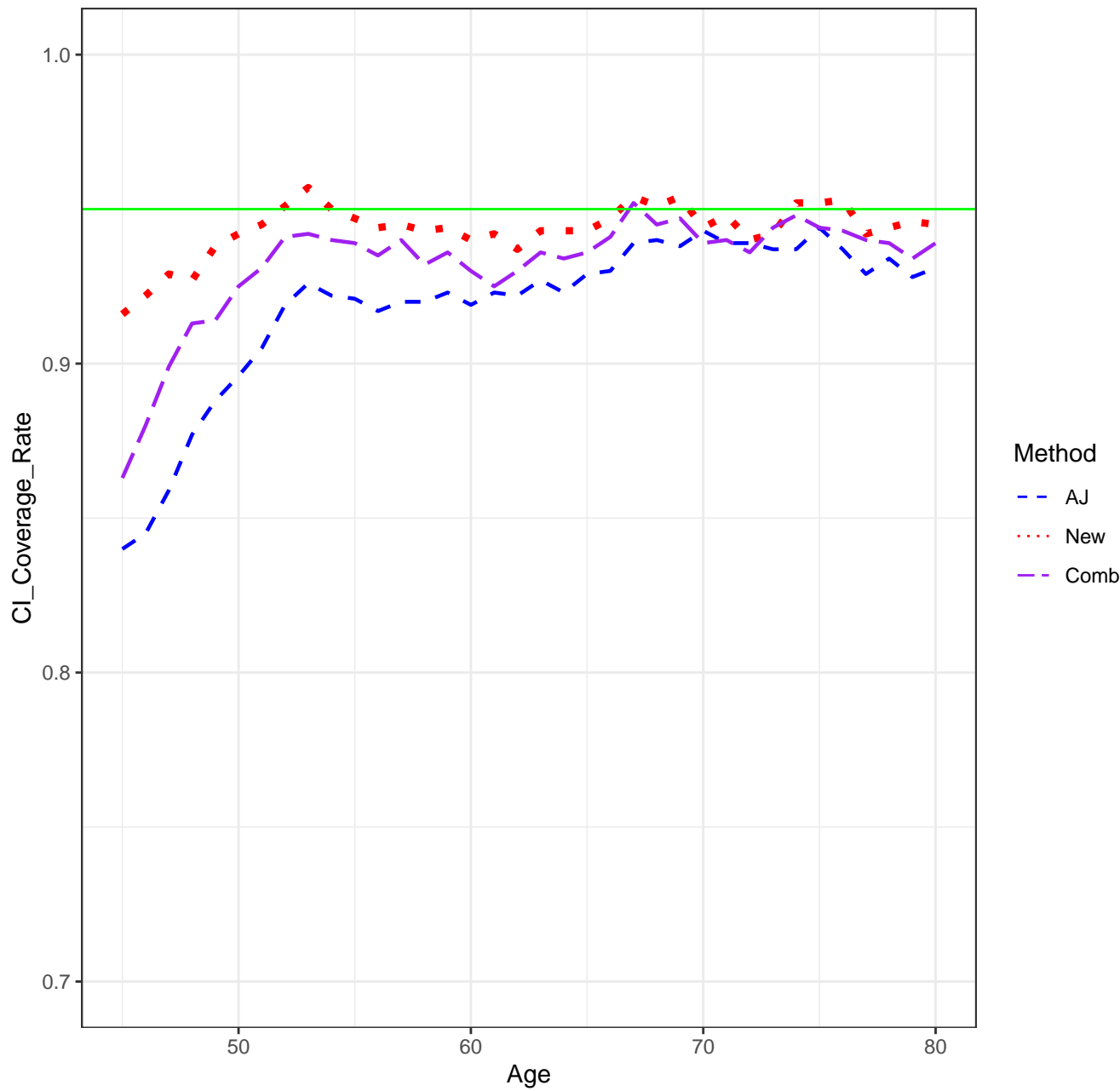
Scenario 1112, n=5000, New Estimator, Empirical vs. Estimated SD's



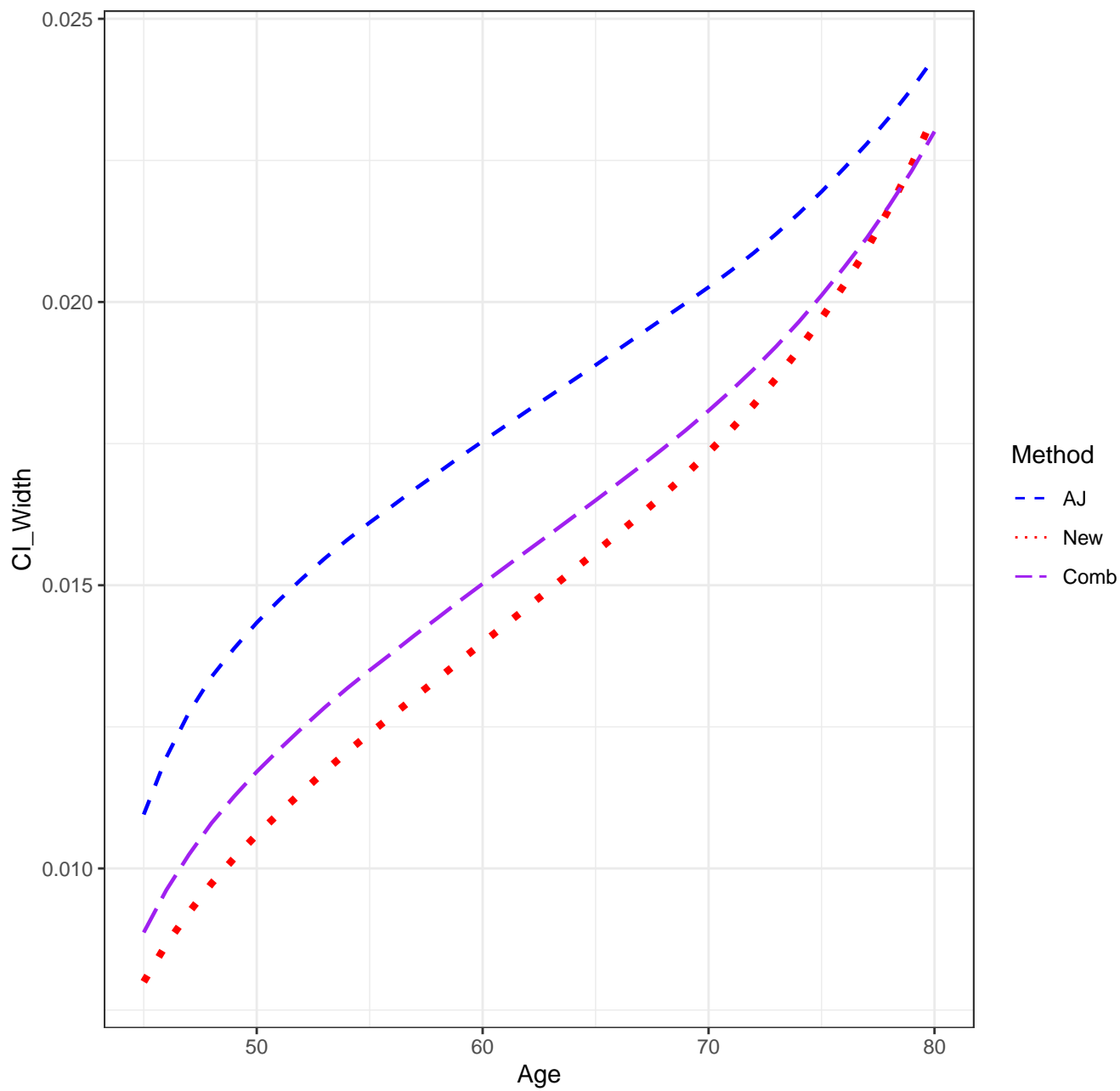
Scenario 1112, n=5000, Combined Estimator, Empirical vs. Estimated SD's



Scenario 1112, n=5000, CICR'S



Scenario 1112, n=5000, CI Width



## CONFIDENCE BAND COVERAGE RATES

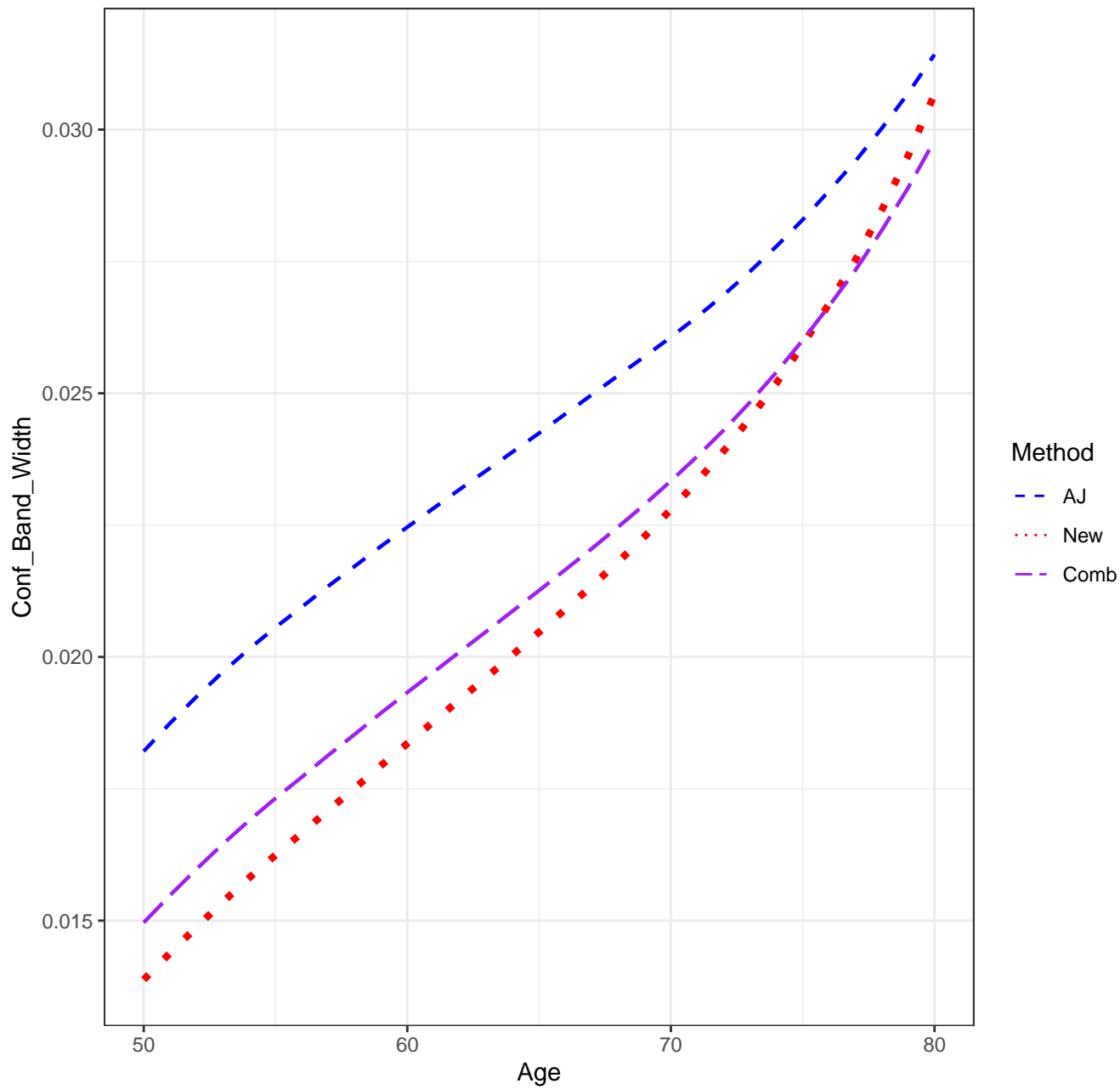
Scenario: 1112

AJ: 0.922

new: 0.939

Combo: 0.925

Scenario 1112, n=5000, Confidence Band Width





## SETTINGS

Scenario: 1121

sample size = 5000

number of simulation replications = 1000

number of bootstrap replications = 250

transformation:  $0.5 \cdot \pi - \arcsin(\sqrt{1-u})$

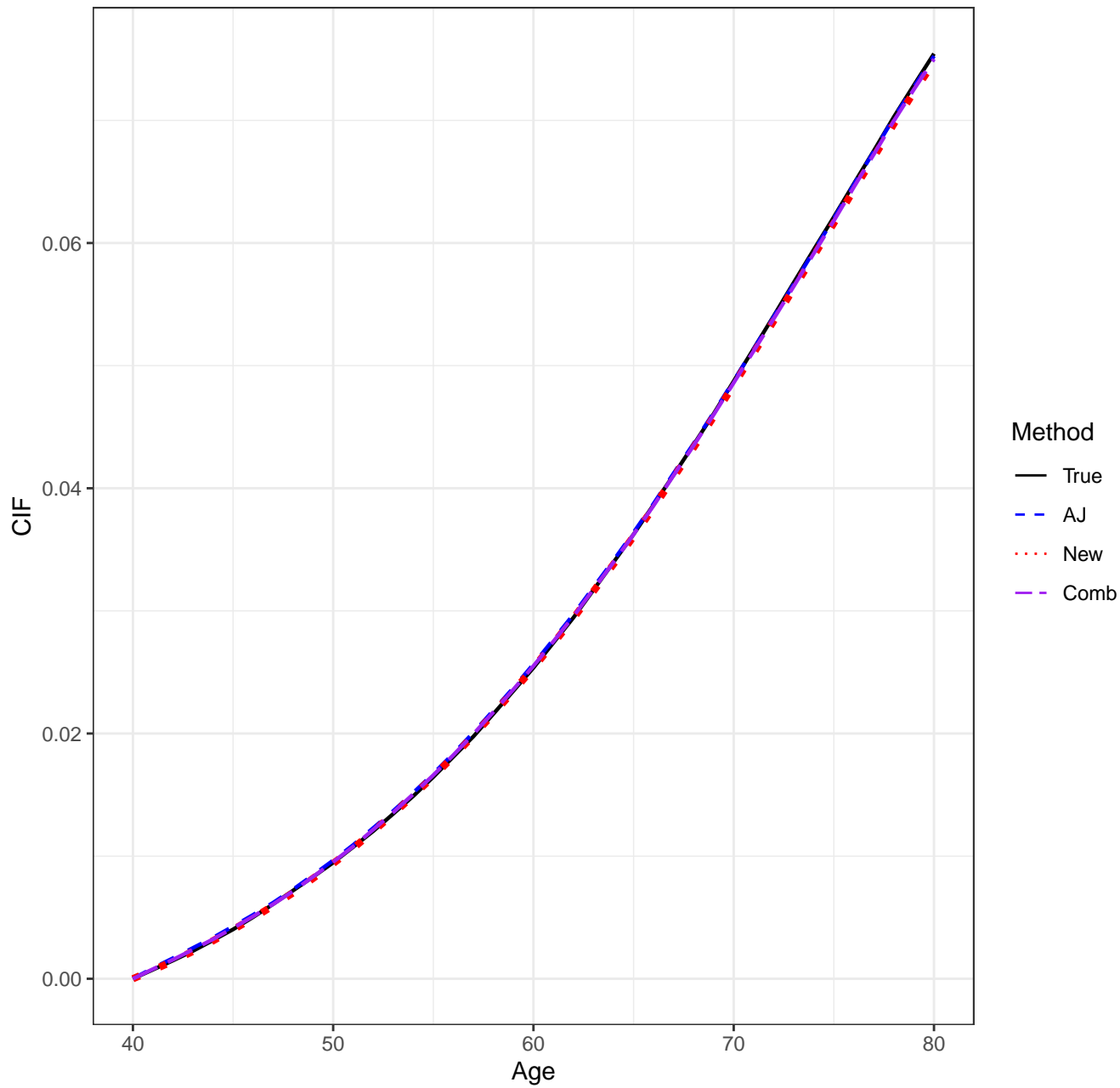
pointwise CI's done by: normal-theory

auxflg = FALSE

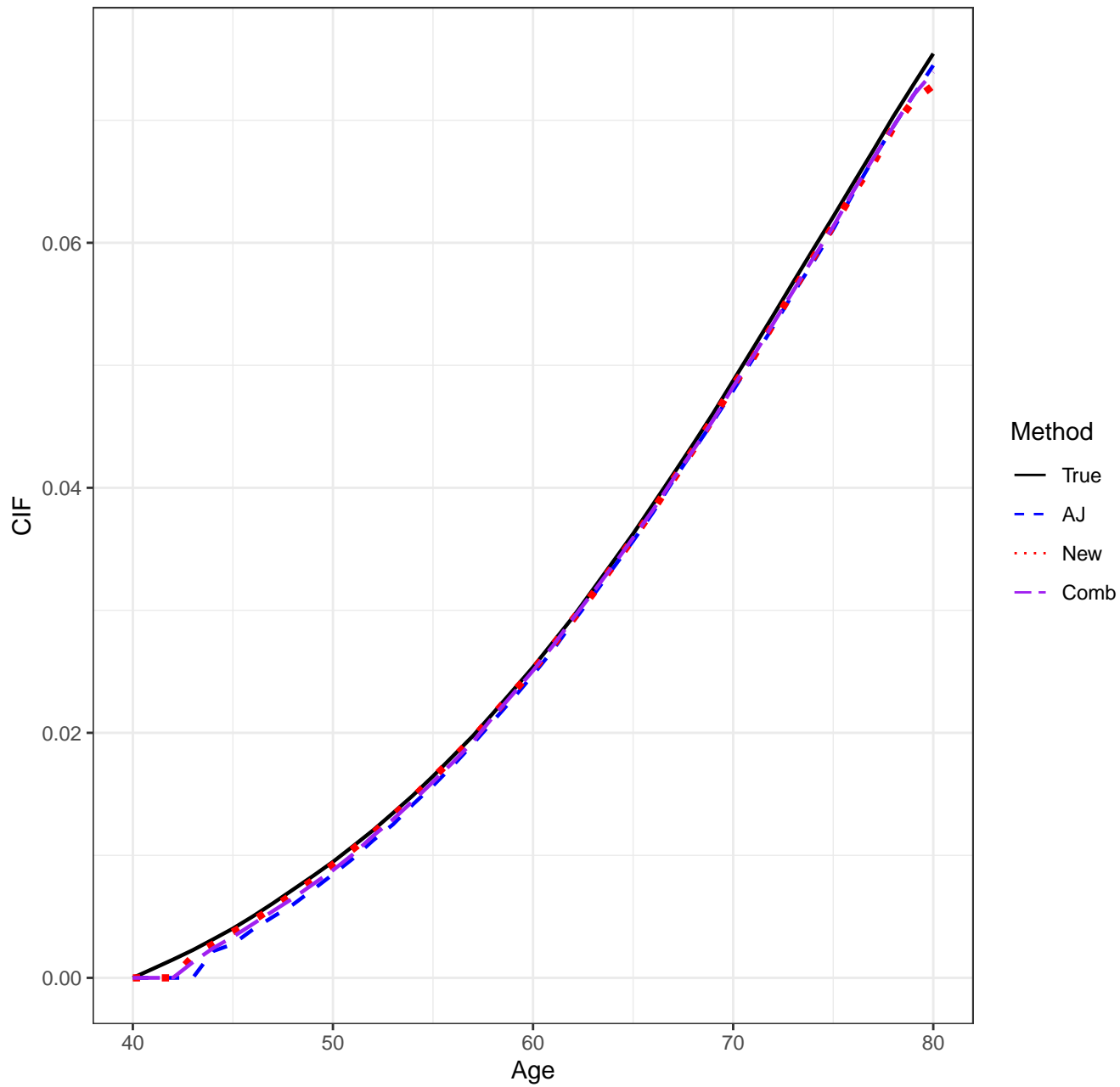
bootstrap weights: normal

Date/Time: 2024-01-15 12:37:08.125812

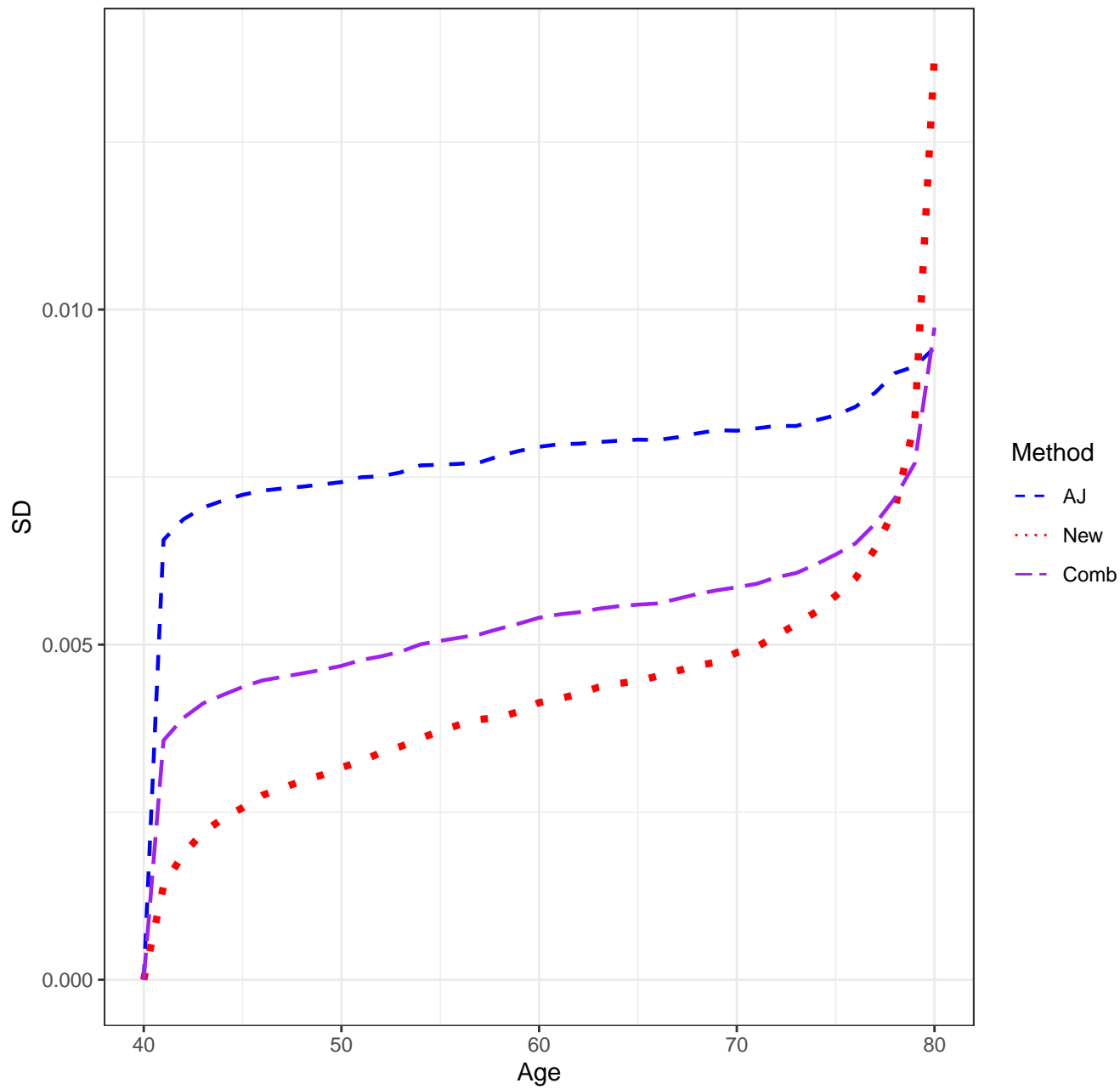
Scenario 1121, n=5000, Means



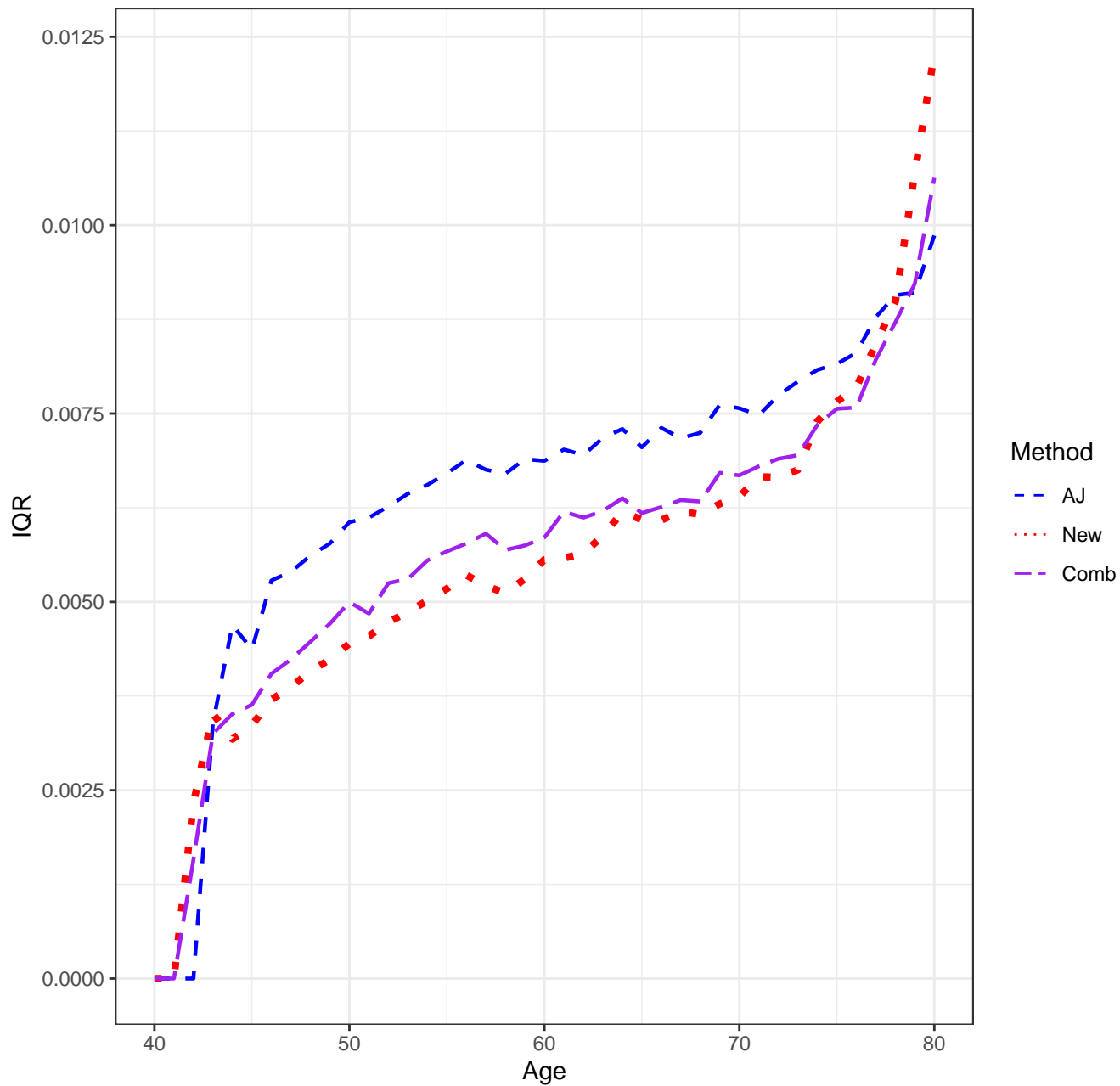
Scenario 1121, n=5000, Medians



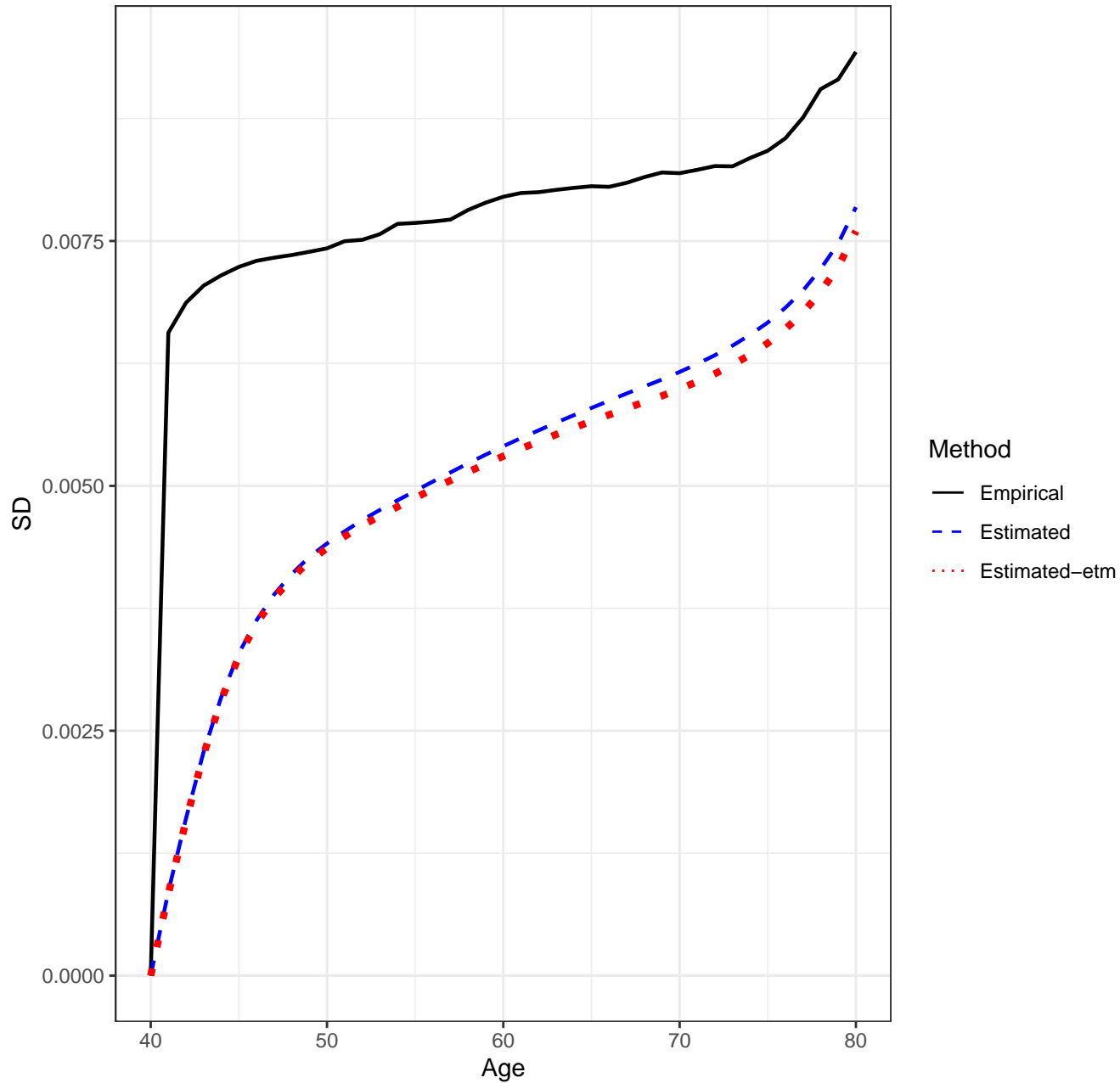
Scenario 1121, n=5000, SD'S



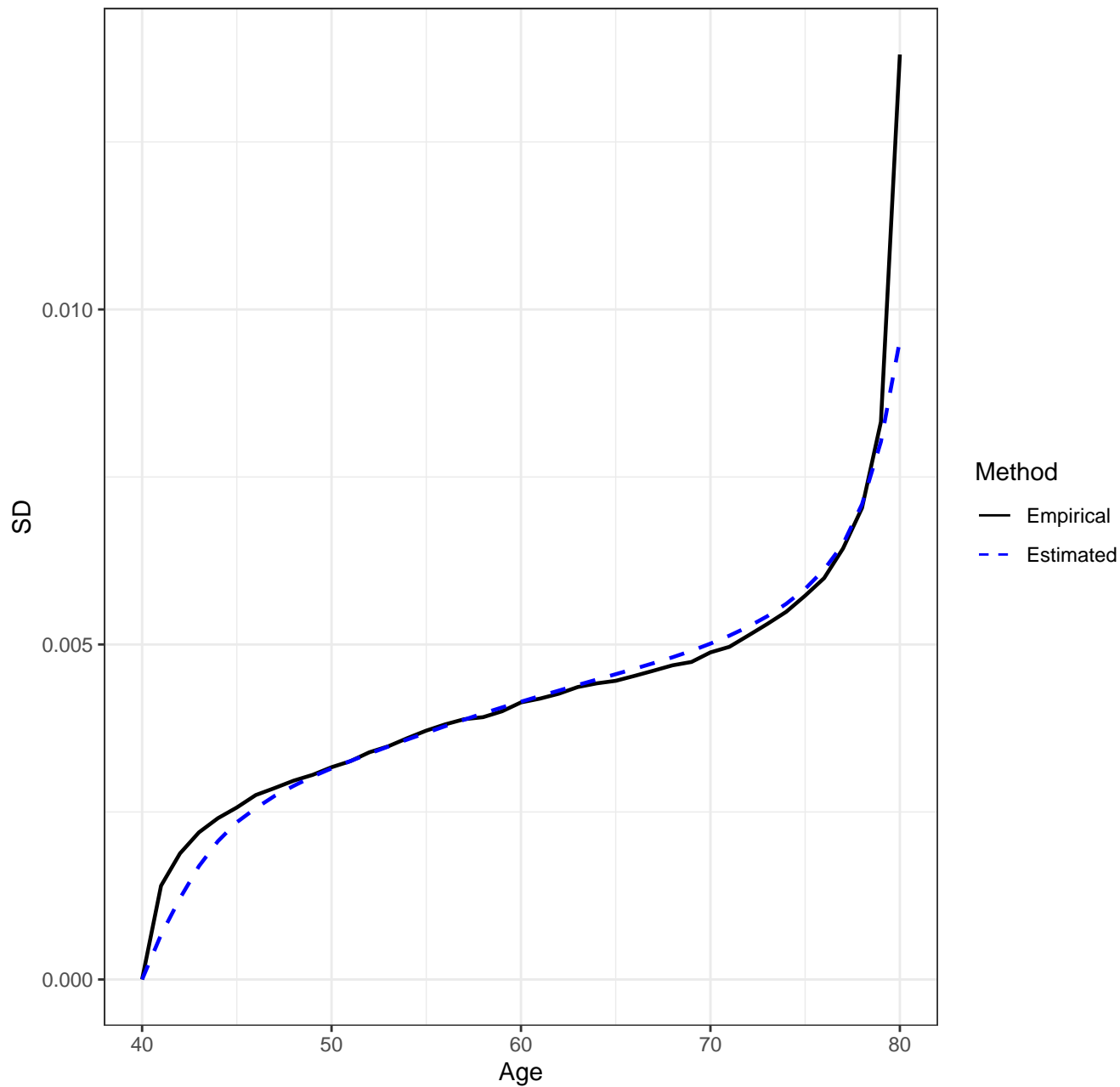
Scenario 1121, n=5000, IQR'S



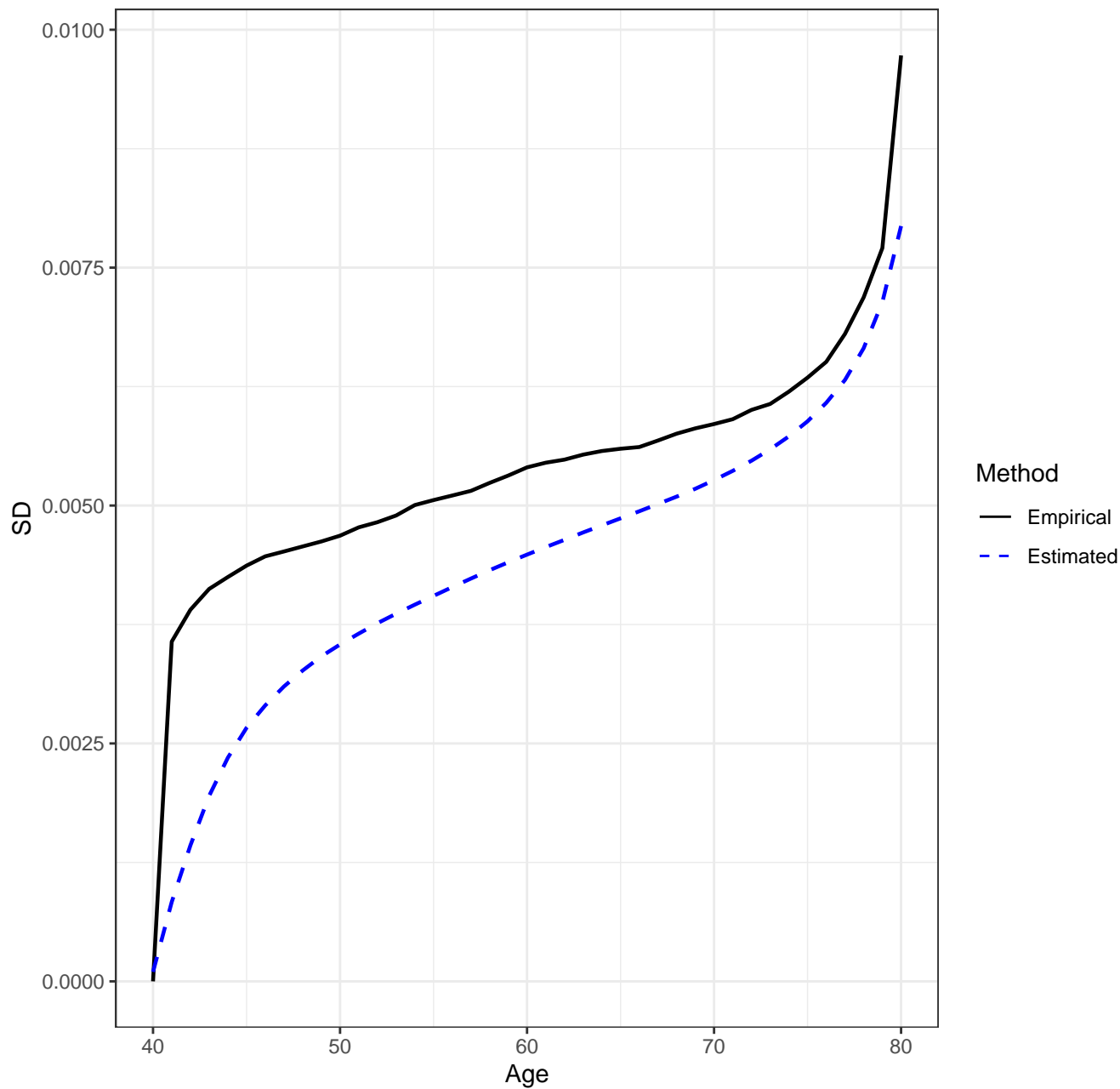
Scenario 1121, n=5000, AJ Estimator, Empirical vs. Estimated SD's



Scenario 1121, n=5000, New Estimator, Empirical vs. Estimated SD's

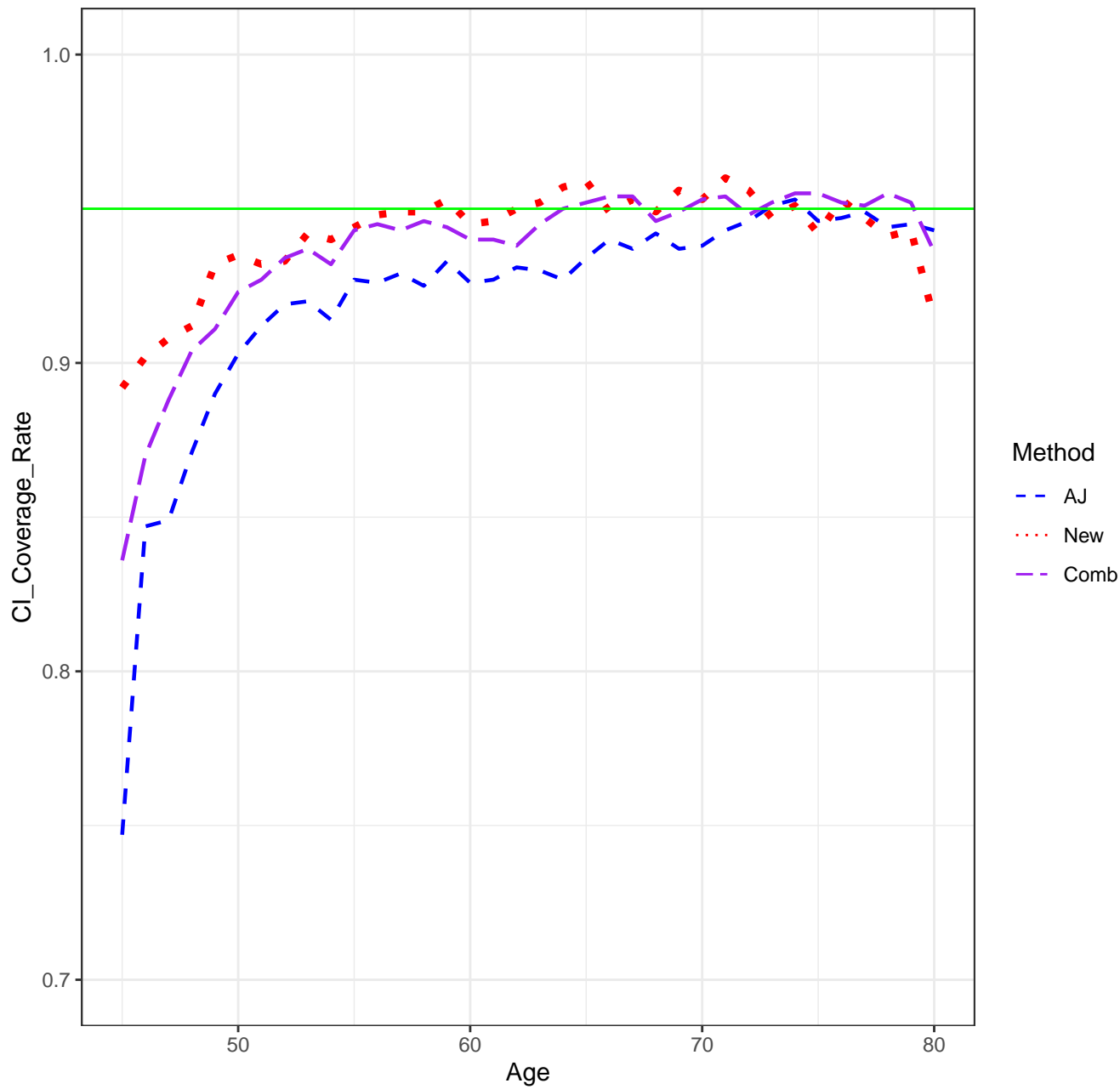


Scenario 1121, n=5000, Combined Estimator, Empirical vs. Estimated SD's

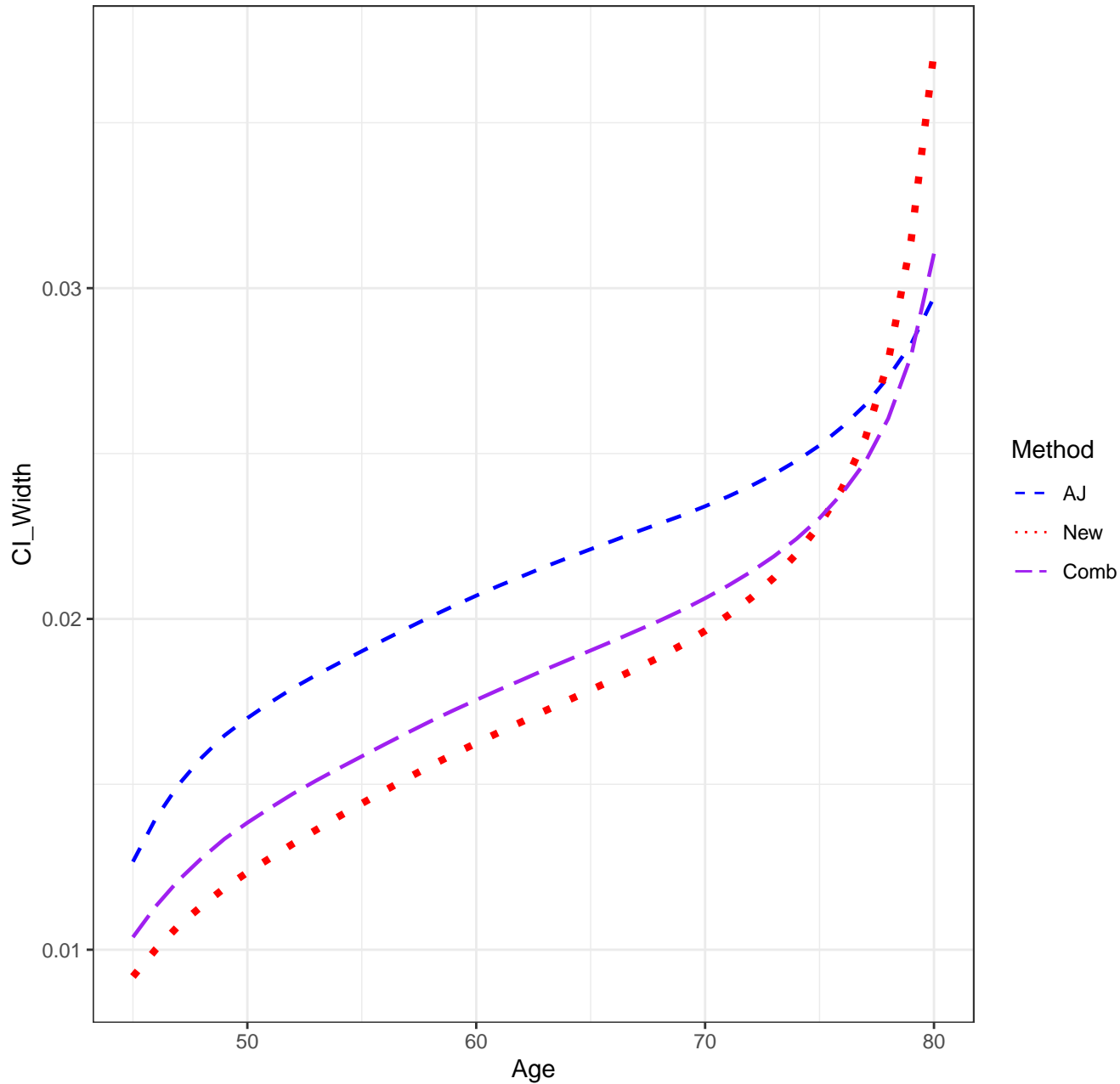




Scenario 1121, n=5000, CICR'S



Scenario 1121, n=5000, CI Width



## CONFIDENCE BAND COVERAGE RATES

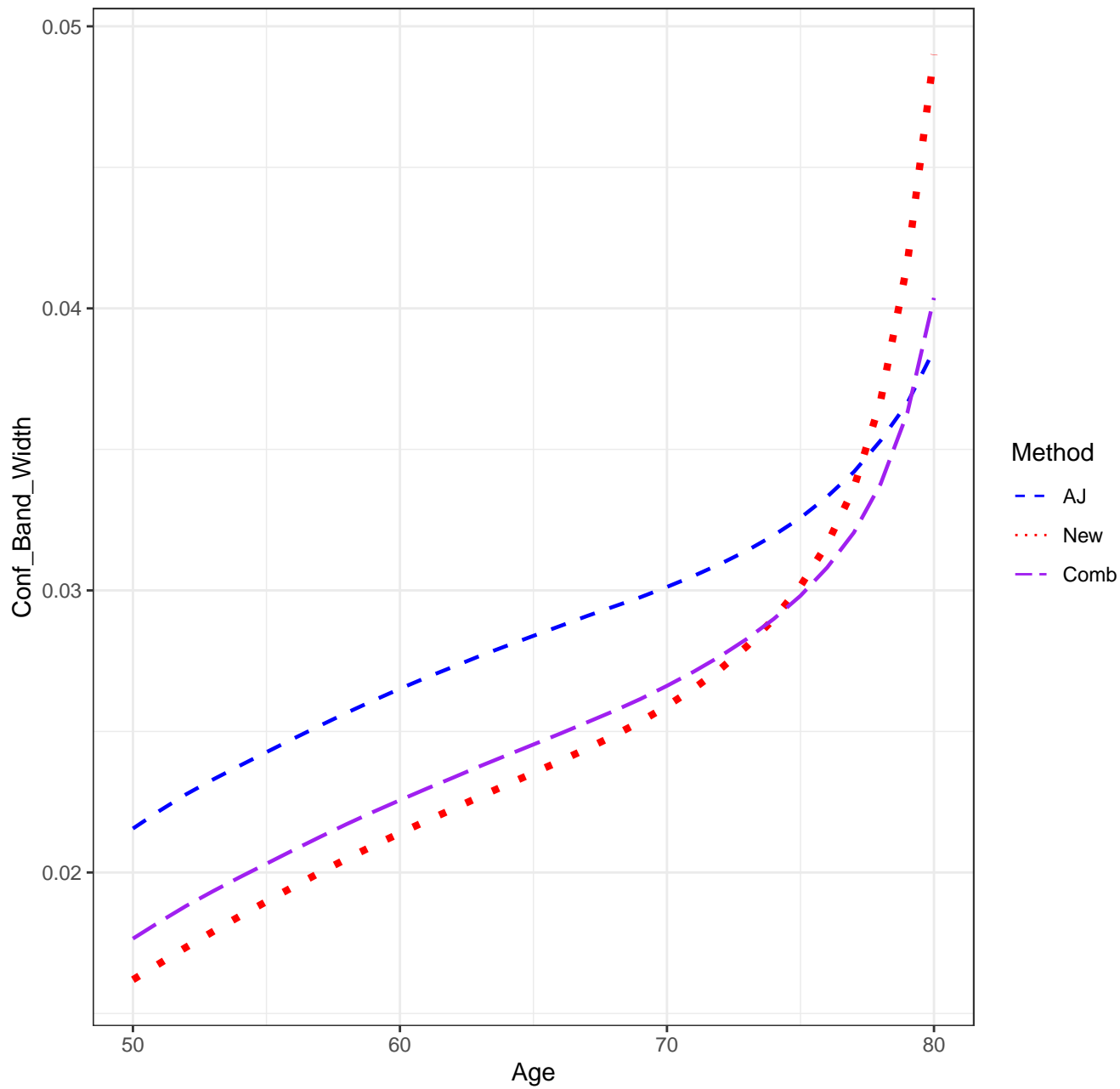
Scenario: 1121

AJ: 0.914

new: 0.919

Combo: 0.928

Scenario 1121, n=5000, Confidence Band Width



## SETTINGS

Scenario: 1122

sample size = 5000

number of simulation replications = 1000

number of bootstrap replications = 250

transformation:  $0.5 \cdot \pi - \arcsin(\sqrt{1-u})$

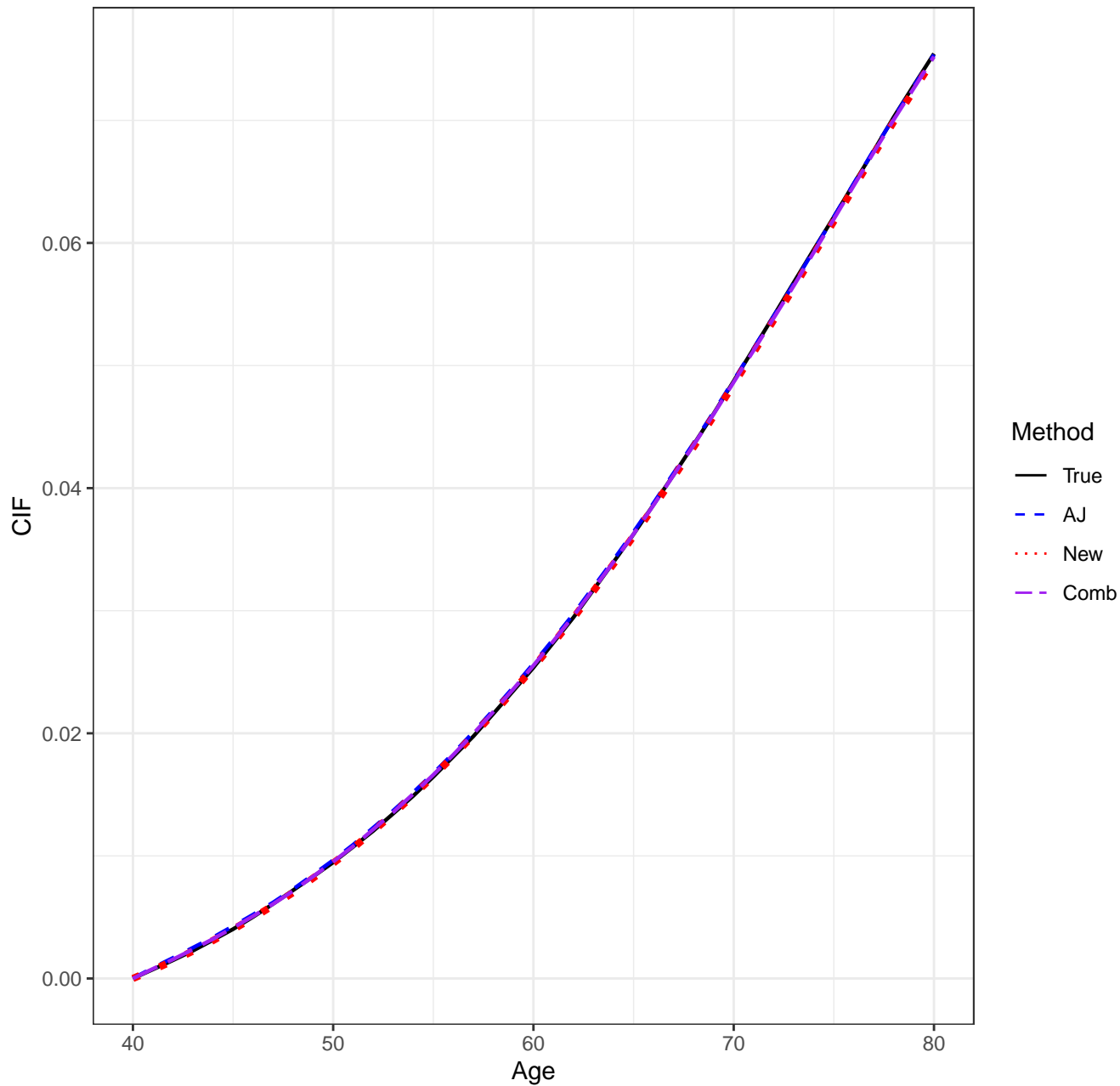
pointwise CI's done by: normal-theory

auxflg = FALSE

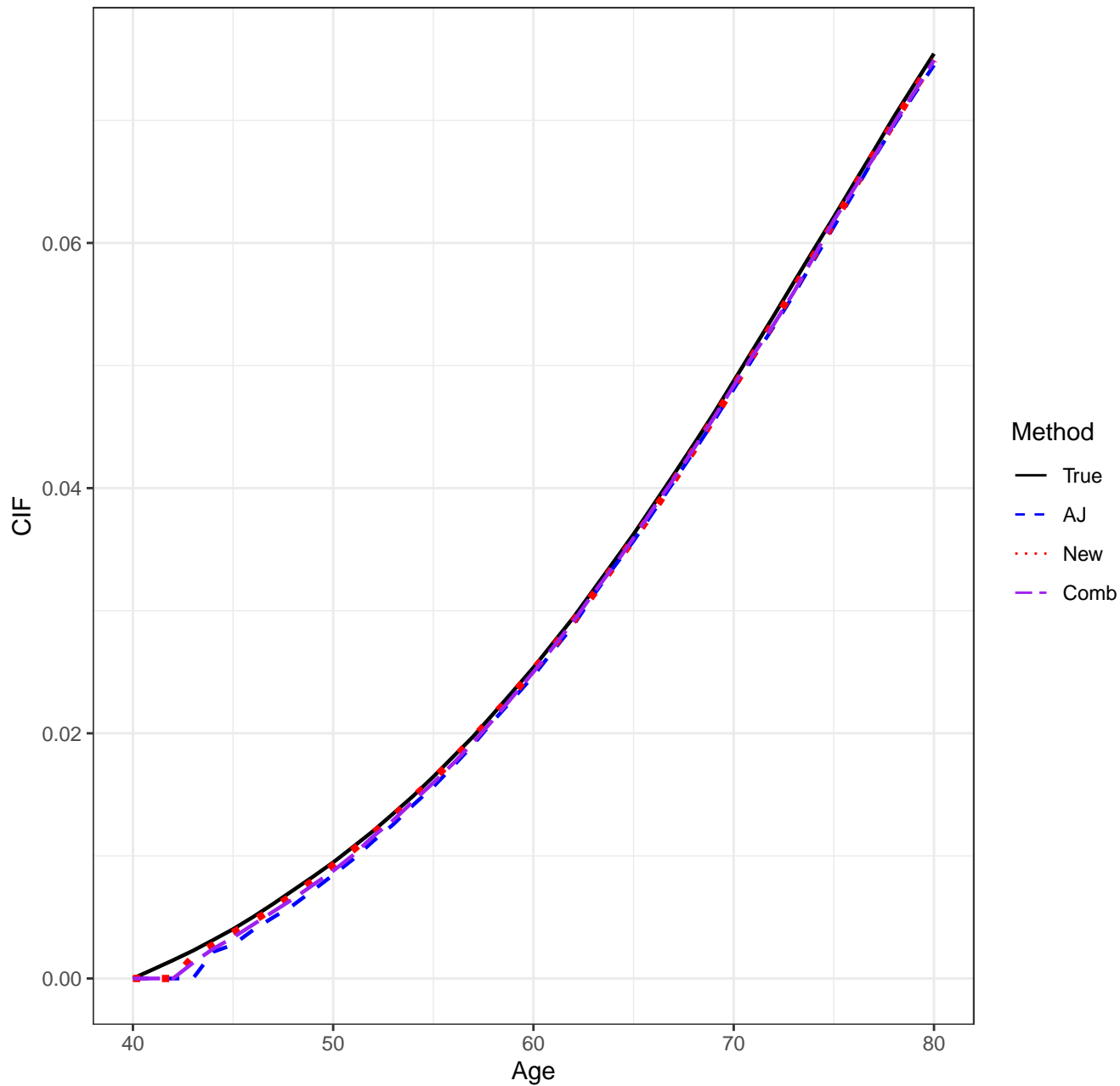
bootstrap weights: normal

Date/Time: 2024-01-15 14:02:03.736959

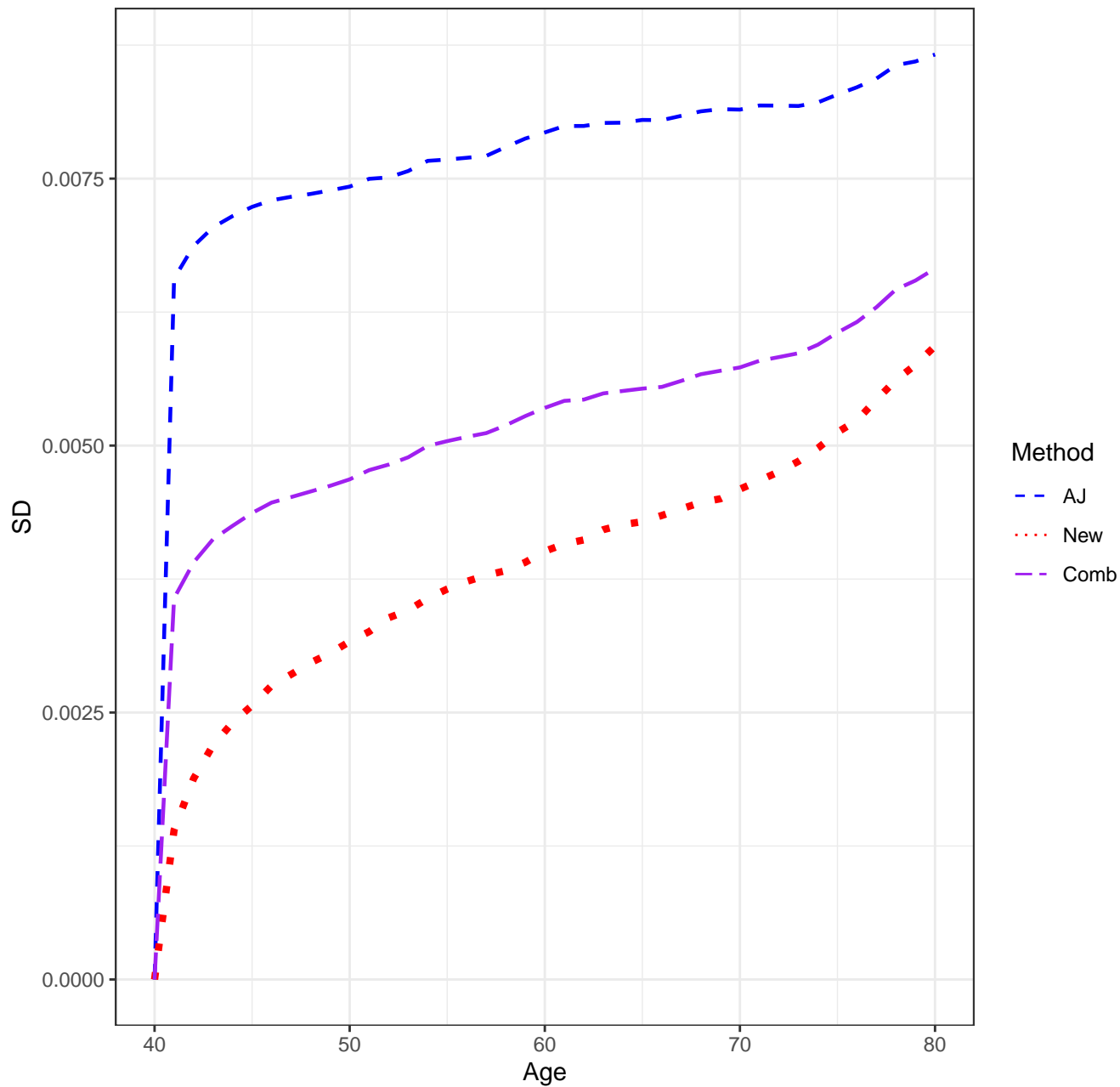
Scenario 1122, n=5000, Means



Scenario 1122, n=5000, Medians

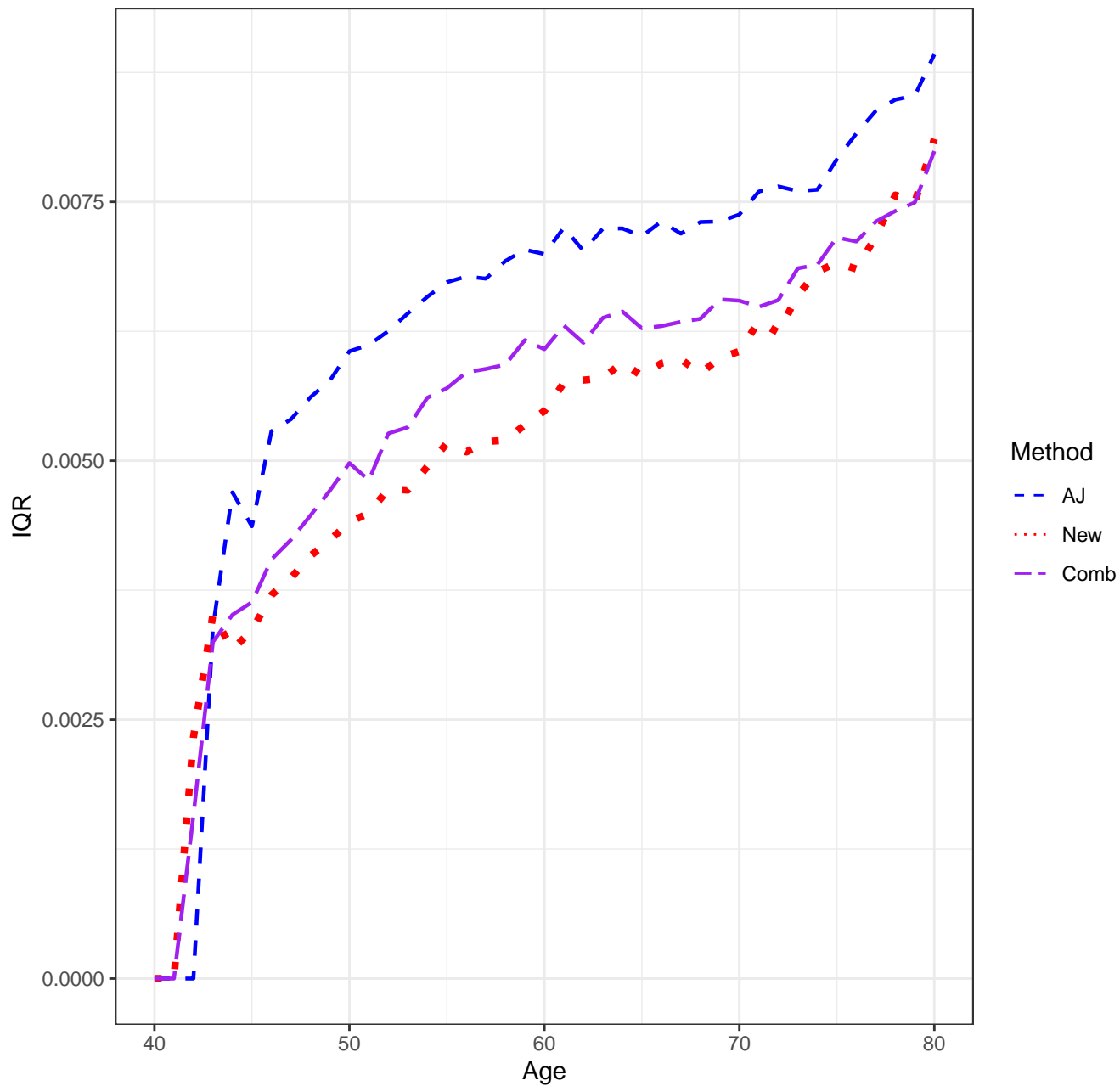


Scenario 1122, n=5000, SD'S

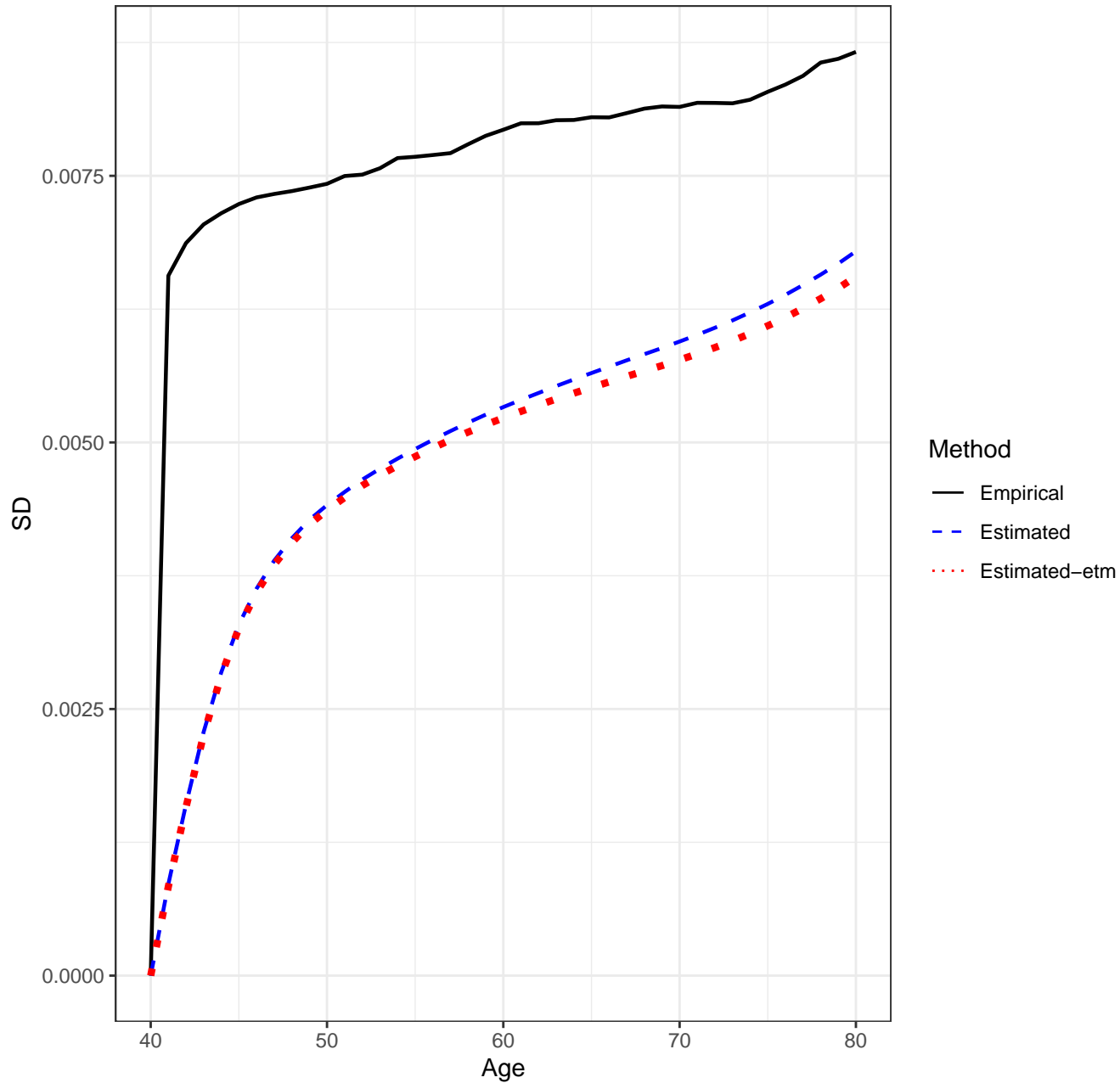




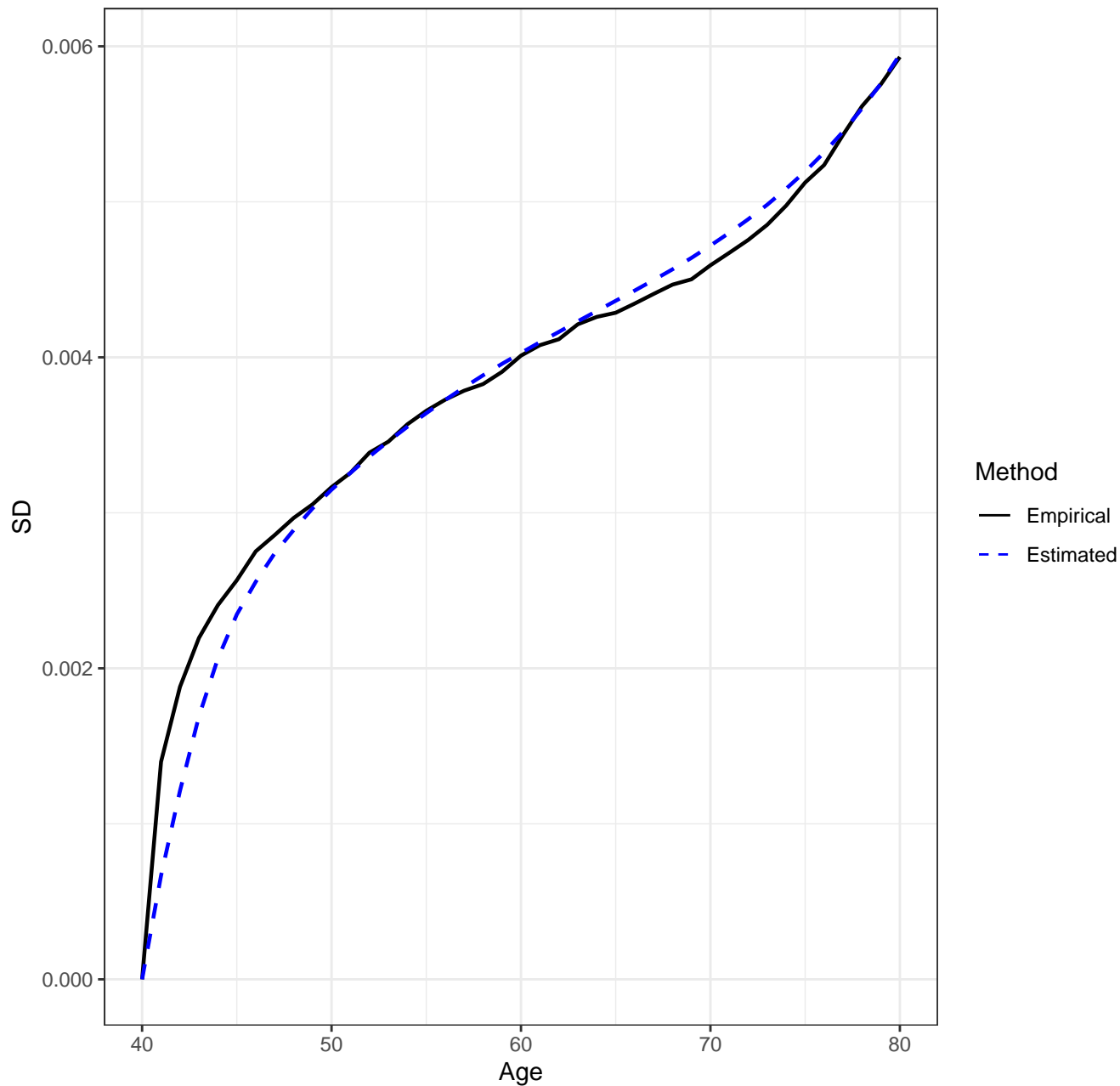
Scenario 1122, n=5000, IQR'S



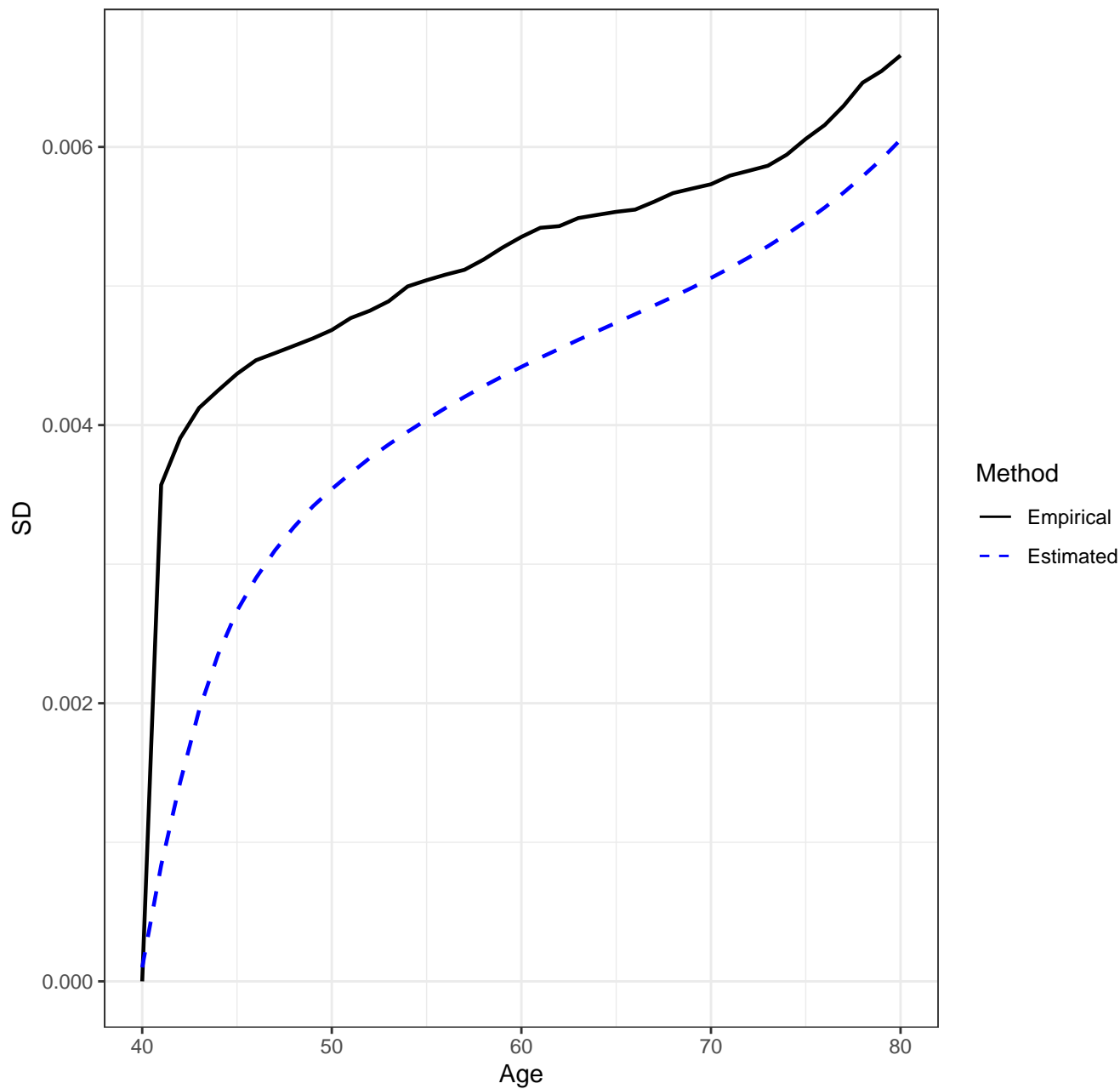
Scenario 1122, n=5000, AJ Estimator, Empirical vs. Estimated SD's



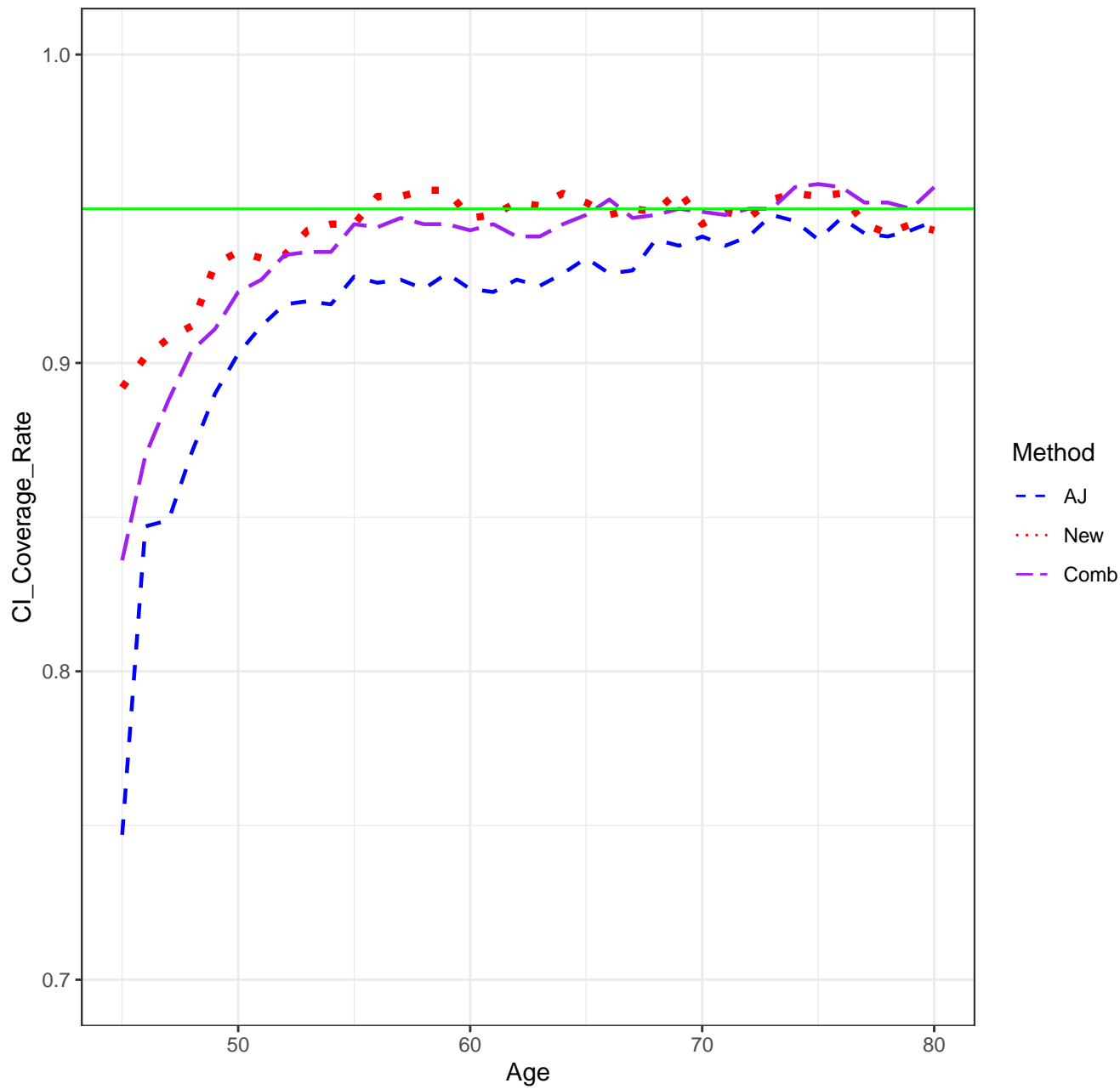
Scenario 1122, n=5000, New Estimator, Empirical vs. Estimated SD's



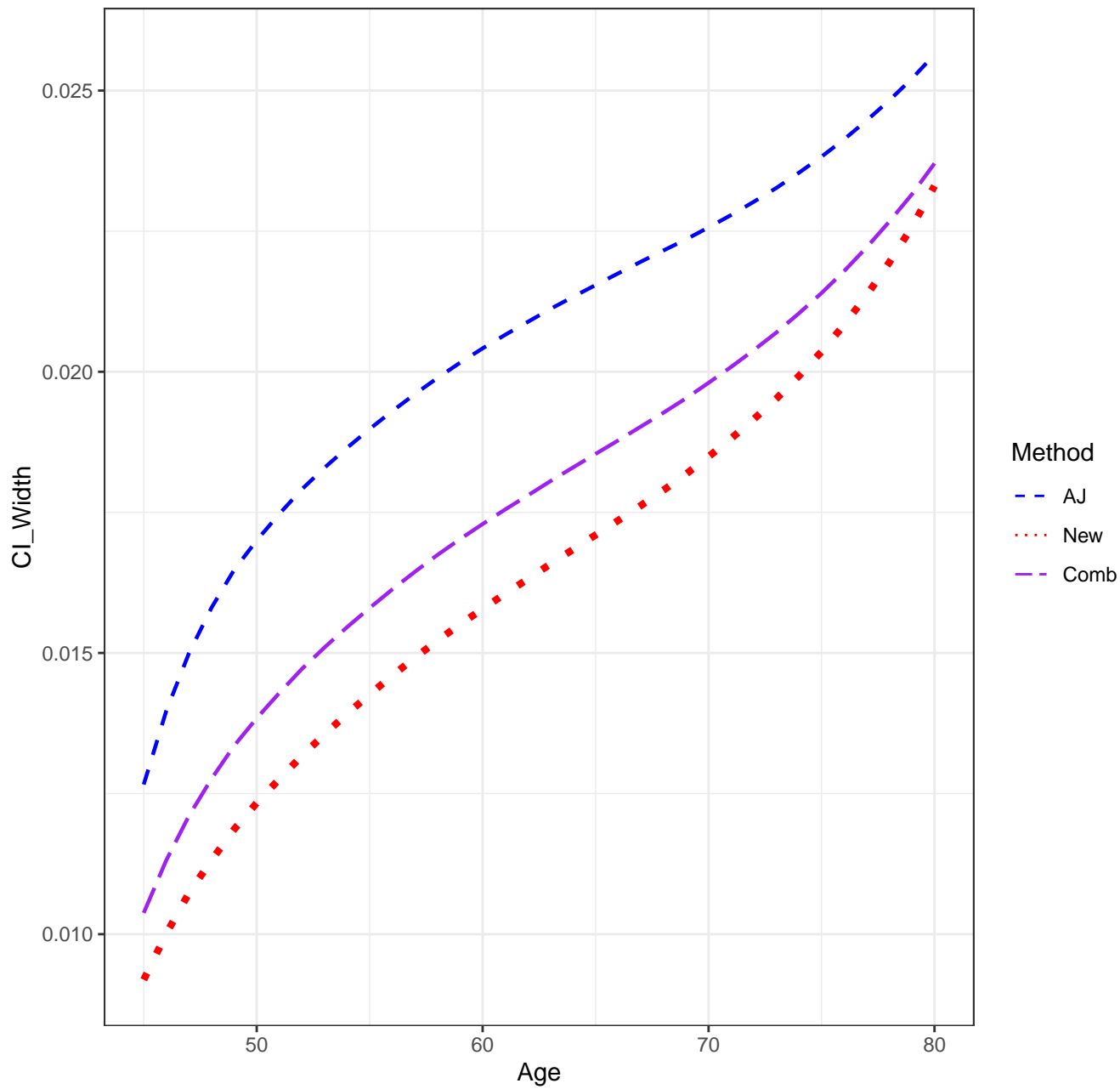
Scenario 1122, n=5000, Combined Estimator, Empirical vs. Estimated SD's



Scenario 1122, n=5000, CICR'S



Scenario 1122, n=5000, CI Width



## CONFIDENCE BAND COVERAGE RATES

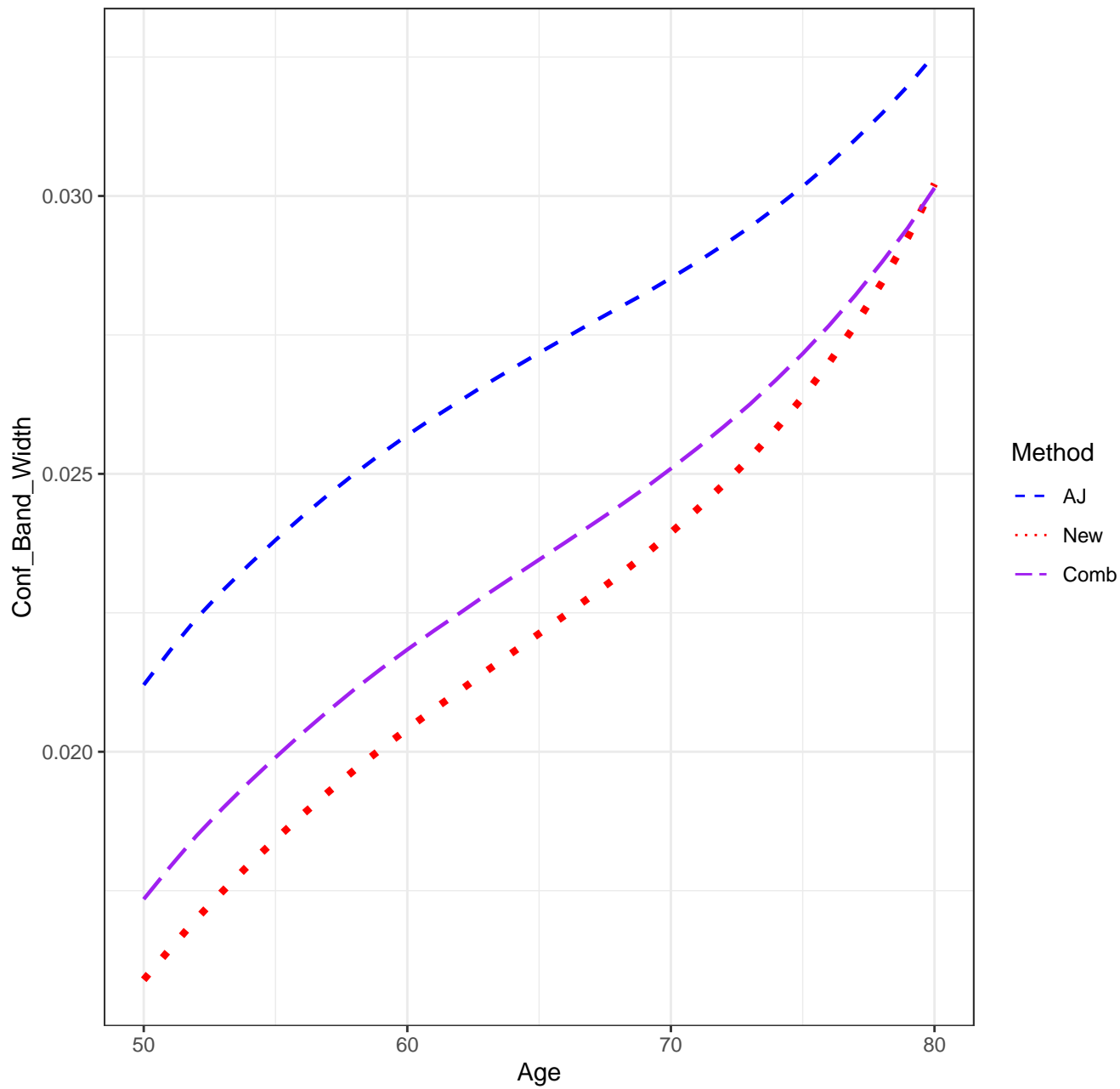
Scenario: 1122

AJ: 0.915

new: 0.939

Combo: 0.932

Scenario 1122, n=5000, Confidence Band Width





## SETTINGS

Scenario: 1211

sample size = 5000

number of simulation replications = 1000

number of bootstrap replications = 250

transformation:  $0.5 \cdot \pi - \arcsin(\sqrt{1-u})$

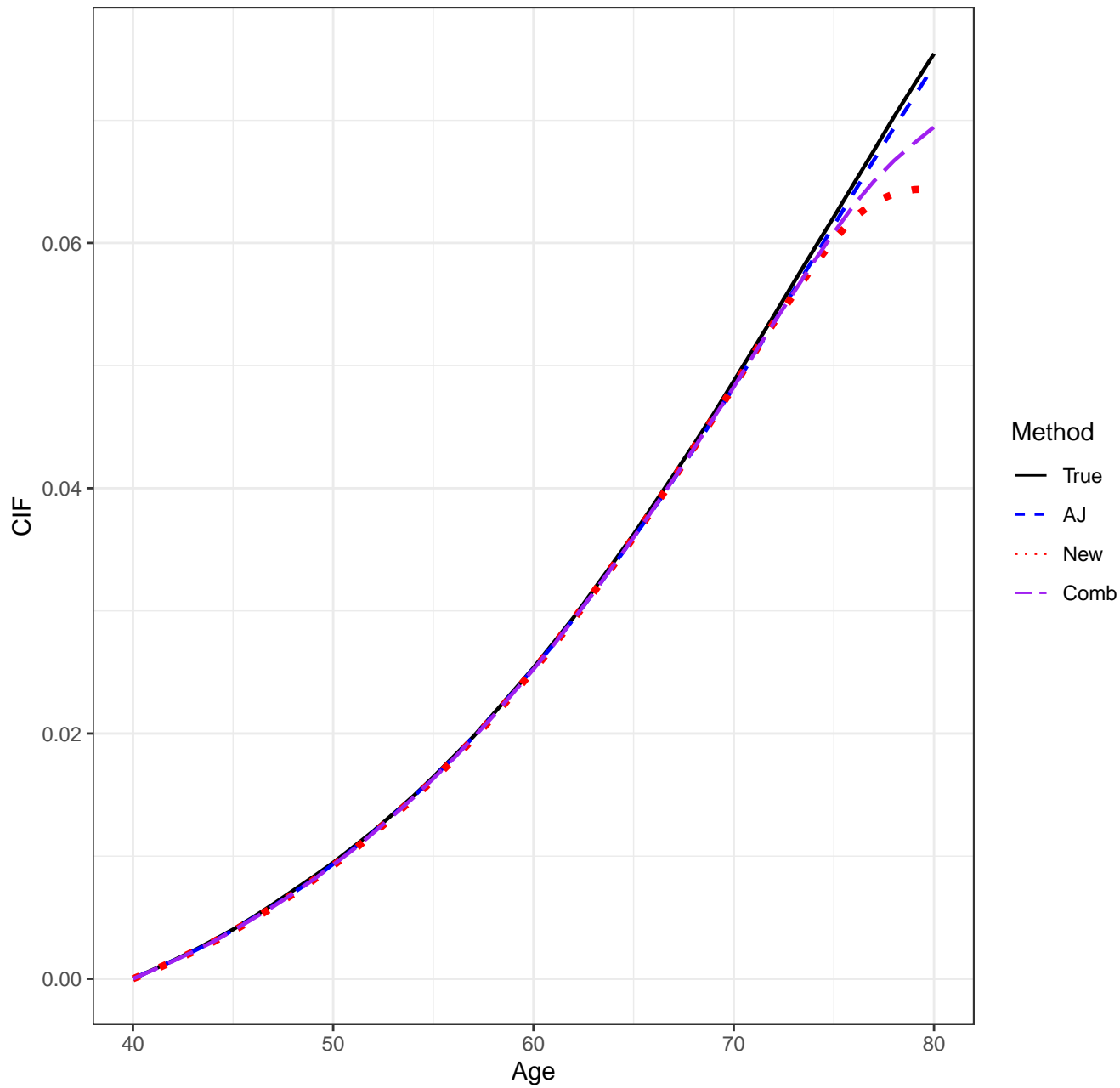
pointwise CI's done by: normal-theory

auxflg = FALSE

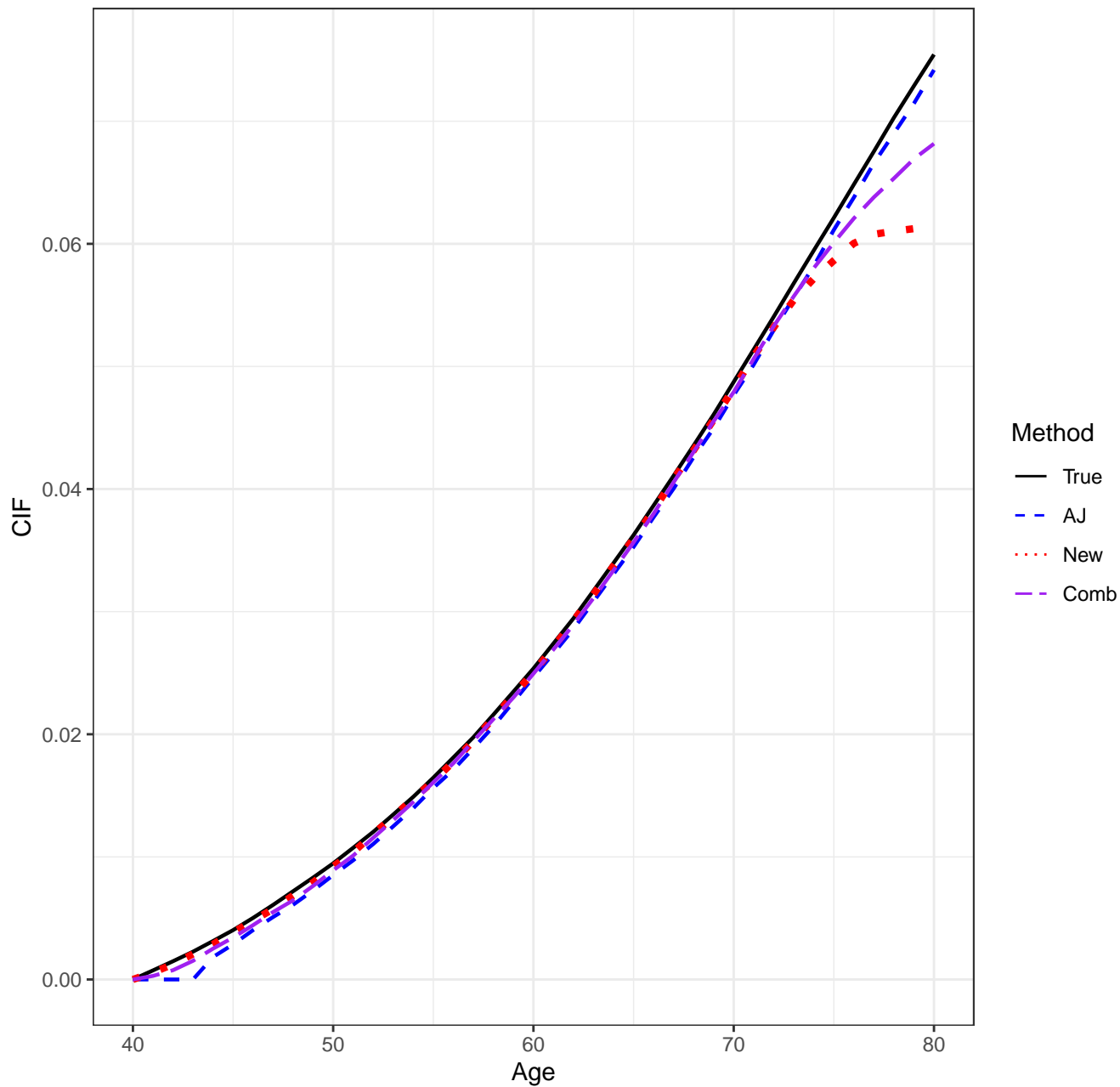
bootstrap weights: normal

Date/Time: 2024-01-15 16:57:28.51711

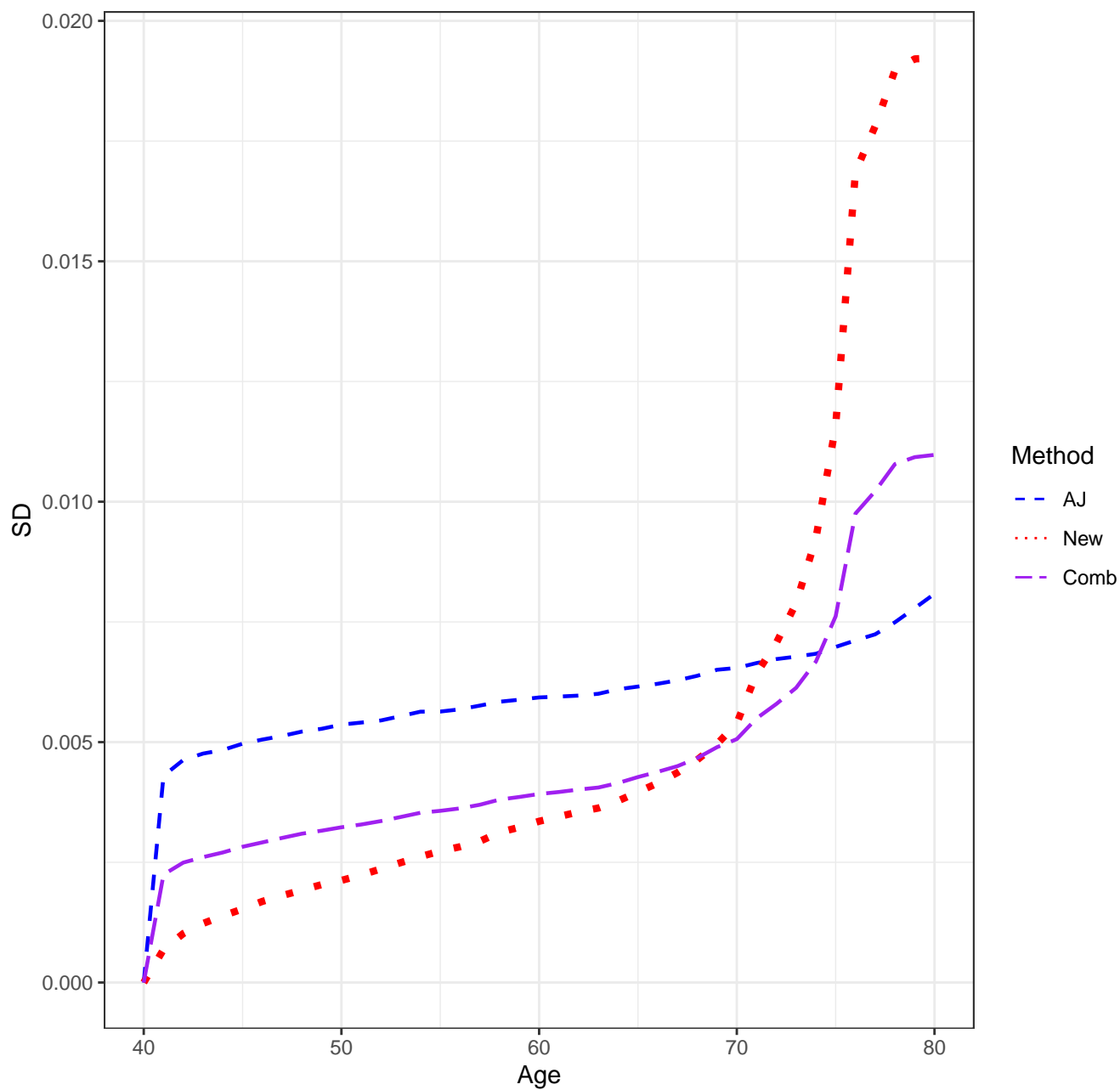
Scenario 1211, n=5000, Means



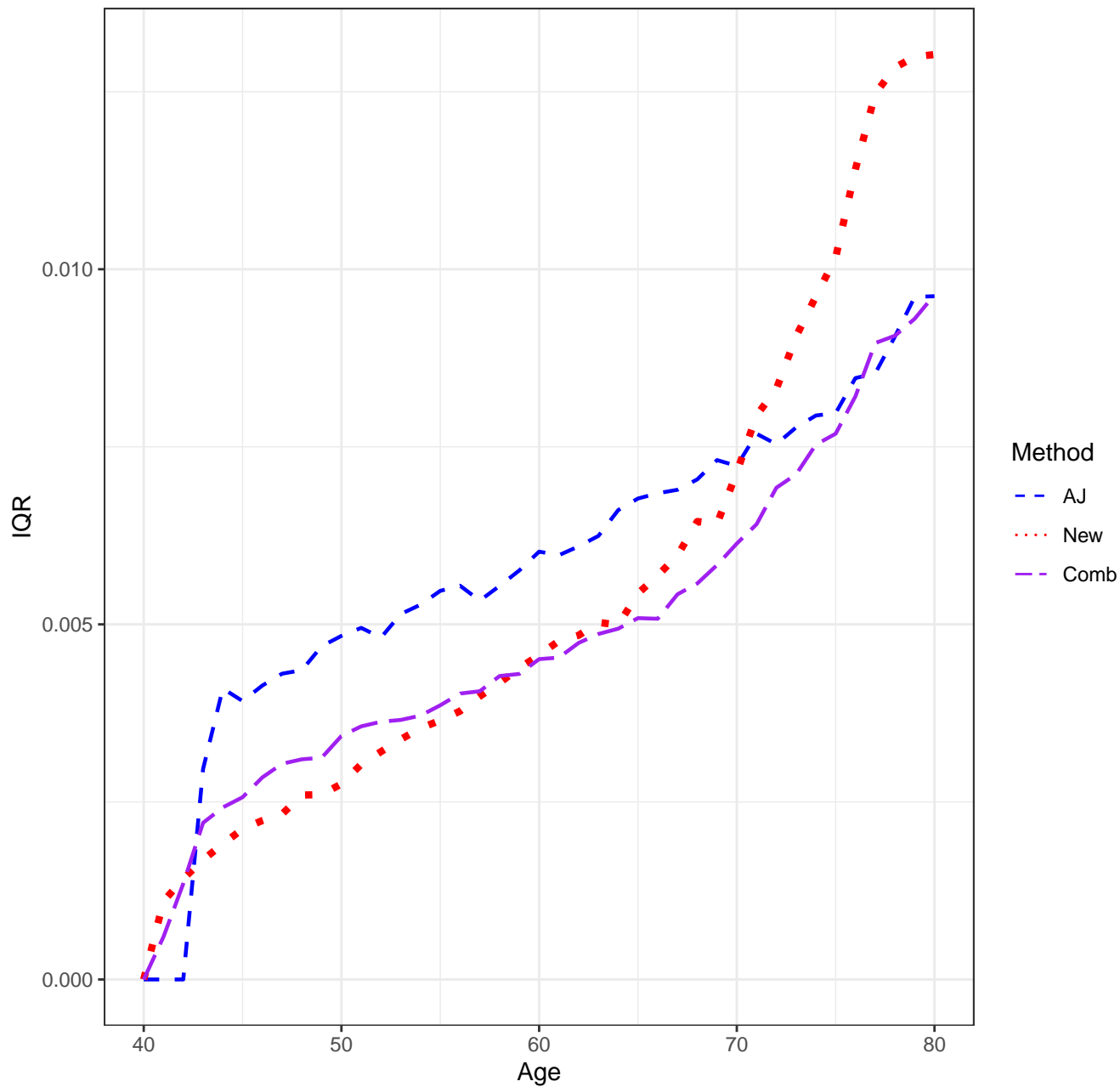
Scenario 1211, n=5000, Medians



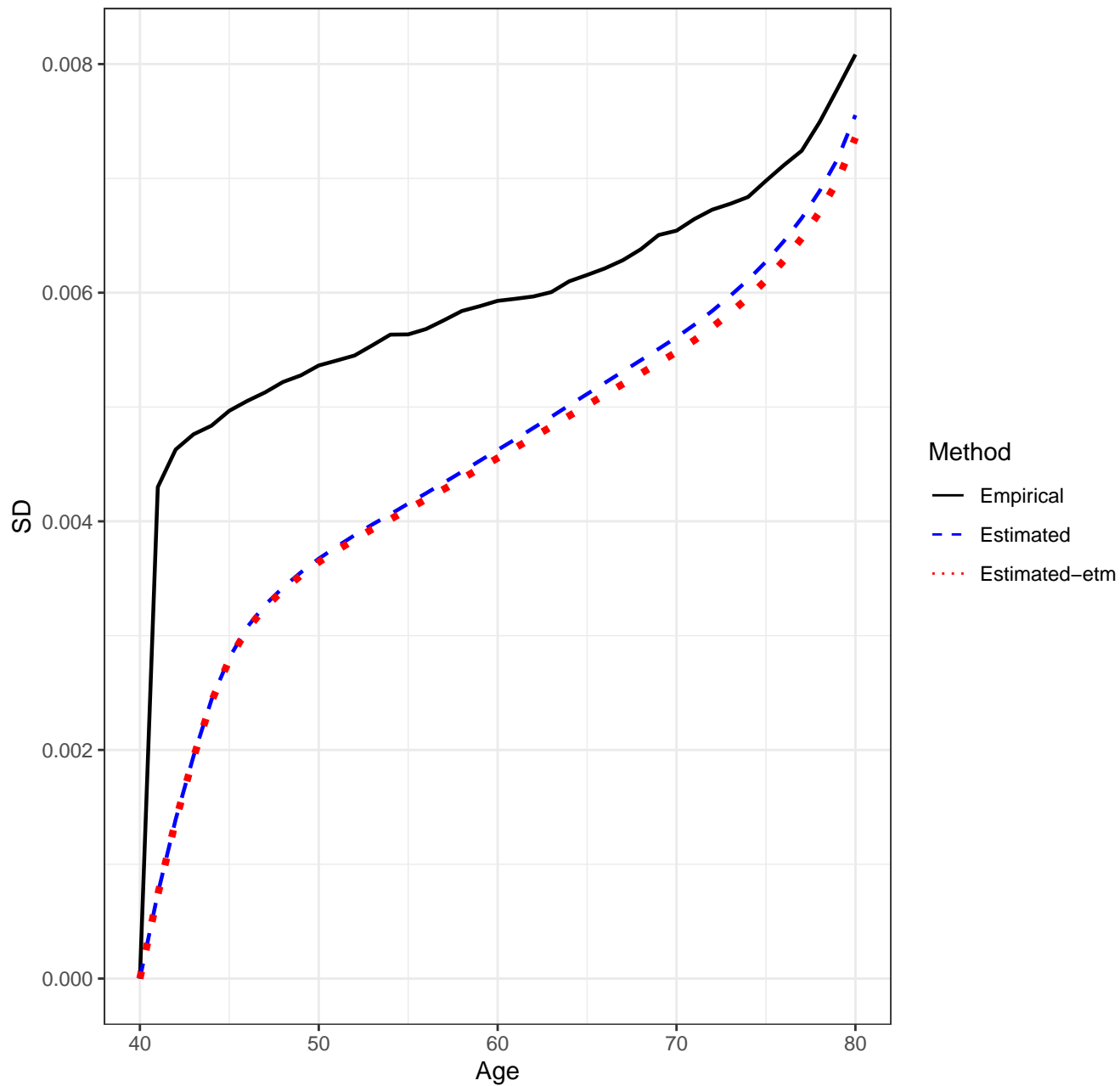
Scenario 1211, n=5000, SD'S



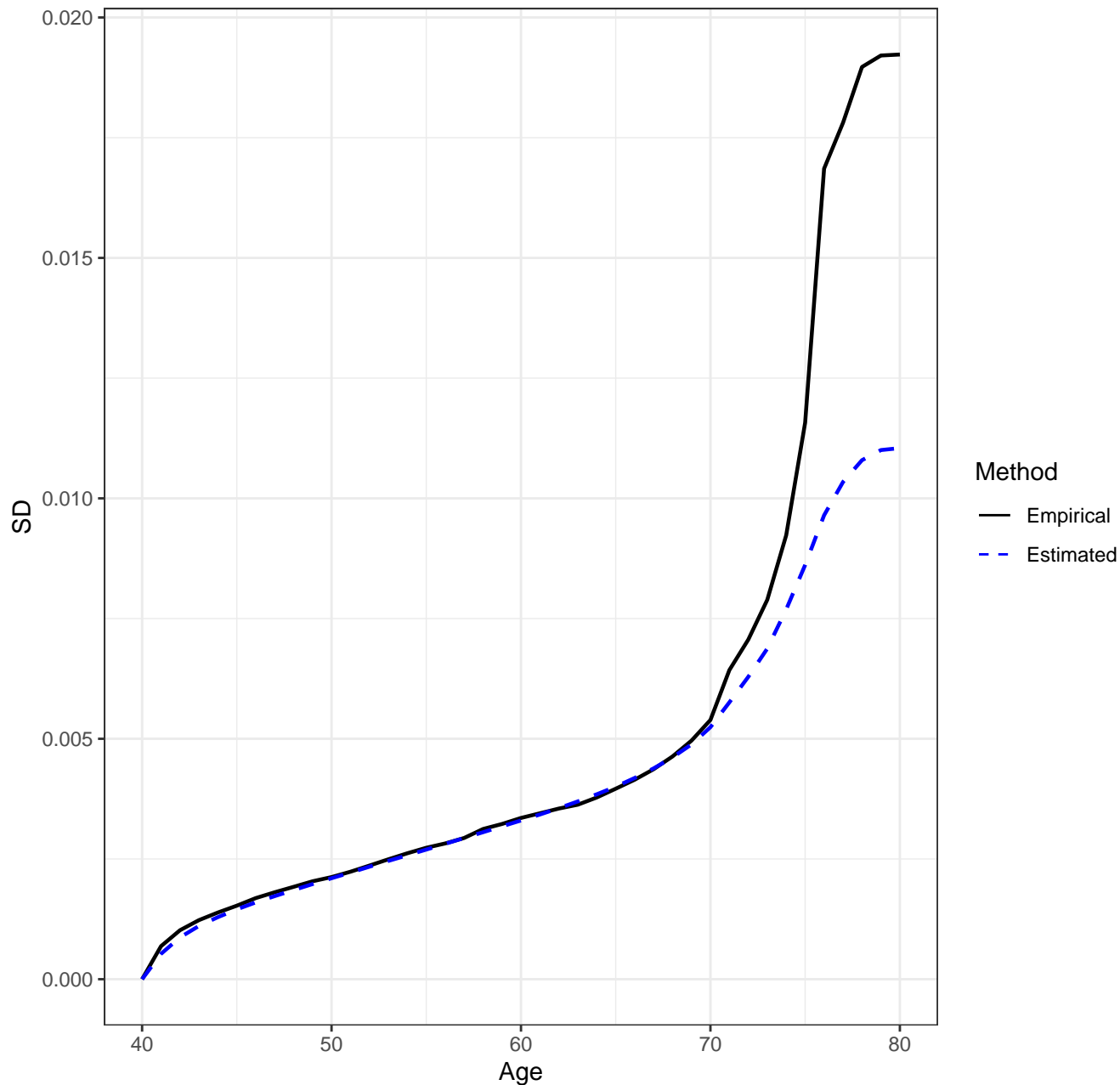
Scenario 1211, n=5000, IQR'S



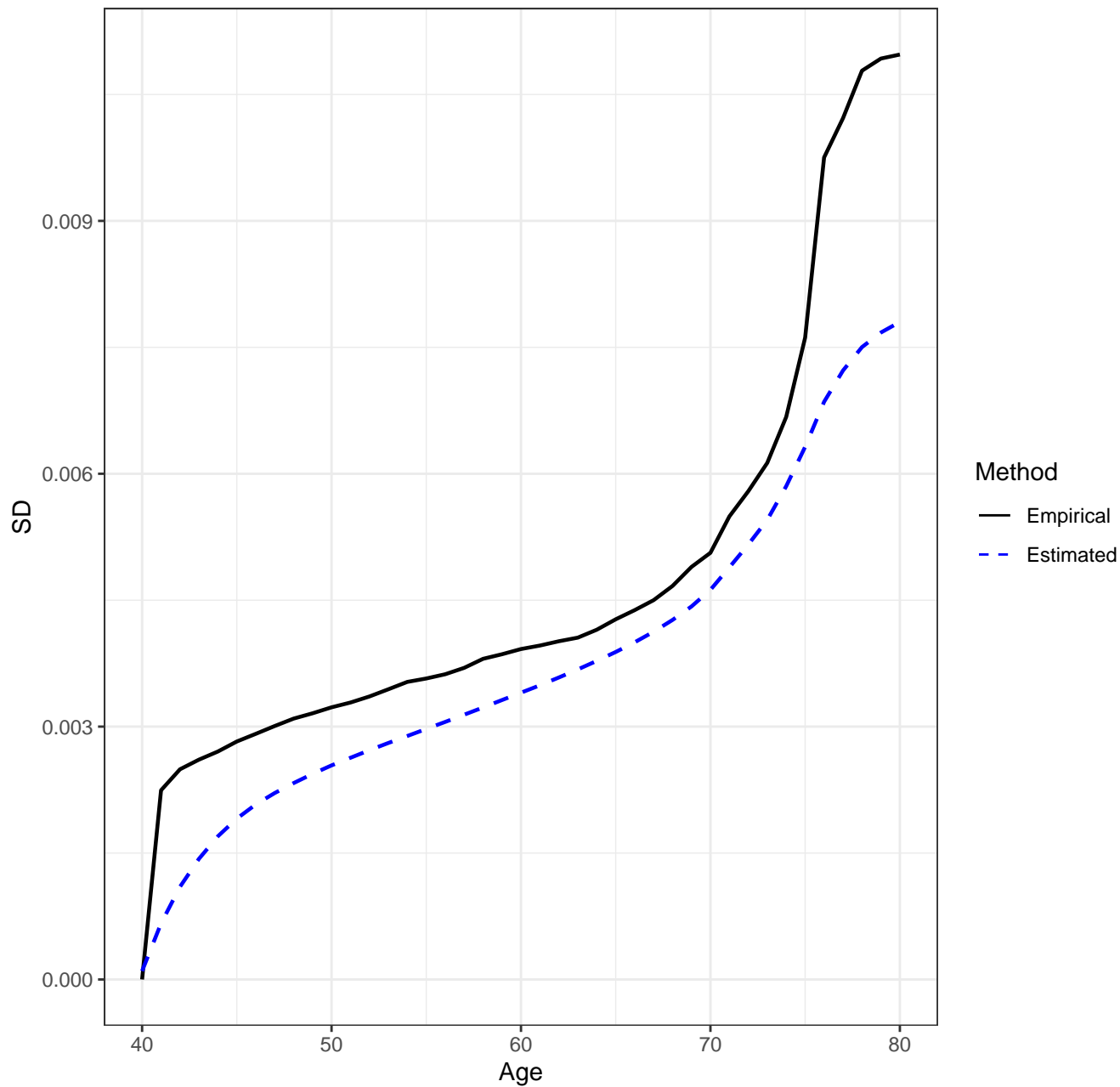
Scenario 1211, n=5000, AJ Estimator, Empirical vs. Estimated SD's



Scenario 1211, n=5000, New Estimator, Empirical vs. Estimated SD's

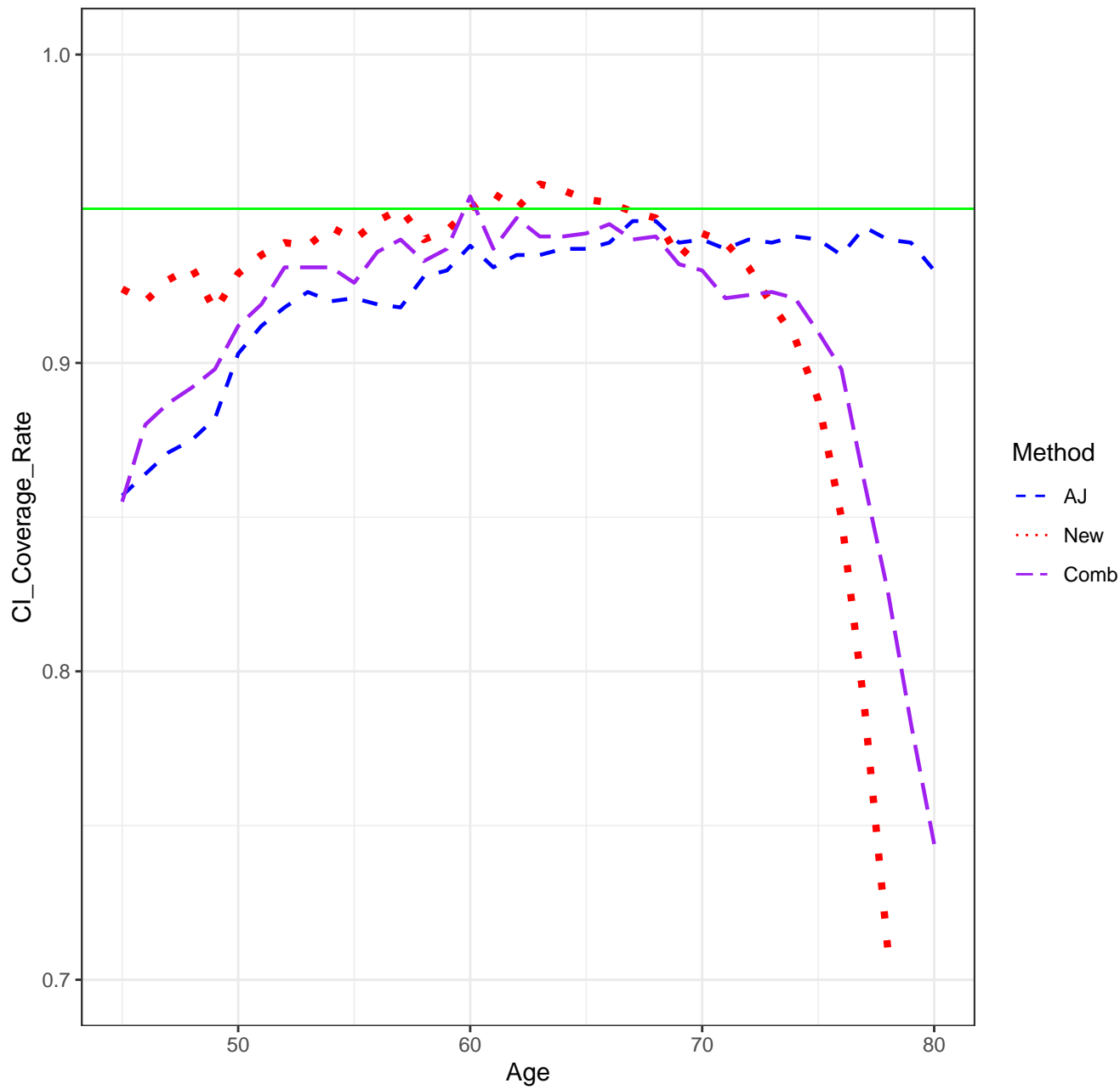


Scenario 1211, n=5000, Combined Estimator, Empirical vs. Estimated SD's

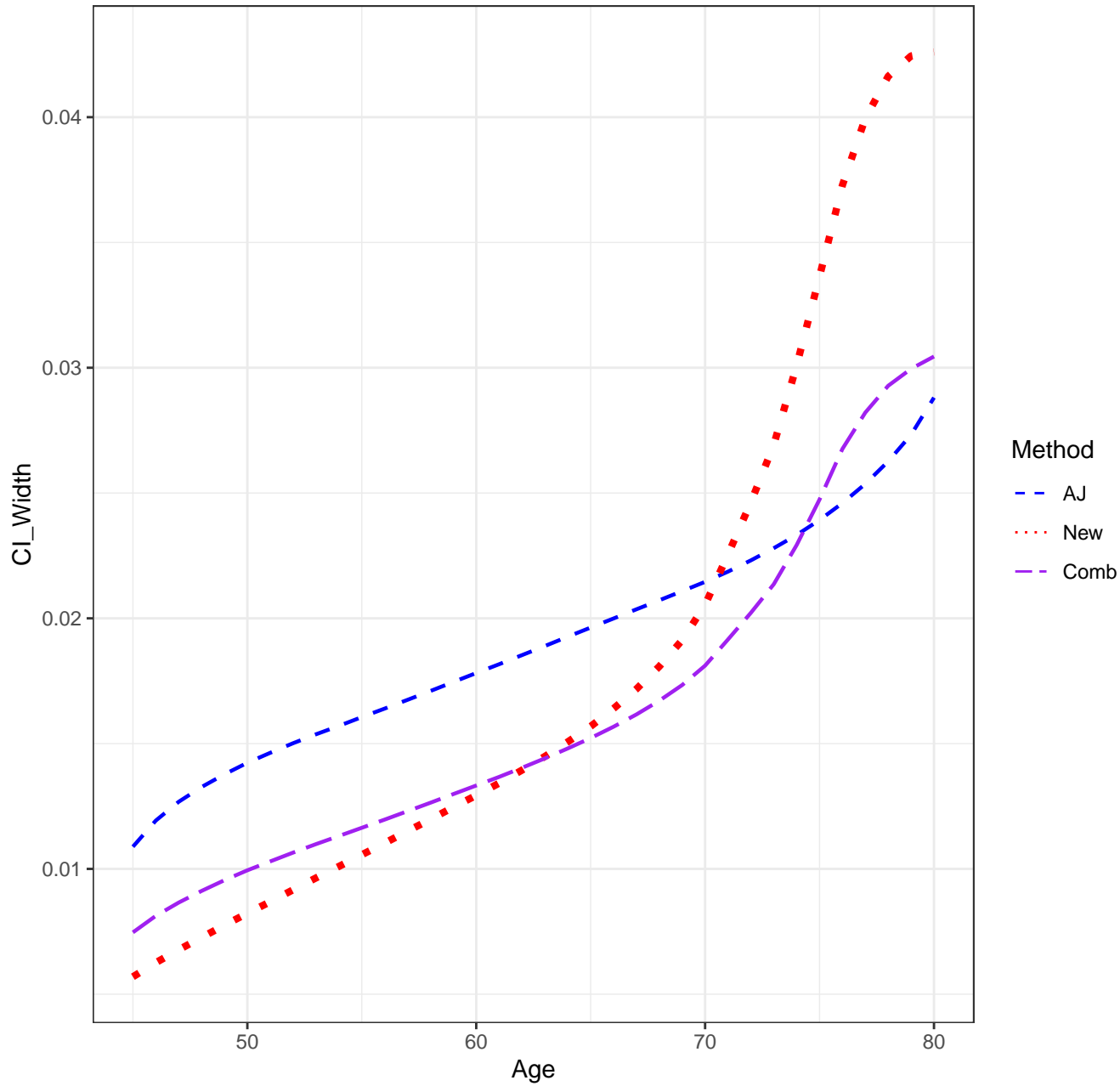




Scenario 1211, n=5000, CICR'S



Scenario 1211, n=5000, CI Width



## CONFIDENCE BAND COVERAGE RATES

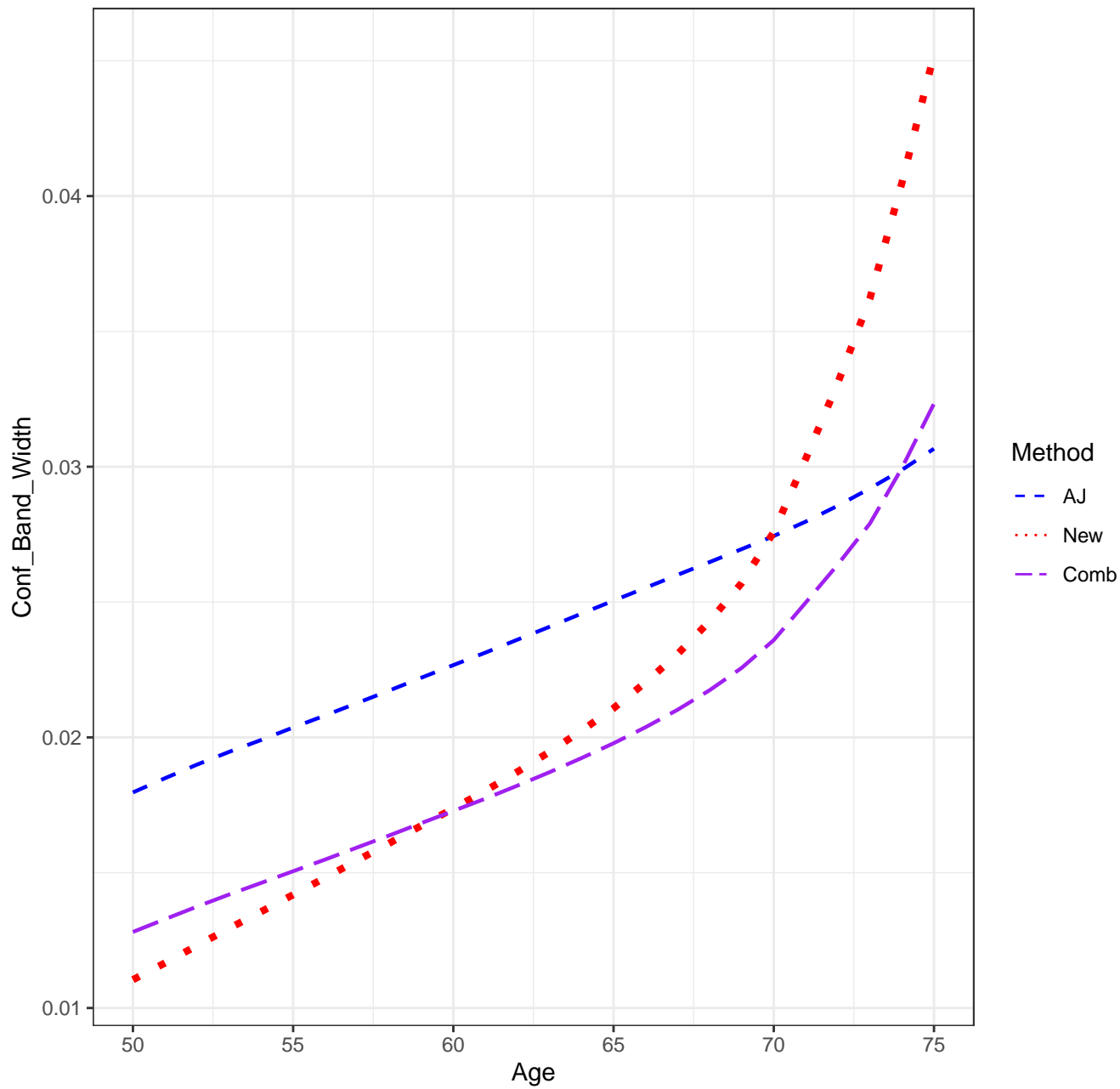
Scenario: 1211

AJ: 0.914

new: 0.898

Combo: 0.905

Scenario 1211, n=5000, Confidence Band Width



## SETTINGS

Scenario: 1212

sample size = 5000

number of simulation replications = 1000

number of bootstrap replications = 250

transformation:  $0.5 \cdot \pi - \arcsin(\sqrt{1-u})$

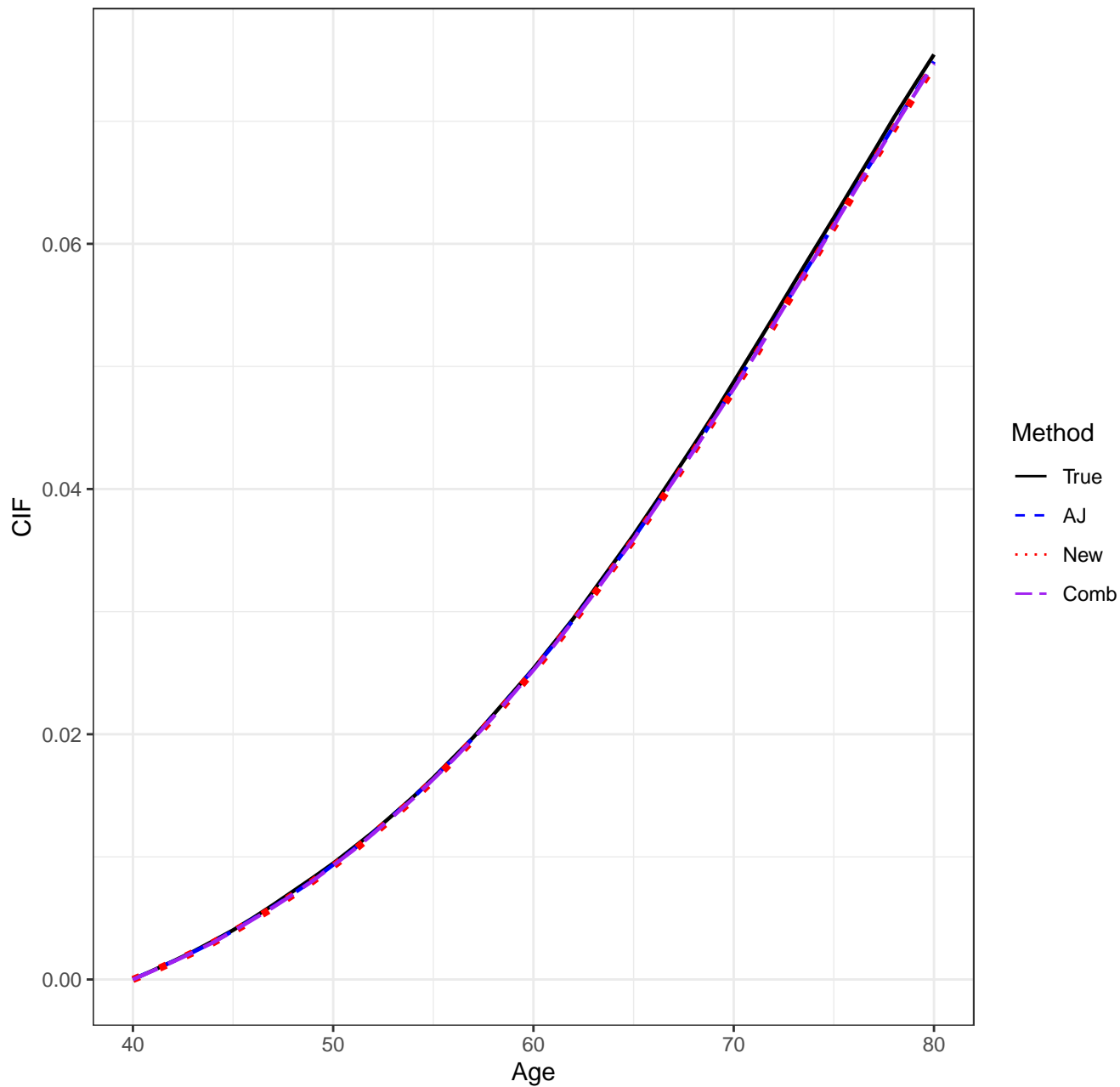
pointwise CI's done by: normal-theory

auxflg = FALSE

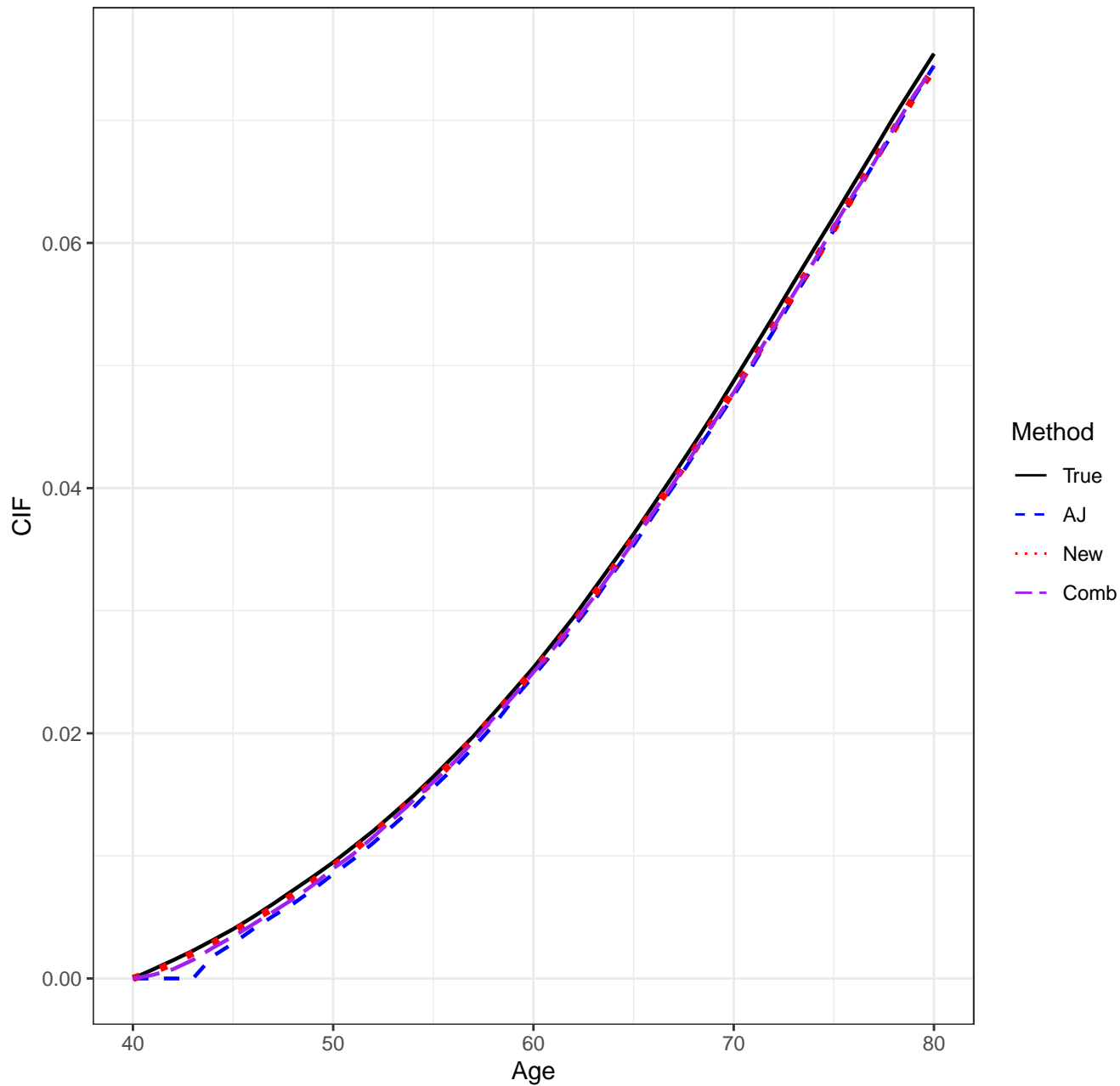
bootstrap weights: normal

Date/Time: 2024-01-15 18:22:06.378713

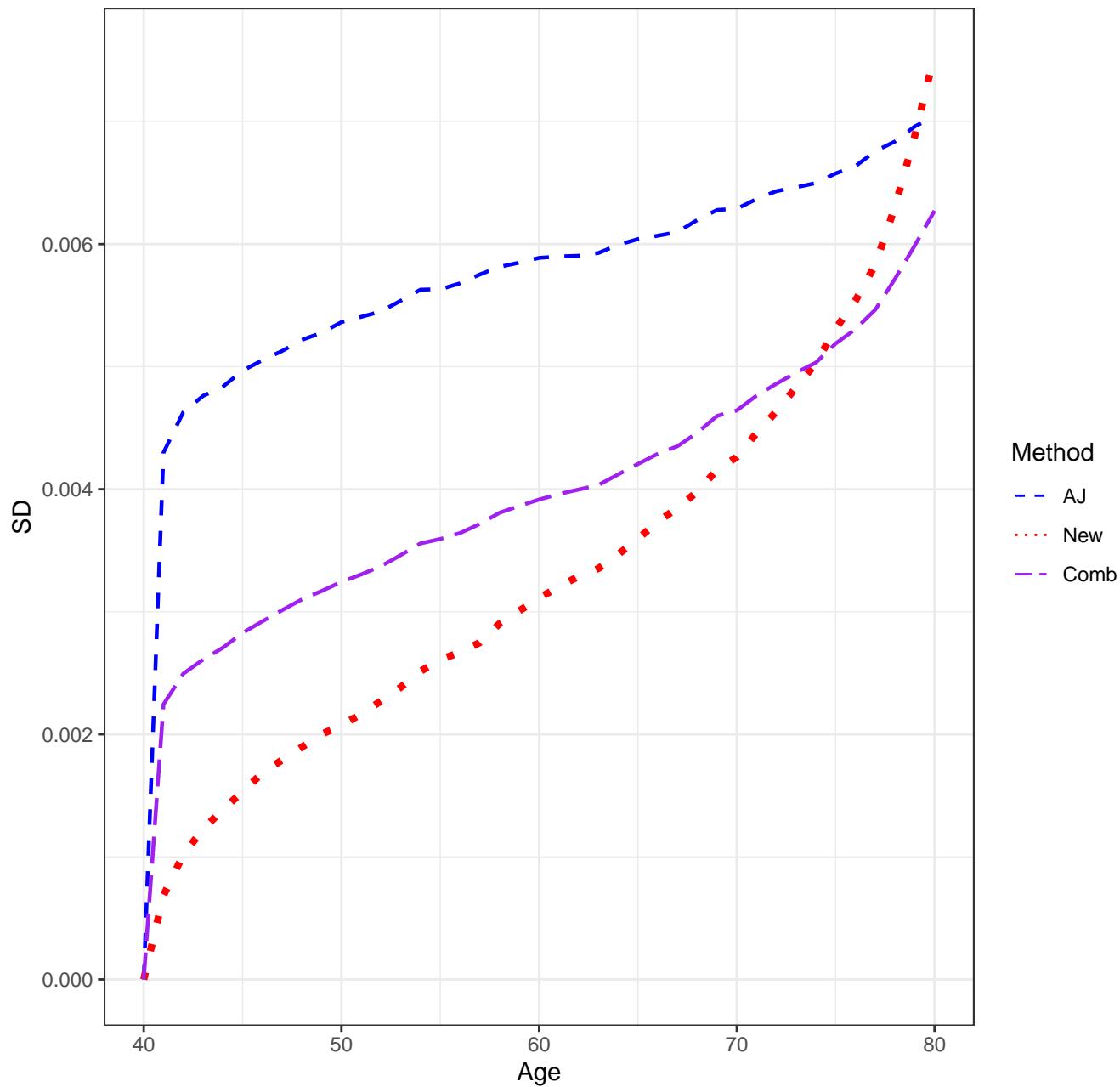
Scenario 1212, n=5000, Means



Scenario 1212, n=5000, Medians

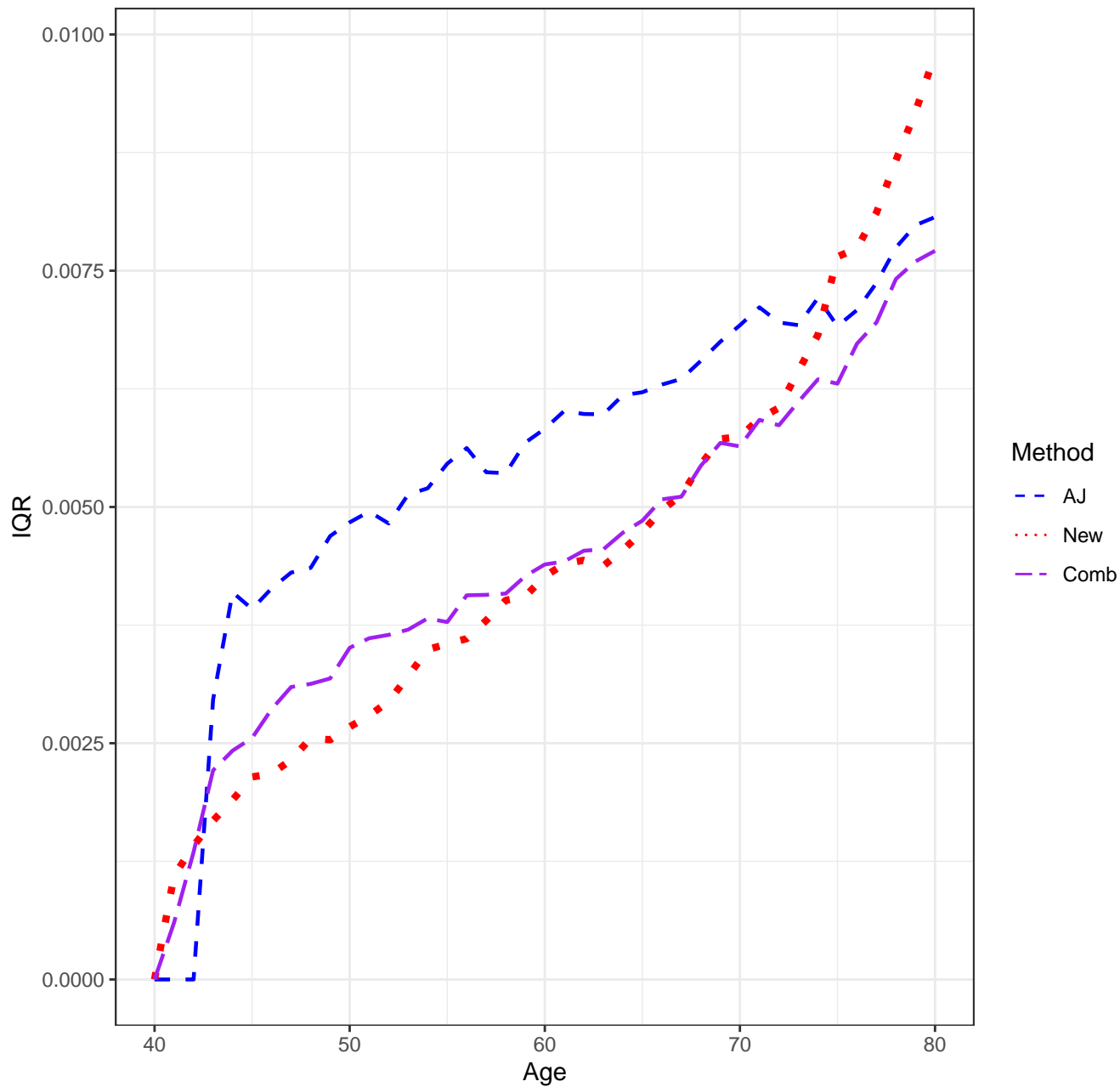


Scenario 1212, n=5000, SD'S

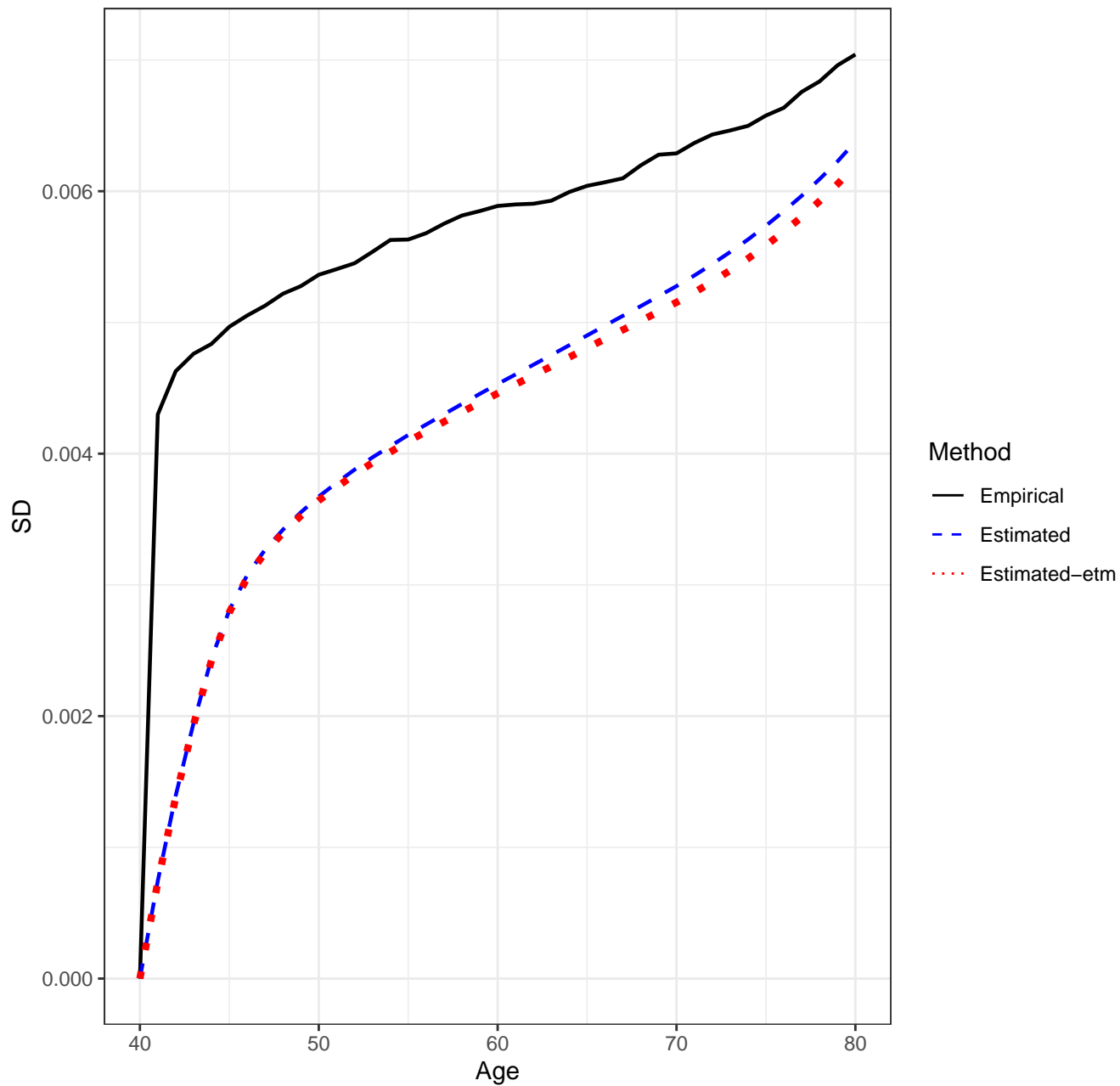




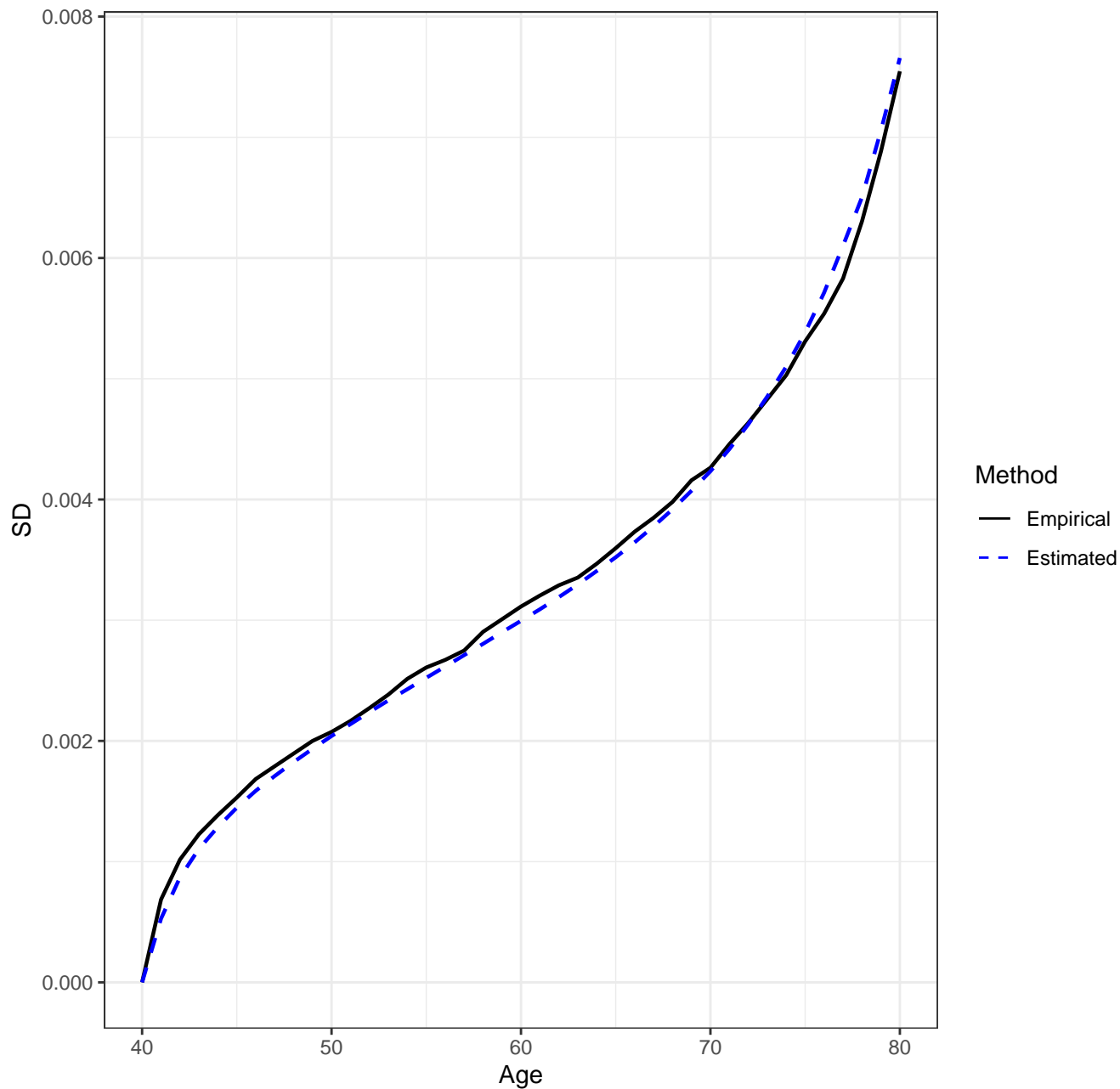
Scenario 1212, n=5000, IQR'S



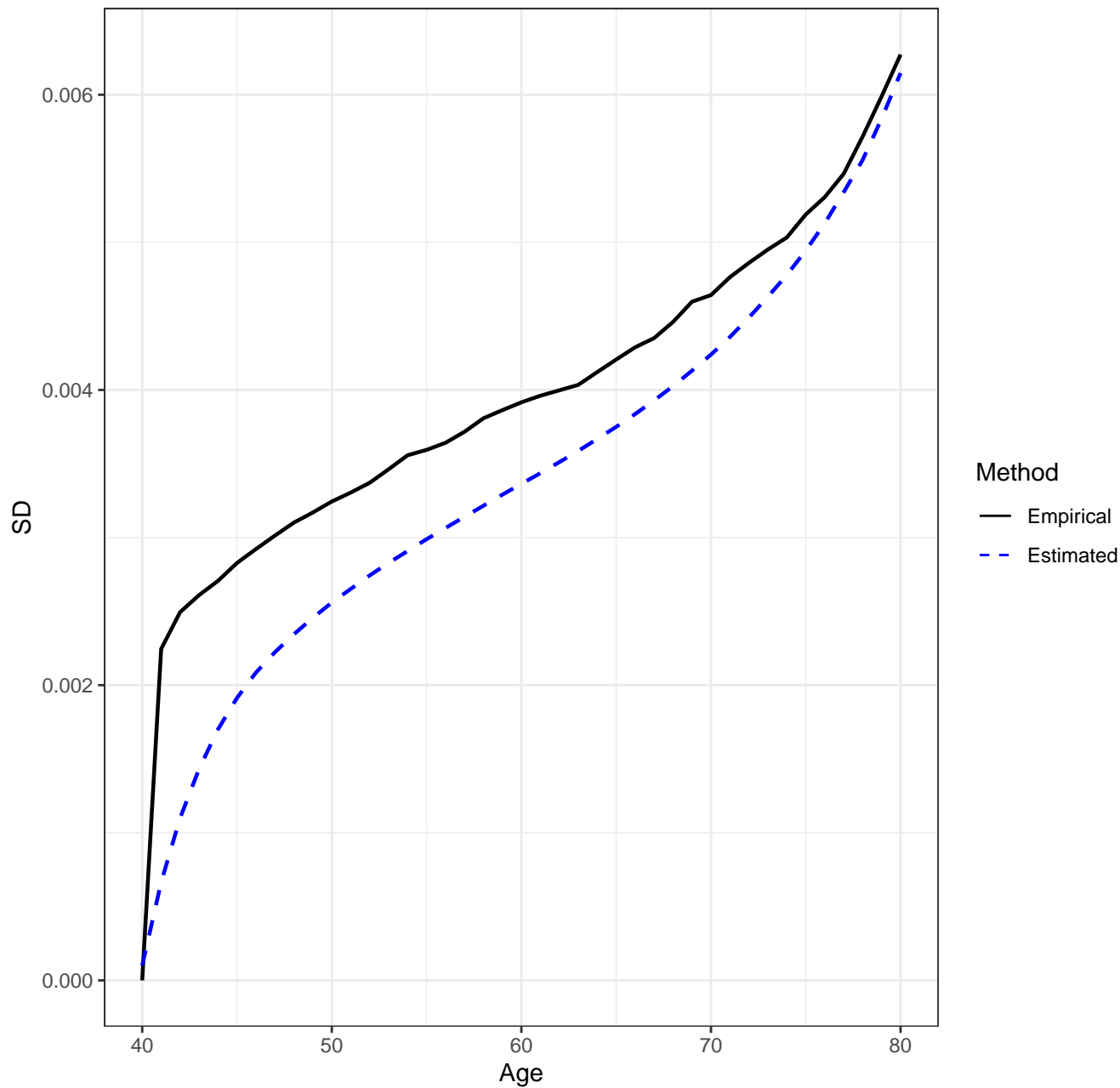
Scenario 1212, n=5000, AJ Estimator, Empirical vs. Estimated SD's



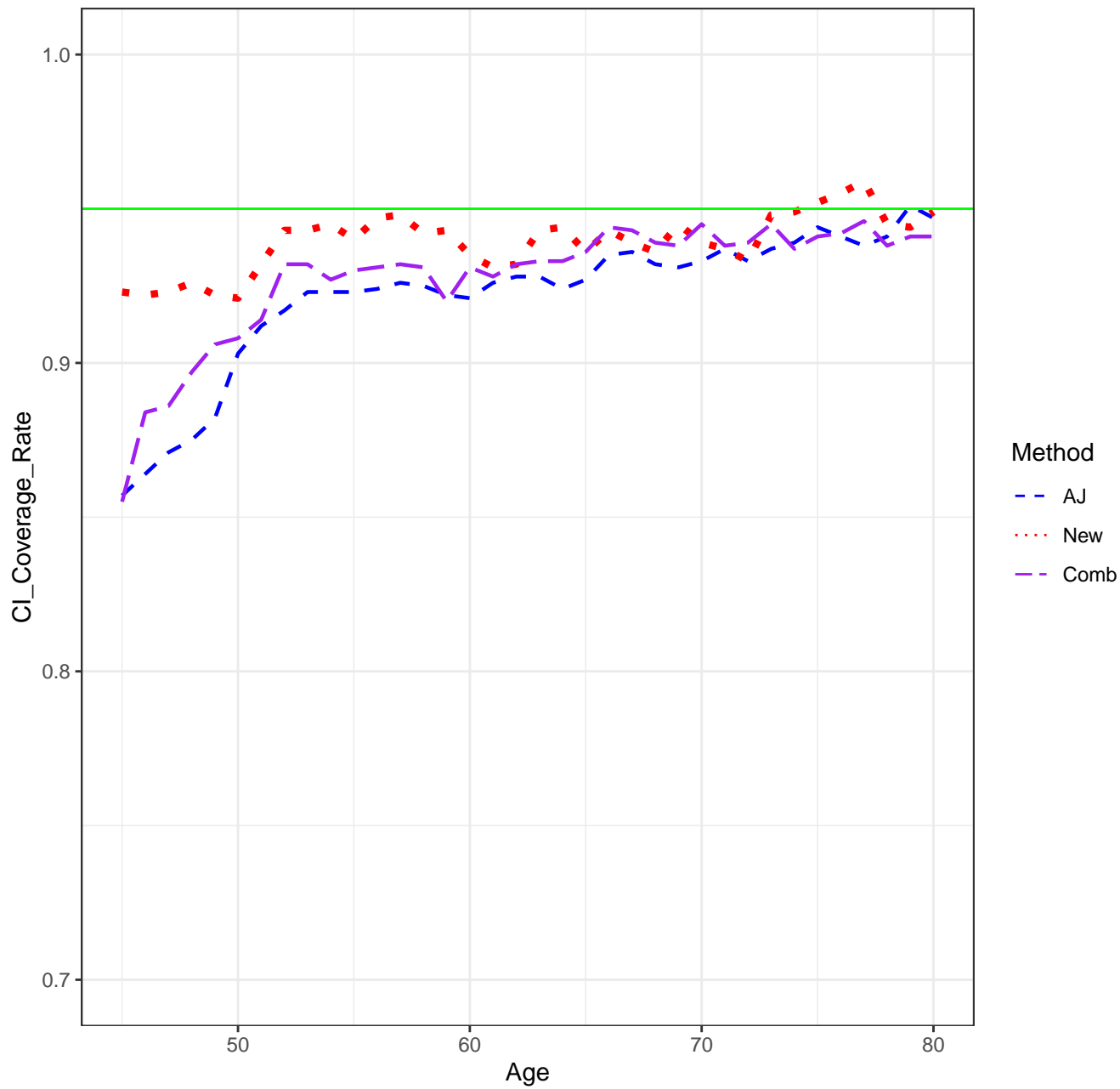
Scenario 1212, n=5000, New Estimator, Empirical vs. Estimated SD's



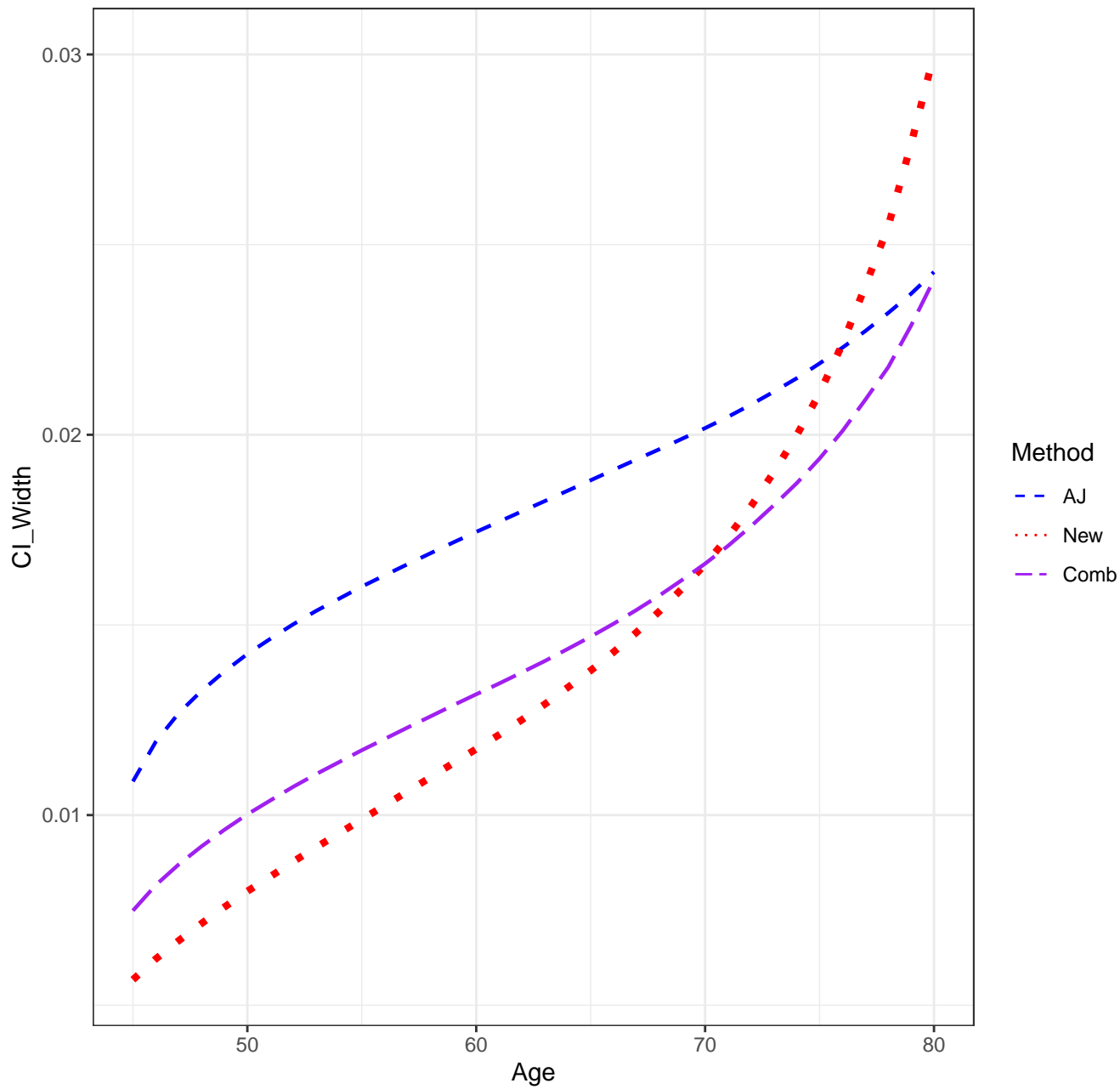
Scenario 1212, n=5000, Combined Estimator, Empirical vs. Estimated SD's



Scenario 1212, n=5000, CICR'S



Scenario 1212, n=5000, CI Width



## CONFIDENCE BAND COVERAGE RATES

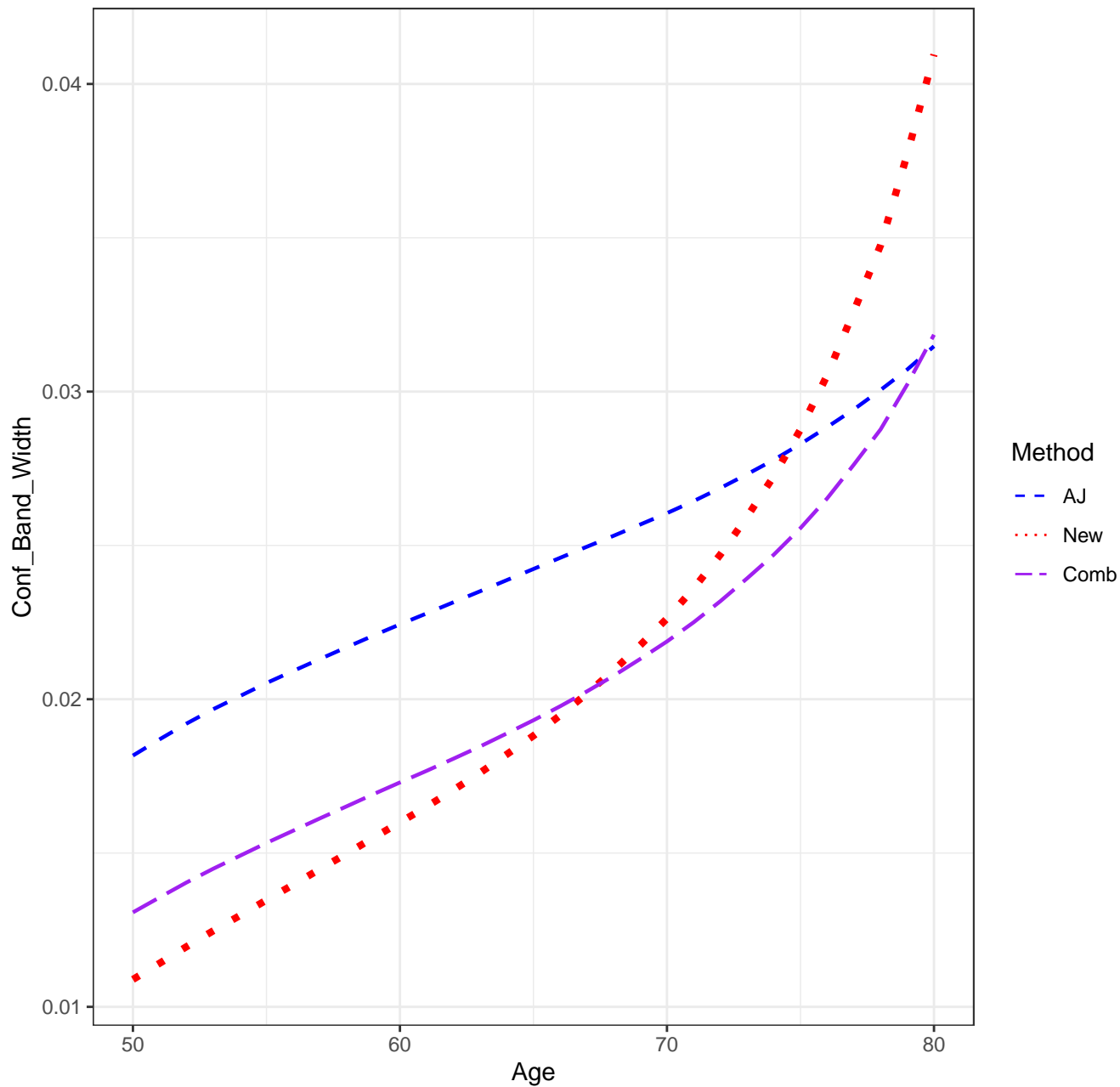
Scenario: 1212

AJ: 0.922

new: 0.924

Combo: 0.919

Scenario 1212, n=5000, Confidence Band Width





## SETTINGS

Scenario: 1221

sample size = 5000

number of simulation replications = 1000

number of bootstrap replications = 250

transformation:  $0.5 \cdot \pi - \arcsin(\sqrt{1-u})$

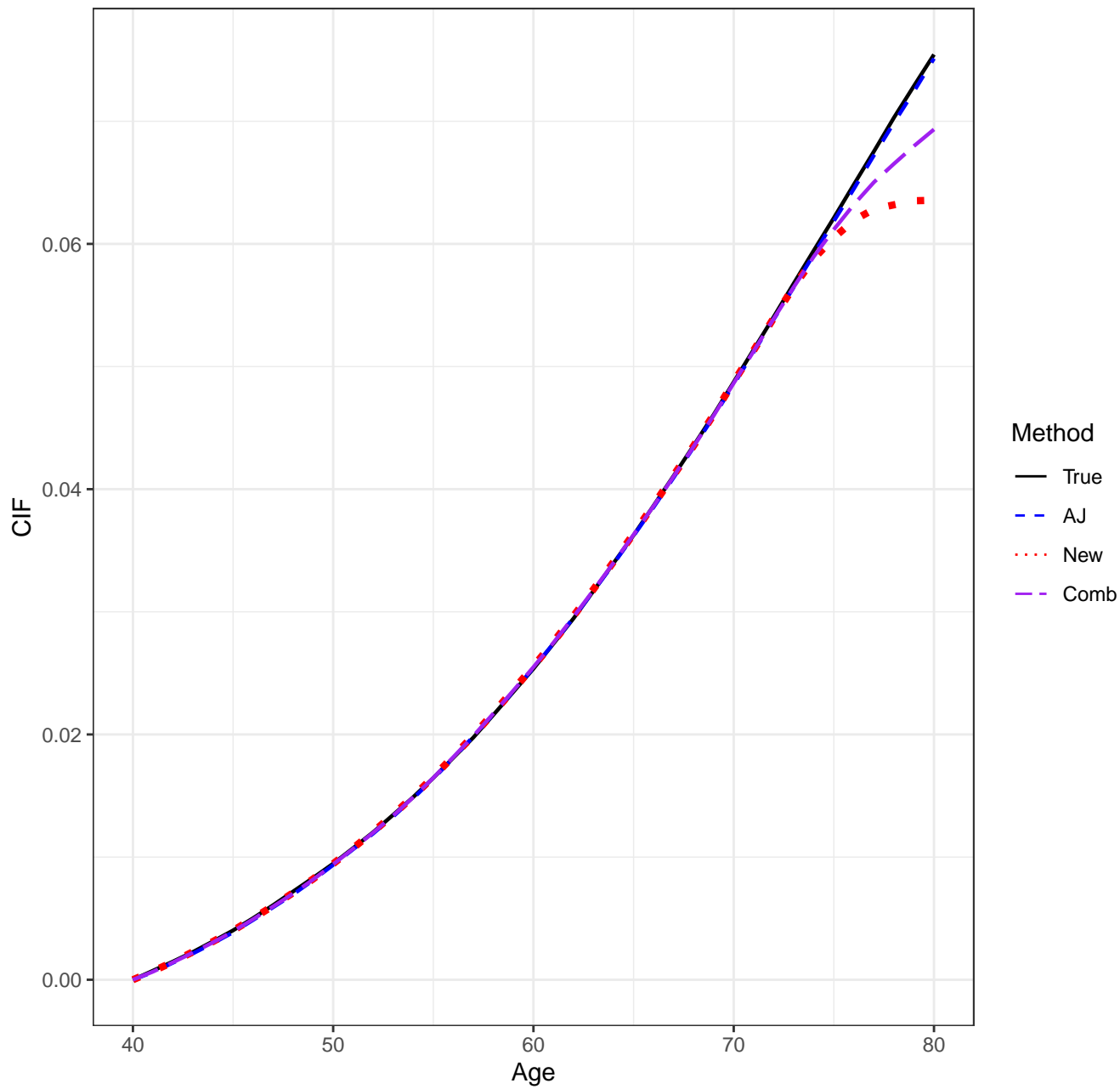
pointwise CI's done by: normal-theory

auxflg = FALSE

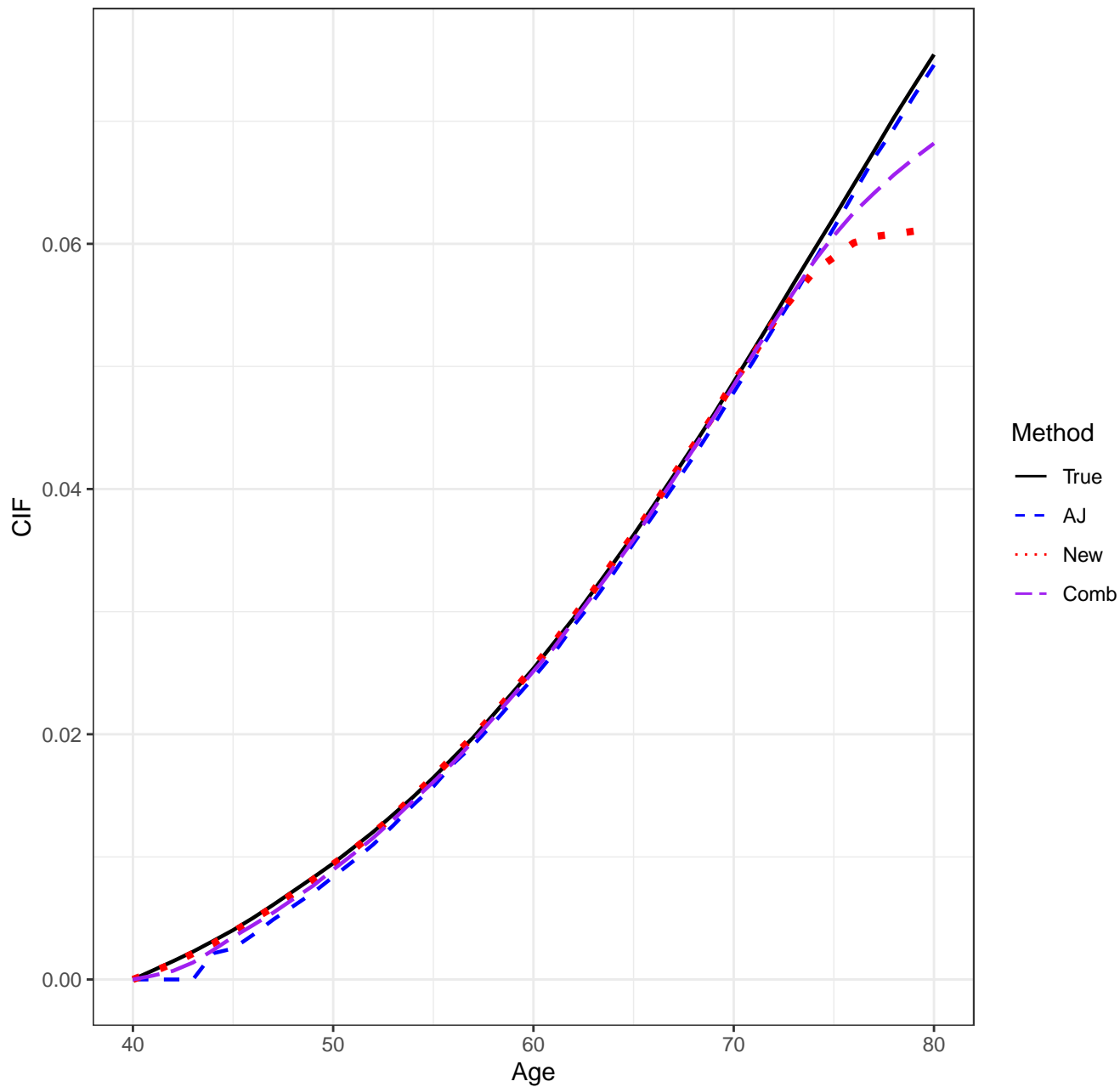
bootstrap weights: normal

Date/Time: 2024-01-15 19:37:09.356852

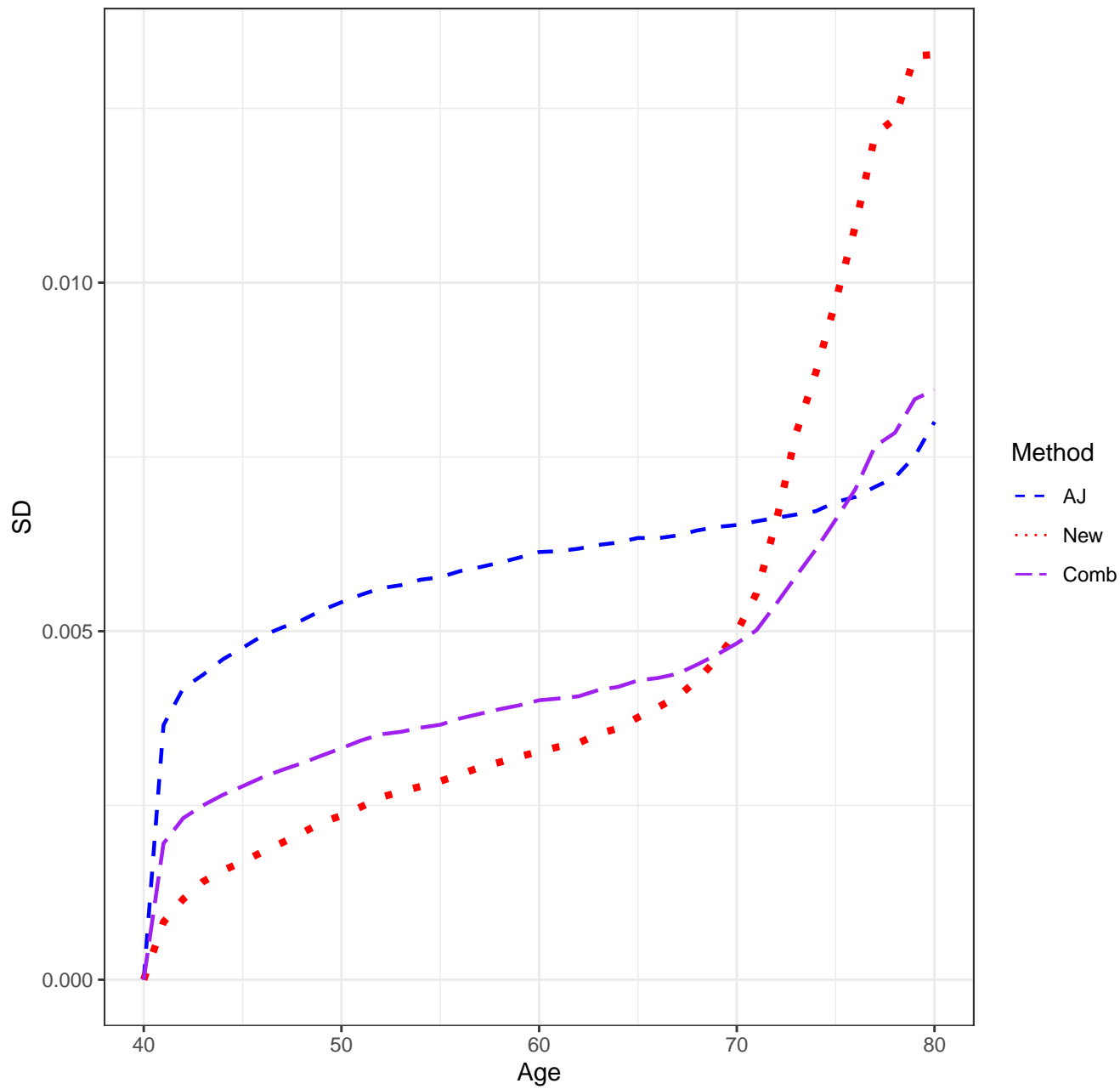
Scenario 1221, n=5000, Means



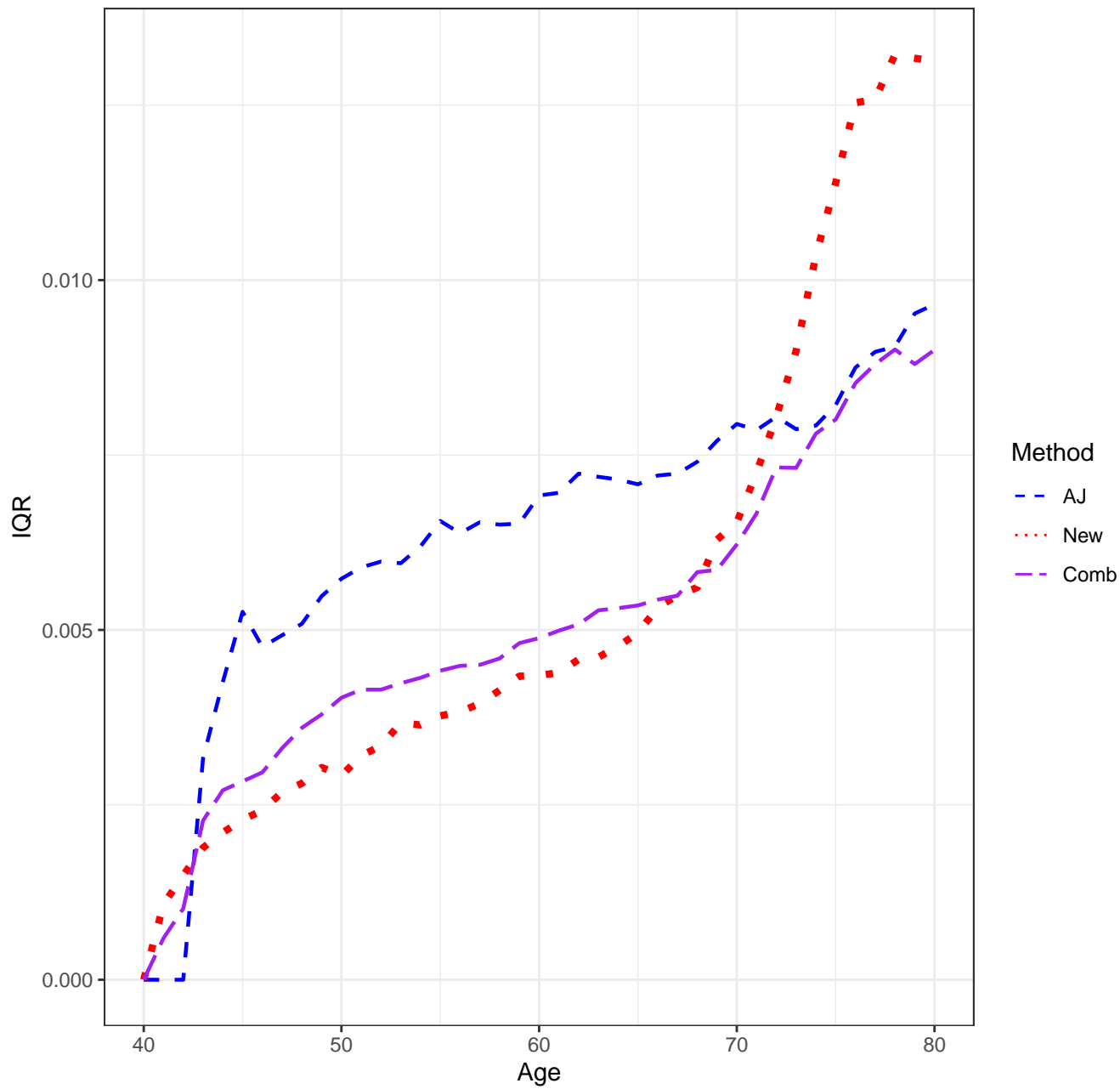
Scenario 1221, n=5000, Medians



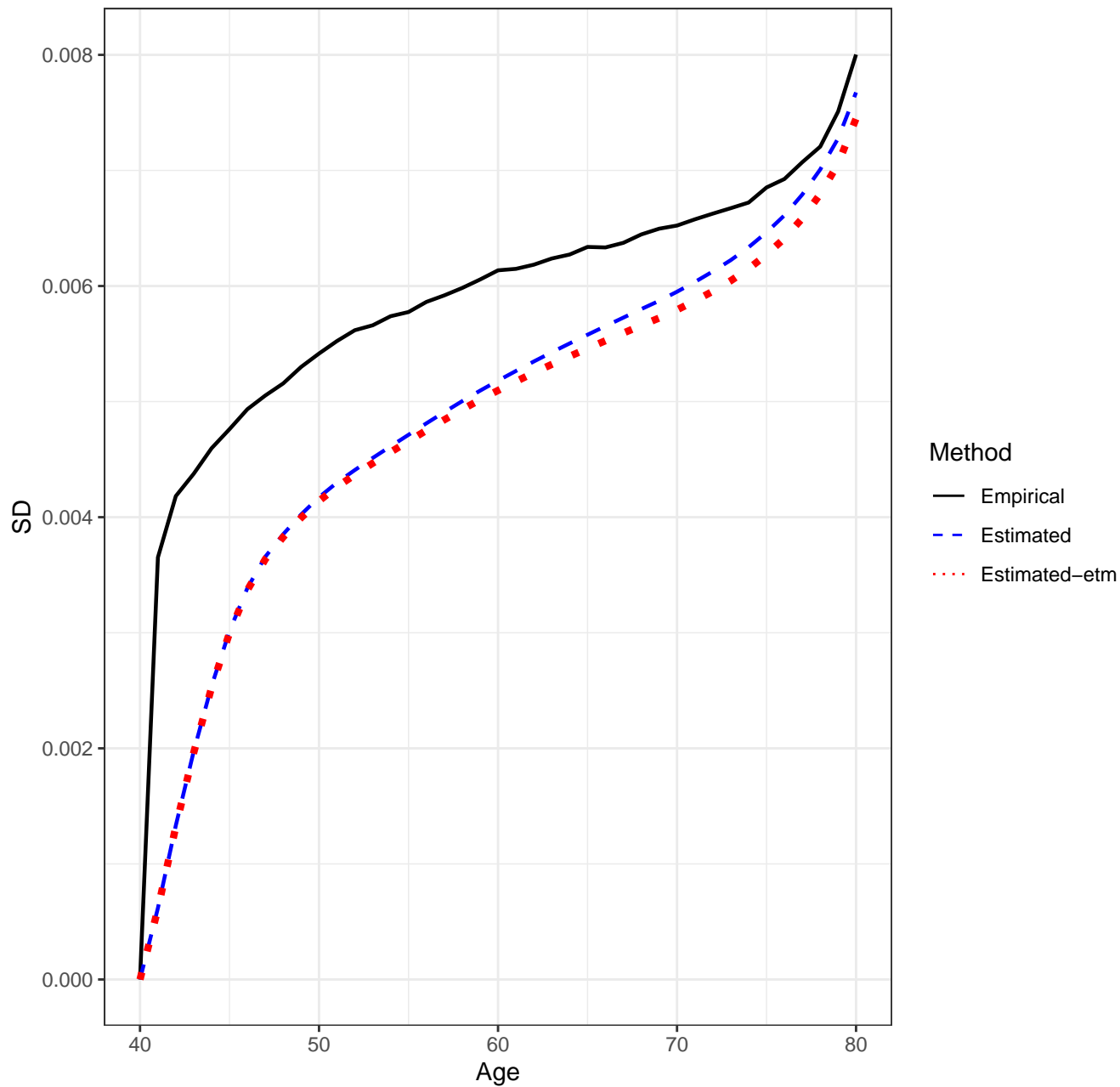
Scenario 1221, n=5000, SD'S



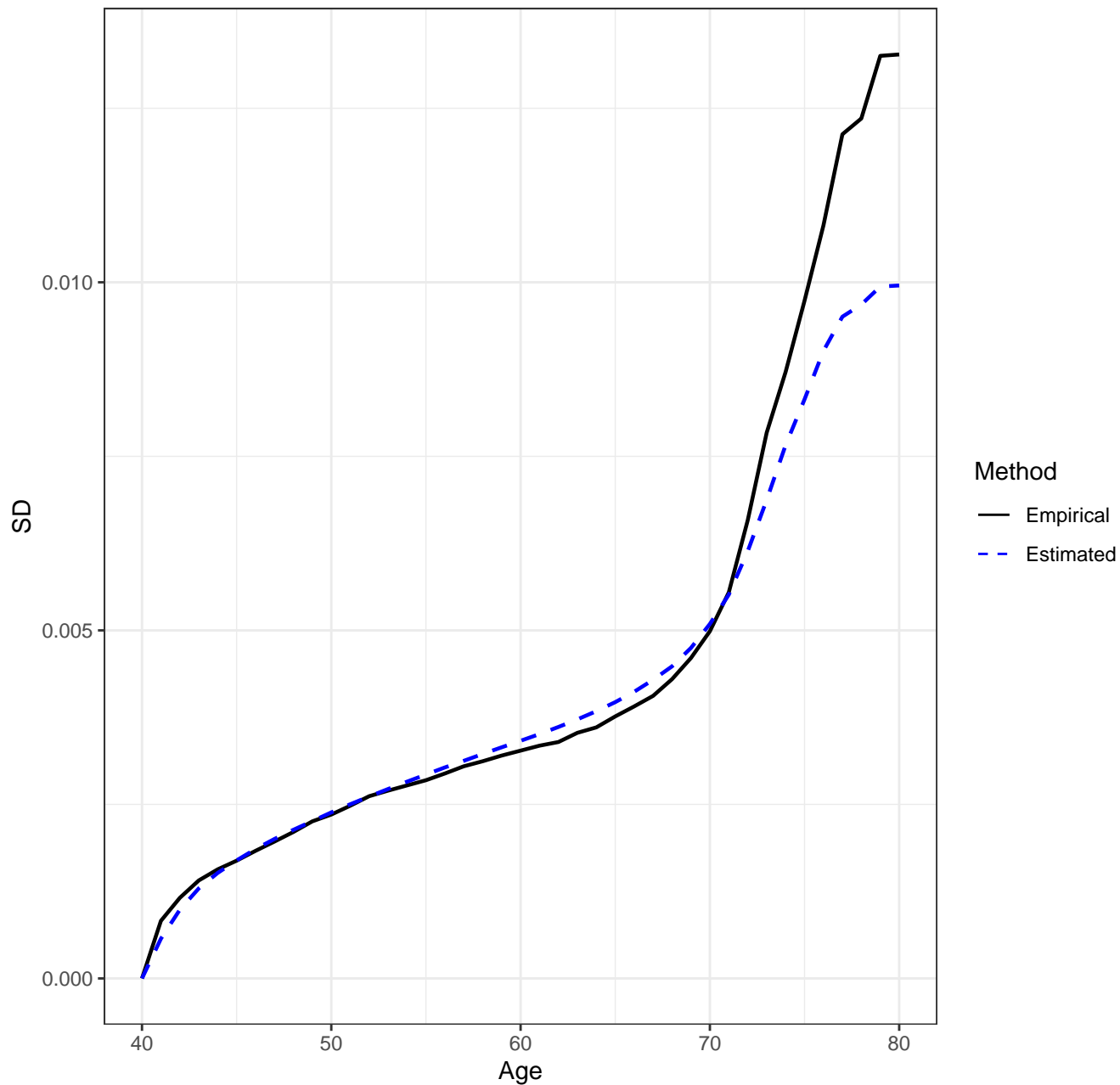
Scenario 1221, n=5000, IQR'S



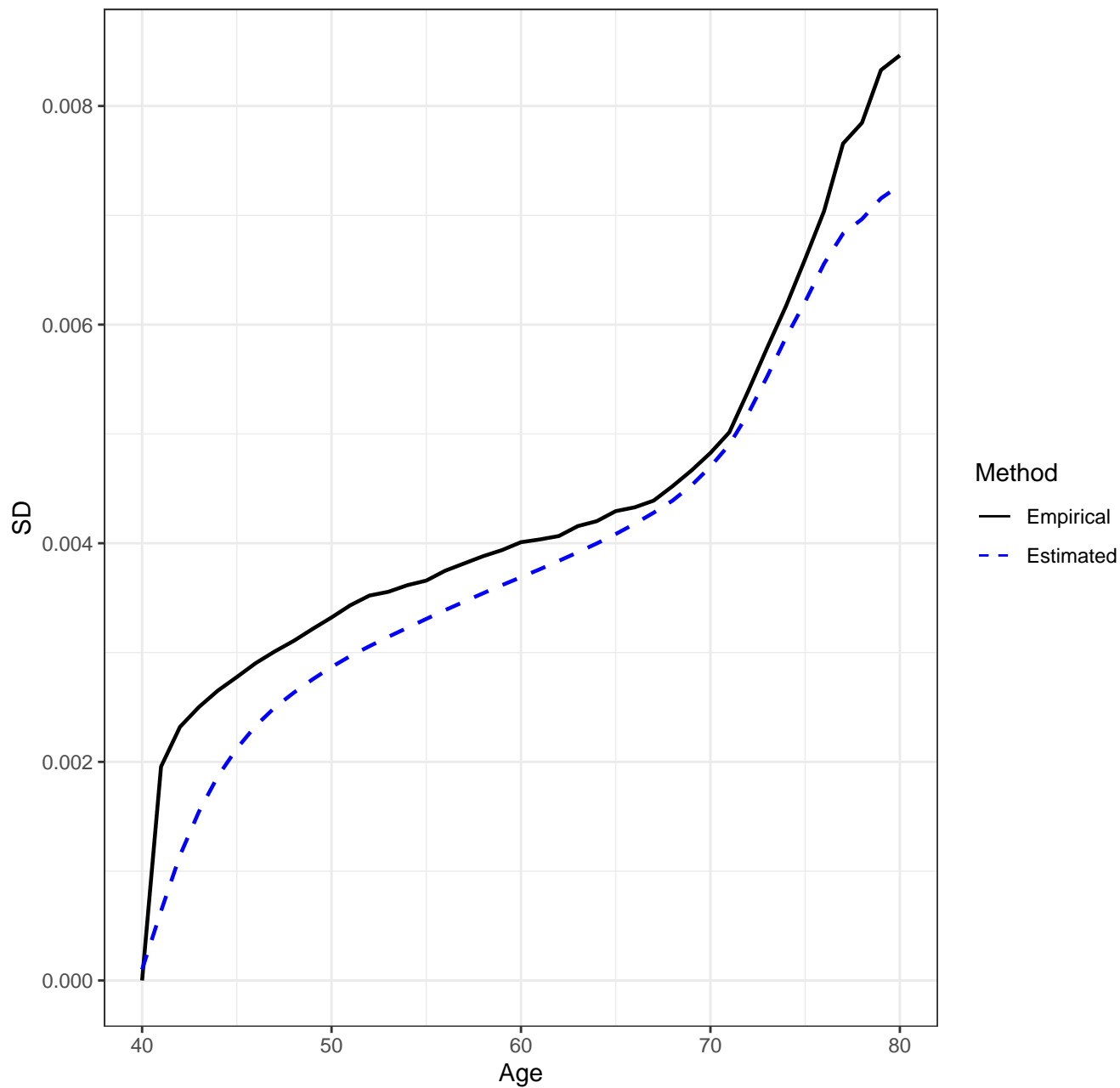
Scenario 1221, n=5000, AJ Estimator, Empirical vs. Estimated SD's



Scenario 1221, n=5000, New Estimator, Empirical vs. Estimated SD's

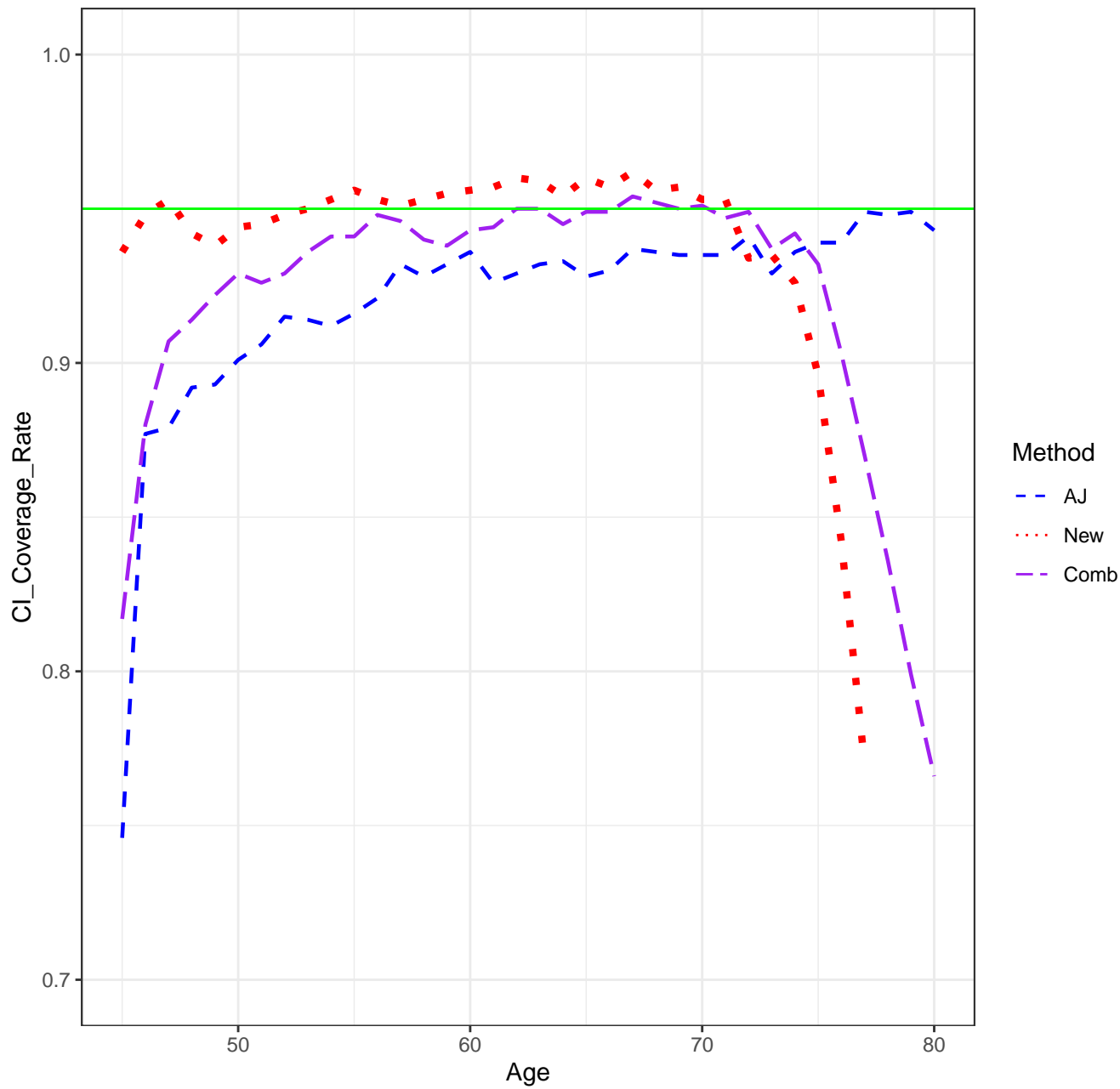


Scenario 1221, n=5000, Combined Estimator, Empirical vs. Estimated SD's

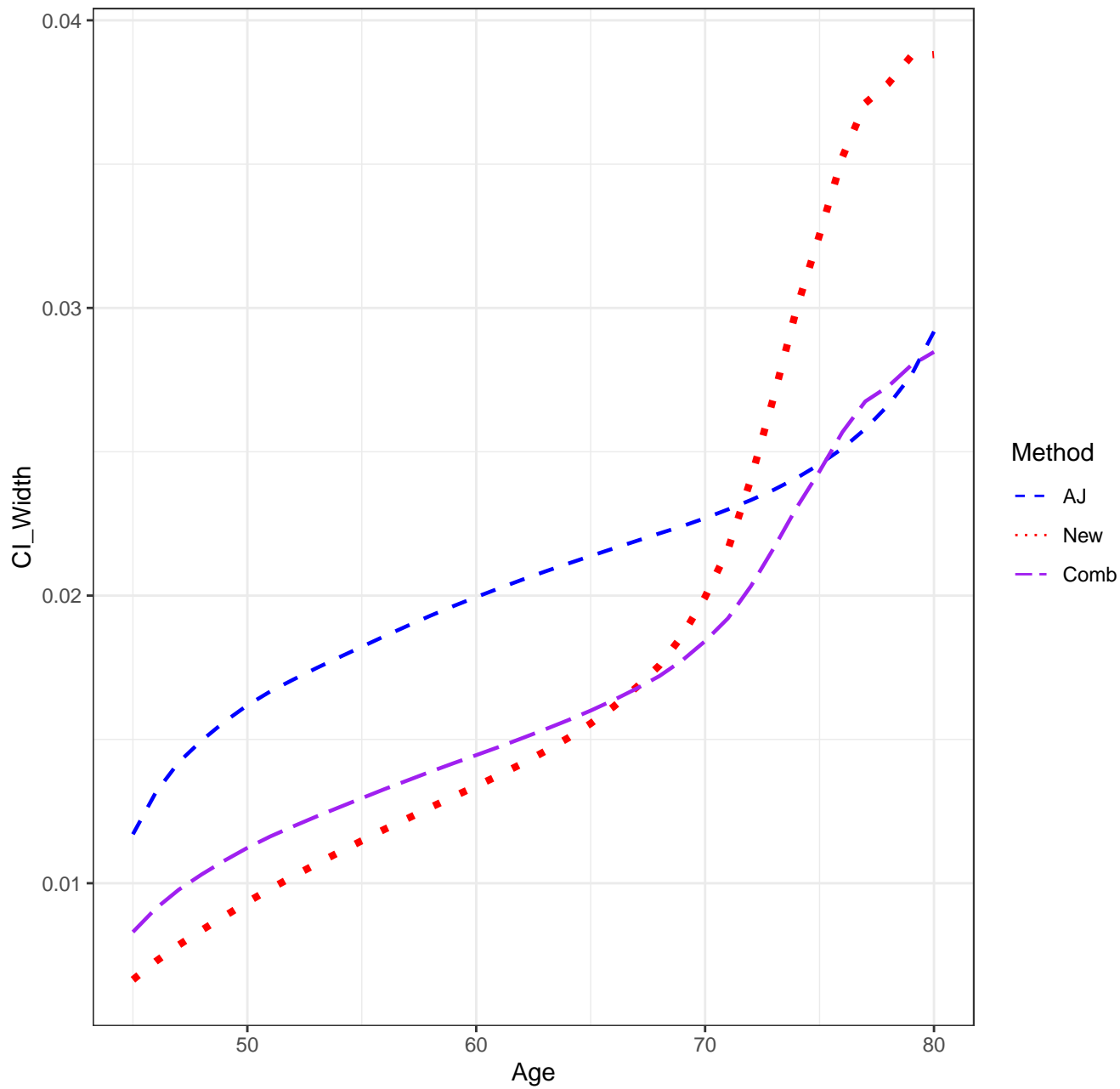




Scenario 1221, n=5000, CICR'S



Scenario 1221, n=5000, CI Width



## CONFIDENCE BAND COVERAGE RATES

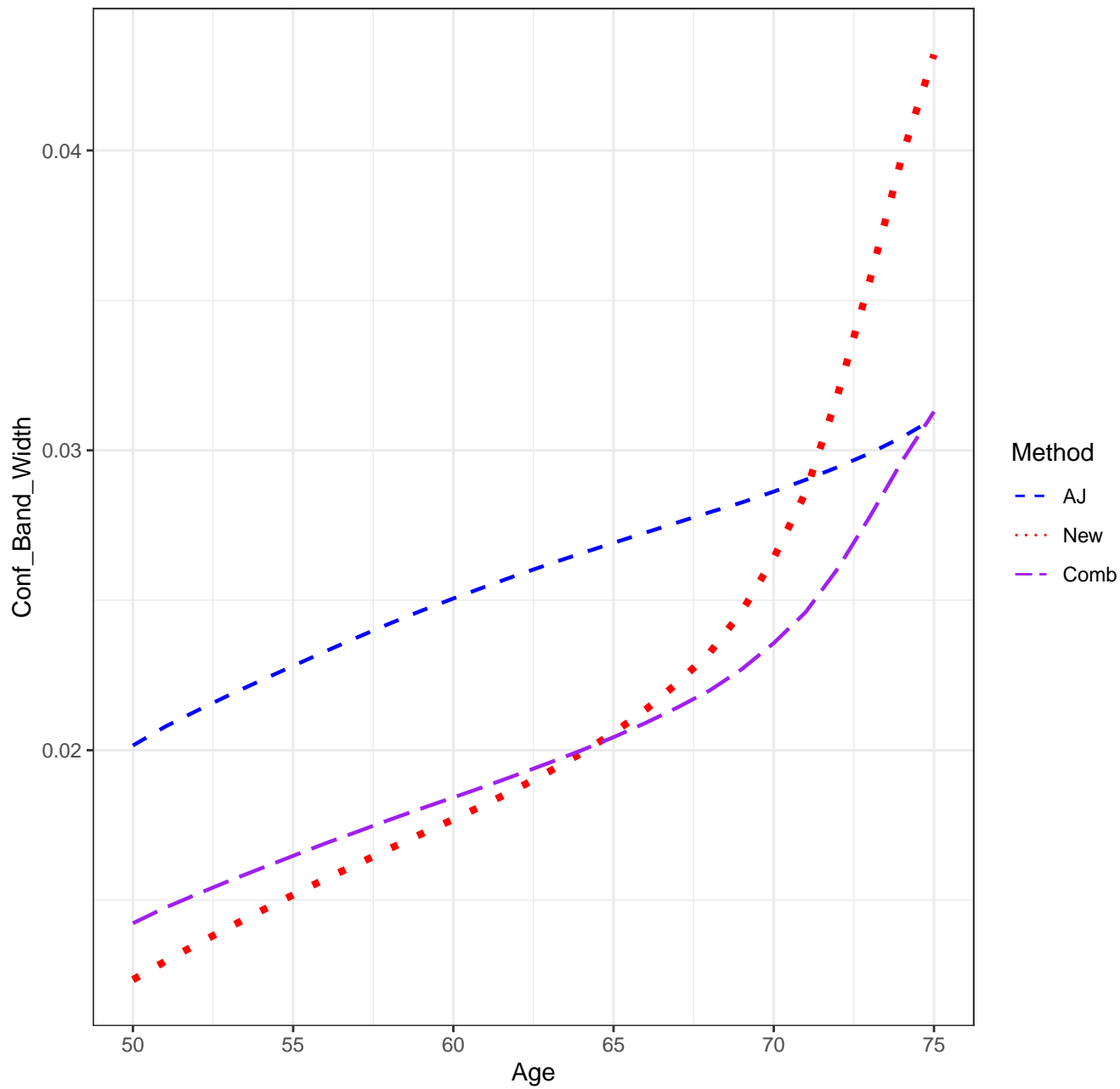
Scenario: 1221

AJ: 0.916

new: 0.904

Combo: 0.922

Scenario 1221, n=5000, Confidence Band Width



## SETTINGS

Scenario: 1222

sample size = 5000

number of simulation replications = 1000

number of bootstrap replications = 250

transformation:  $0.5 \cdot \pi - \arcsin(\sqrt{1-u})$

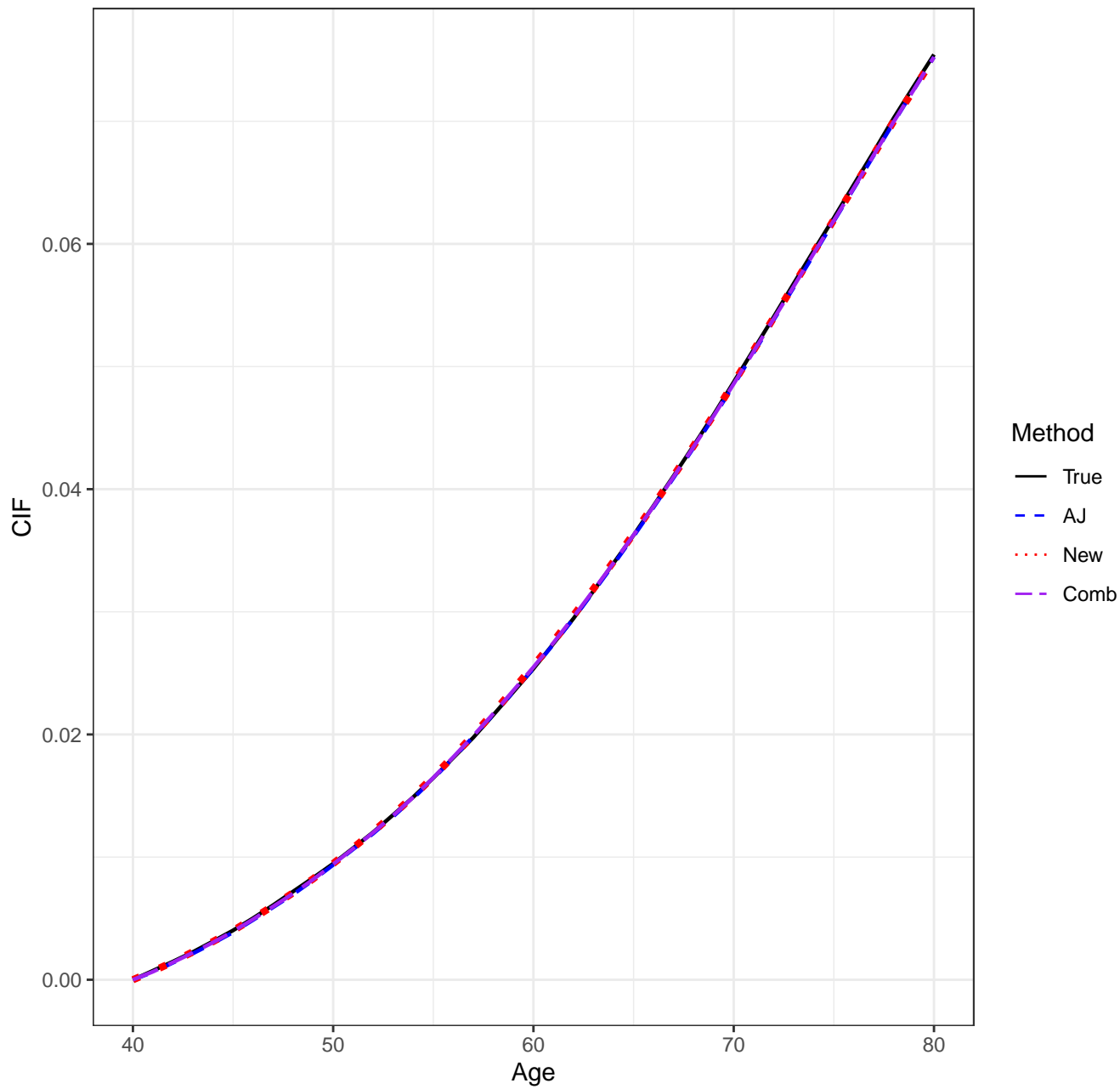
pointwise CI's done by: normal-theory

auxflg = FALSE

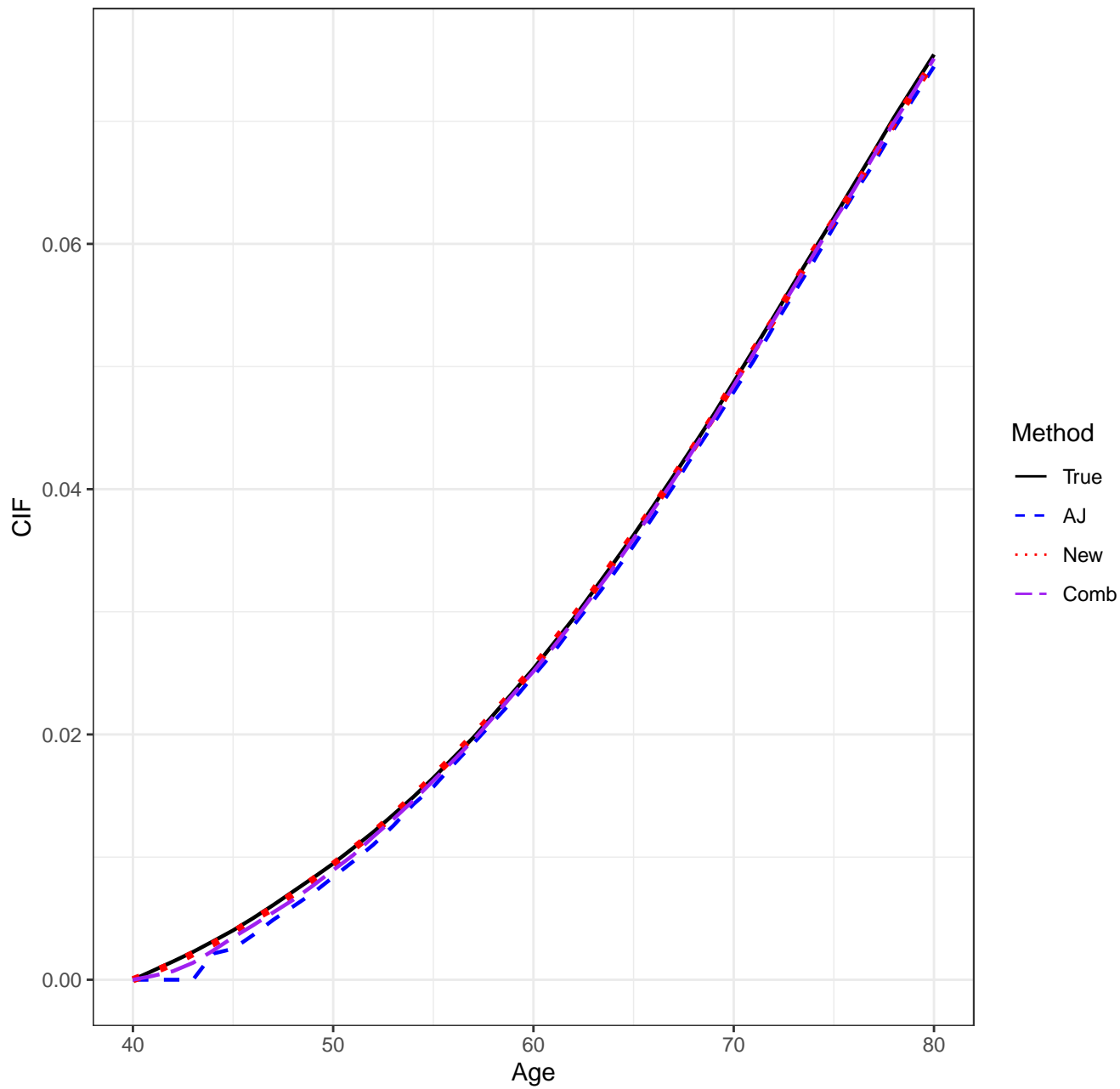
bootstrap weights: normal

Date/Time: 2024-01-15 20:59:00.589156

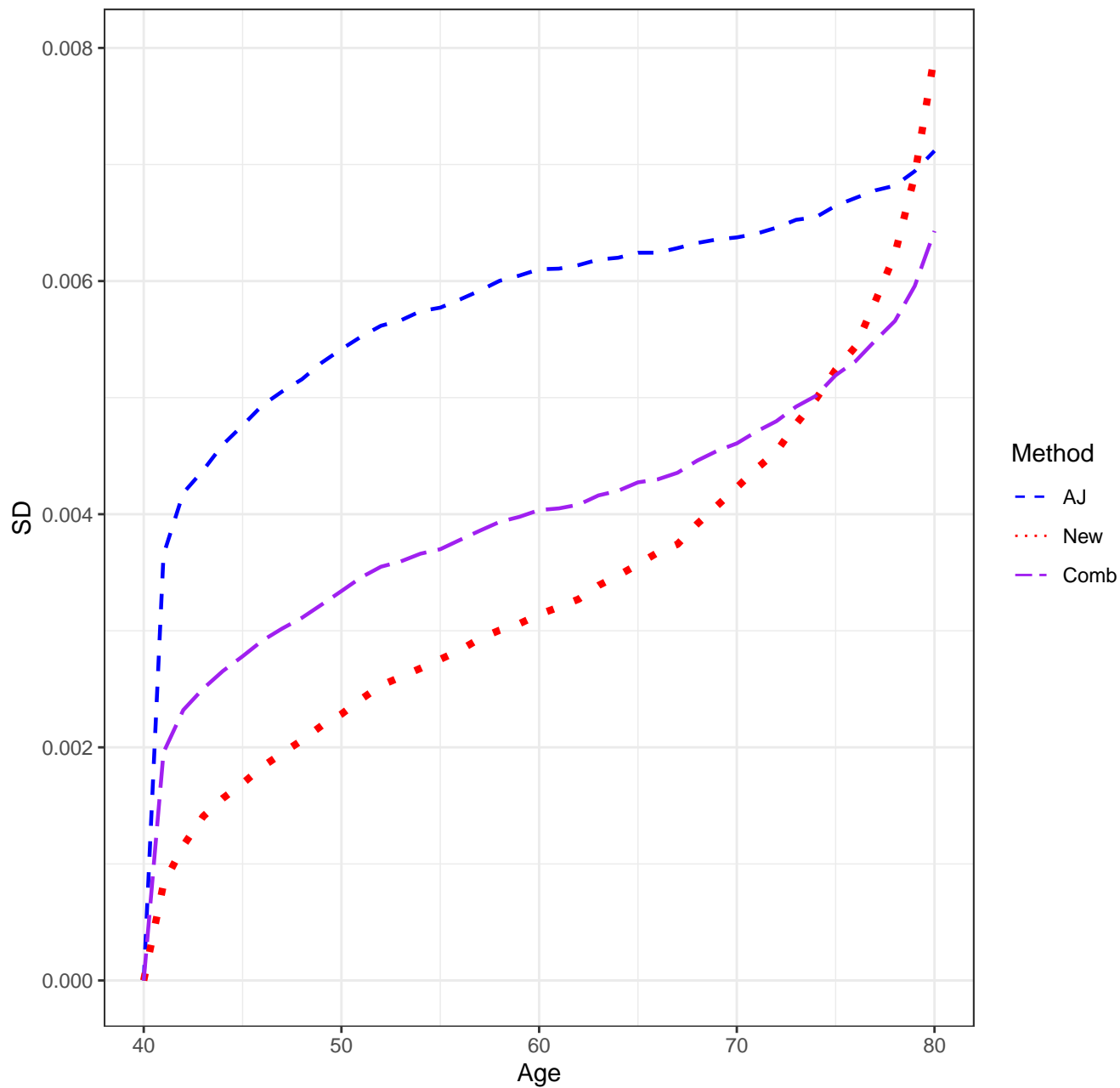
Scenario 1222, n=5000, Means



Scenario 1222, n=5000, Medians

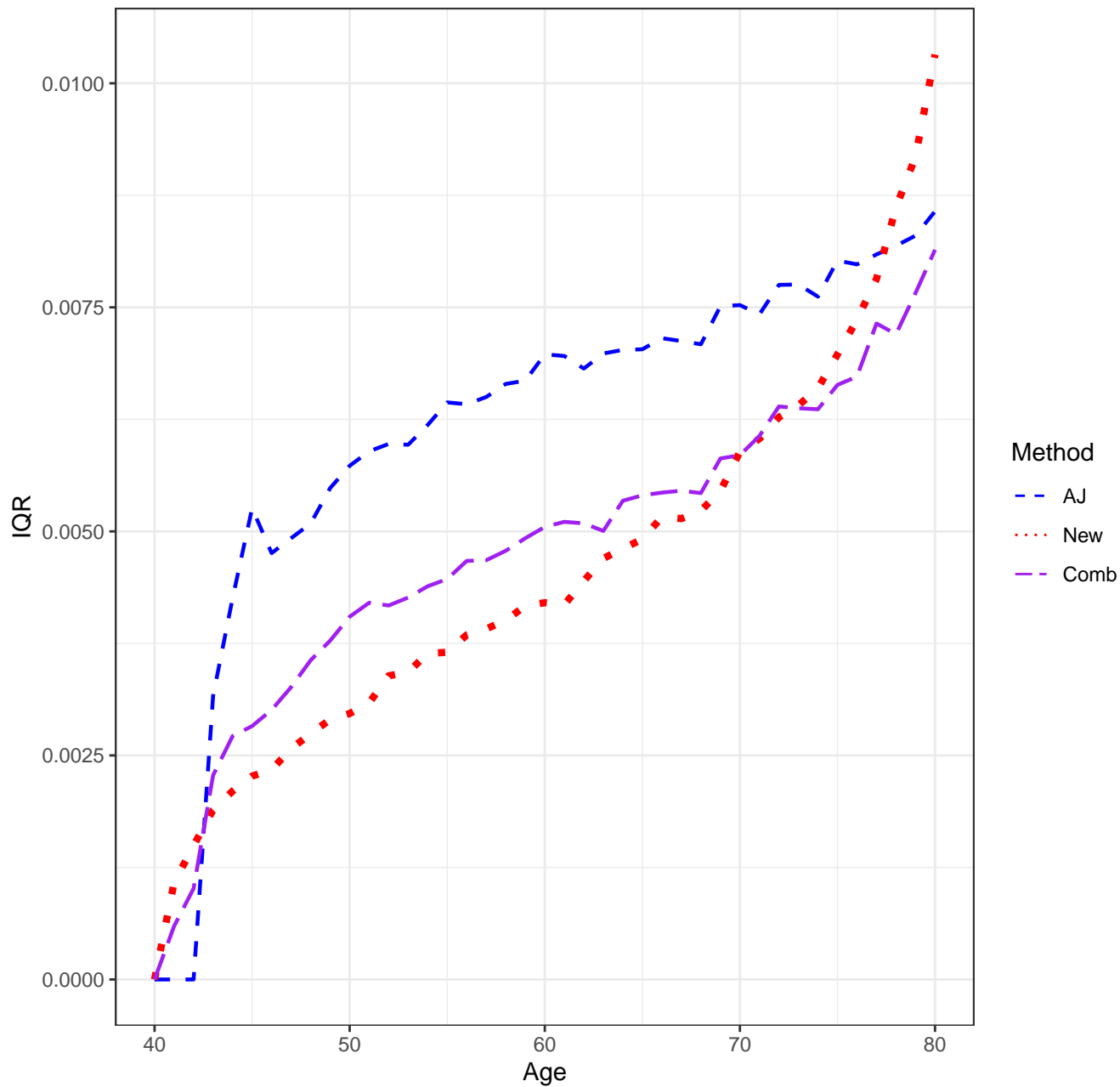


Scenario 1222, n=5000, SD'S

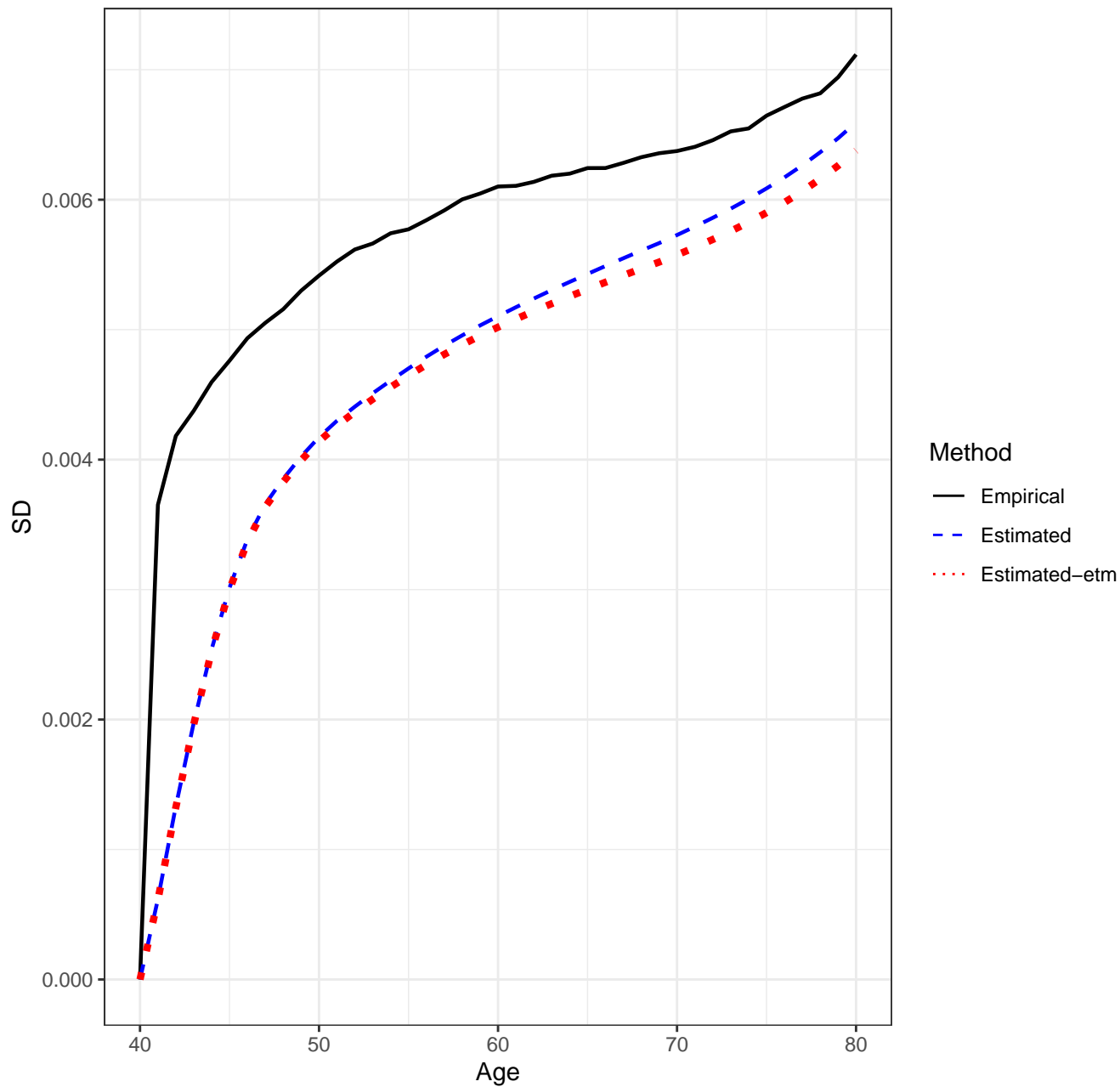




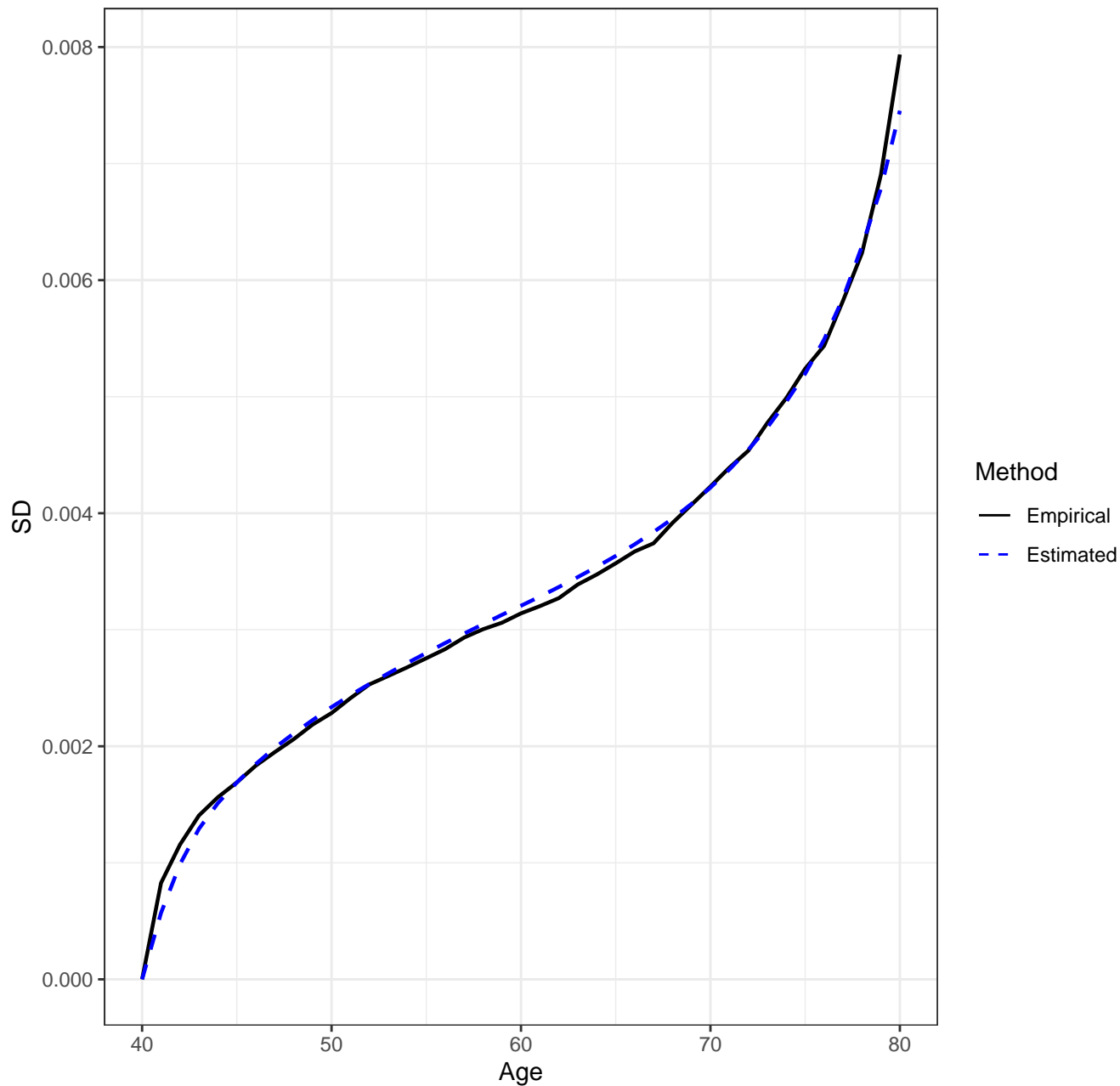
Scenario 1222, n=5000, IQR'S



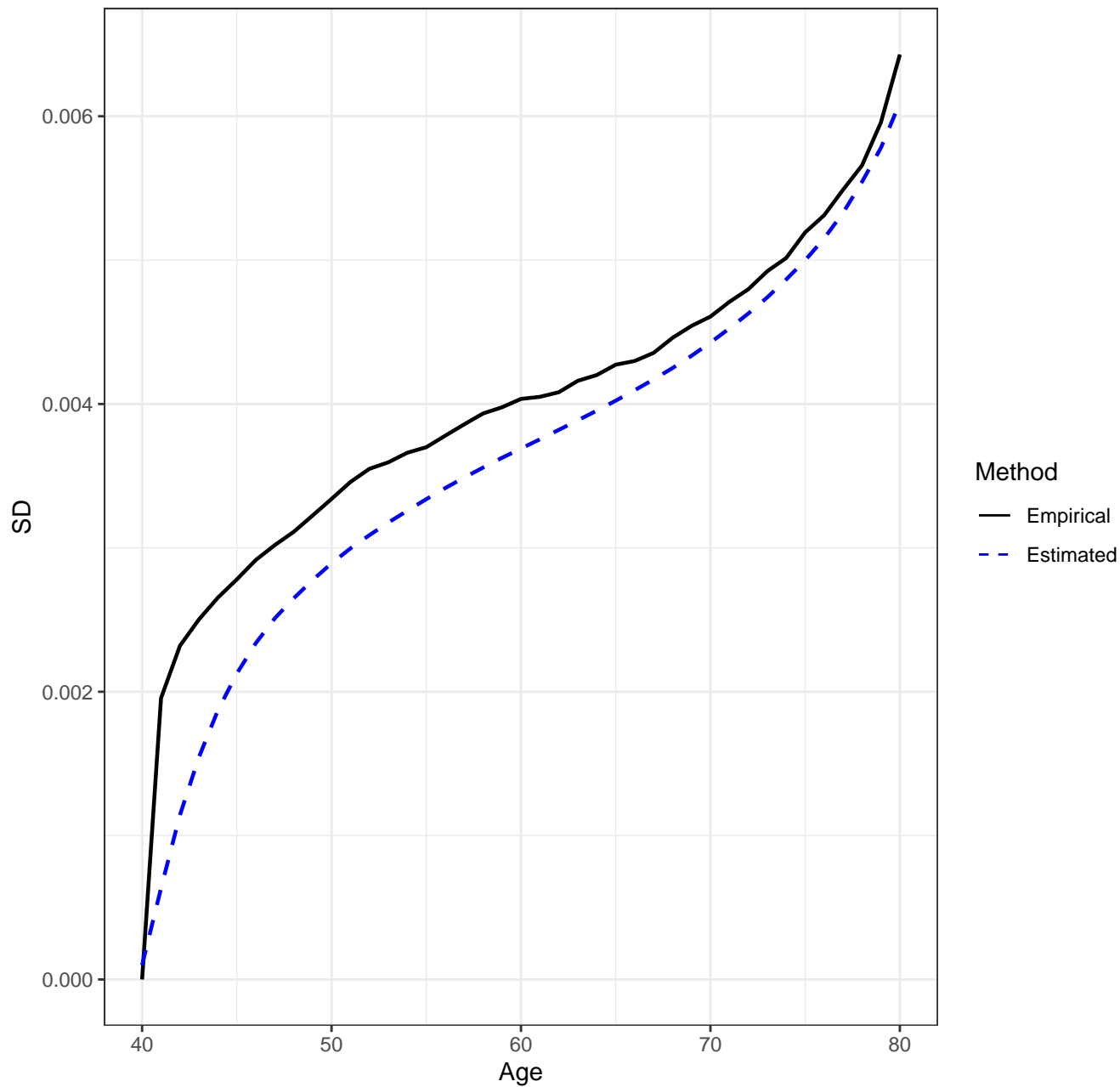
Scenario 1222, n=5000, AJ Estimator, Empirical vs. Estimated SD's



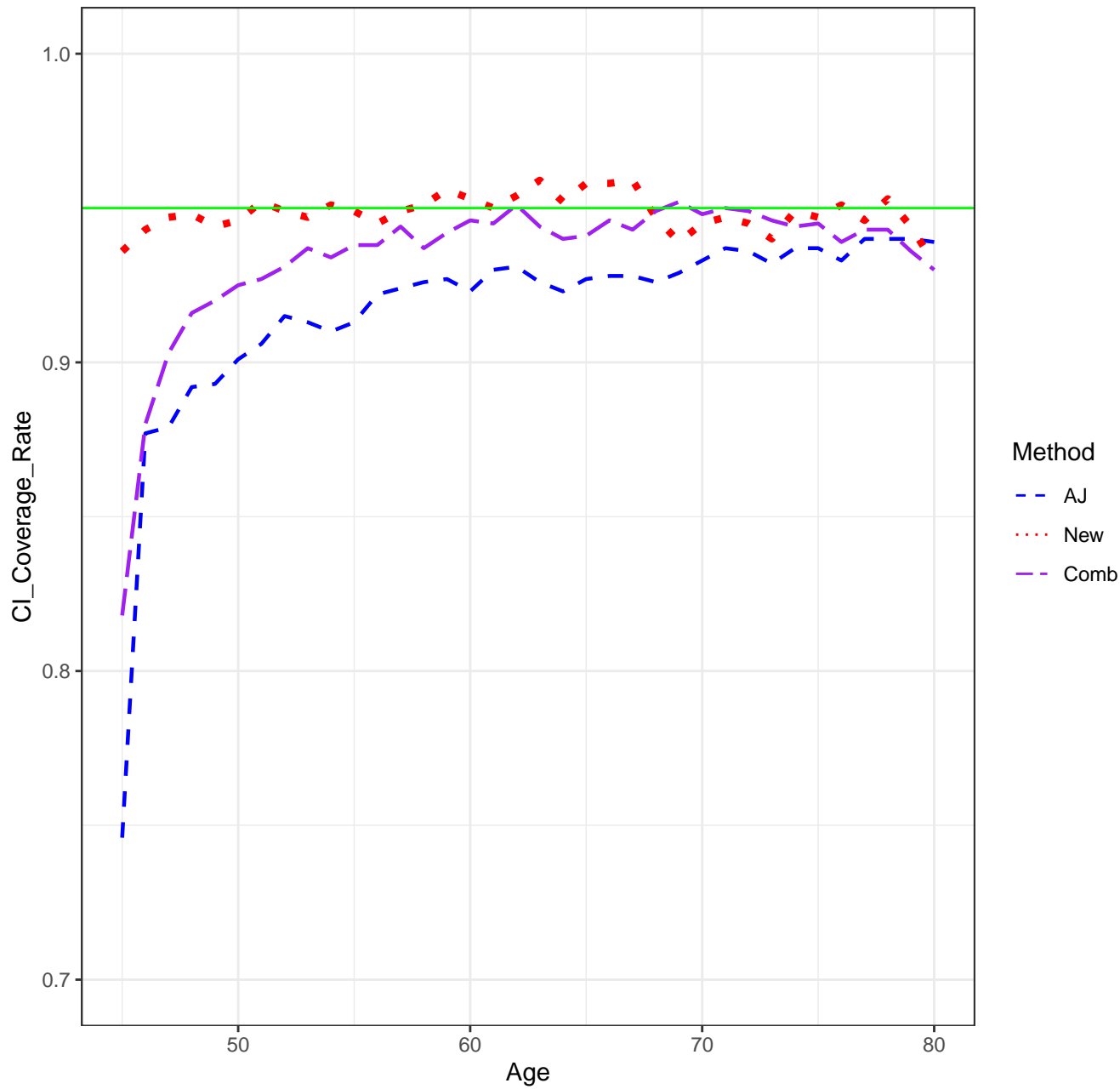
Scenario 1222, n=5000, New Estimator, Empirical vs. Estimated SD's



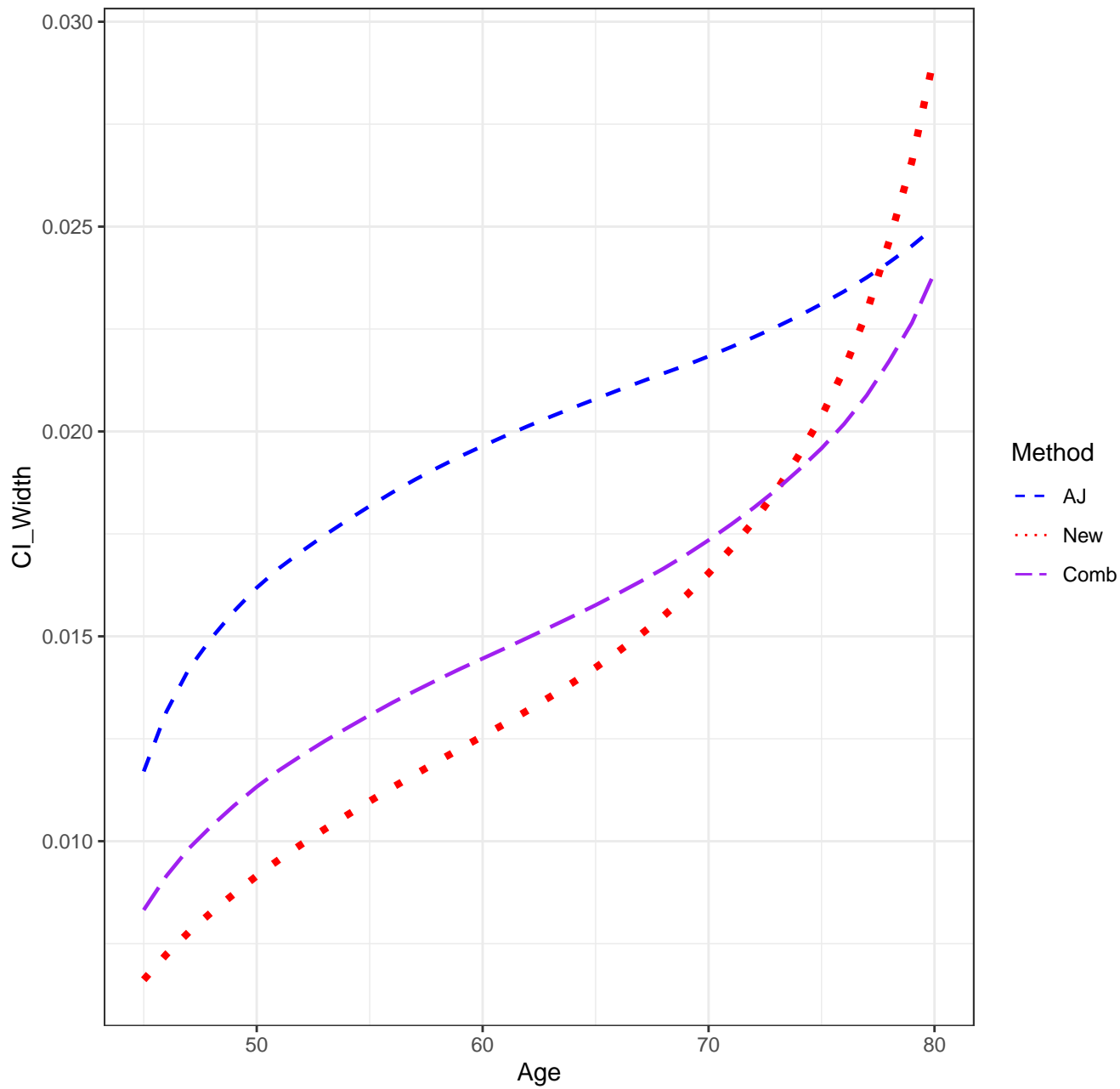
Scenario 1222, n=5000, Combined Estimator, Empirical vs. Estimated SD's



Scenario 1222, n=5000, CICR'S



Scenario 1222, n=5000, CI Width



## CONFIDENCE BAND COVERAGE RATES

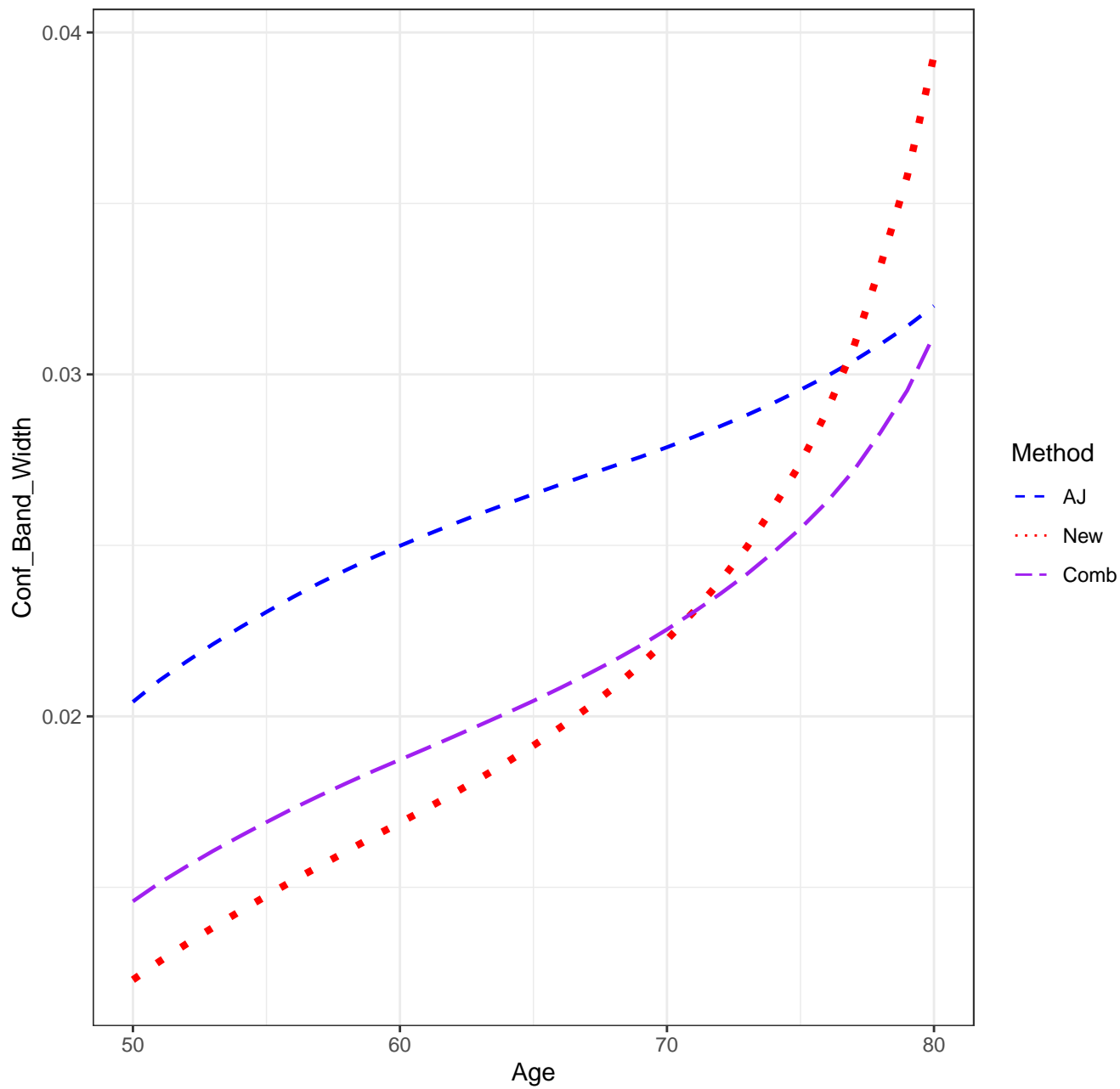
Scenario: 1222

AJ: 0.914

new: 0.929

Combo: 0.927

Scenario 1222, n=5000, Confidence Band Width





## SETTINGS

Scenario: 2111

sample size = 5000

number of simulation replications = 1000

number of bootstrap replications = 250

transformation:  $0.5 \cdot \pi - \arcsin(\sqrt{1-u})$

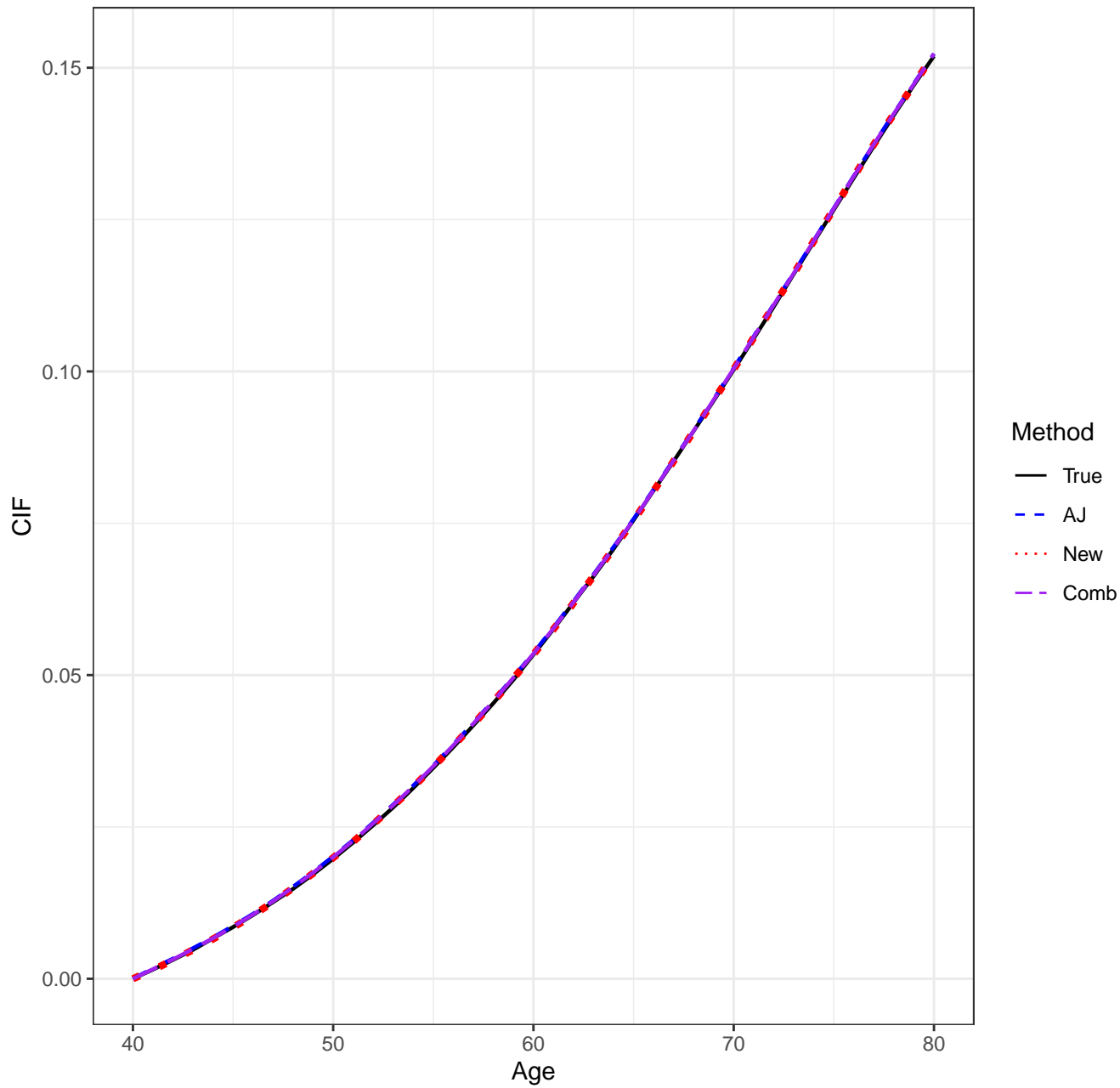
pointwise CI's done by: normal-theory

auxflg = FALSE

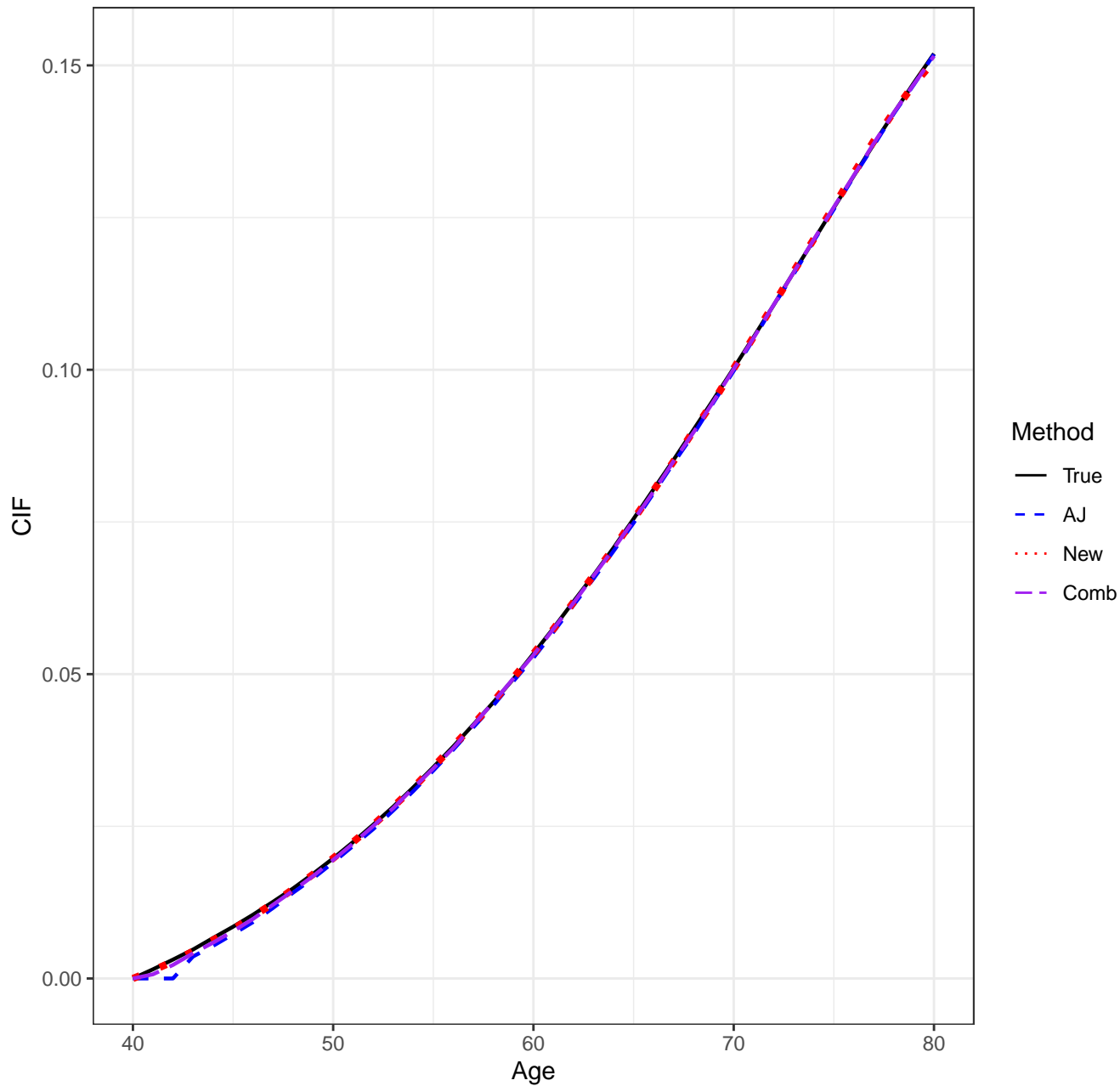
bootstrap weights: normal

Date/Time: 2024-01-15 22:15:54.078607

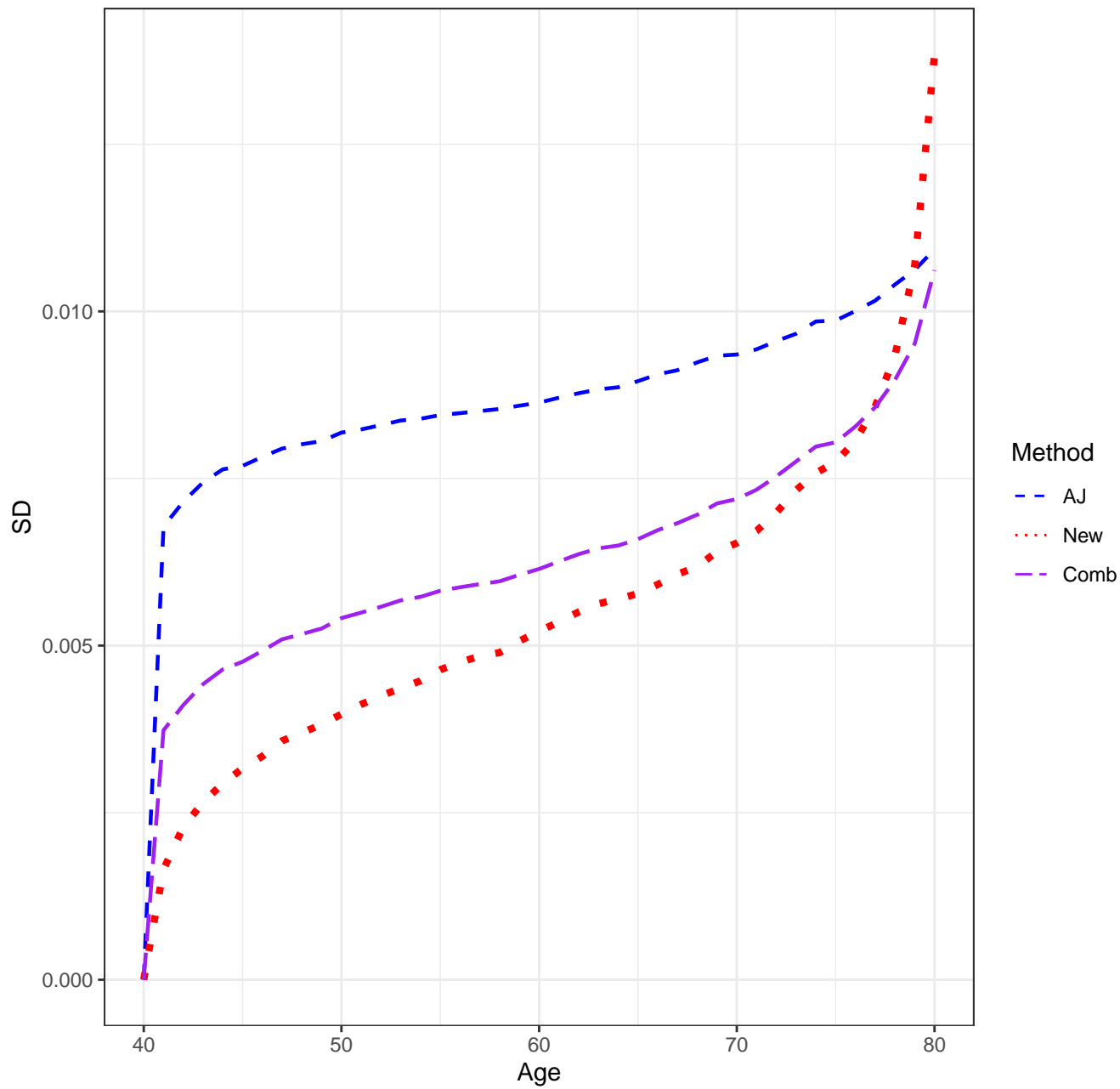
Scenario 2111, n=5000, Means



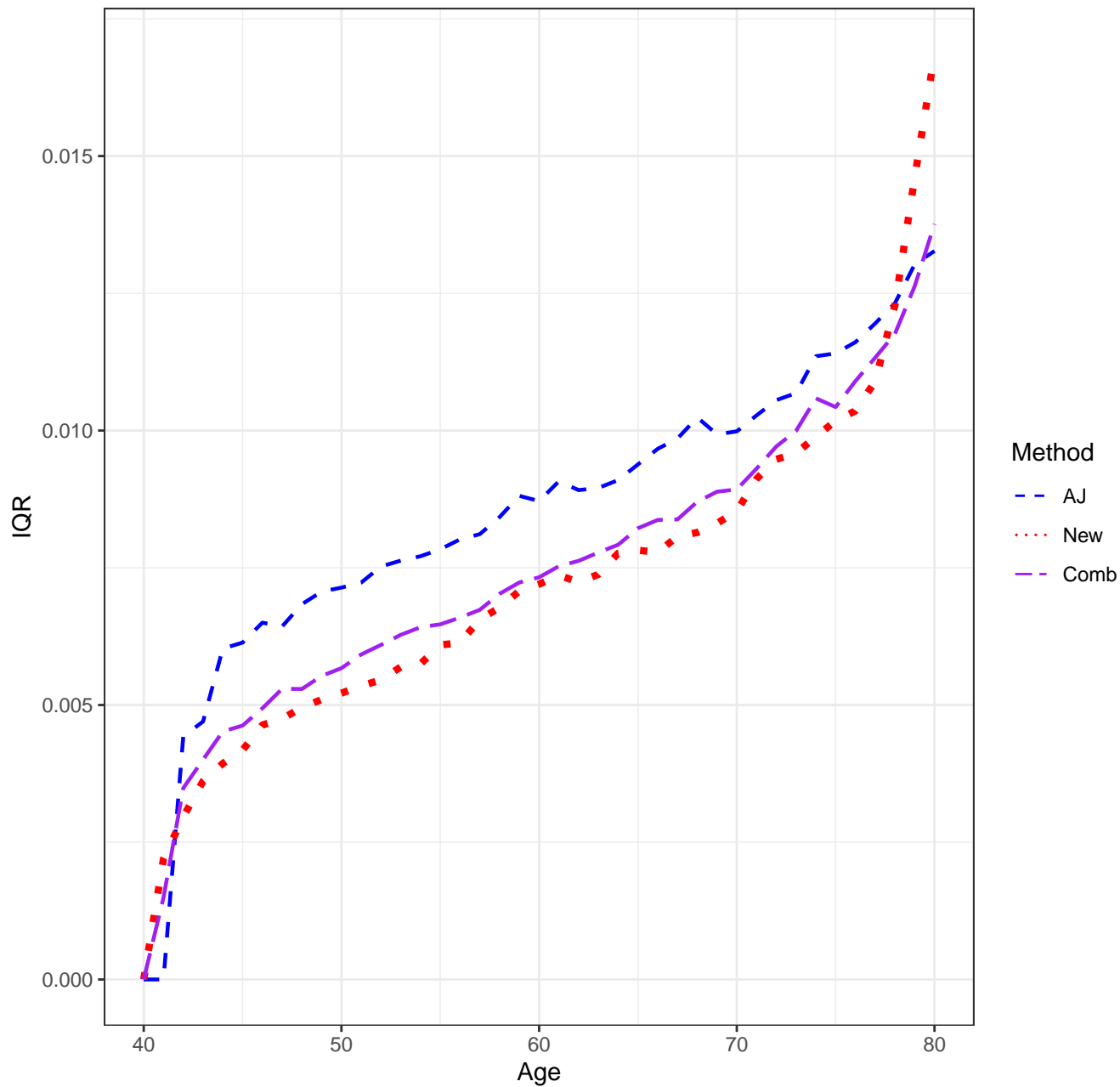
Scenario 2111, n=5000, Medians



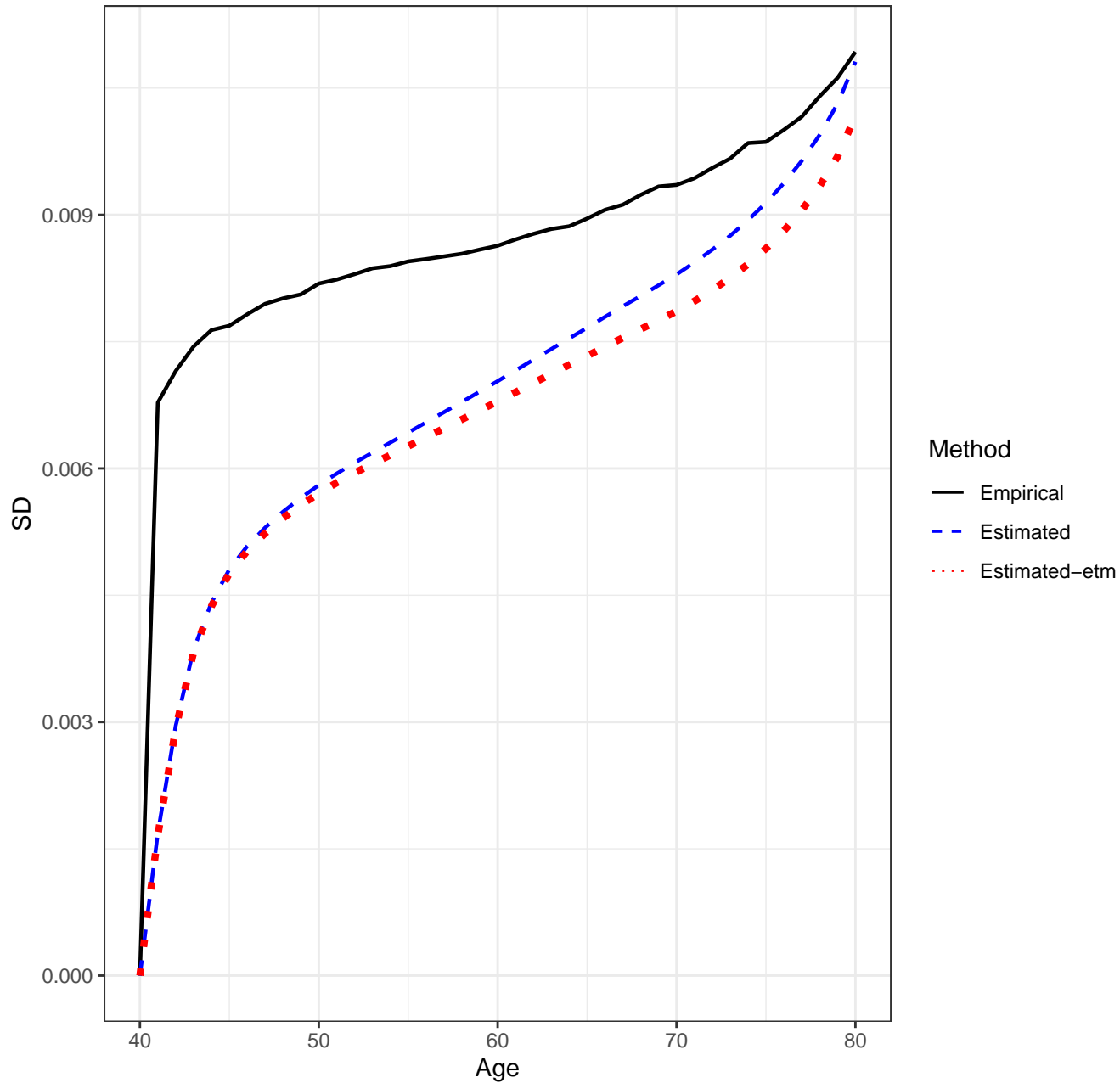
Scenario 2111, n=5000, SD'S



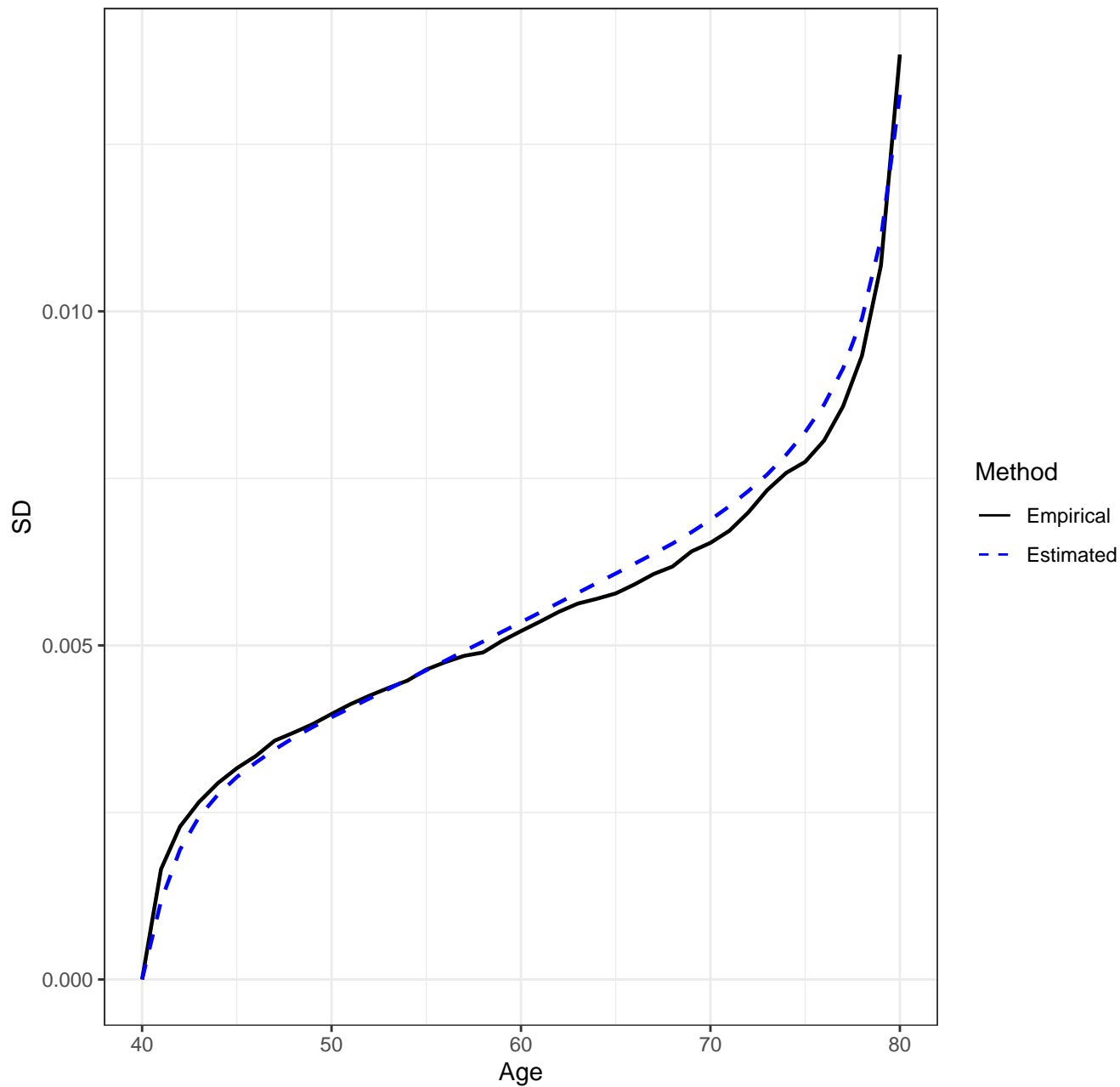
Scenario 2111, n=5000, IQR'S



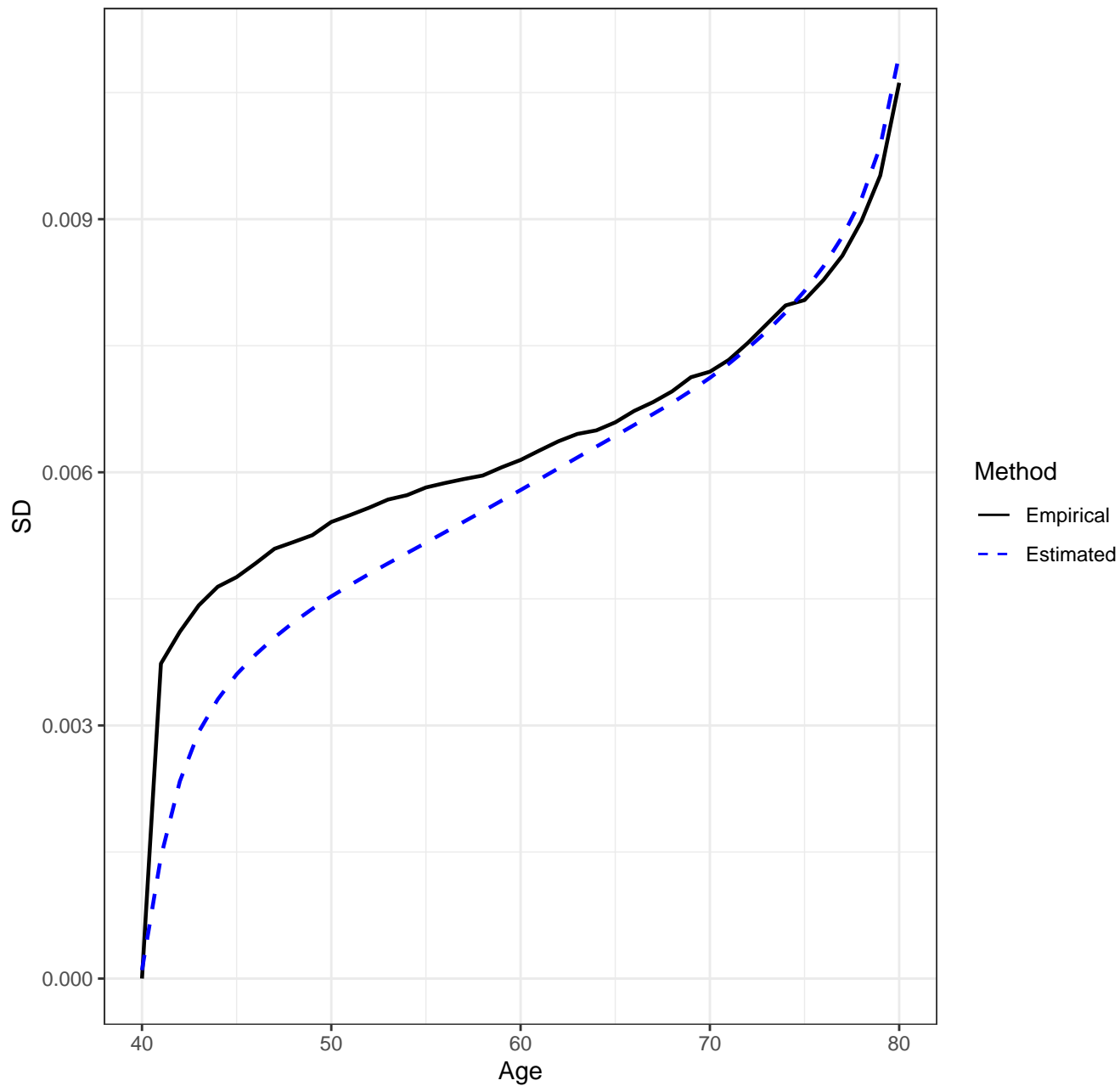
Scenario 2111, n=5000, AJ Estimator, Empirical vs. Estimated SD's



Scenario 2111, n=5000, New Estimator, Empirical vs. Estimated SD's

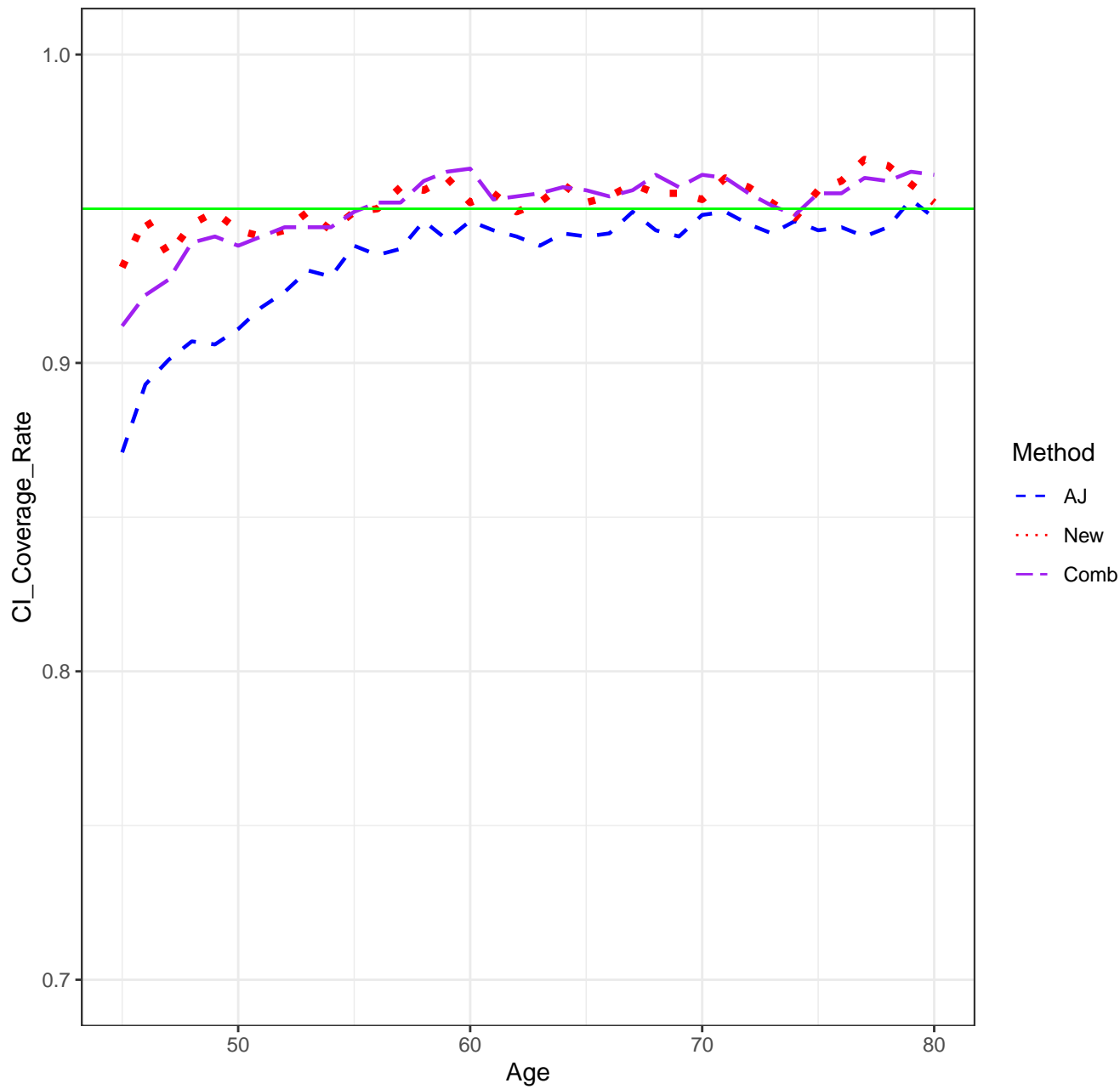


Scenario 2111, n=5000, Combined Estimator, Empirical vs. Estimated SD's

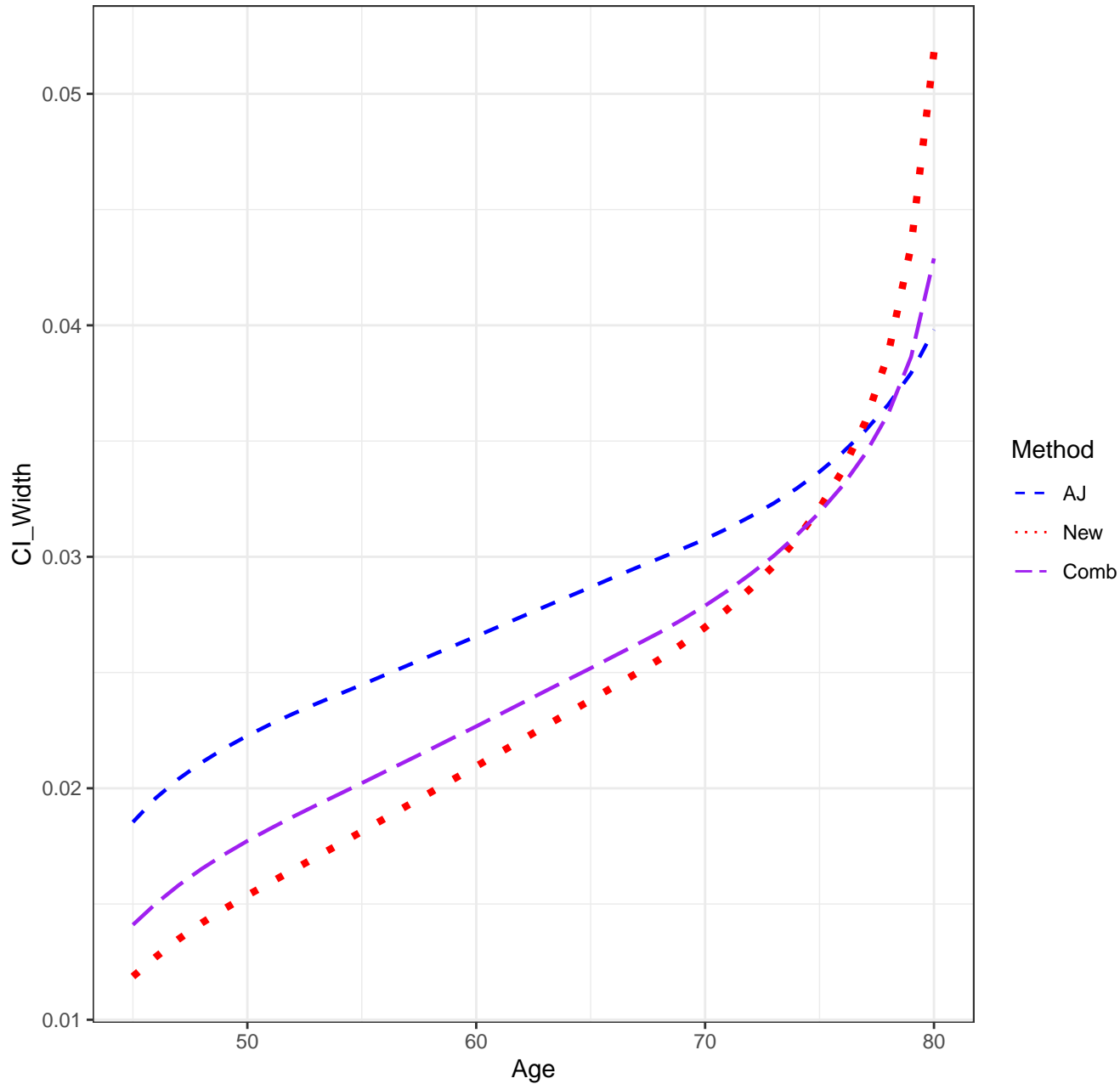




Scenario 2111, n=5000, CICR'S



Scenario 2111, n=5000, CI Width



## CONFIDENCE BAND COVERAGE RATES

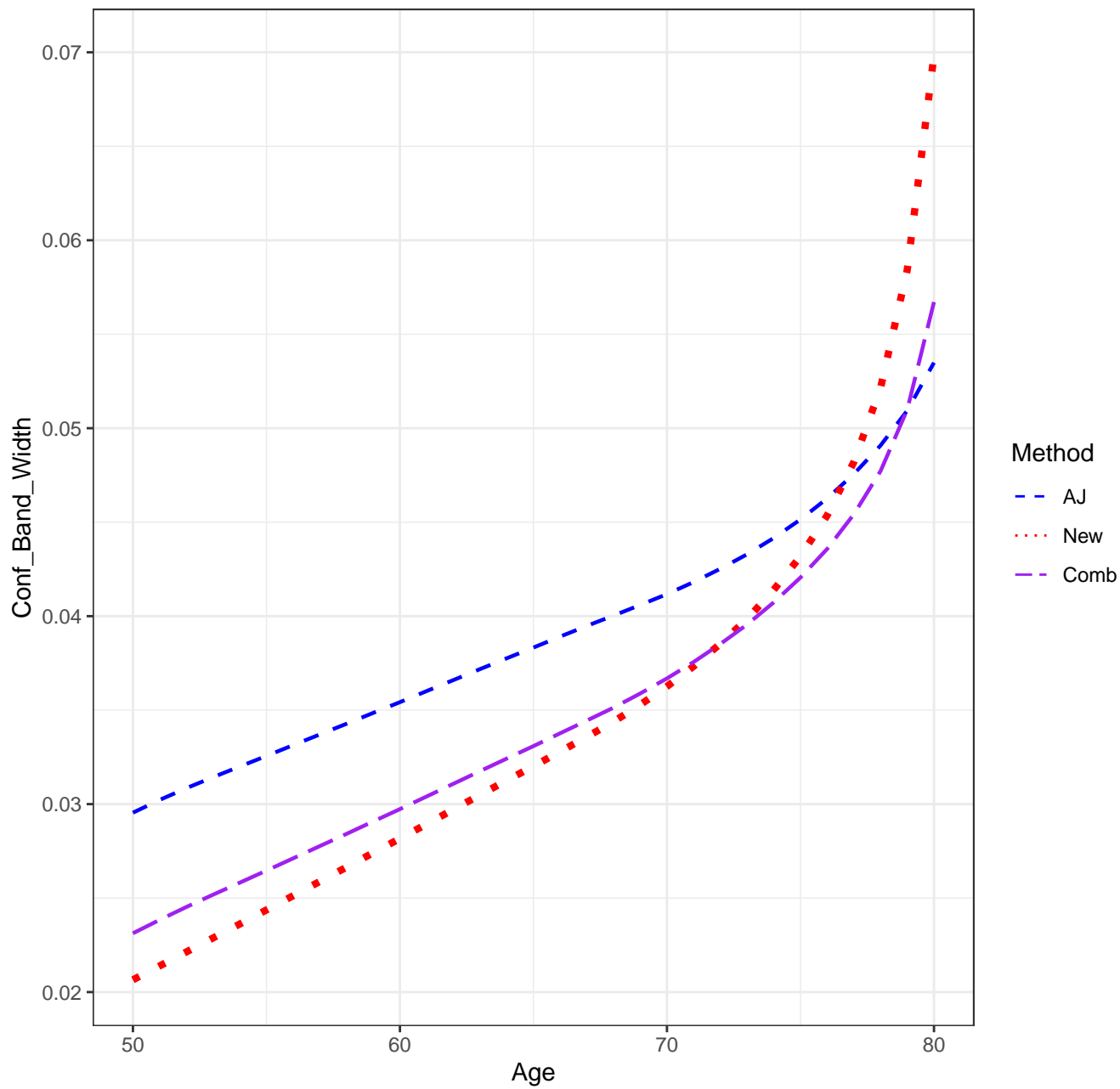
Scenario: 2111

AJ: 0.939

new: 0.945

Combo: 0.956

Scenario 2111, n=5000, Confidence Band Width



## SETTINGS

Scenario: 2112

sample size = 5000

number of simulation replications = 1000

number of bootstrap replications = 250

transformation:  $0.5 \cdot \pi - \arcsin(\sqrt{1-u})$

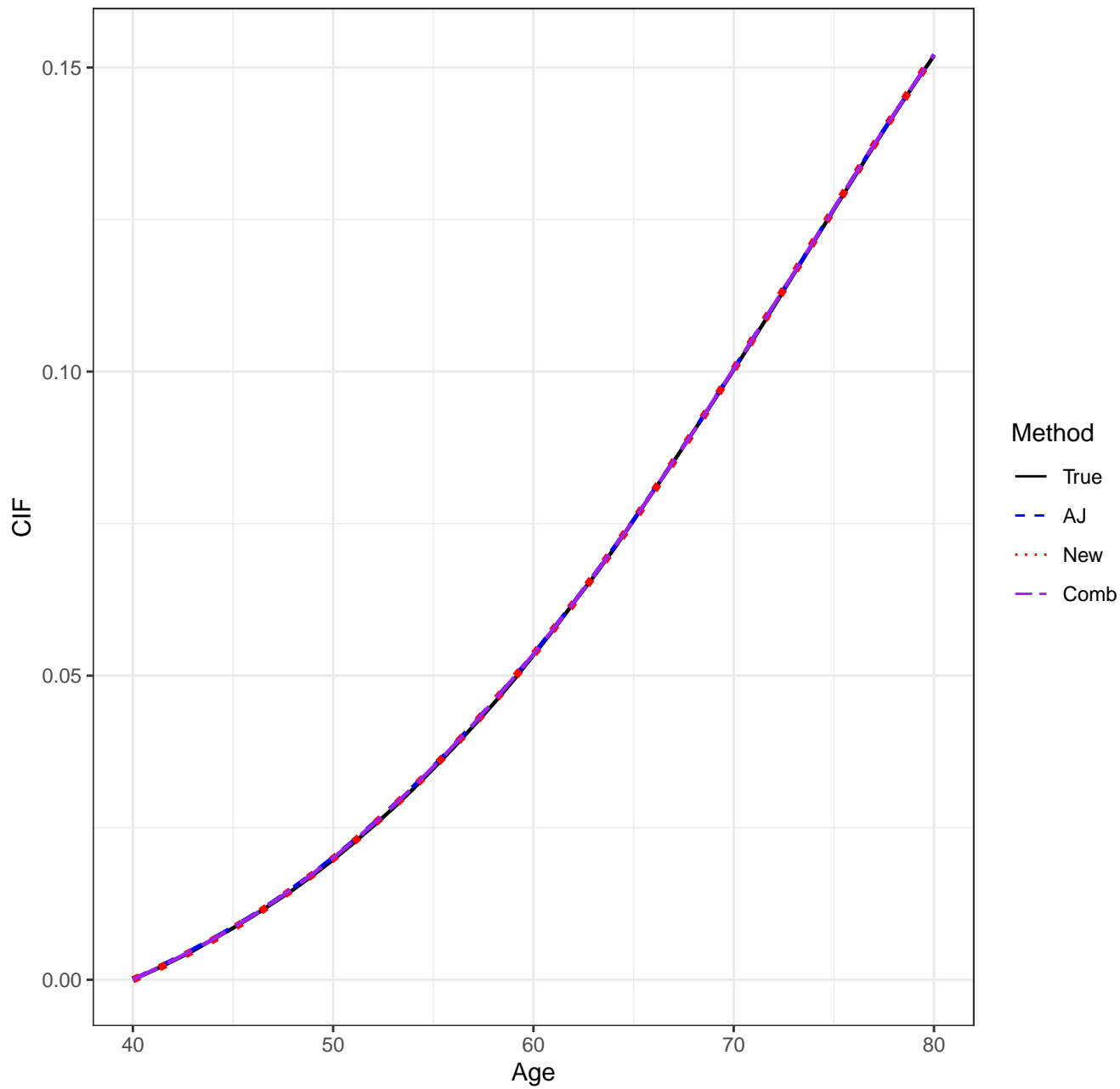
pointwise CI's done by: normal-theory

auxflg = FALSE

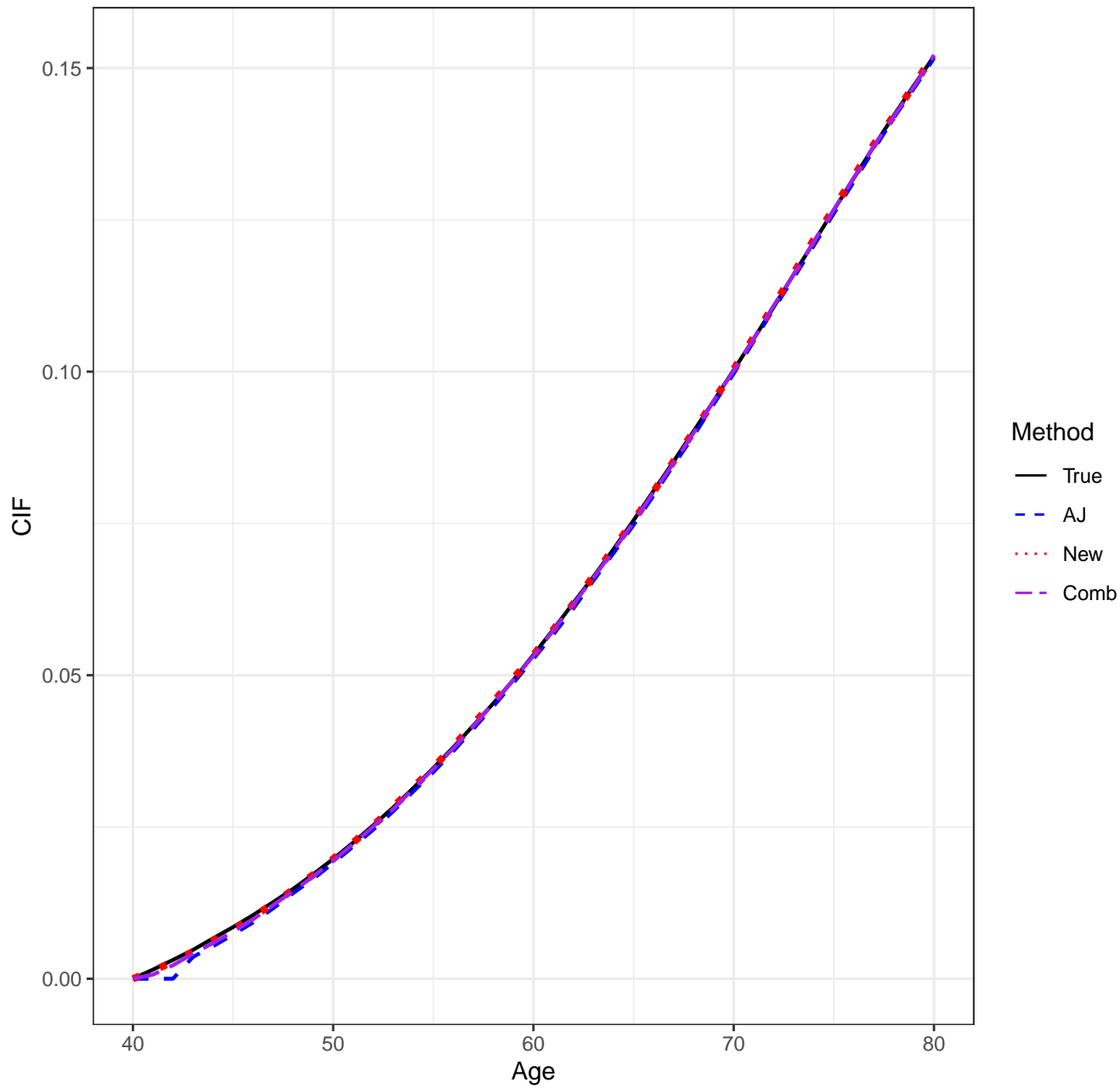
bootstrap weights: normal

Date/Time: 2024-01-16 13:28:31.641316

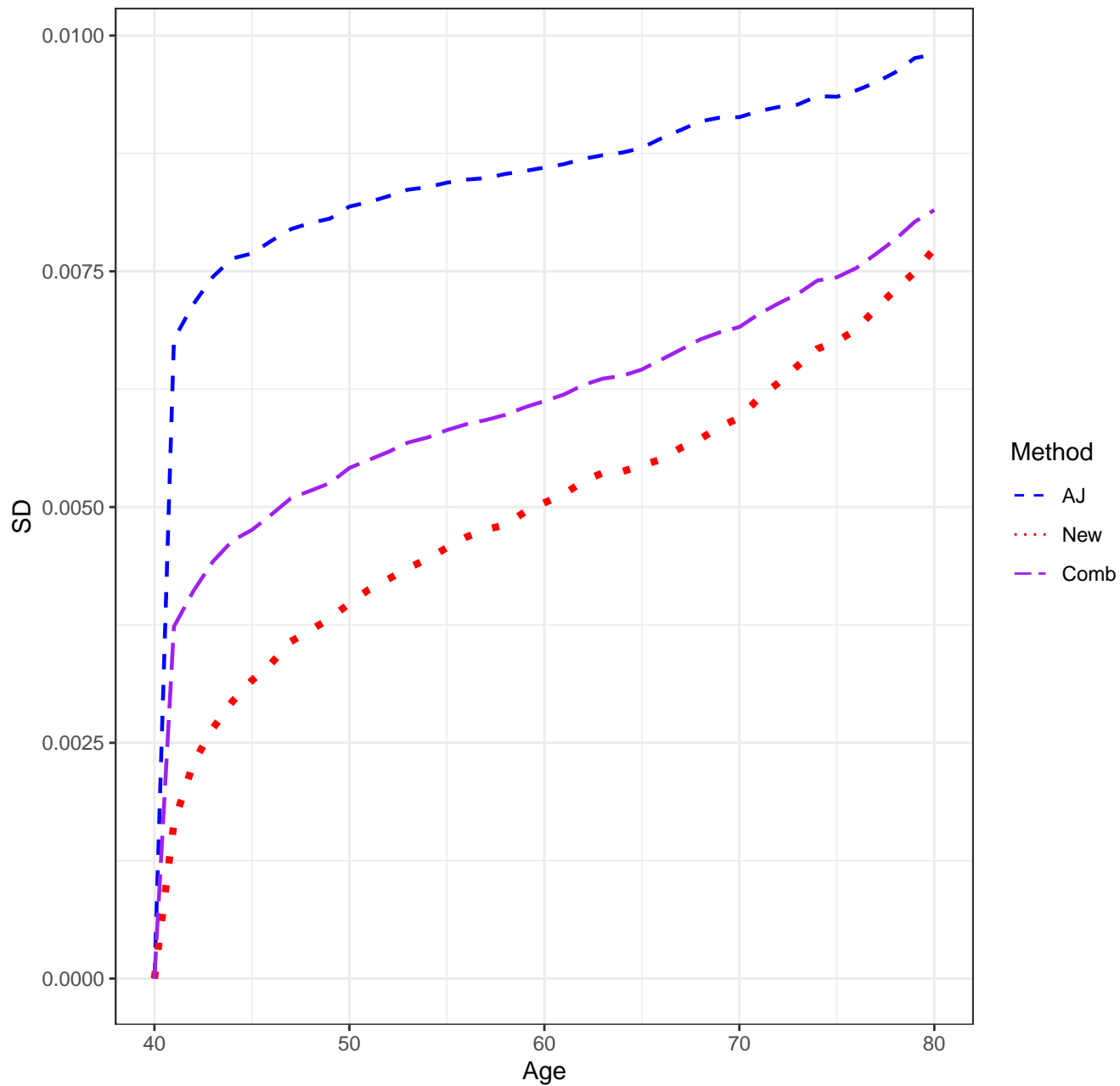
Scenario 2112, n=5000, Means



Scenario 2112, n=5000, Medians

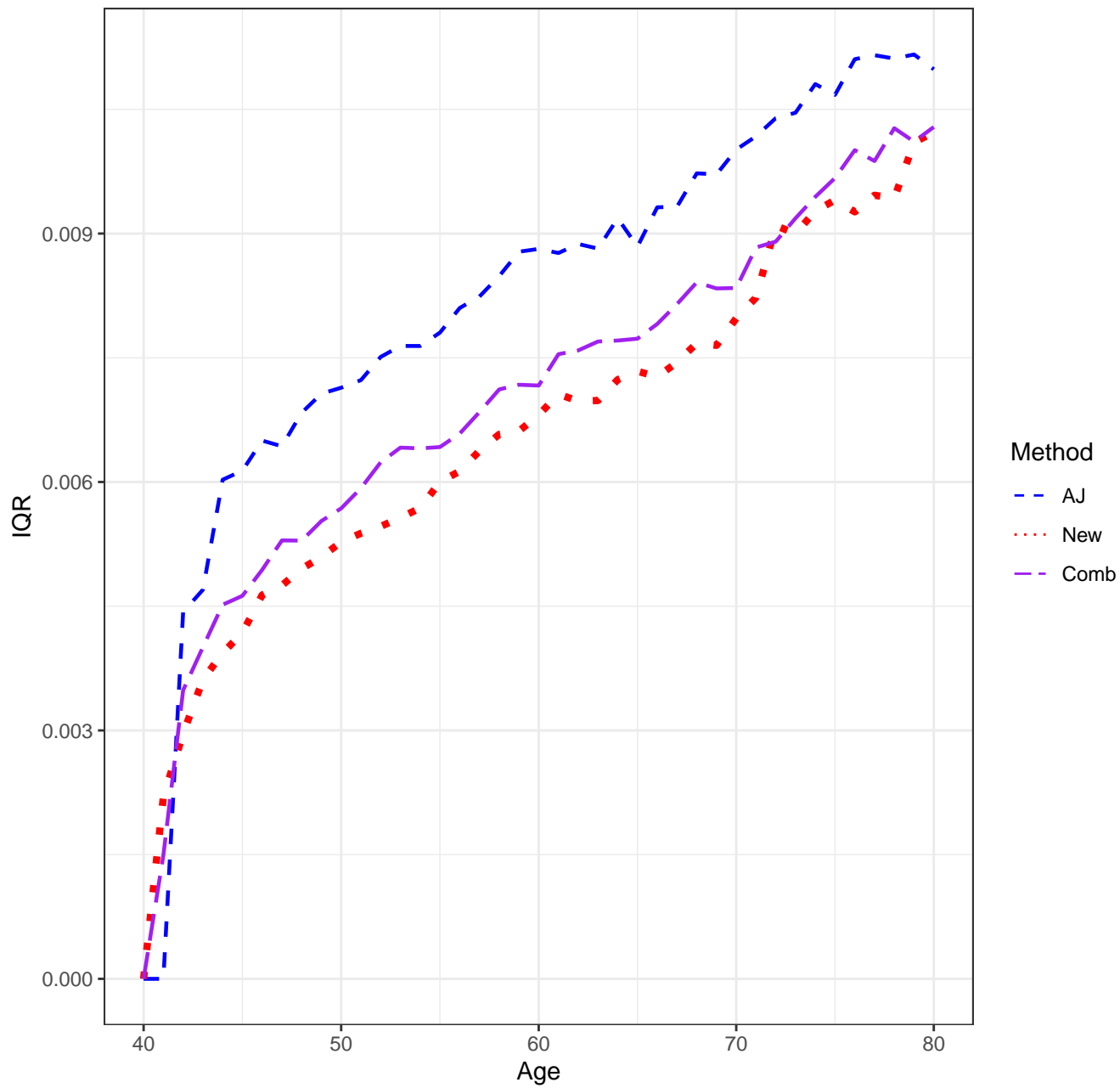


Scenario 2112, n=5000, SD'S

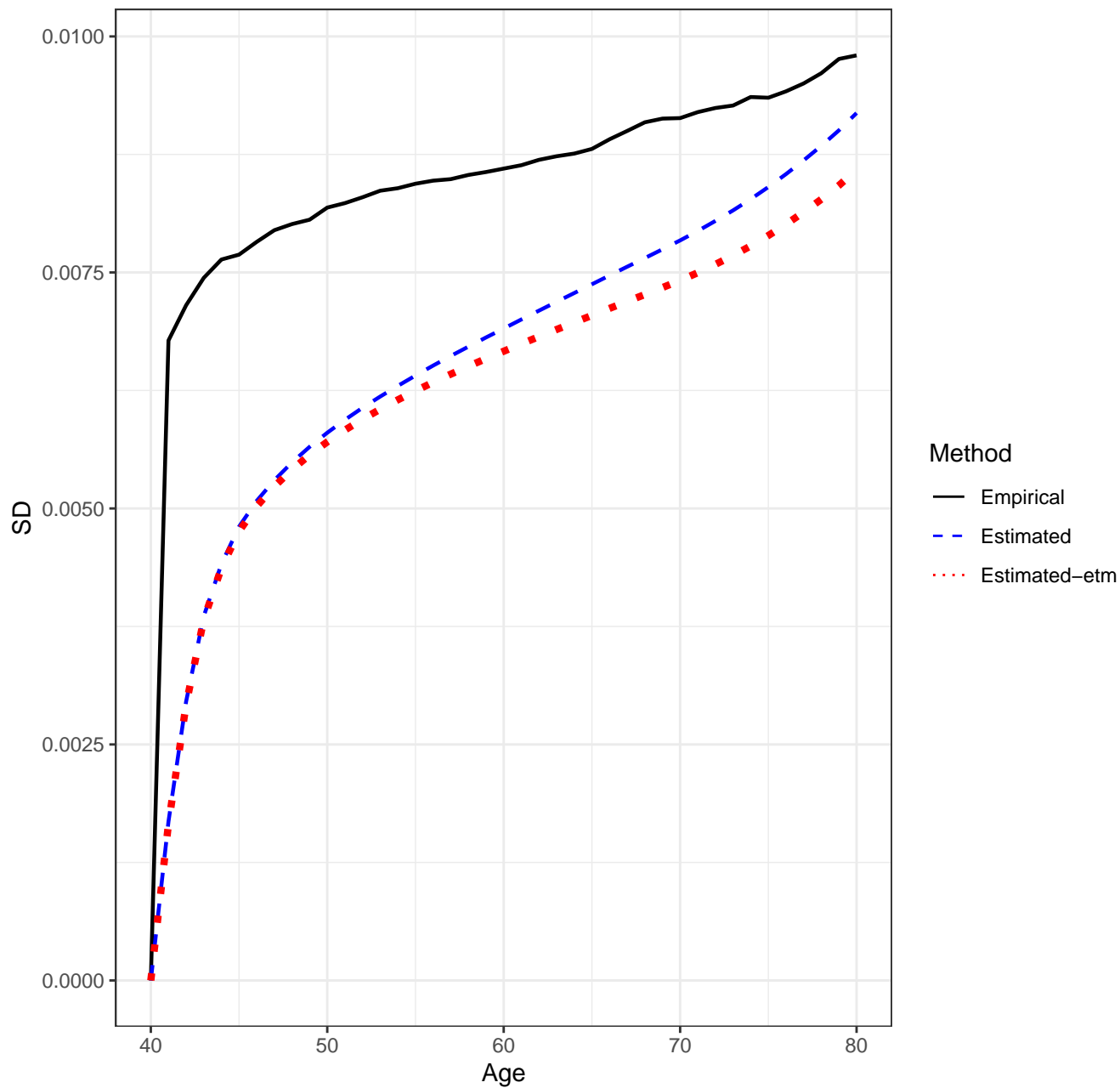




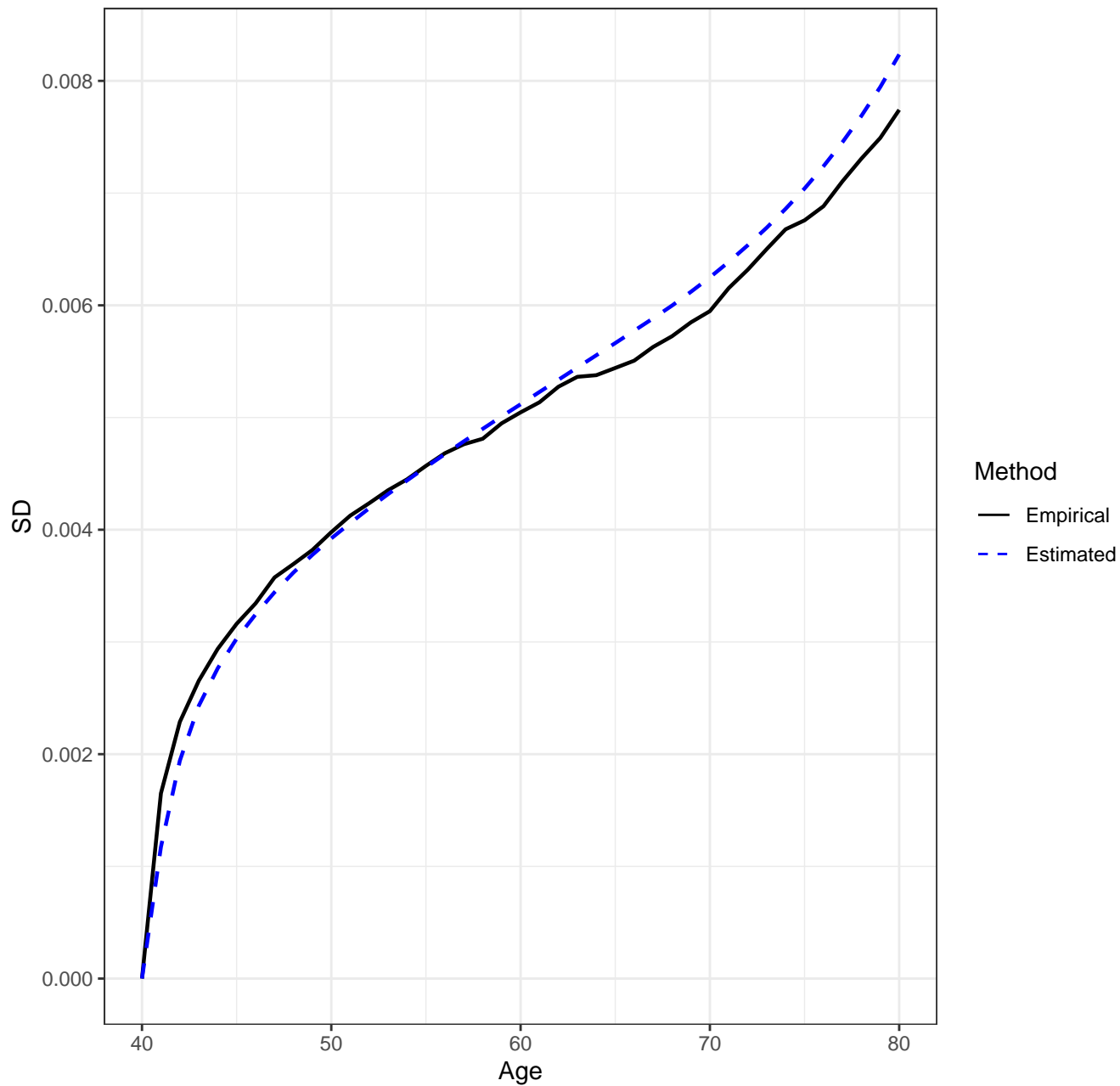
Scenario 2112, n=5000, IQR'S



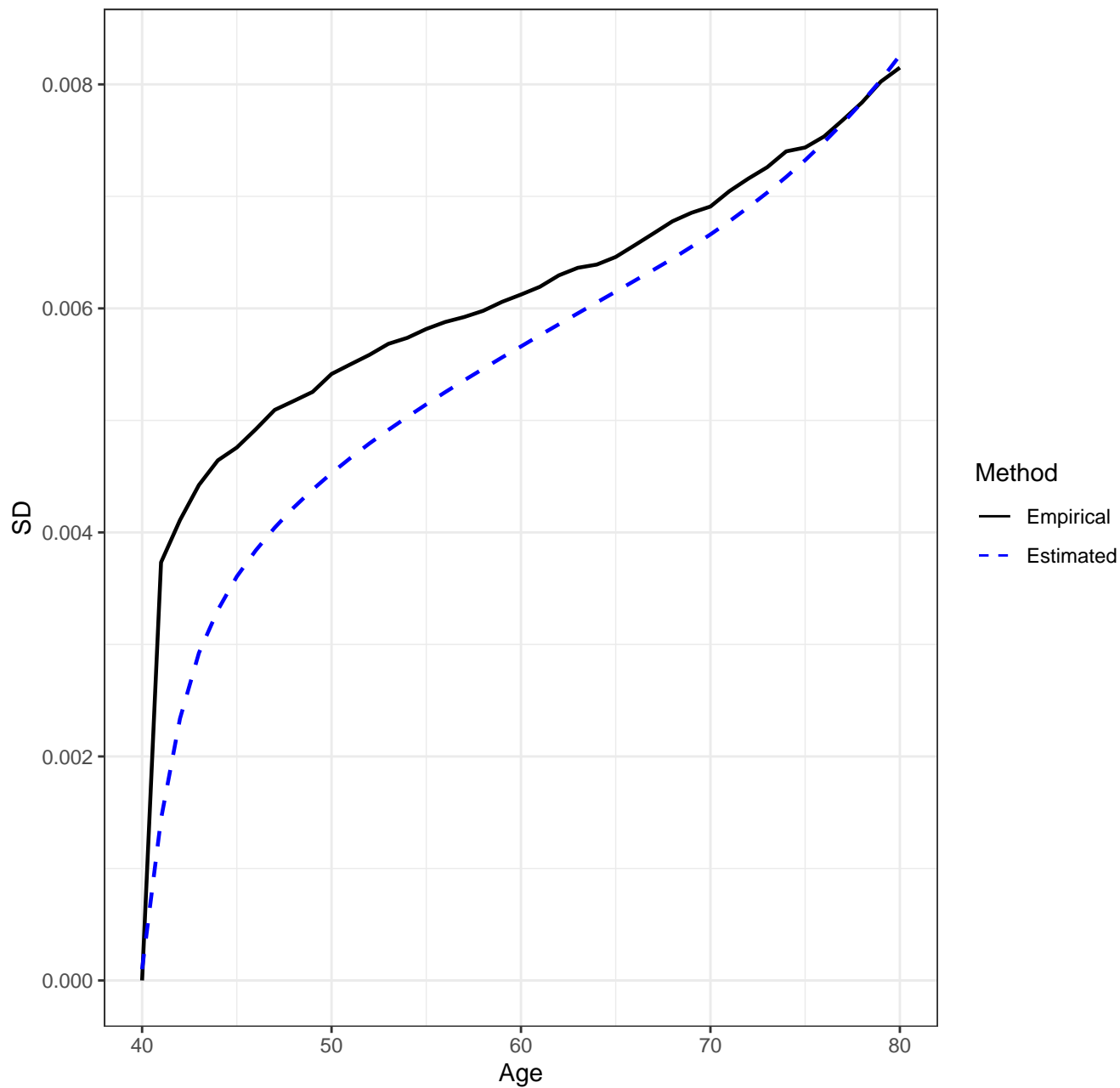
Scenario 2112, n=5000, AJ Estimator, Empirical vs. Estimated SD's



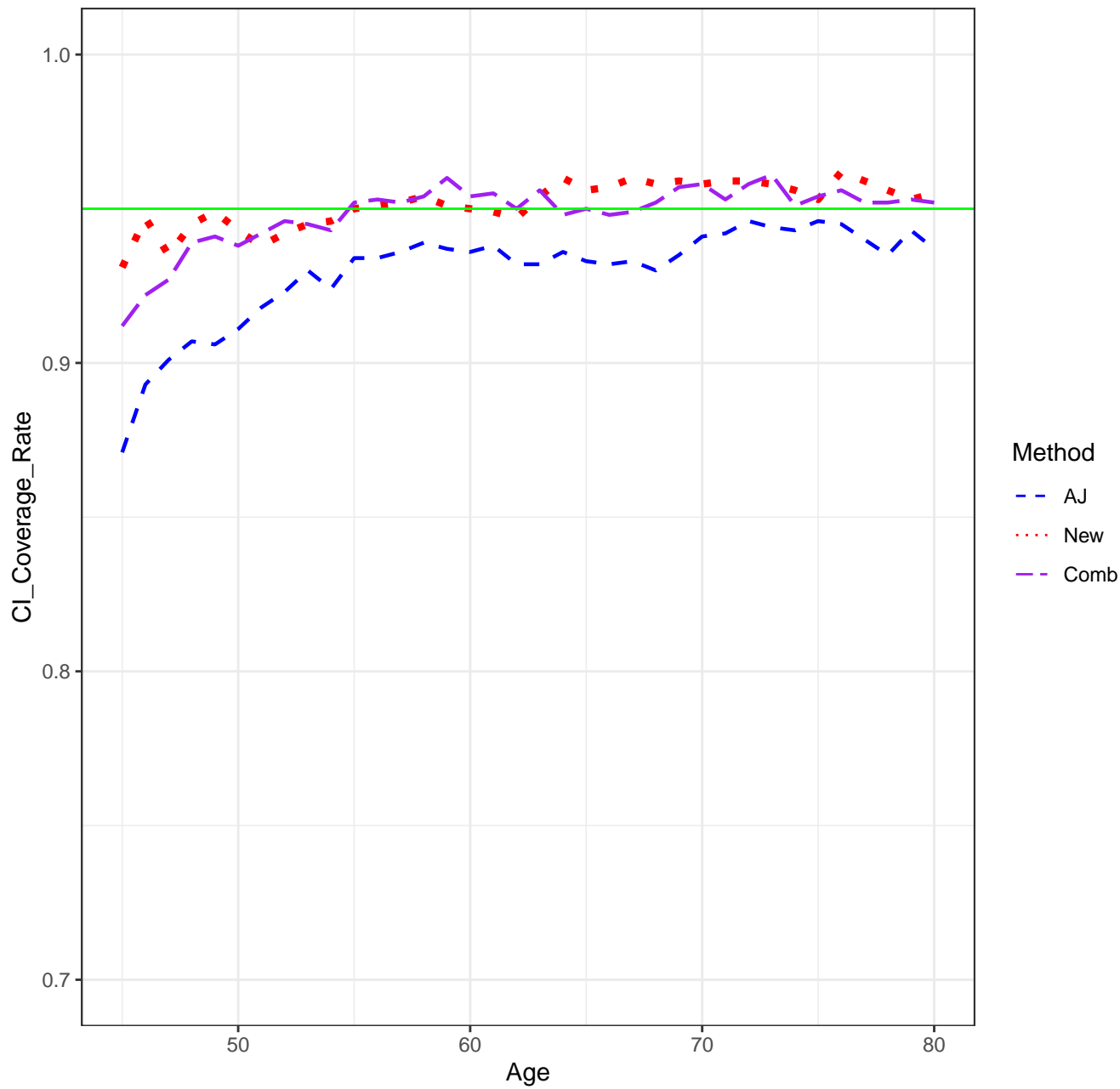
Scenario 2112, n=5000, New Estimator, Empirical vs. Estimated SD's



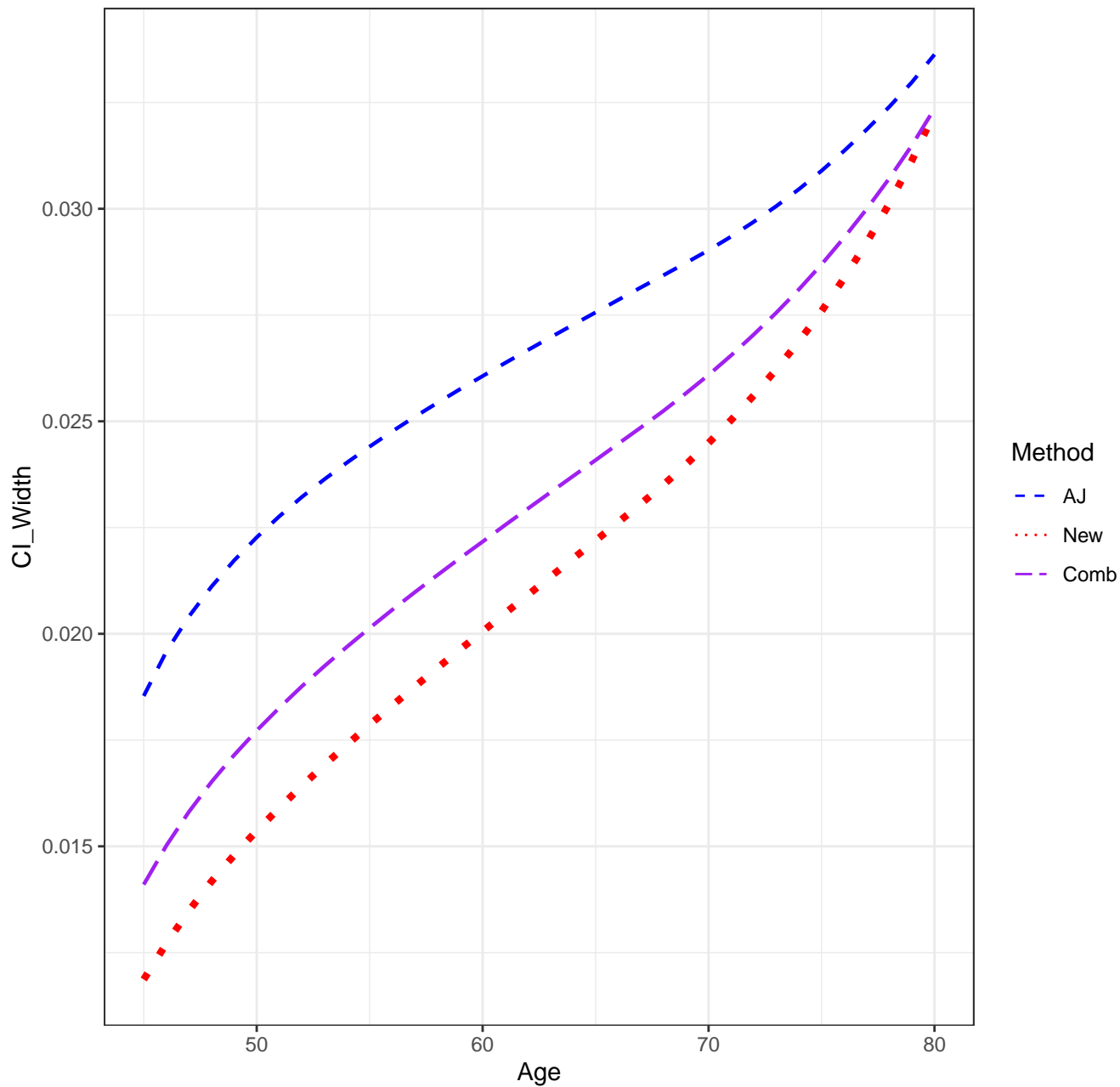
Scenario 2112, n=5000, Combined Estimator, Empirical vs. Estimated SD's



Scenario 2112, n=5000, CICR'S



Scenario 2112, n=5000, CI Width



## CONFIDENCE BAND COVERAGE RATES

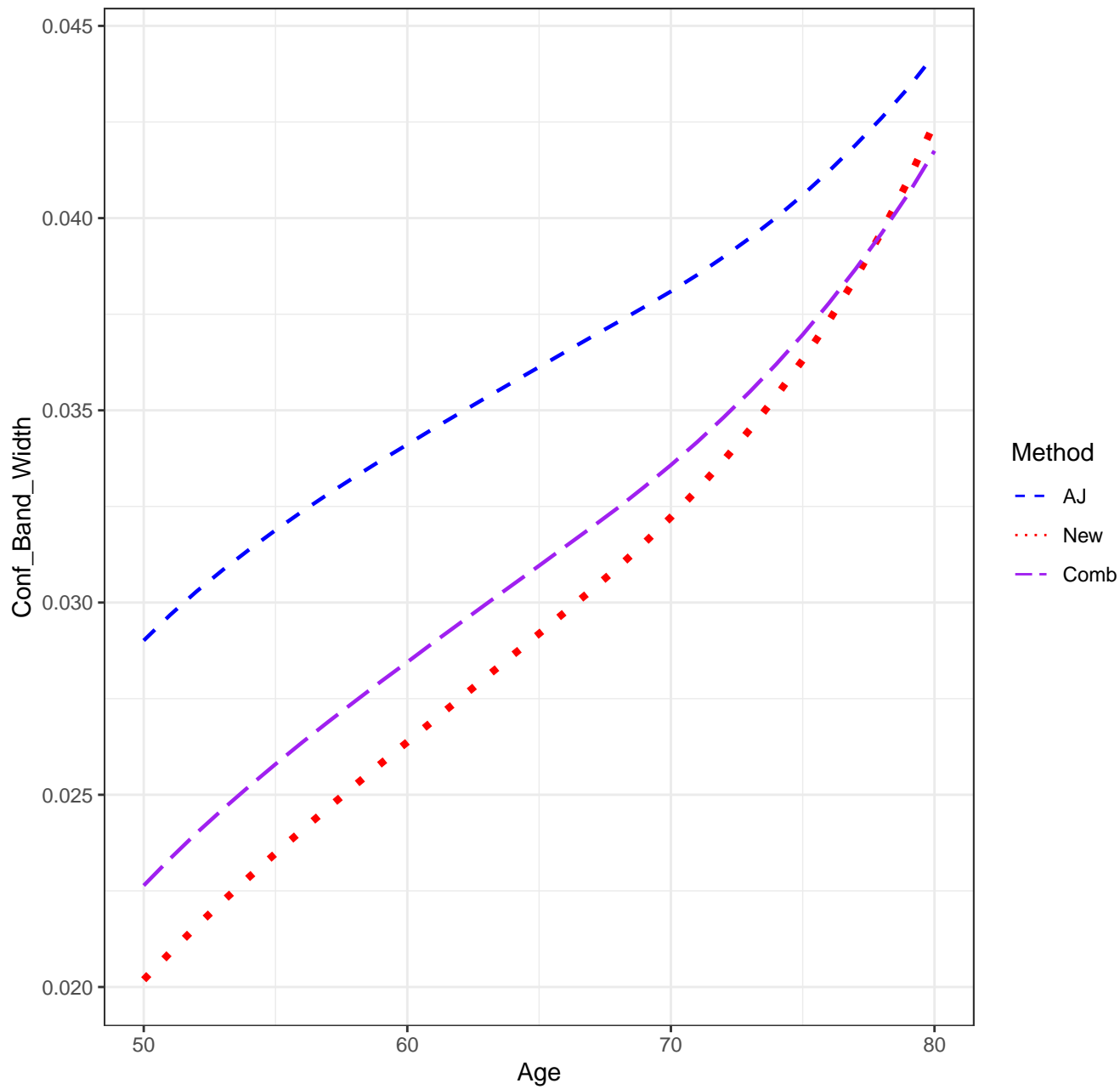
Scenario: 2112

AJ: 0.932

new: 0.951

Combo: 0.951

Scenario 2112, n=5000, Confidence Band Width





## SETTINGS

Scenario: 2121

sample size = 5000

number of simulation replications = 1000

number of bootstrap replications = 250

transformation:  $0.5 \cdot \pi - \arcsin(\sqrt{1-u})$

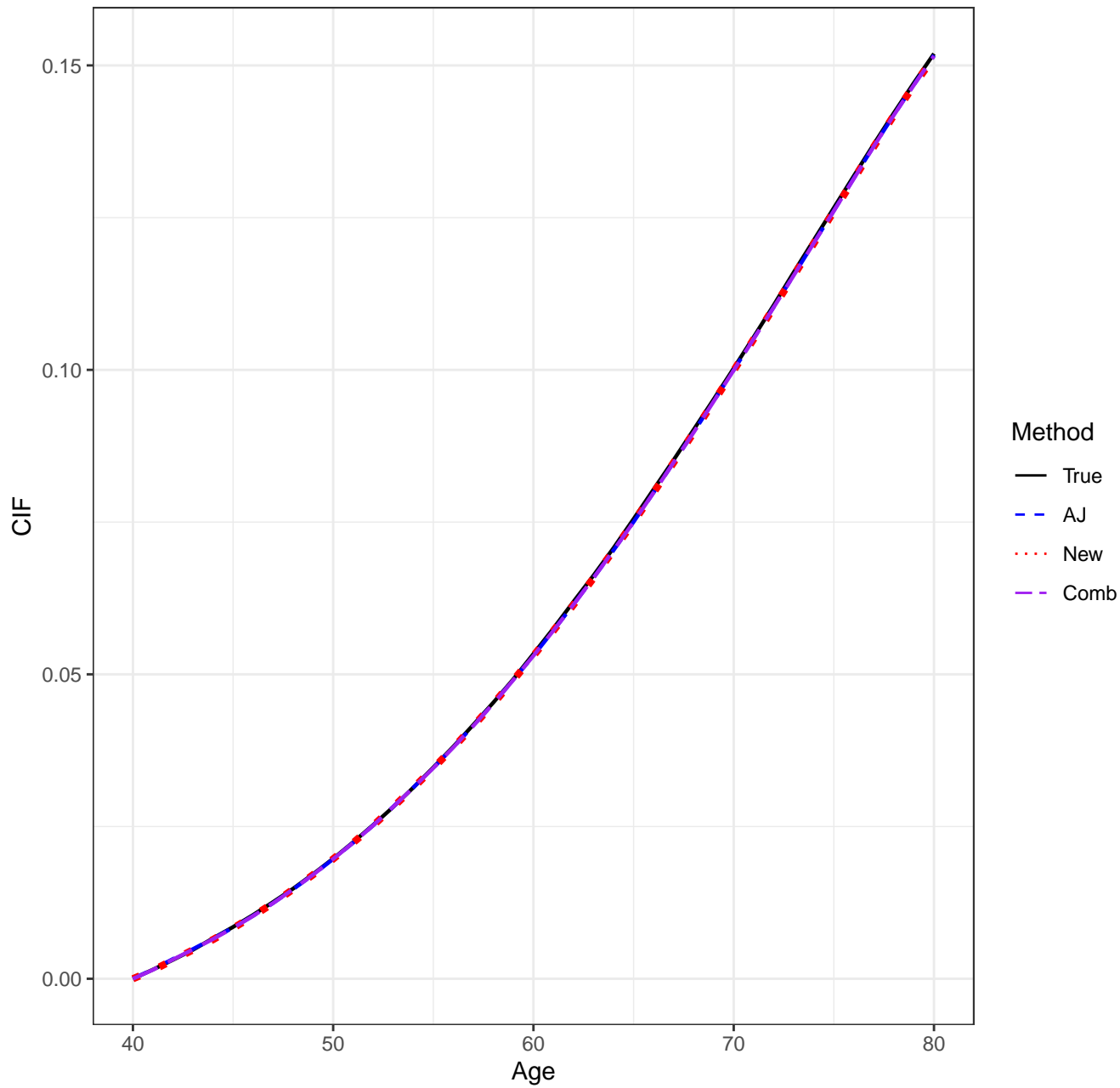
pointwise CI's done by: normal-theory

auxflg = FALSE

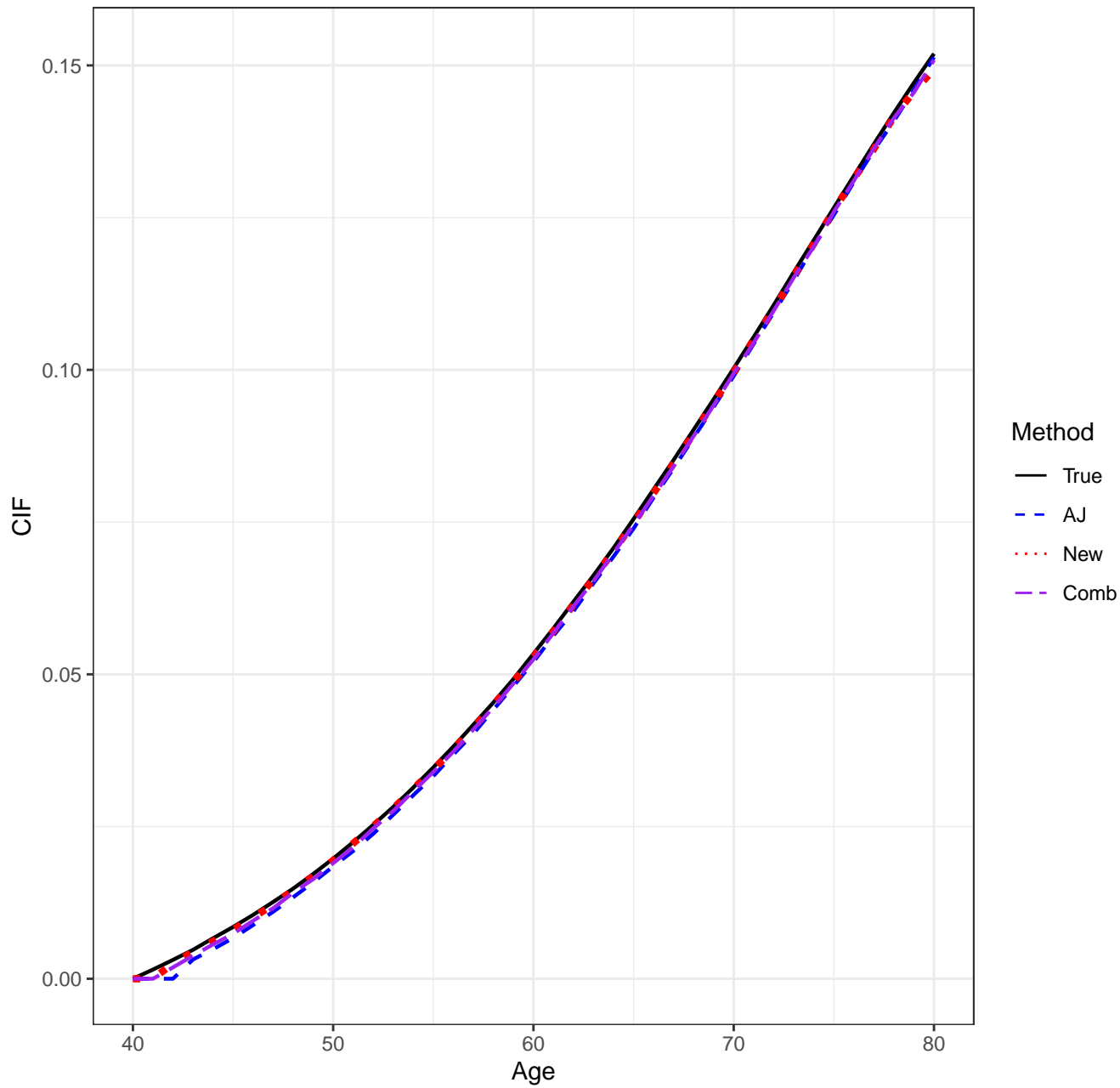
bootstrap weights: normal

Date/Time: 2024-01-16 17:25:02.277259

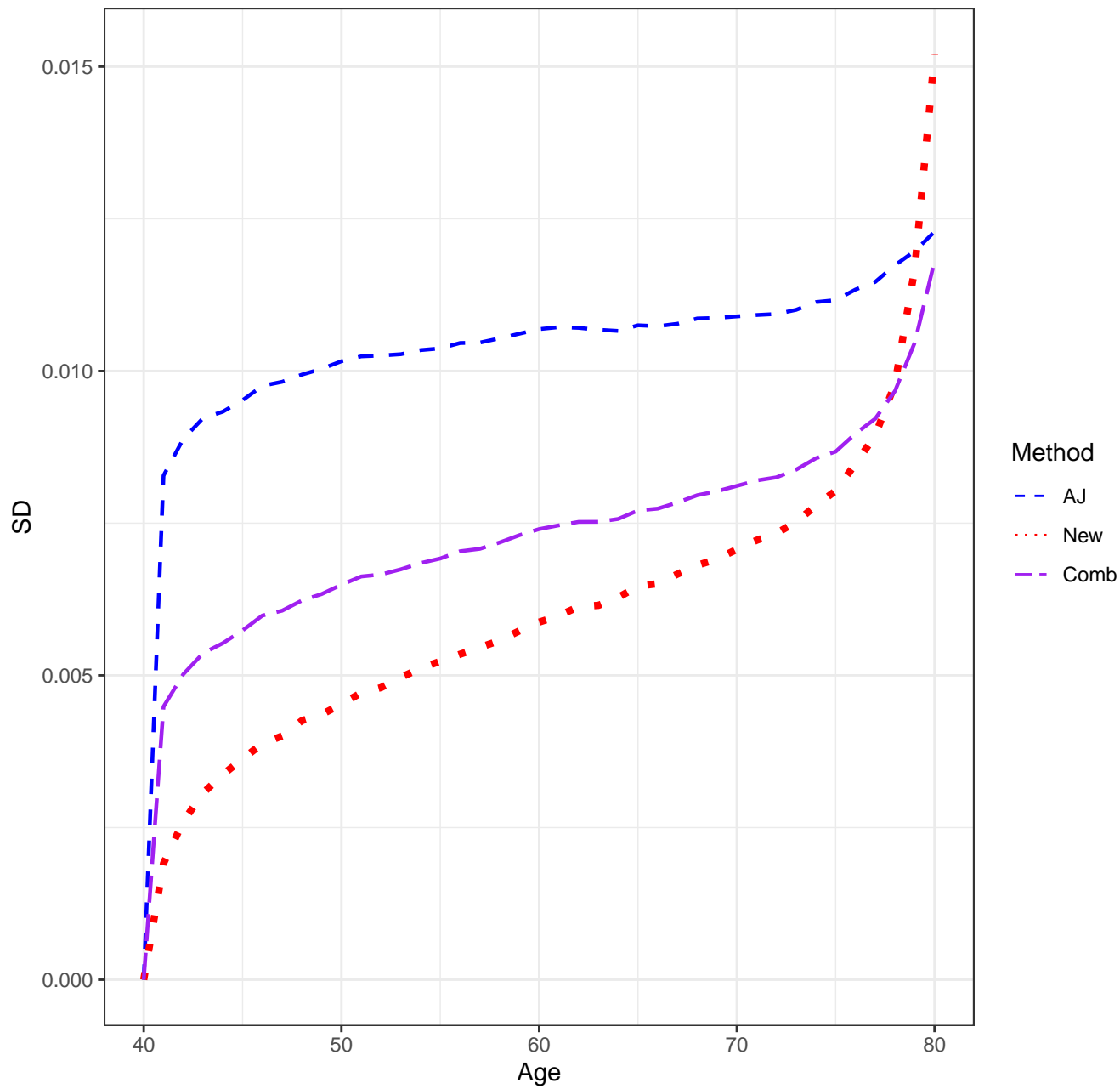
Scenario 2121, n=5000, Means



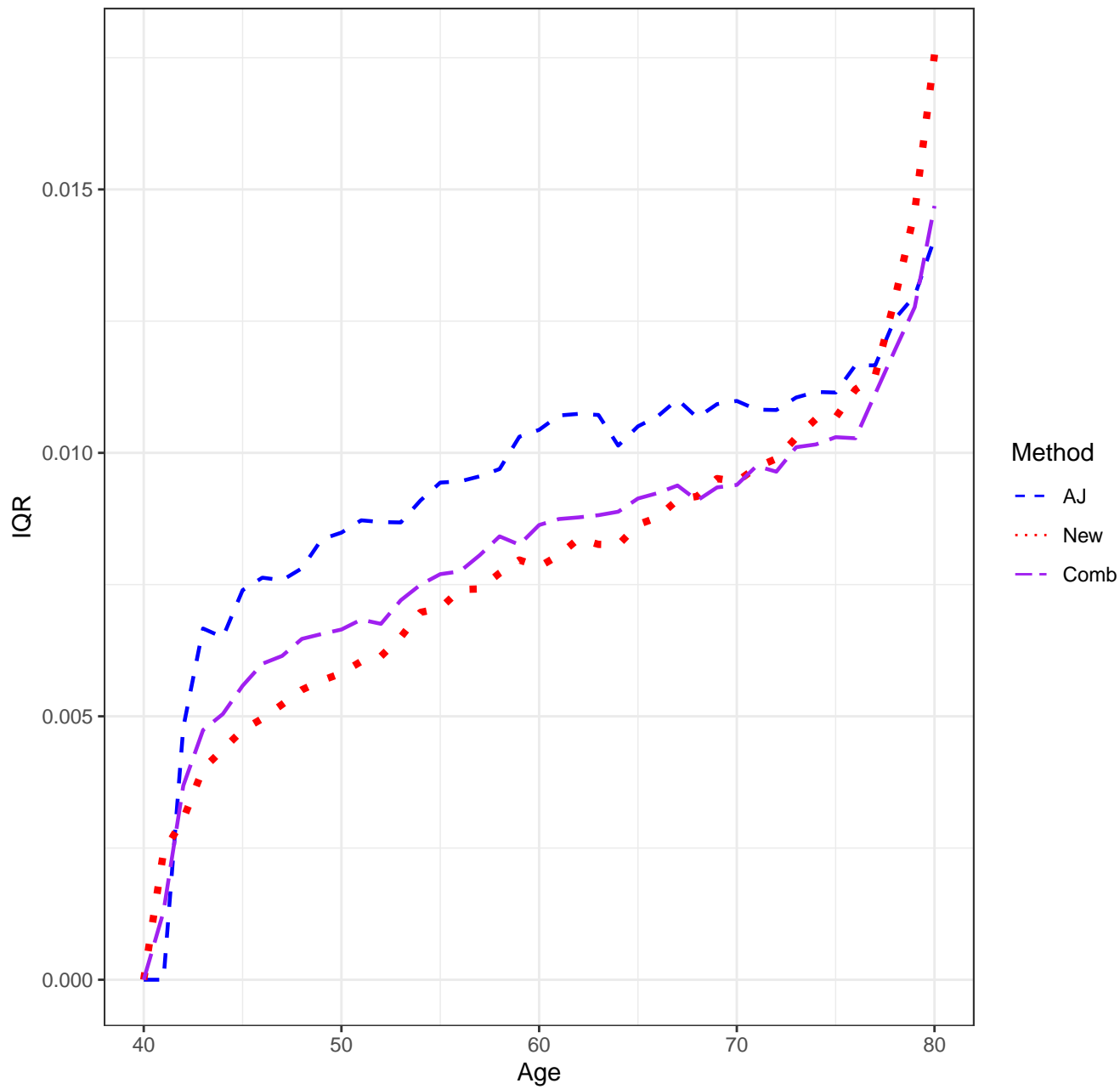
Scenario 2121, n=5000, Medians



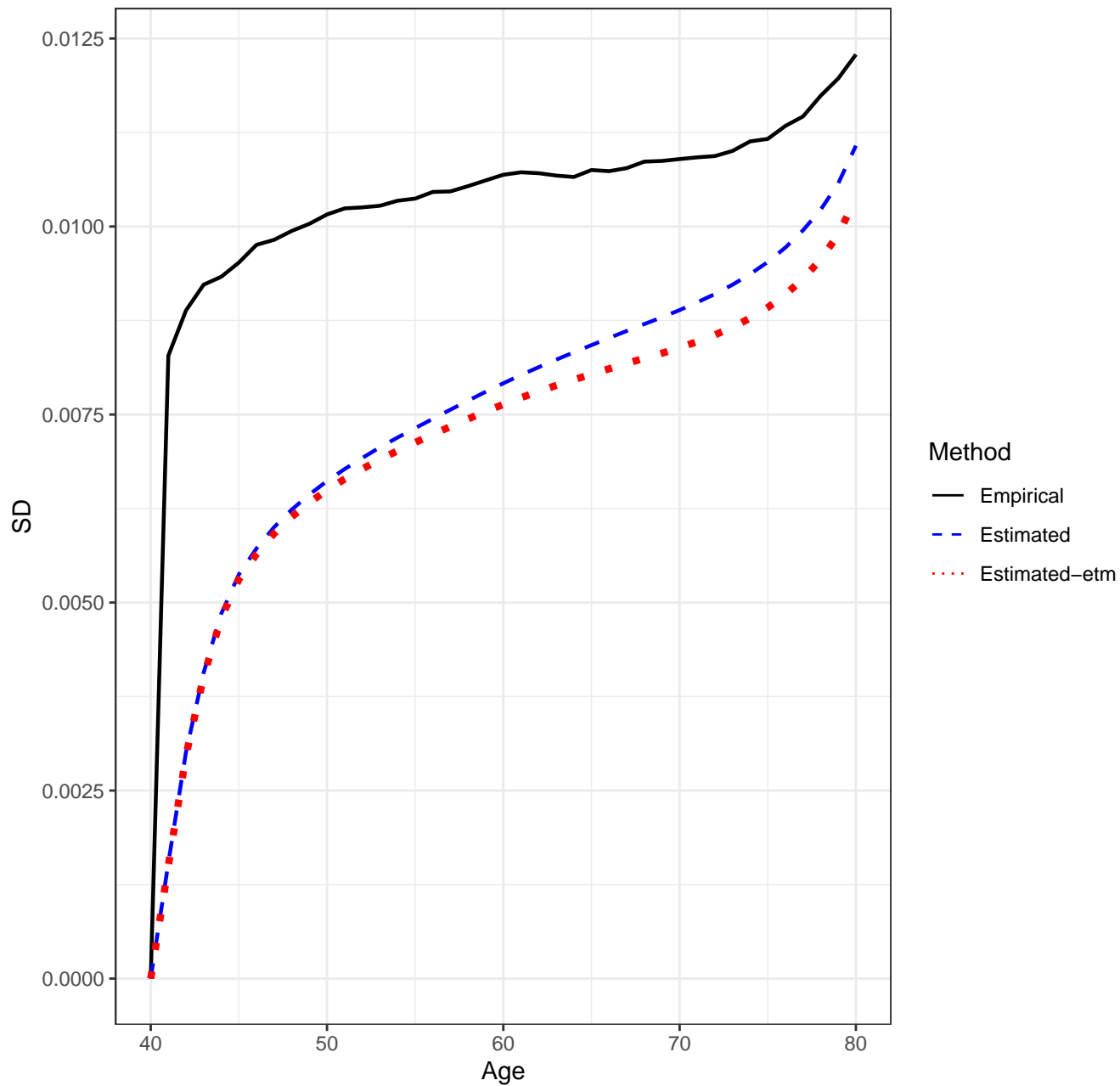
Scenario 2121, n=5000, SD'S



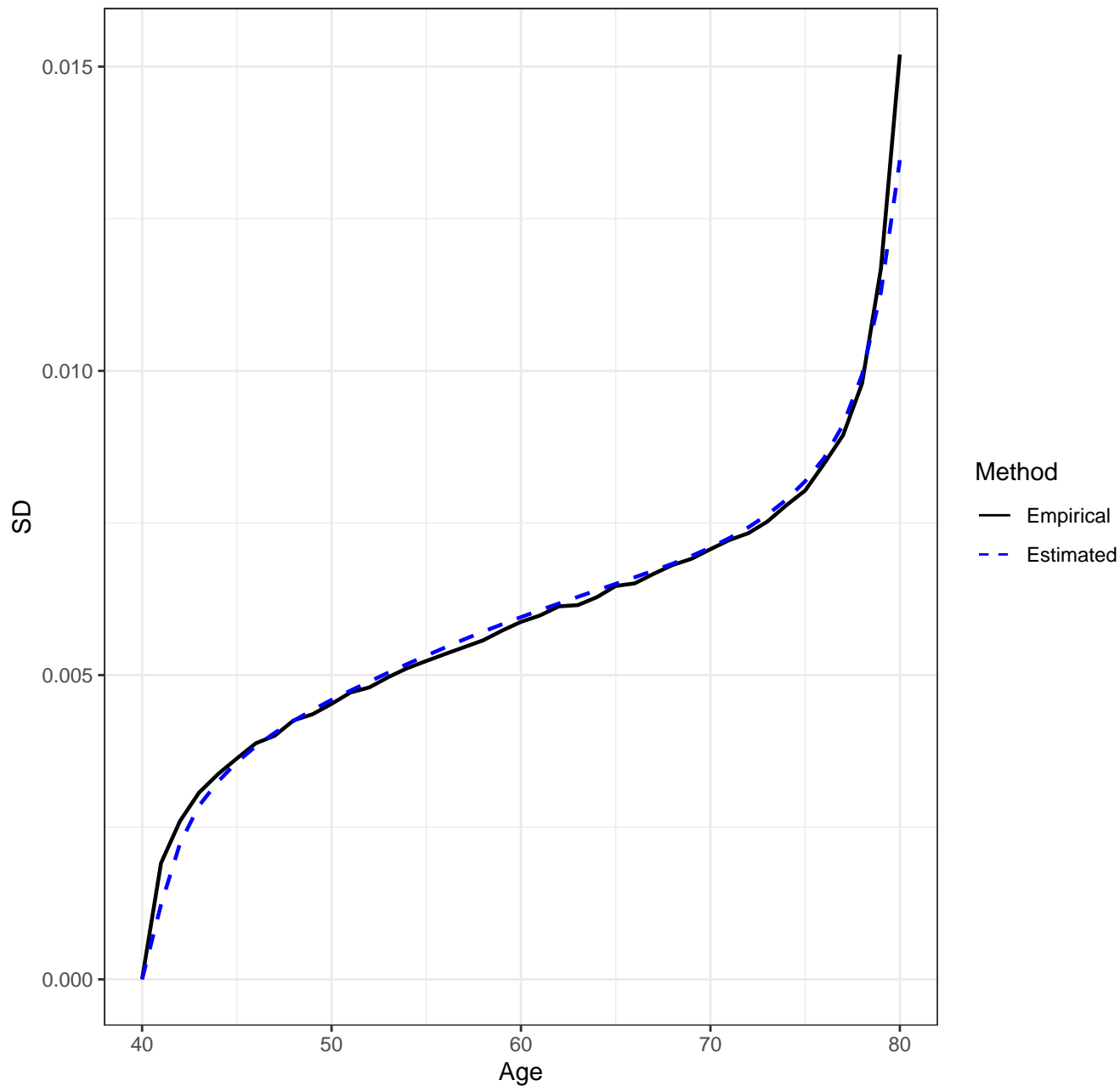
Scenario 2121, n=5000, IQR'S



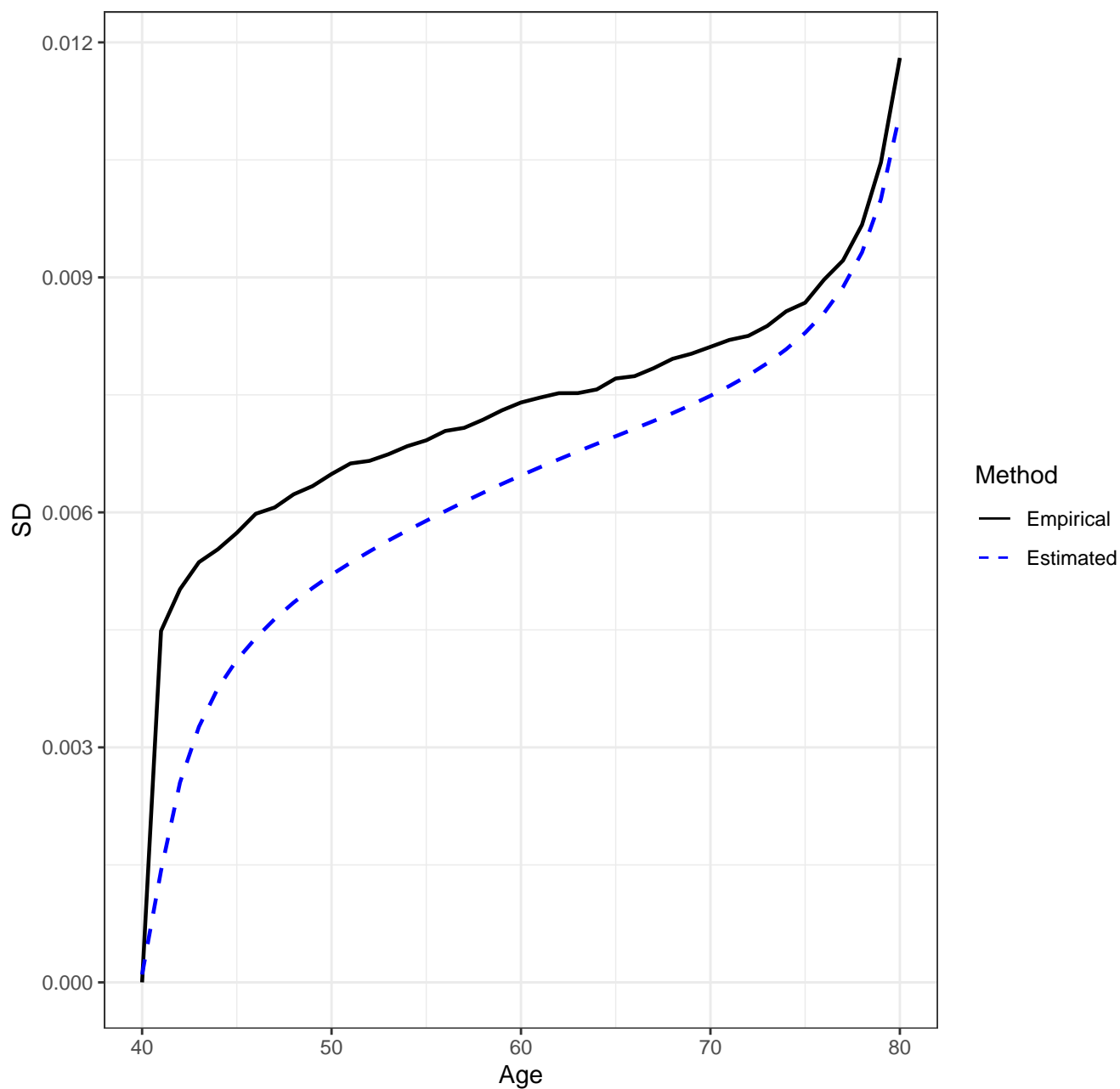
Scenario 2121, n=5000, AJ Estimator, Empirical vs. Estimated SD's



Scenario 2121, n=5000, New Estimator, Empirical vs. Estimated SD's

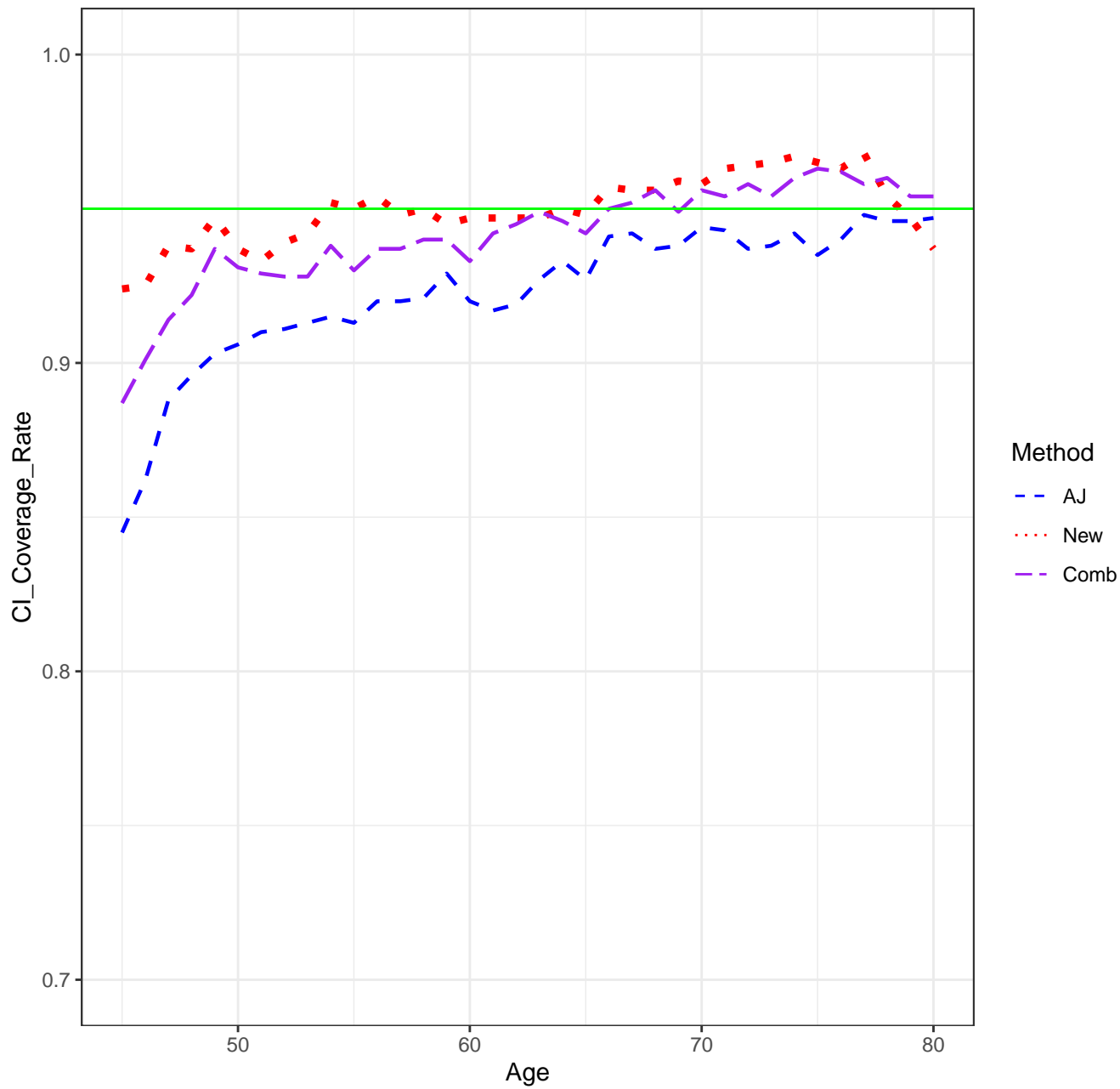


Scenario 2121, n=5000, Combined Estimator, Empirical vs. Estimated SD's

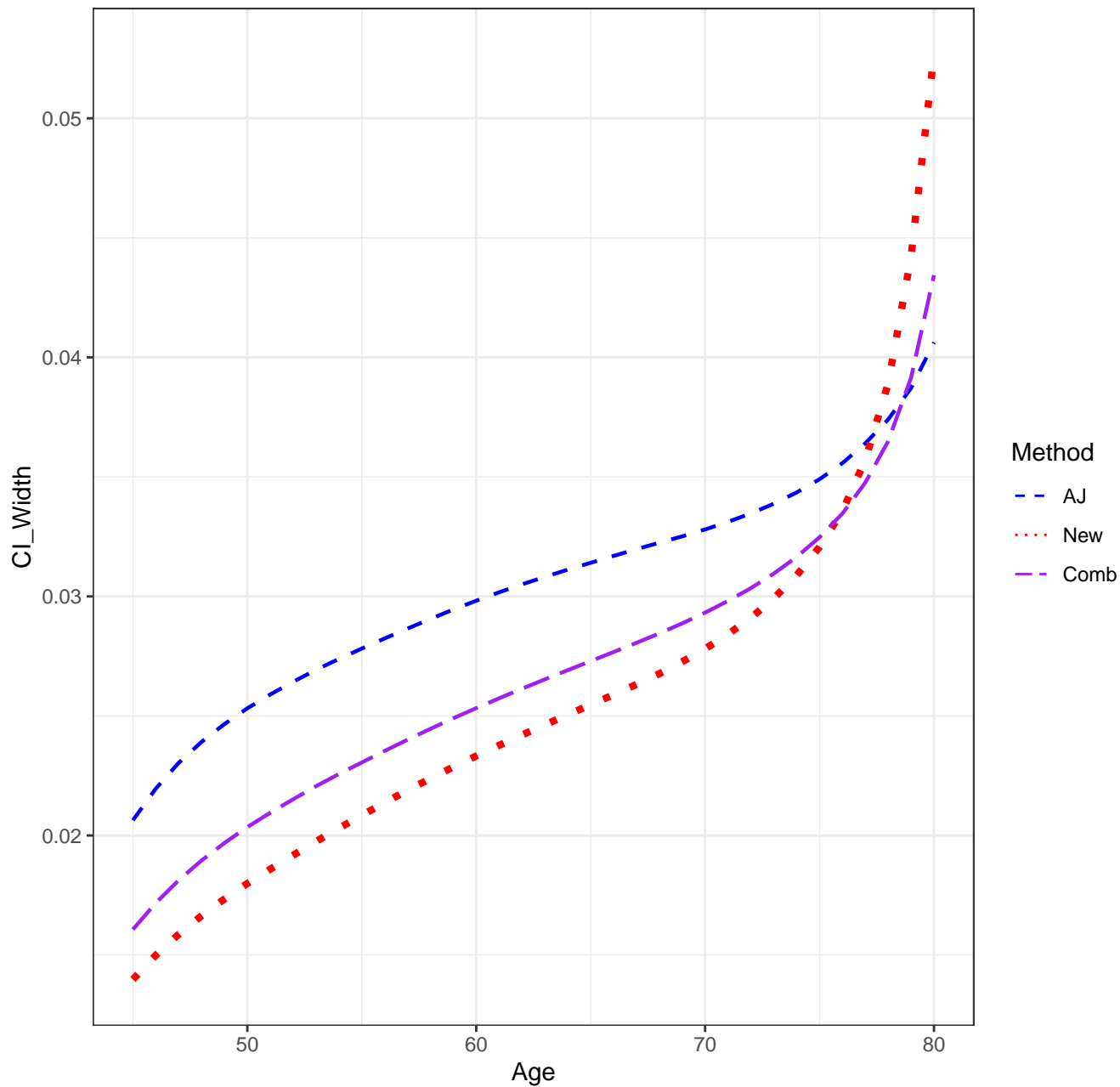




Scenario 2121, n=5000, CICR'S



Scenario 2121, n=5000, CI Width



## CONFIDENCE BAND COVERAGE RATES

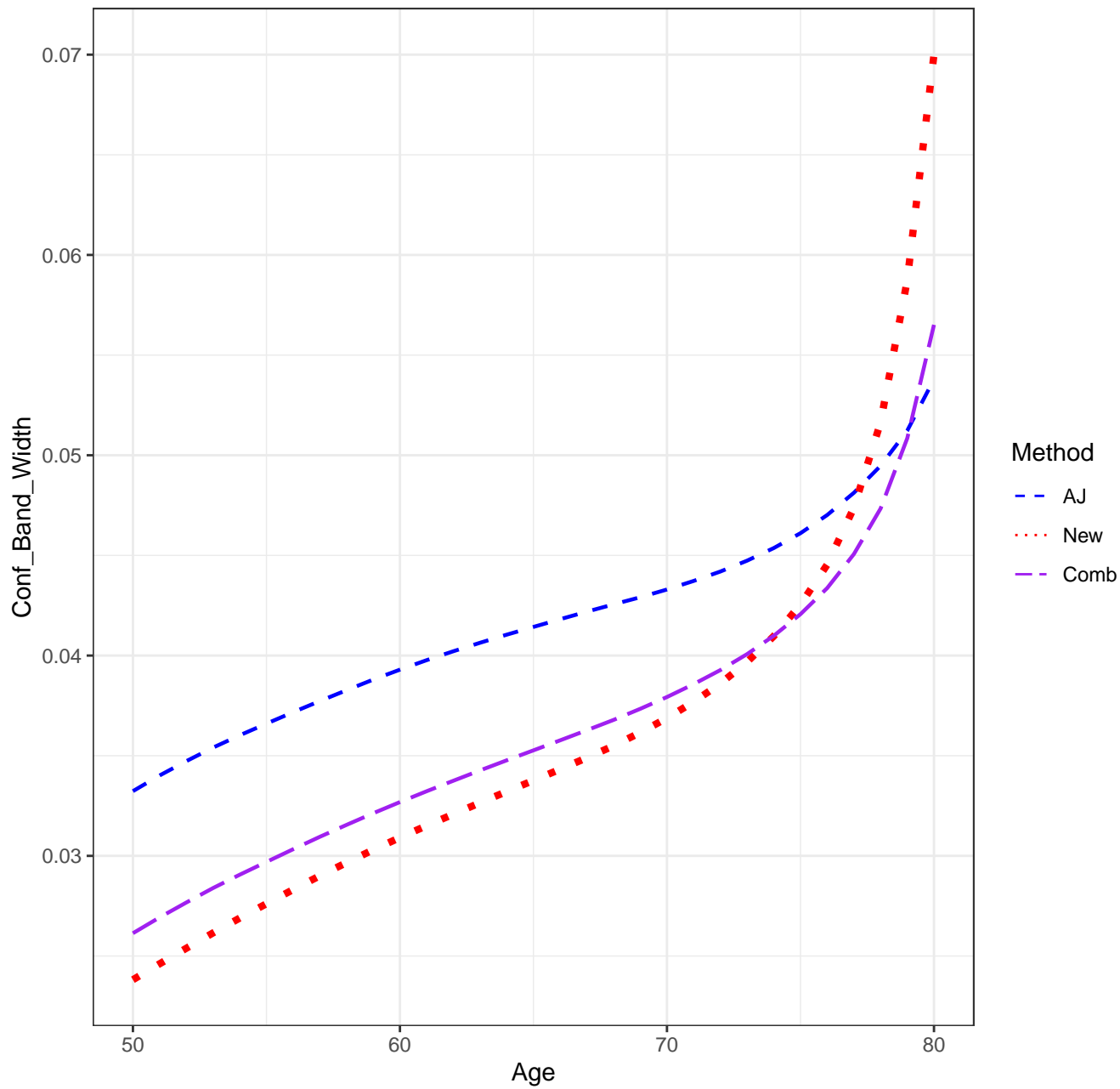
Scenario: 2121

AJ: 0.918

new: 0.939

Combo: 0.935

Scenario 2121, n=5000, Confidence Band Width



## SETTINGS

Scenario: 2122

sample size = 5000

number of simulation replications = 1000

number of bootstrap replications = 250

transformation:  $0.5 \cdot \pi - \arcsin(\sqrt{1-u})$

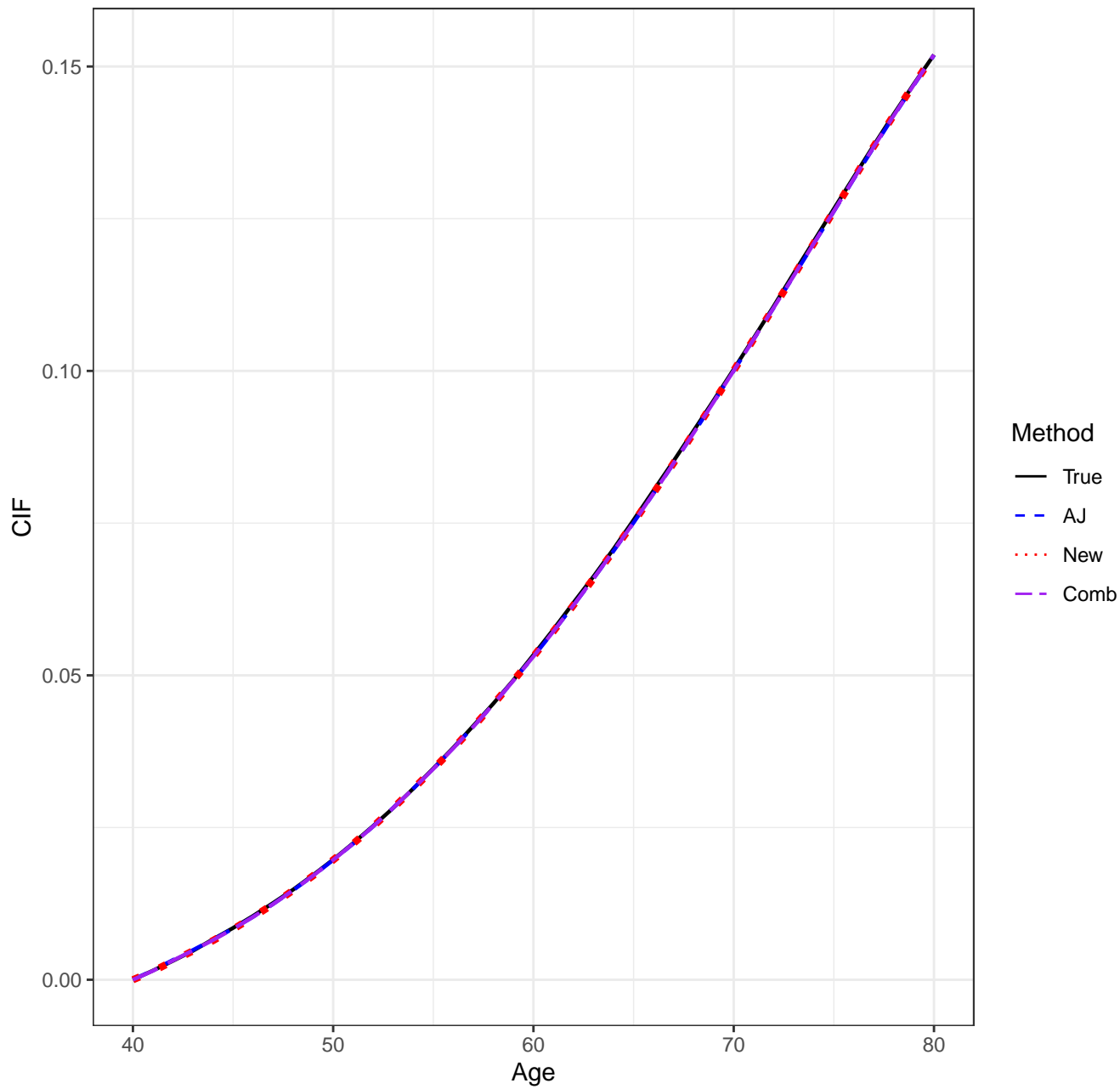
pointwise CI's done by: normal-theory

auxflg = FALSE

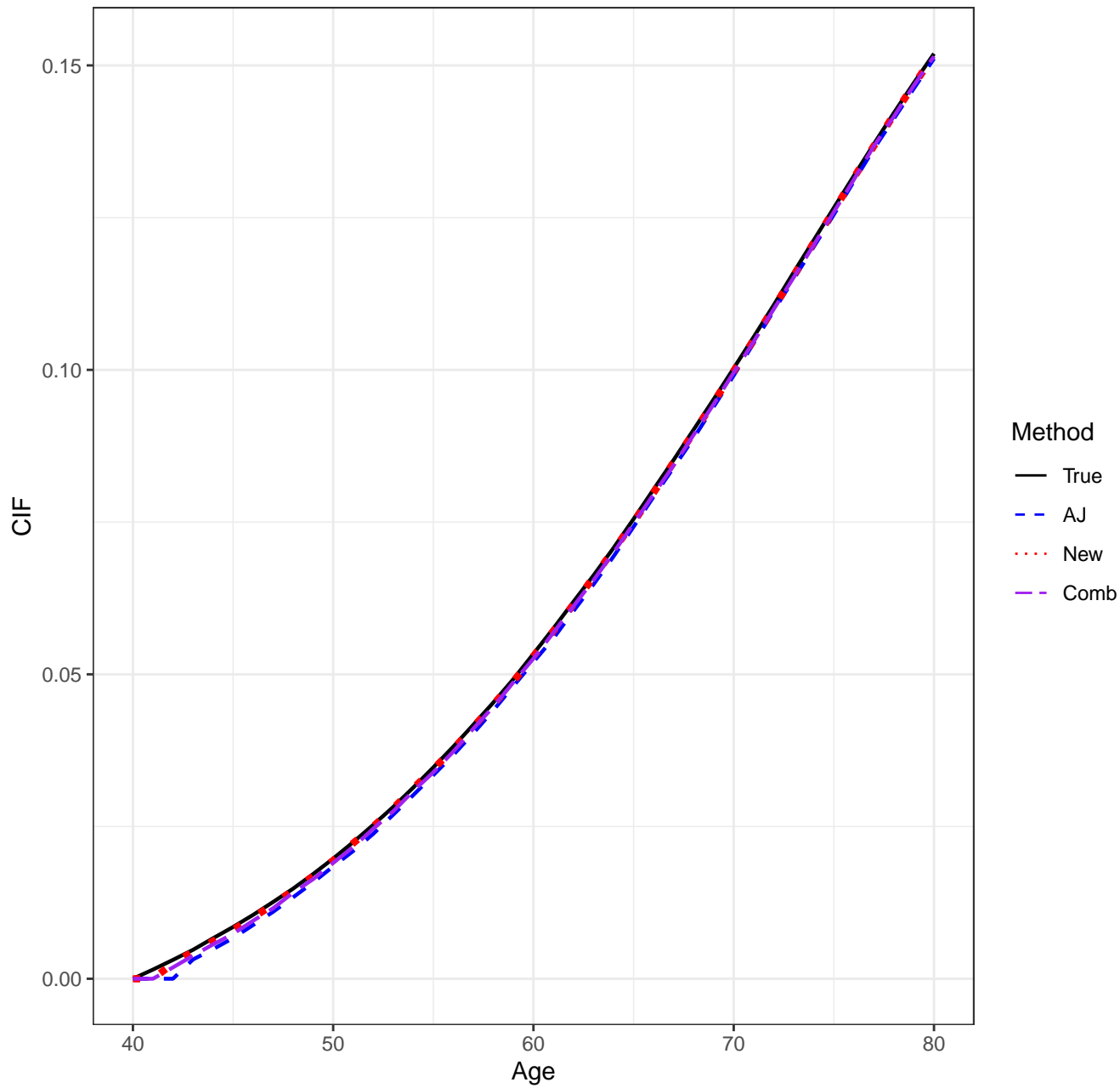
bootstrap weights: normal

Date/Time: 2024-01-16 18:55:05.168198

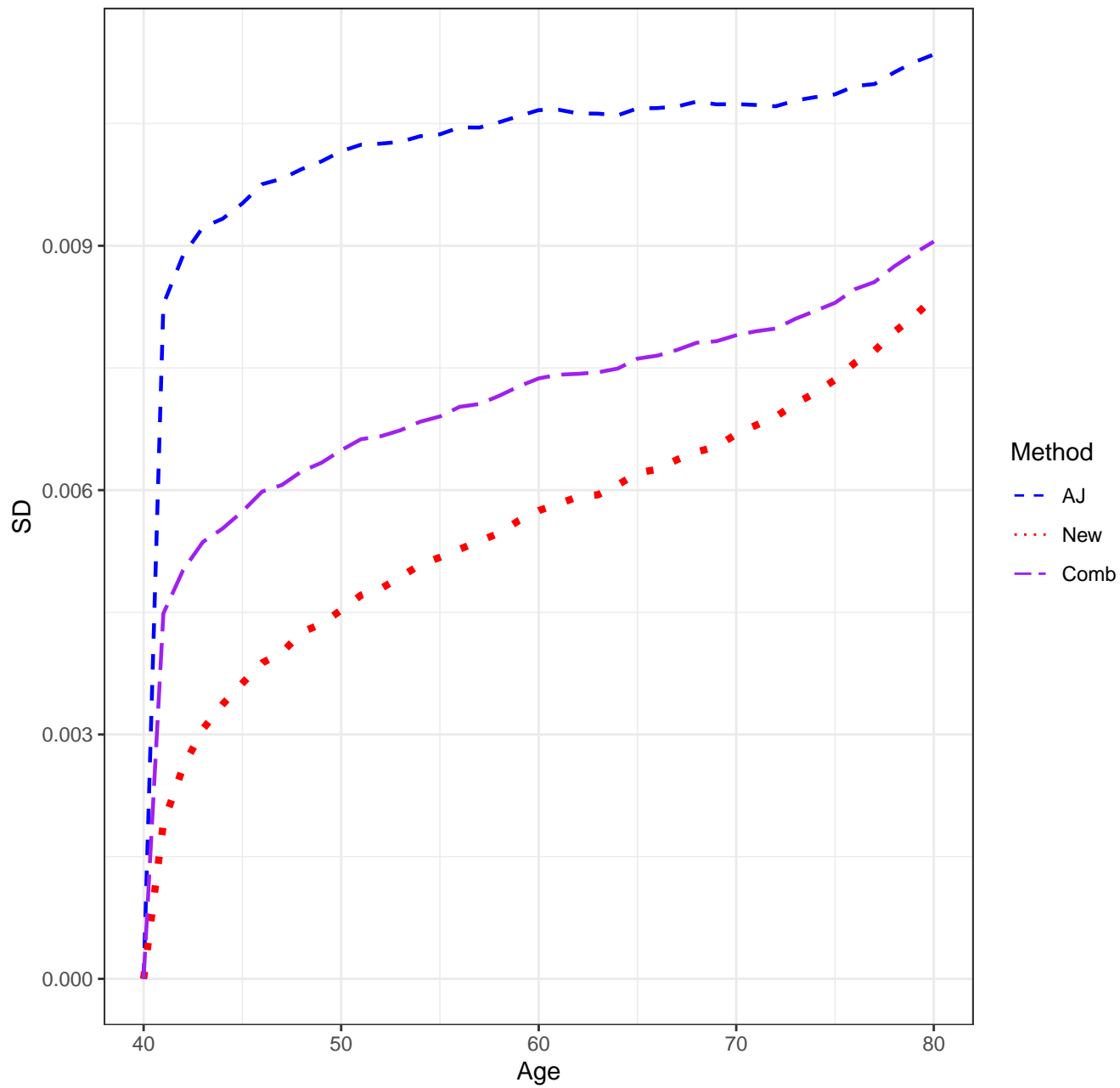
Scenario 2122, n=5000, Means



Scenario 2122, n=5000, Medians

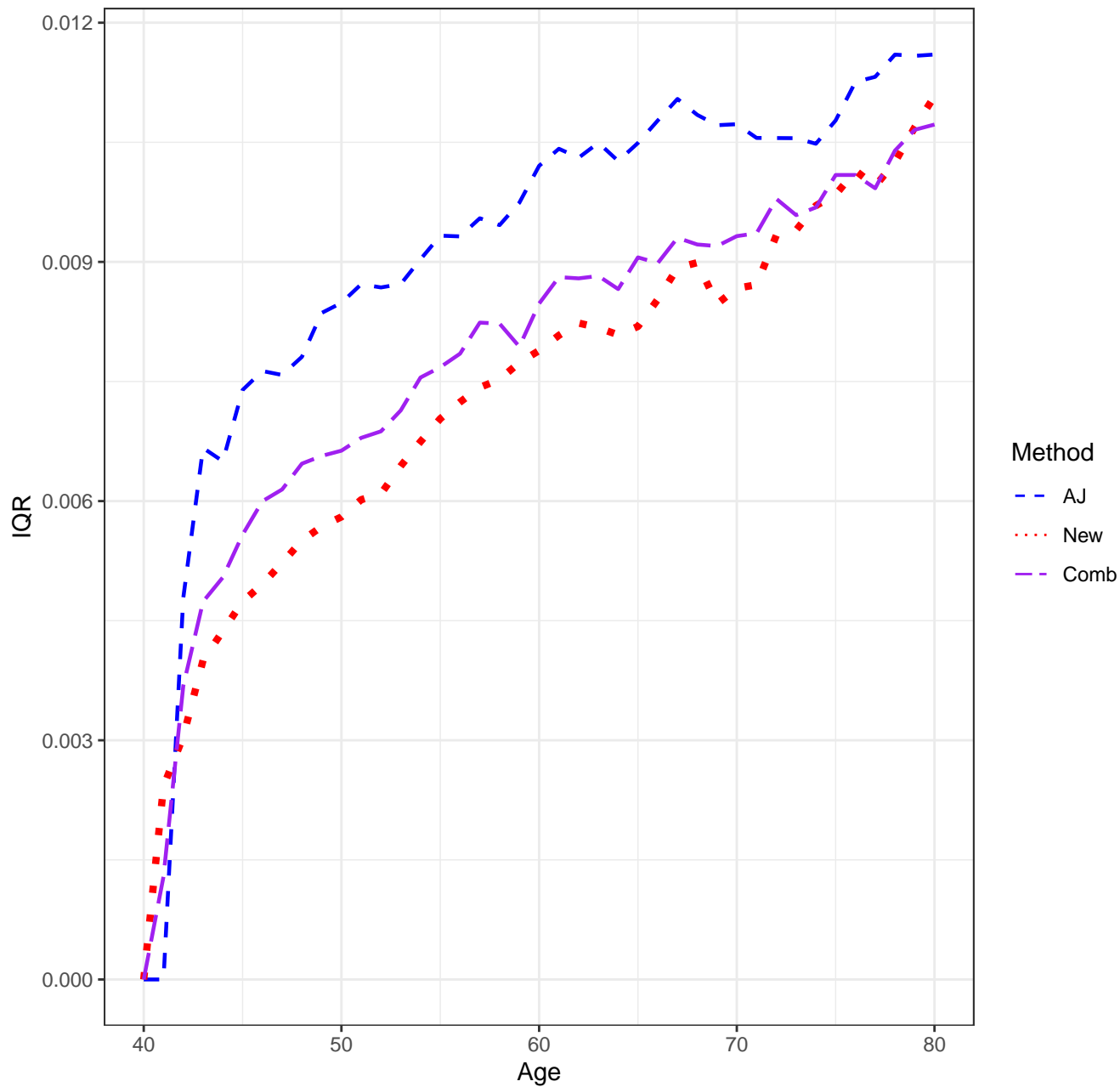


Scenario 2122, n=5000, SD'S

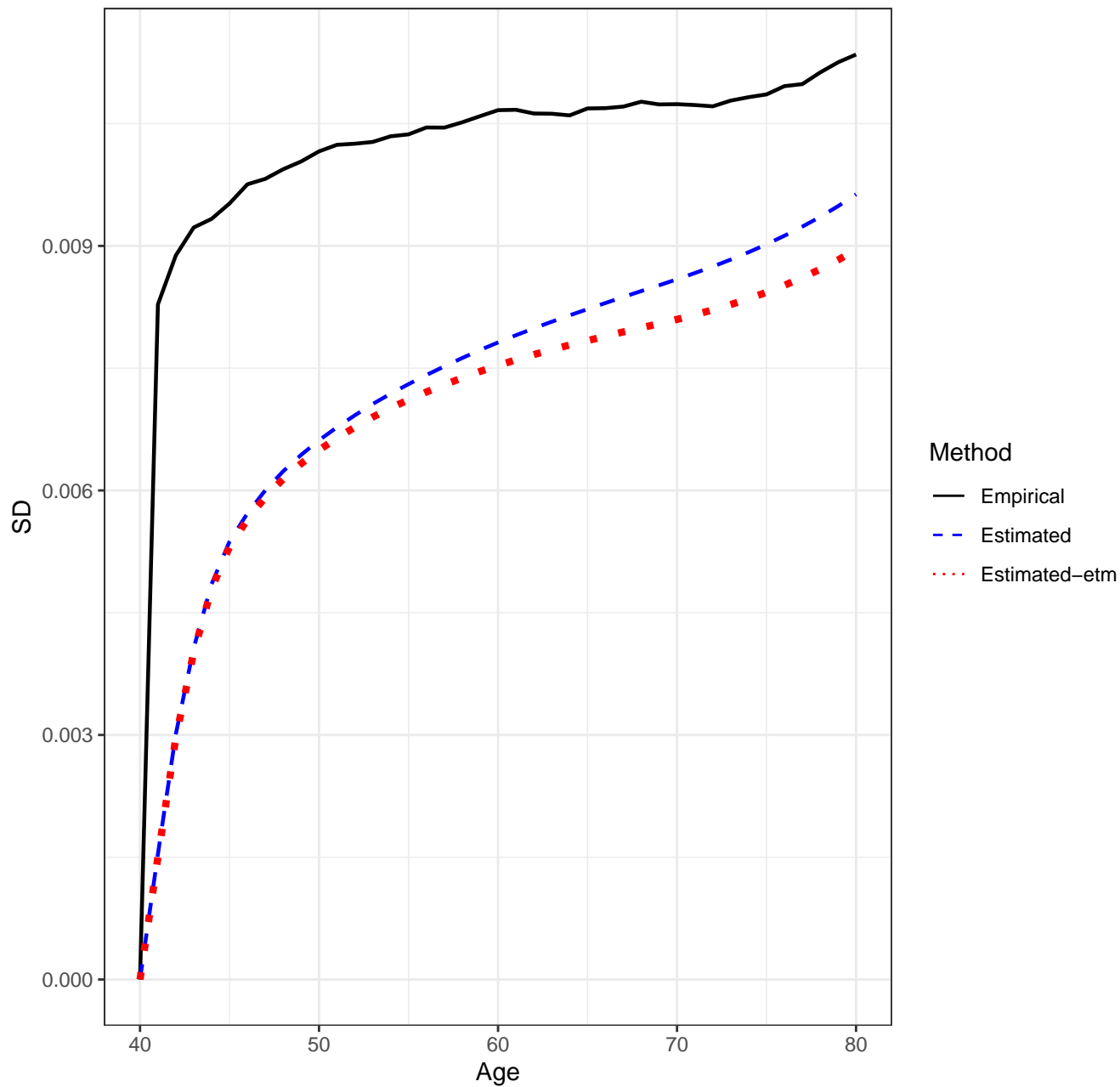




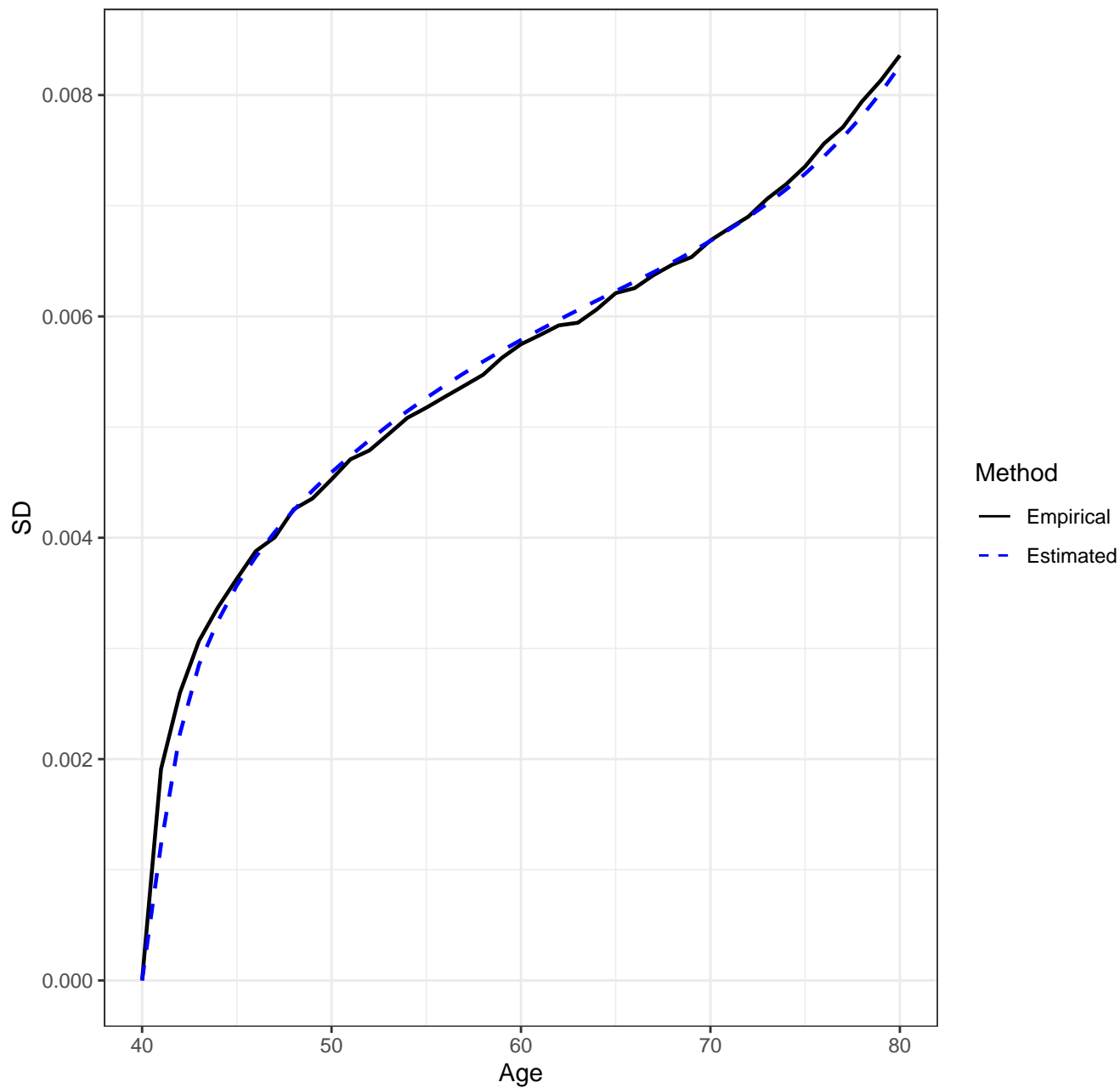
Scenario 2122, n=5000, IQR'S



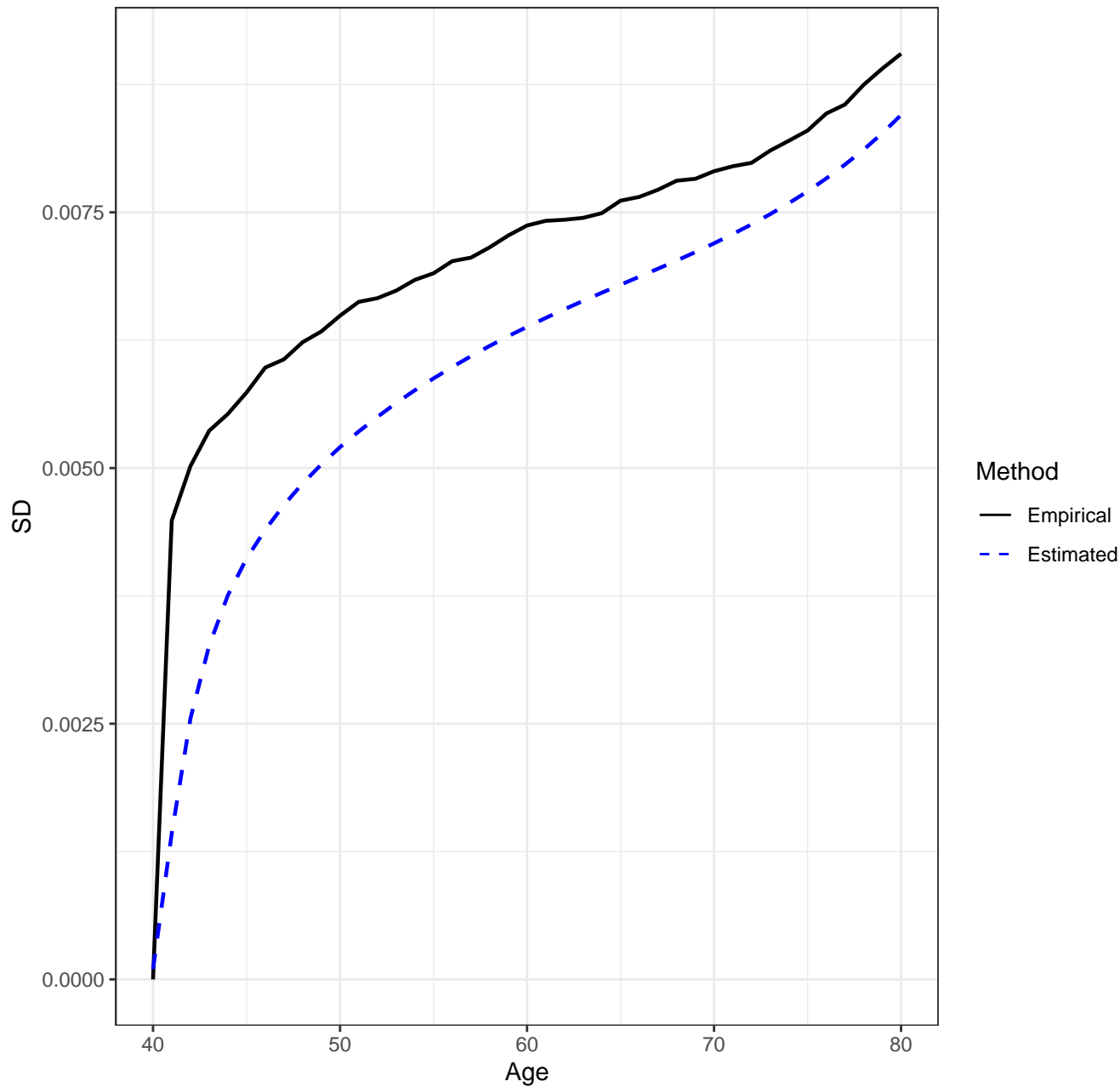
Scenario 2122, n=5000, AJ Estimator, Empirical vs. Estimated SD's



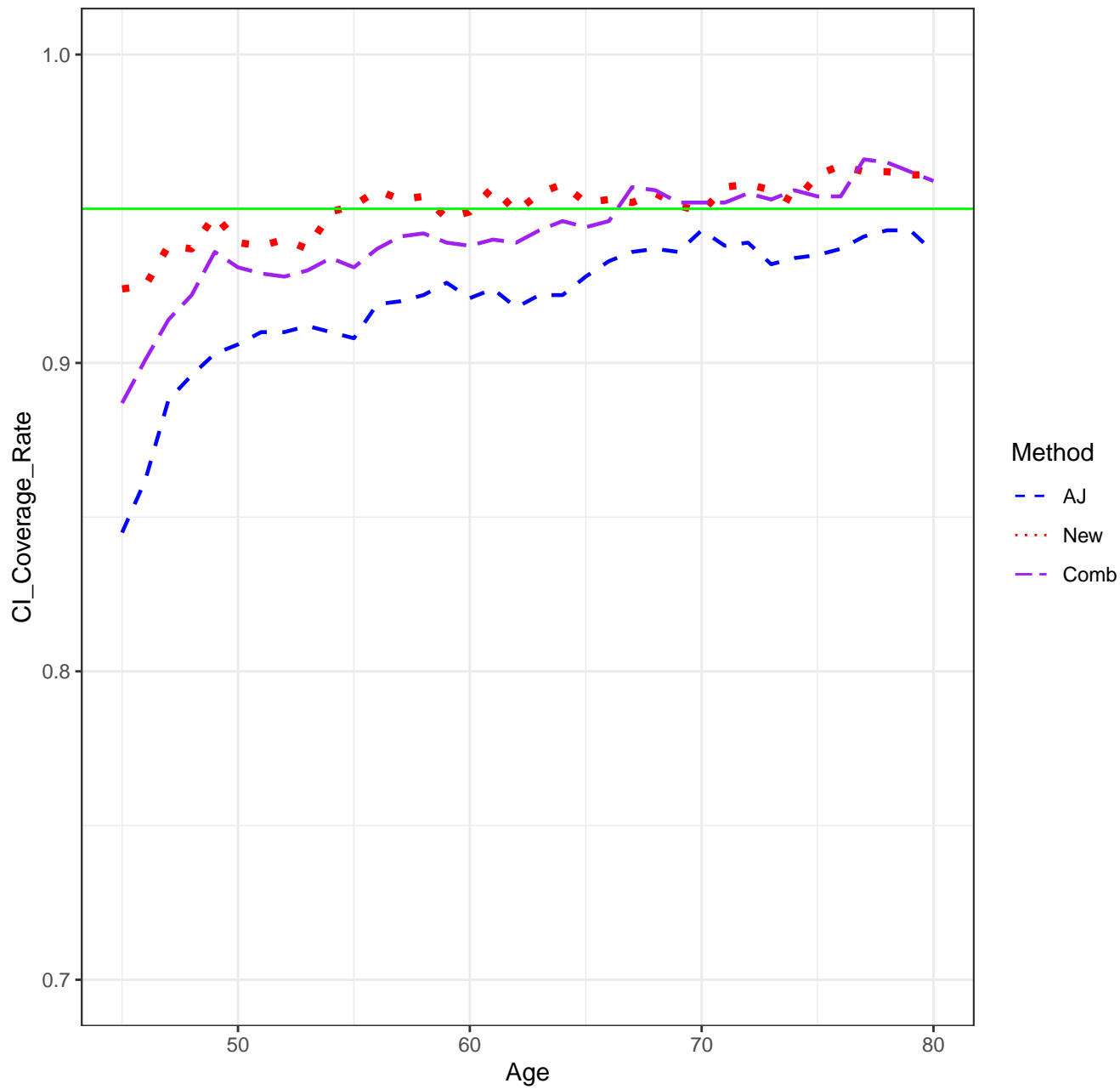
Scenario 2122, n=5000, New Estimator, Empirical vs. Estimated SD's



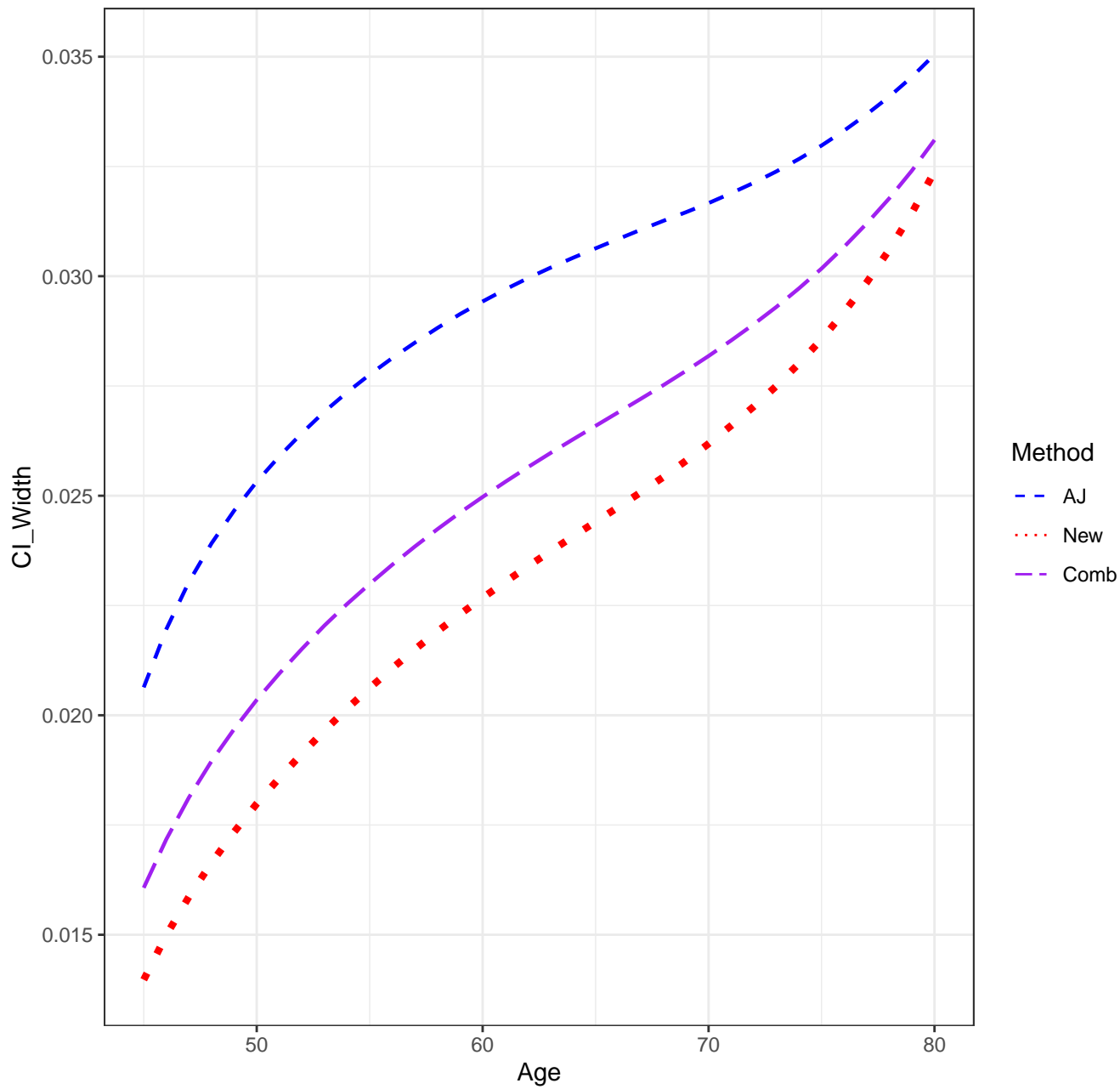
Scenario 2122, n=5000, Combined Estimator, Empirical vs. Estimated SD's



Scenario 2122, n=5000, CICR'S



Scenario 2122, n=5000, CI Width



## CONFIDENCE BAND COVERAGE RATES

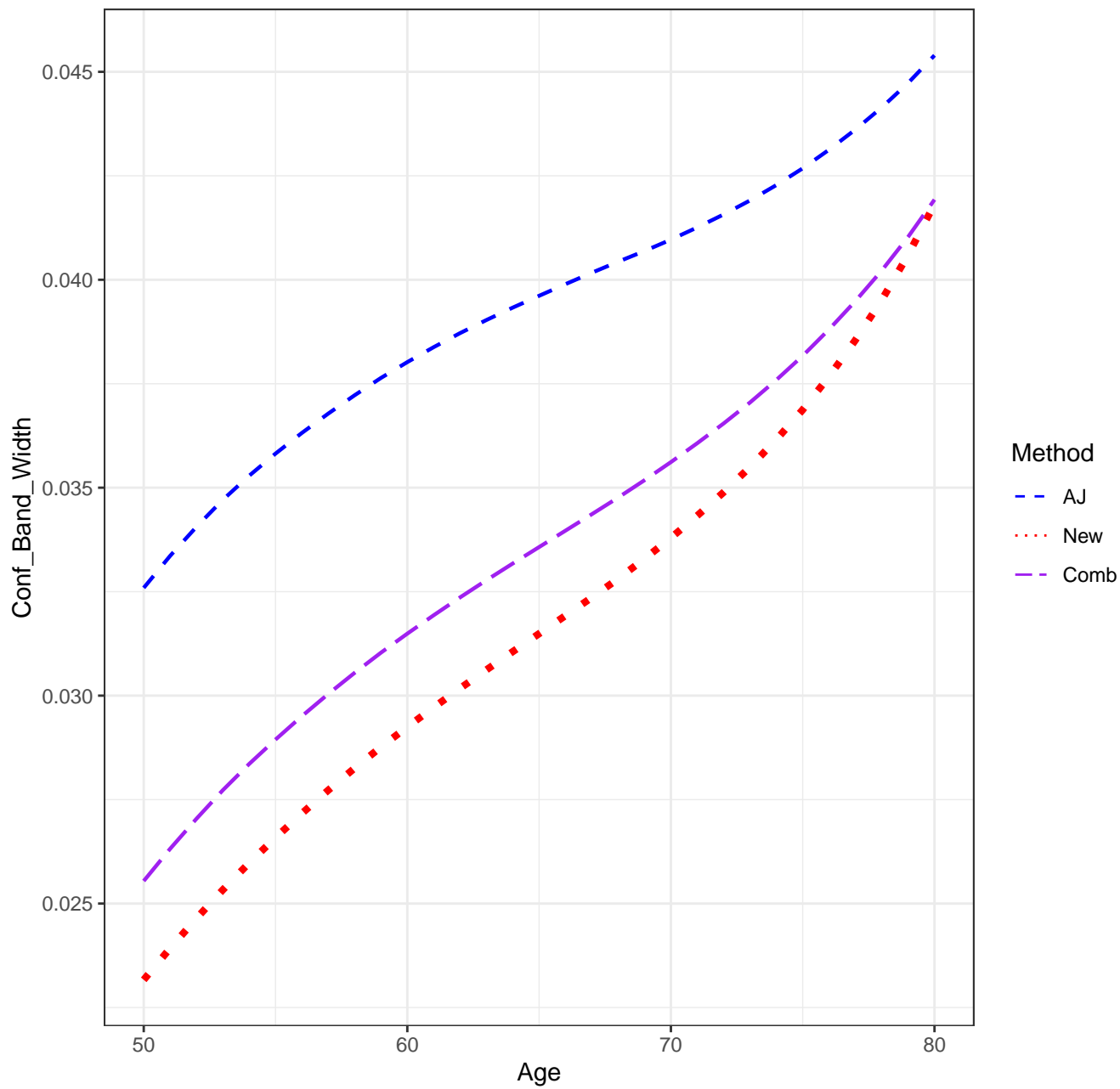
Scenario: 2122

AJ: 0.916

new: 0.946

Combo: 0.936

Scenario 2122, n=5000, Confidence Band Width





## SETTINGS

Scenario: 2211

sample size = 5000

number of simulation replications = 1000

number of bootstrap replications = 250

transformation:  $0.5 \cdot \pi - \arcsin(\sqrt{1-u})$

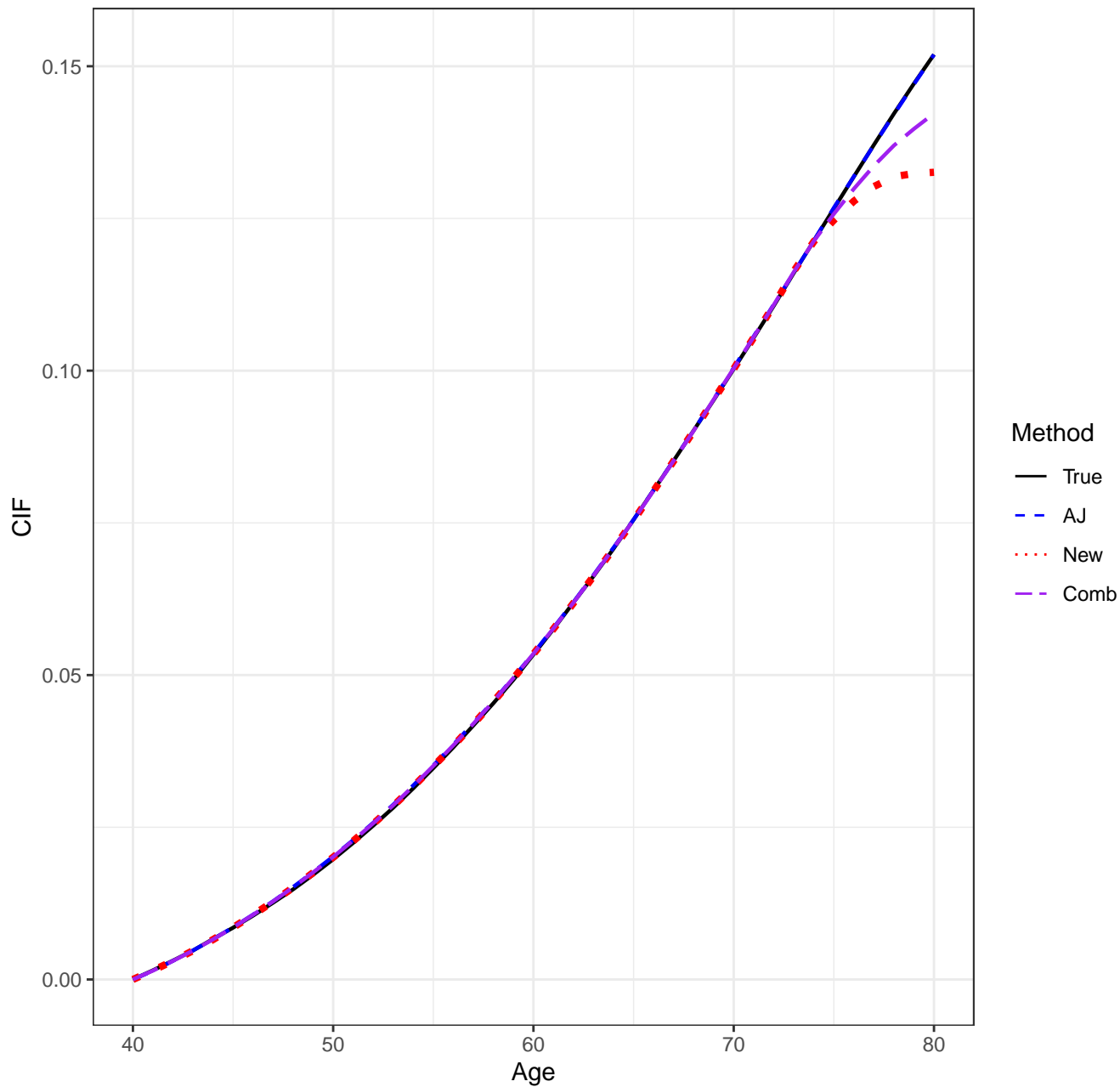
pointwise CI's done by: normal-theory

auxflg = FALSE

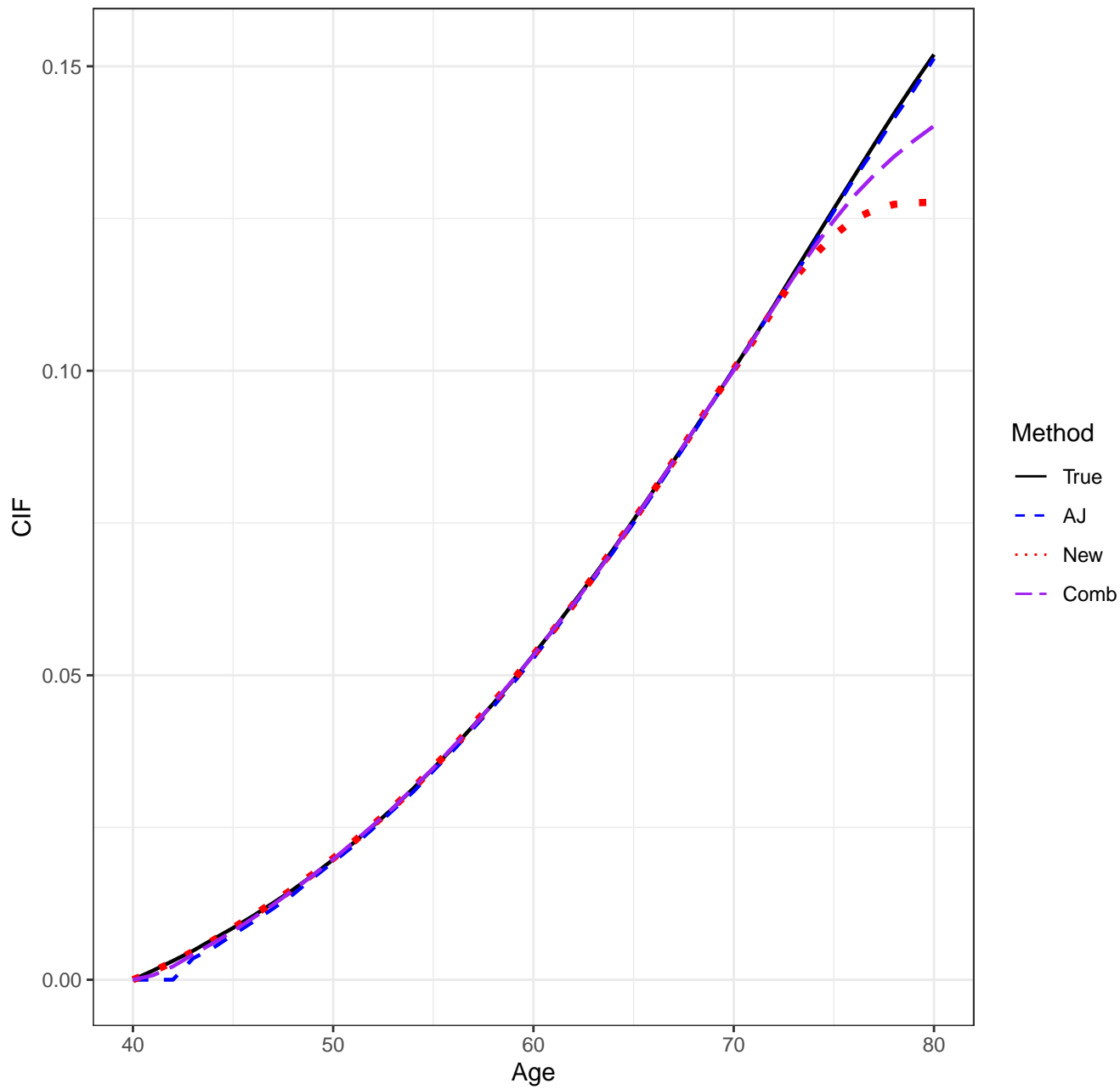
bootstrap weights: normal

Date/Time: 2024-01-16 20:12:20.803203

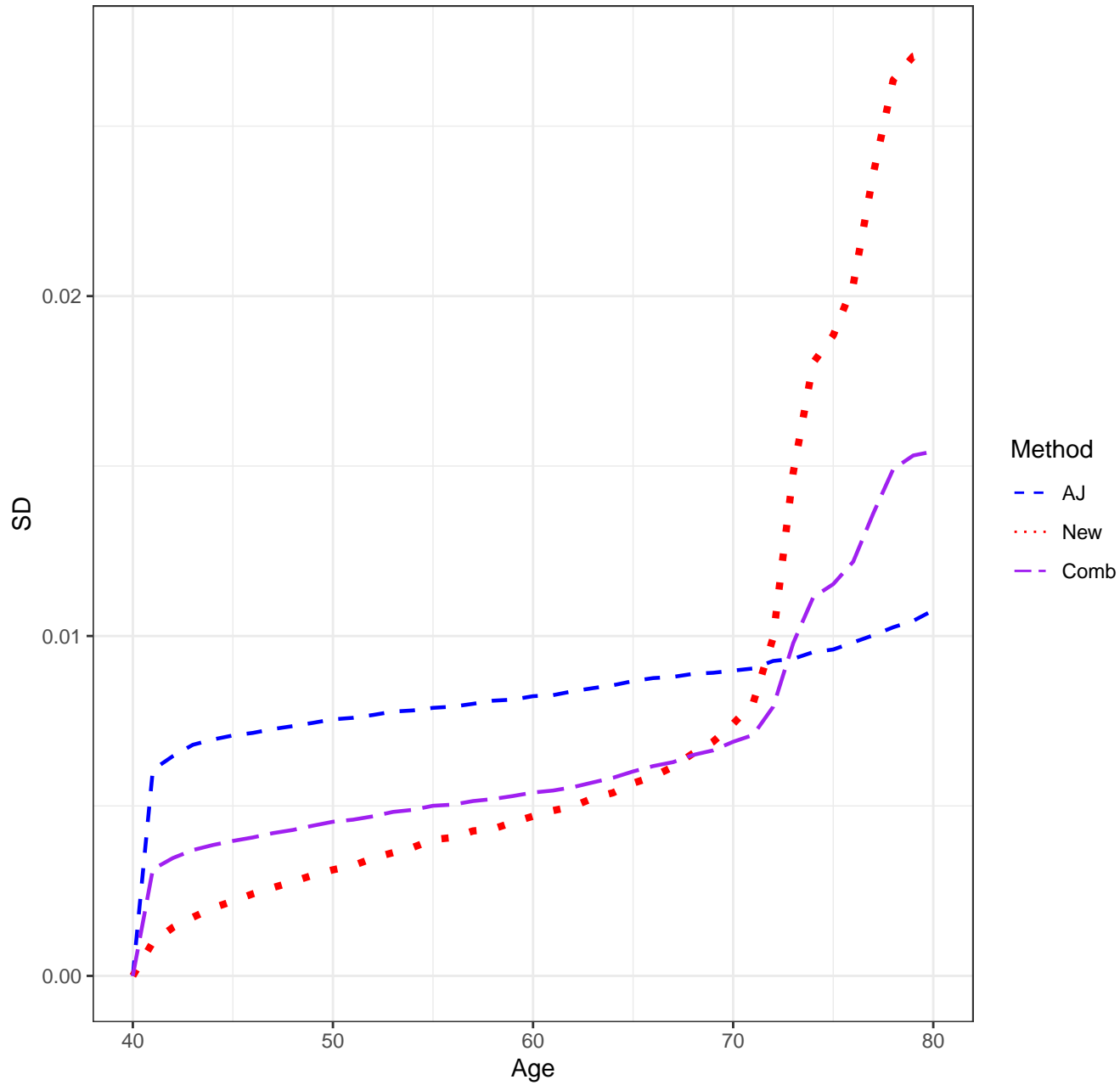
Scenario 2211, n=5000, Means



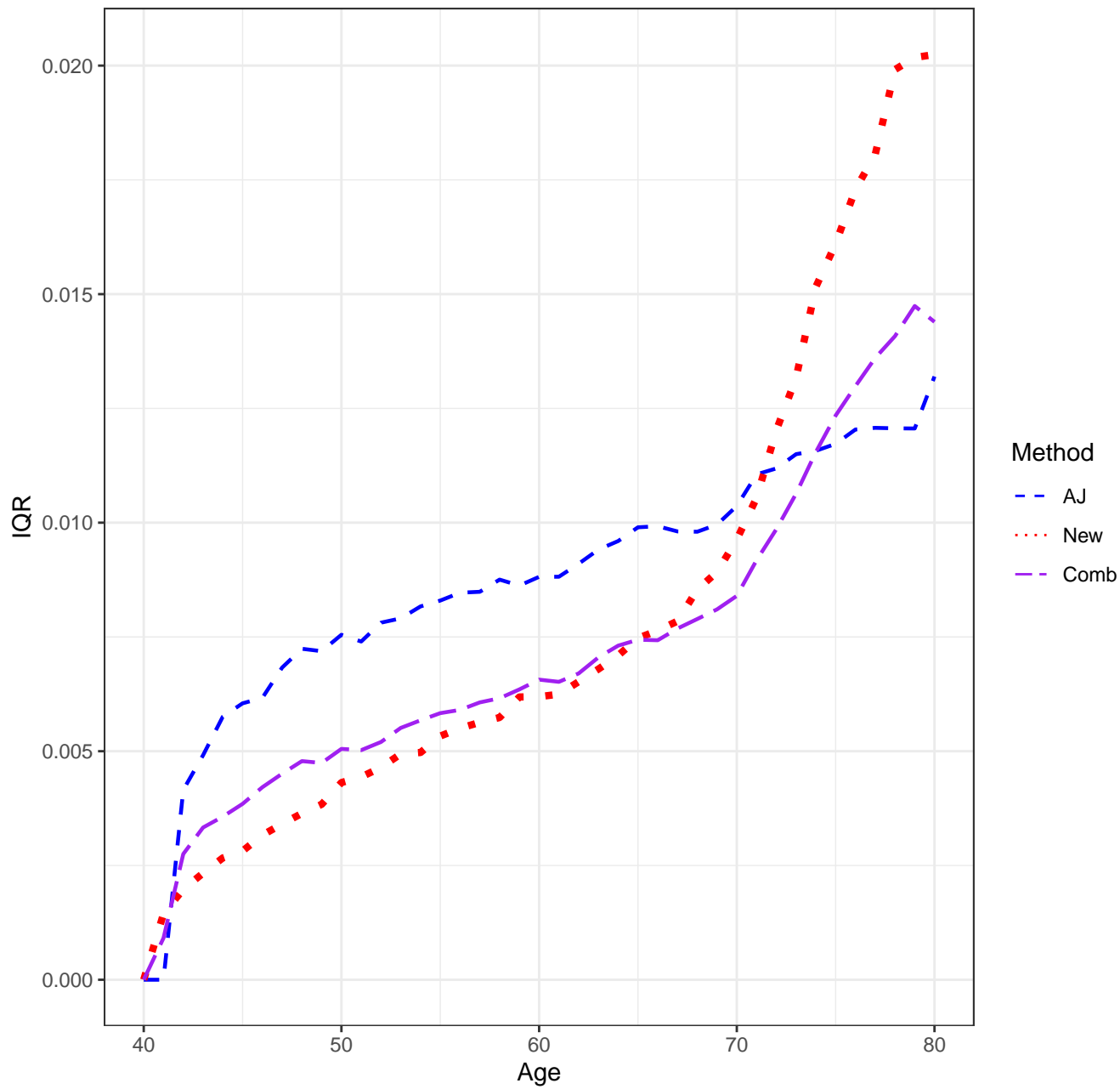
Scenario 2211, n=5000, Medians



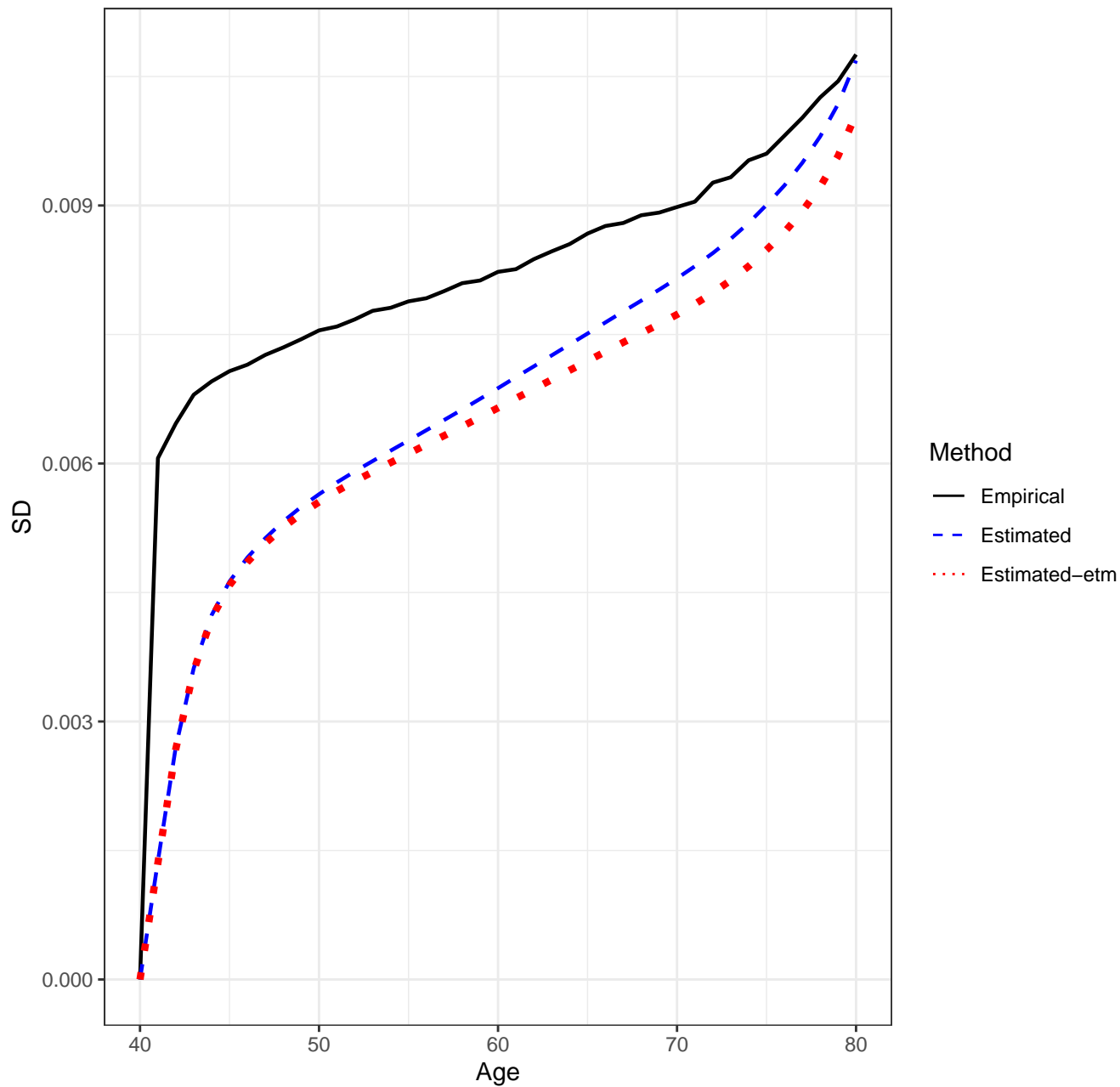
Scenario 2211, n=5000, SD'S



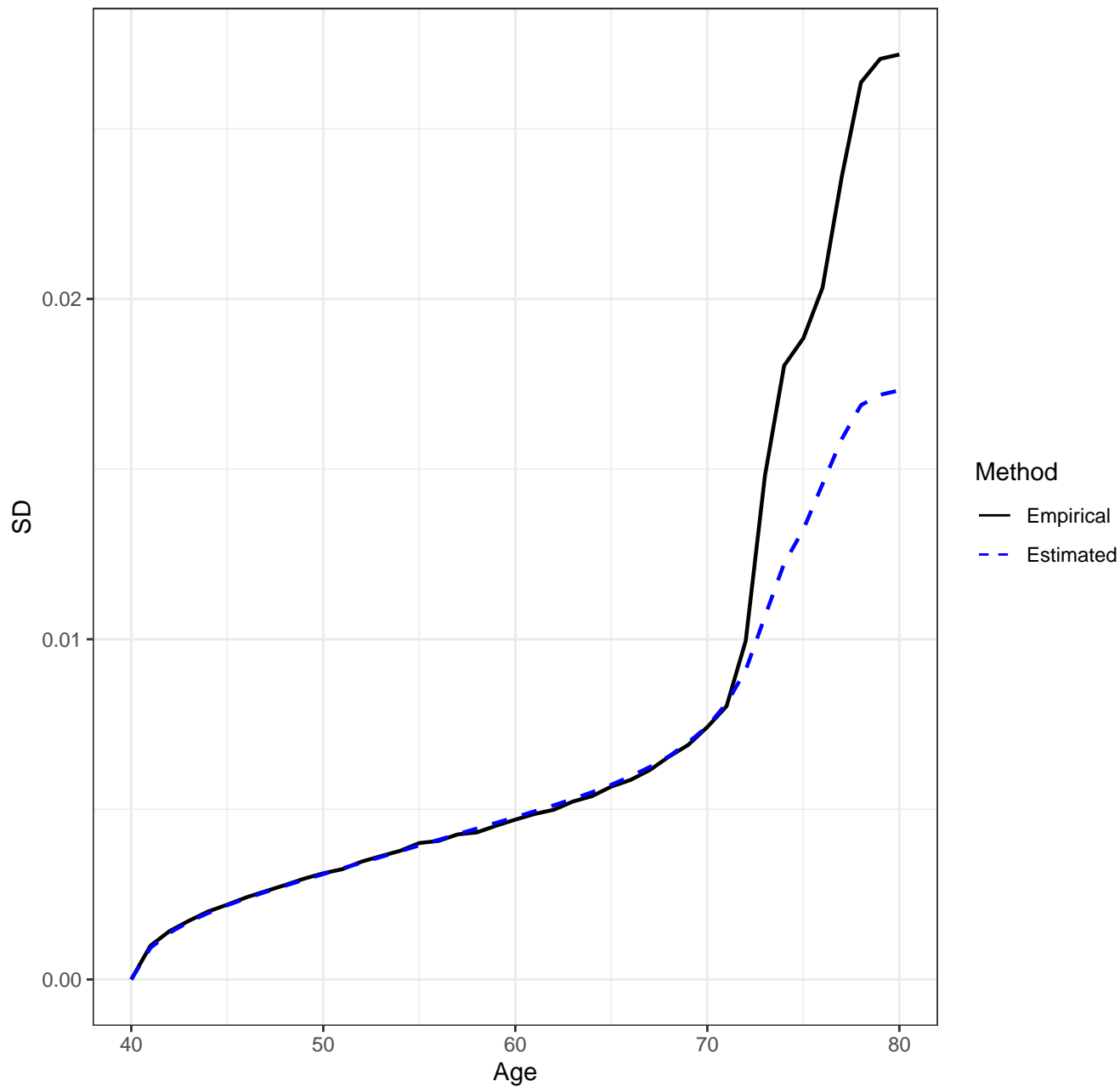
Scenario 2211, n=5000, IQR'S



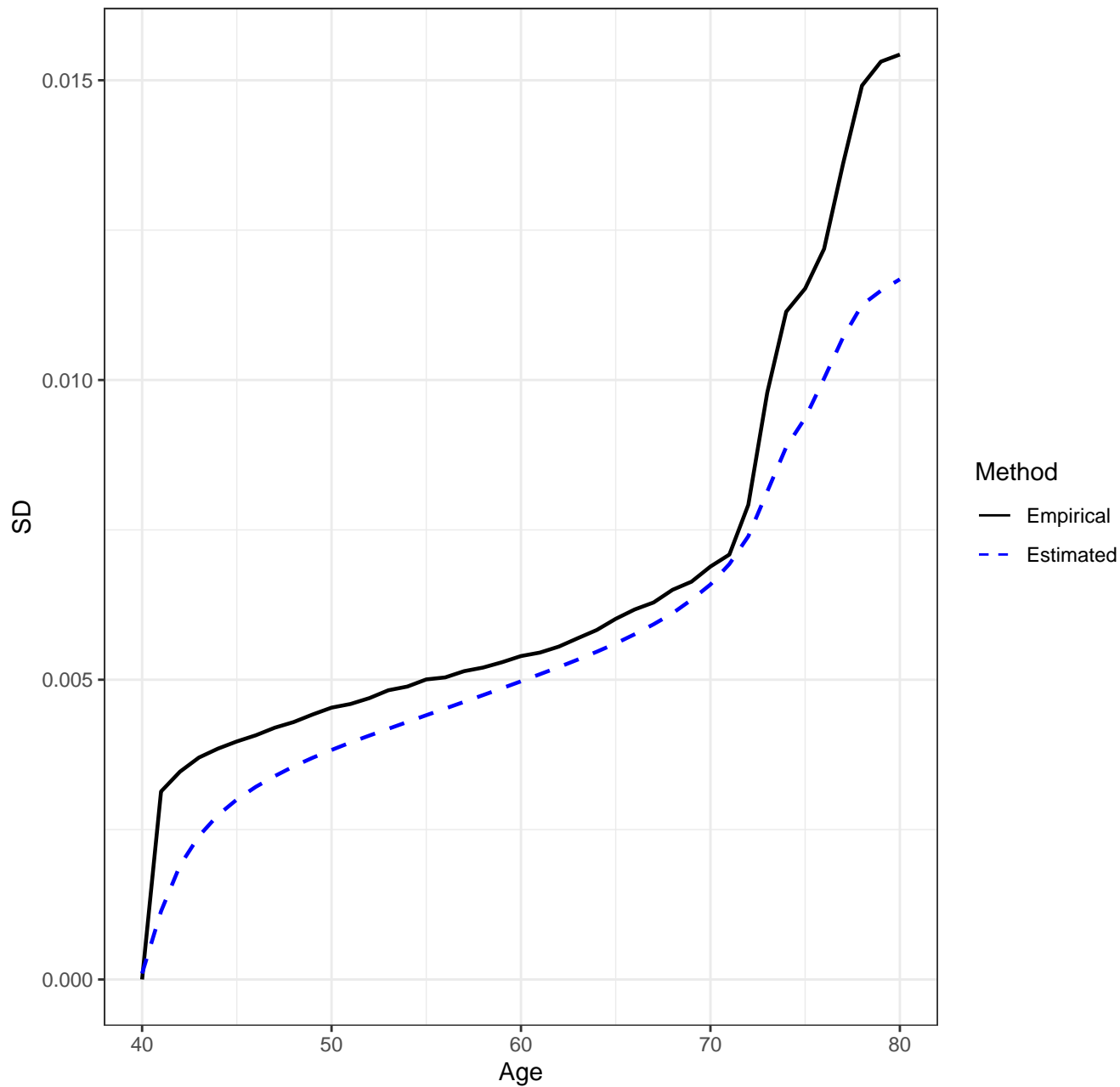
Scenario 2211, n=5000, AJ Estimator, Empirical vs. Estimated SD's



Scenario 2211, n=5000, New Estimator, Empirical vs. Estimated SD's

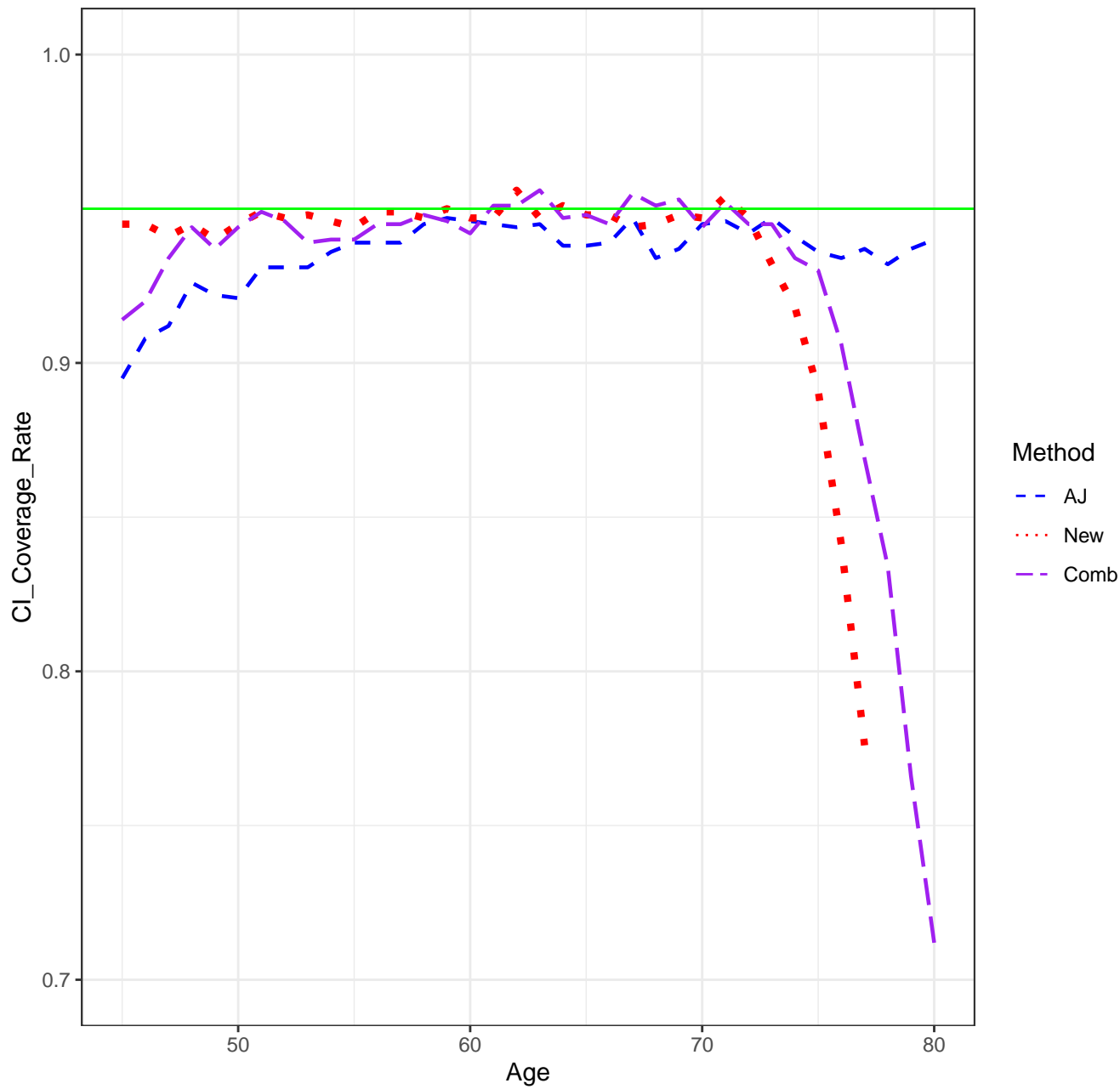


Scenario 2211, n=5000, Combined Estimator, Empirical vs. Estimated SD's

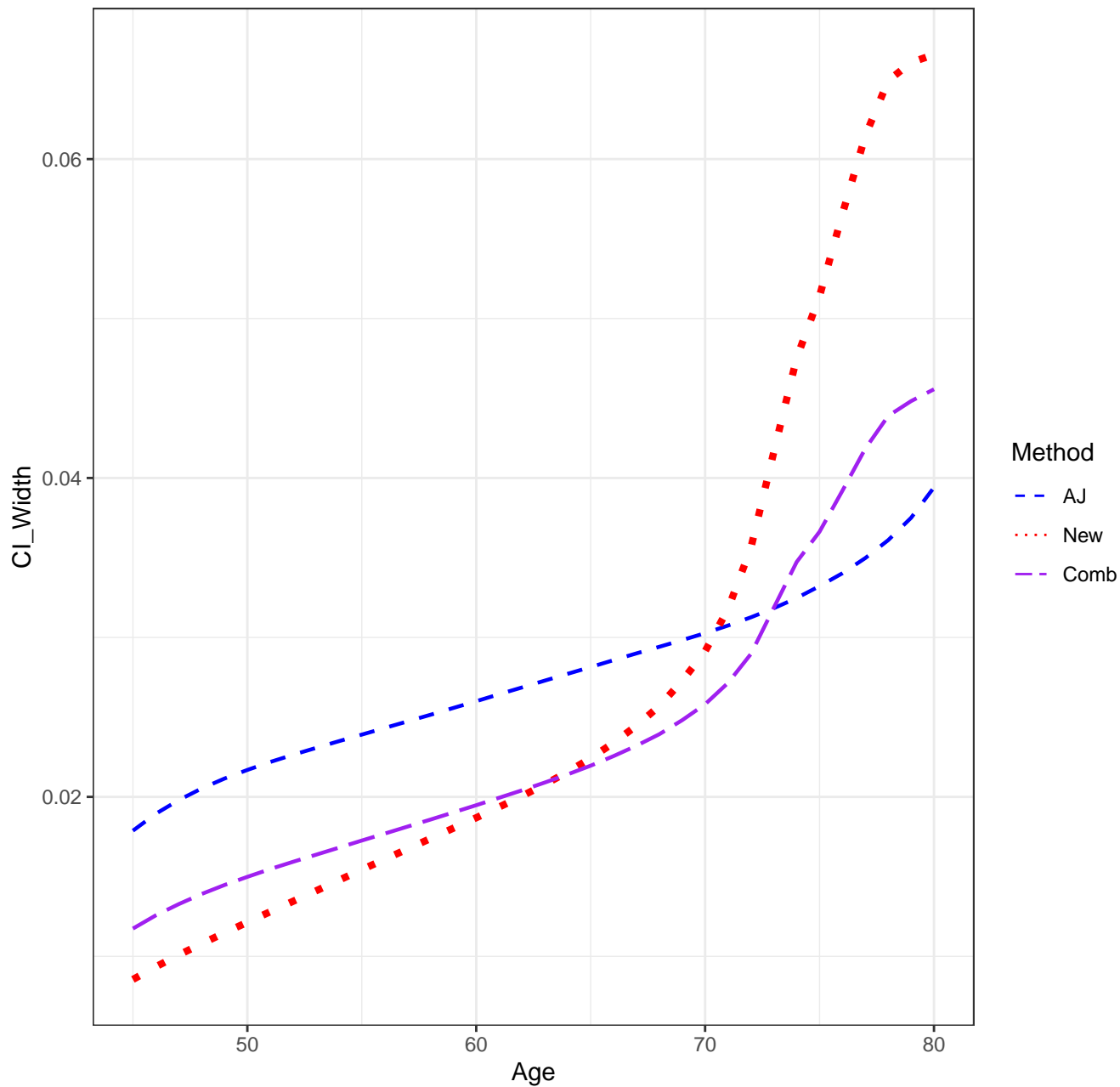




Scenario 2211, n=5000, CICR'S



Scenario 2211, n=5000, CI Width



## CONFIDENCE BAND COVERAGE RATES

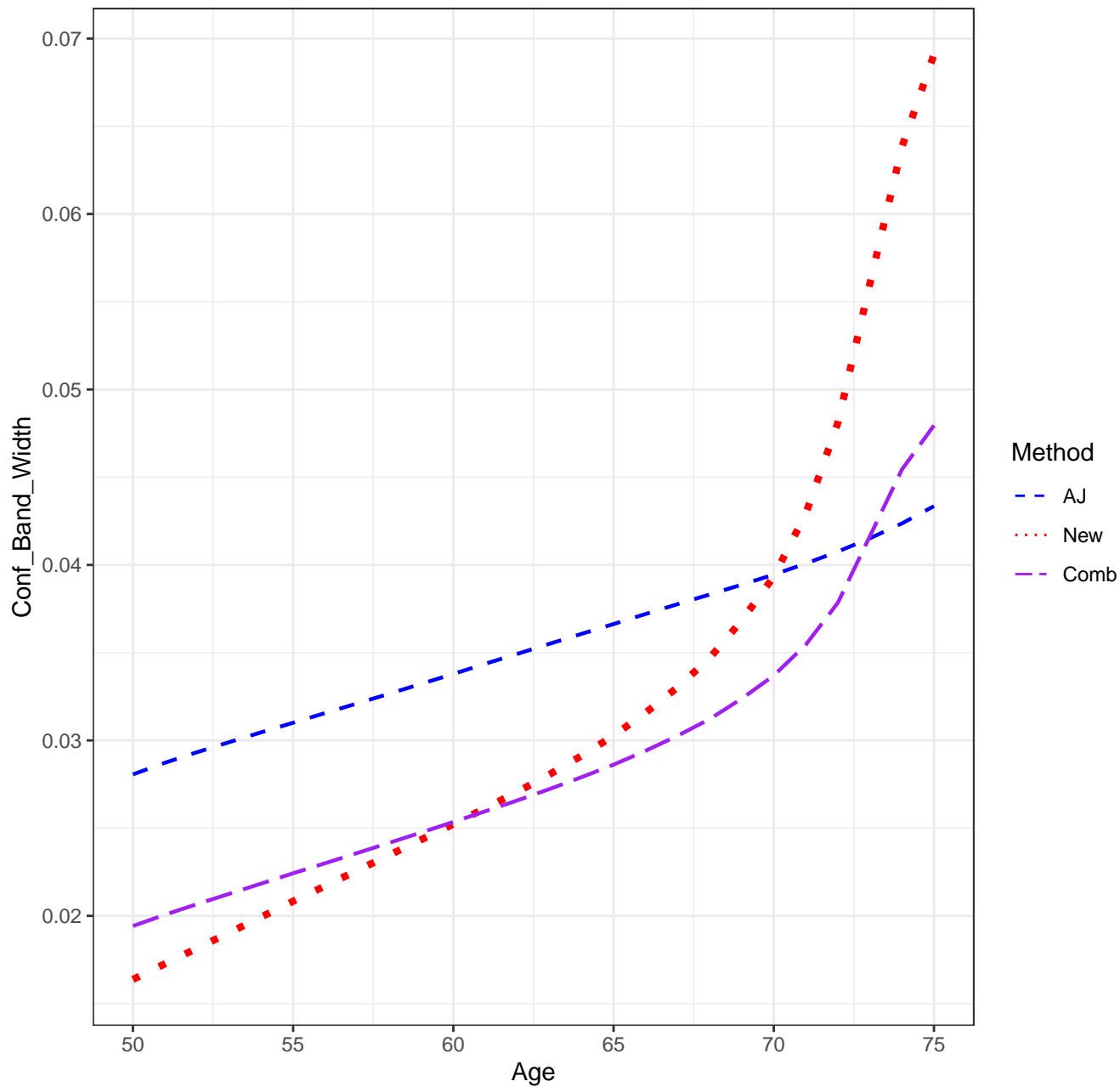
Scenario: 2211

AJ: 0.937

new: 0.899

Combo: 0.932

Scenario 2211, n=5000, Confidence Band Width



## SETTINGS

Scenario: 2212

sample size = 5000

number of simulation replications = 1000

number of bootstrap replications = 250

transformation:  $0.5 \cdot \pi - \arcsin(\sqrt{1-u})$

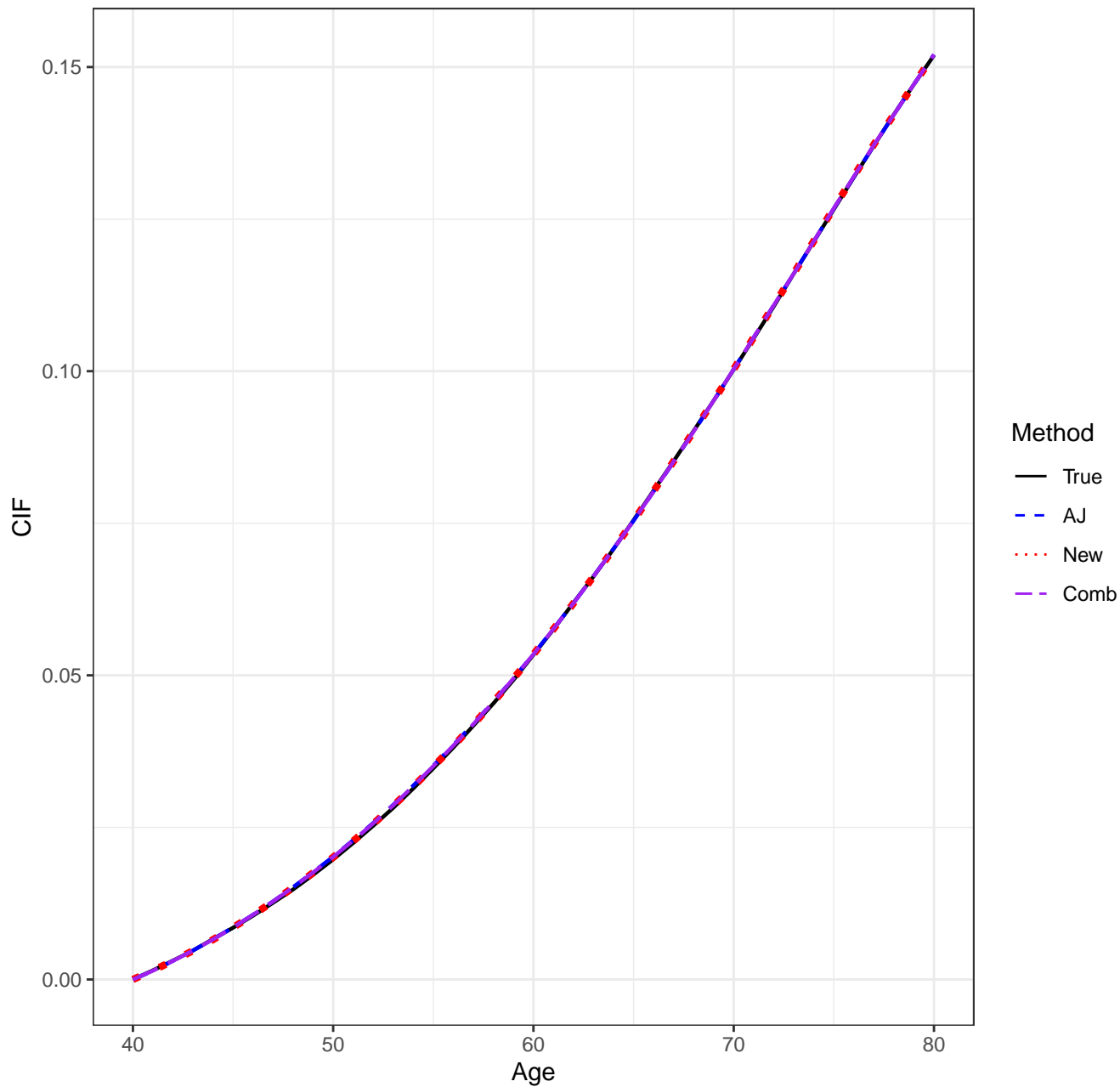
pointwise CI's done by: normal-theory

auxflg = FALSE

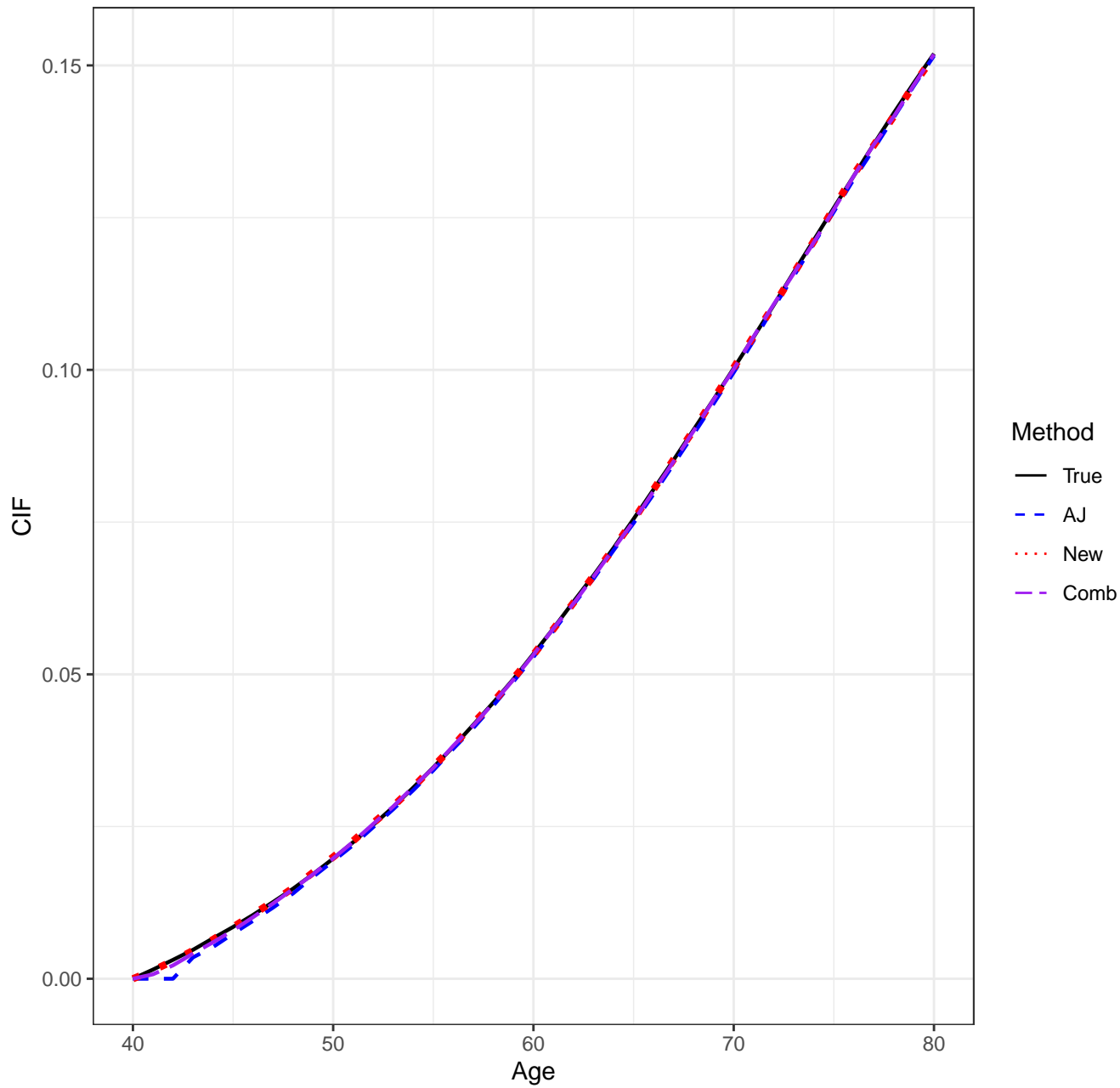
bootstrap weights: normal

Date/Time: 2024-01-16 21:47:34.849365

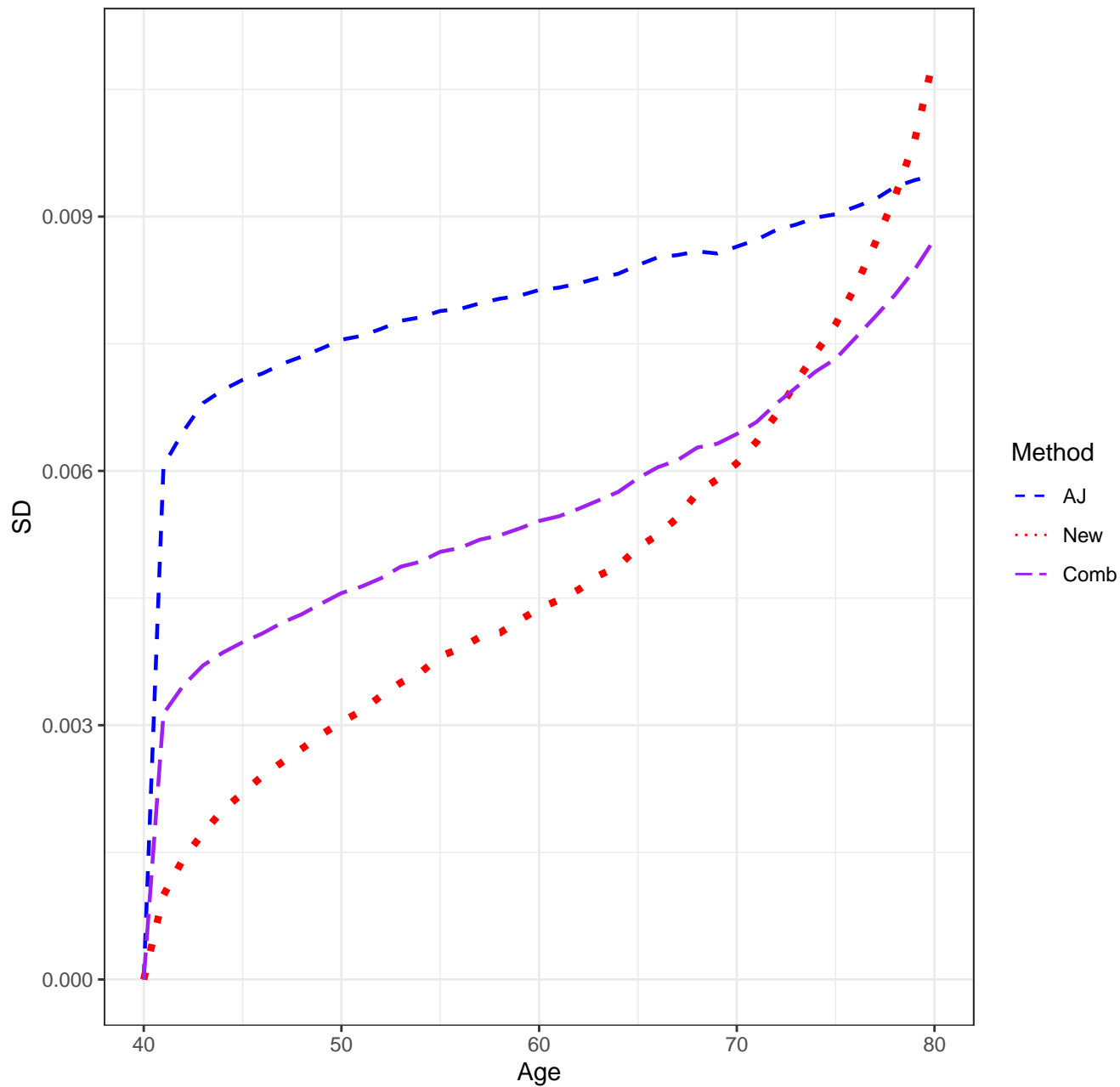
Scenario 2212, n=5000, Means



Scenario 2212, n=5000, Medians

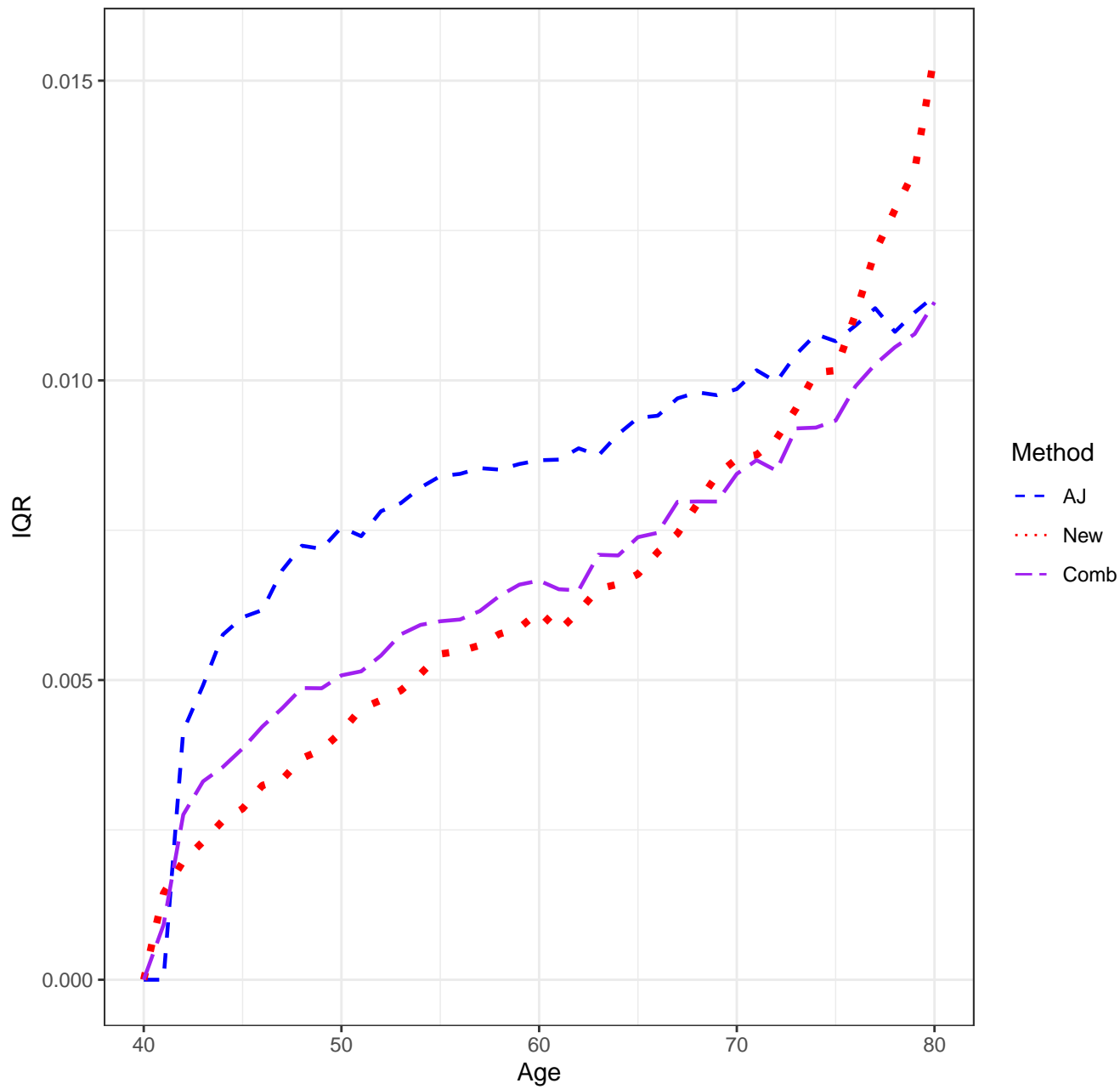


Scenario 2212, n=5000, SD'S

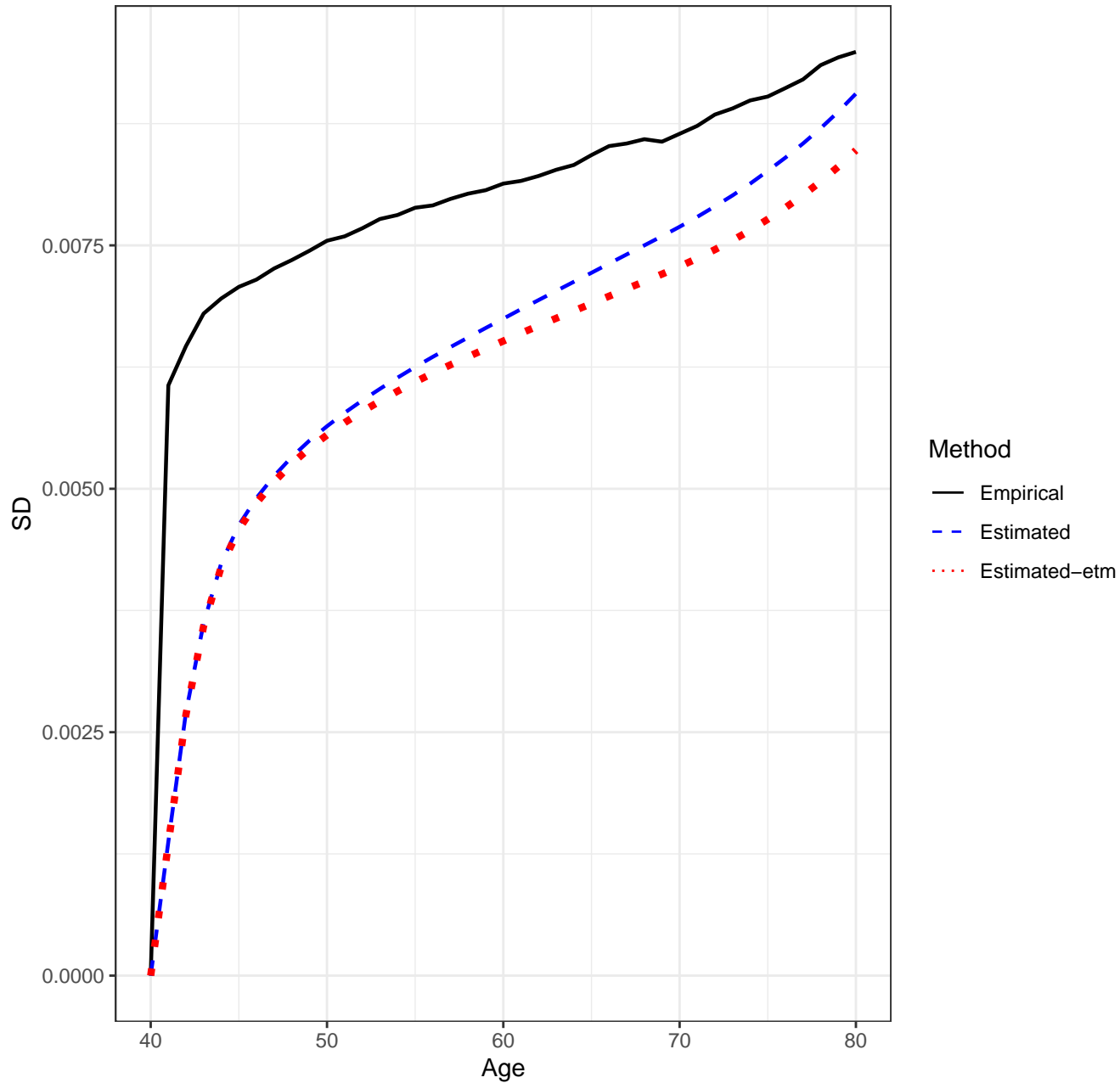




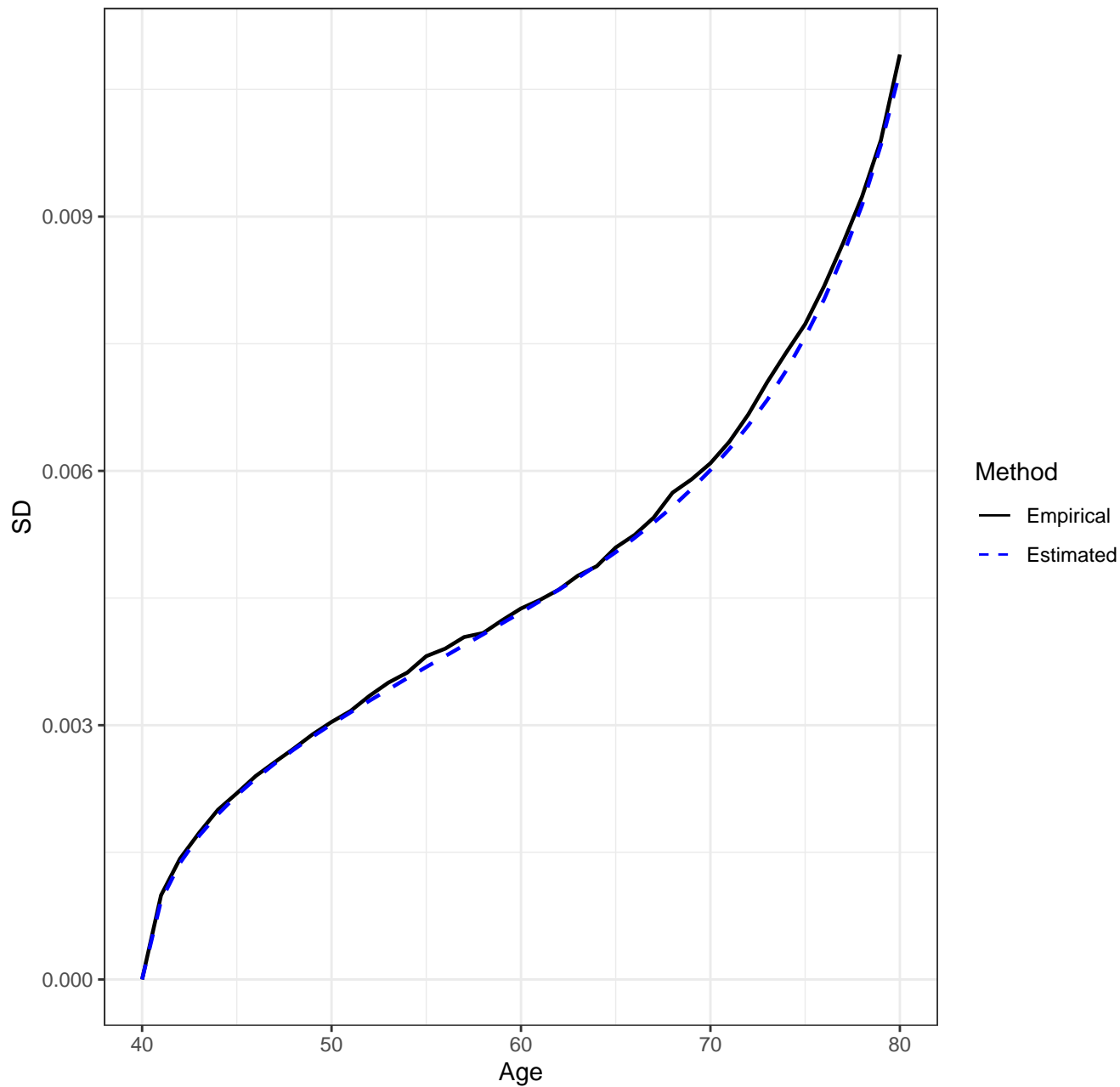
Scenario 2212, n=5000, IQR'S



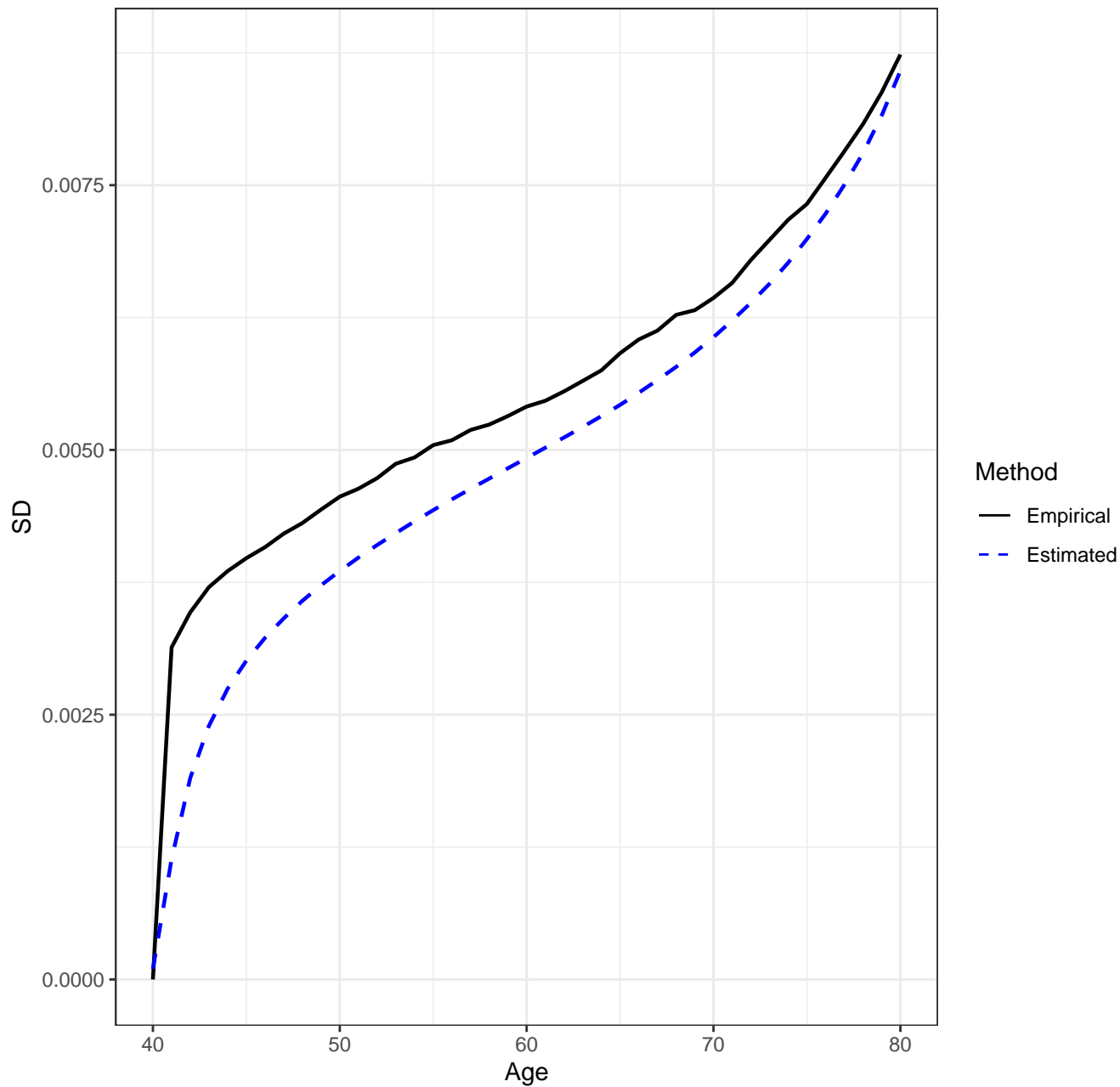
Scenario 2212, n=5000, AJ Estimator, Empirical vs. Estimated SD's



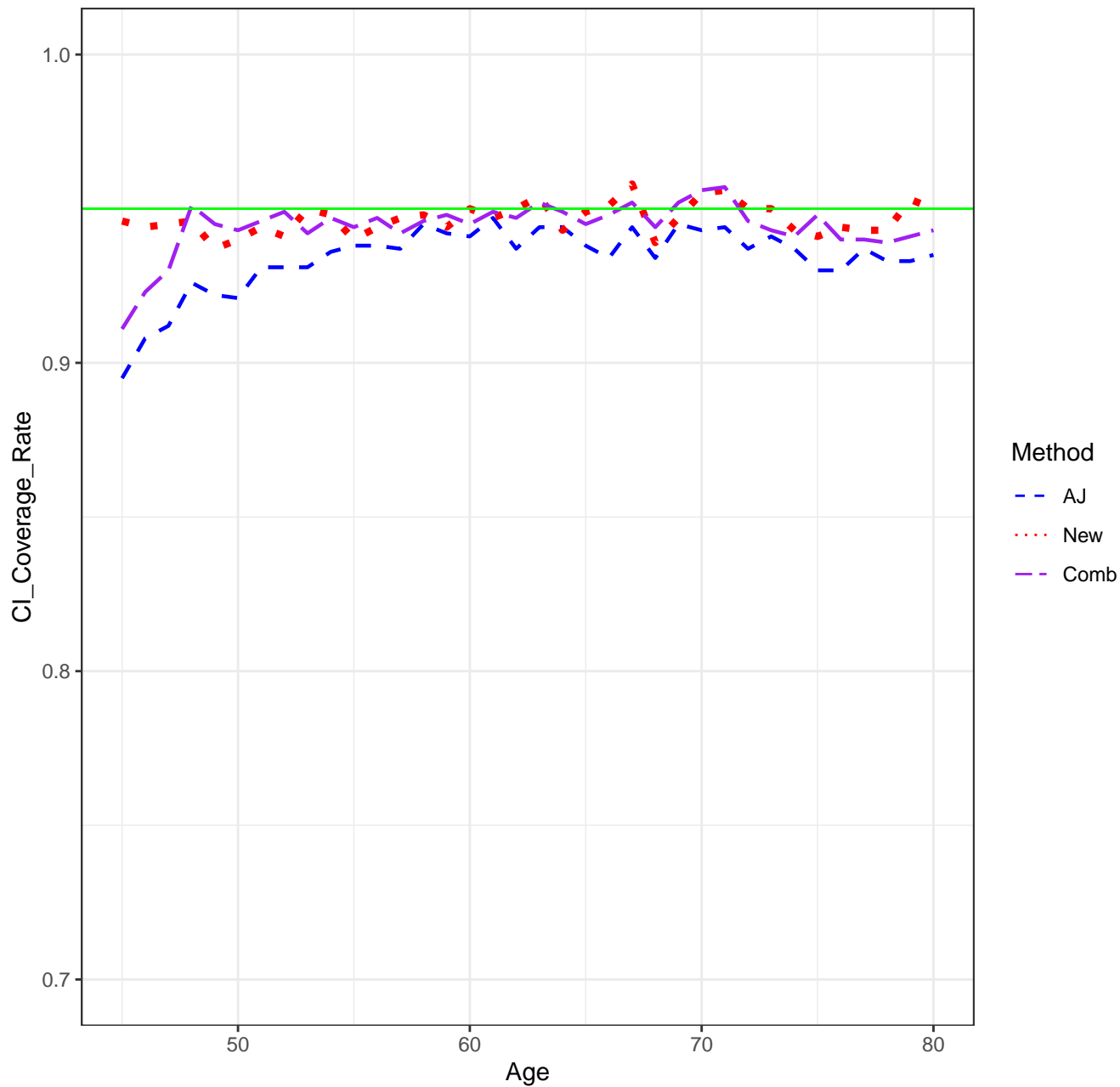
Scenario 2212, n=5000, New Estimator, Empirical vs. Estimated SD's



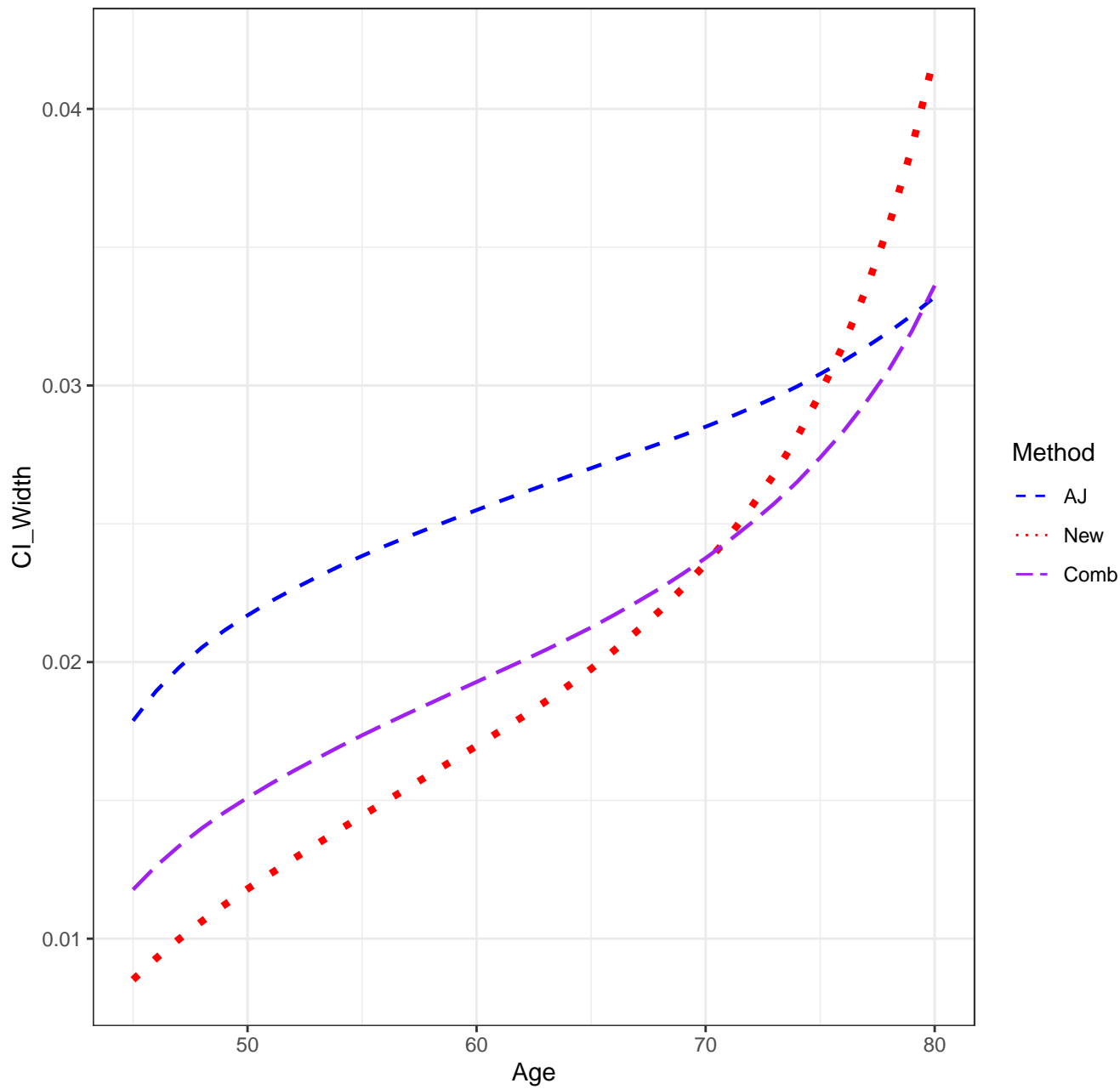
Scenario 2212, n=5000, Combined Estimator, Empirical vs. Estimated SD's



Scenario 2212, n=5000, CICR'S



Scenario 2212, n=5000, CI Width



## CONFIDENCE BAND COVERAGE RATES

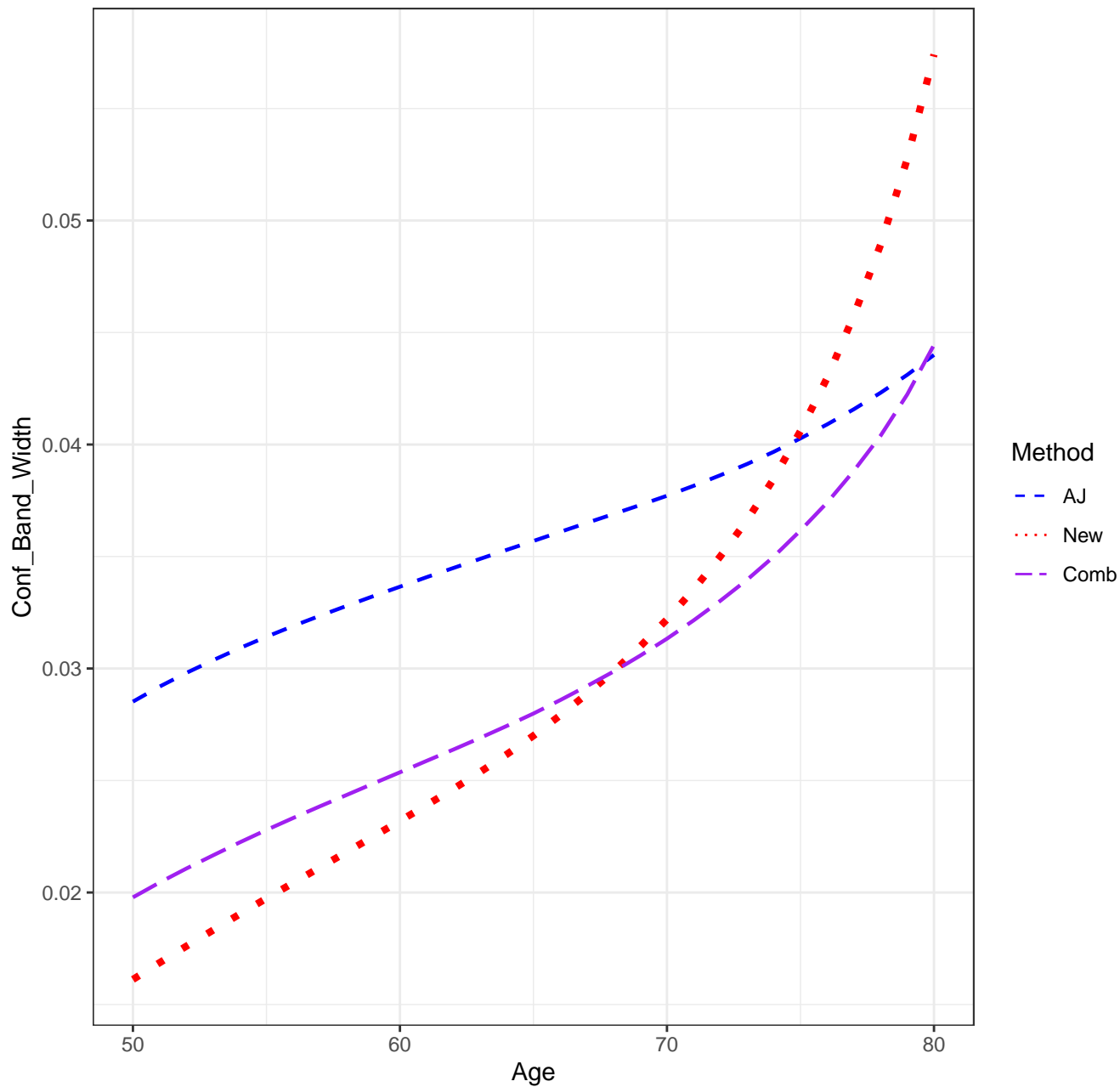
Scenario: 2212

AJ: 0.932

new: 0.936

Combo: 0.937

Scenario 2212, n=5000, Confidence Band Width





## SETTINGS

Scenario: 2221

sample size = 5000

number of simulation replications = 1000

number of bootstrap replications = 250

transformation:  $0.5 \cdot \pi - \arcsin(\sqrt{1-u})$

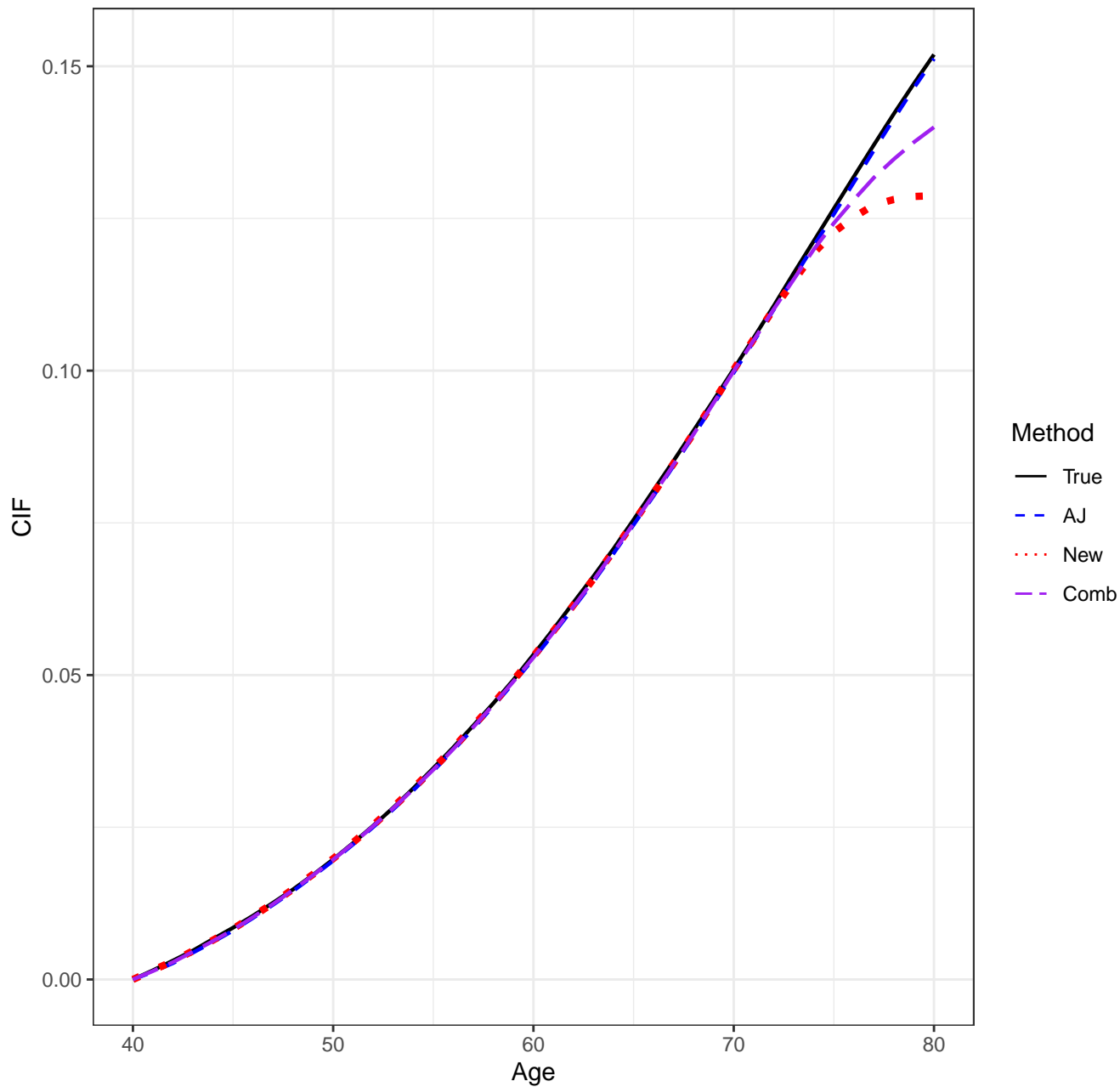
pointwise CI's done by: normal-theory

auxflg = FALSE

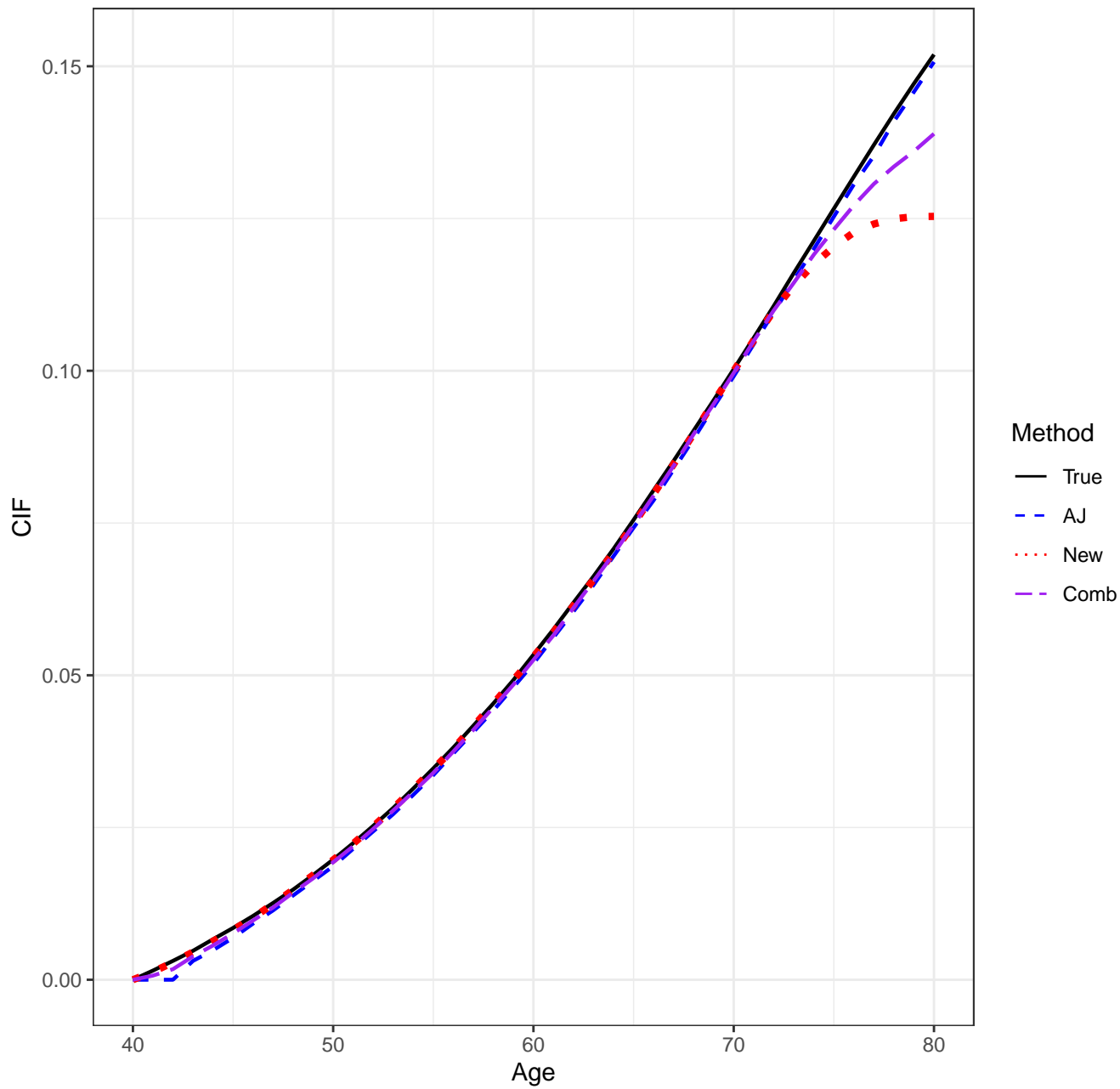
bootstrap weights: normal

Date/Time: 2024-01-16 23:07:22.067395

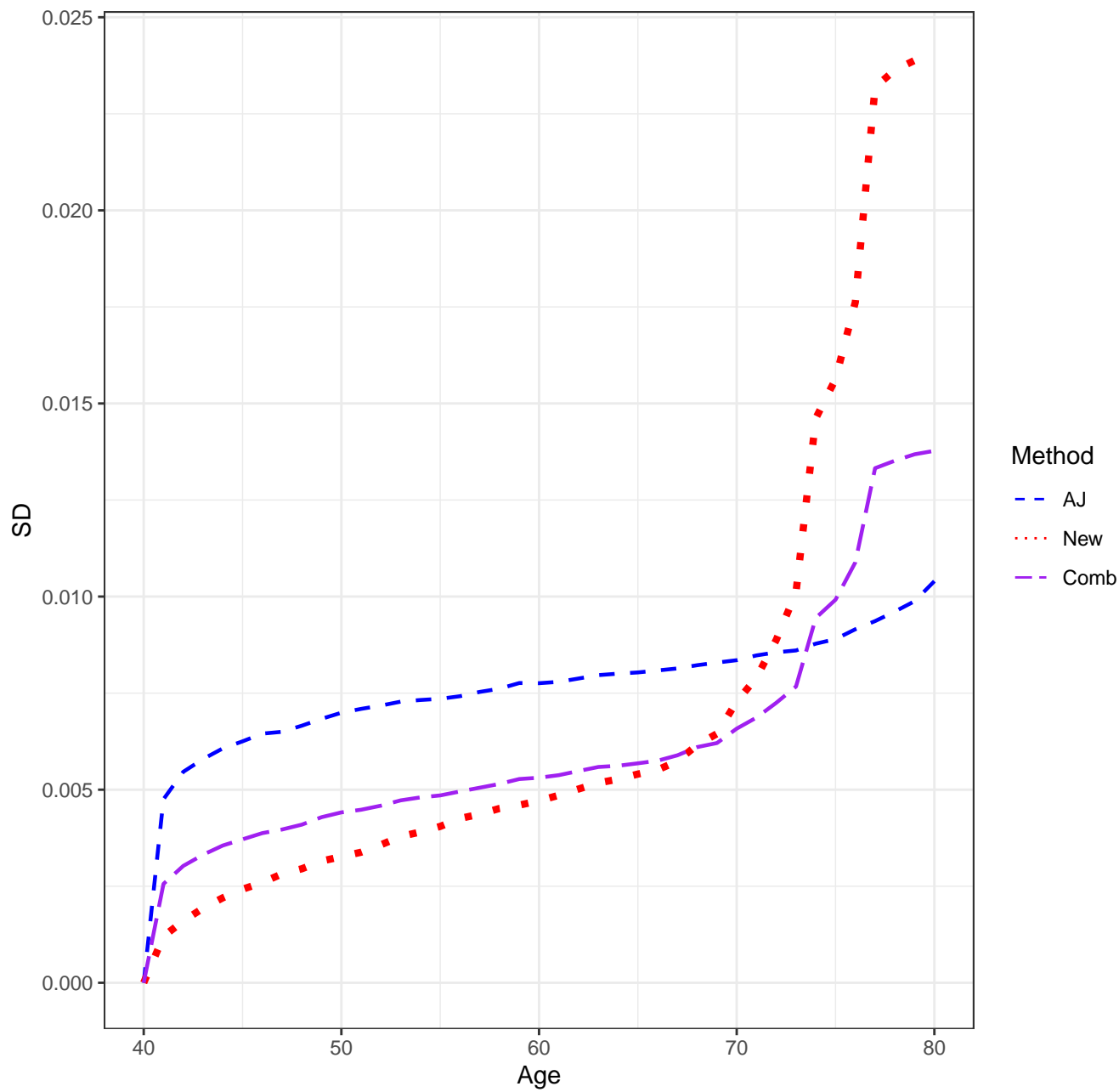
Scenario 2221, n=5000, Means



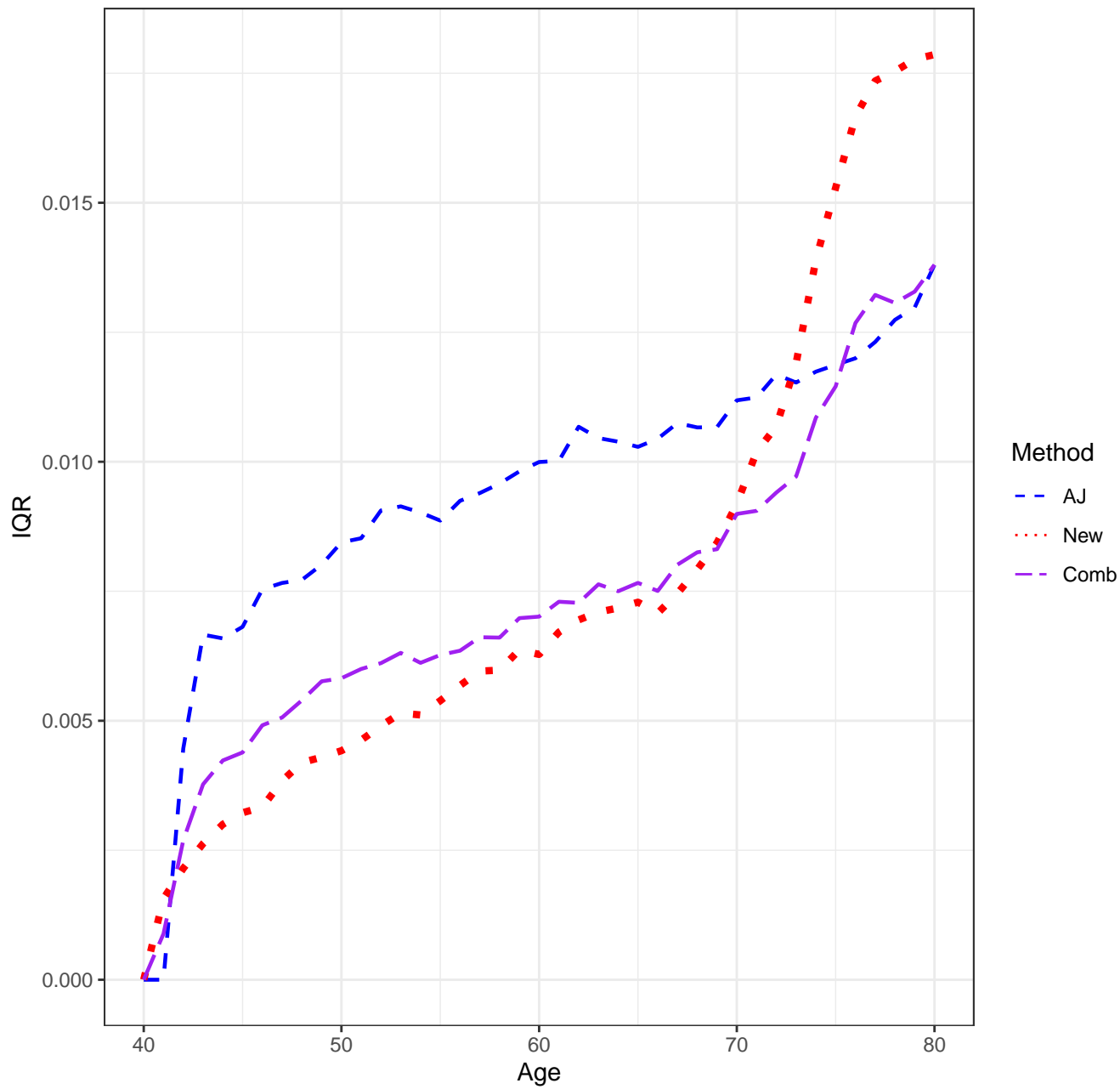
Scenario 2221, n=5000, Medians



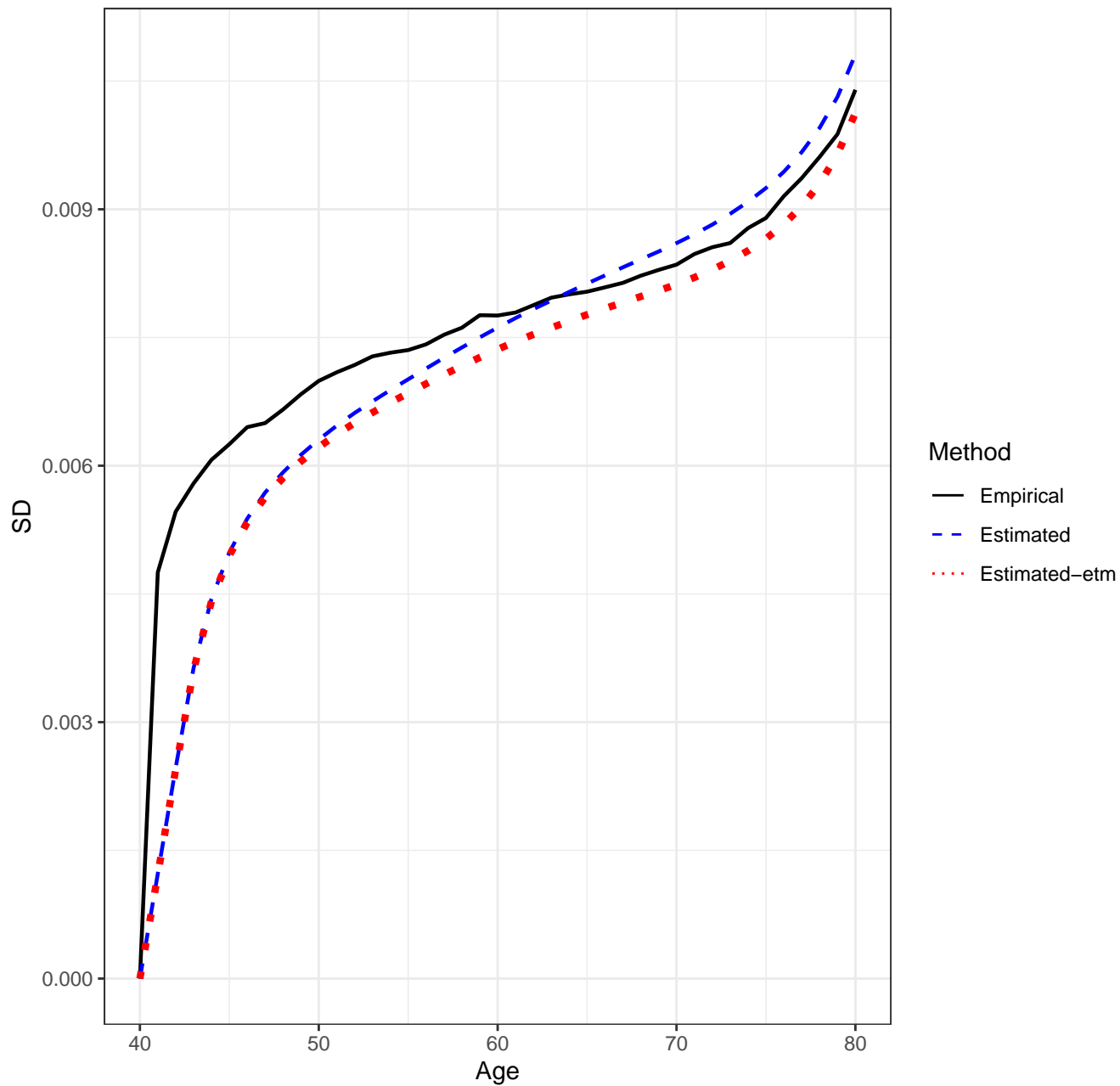
Scenario 2221, n=5000, SD'S



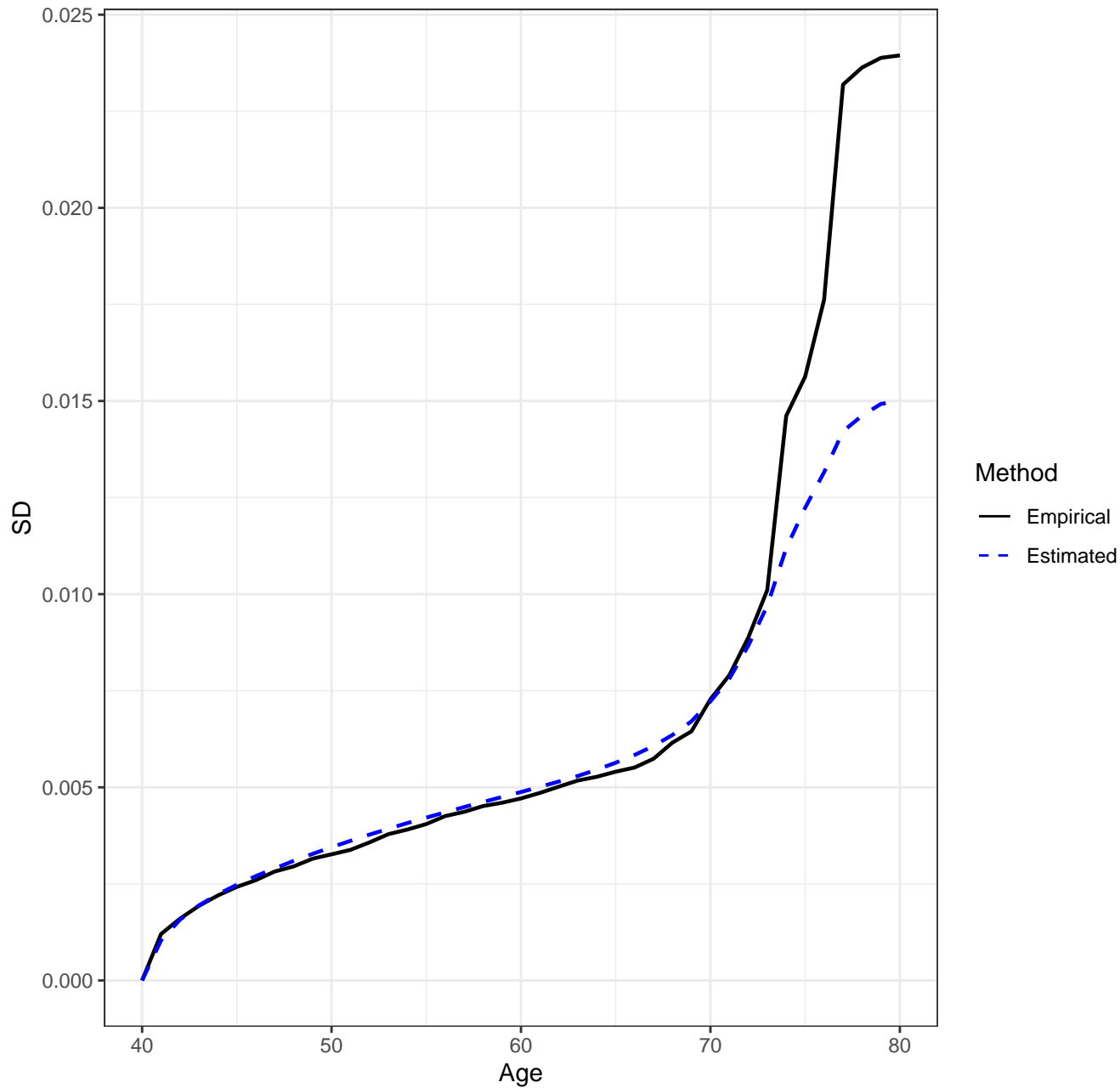
Scenario 2221, n=5000, IQR'S



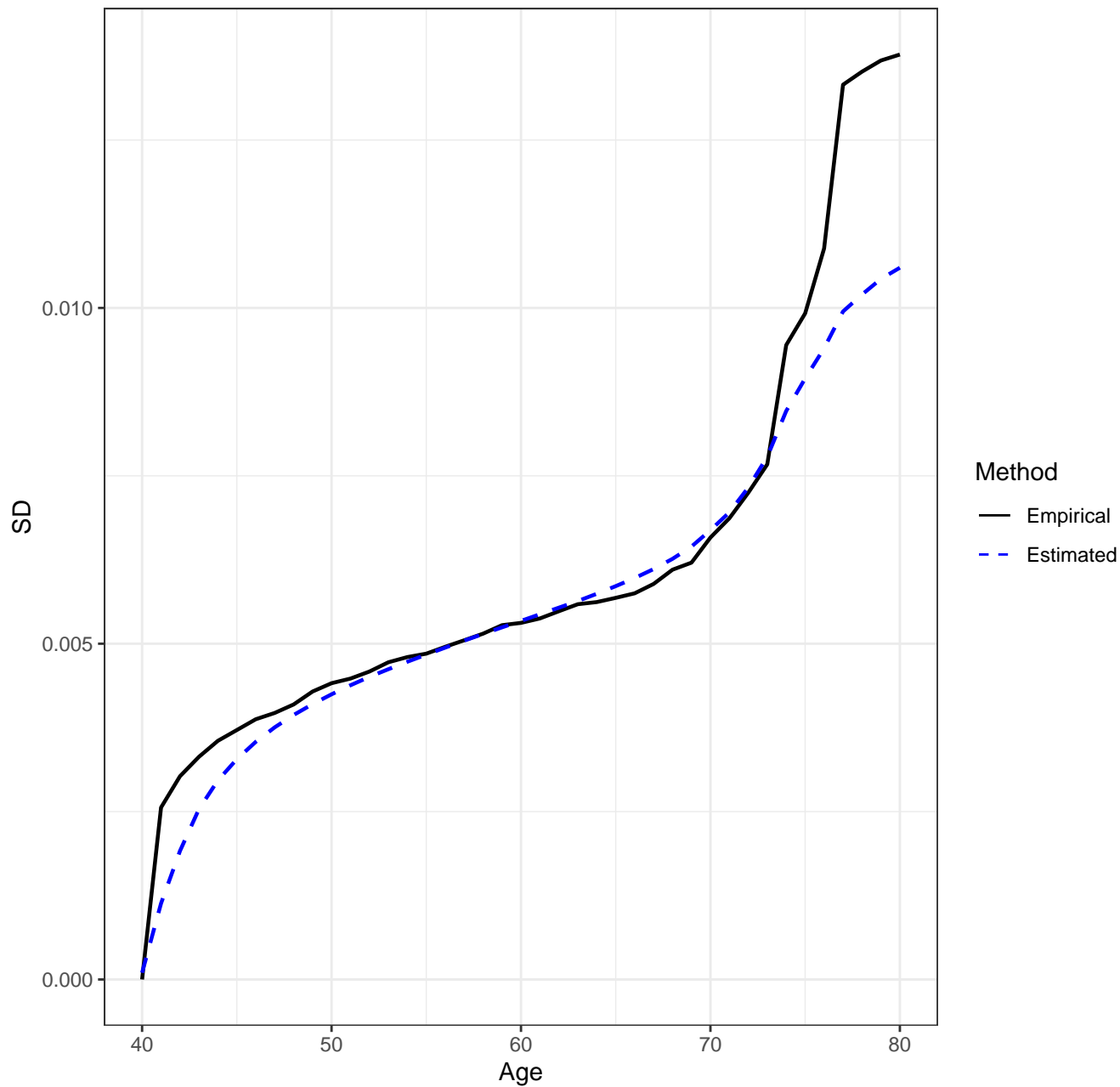
Scenario 2221, n=5000, AJ Estimator, Empirical vs. Estimated SD's



Scenario 2221, n=5000, New Estimator, Empirical vs. Estimated SD's

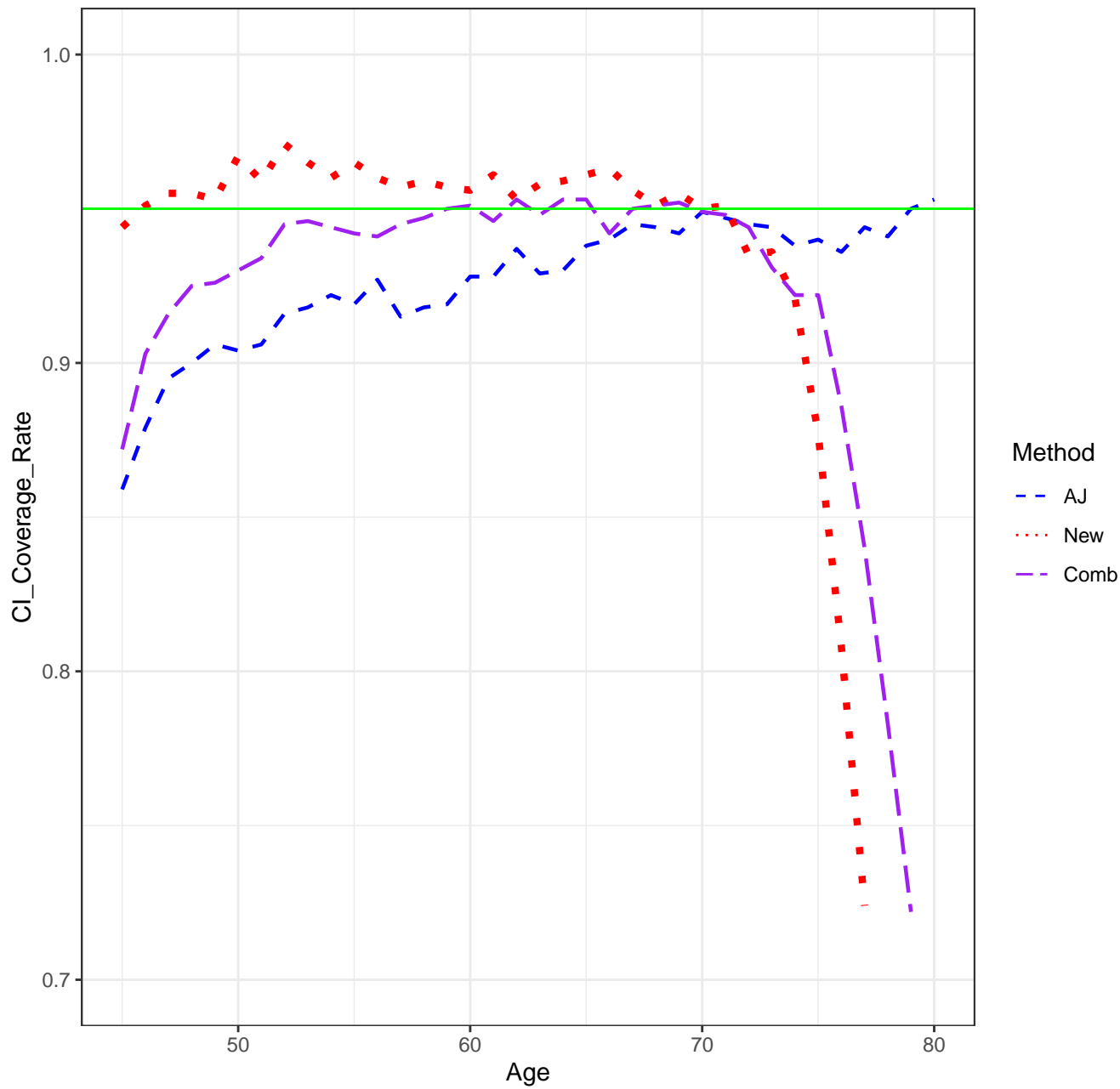


Scenario 2221, n=5000, Combined Estimator, Empirical vs. Estimated SD's

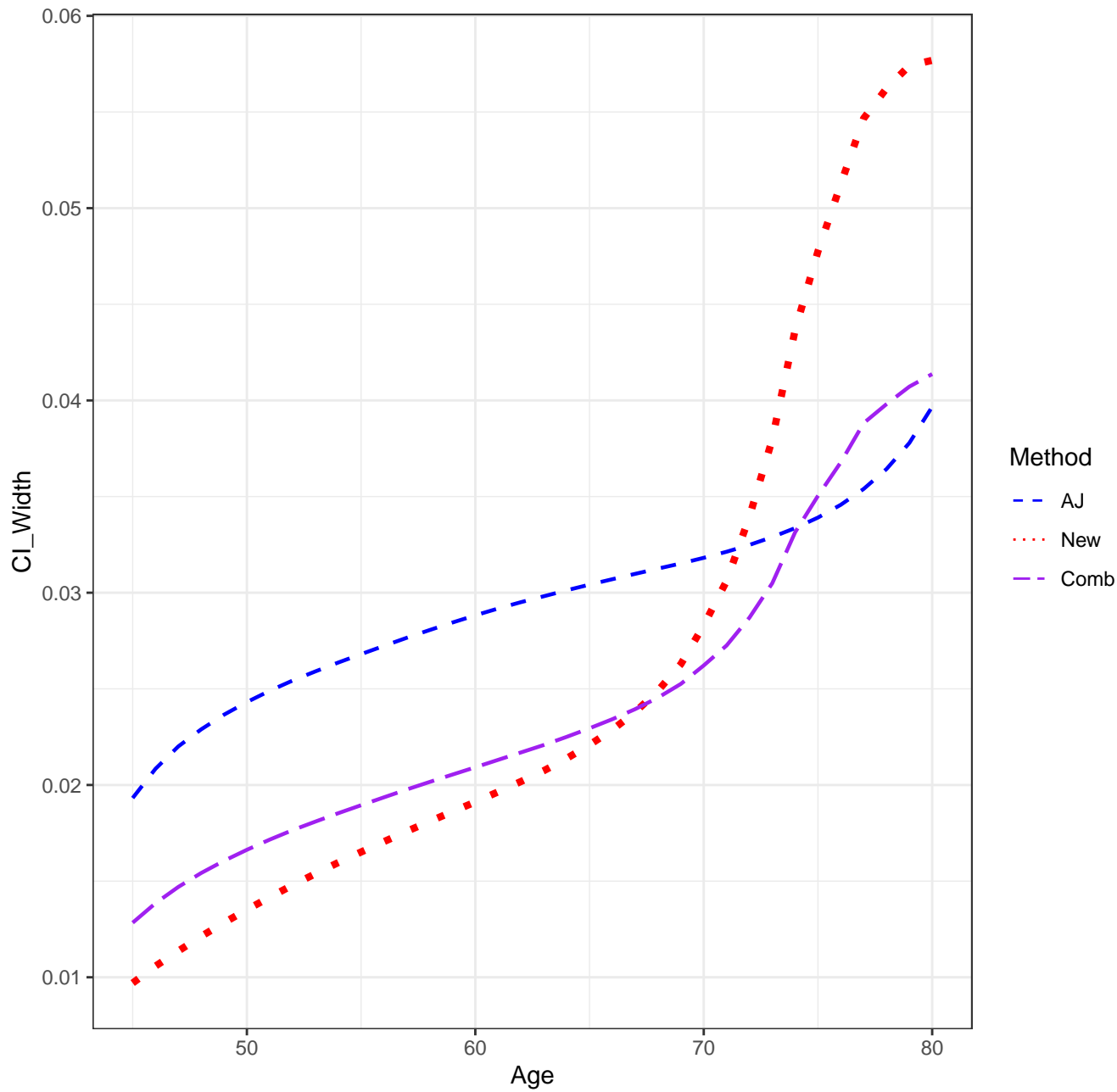




Scenario 2221, n=5000, CICR'S



Scenario 2221, n=5000, CI Width



## CONFIDENCE BAND COVERAGE RATES

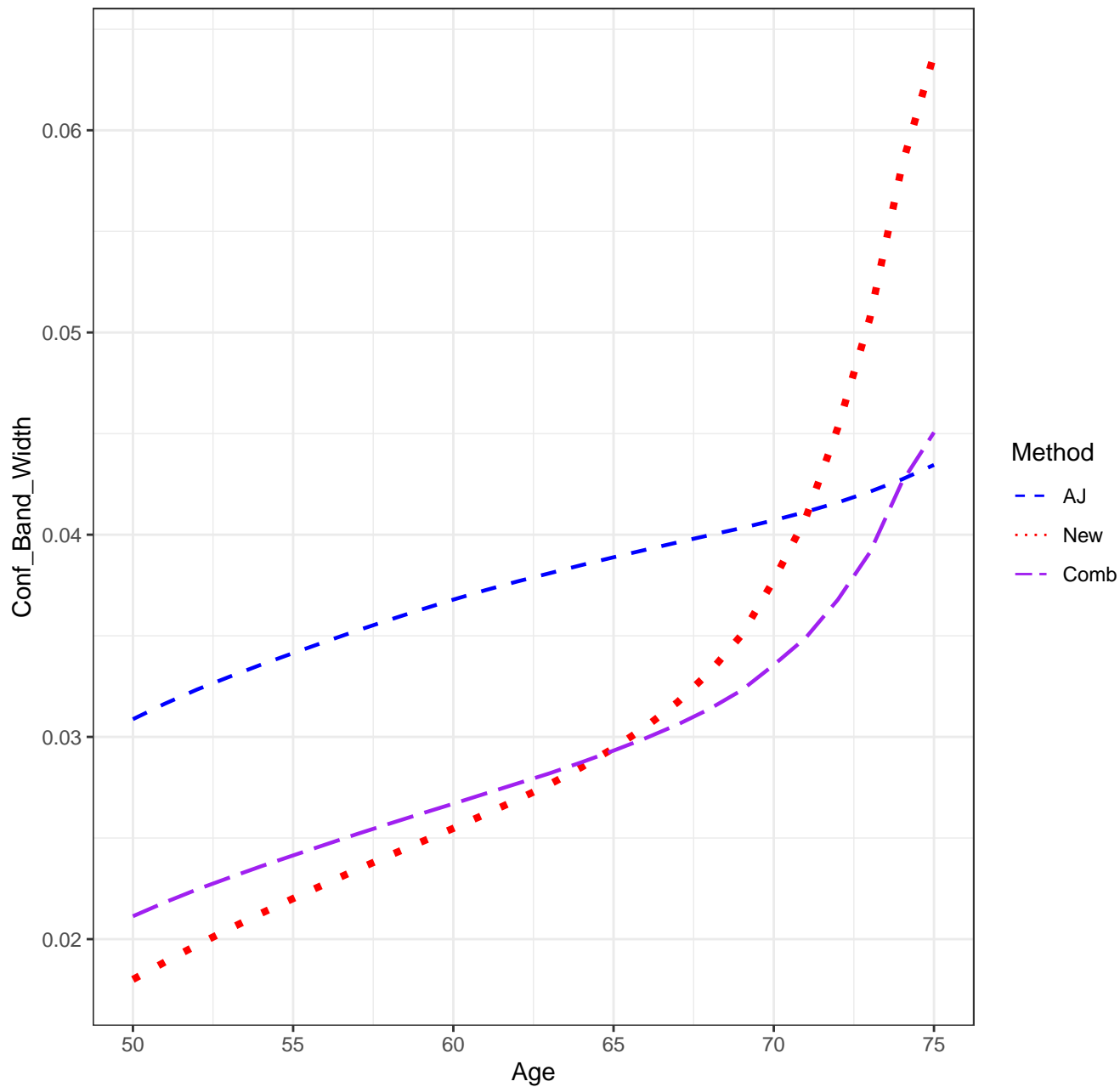
Scenario: 2221

AJ: 0.928

new: 0.918

Combo: 0.911

Scenario 2221, n=5000, Confidence Band Width



## SETTINGS

Scenario: 2222

sample size = 5000

number of simulation replications = 1000

number of bootstrap replications = 250

transformation:  $0.5 \cdot \pi - \arcsin(\sqrt{1-u})$

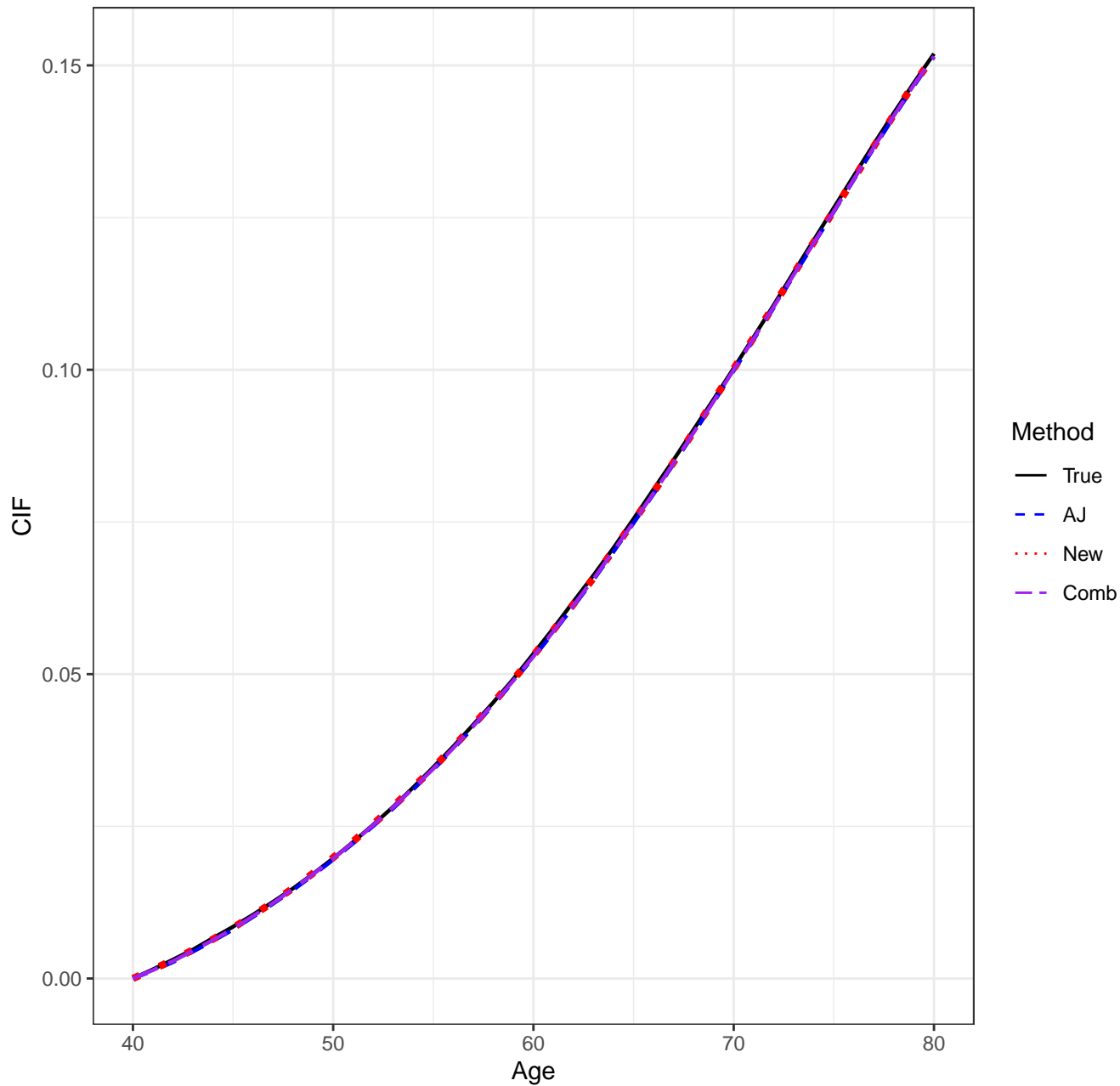
pointwise CI's done by: normal-theory

auxflg = FALSE

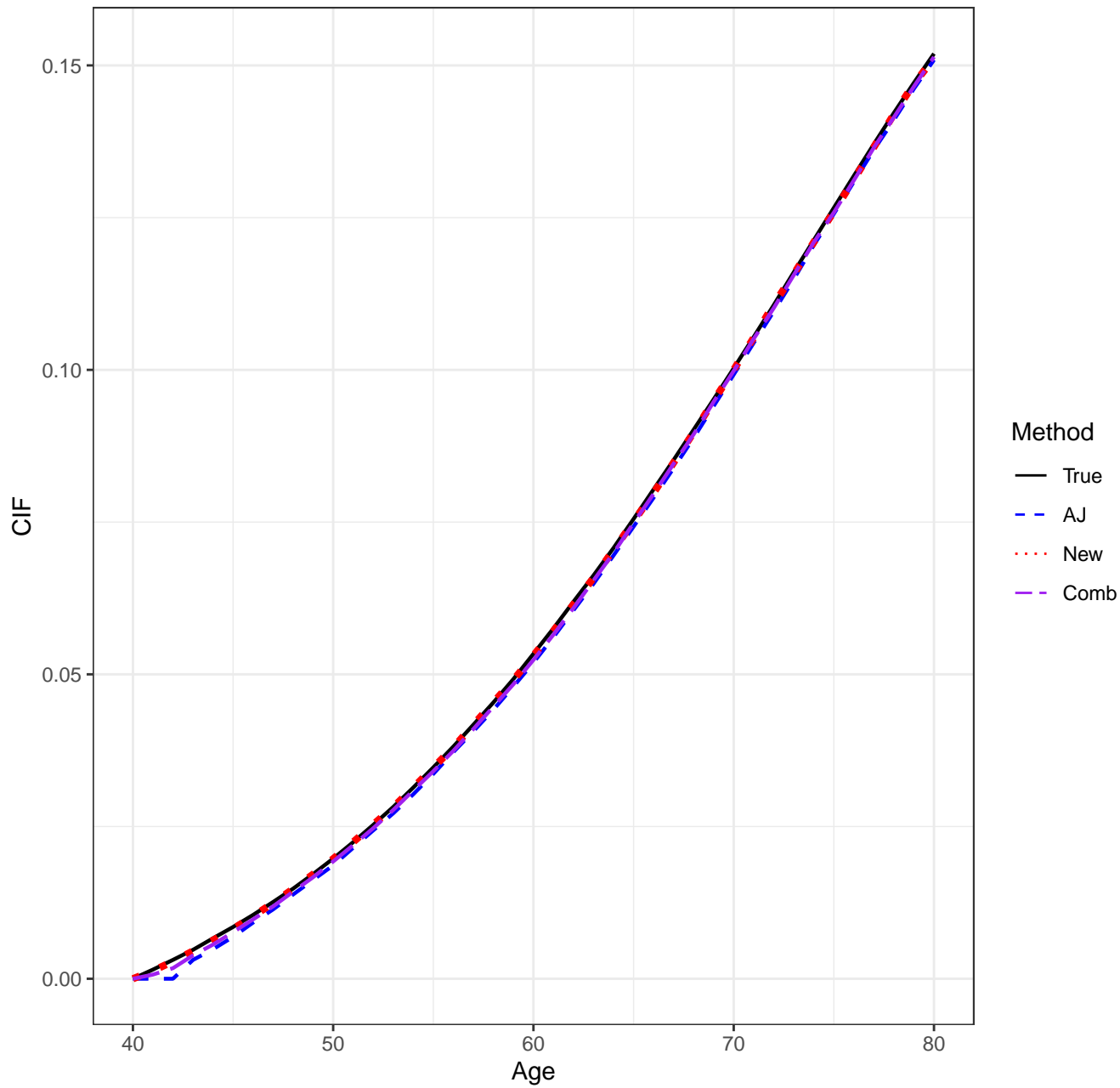
bootstrap weights: normal

Date/Time: 2024-01-17 14:13:45.342506

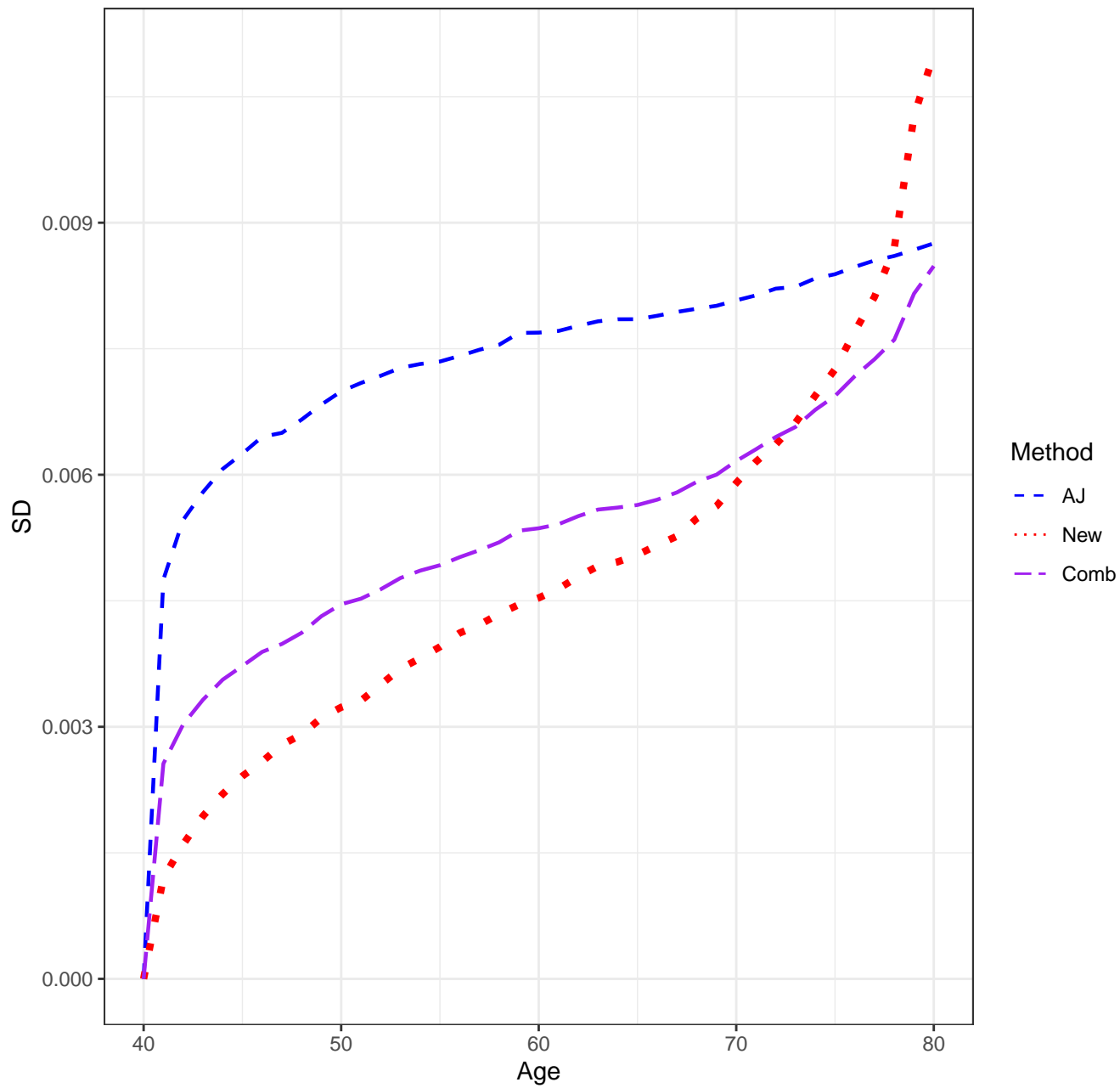
Scenario 2222, n=5000, Means



Scenario 2222, n=5000, Medians

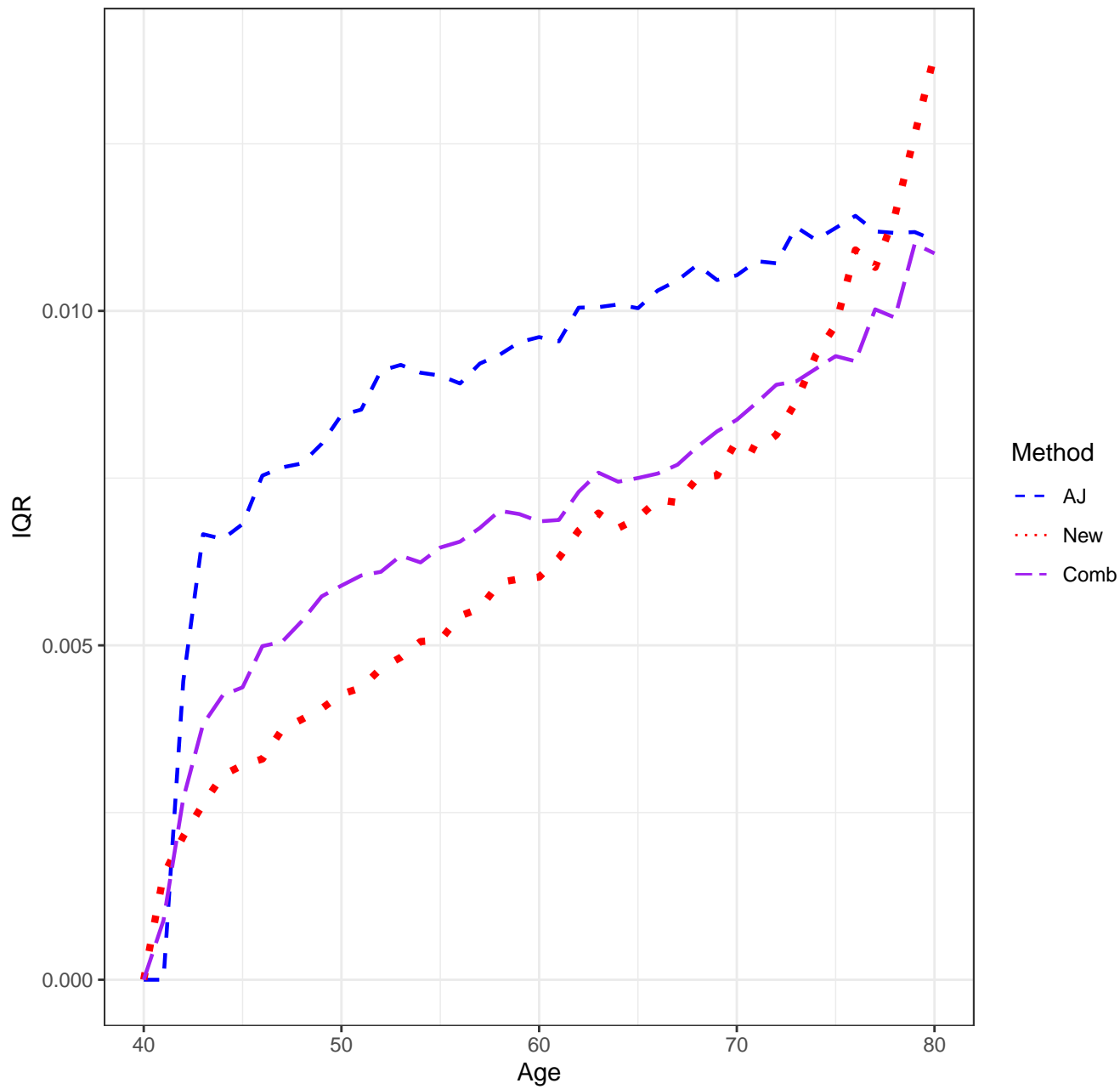


Scenario 2222, n=5000, SD'S

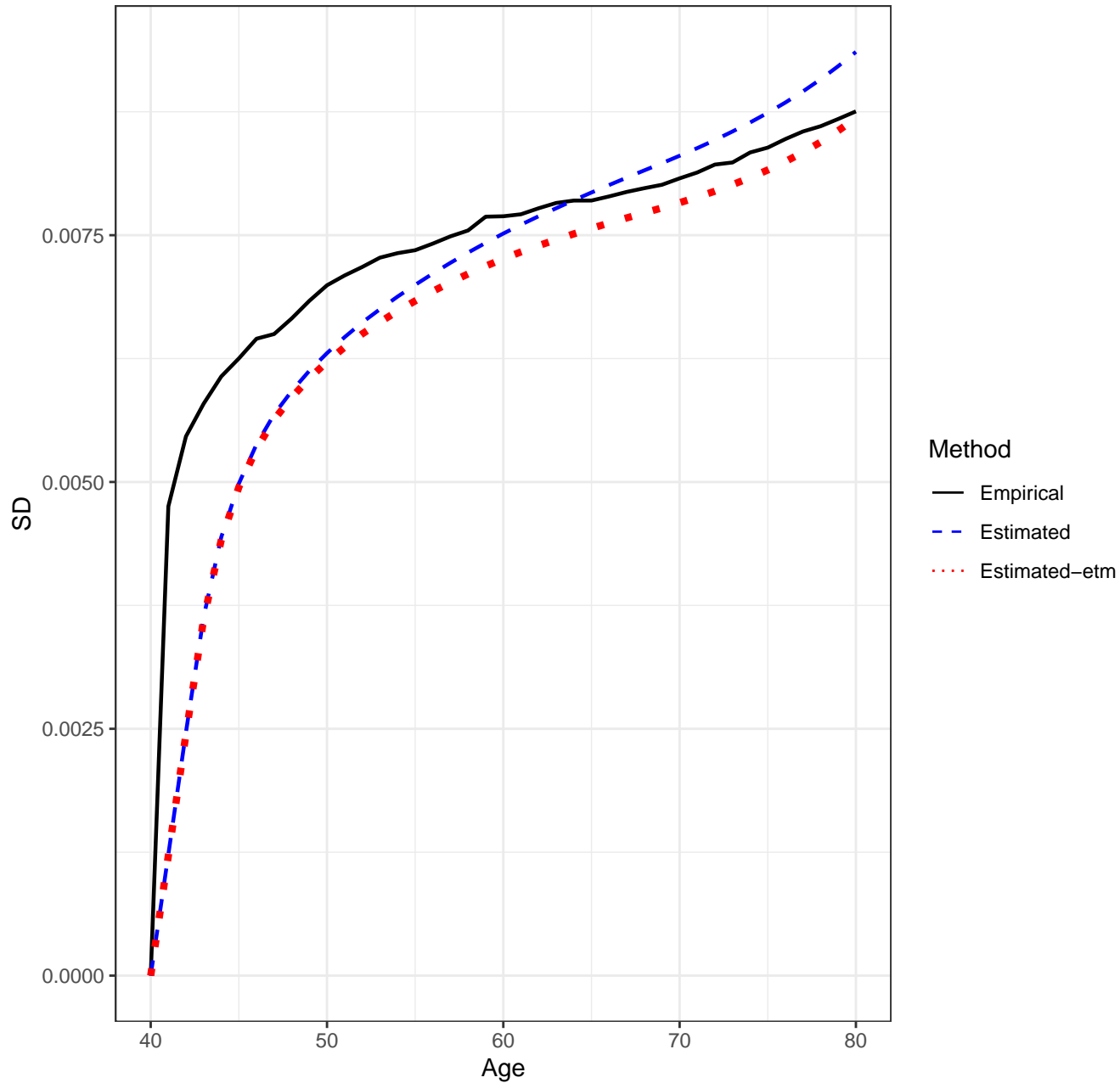




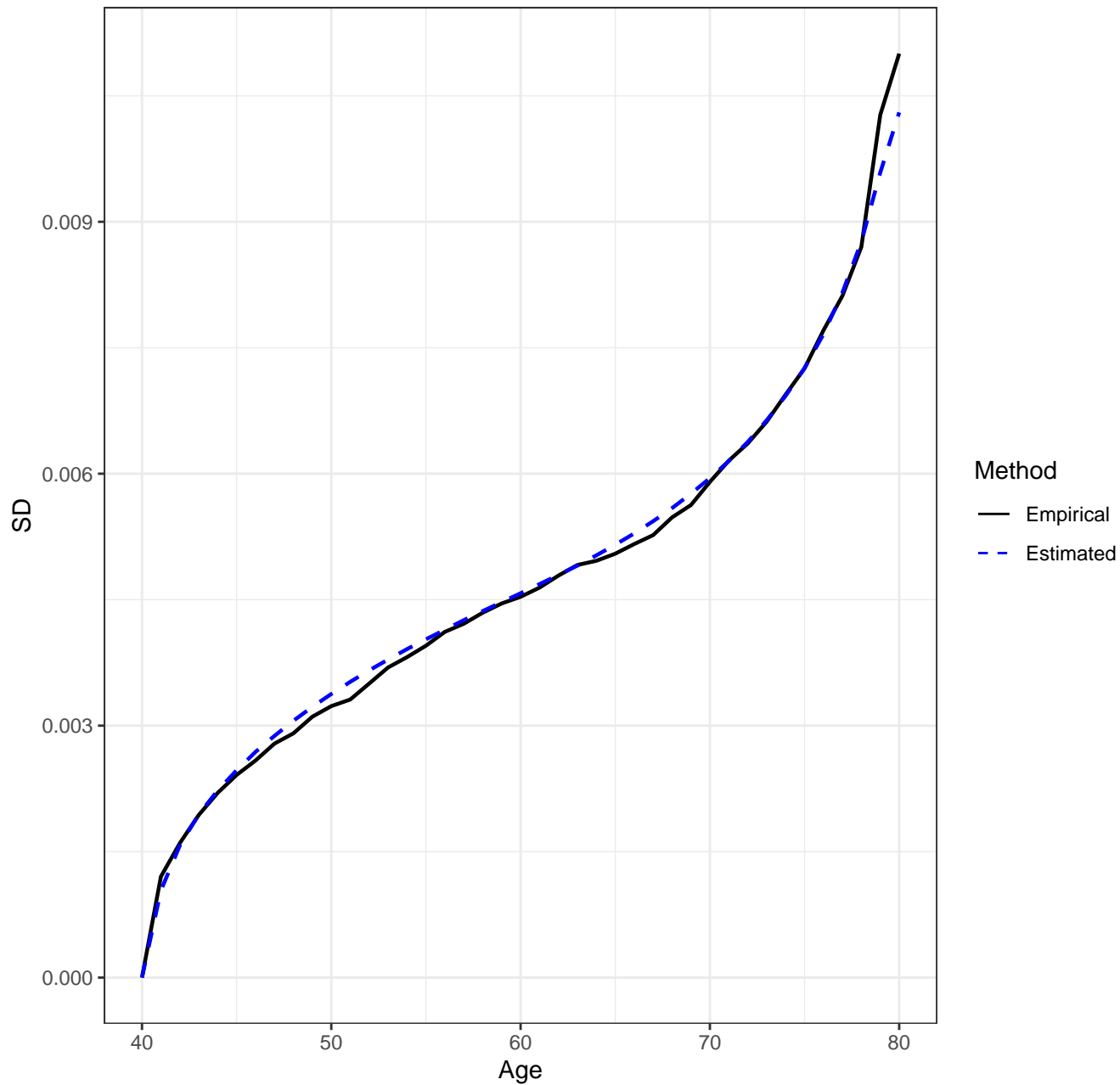
Scenario 2222, n=5000, IQR'S



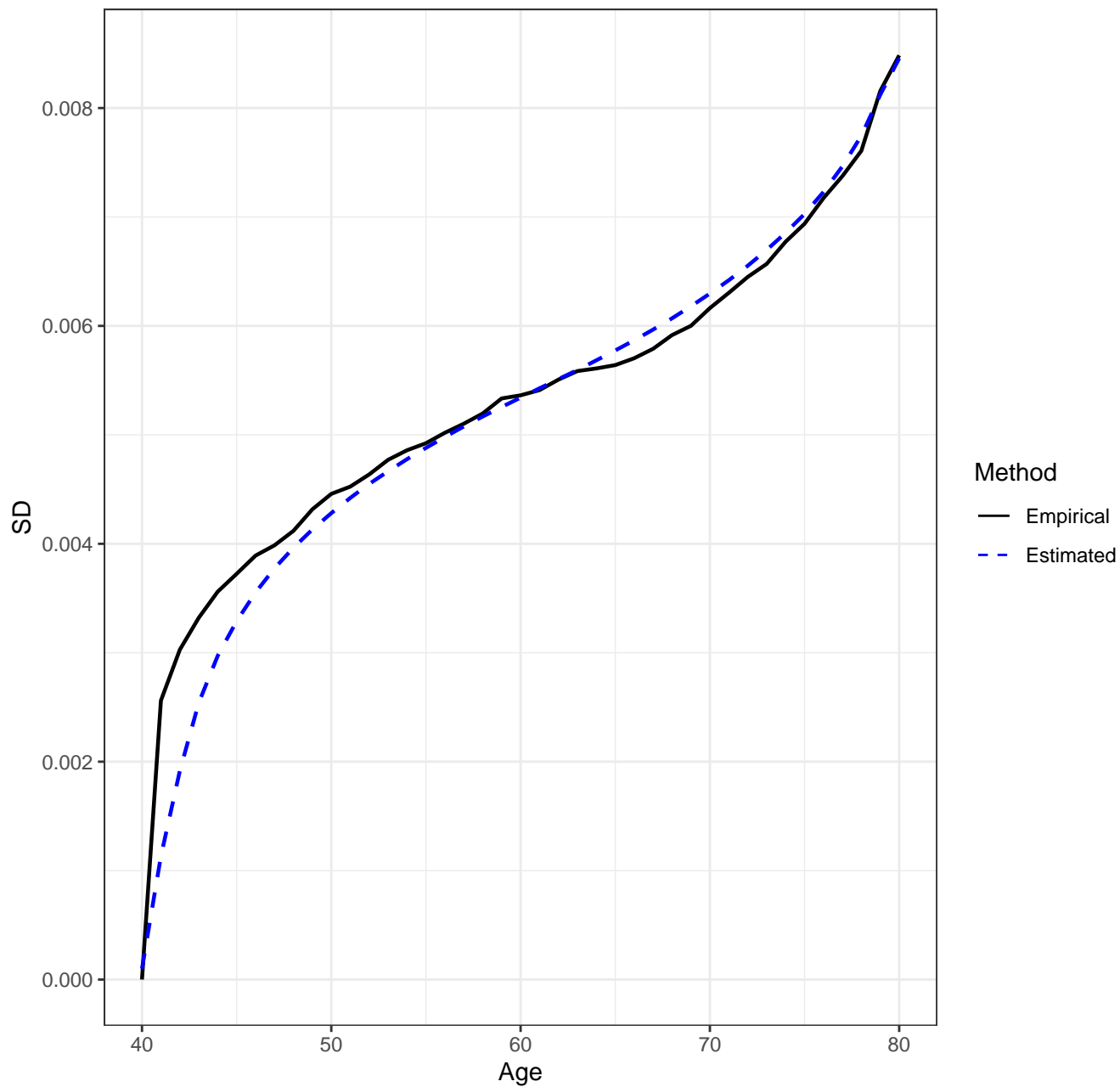
Scenario 2222, n=5000, AJ Estimator, Empirical vs. Estimated SD's



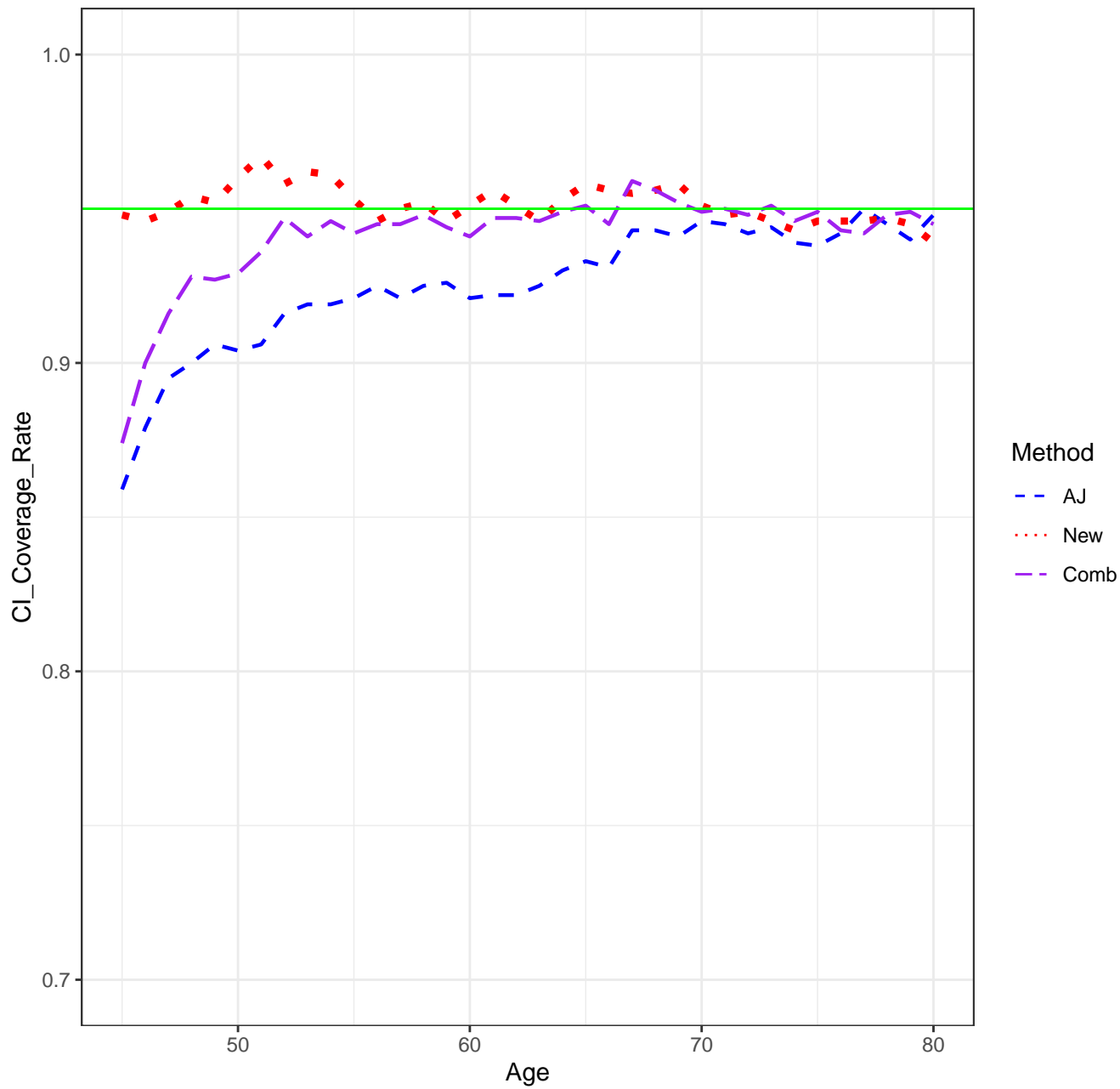
Scenario 2222, n=5000, New Estimator, Empirical vs. Estimated SD's



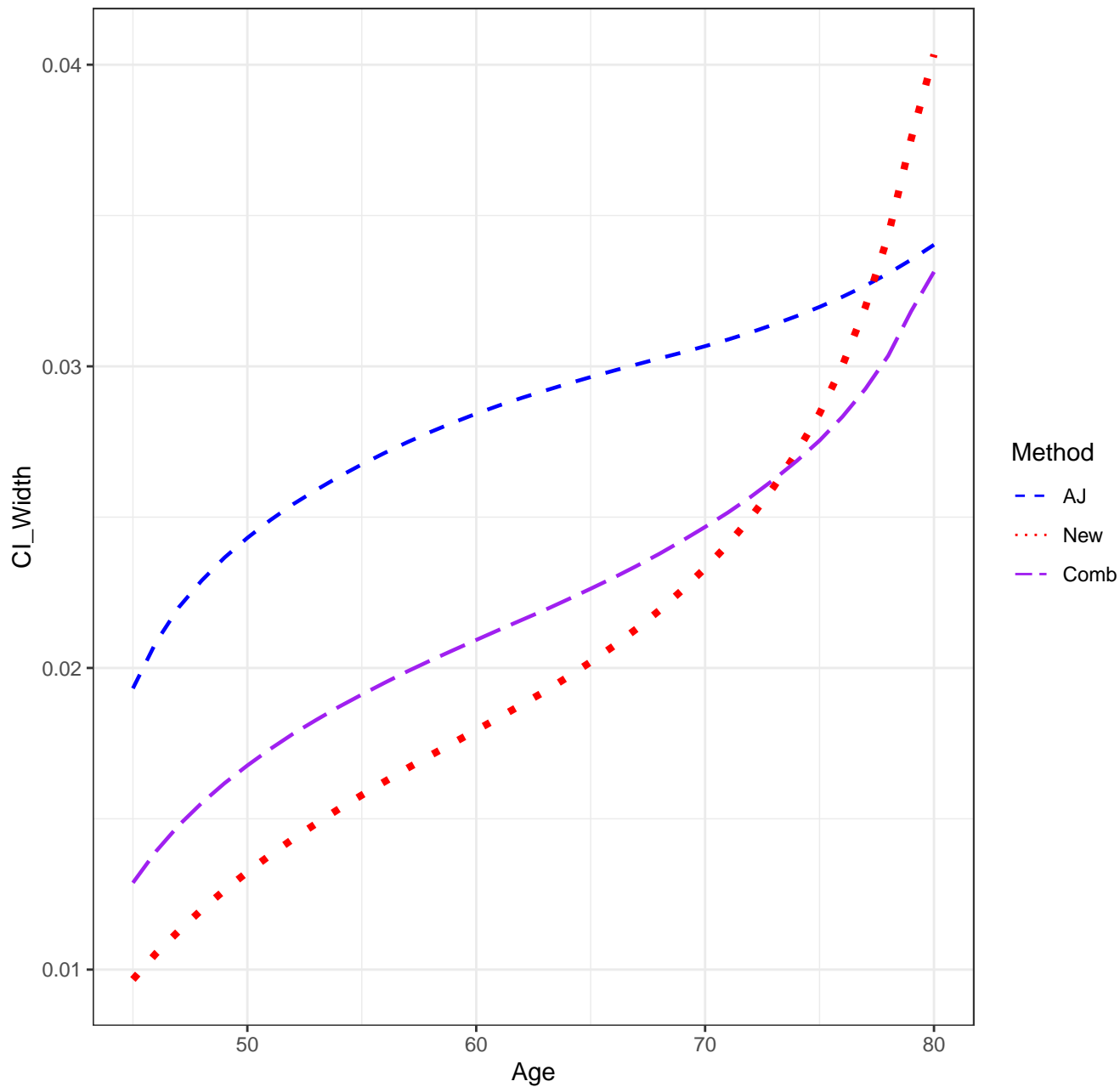
Scenario 2222, n=5000, Combined Estimator, Empirical vs. Estimated SD's



Scenario 2222, n=5000, CICR'S



Scenario 2222, n=5000, CI Width



## CONFIDENCE BAND COVERAGE RATES

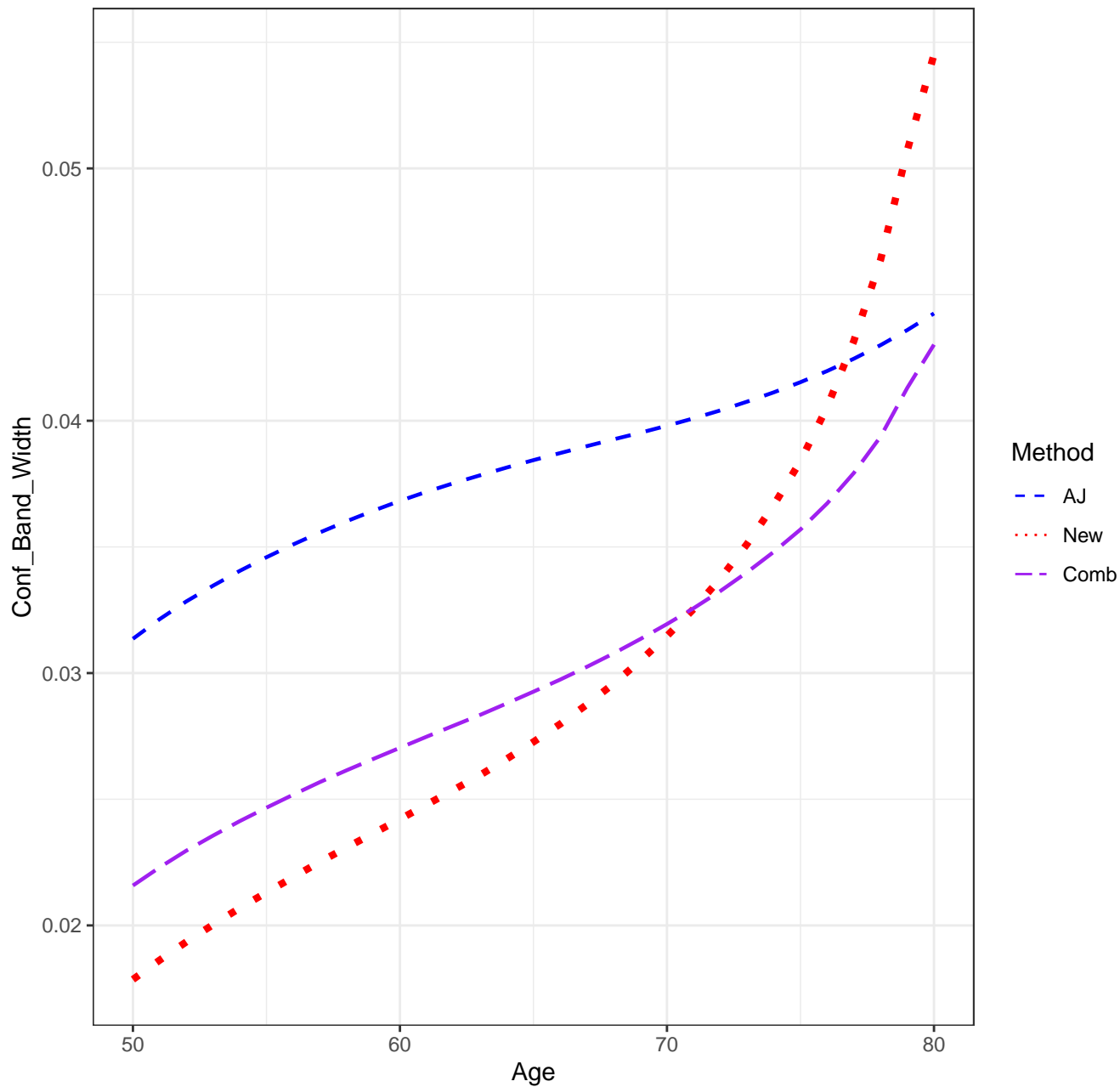
Scenario: 2222

AJ: 0.931

new: 0.946

Combo: 0.931

Scenario 2222, n=5000, Confidence Band Width





## SETTINGS

Scenario: 3111

sample size = 5000

number of simulation replications = 1000

number of bootstrap replications = 250

transformation:  $0.5 \cdot \pi - \arcsin(\sqrt{1-u})$

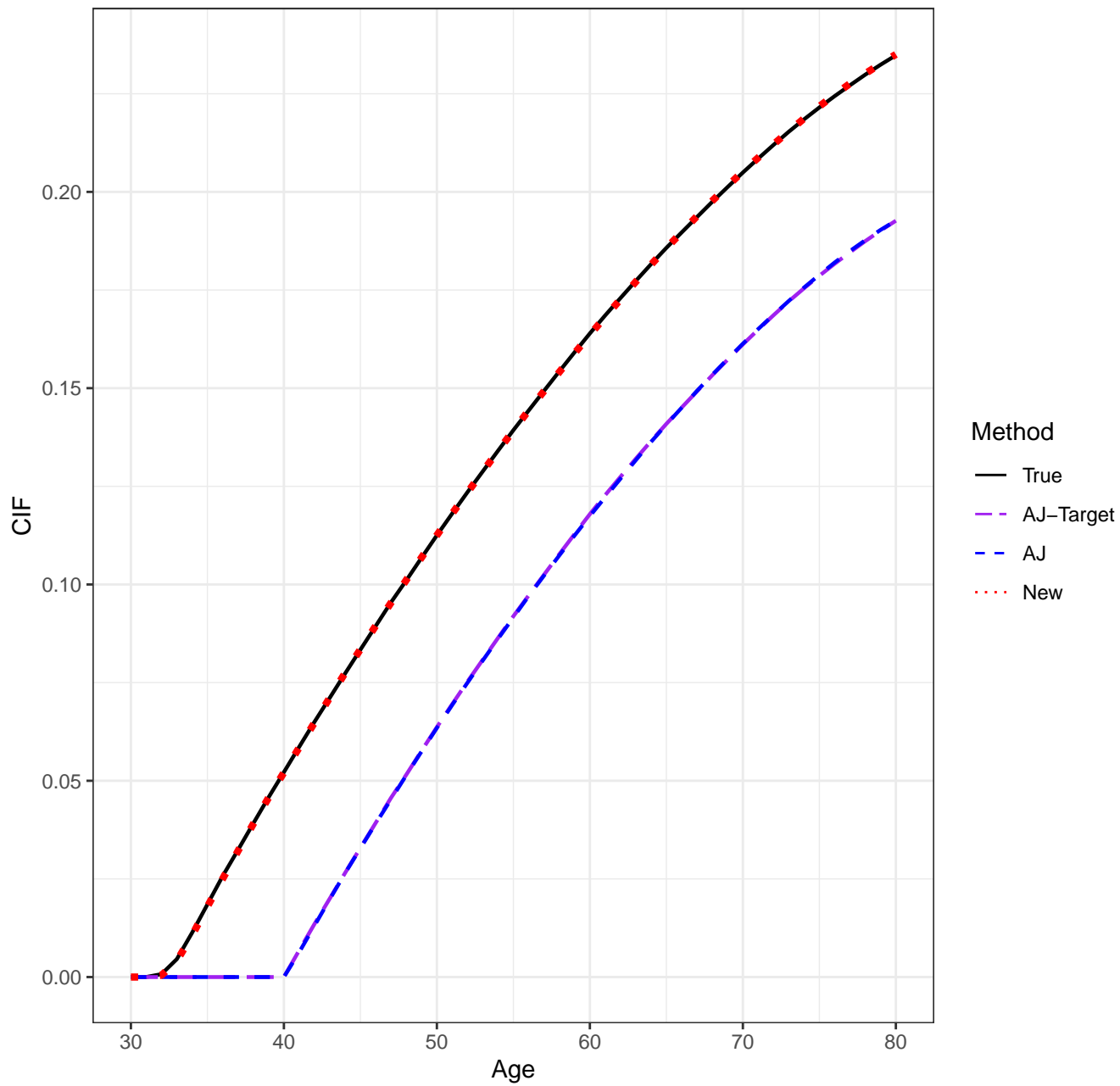
pointwise CI's done by: normal-theory

auxflg = FALSE

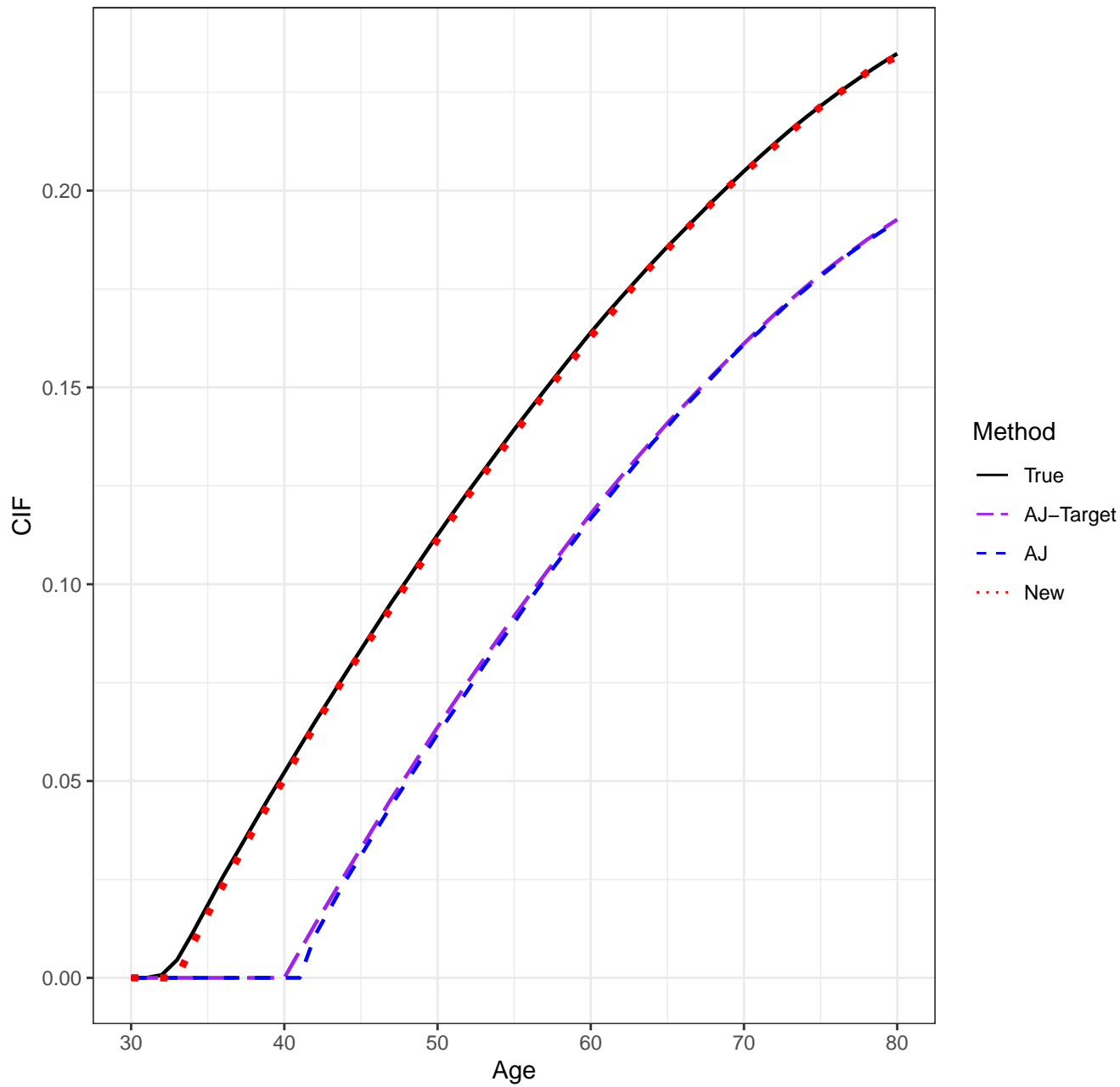
bootstrap weights: normal

Date/Time: 2024-01-17 16:15:52.698549

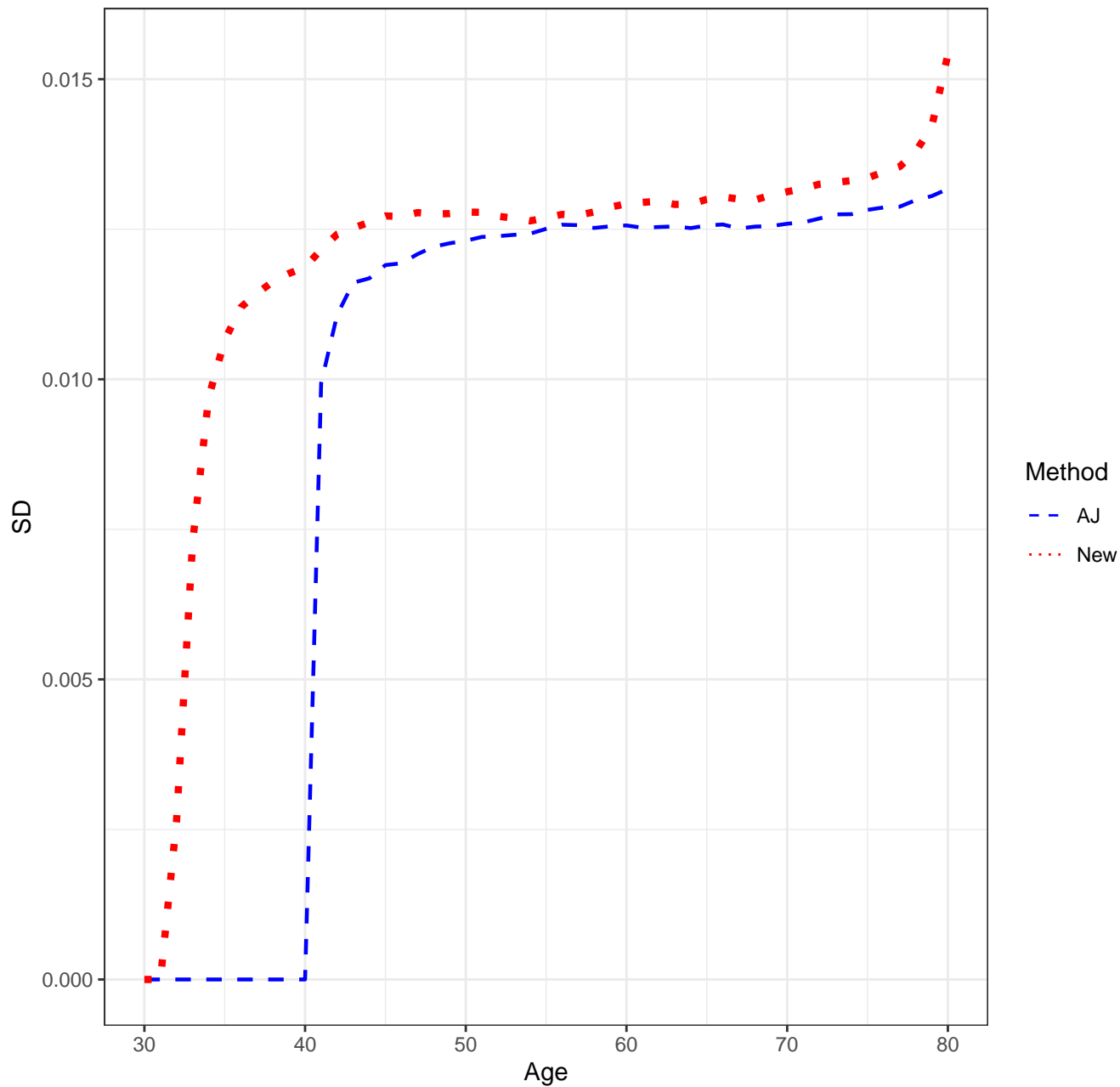
Scenario 3111, n=5000, Means



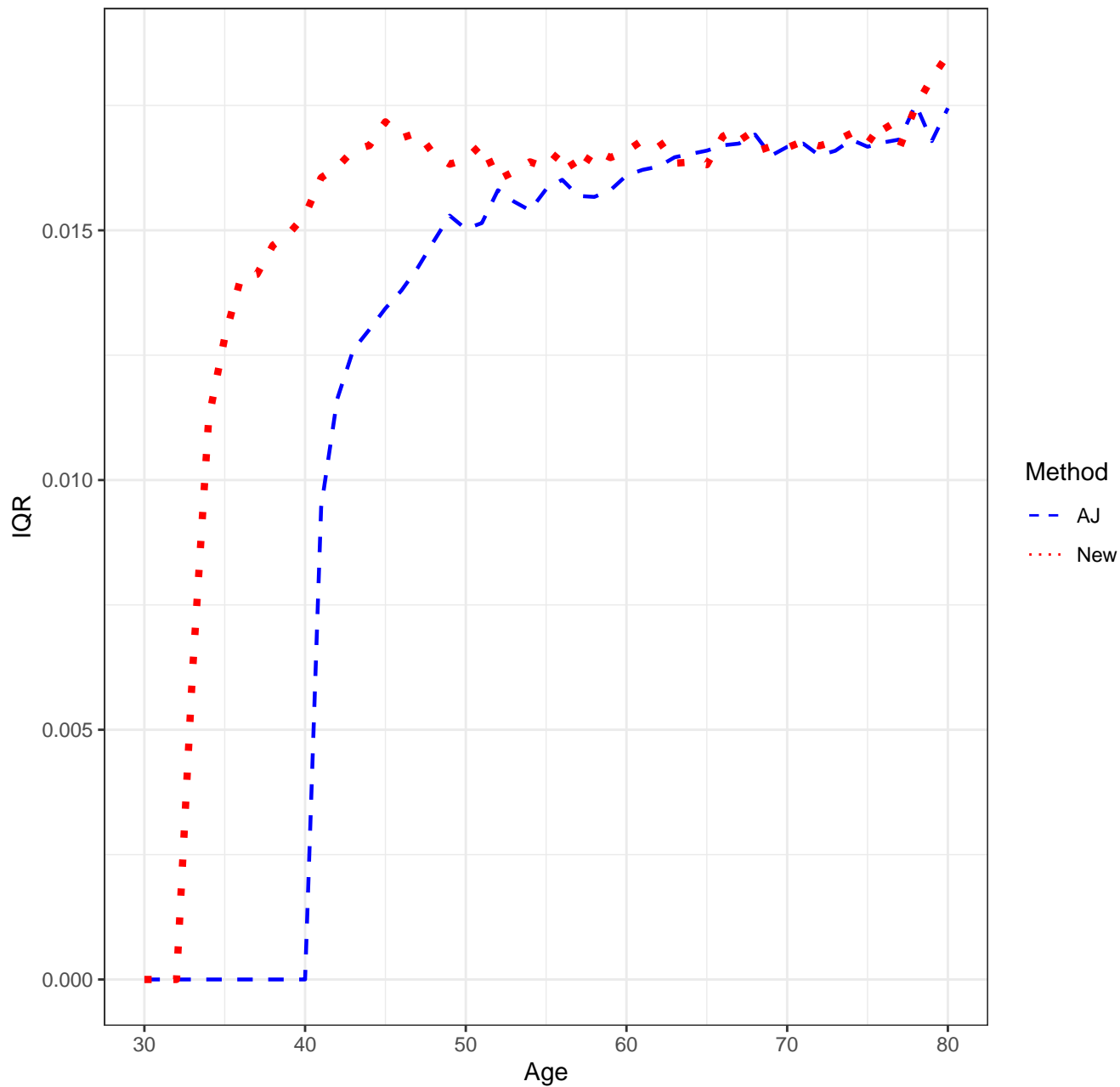
Scenario 3111, n=5000, Medians



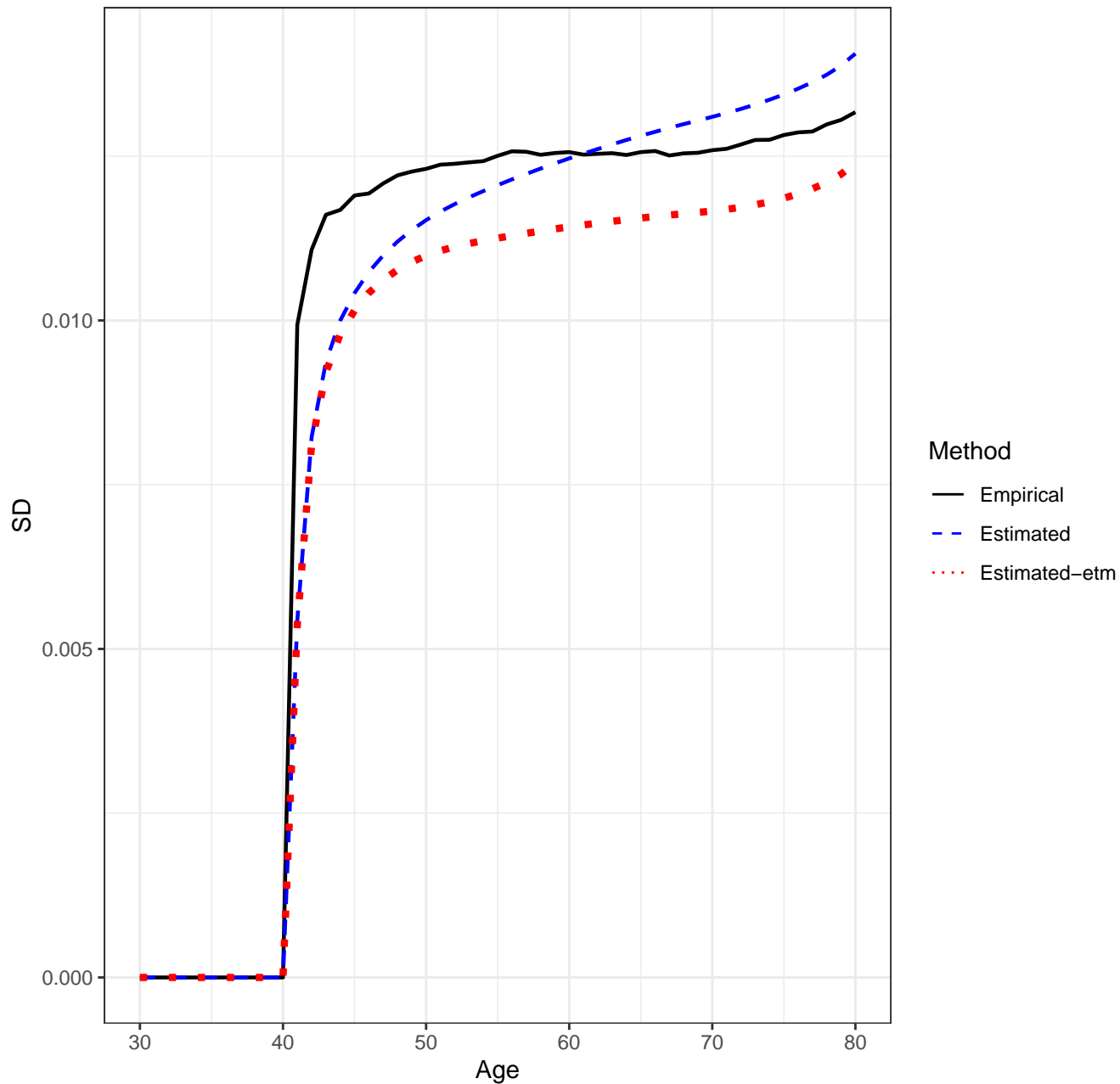
Scenario 3111, n=5000, SD'S



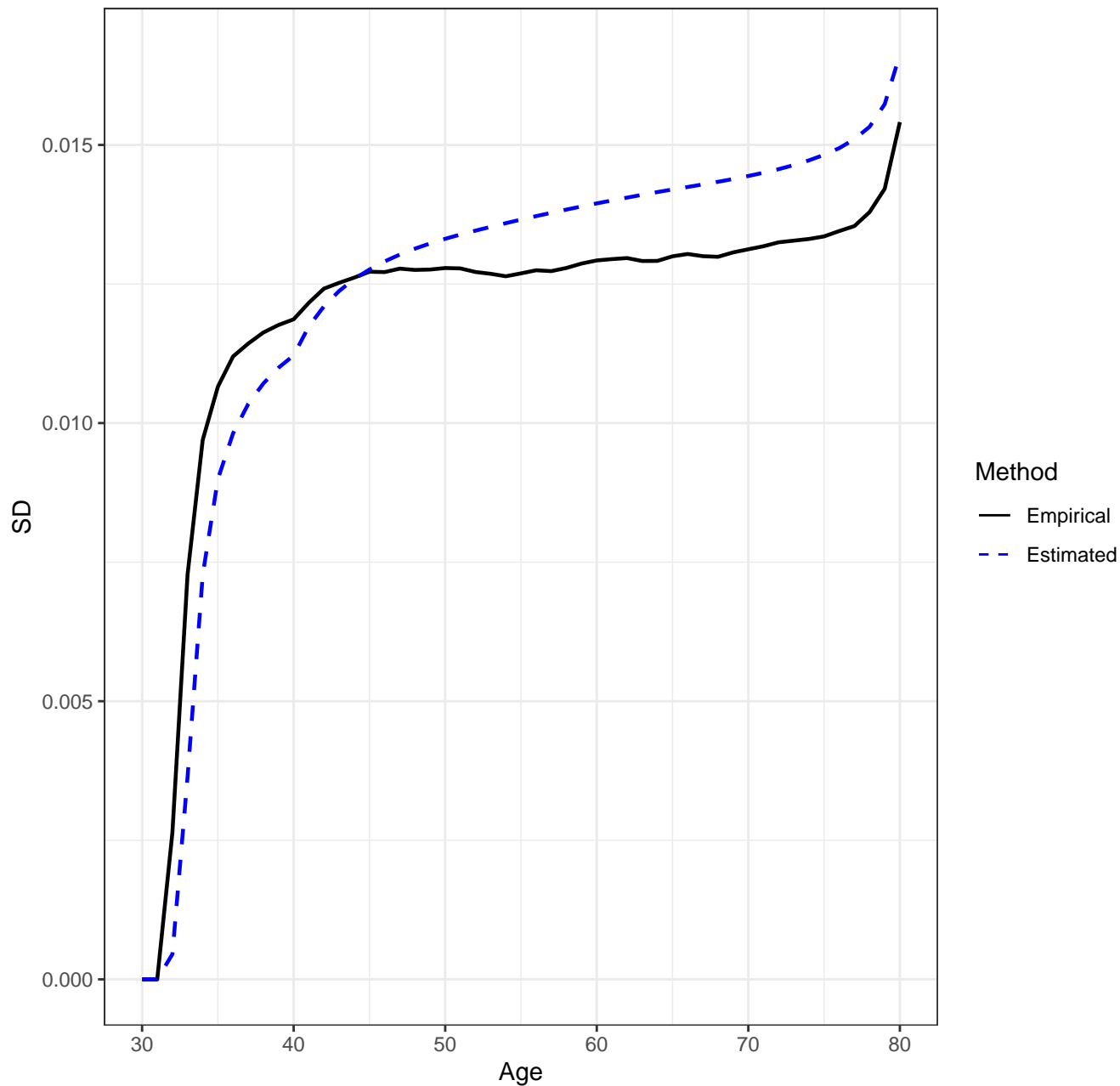
Scenario 3111, n=5000, IQR'S



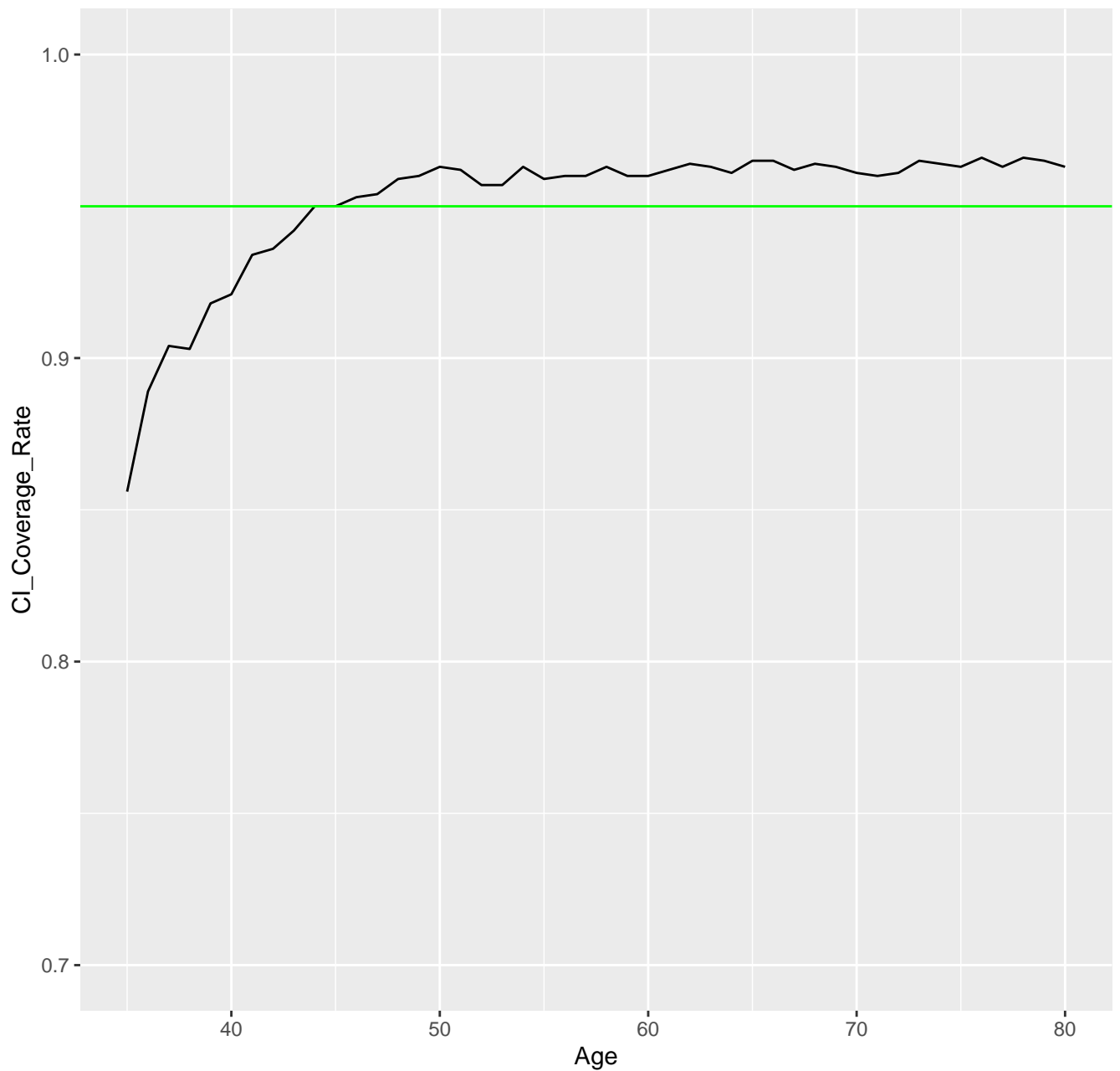
Scenario 3111, n=5000, AJ Estimator, Empirical vs. Estimated SD's



Scenario 3111, n=5000, New Estimator, Empirical vs. Estimated SD's

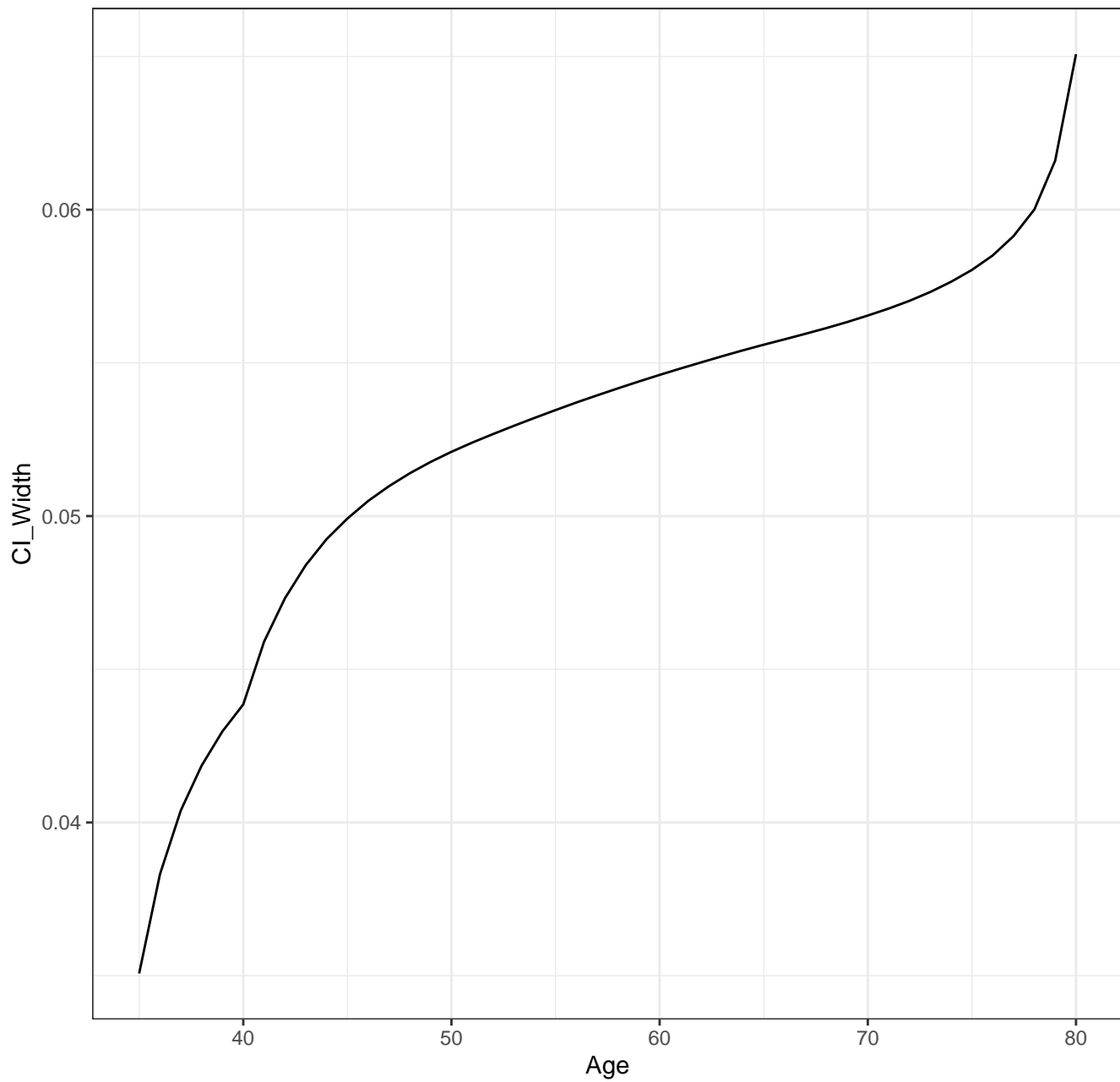


Scenario 3111, n=5000, CI Coverage Rate for New Method





Scenario 3111, n=5000, CI Width for New Estimator



## CONFIDENCE BAND COVERAGE RATES

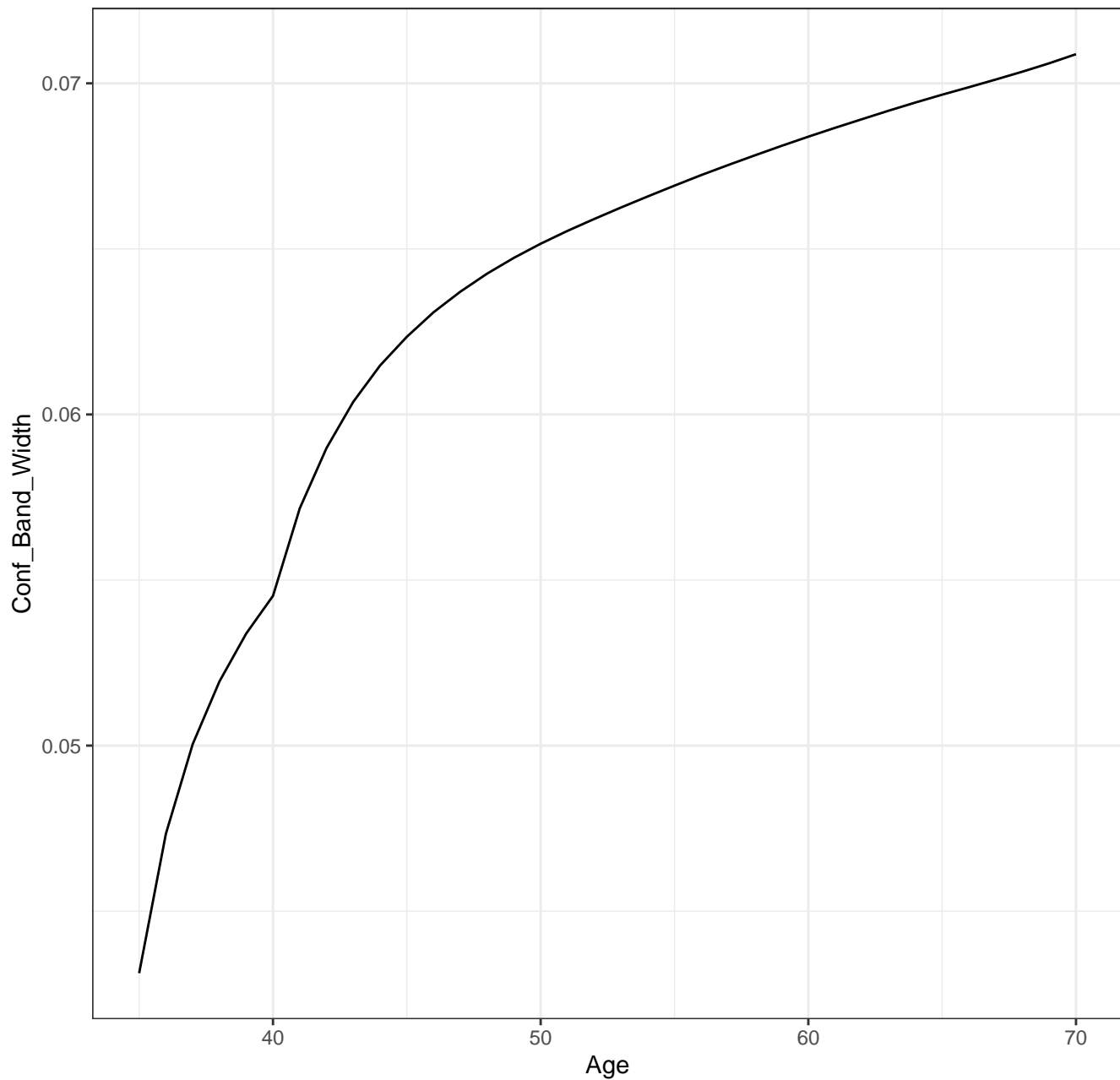
Scenario: 3111

AJ0: 0

AJ: 0.481

New: 0.9

Scenario 3111, n=5000, Confidence Band Width for New Method



## SETTINGS

Scenario: 3112

sample size = 5000

number of simulation replications = 1000

number of bootstrap replications = 250

transformation:  $0.5 \cdot \pi - \arcsin(\sqrt{1-u})$

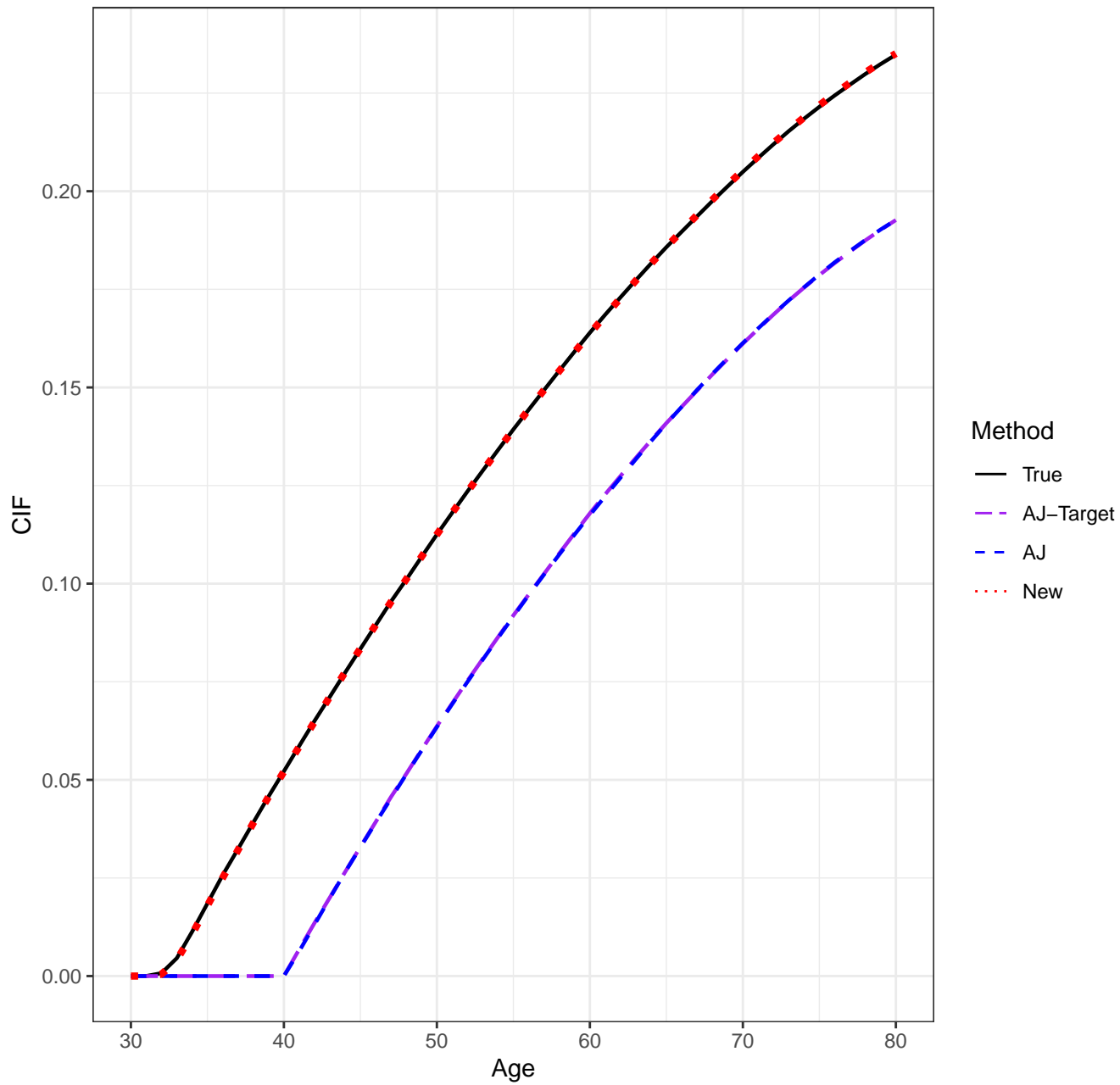
pointwise CI's done by: normal-theory

auxflg = FALSE

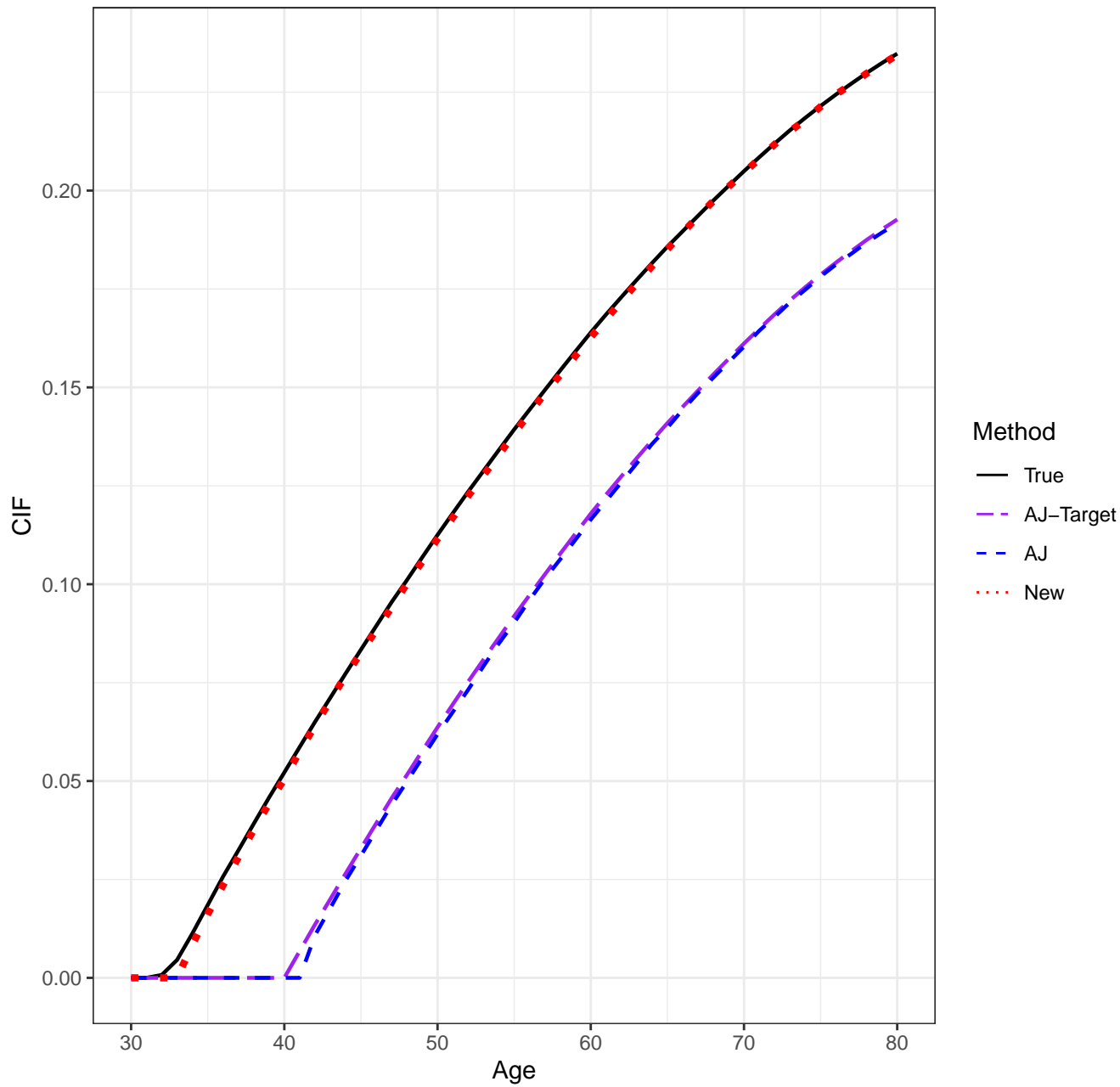
bootstrap weights: normal

Date/Time: 2024-01-17 18:06:48.996484

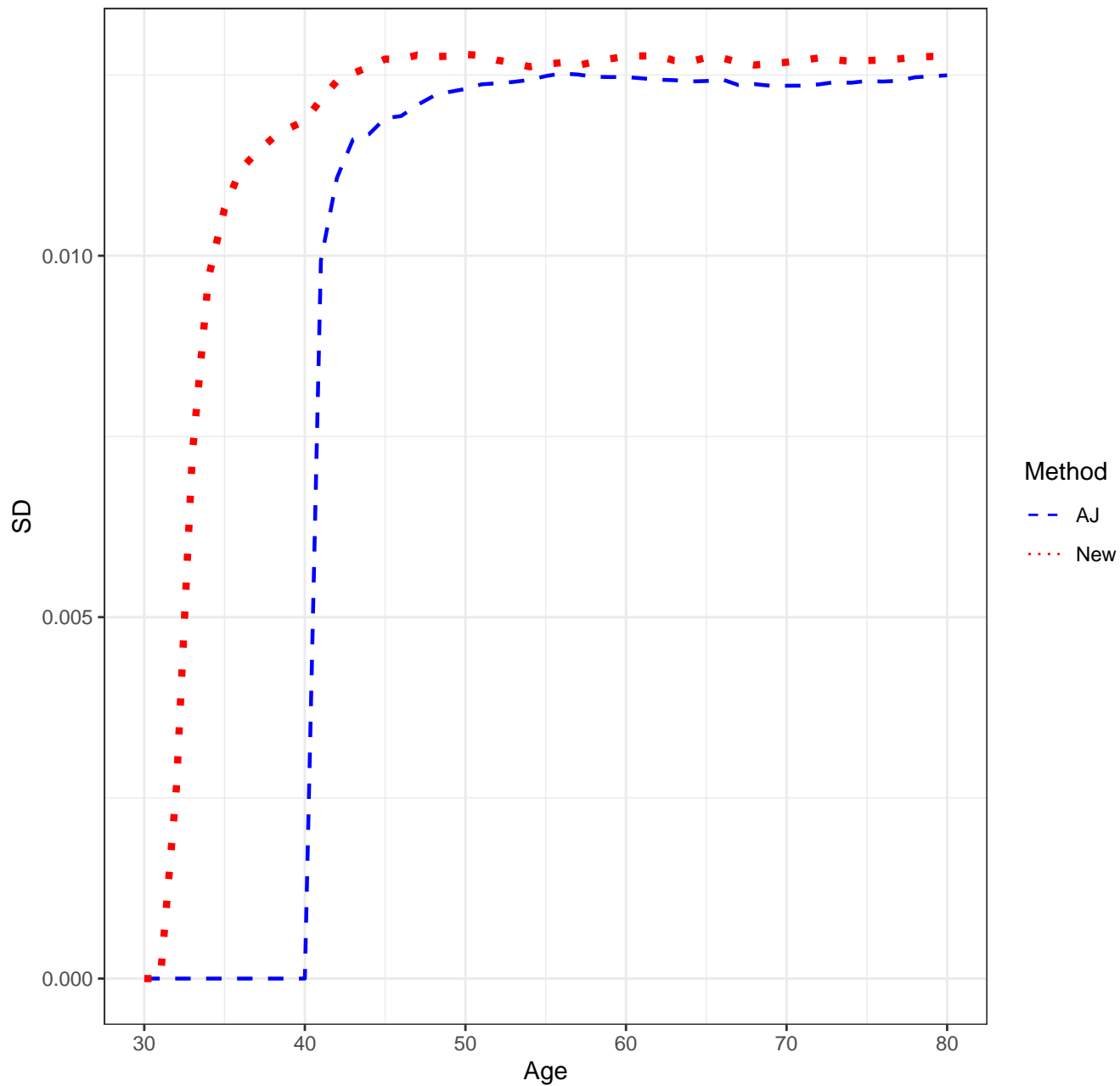
Scenario 3112, n=5000, Means



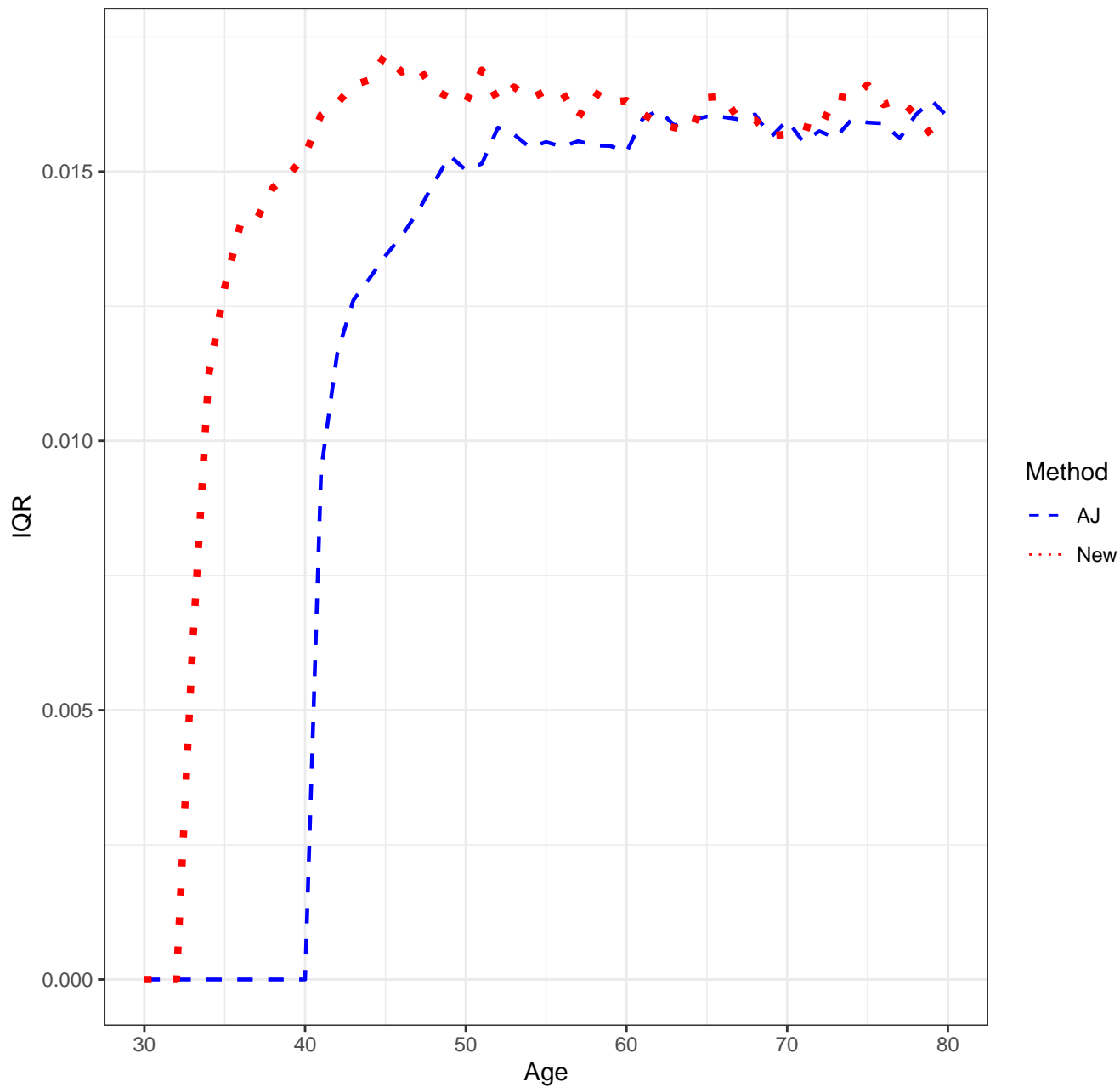
Scenario 3112, n=5000, Medians



Scenario 3112, n=5000, SD'S

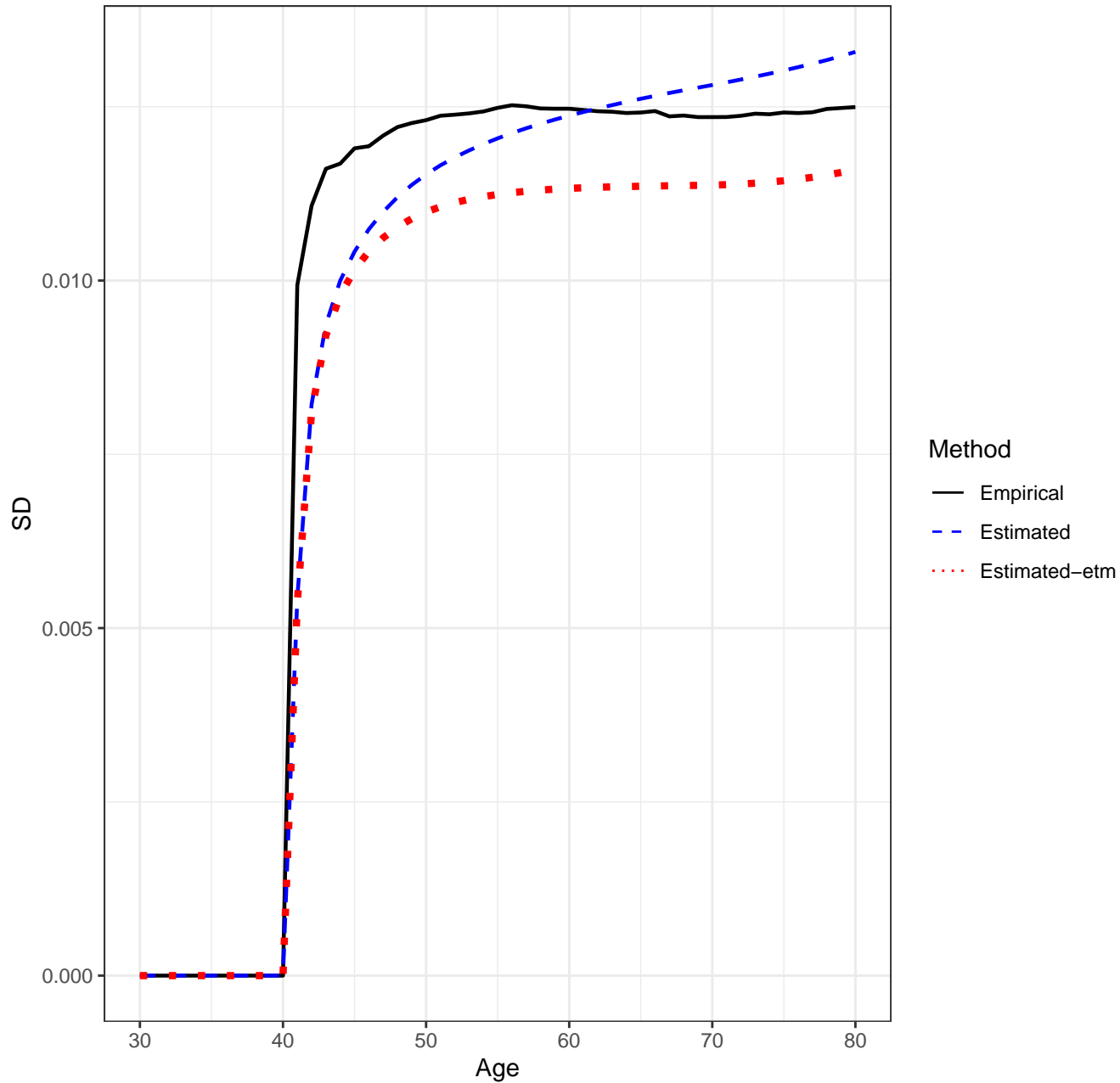


Scenario 3112, n=5000, IQR'S

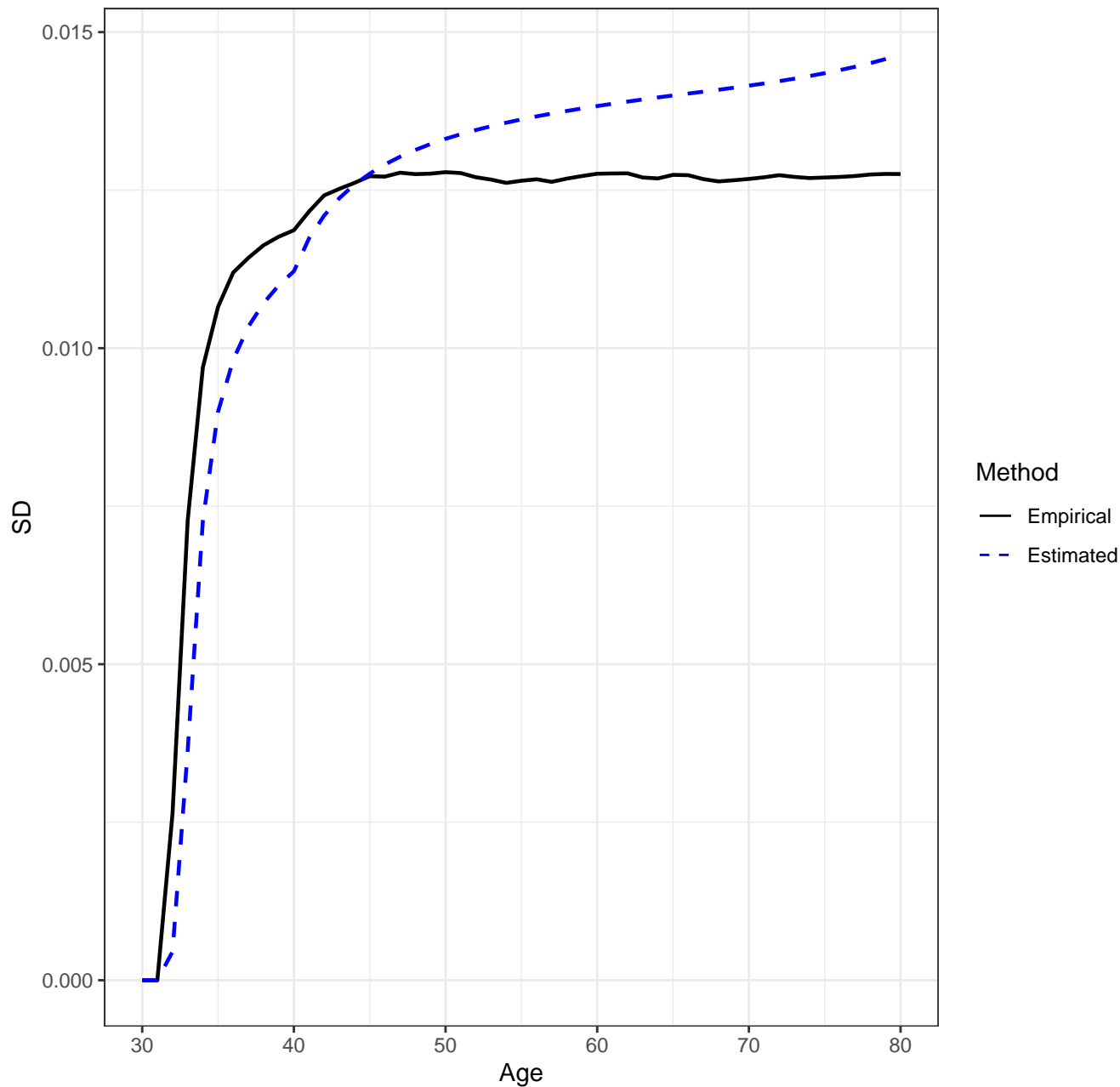




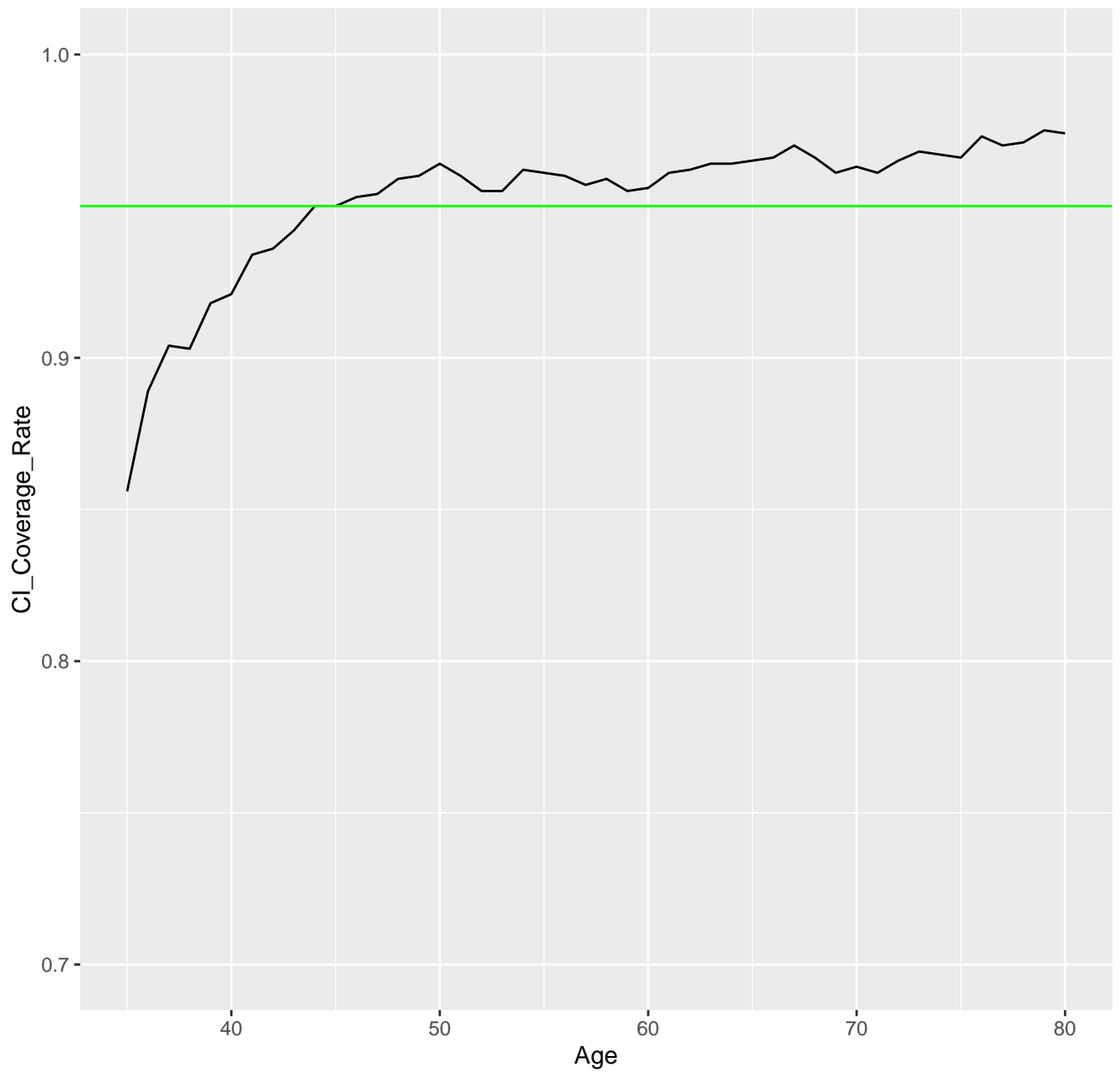
Scenario 3112, n=5000, AJ Estimator, Empirical vs. Estimated SD's



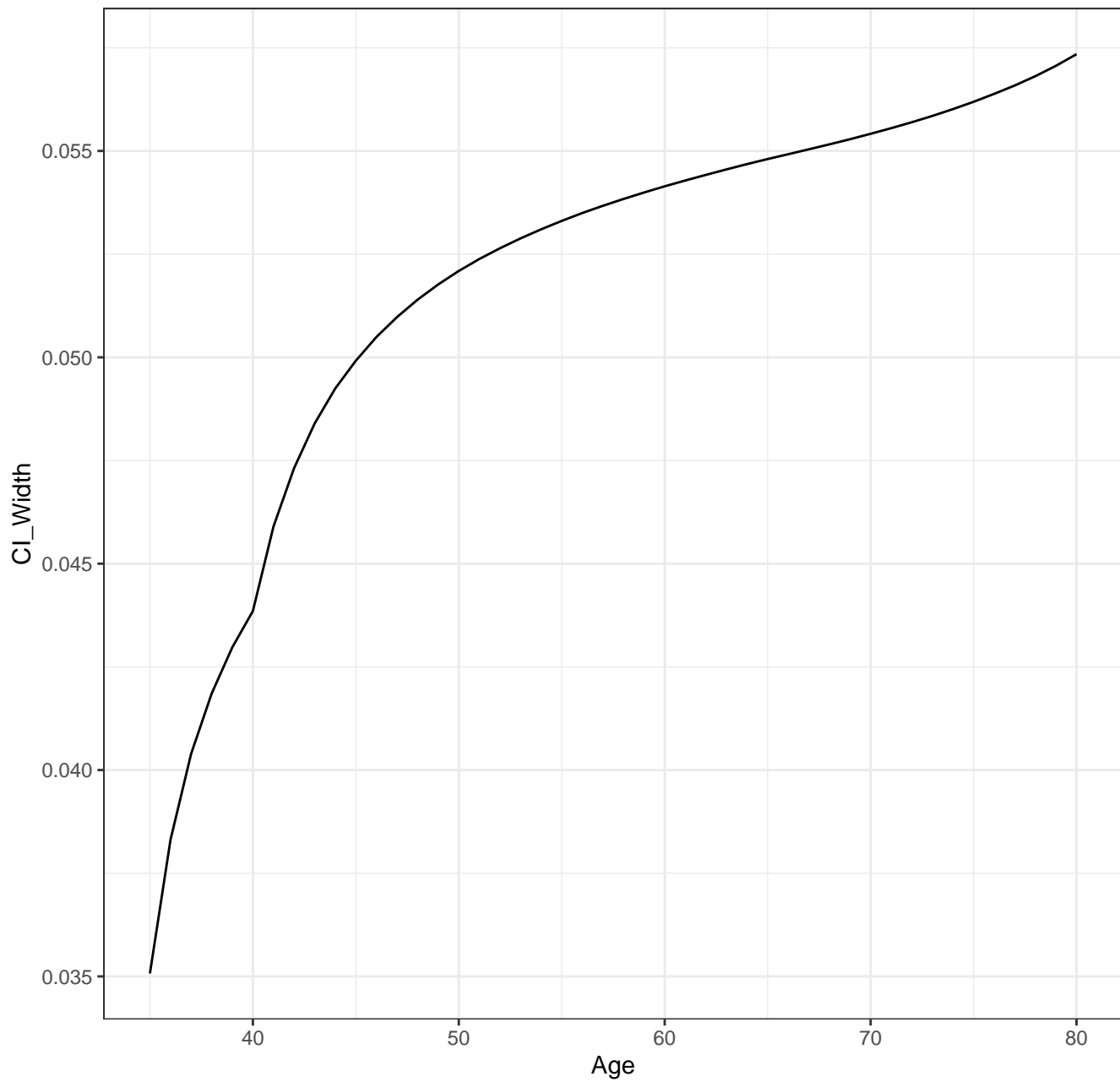
Scenario 3112, n=5000, New Estimator, Empirical vs. Estimated SD's



Scenario 3112, n=5000, CI Coverage Rate for New Method



Scenario 3112, n=5000, CI Width for New Estimator



## CONFIDENCE BAND COVERAGE RATES

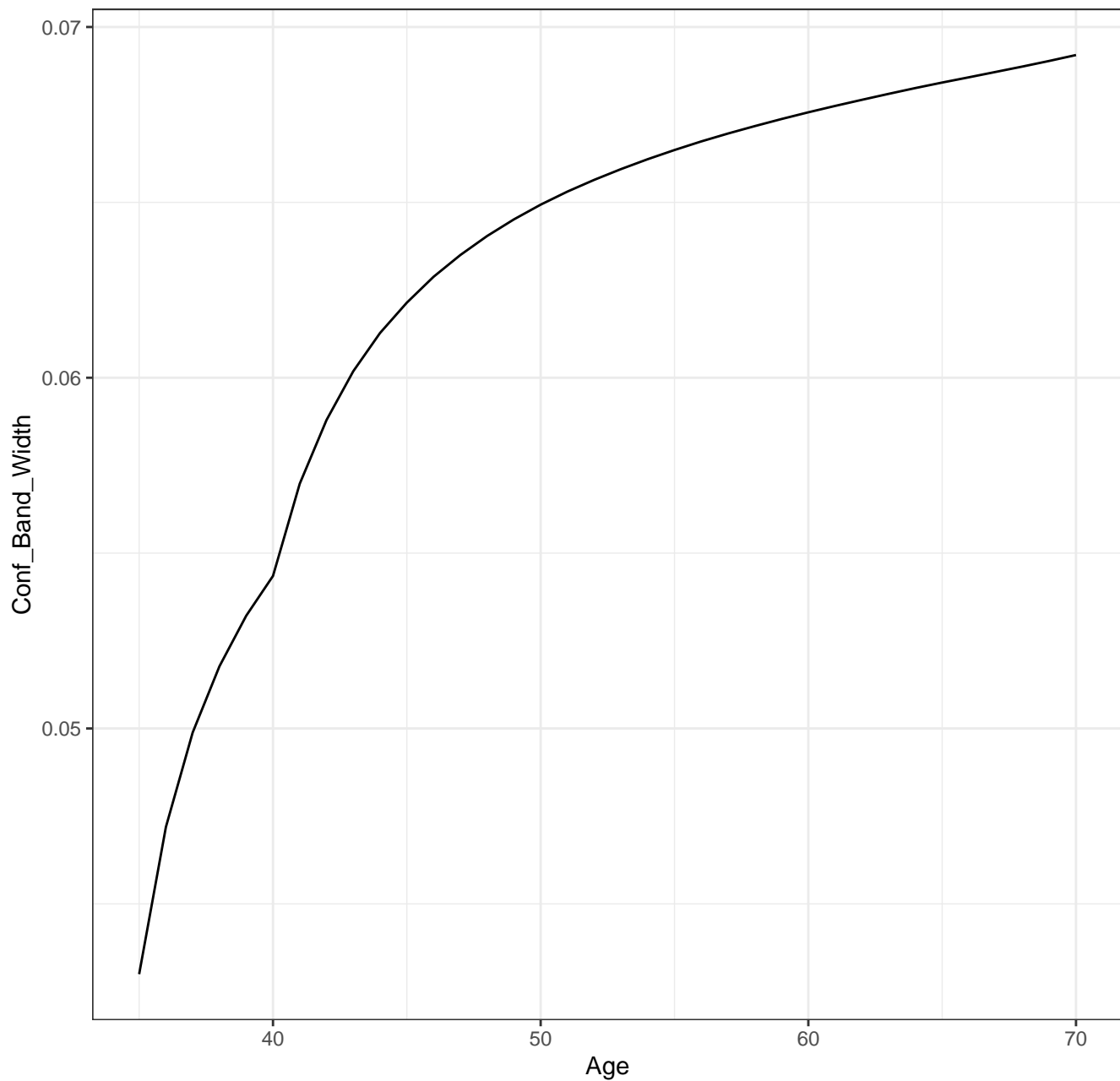
Scenario: 3112

AJ0: 0

AJ: 0.481

New: 0.905

Scenario 3112, n=5000, Confidence Band Width for New Method



## SETTINGS

Scenario: 3121

sample size = 5000

number of simulation replications = 1000

number of bootstrap replications = 250

transformation:  $0.5 \cdot \pi - \arcsin(\sqrt{1-u})$

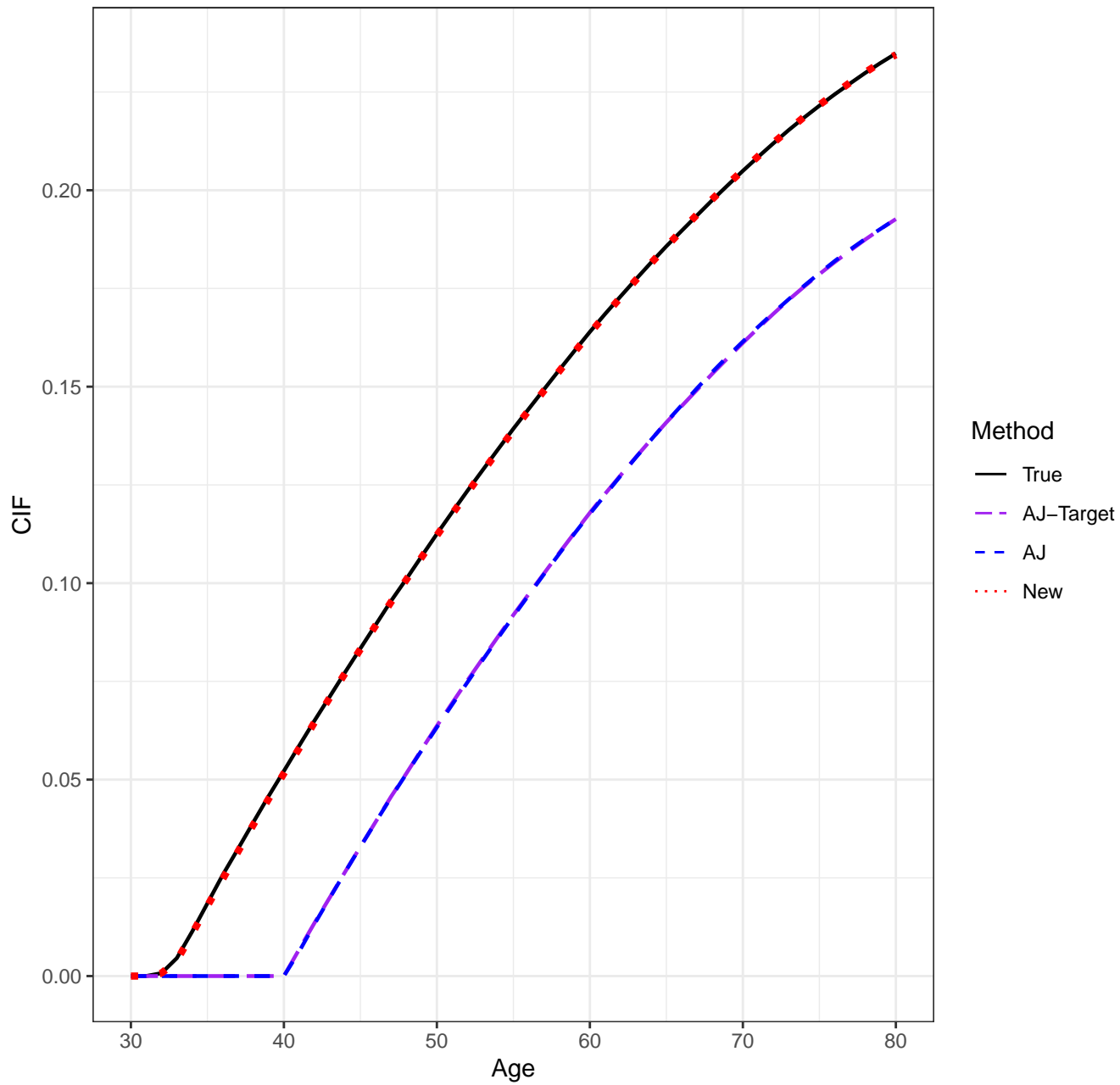
pointwise CI's done by: normal-theory

auxflg = FALSE

bootstrap weights: normal

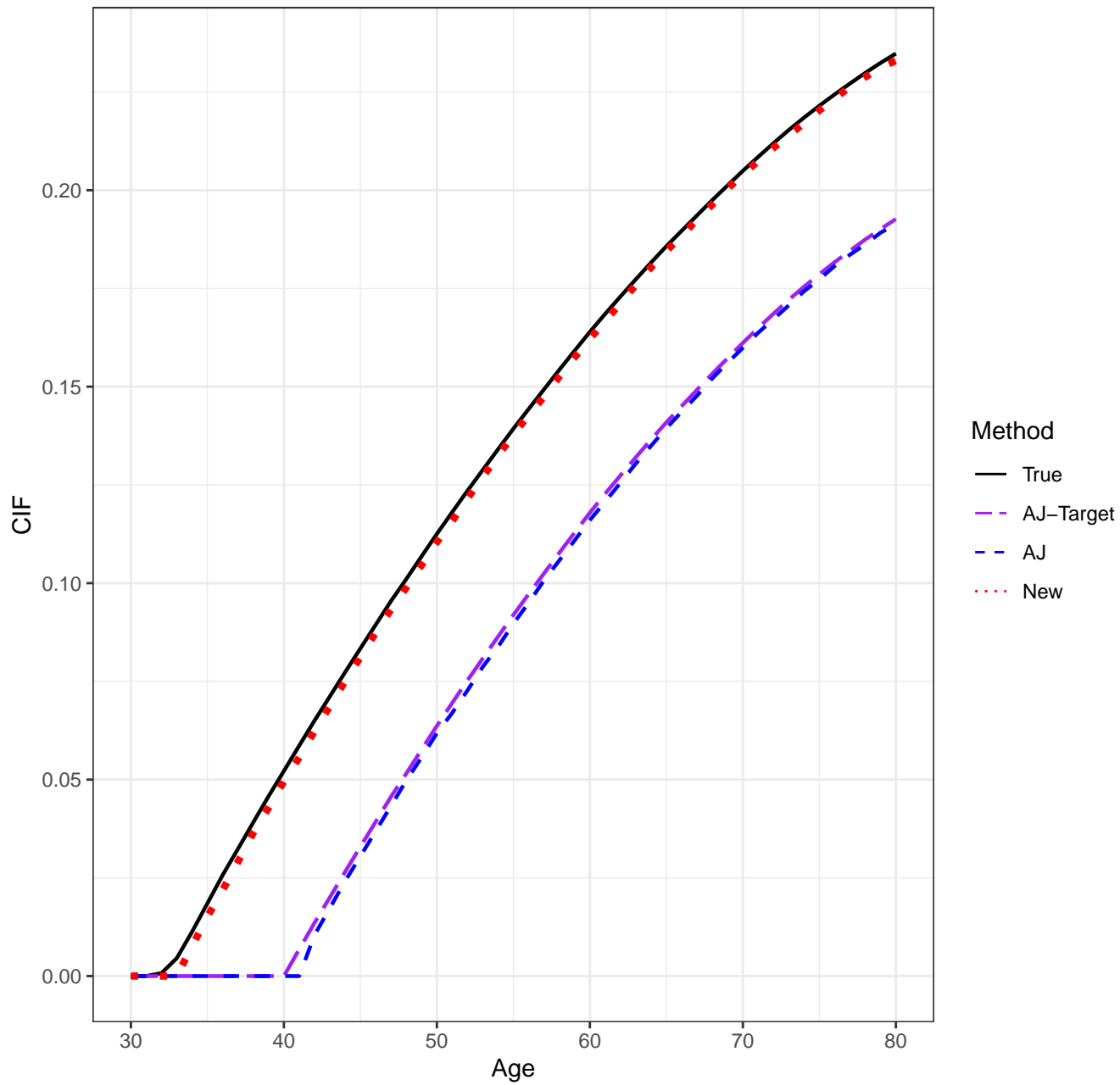
Date/Time: 2024-01-17 19:23:16.568723

Scenario 3121, n=5000, Means

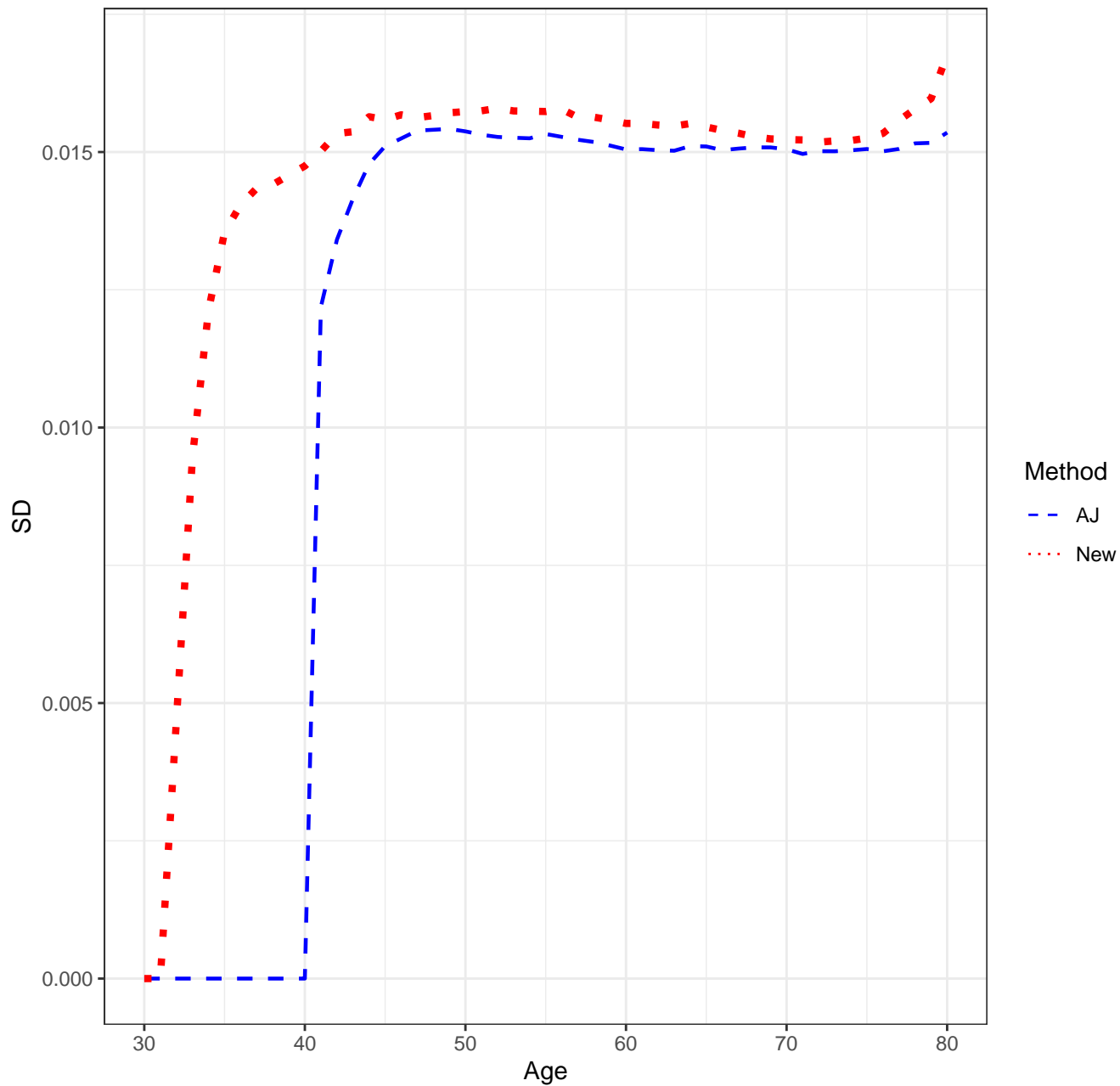




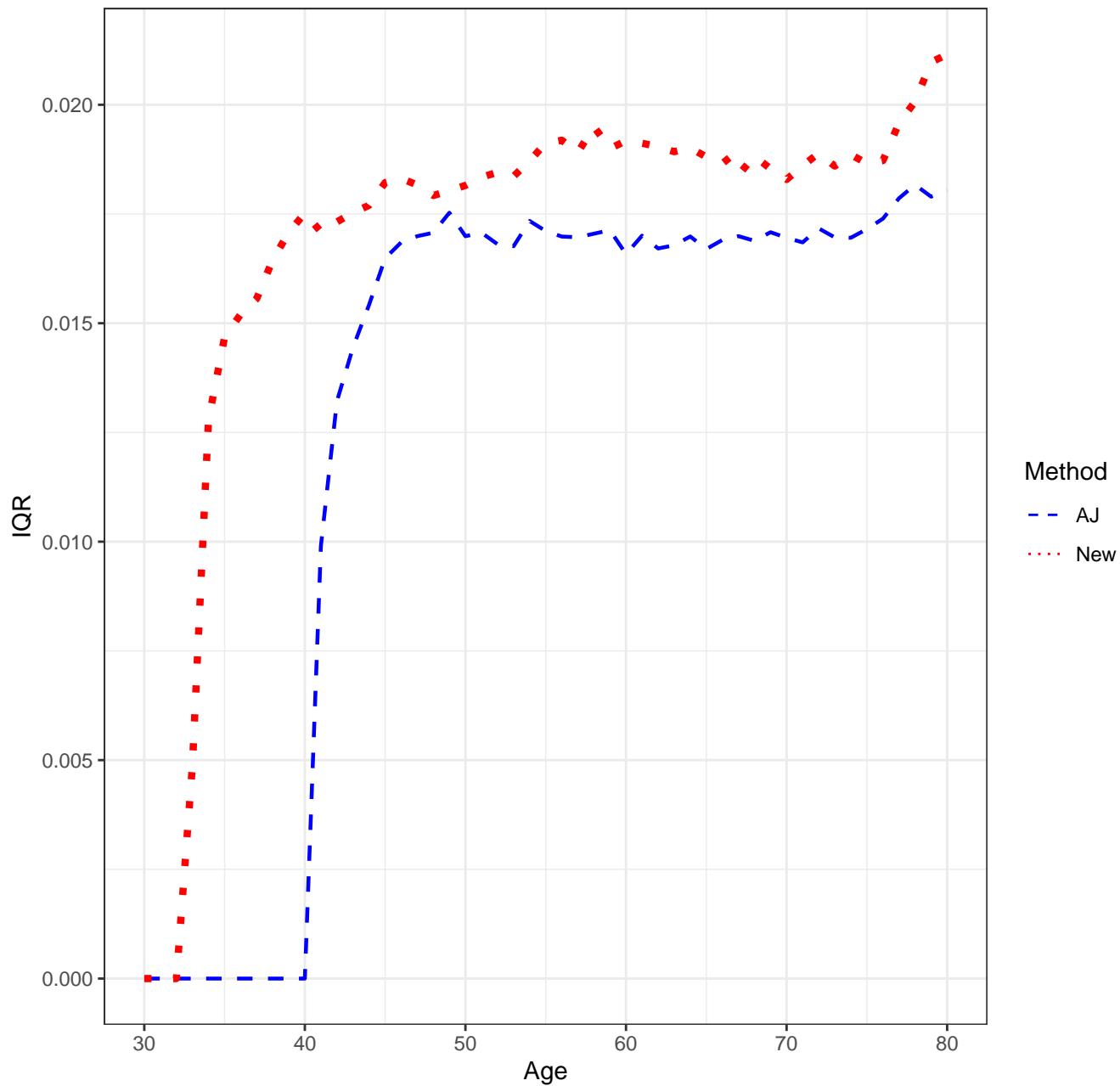
Scenario 3121, n=5000, Medians



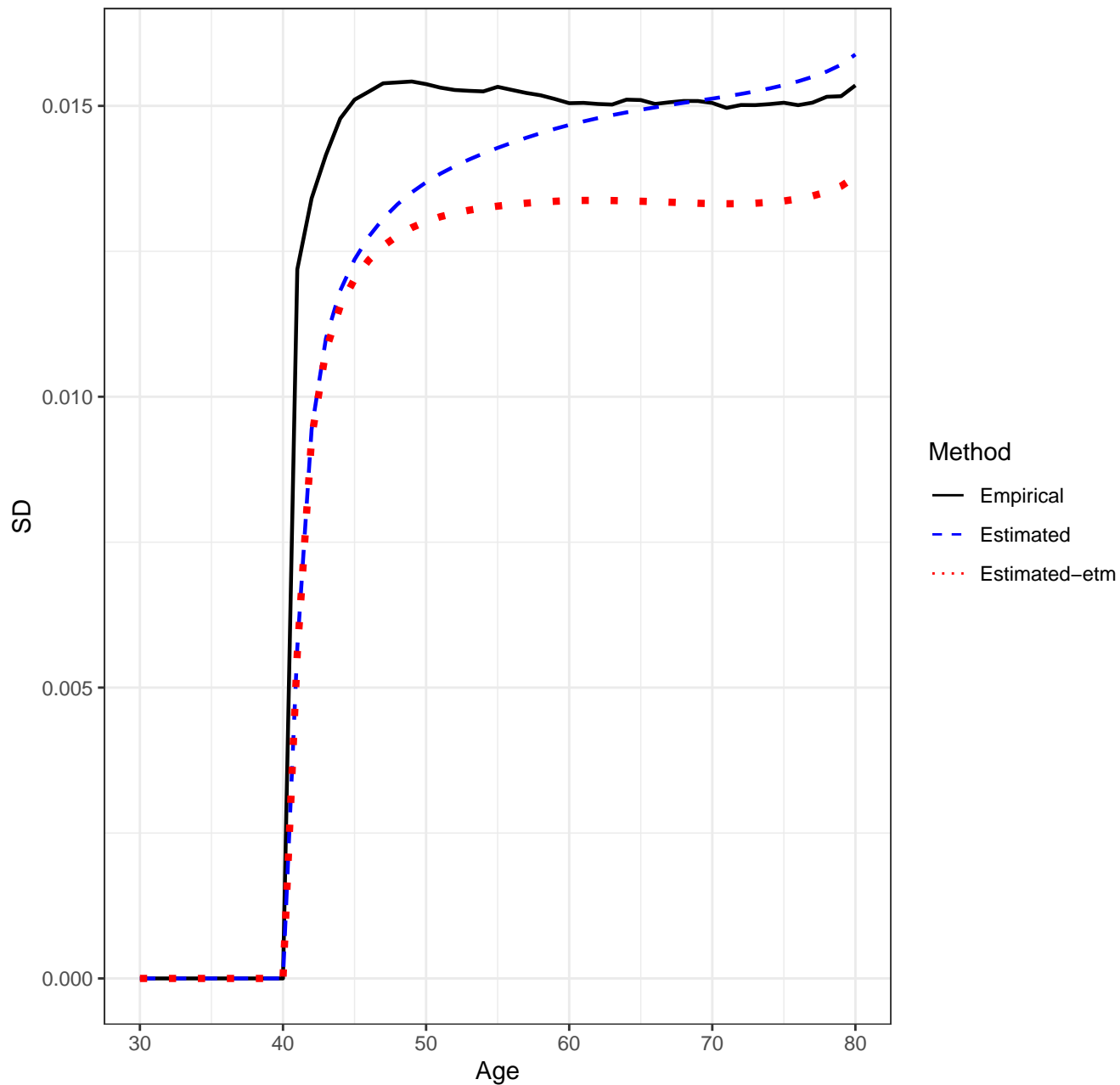
Scenario 3121, n=5000, SD'S



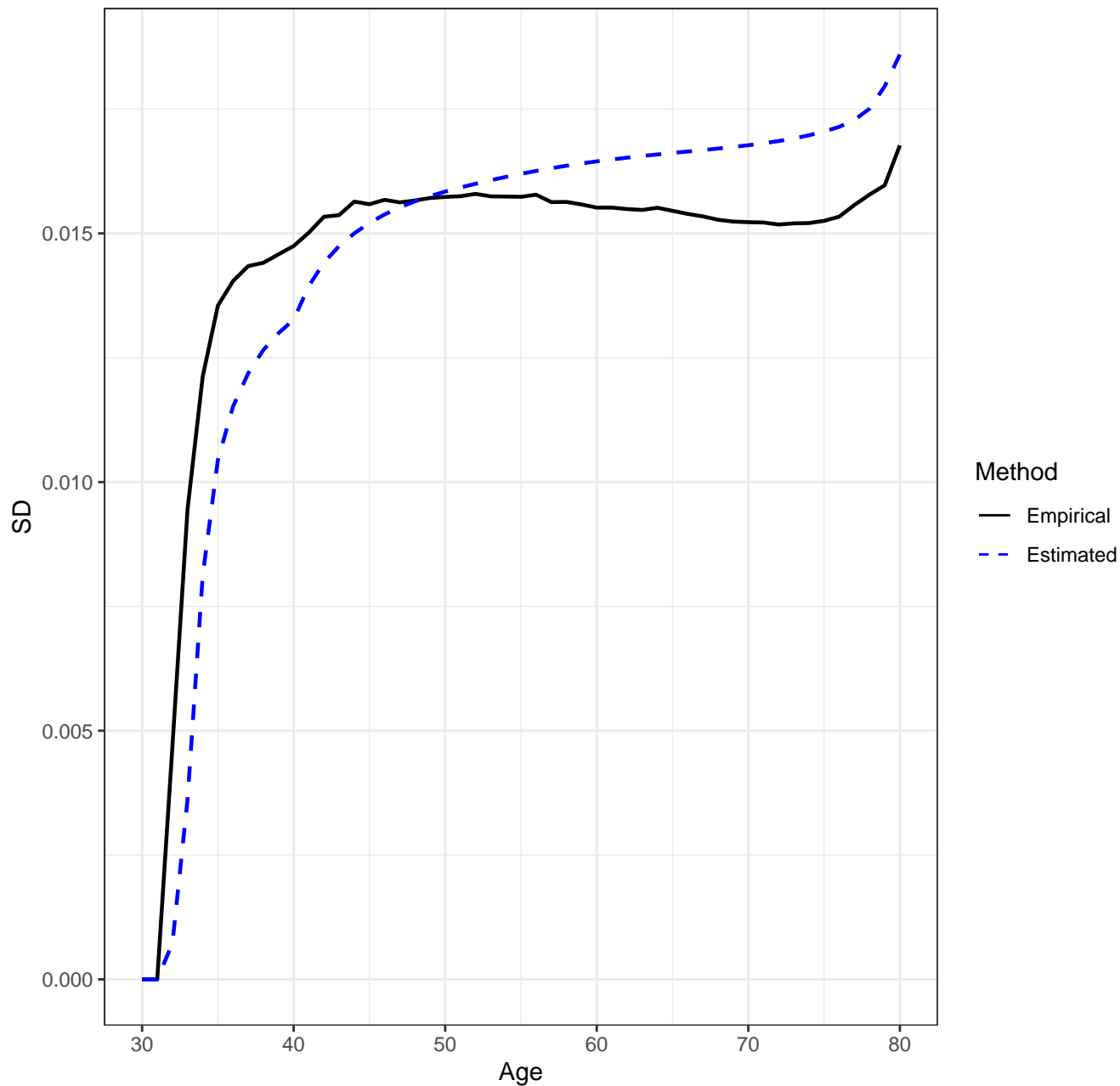
Scenario 3121, n=5000, IQR'S



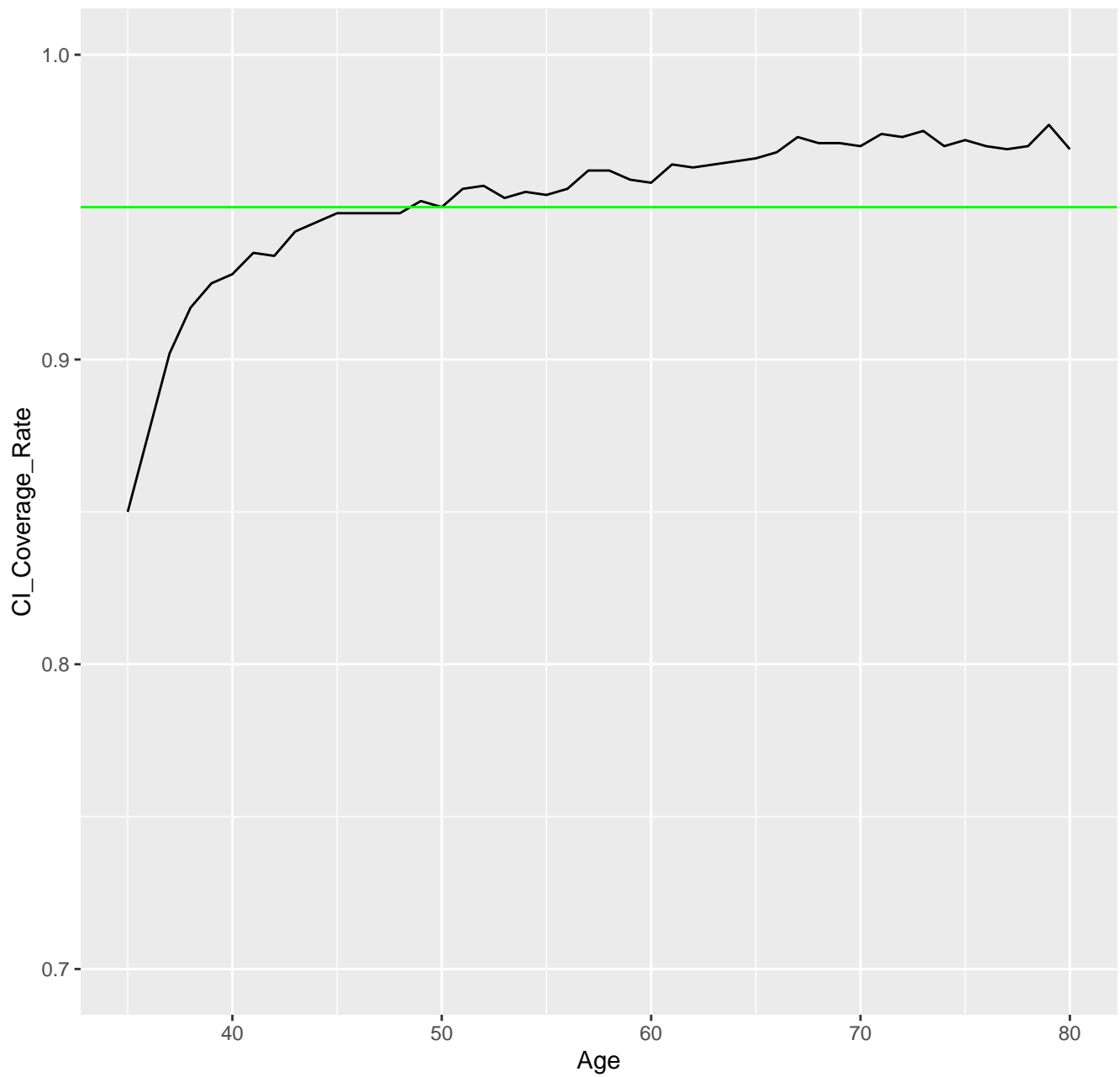
Scenario 3121, n=5000, AJ Estimator, Empirical vs. Estimated SD's



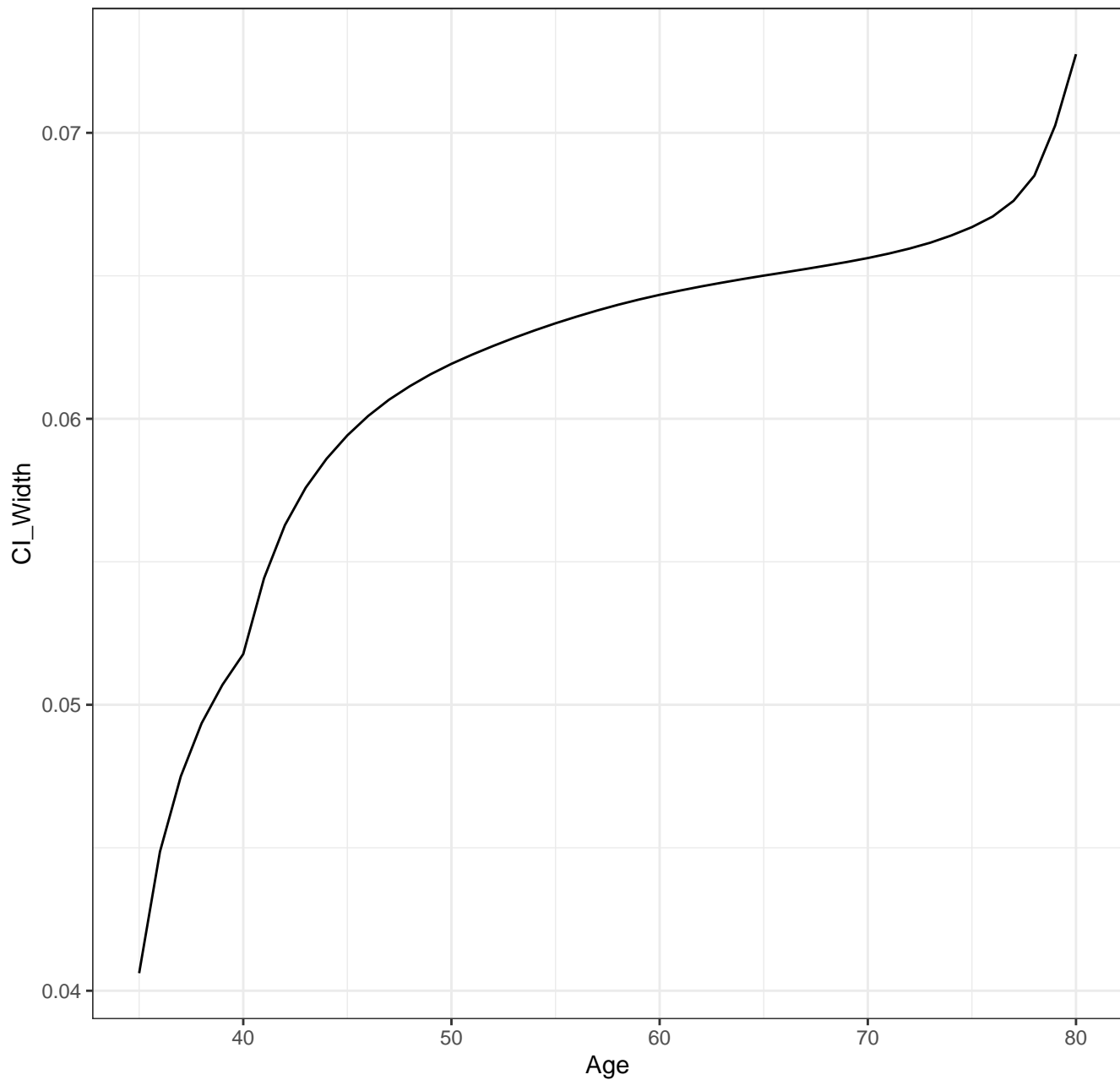
Scenario 3121, n=5000, New Estimator, Empirical vs. Estimated SD's



Scenario 3121, n=5000, CI Coverage Rate for New Method



Scenario 3121, n=5000, CI Width for New Estimator



## CONFIDENCE BAND COVERAGE RATES

Scenario: 3121

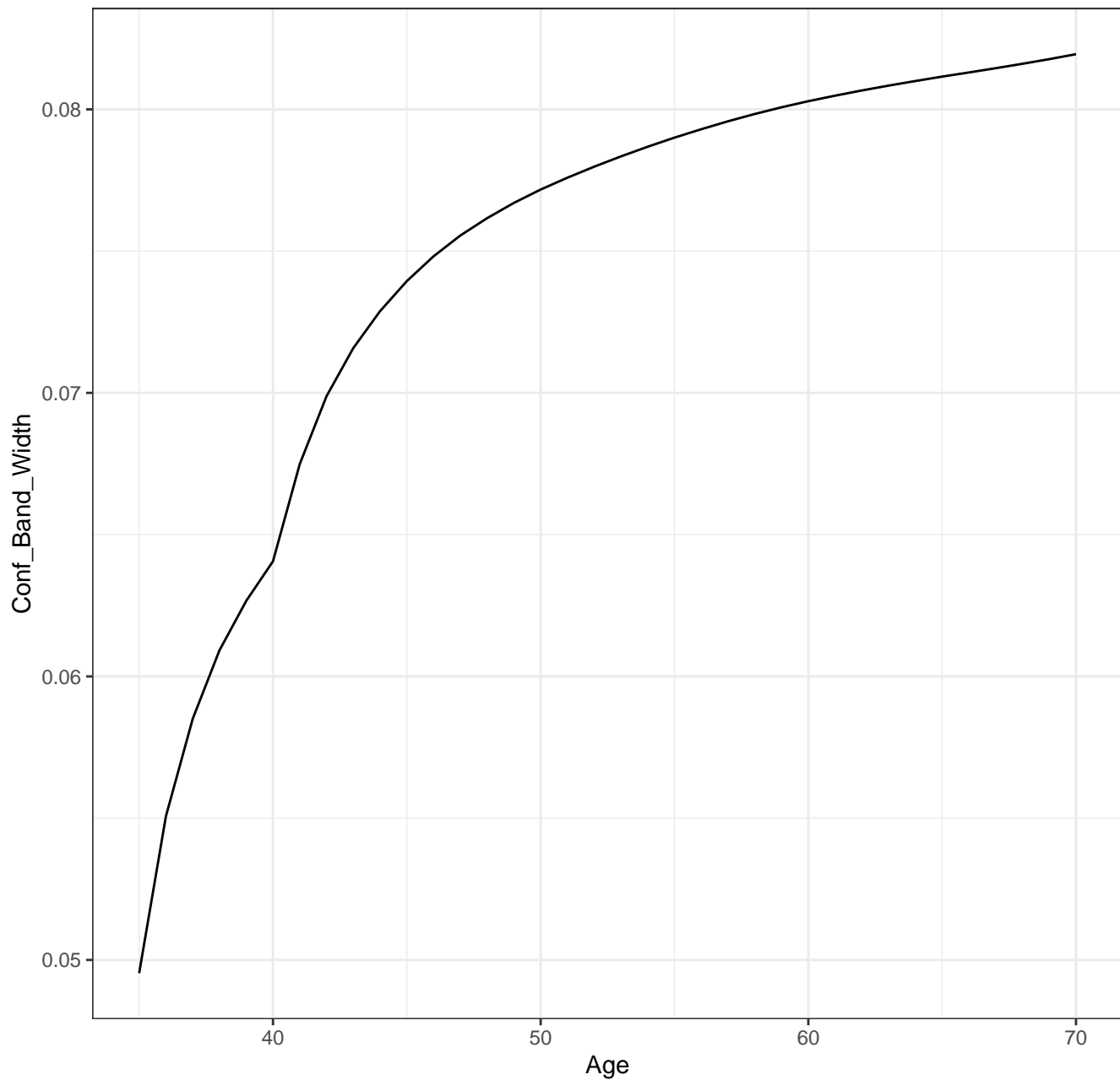
AJ0: 0

AJ: 0.354

New: 0.875



Scenario 3121, n=5000, Confidence Band Width for New Method



## SETTINGS

Scenario: 3122

sample size = 5000

number of simulation replications = 1000

number of bootstrap replications = 250

transformation:  $0.5 \cdot \pi - \arcsin(\sqrt{1-u})$

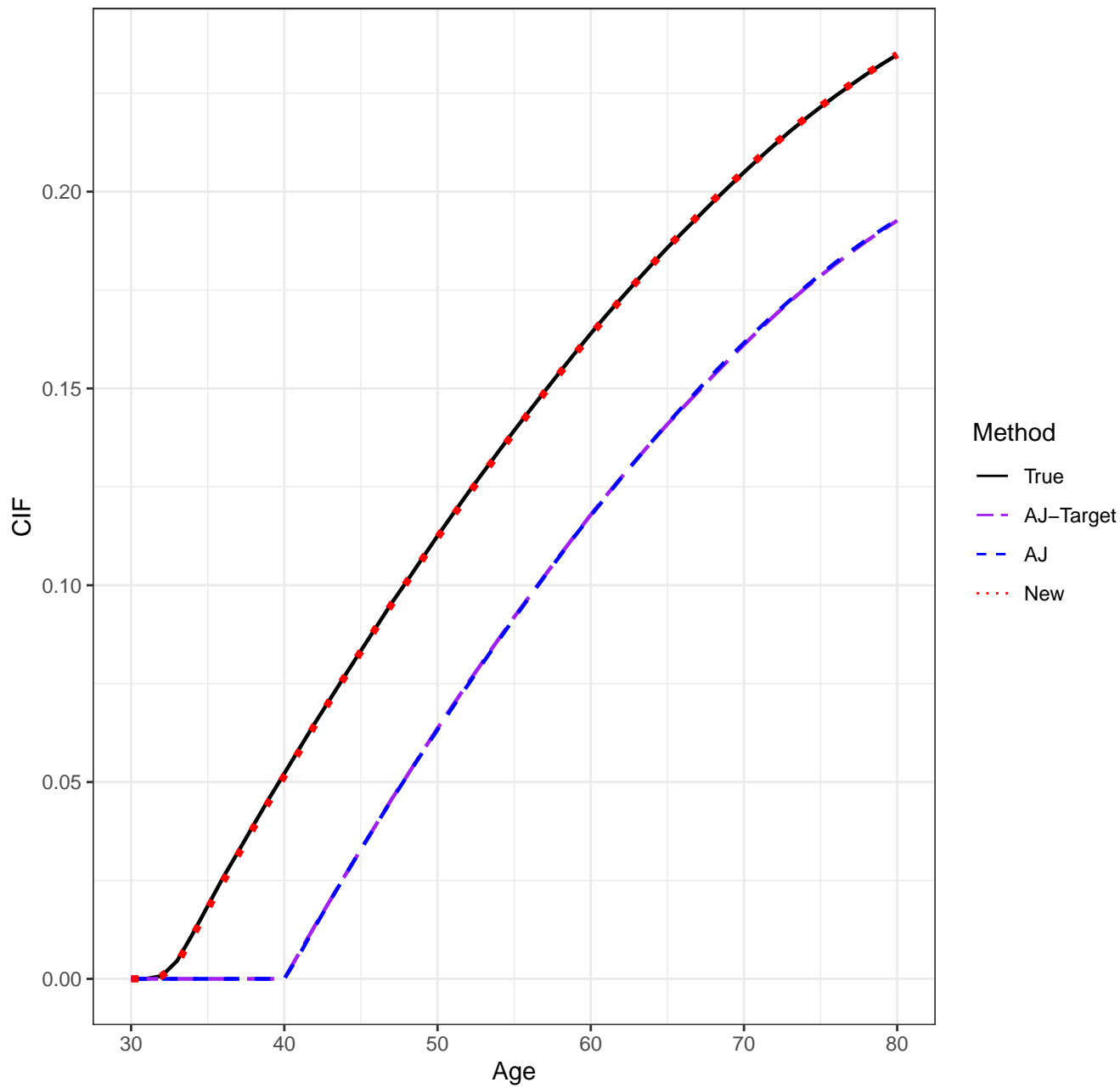
pointwise CI's done by: normal-theory

auxflg = FALSE

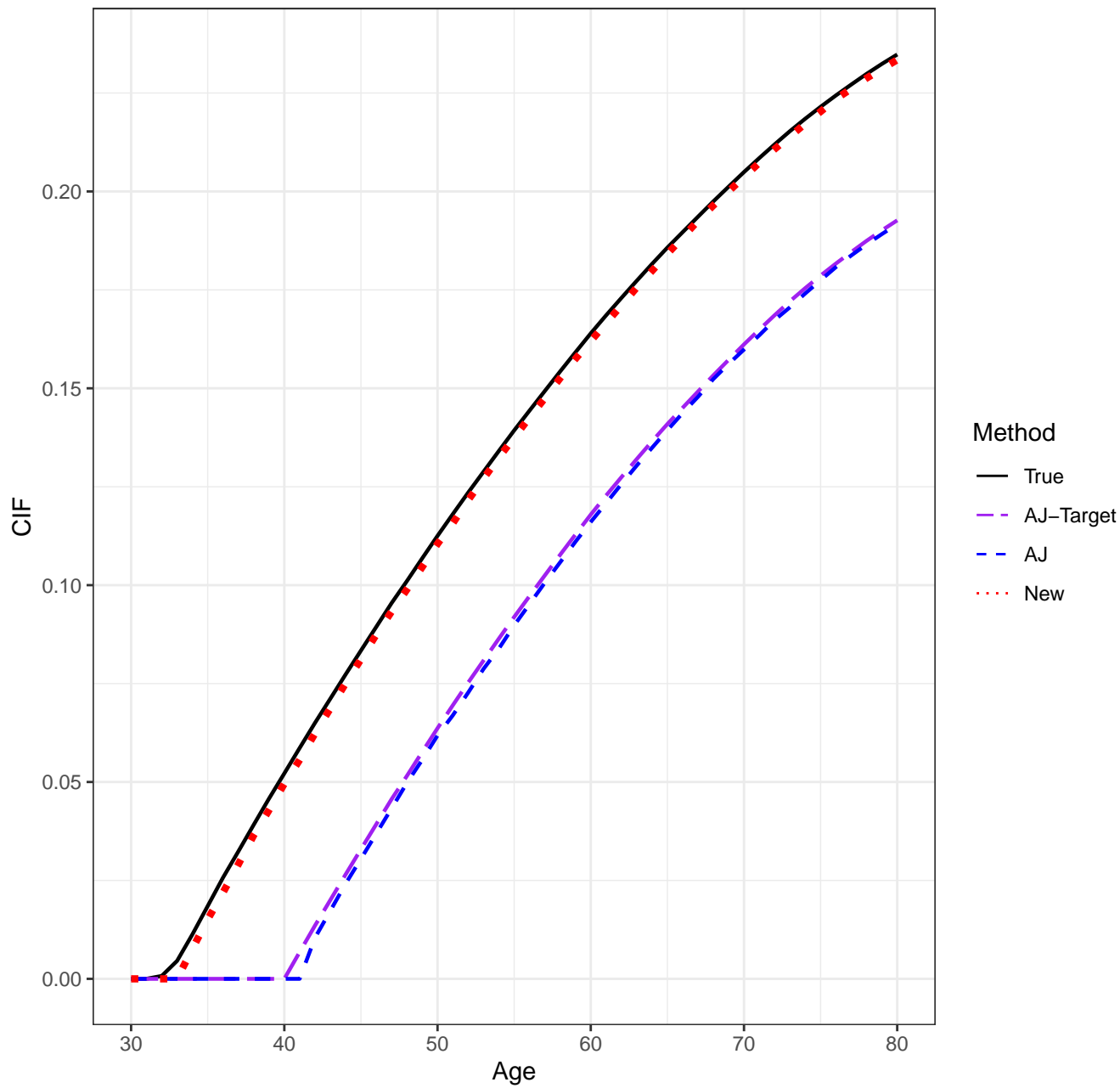
bootstrap weights: normal

Date/Time: 2024-01-17 20:30:11.646124

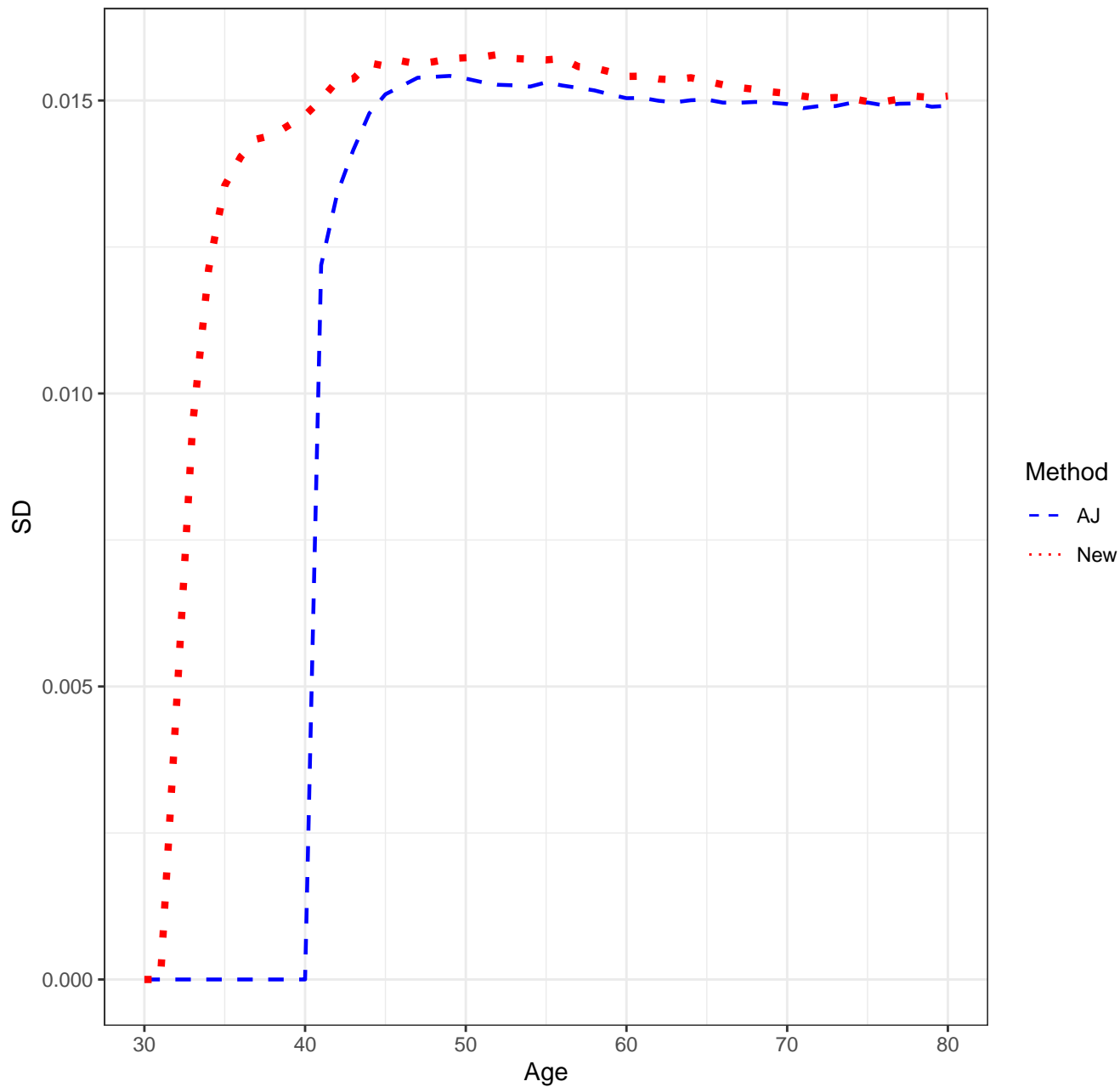
Scenario 3122, n=5000, Means



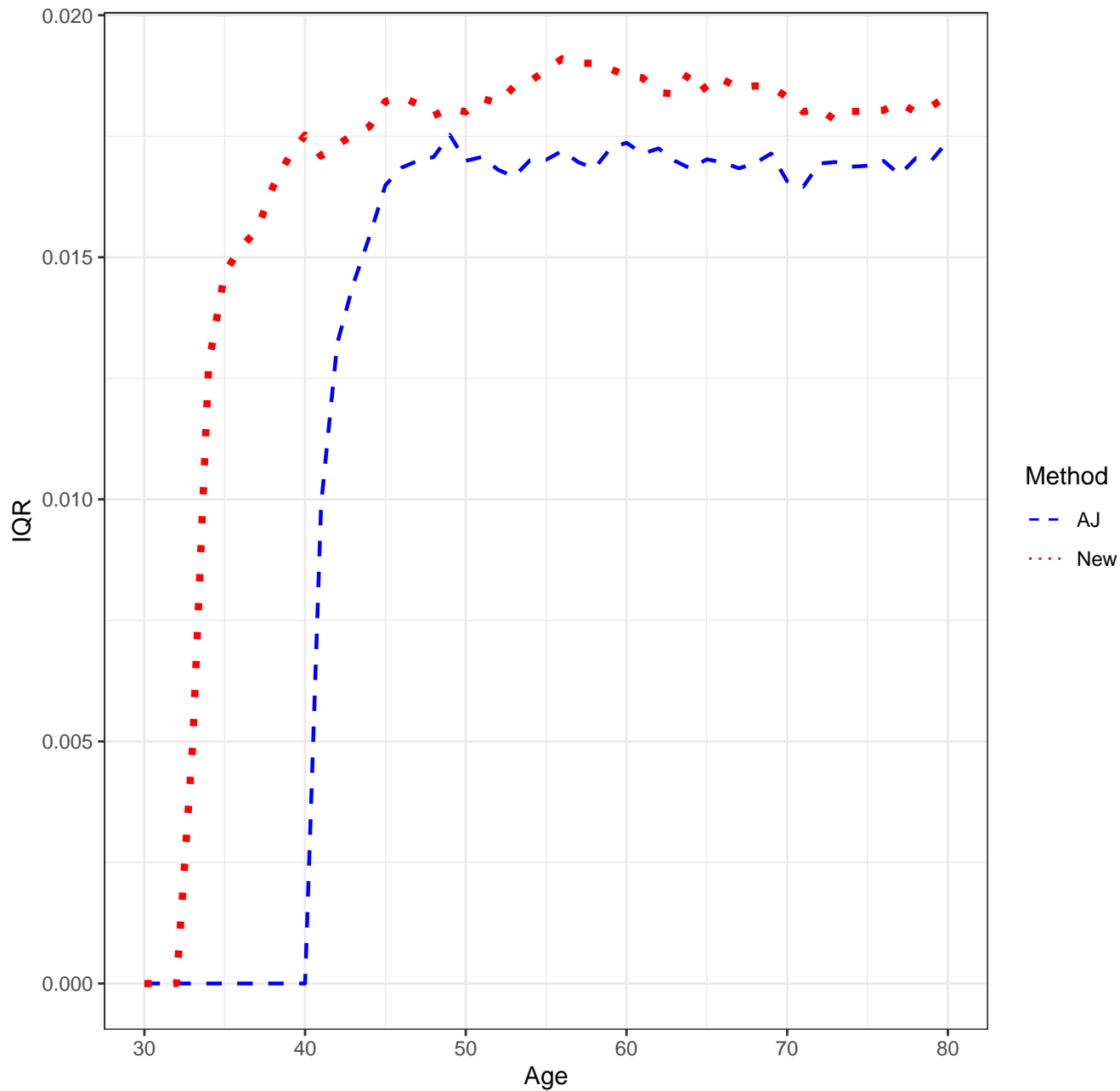
Scenario 3122, n=5000, Medians



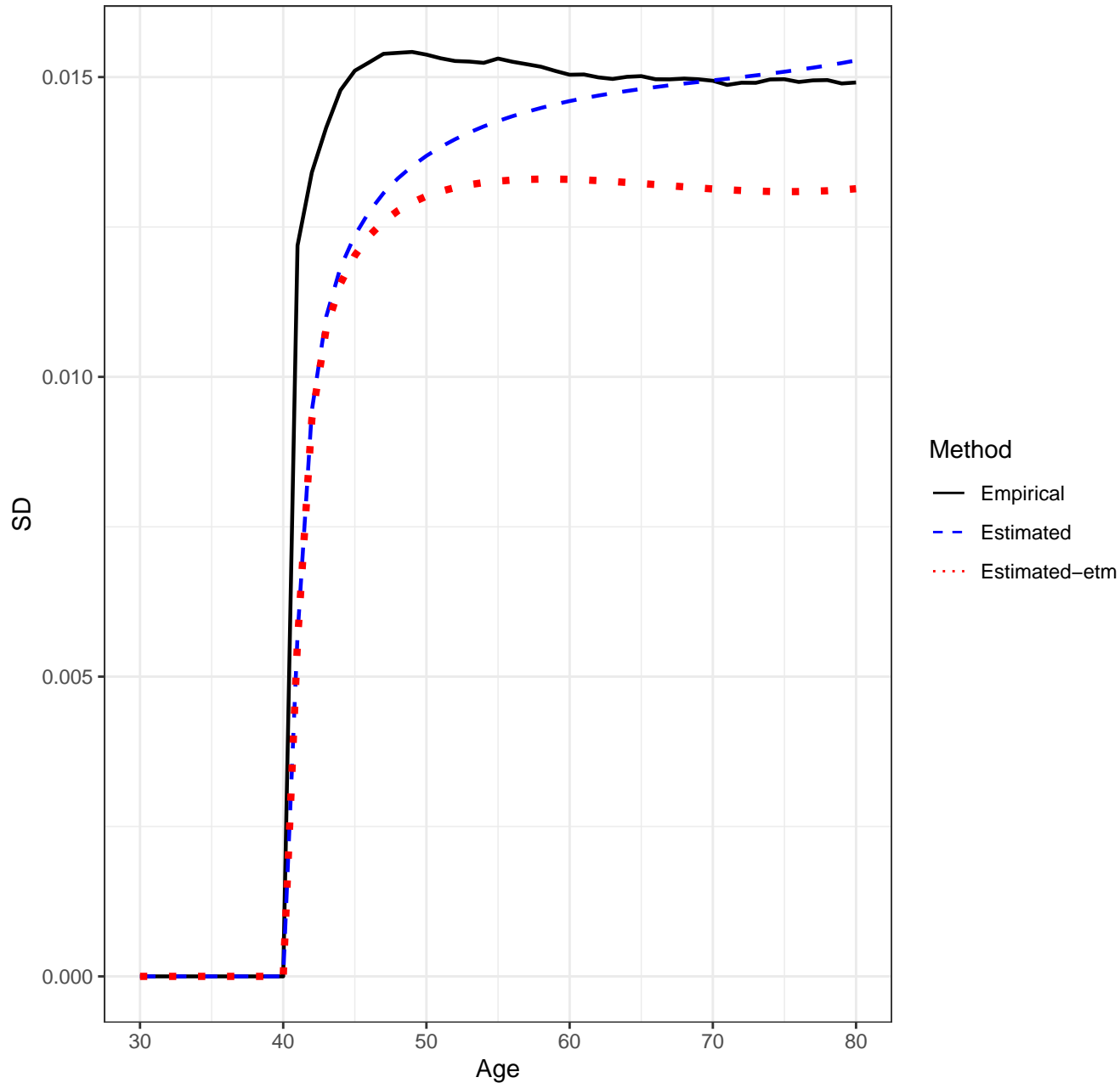
Scenario 3122, n=5000, SD'S



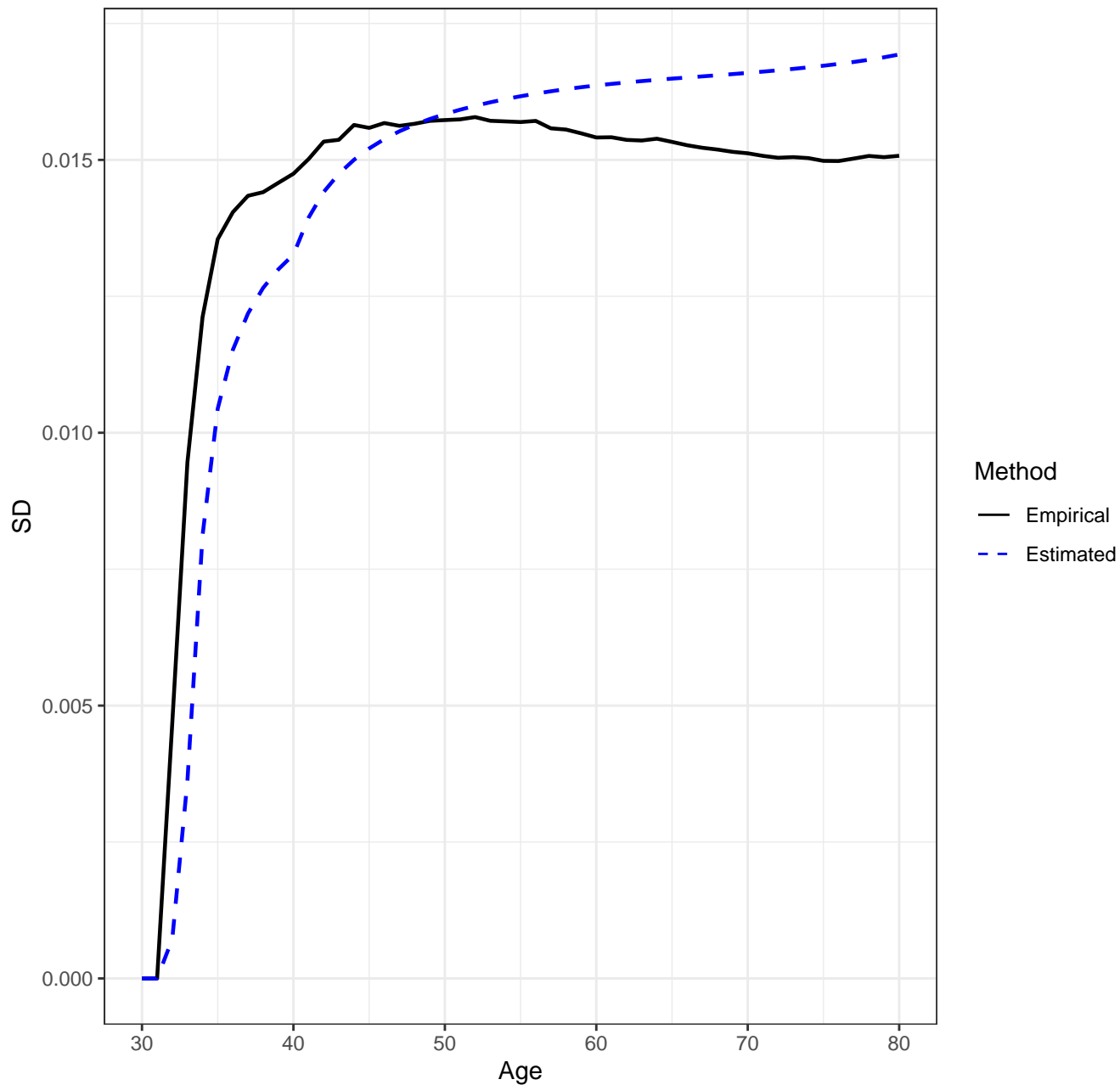
Scenario 3122, n=5000, IQR'S



Scenario 3122, n=5000, AJ Estimator, Empirical vs. Estimated SD's

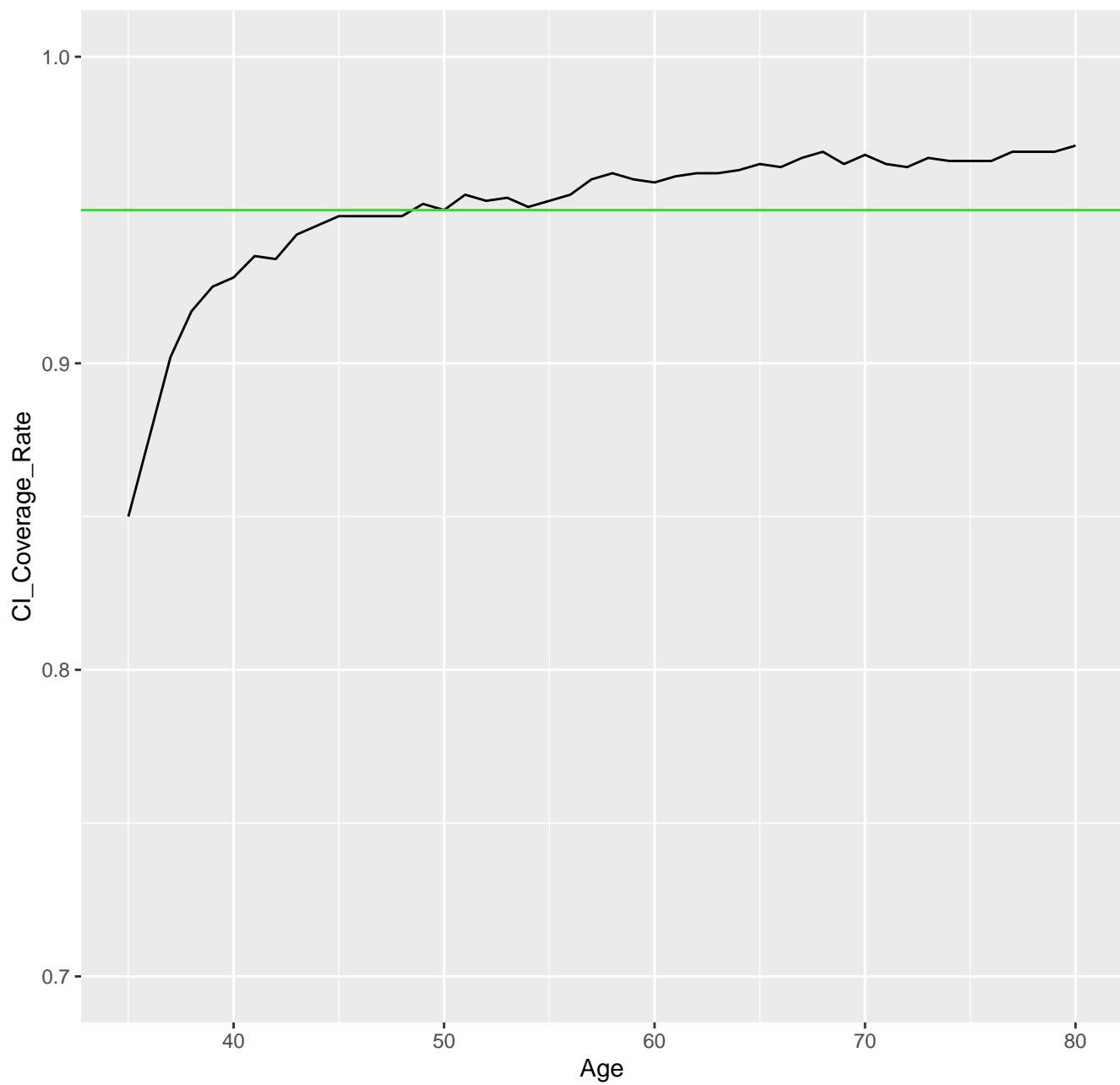


Scenario 3122, n=5000, New Estimator, Empirical vs. Estimated SD's

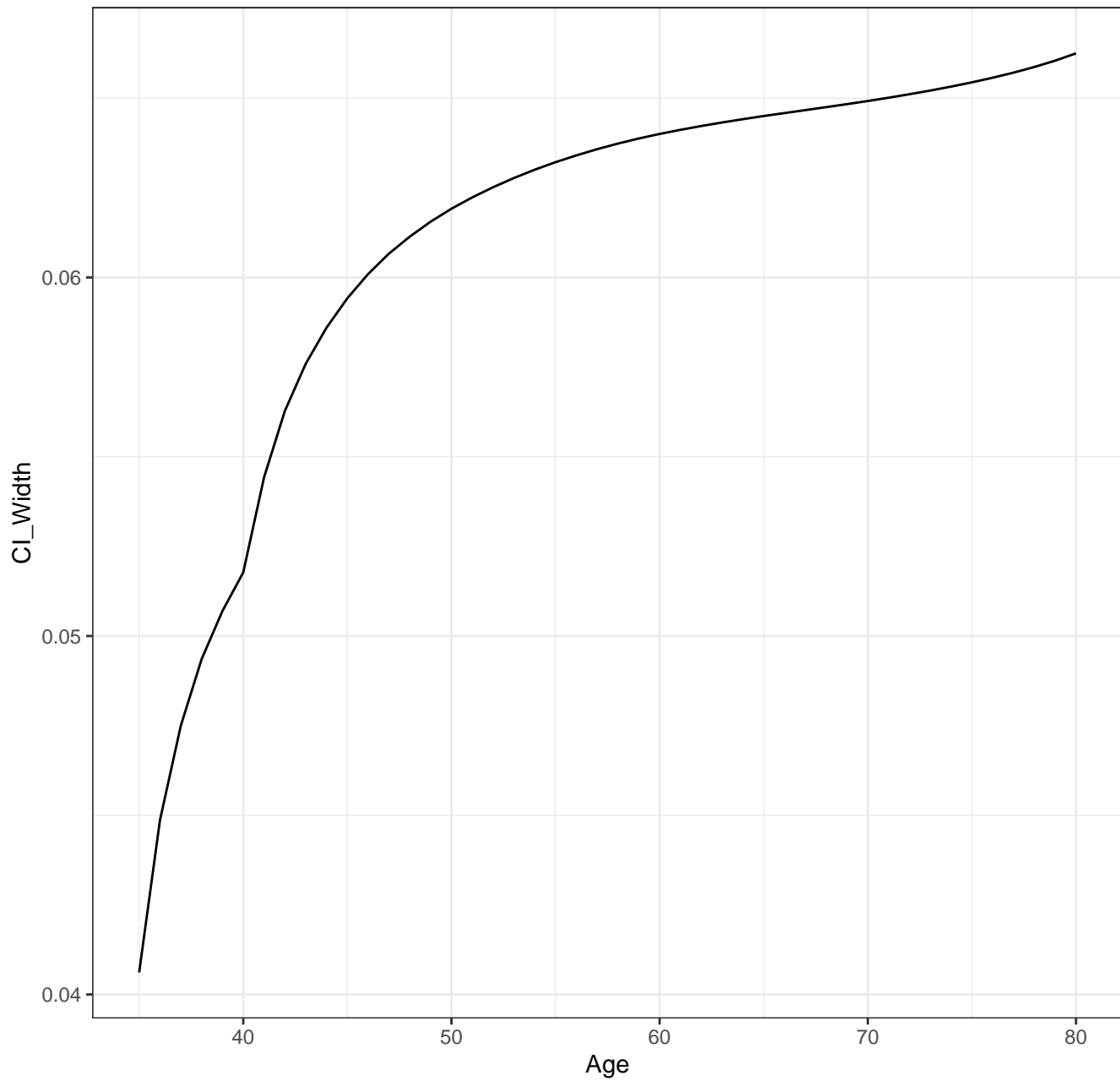




Scenario 3122, n=5000, CI Coverage Rate for New Method



Scenario 3122, n=5000, CI Width for New Estimator



## CONFIDENCE BAND COVERAGE RATES

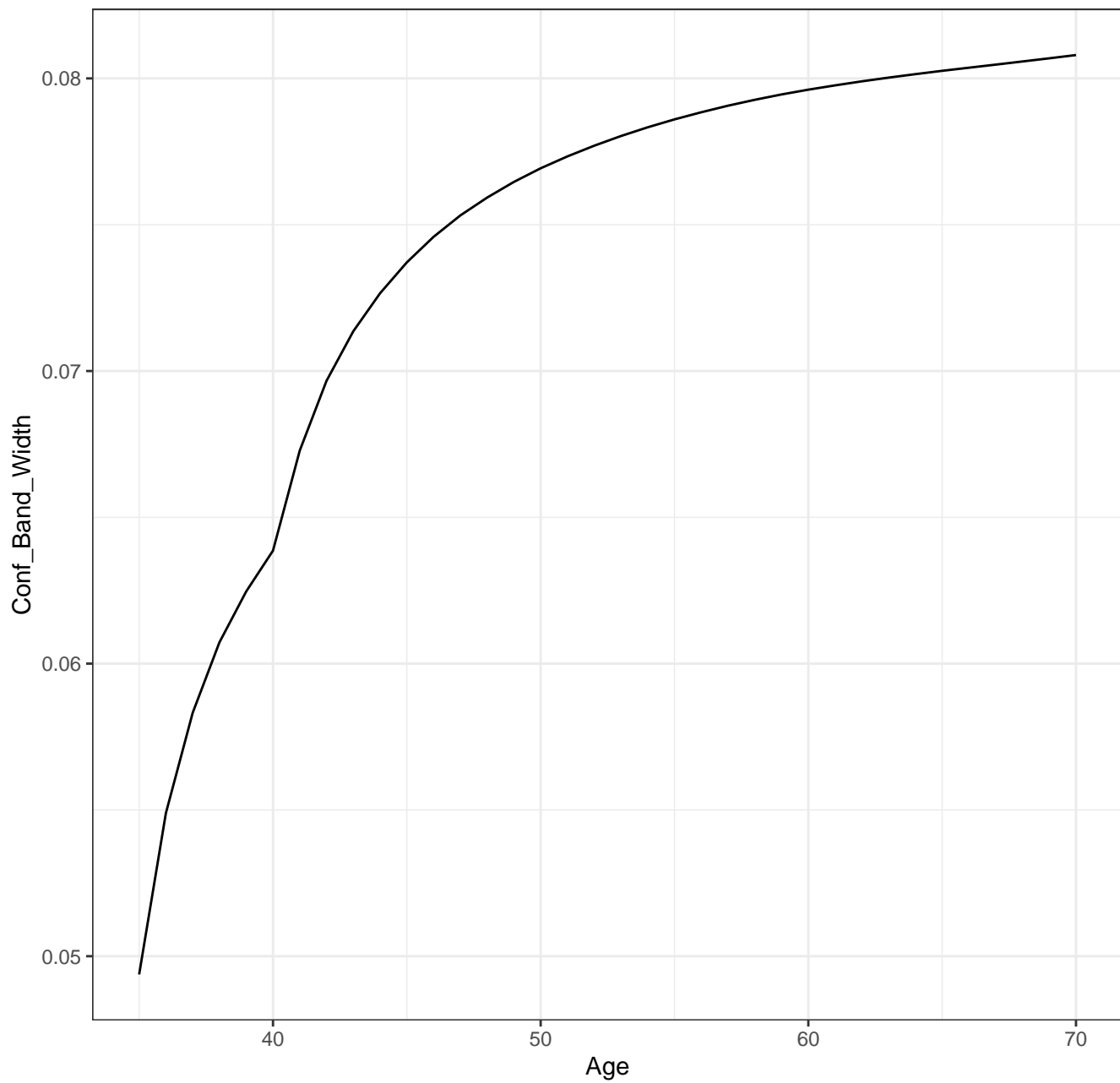
Scenario: 3122

AJ0: 0

AJ: 0.355

New: 0.873

Scenario 3122, n=5000, Confidence Band Width for New Method



## SETTINGS

Scenario: 3211

sample size = 5000

number of simulation replications = 1000

number of bootstrap replications = 250

transformation:  $0.5 \cdot \pi - \arcsin(\sqrt{1-u})$

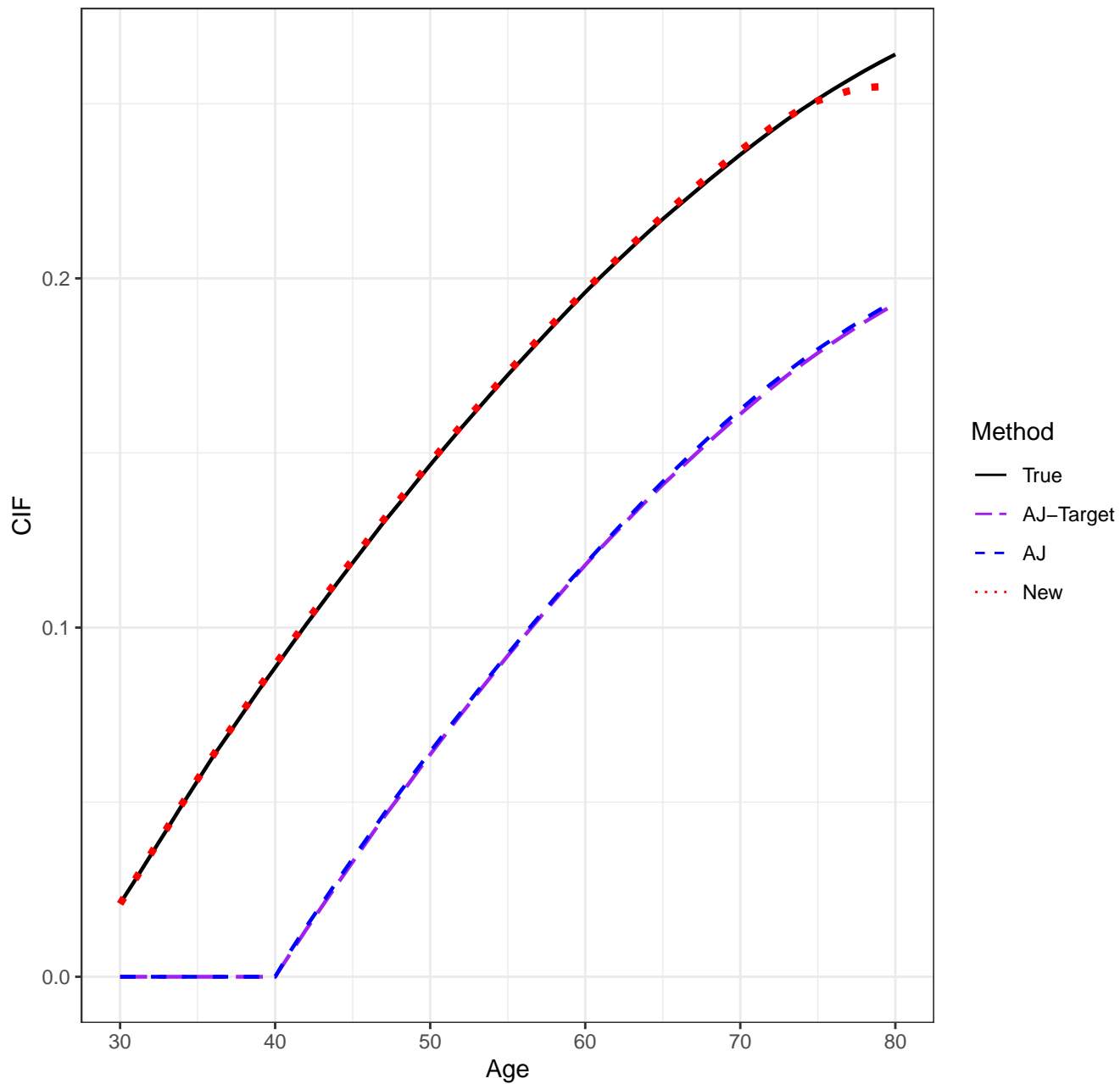
pointwise CI's done by: normal-theory

auxflg = FALSE

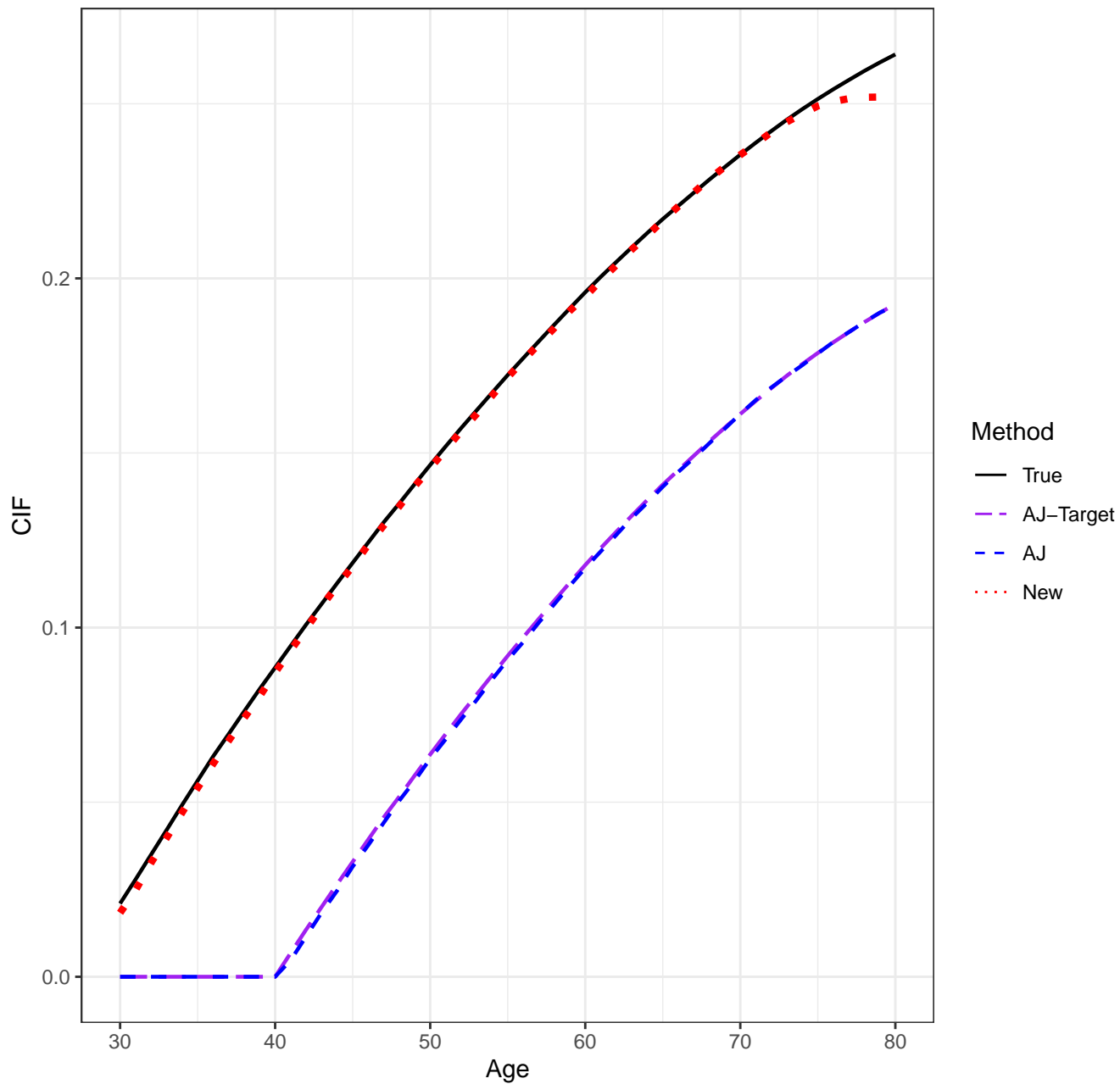
bootstrap weights: normal

Date/Time: 2024-01-17 23:46:31.212209

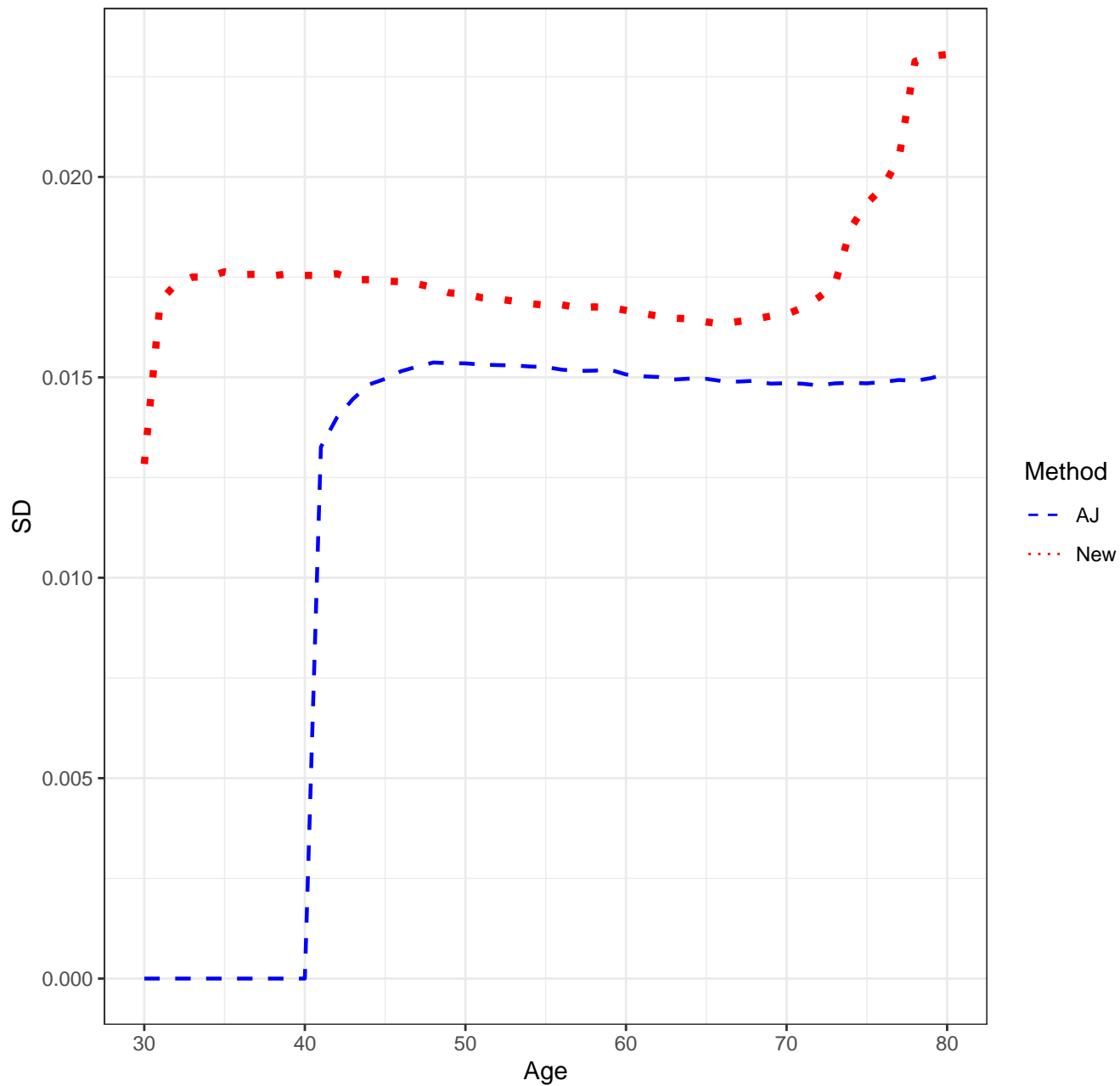
Scenario 3211, n=5000, Means



Scenario 3211, n=5000, Medians

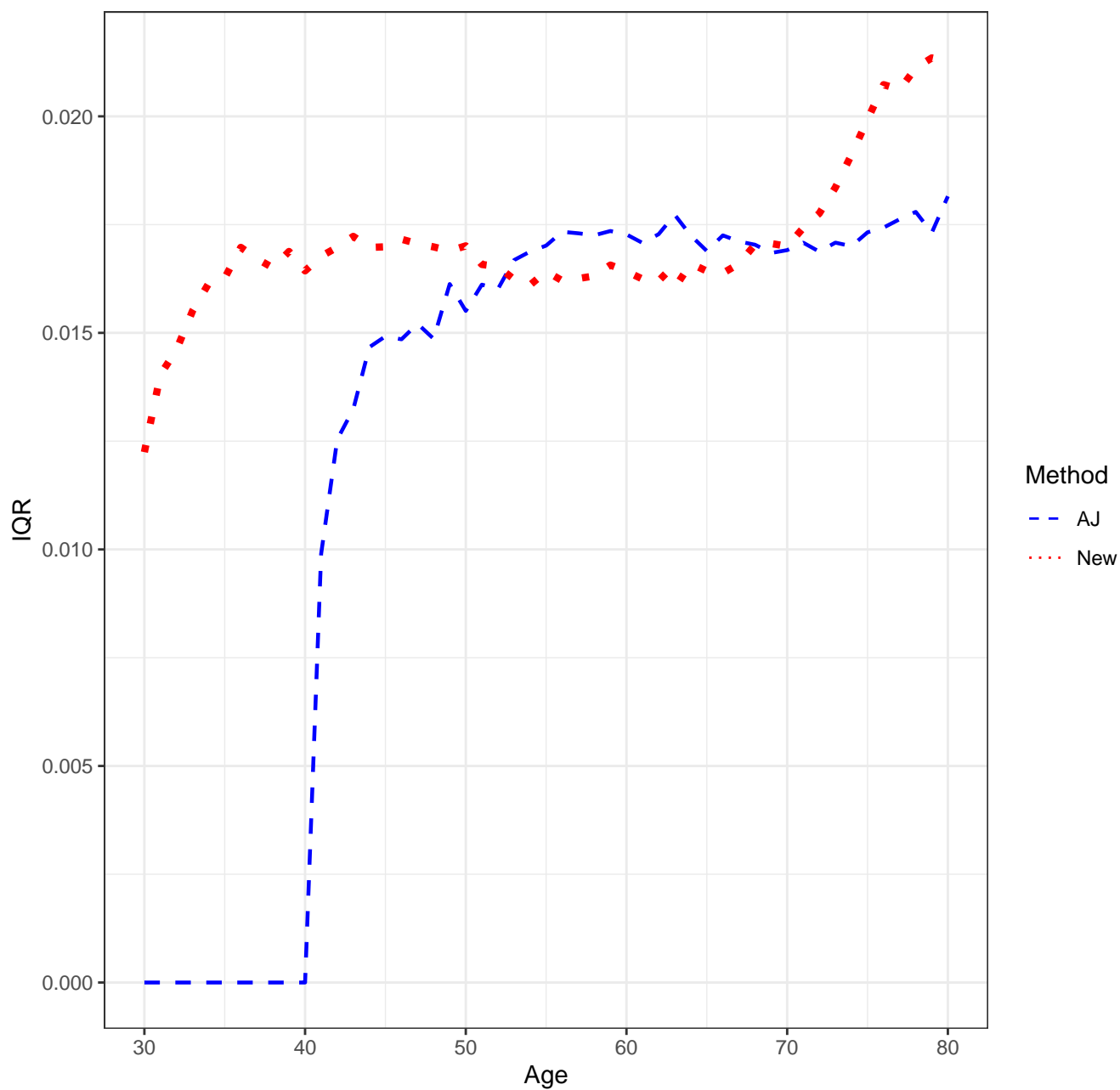


Scenario 3211, n=5000, SD'S

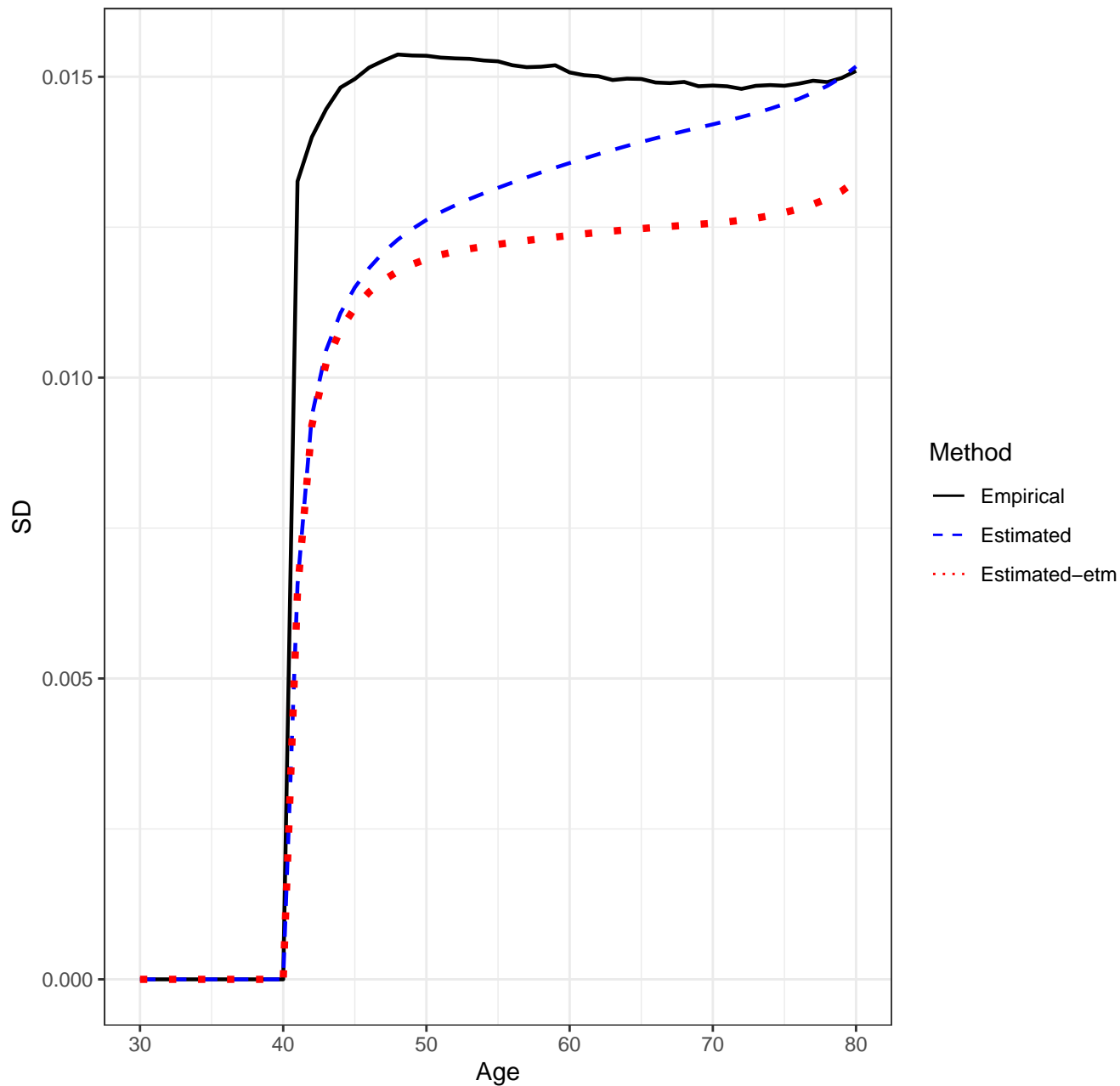




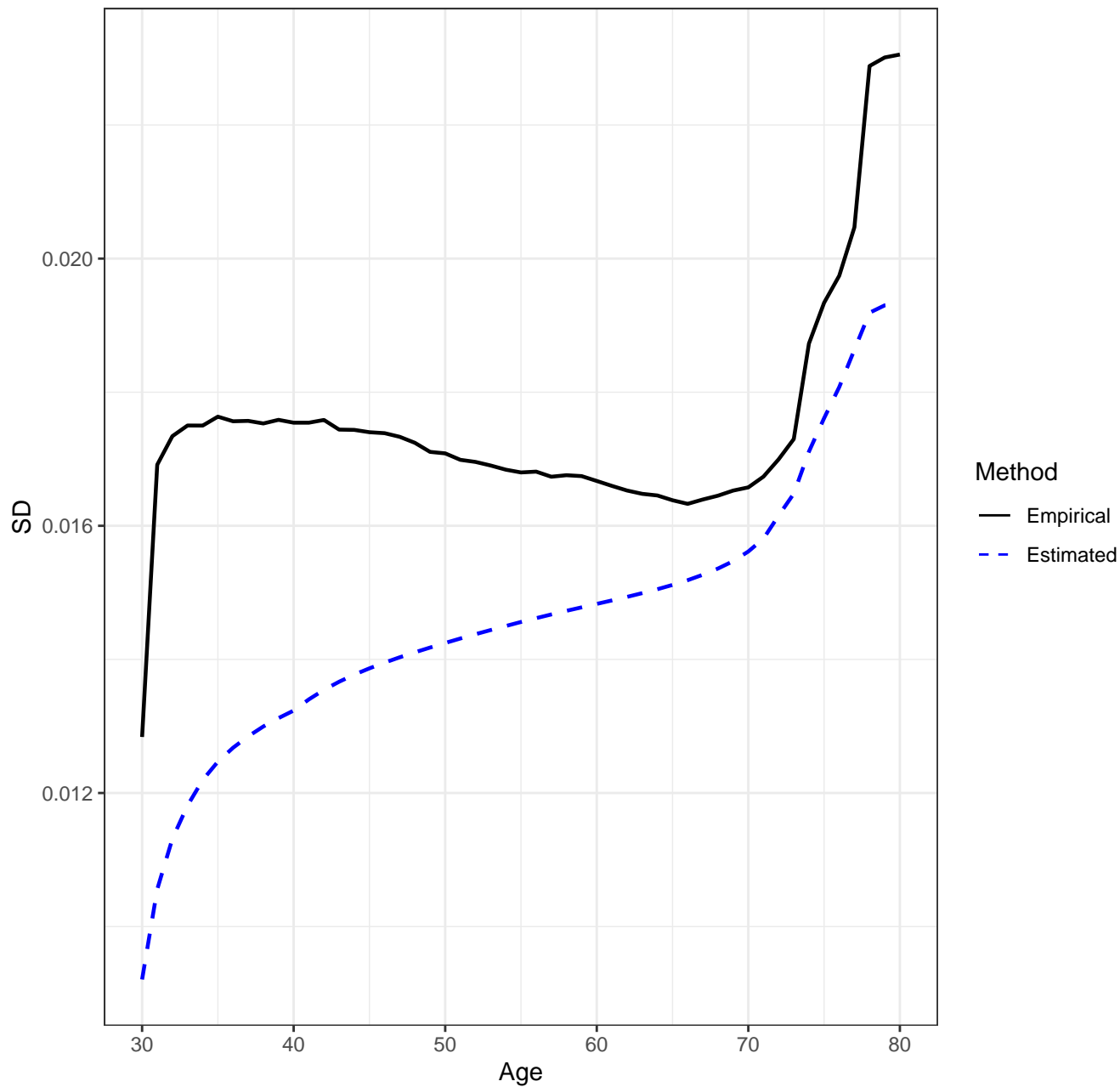
Scenario 3211, n=5000, IQR'S



Scenario 3211, n=5000, AJ Estimator, Empirical vs. Estimated SD's



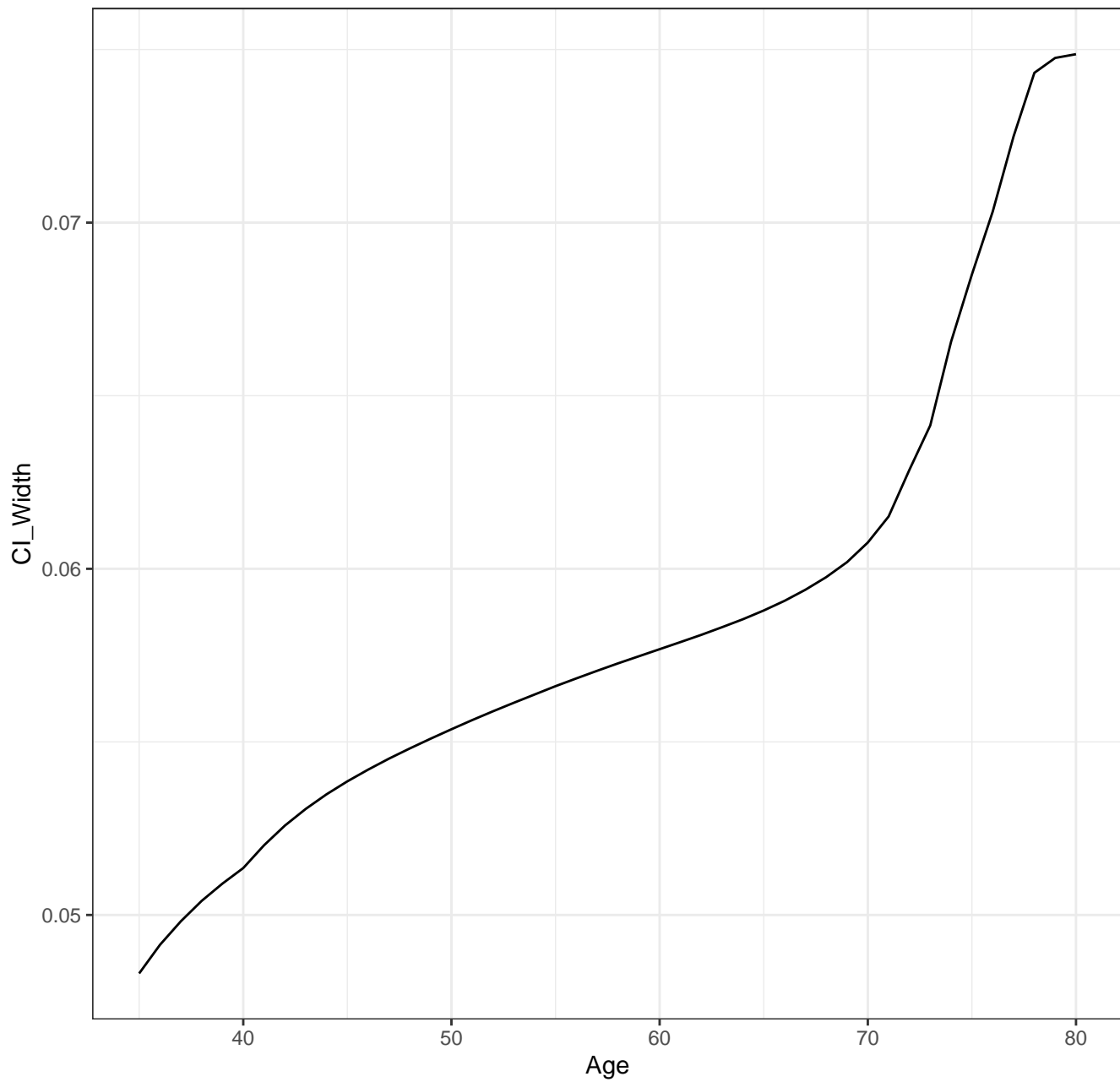
Scenario 3211, n=5000, New Estimator, Empirical vs. Estimated SD's



Scenario 3211, n=5000, CI Coverage Rate for New Method



Scenario 3211, n=5000, CI Width for New Estimator



## CONFIDENCE BAND COVERAGE RATES

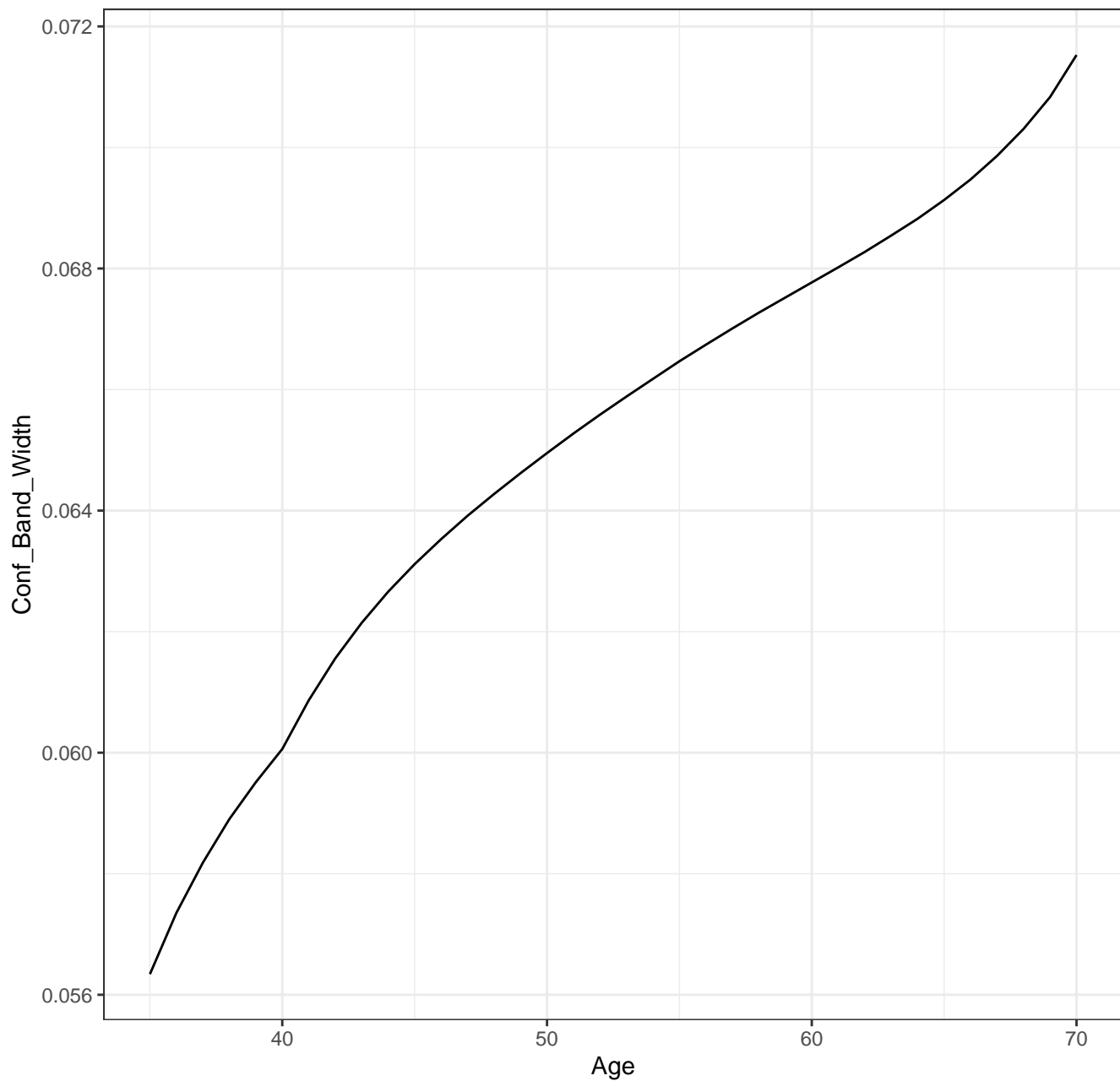
Scenario: 3211

AJ0: 0

AJ: 0.5

New: 0.937

Scenario 3211, n=5000, Confidence Band Width for New Method



## SETTINGS

Scenario: 3212

sample size = 5000

number of simulation replications = 1000

number of bootstrap replications = 250

transformation:  $0.5 \cdot \pi - \arcsin(\sqrt{1-u})$

pointwise CI's done by: normal-theory

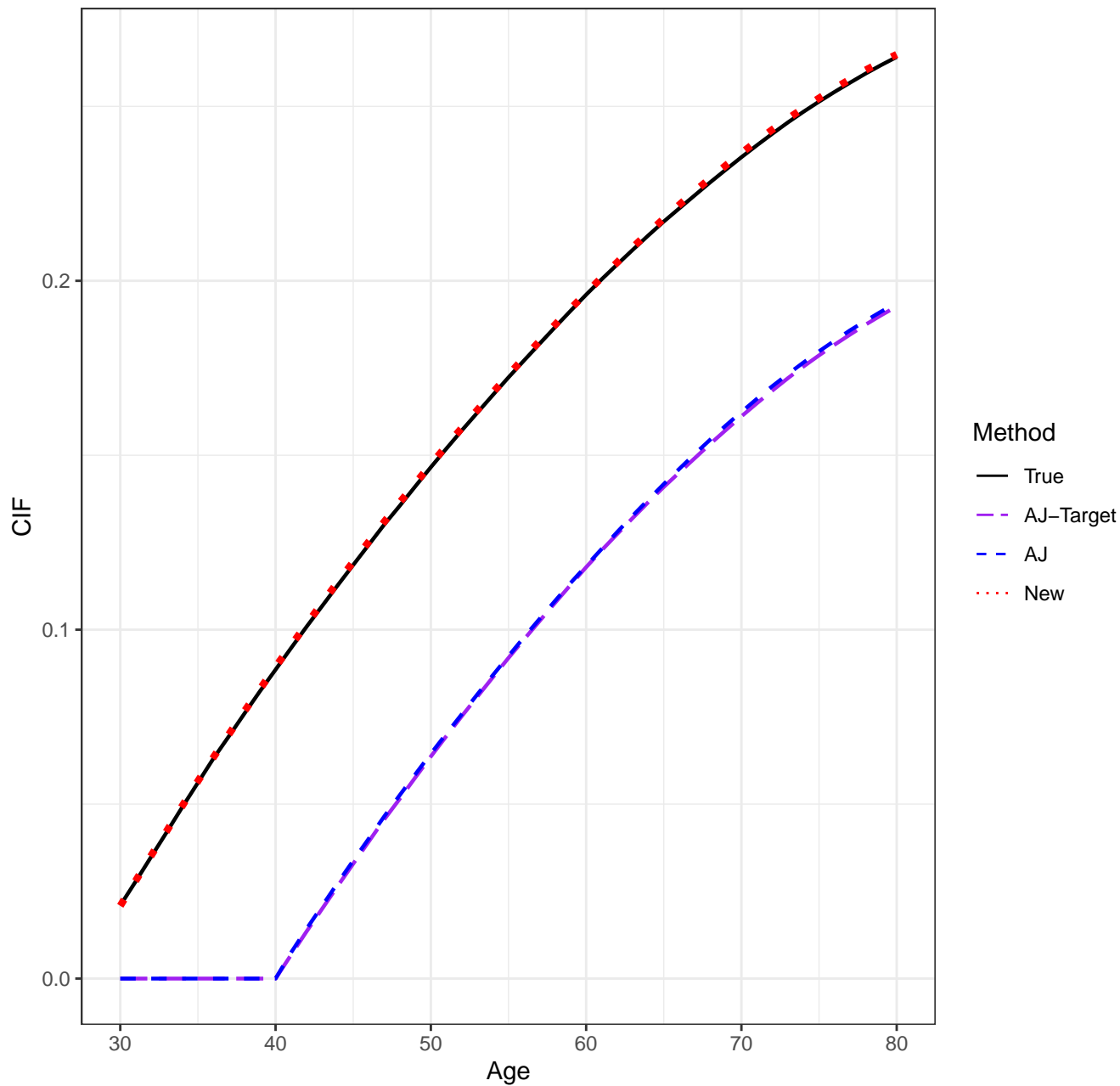
auxflg = FALSE

bootstrap weights: normal

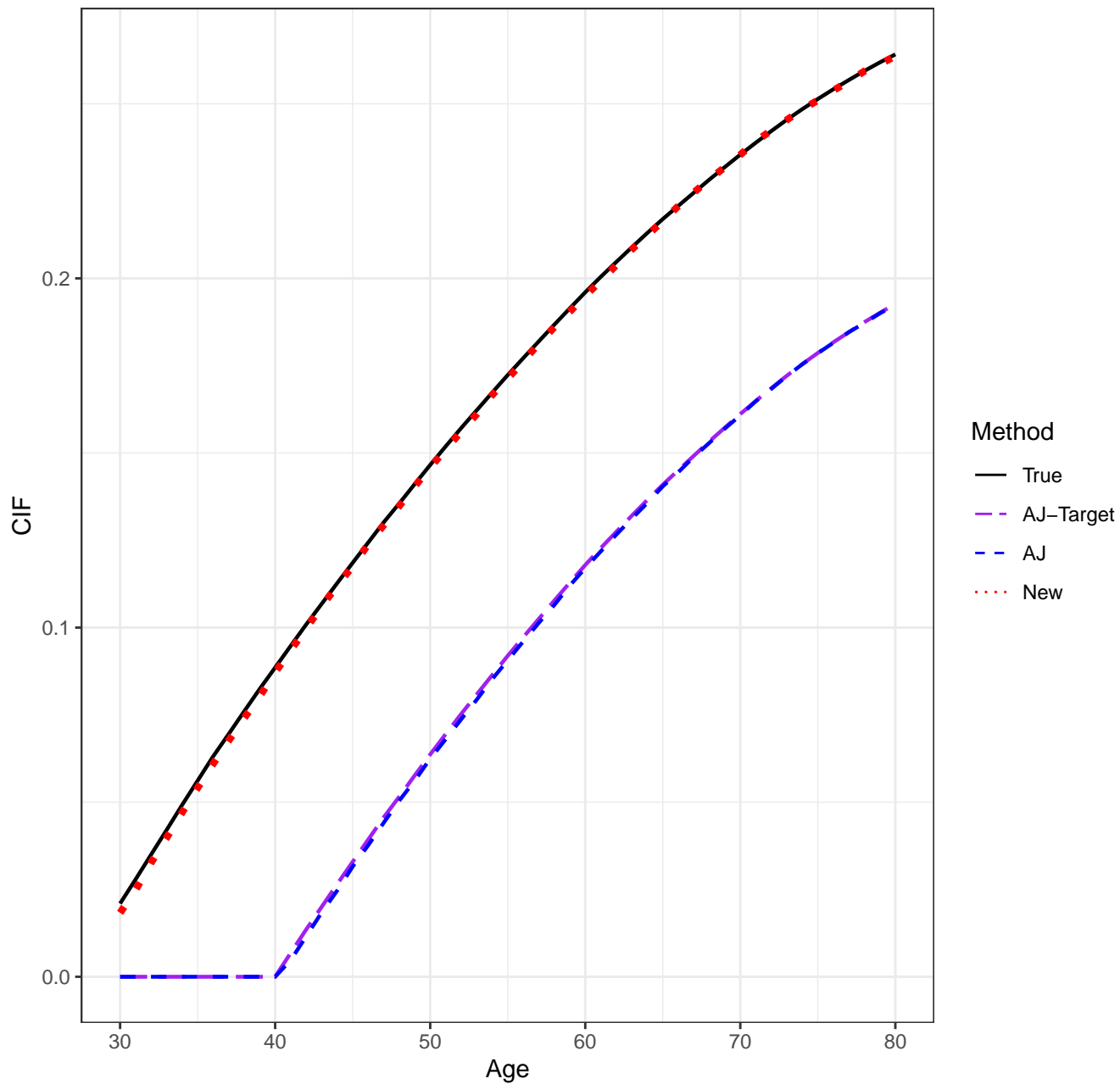
Date/Time: 2024-01-18 13:22:43.072975



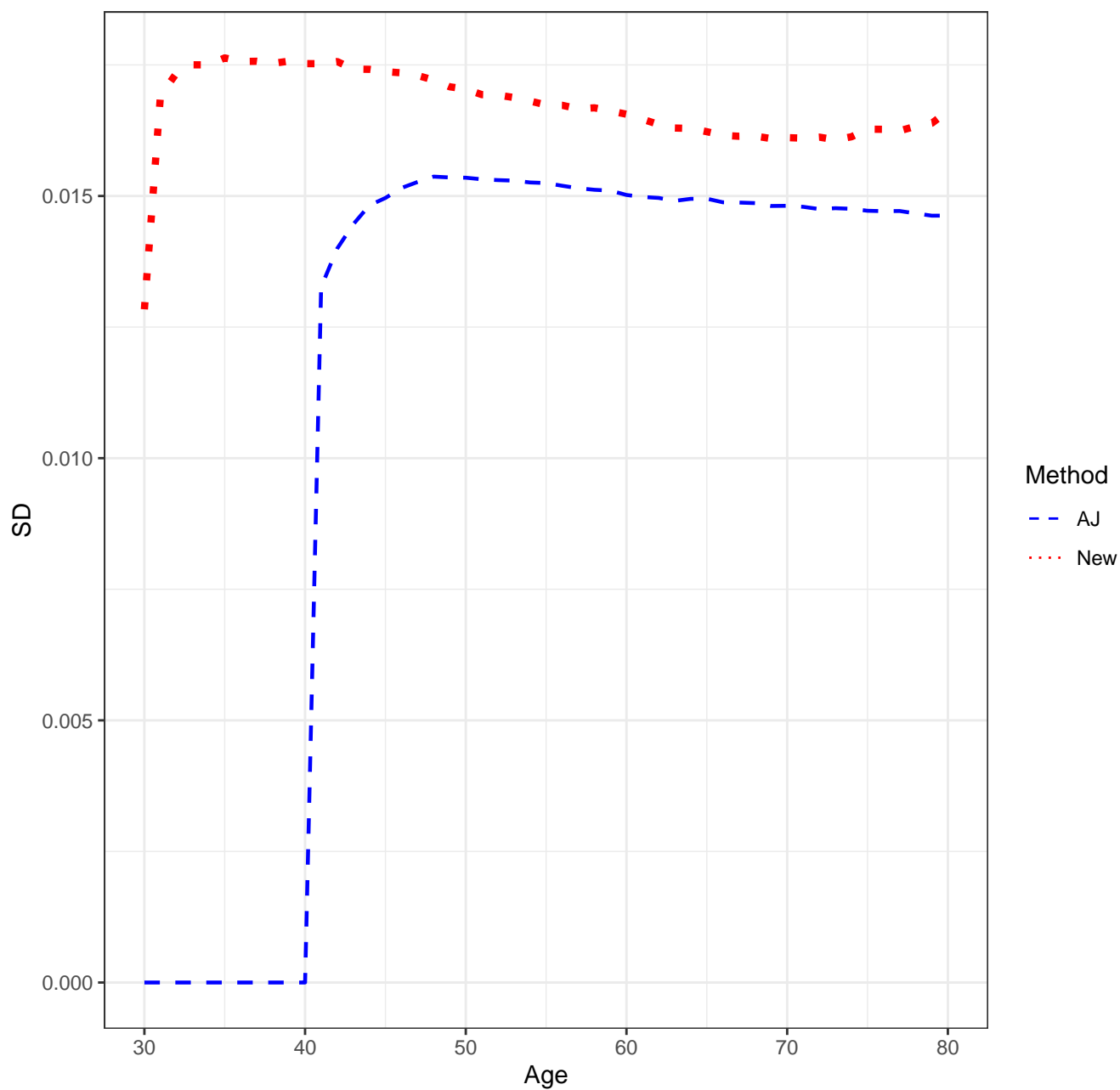
Scenario 3212, n=5000, Means



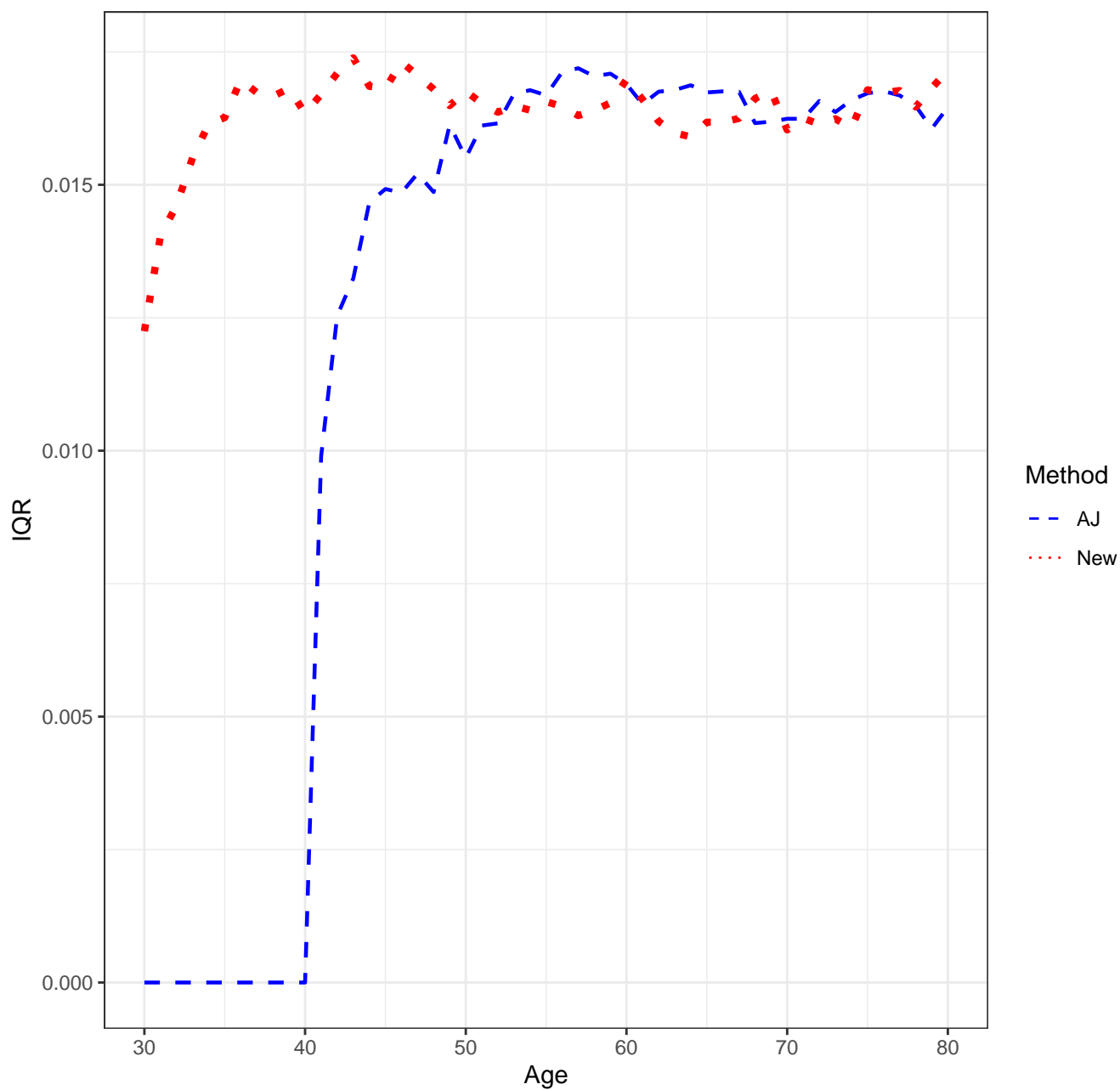
Scenario 3212, n=5000, Medians



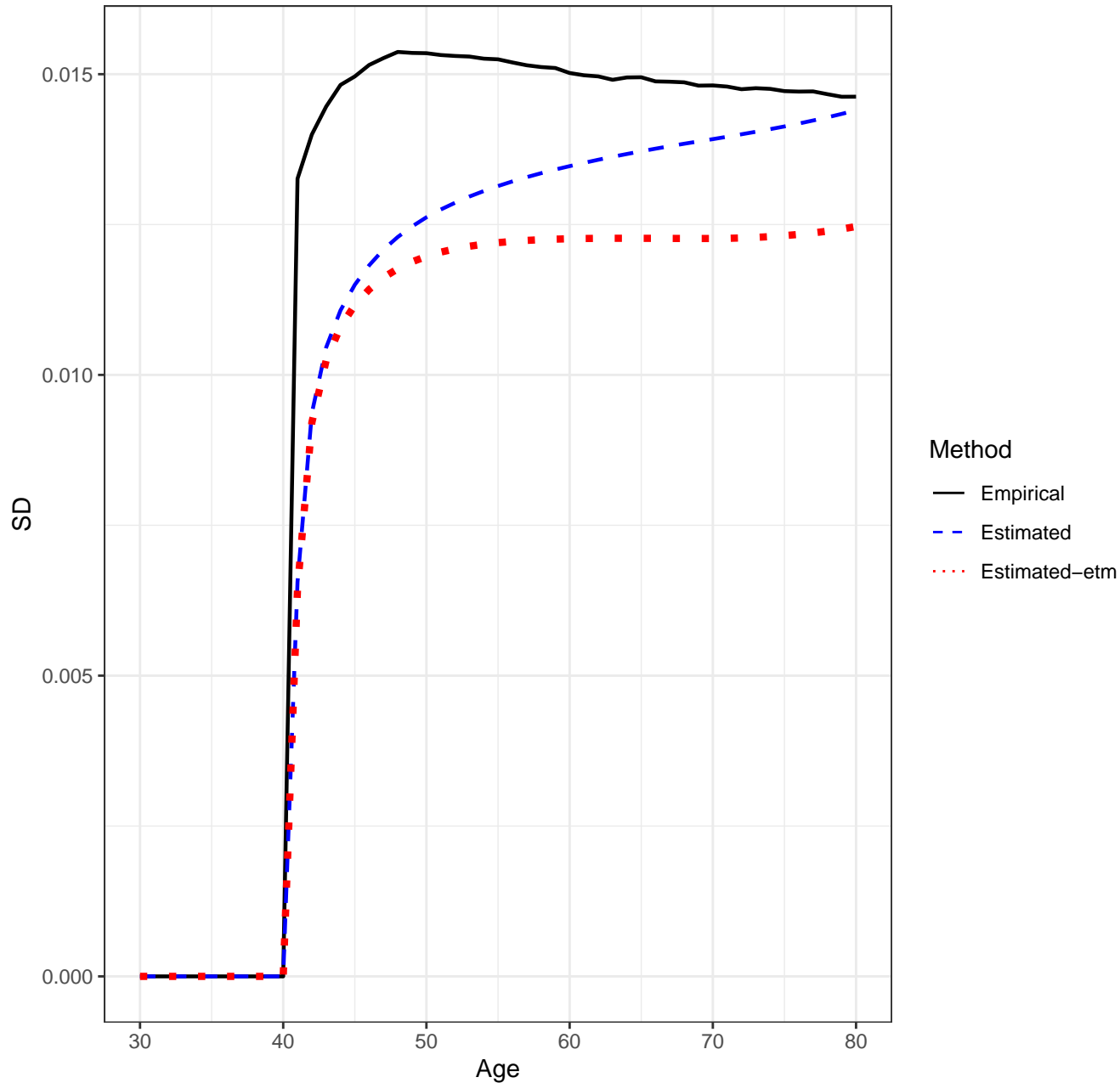
Scenario 3212, n=5000, SD'S



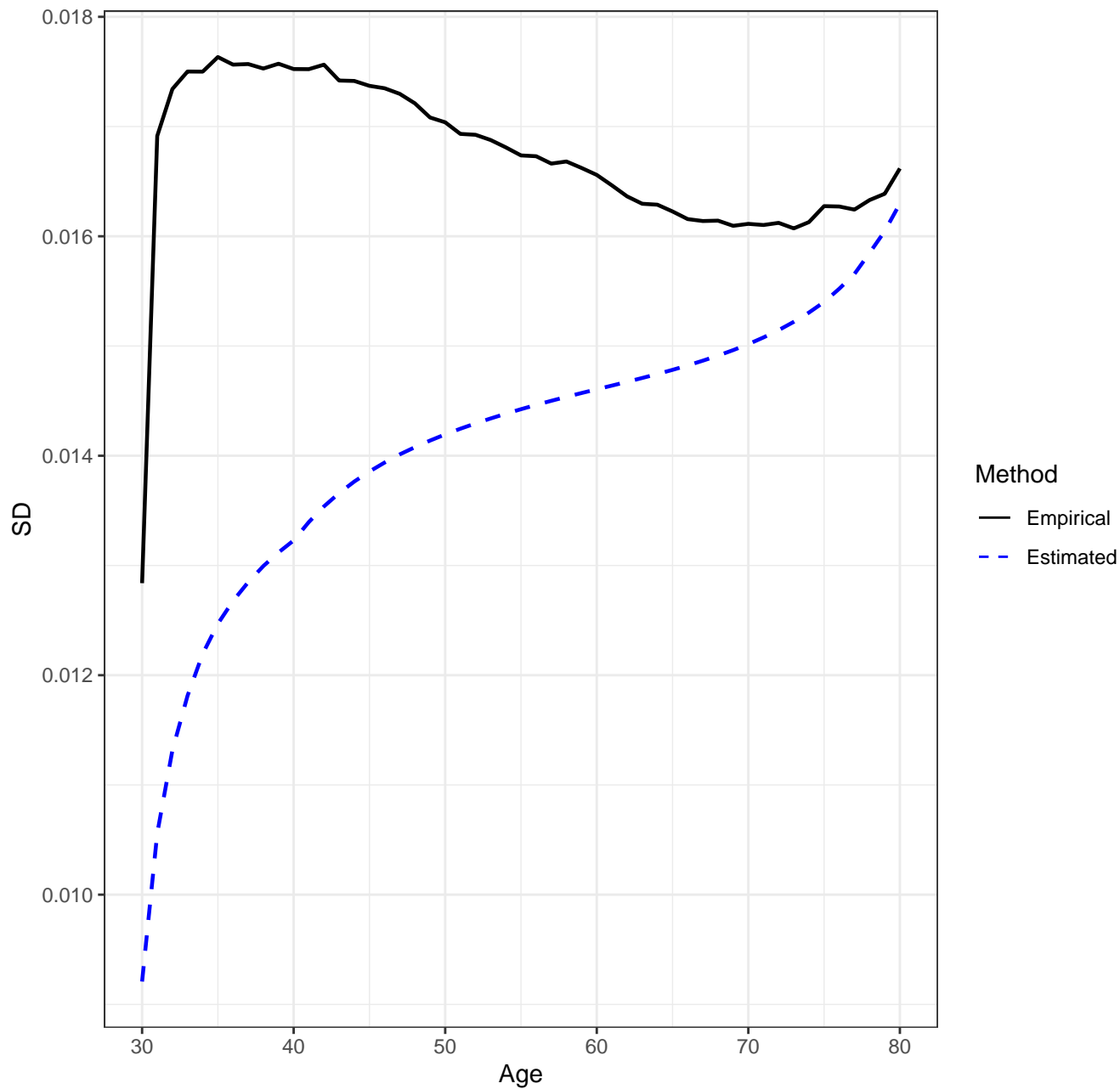
Scenario 3212, n=5000, IQR'S



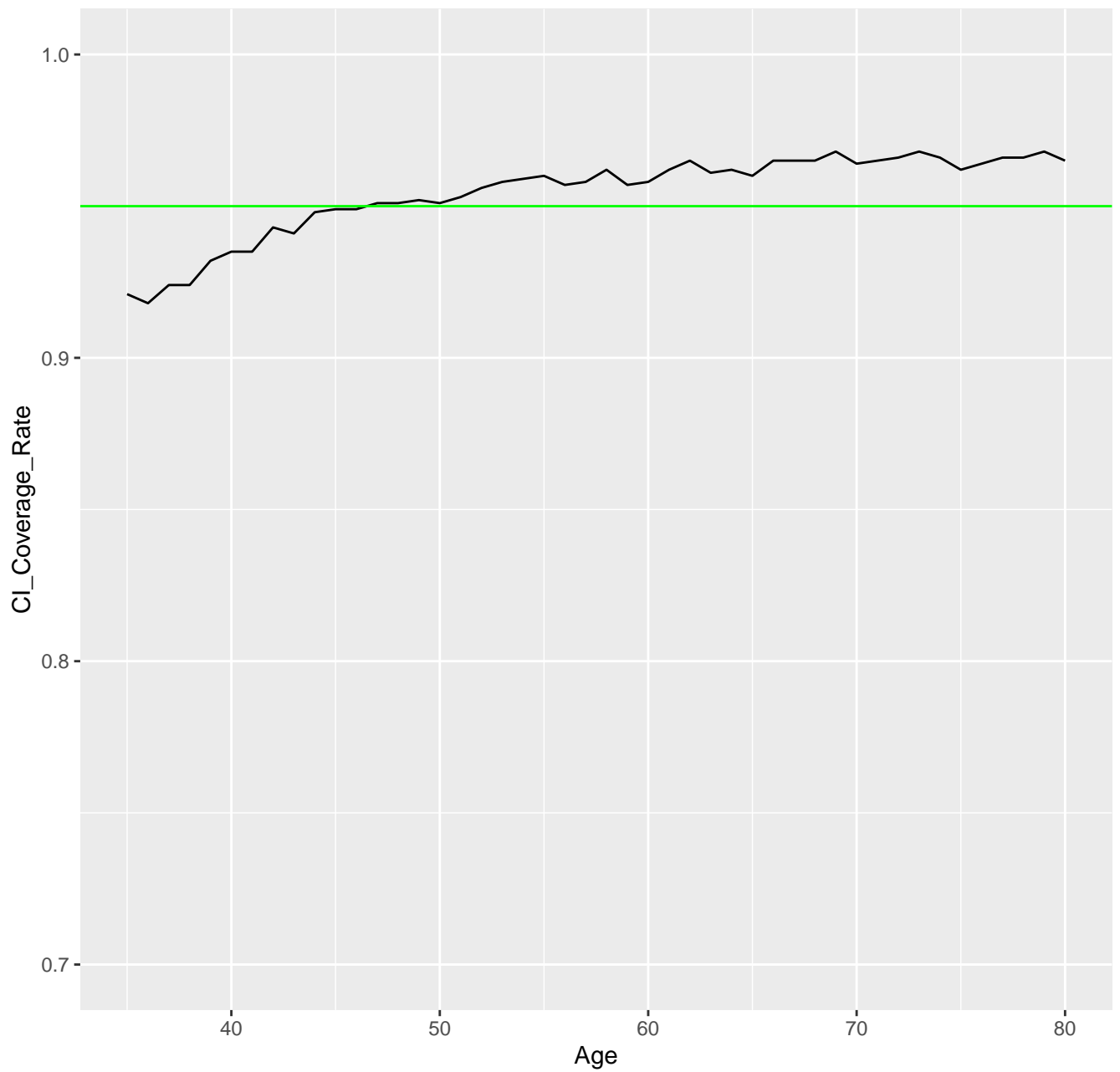
Scenario 3212, n=5000, AJ Estimator, Empirical vs. Estimated SD's



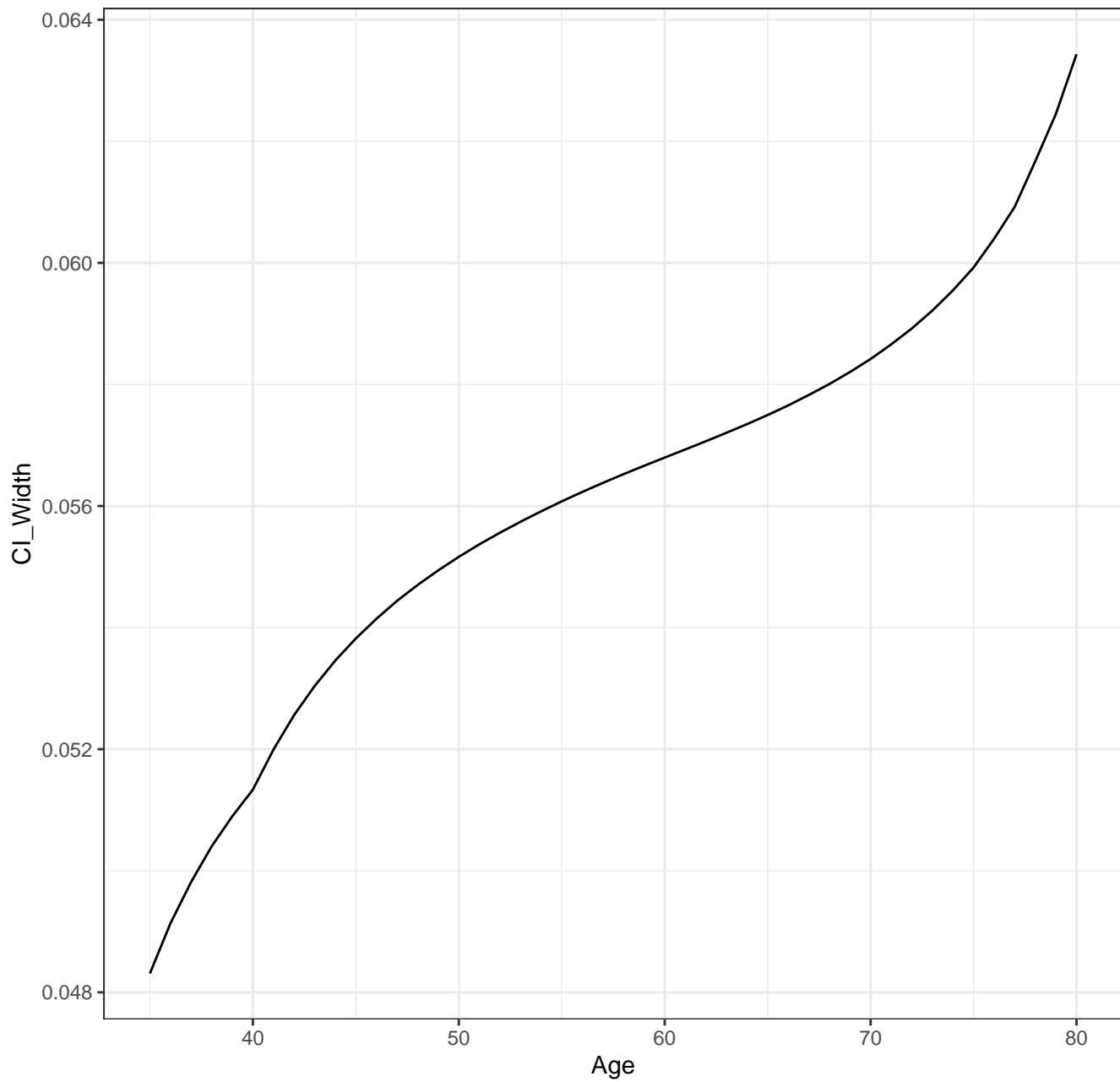
Scenario 3212, n=5000, New Estimator, Empirical vs. Estimated SD's



Scenario 3212, n=5000, CI Coverage Rate for New Method



Scenario 3212, n=5000, CI Width for New Estimator





## CONFIDENCE BAND COVERAGE RATES

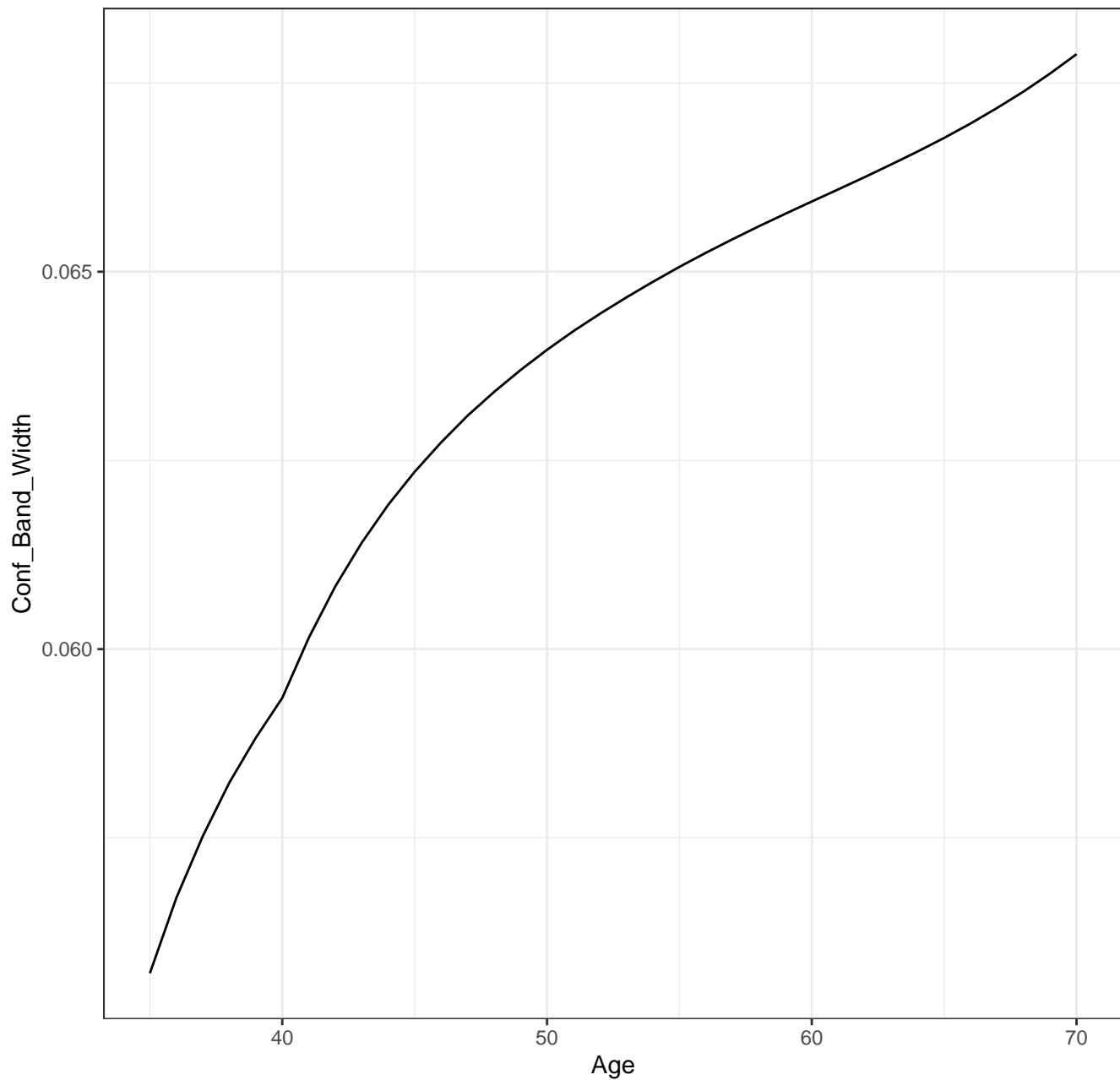
Scenario: 3212

AJ0: 0

AJ: 0.5

New: 0.936

Scenario 3212, n=5000, Confidence Band Width for New Method



## SETTINGS

Scenario: 3221

sample size = 5000

number of simulation replications = 1000

number of bootstrap replications = 250

transformation:  $0.5 \cdot \pi - \arcsin(\sqrt{1-u})$

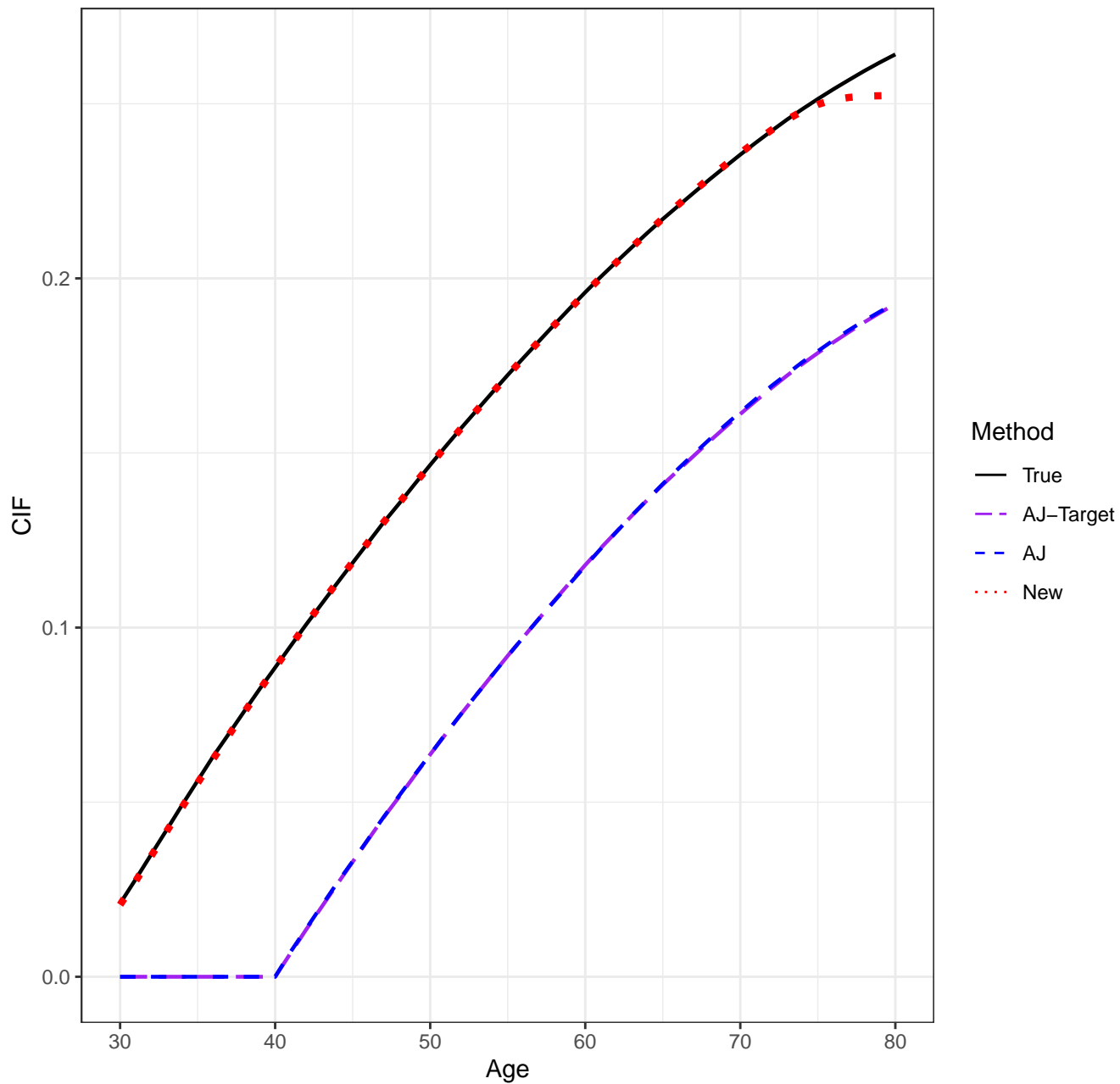
pointwise CI's done by: normal-theory

auxflg = FALSE

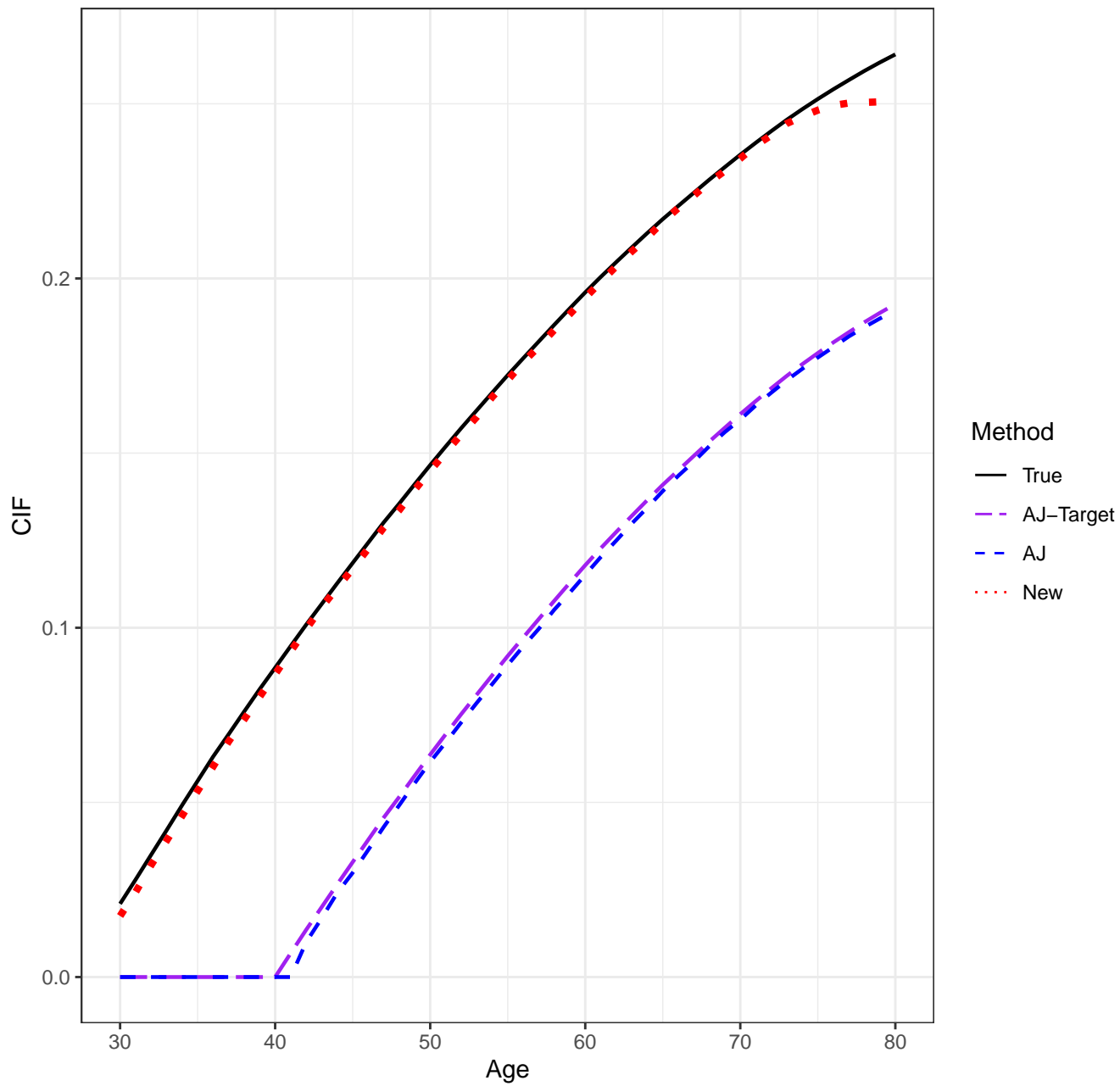
bootstrap weights: normal

Date/Time: 2024-01-18 15:51:36.609698

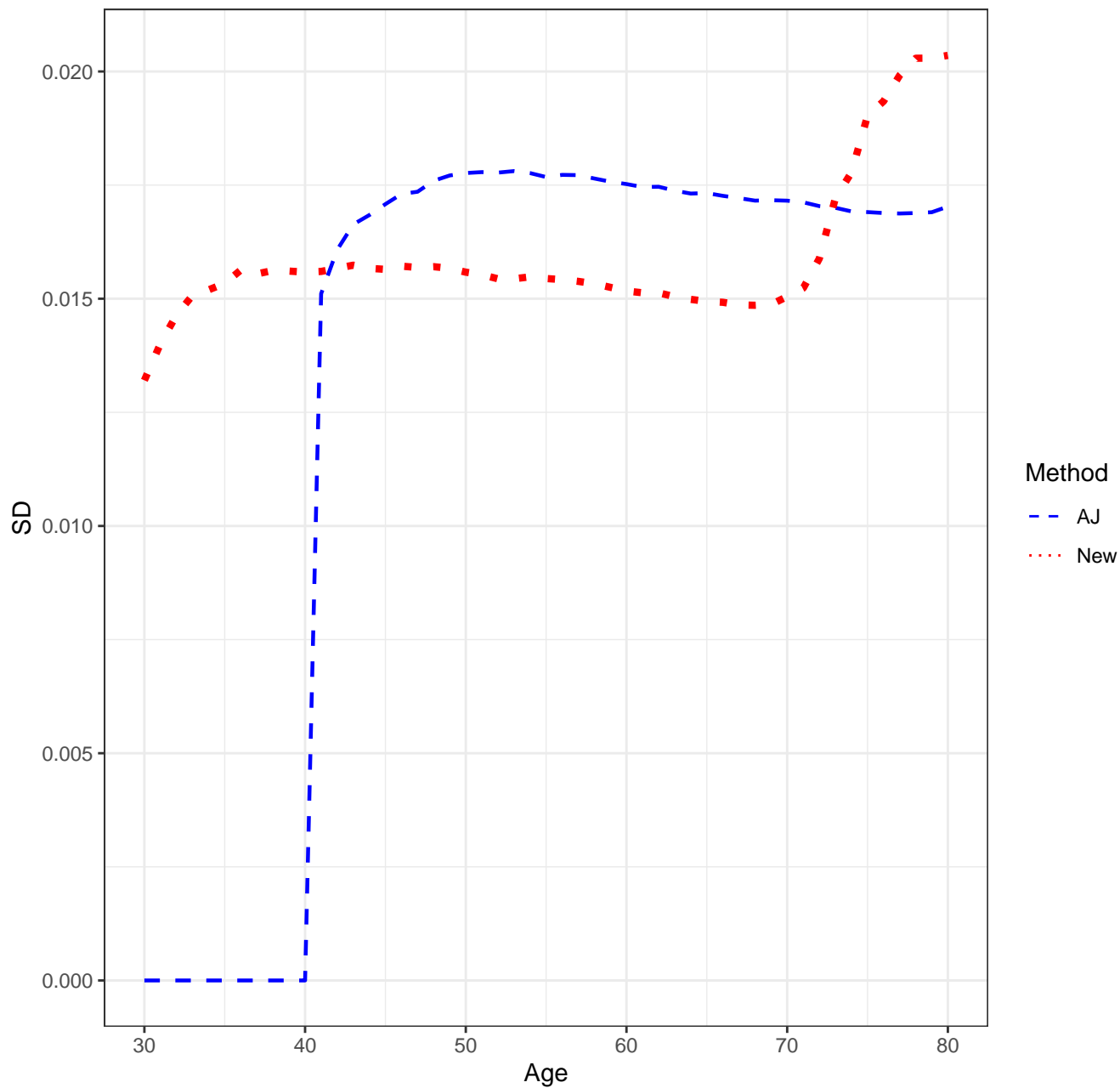
Scenario 3221, n=5000, Means



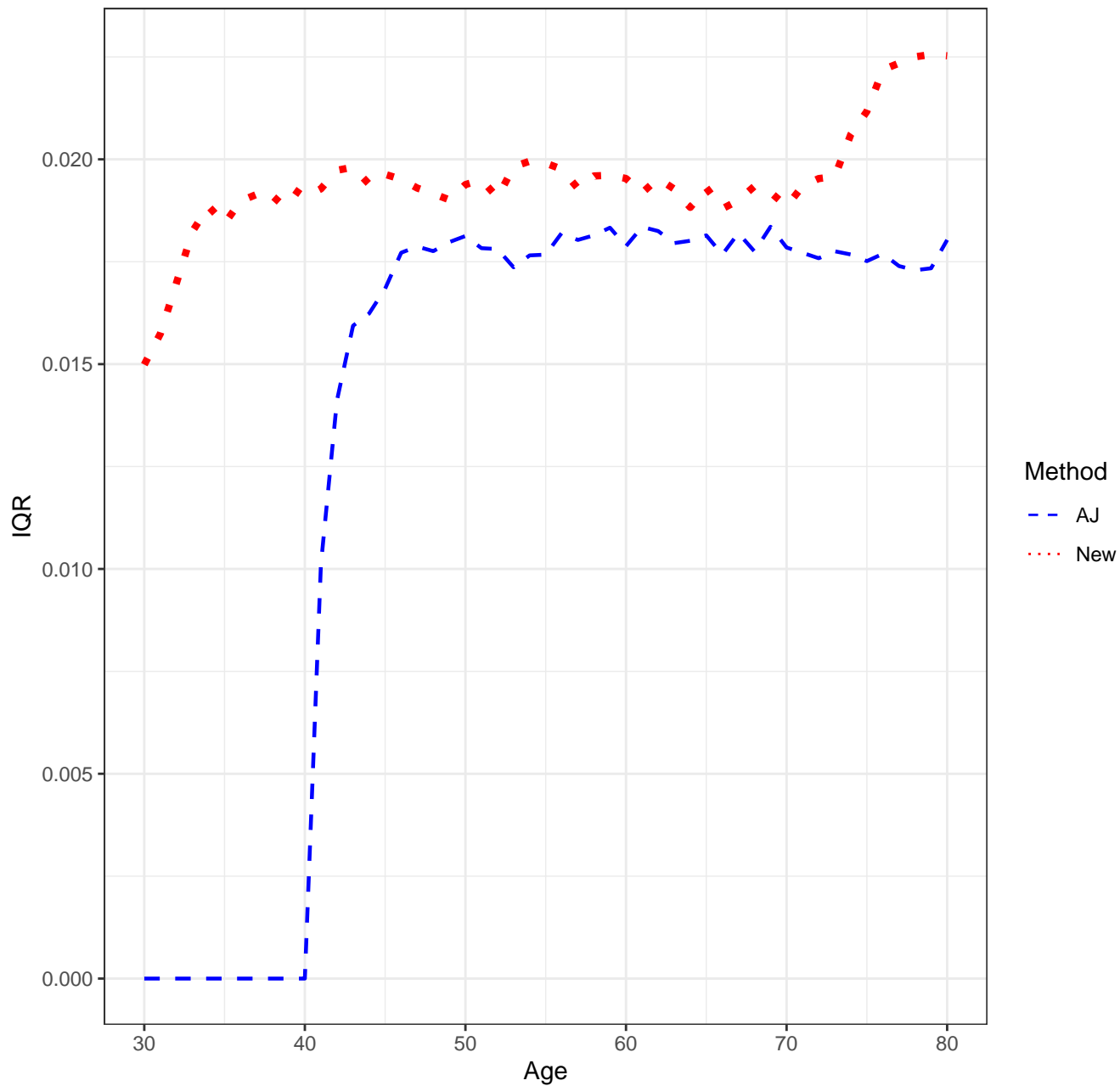
Scenario 3221, n=5000, Medians



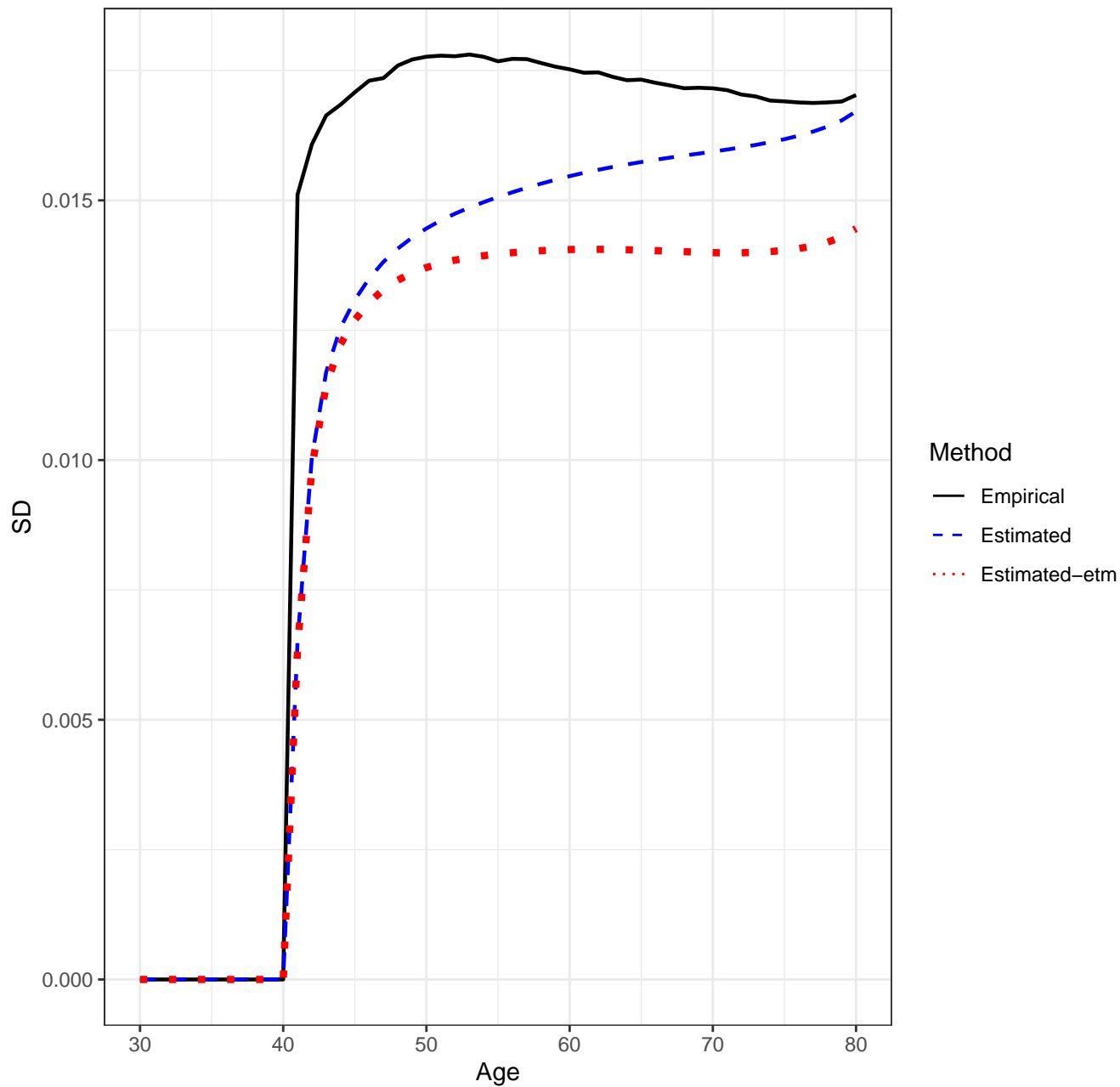
Scenario 3221, n=5000, SD'S



Scenario 3221, n=5000, IQR'S

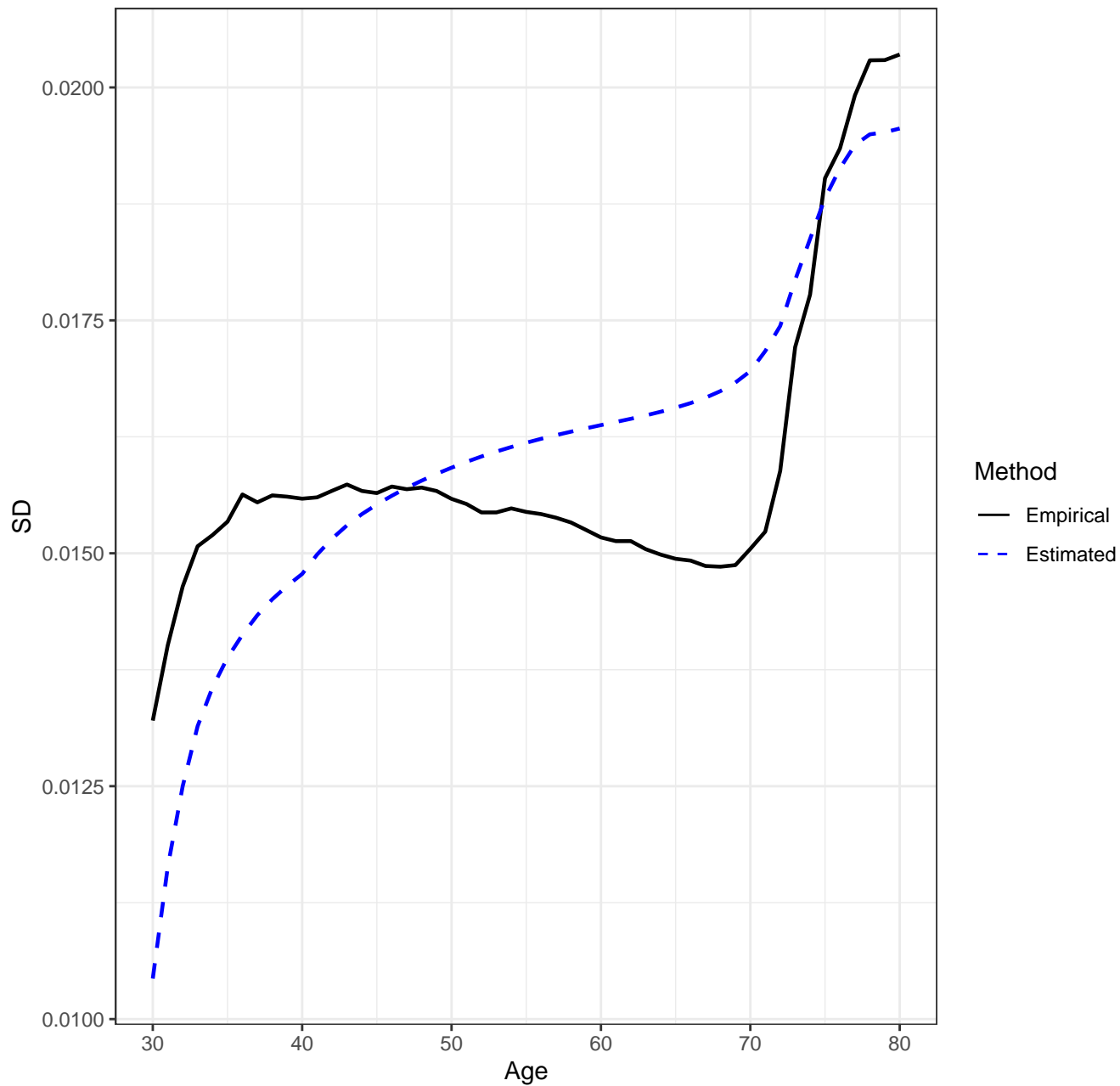


Scenario 3221, n=5000, AJ Estimator, Empirical vs. Estimated SD's





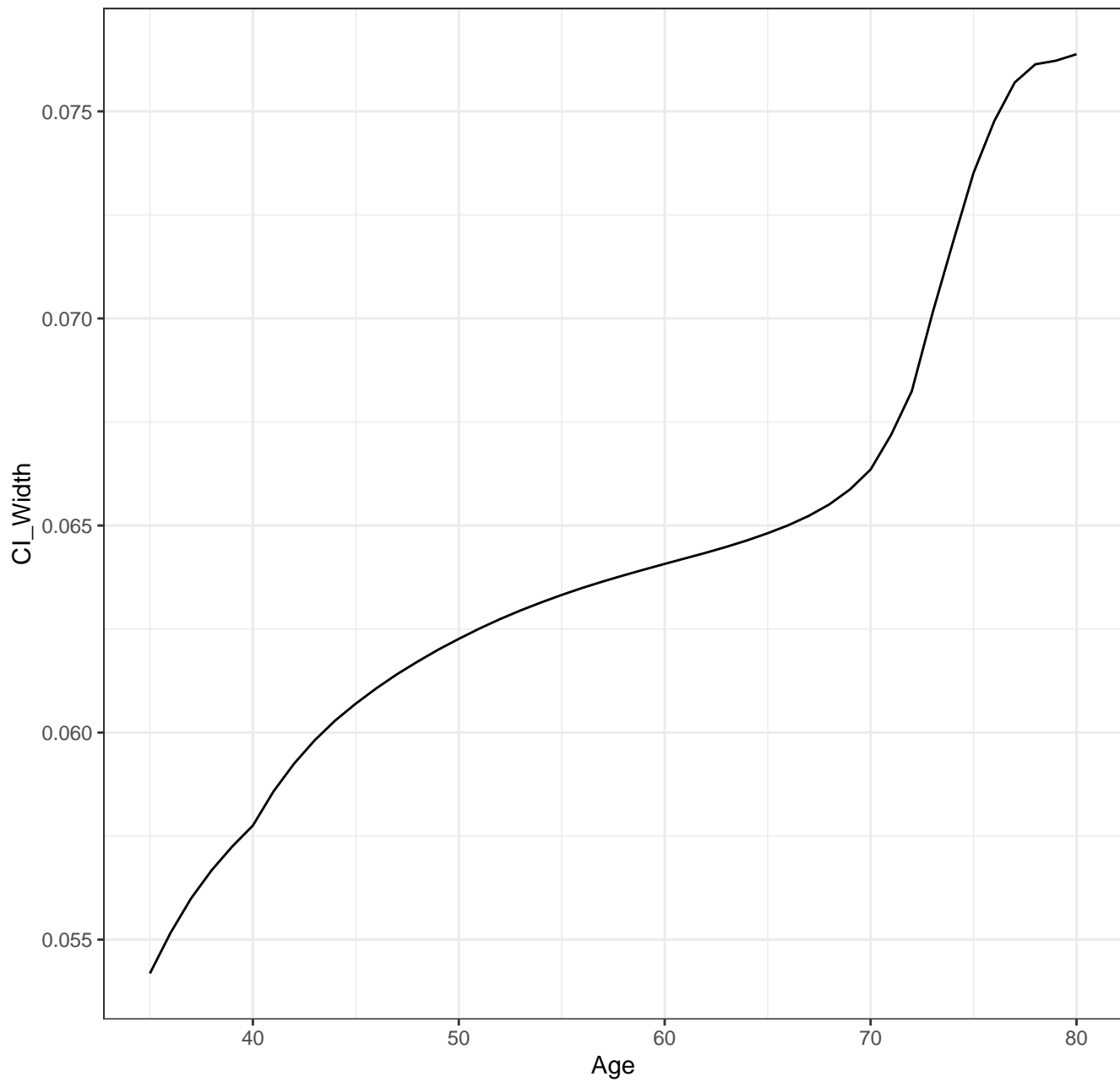
Scenario 3221, n=5000, New Estimator, Empirical vs. Estimated SD's



Scenario 3221, n=5000, CI Coverage Rate for New Method



Scenario 3221, n=5000, CI Width for New Estimator



## CONFIDENCE BAND COVERAGE RATES

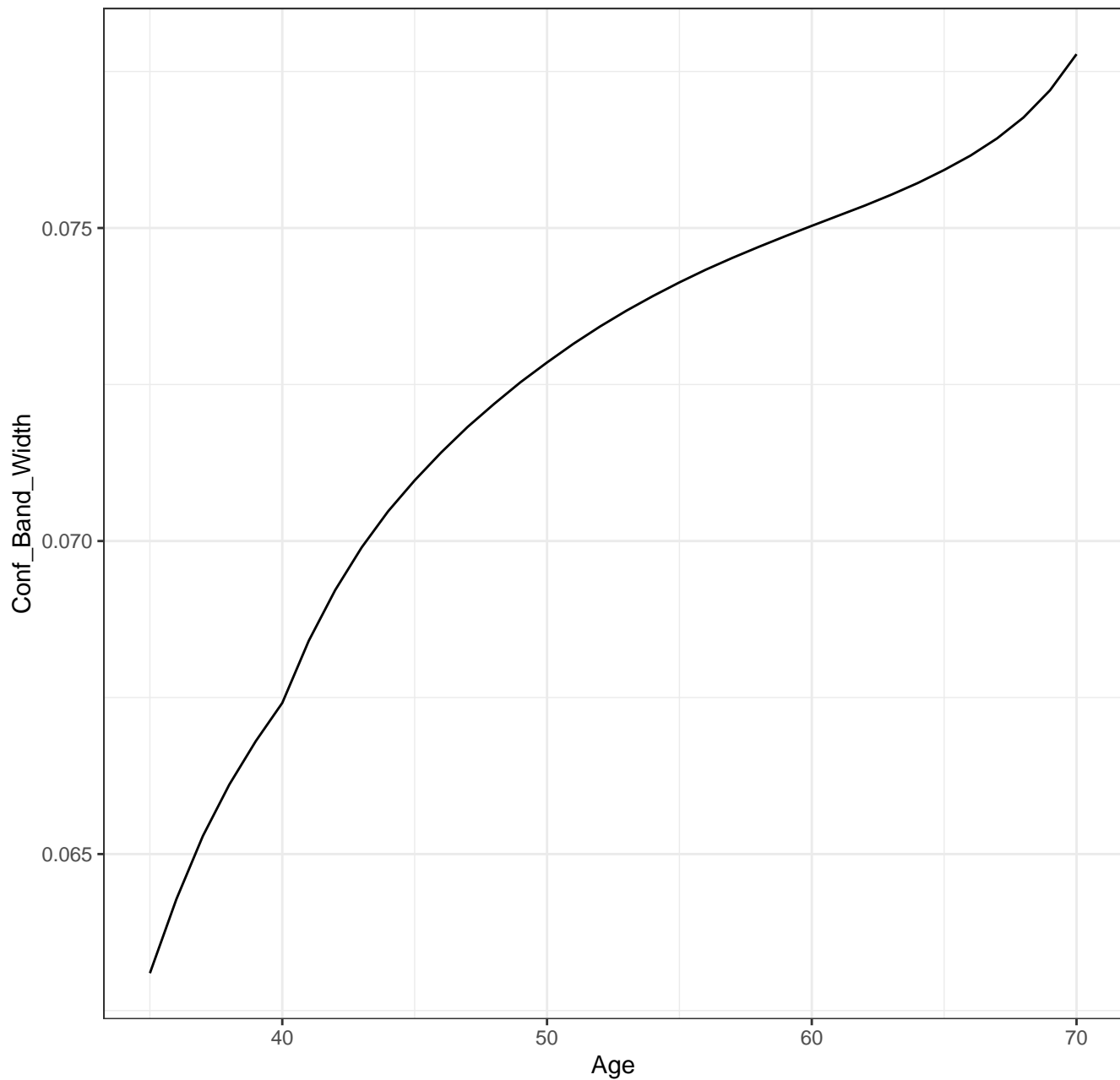
Scenario: 3221

AJ0: 0

AJ: 0.359

New: 0.926

Scenario 3221, n=5000, Confidence Band Width for New Method



## SETTINGS

Scenario: 3222

sample size = 5000

number of simulation replications = 1000

number of bootstrap replications = 250

transformation:  $0.5 \cdot \pi - \arcsin(\sqrt{1-u})$

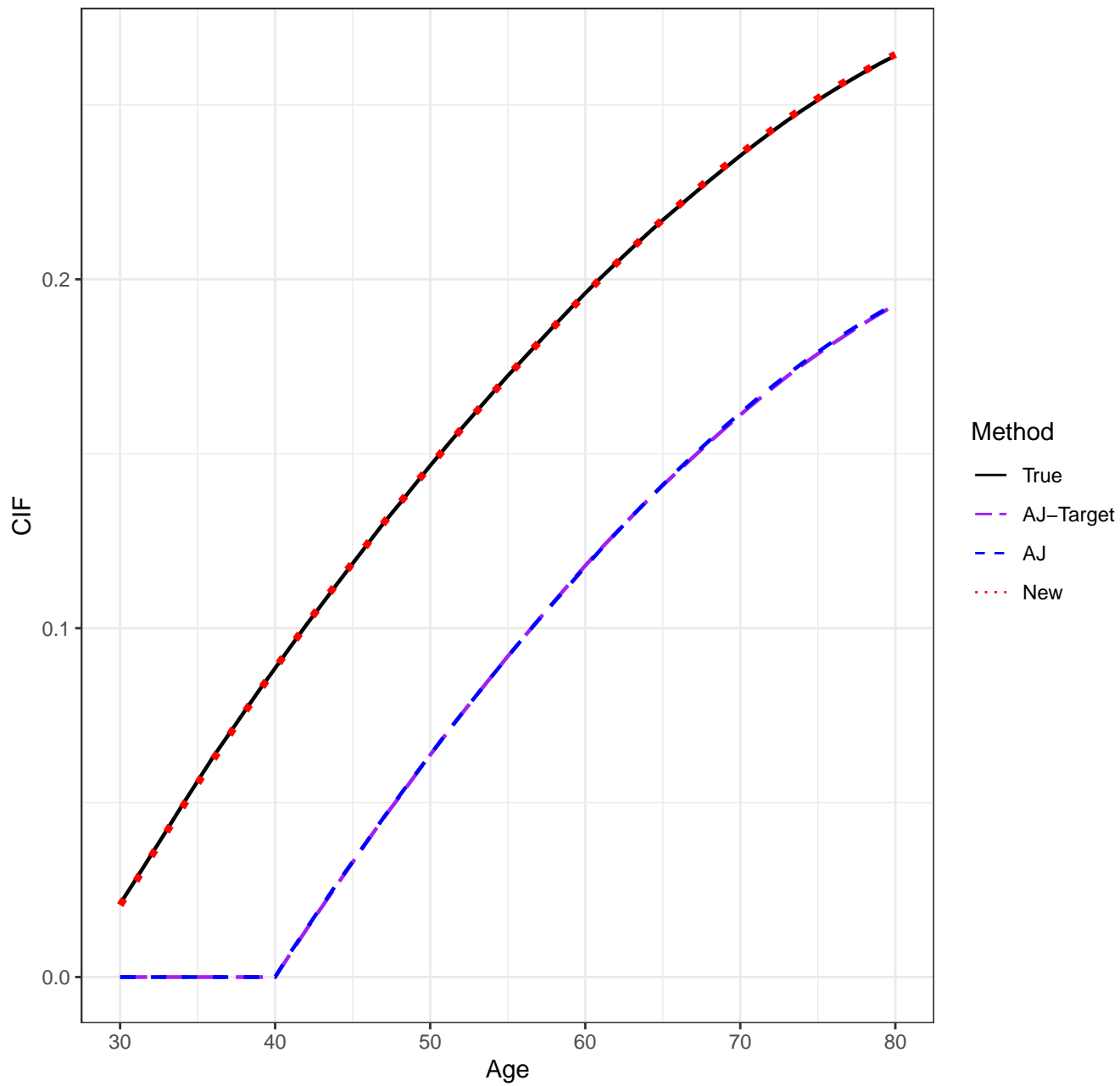
pointwise CI's done by: normal-theory

auxflg = FALSE

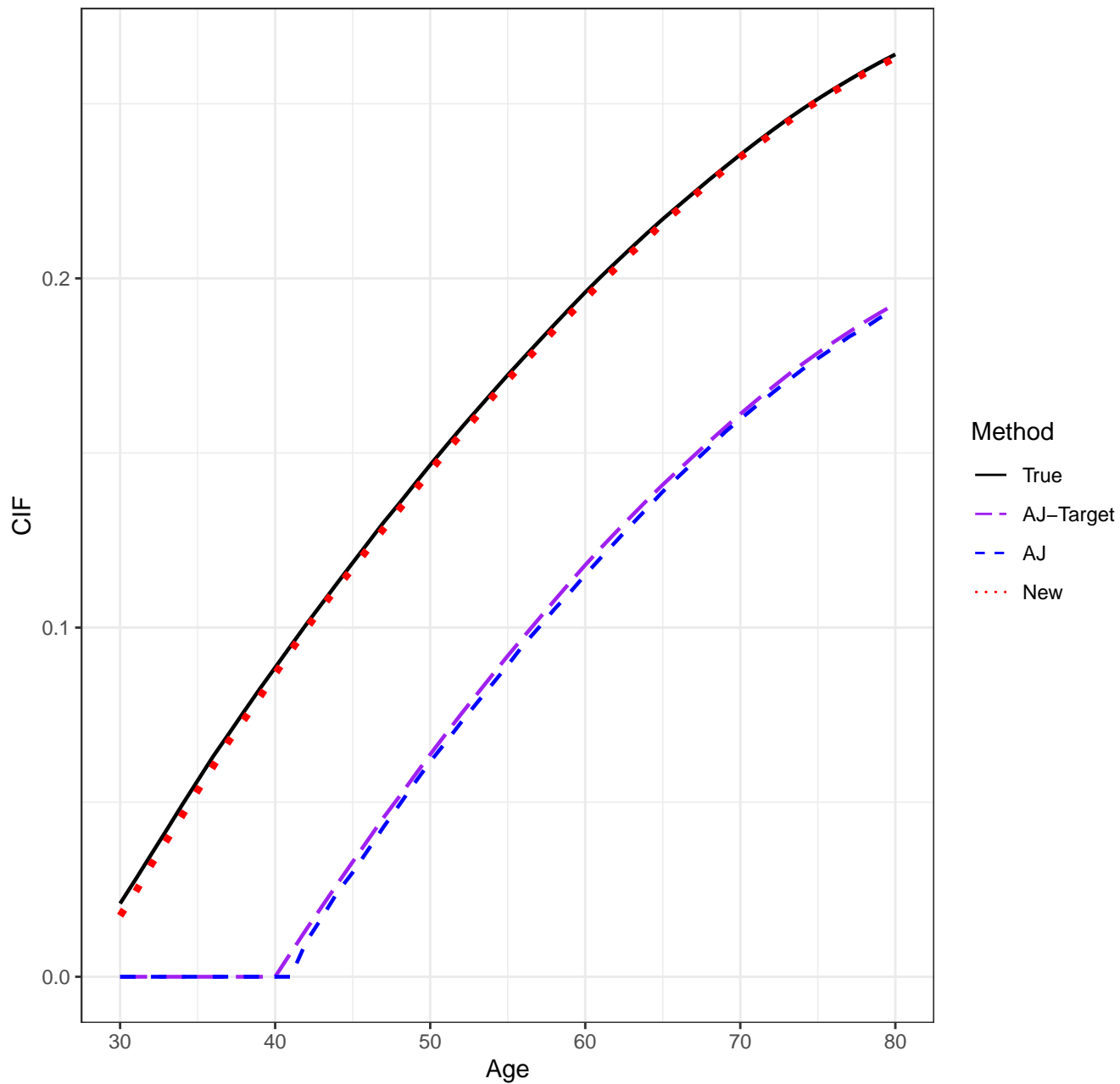
bootstrap weights: normal

Date/Time: 2024-01-18 17:11:02.742426

Scenario 3222, n=5000, Means

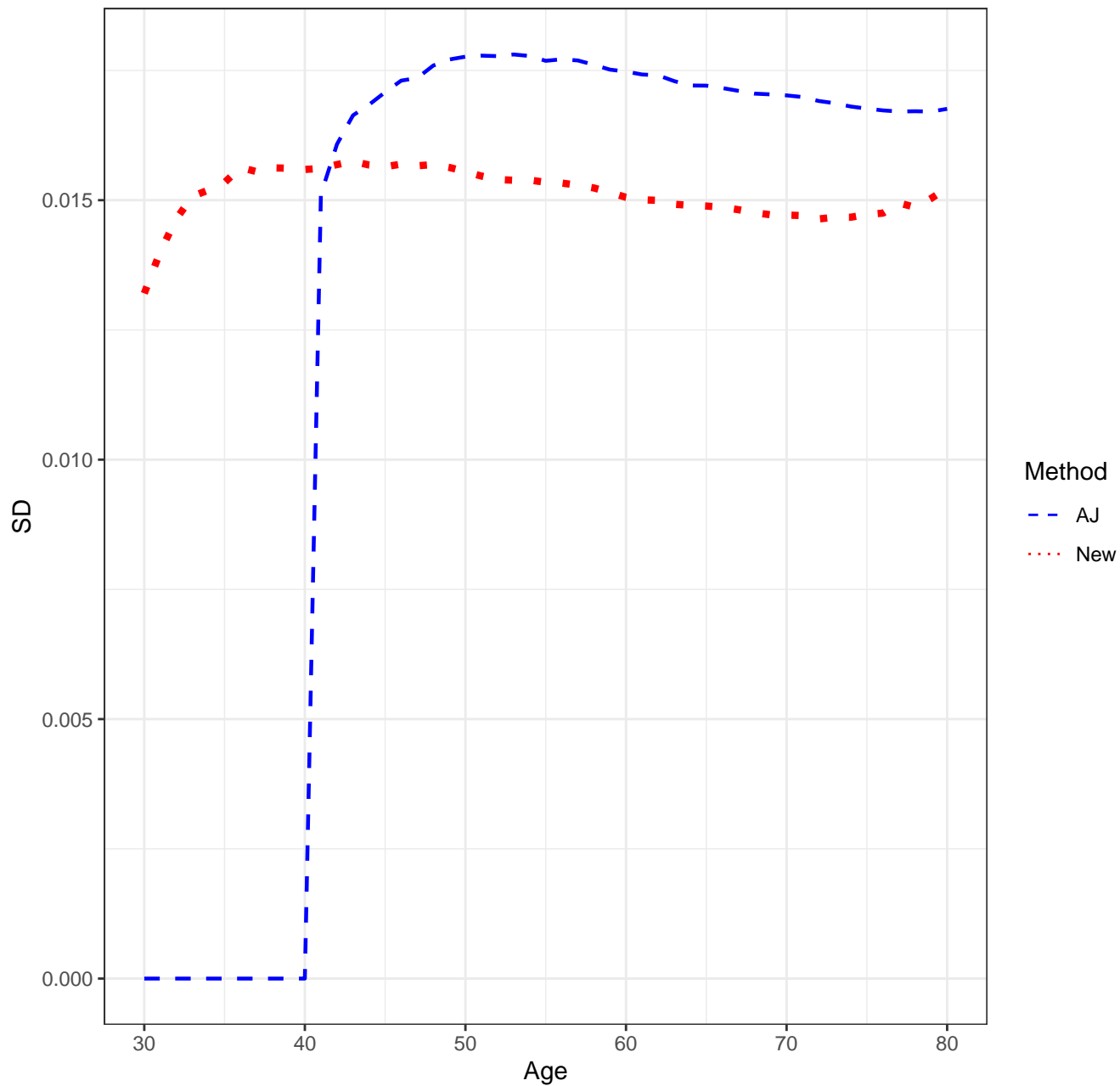


Scenario 3222, n=5000, Medians

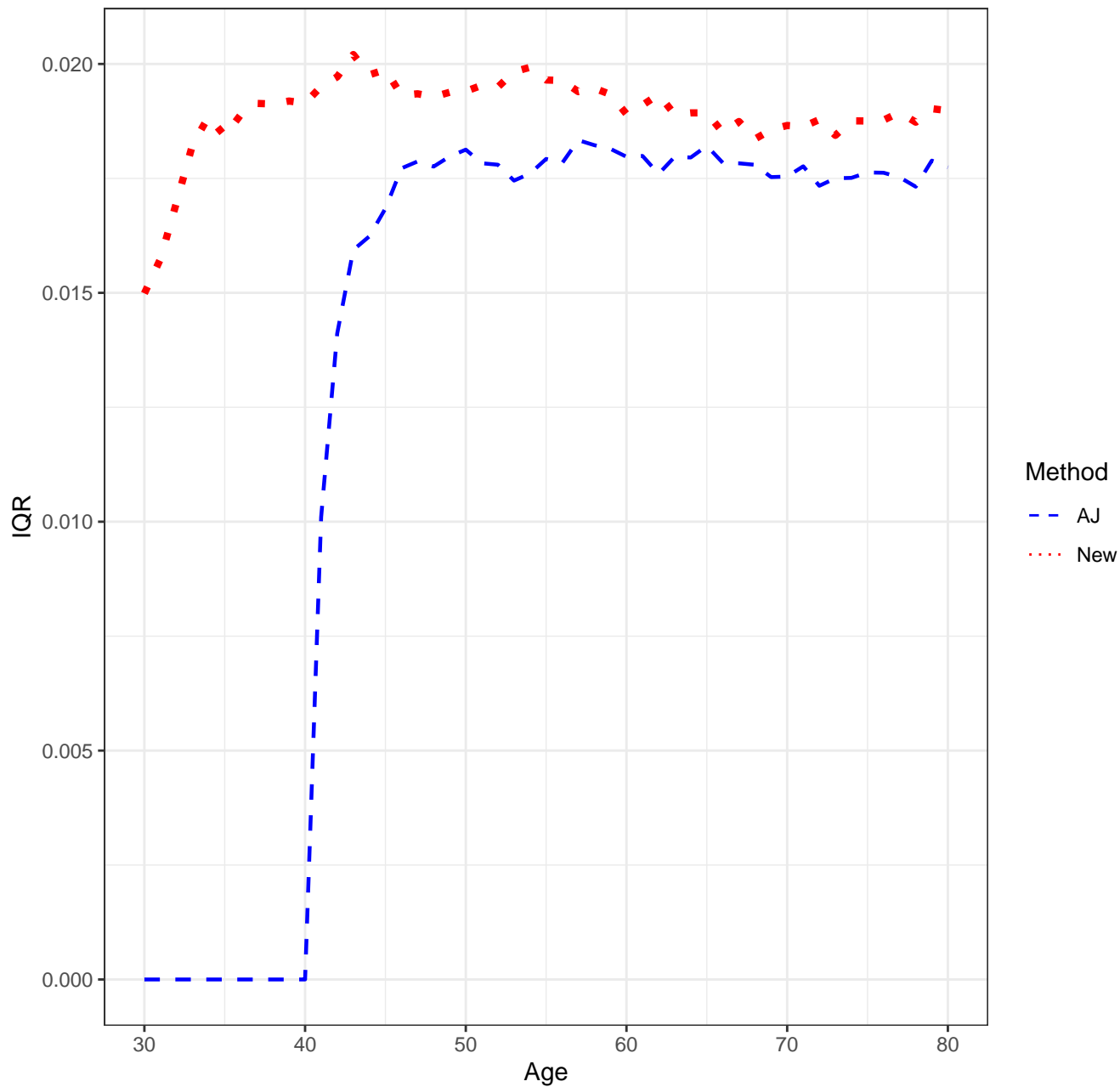




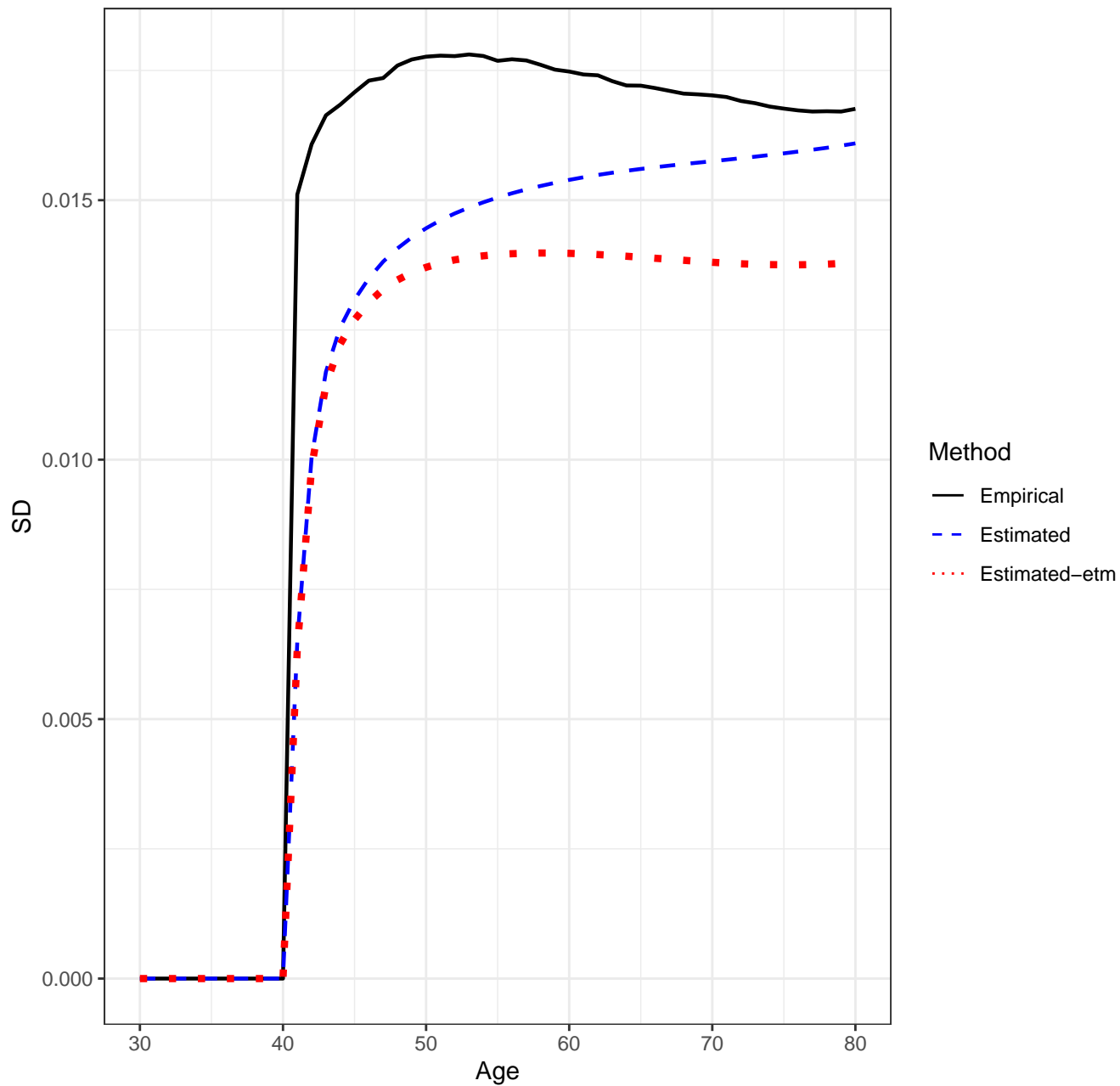
Scenario 3222, n=5000, SD'S



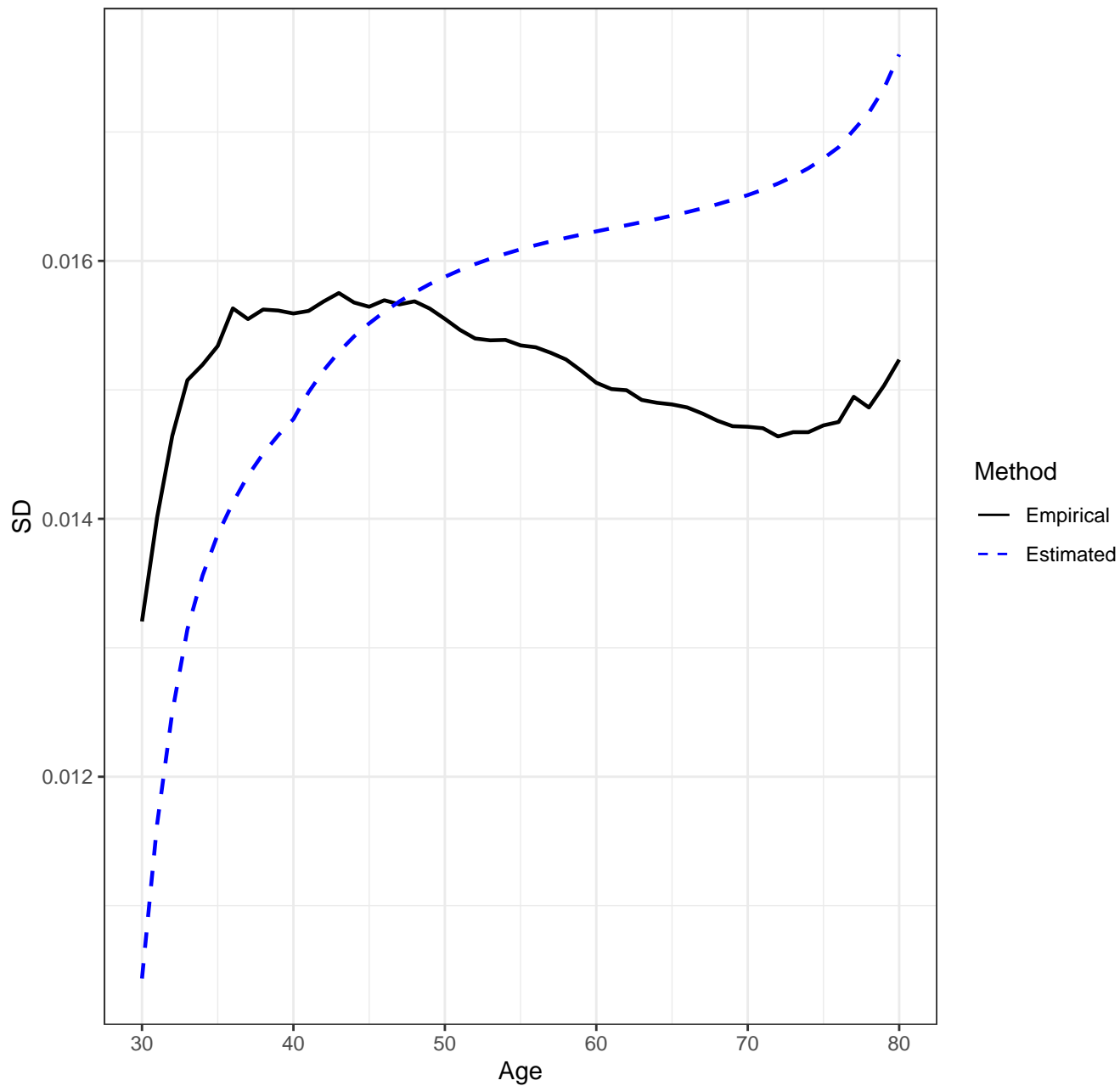
Scenario 3222, n=5000, IQR'S



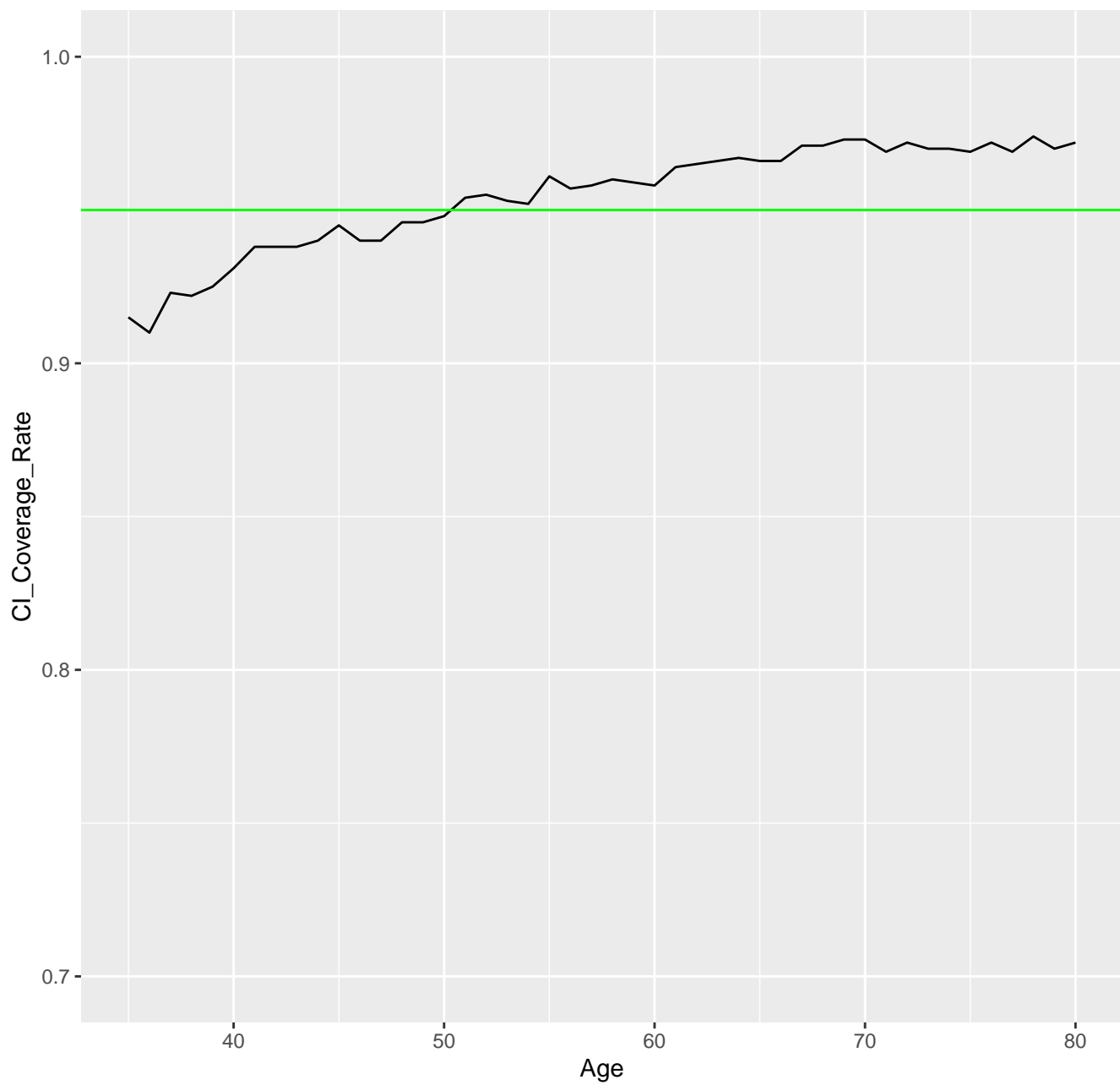
Scenario 3222, n=5000, AJ Estimator, Empirical vs. Estimated SD's



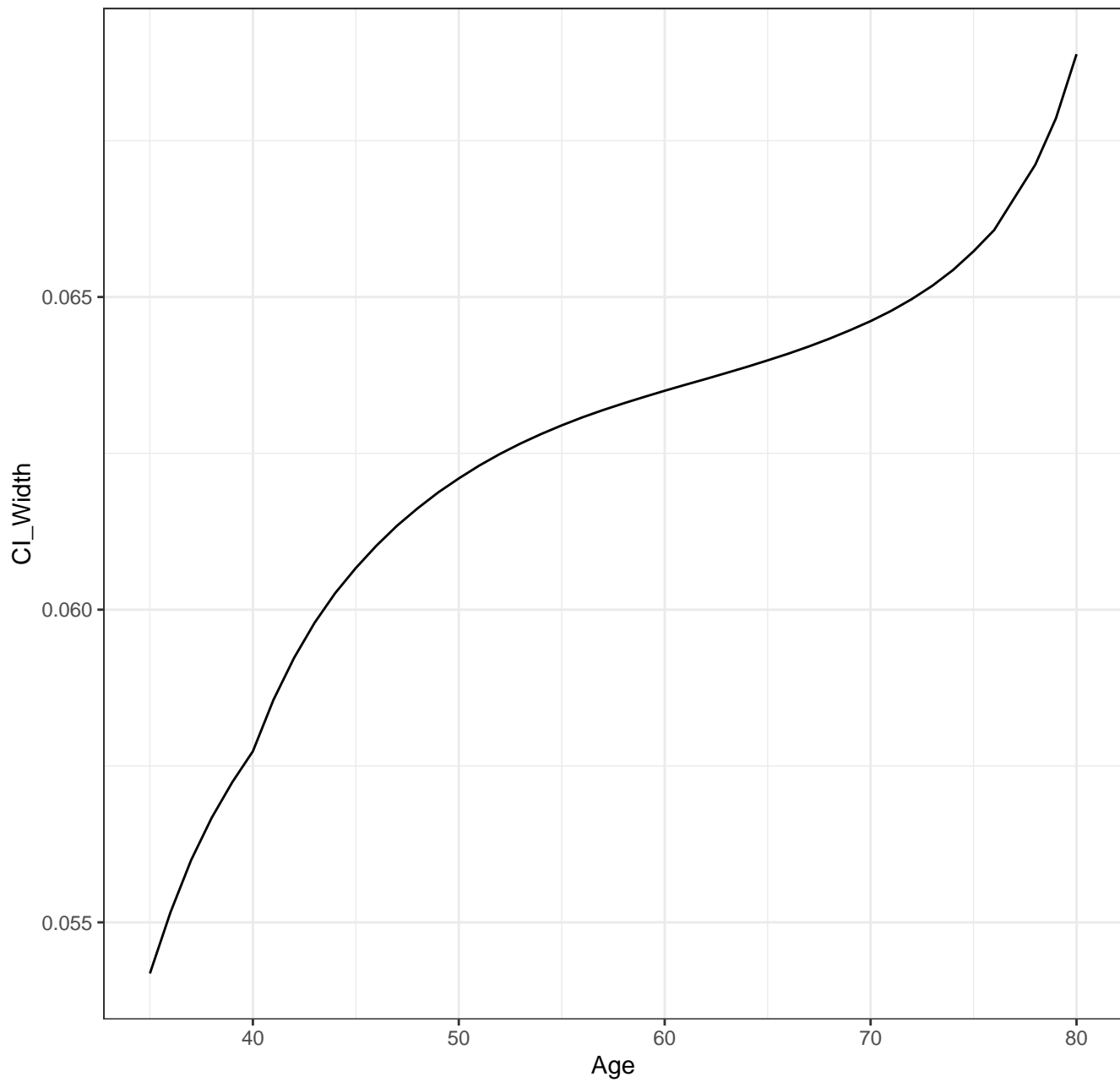
Scenario 3222, n=5000, New Estimator, Empirical vs. Estimated SD's



Scenario 3222, n=5000, CI Coverage Rate for New Method



Scenario 3222, n=5000, CI Width for New Estimator



## CONFIDENCE BAND COVERAGE RATES

Scenario: 3222

AJ0: 0

AJ: 0.36

New: 0.926

Scenario 3222, n=5000, Confidence Band Width for New Method

