Sample Size Calculation and Optimal Design for Regression-Based Norming of Tests and Questionnaires.

Online Supplement B.2

Results of the Simulation Studies for Y=DKEFS and Y=SDMT

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We have no conflict of interest to disclose.

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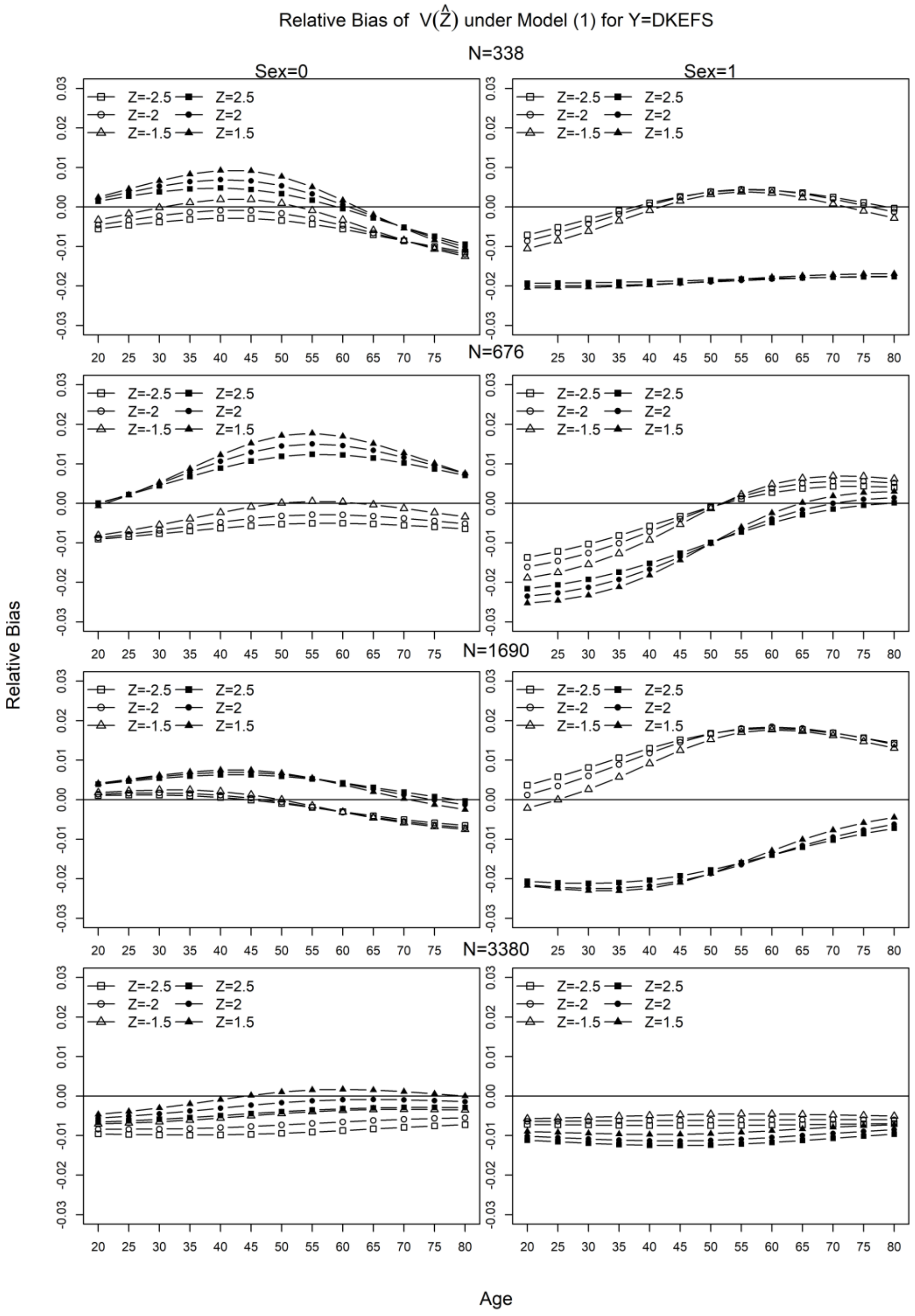

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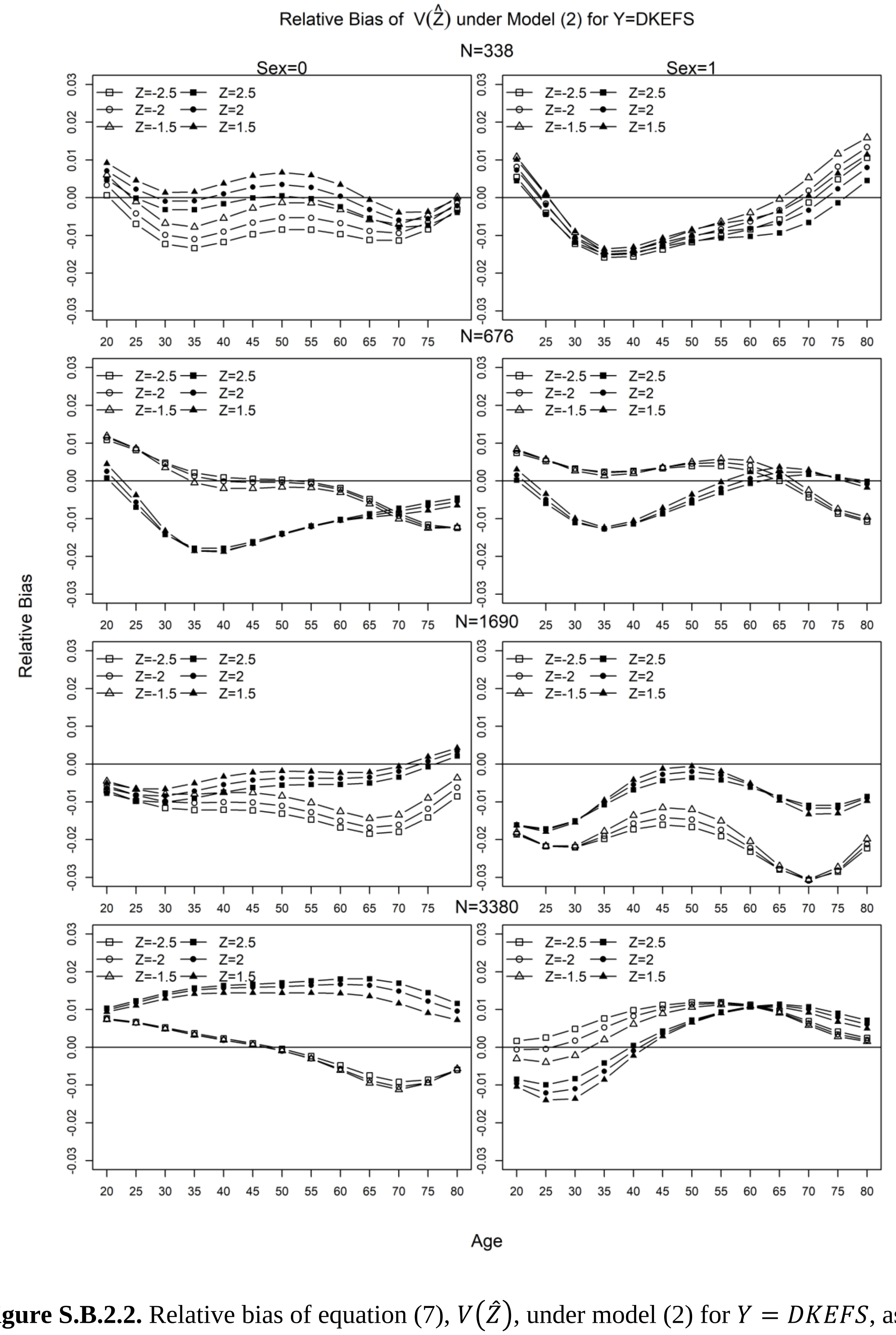

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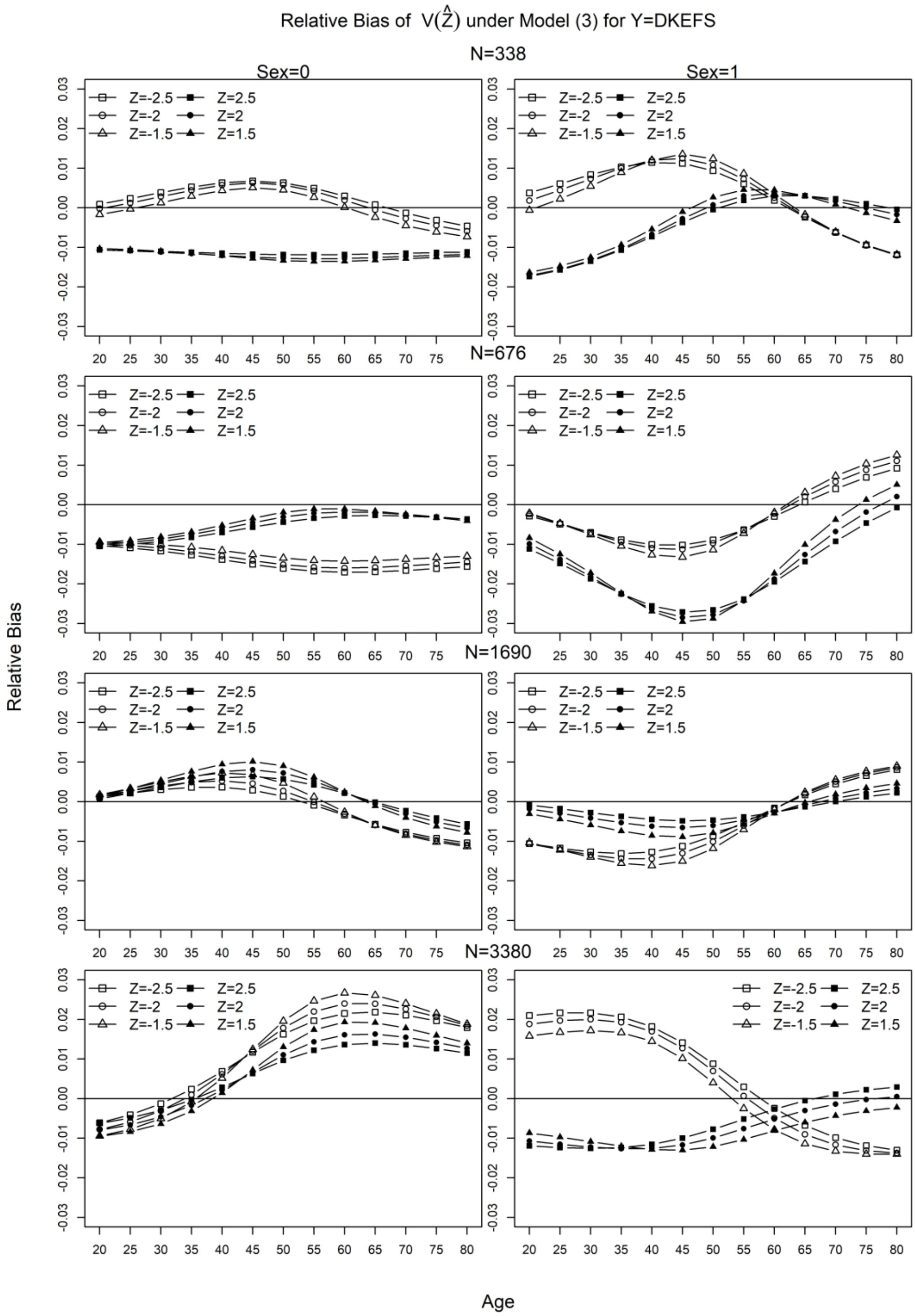

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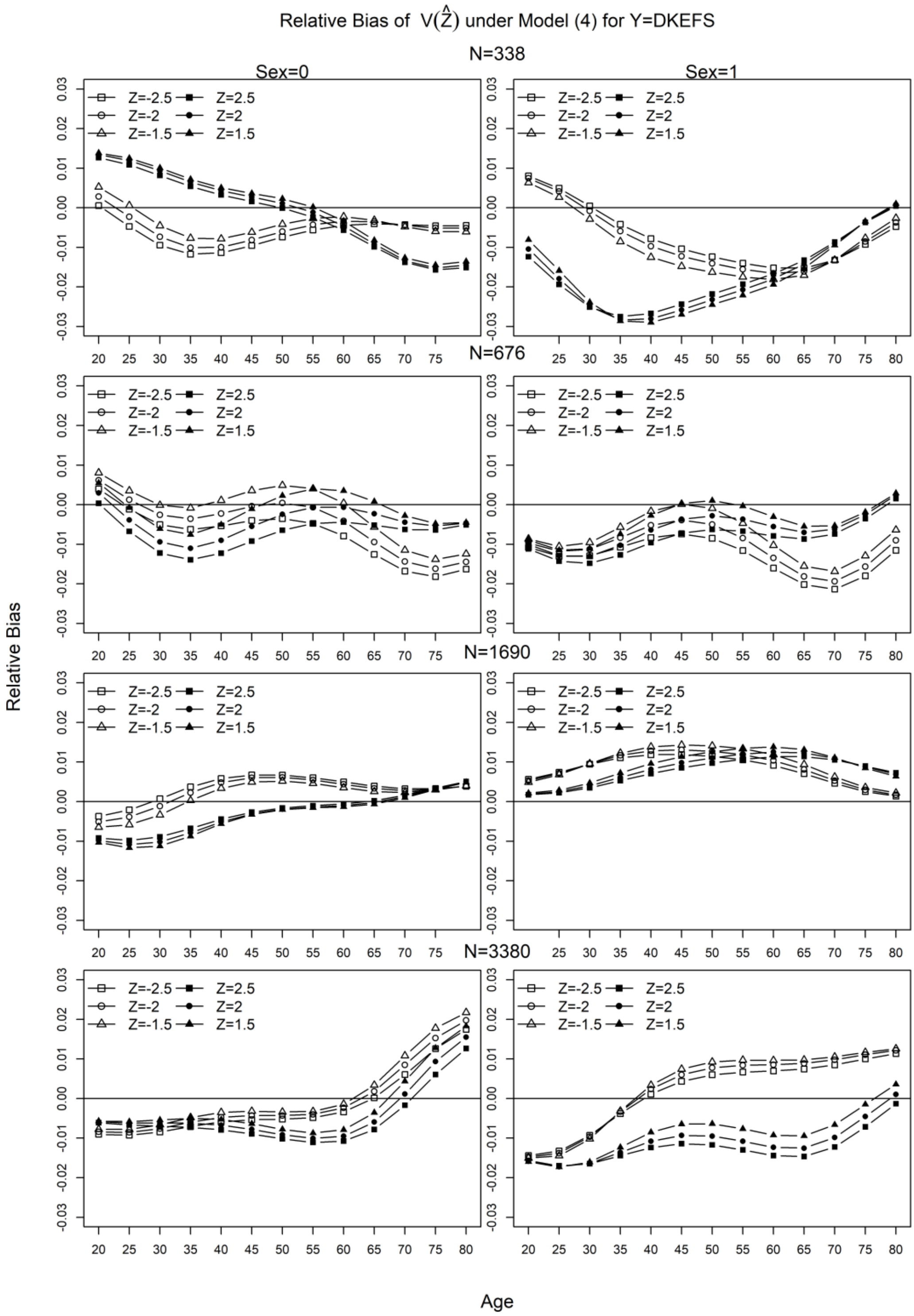

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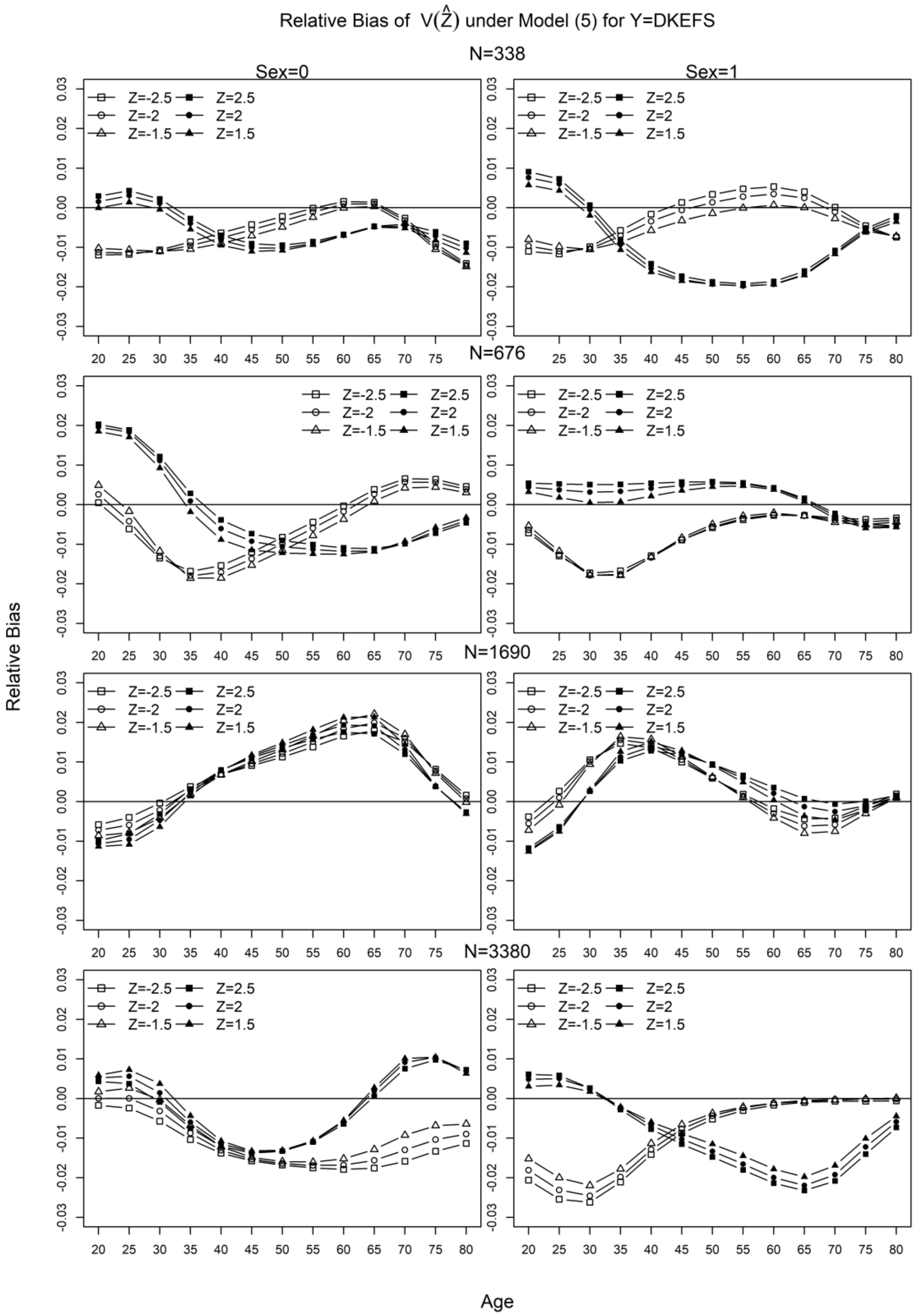

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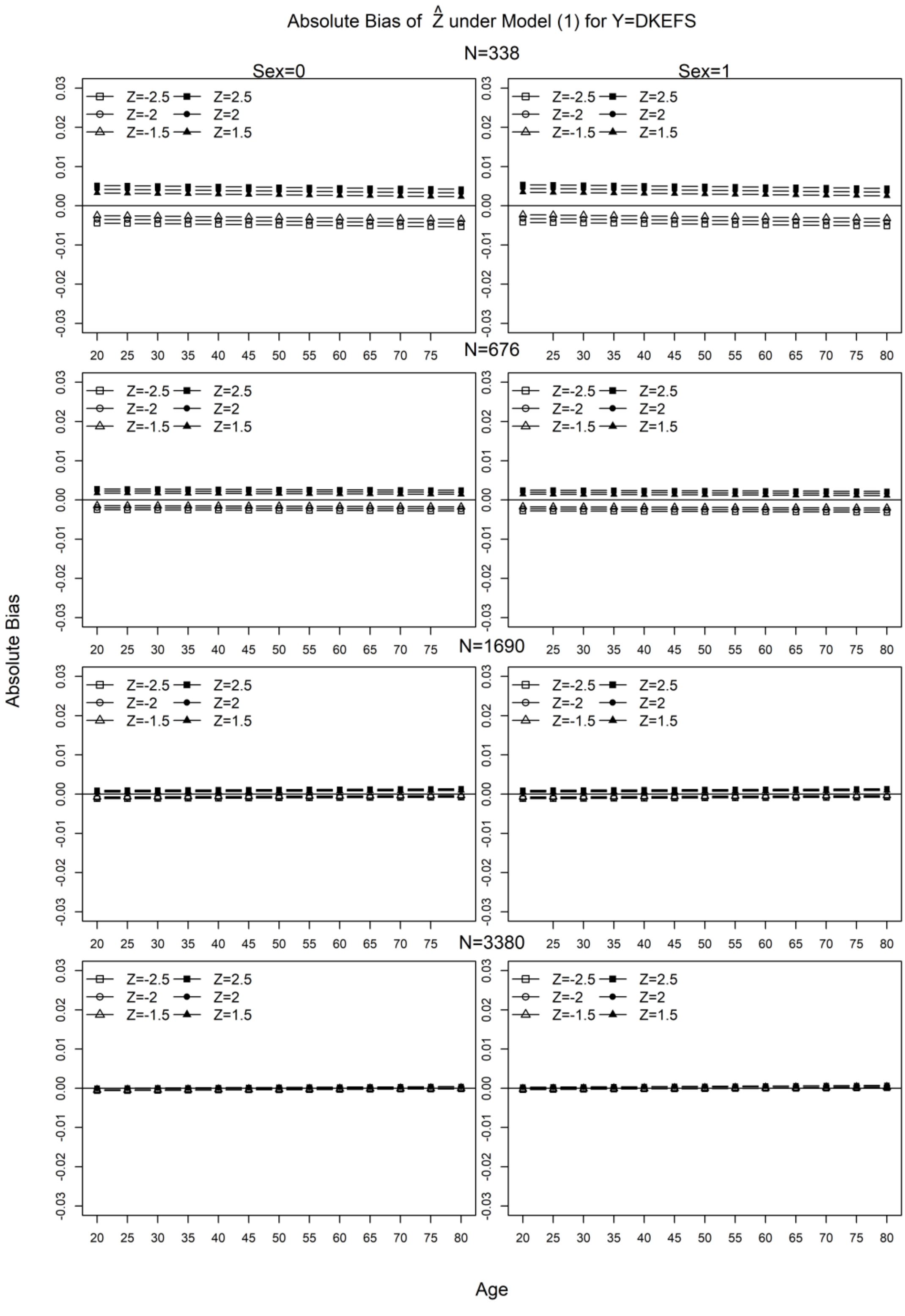

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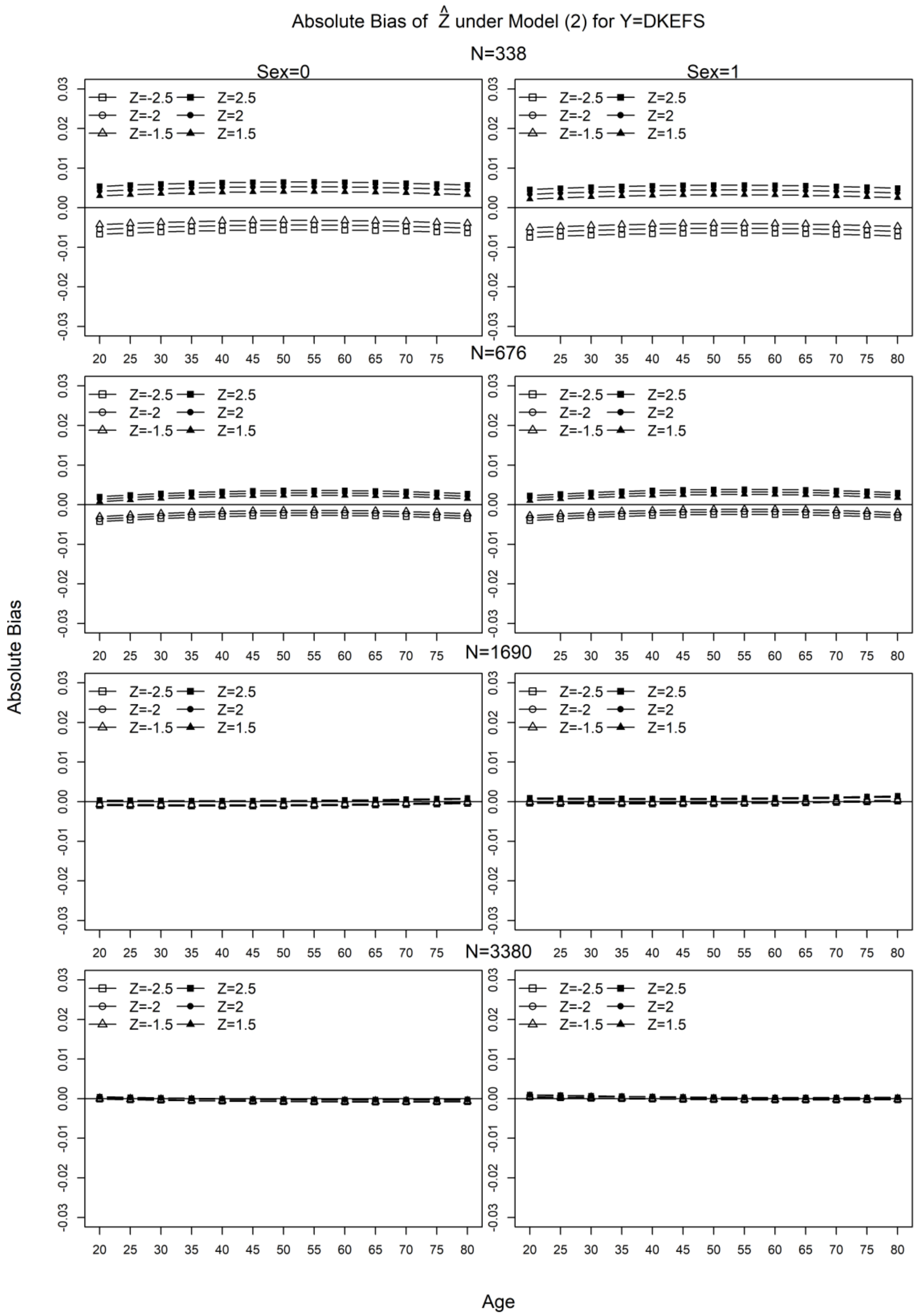

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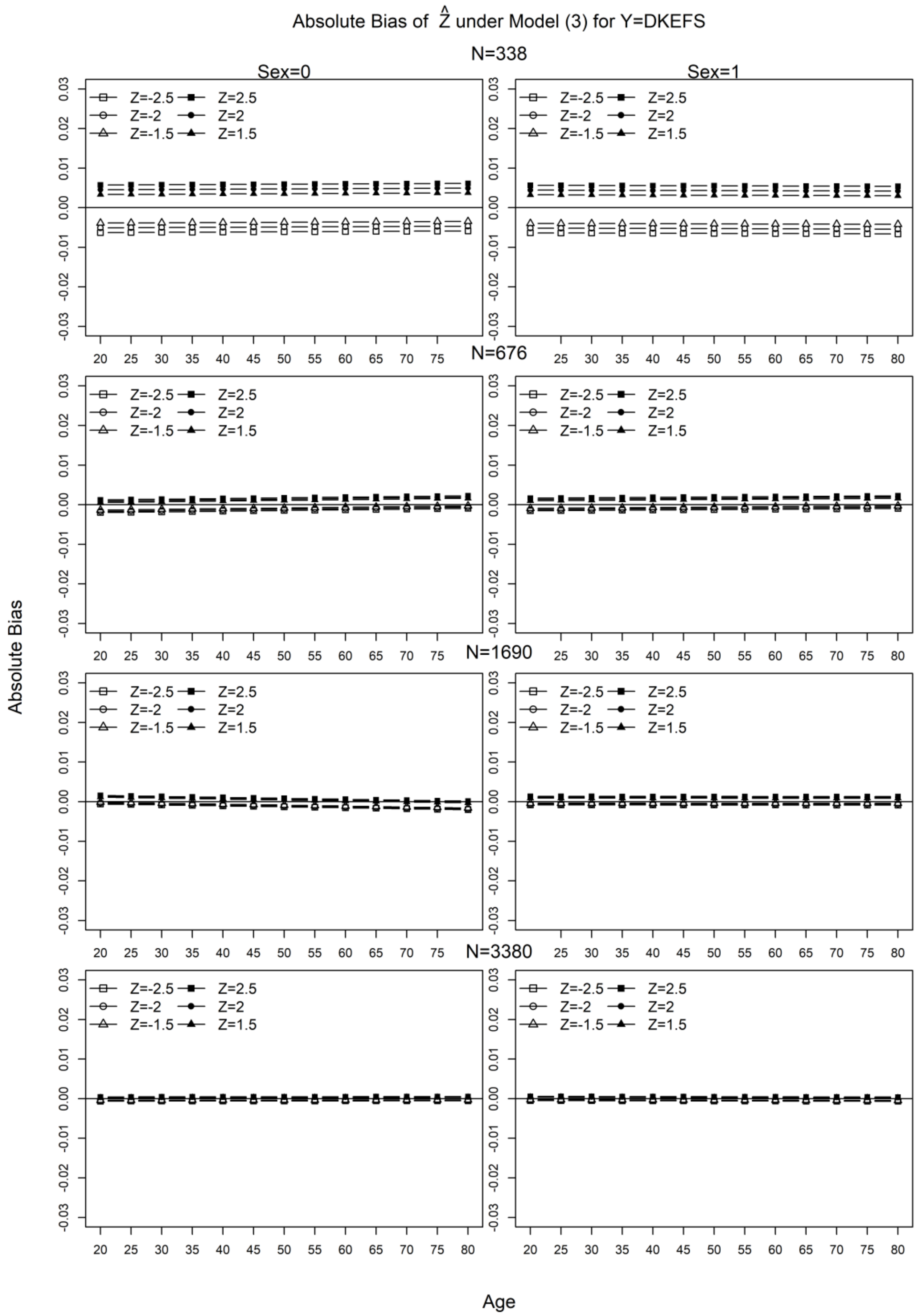

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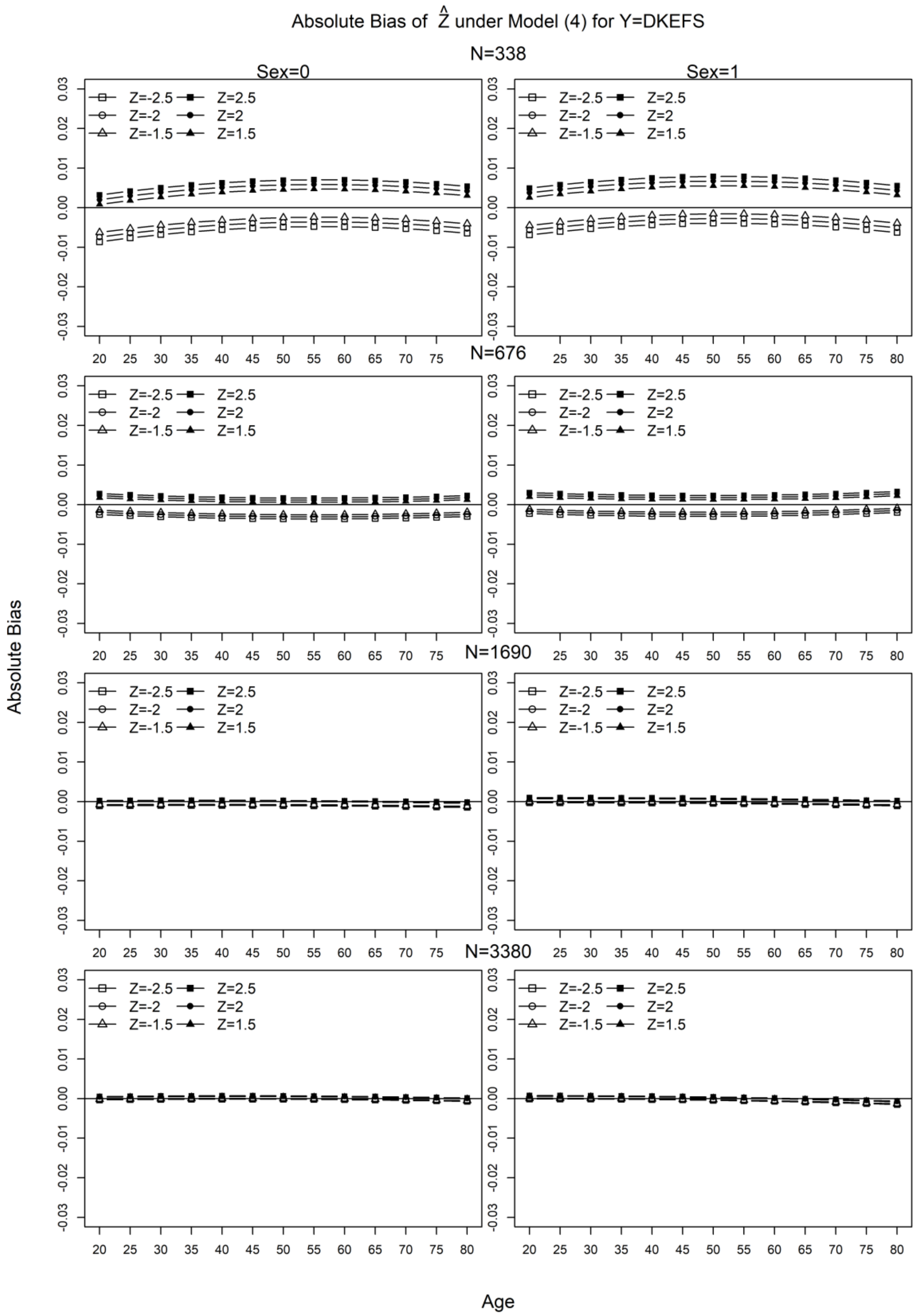

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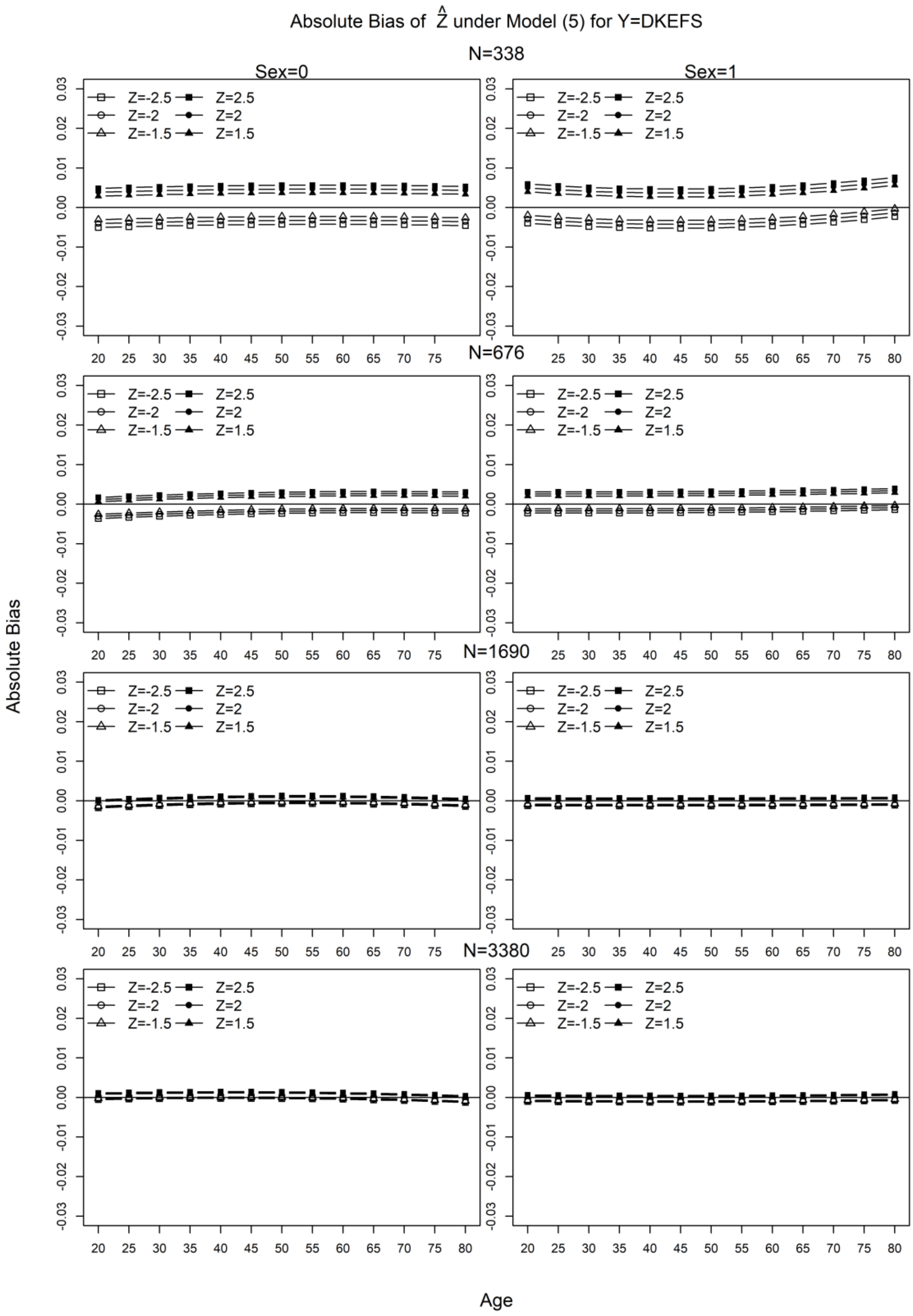

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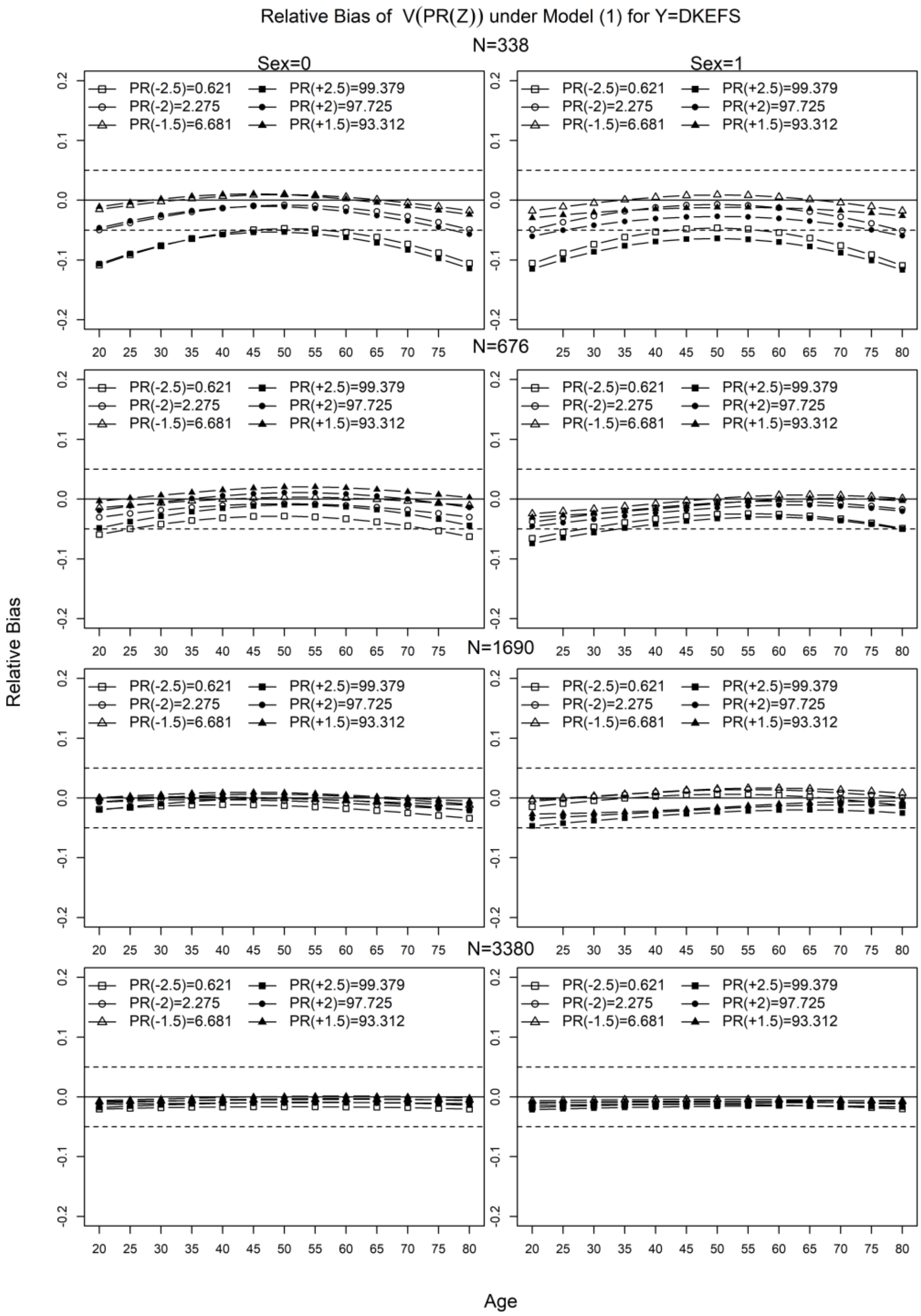

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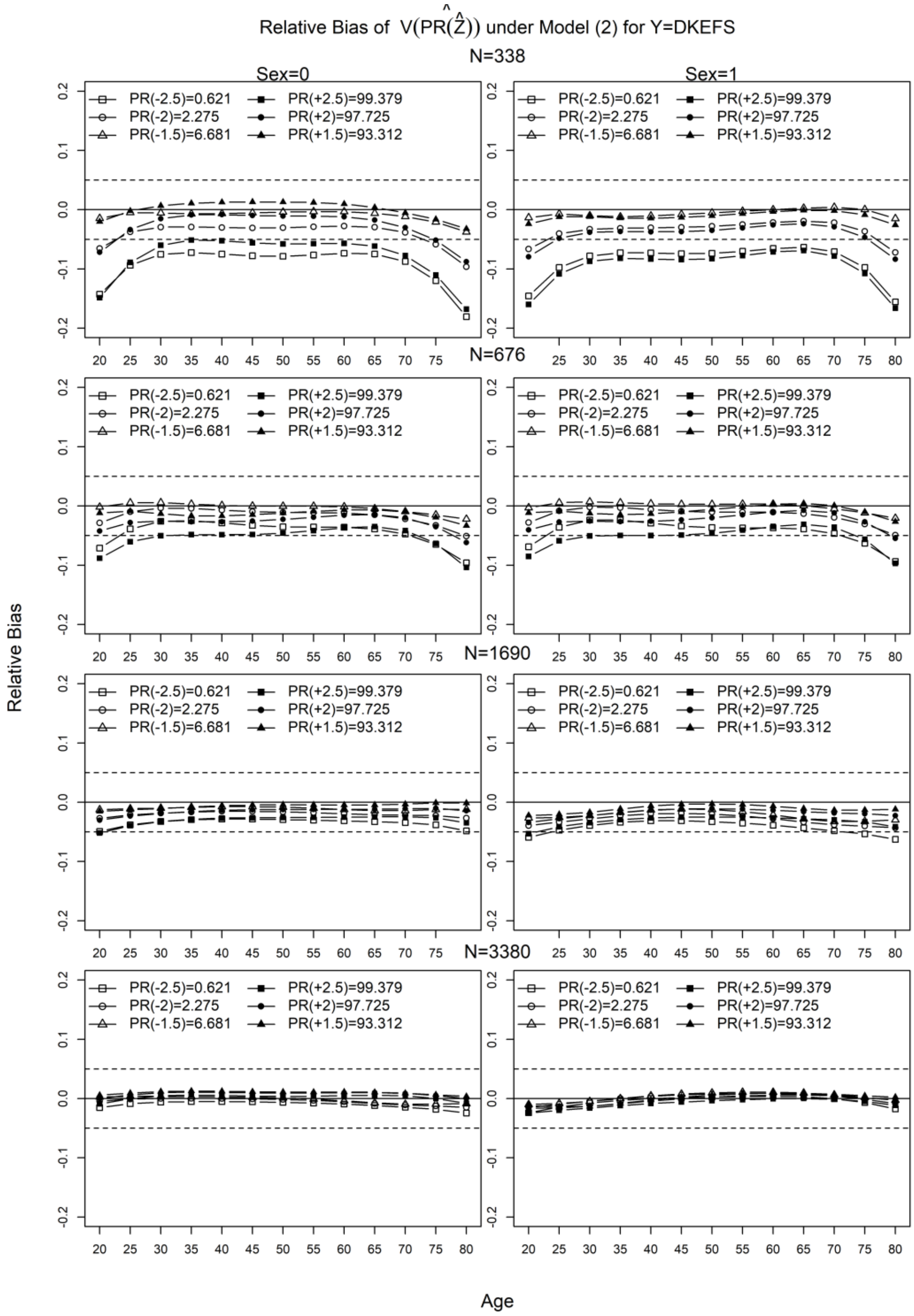

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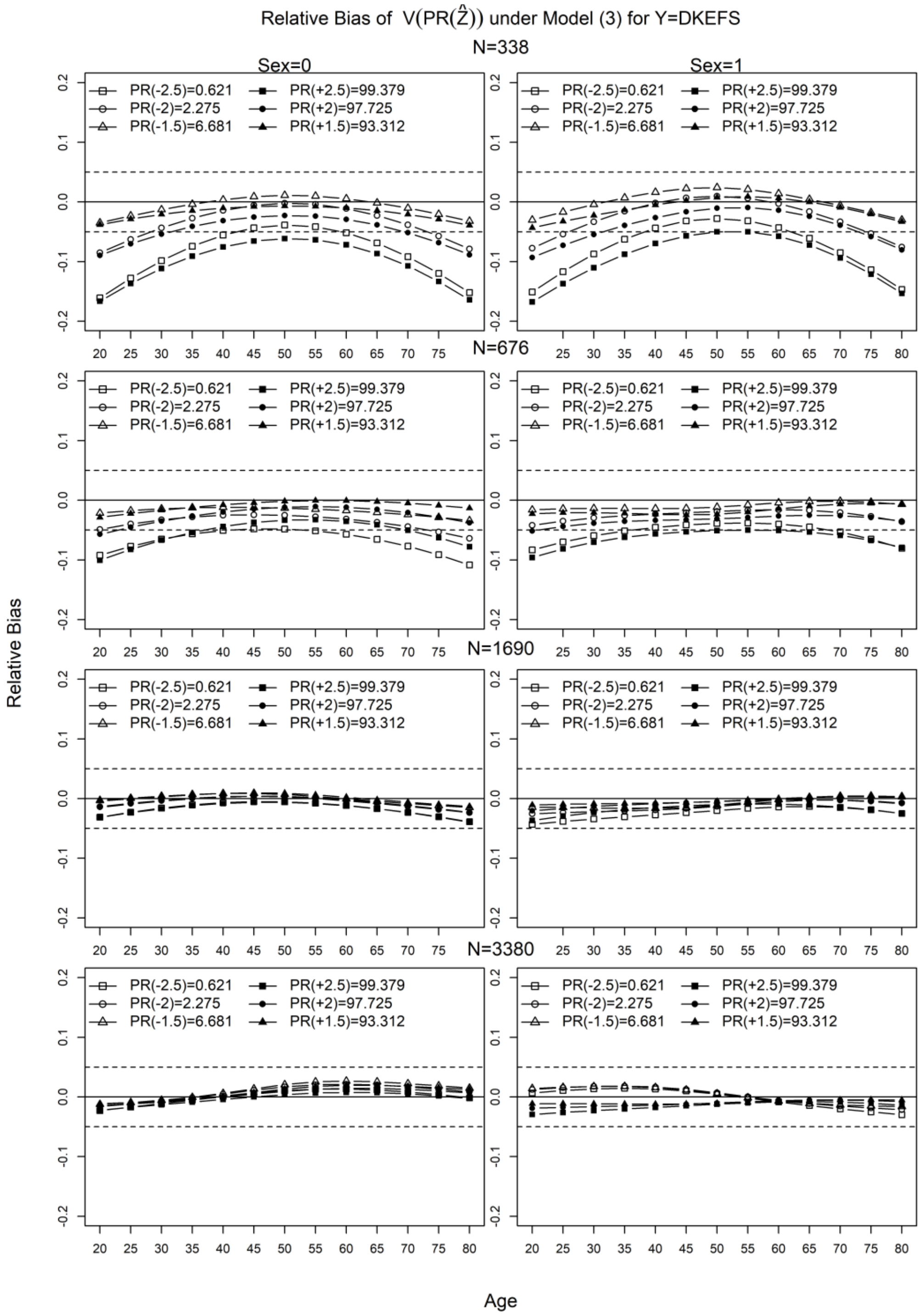

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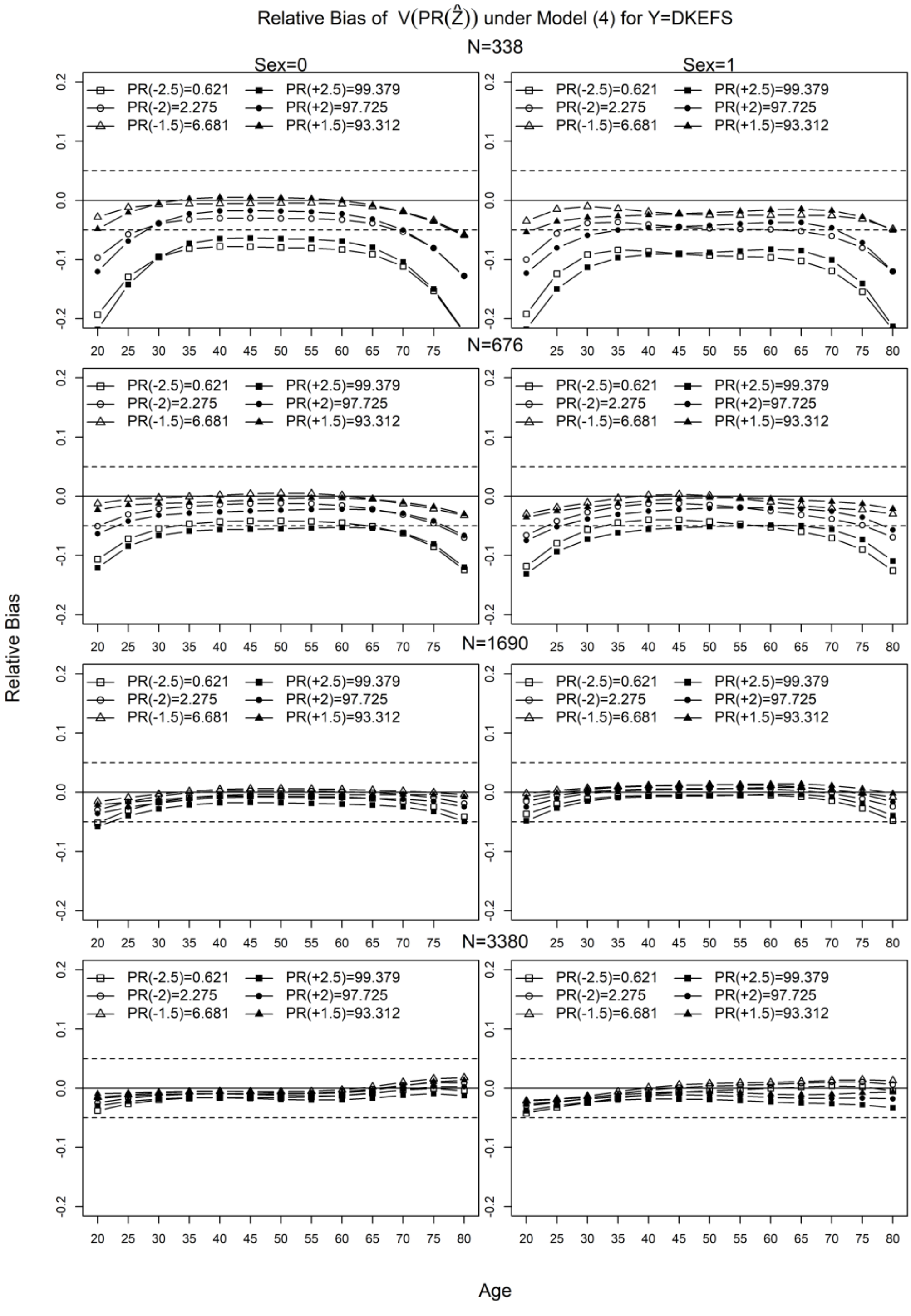

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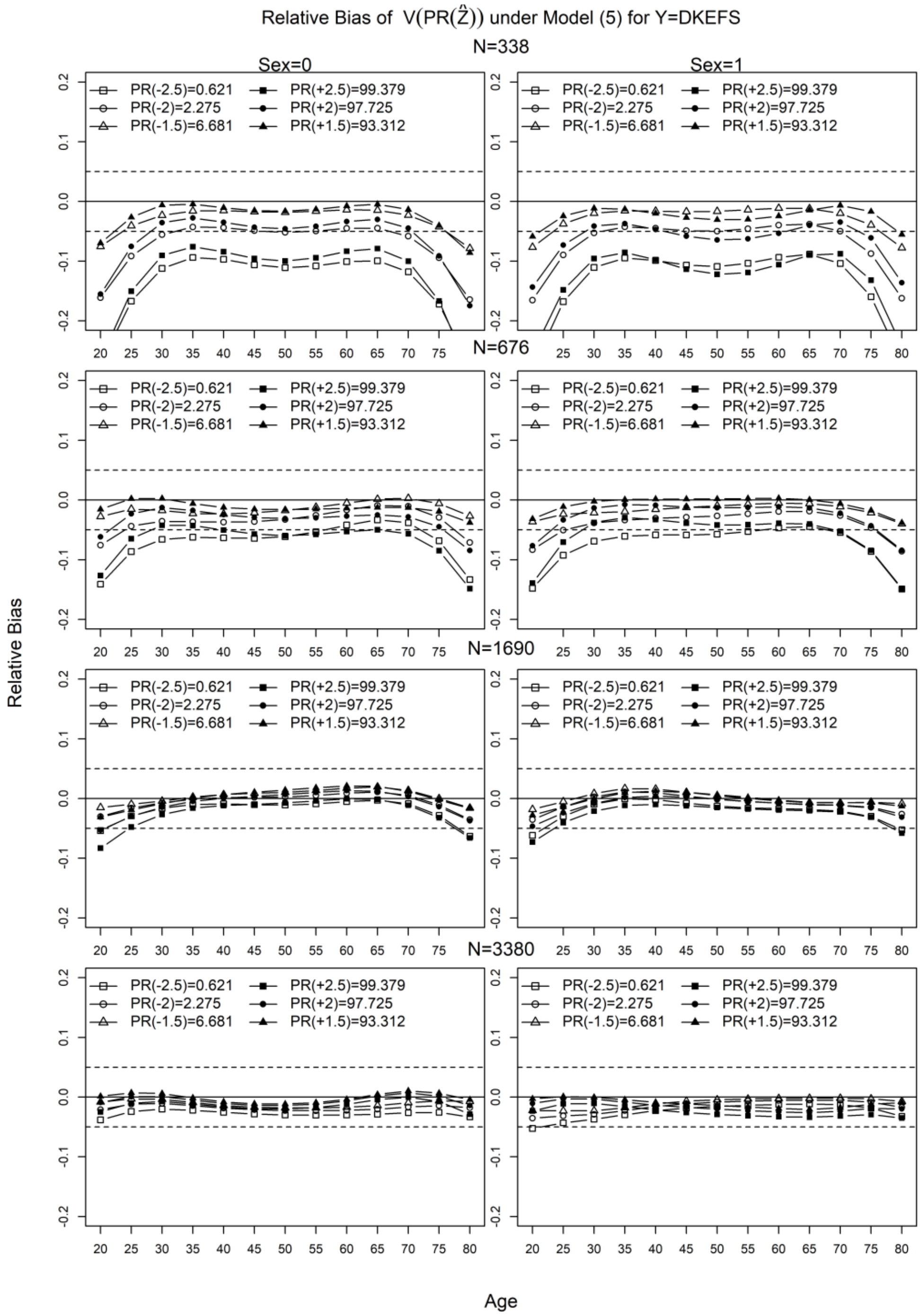

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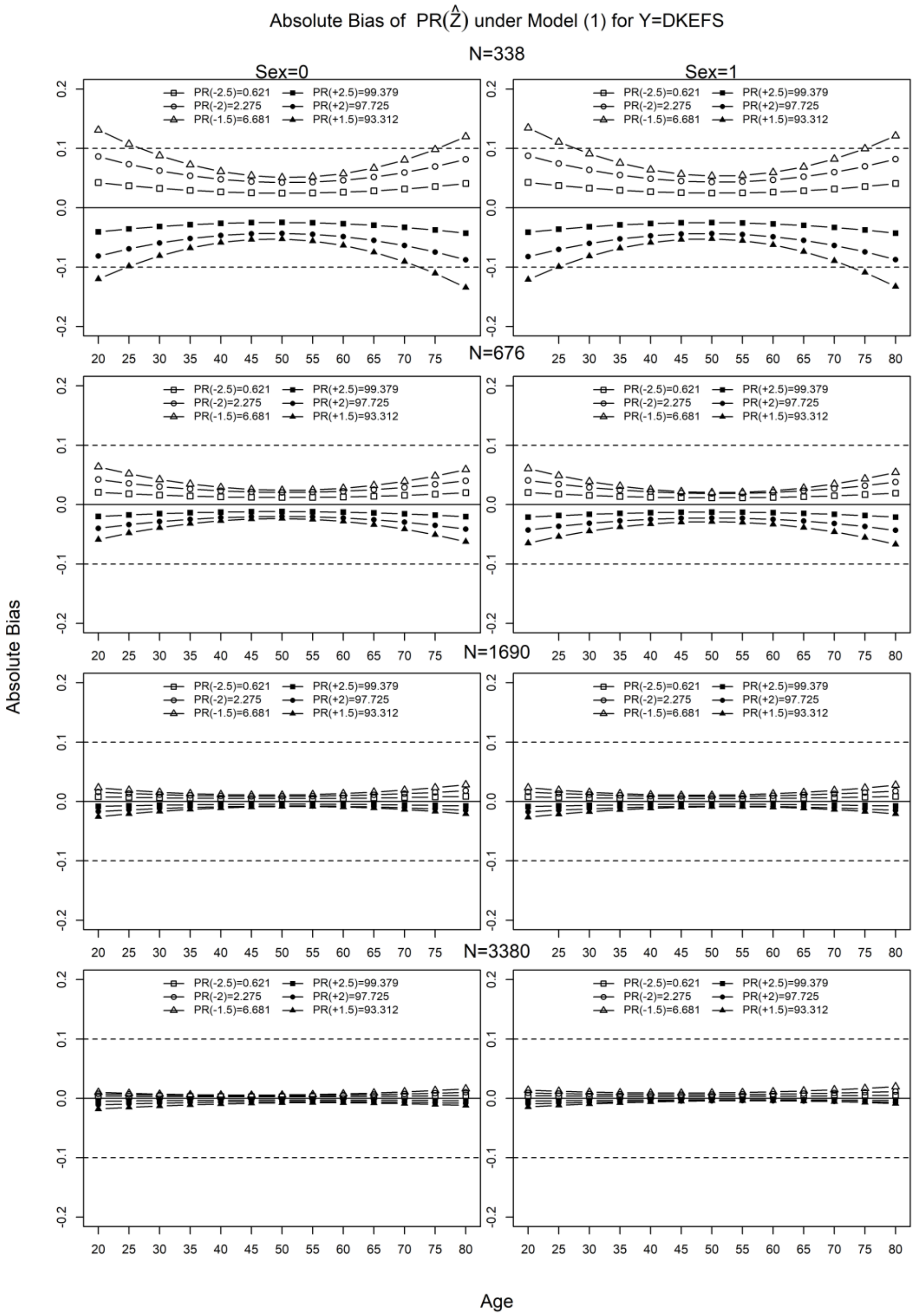

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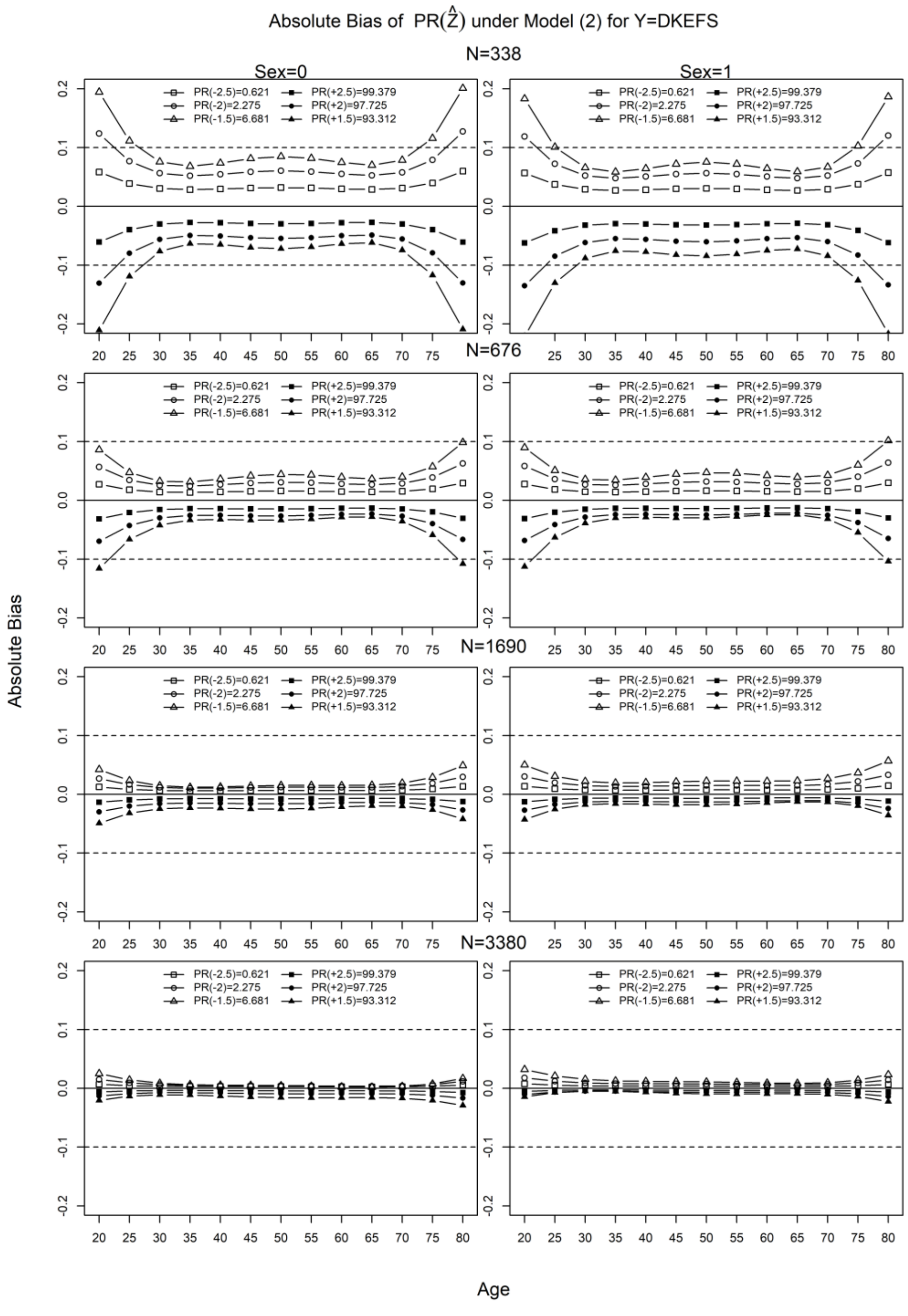

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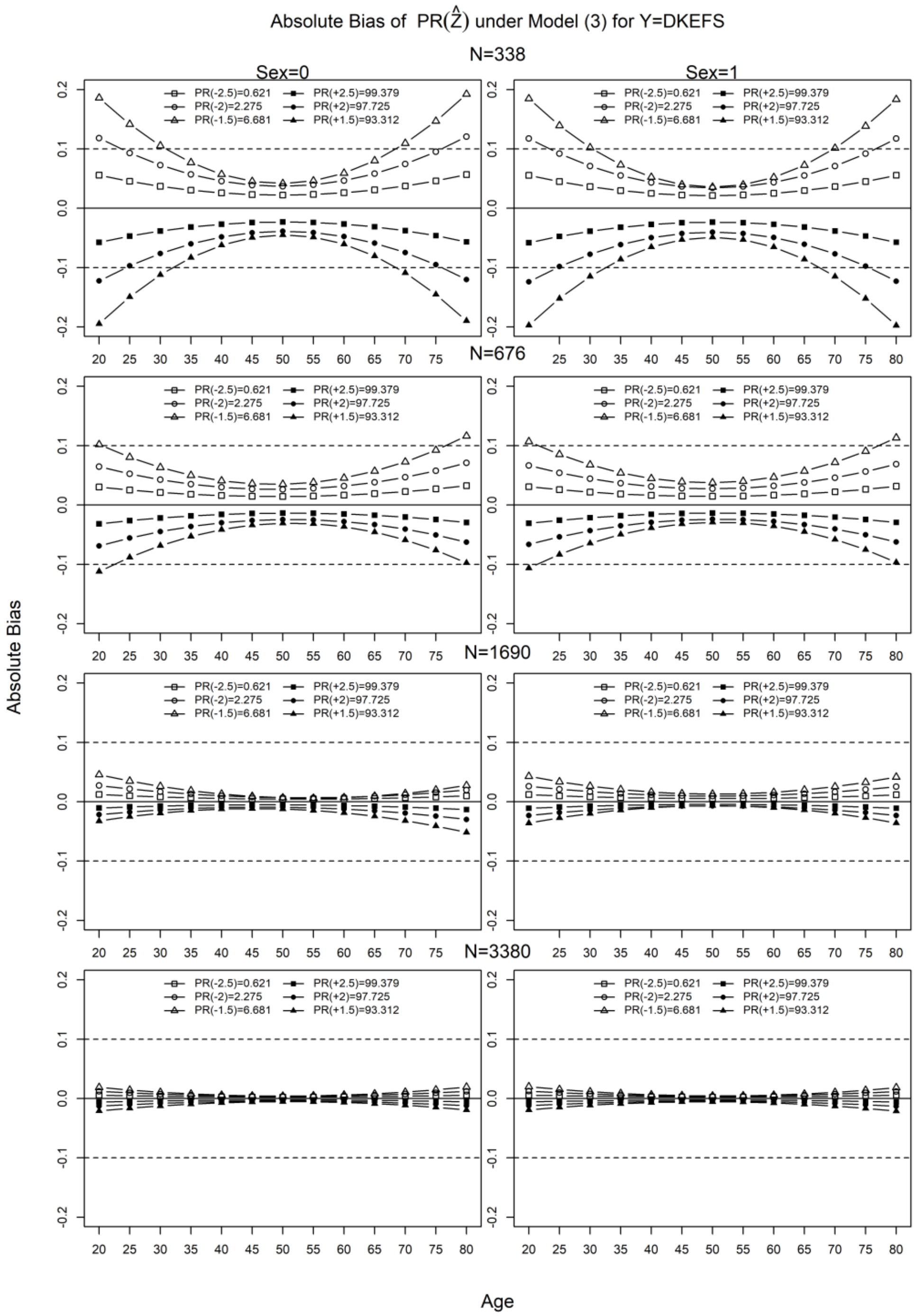

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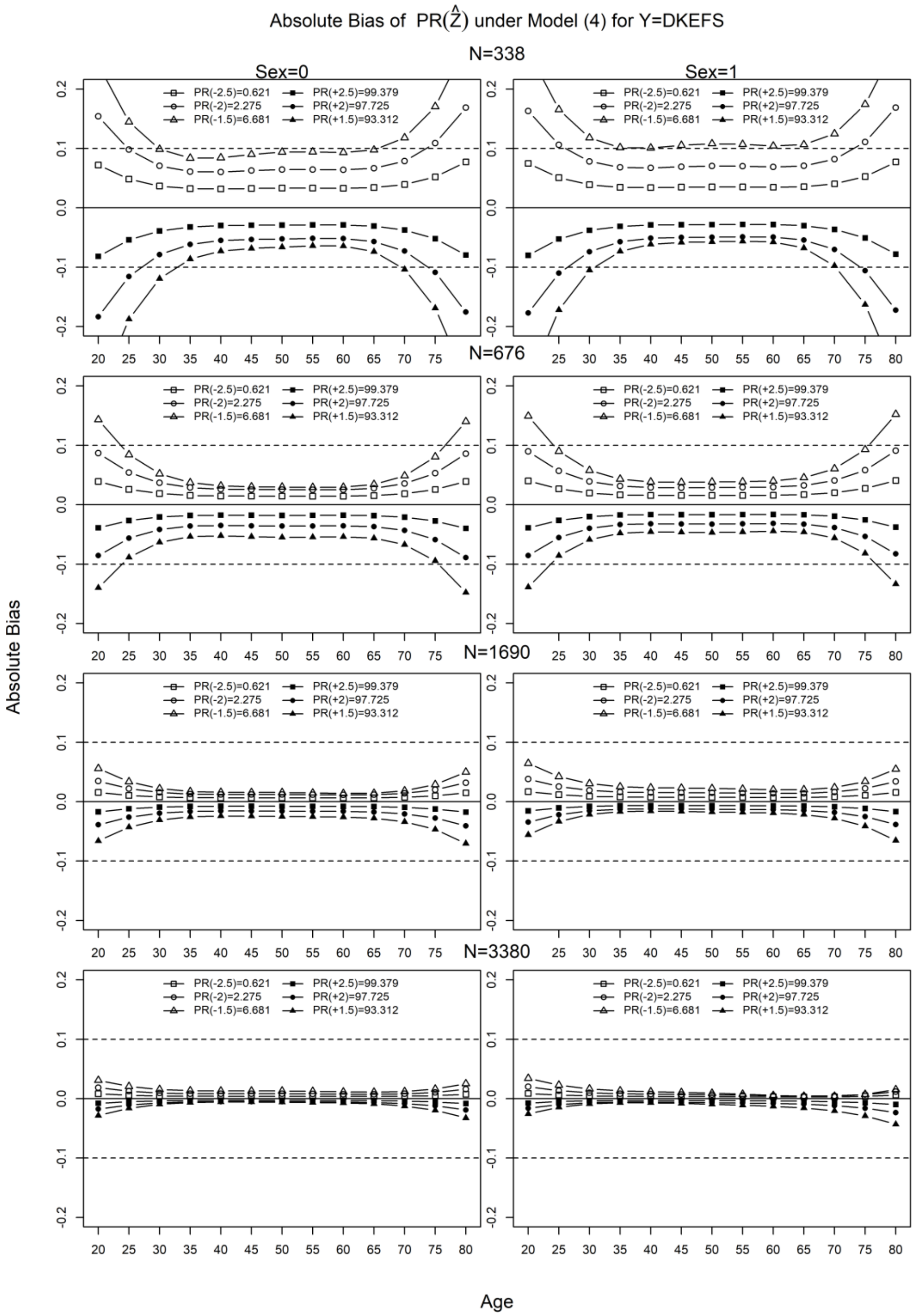

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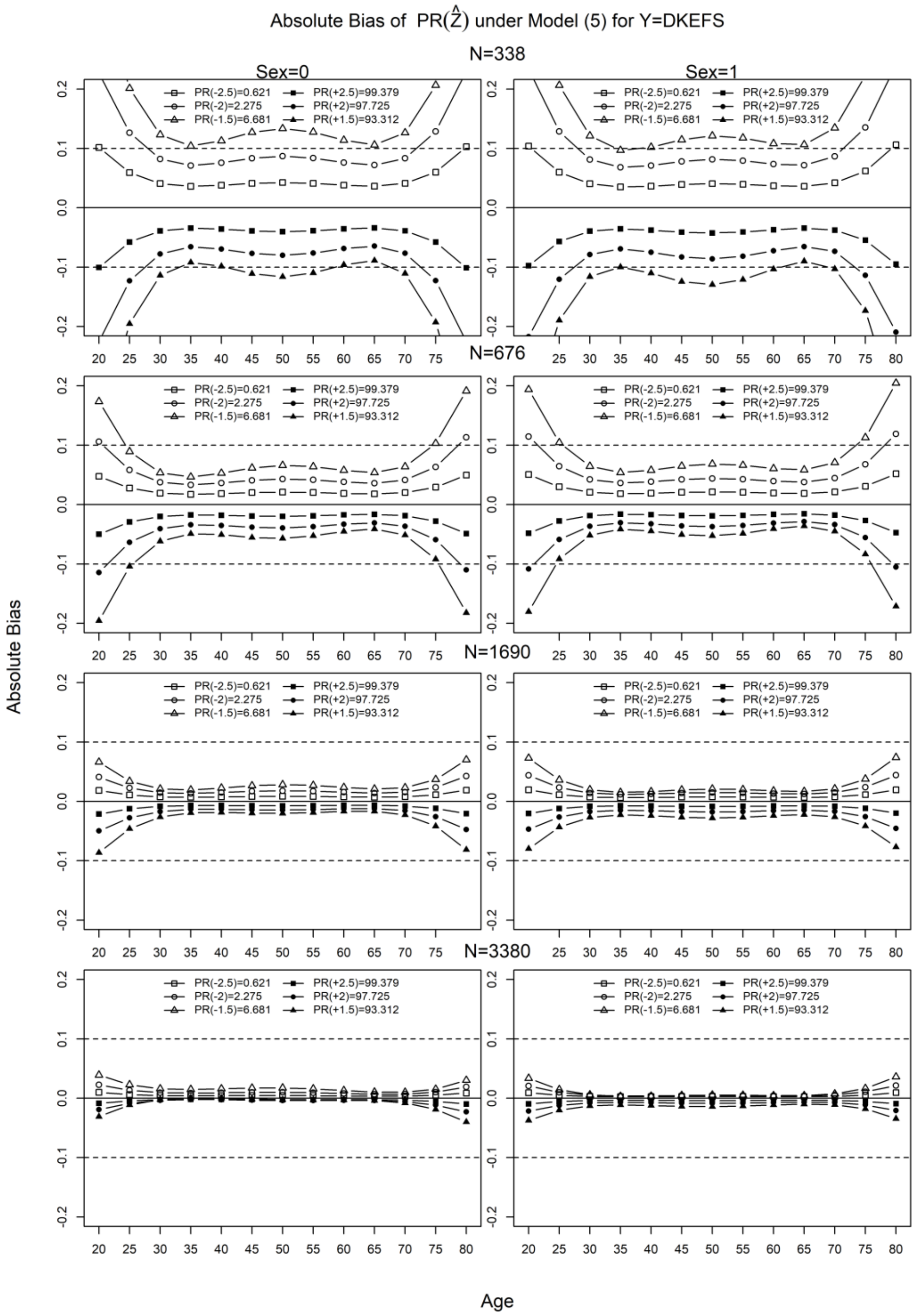

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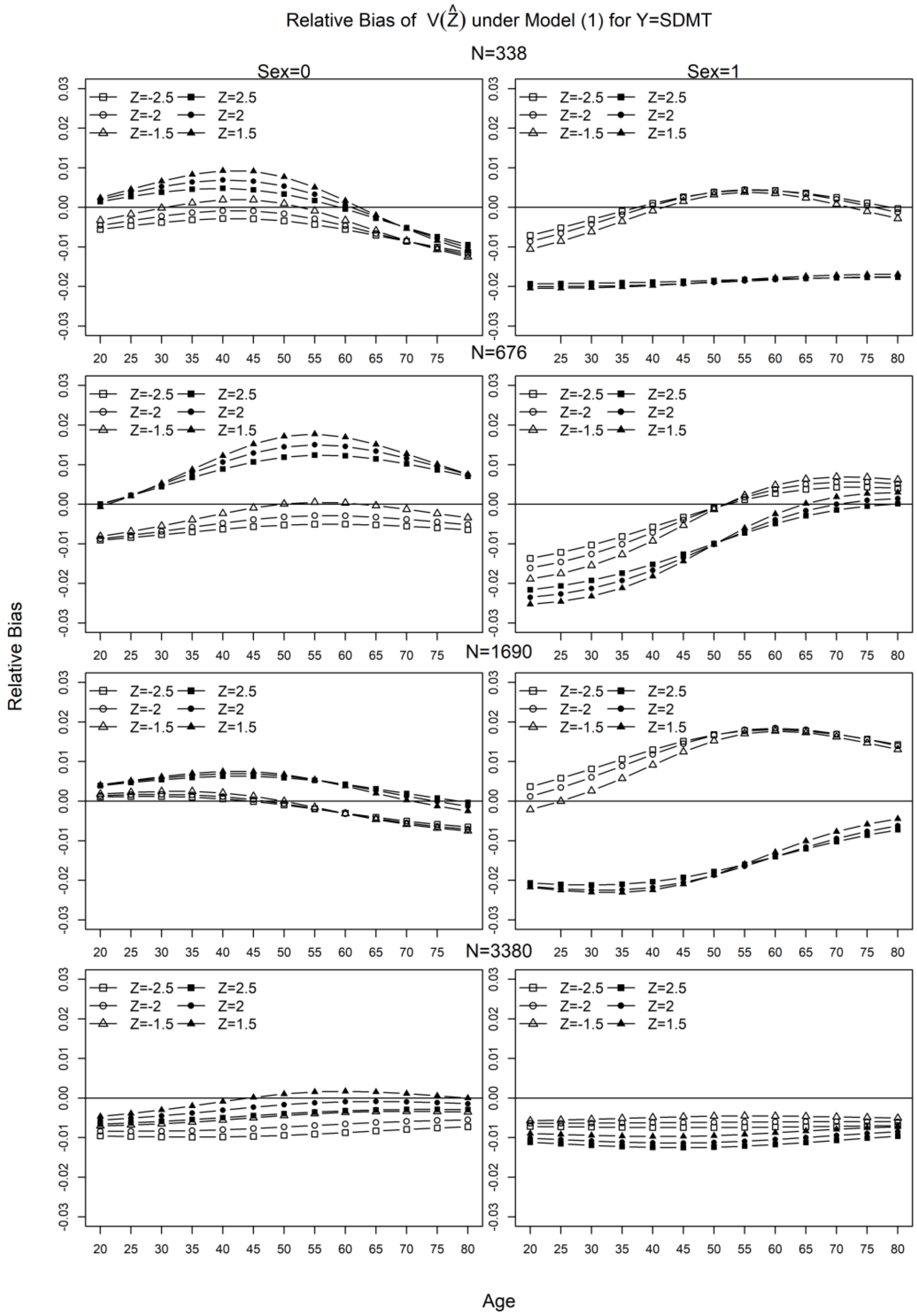
Results for Y=SDMT



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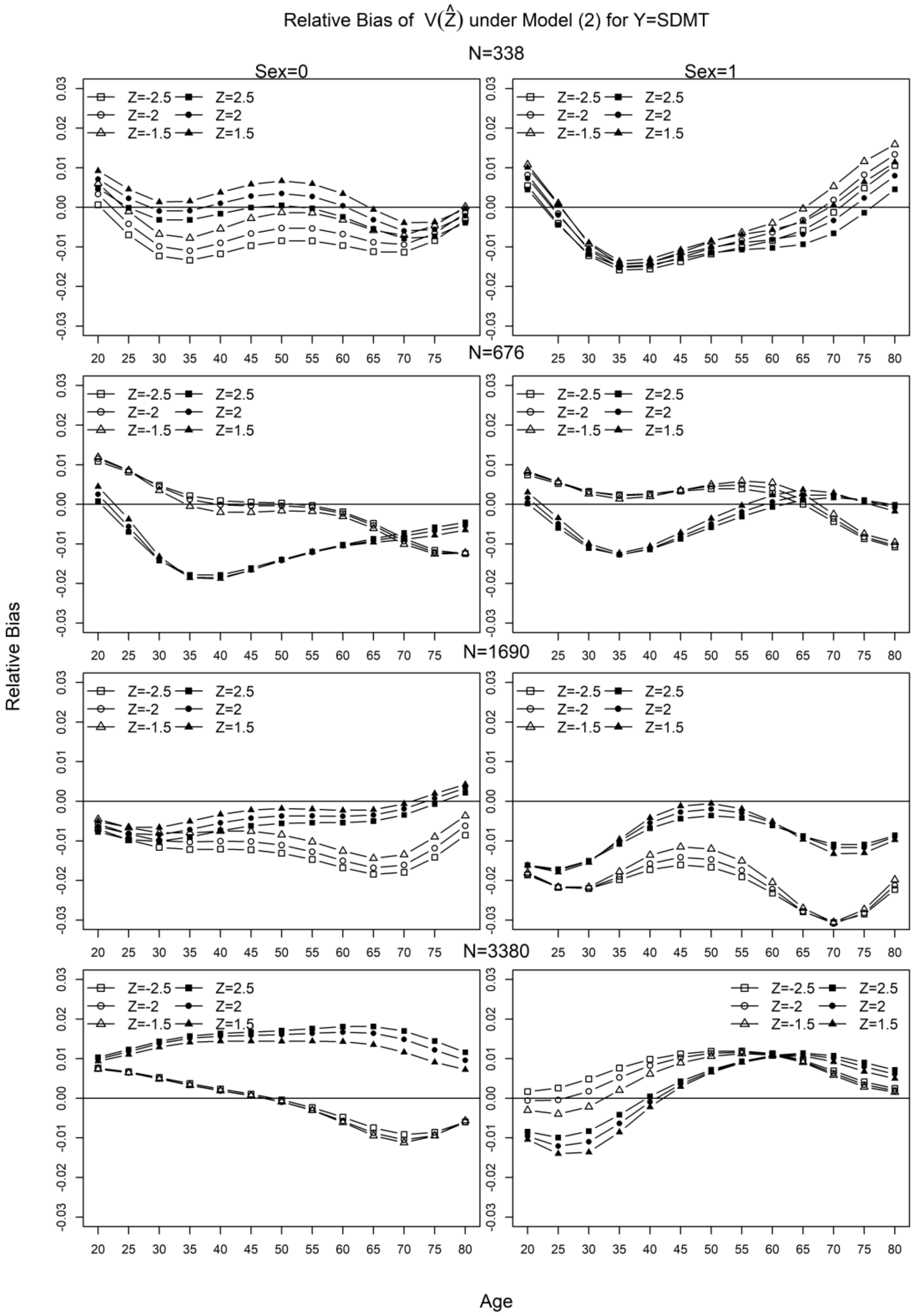

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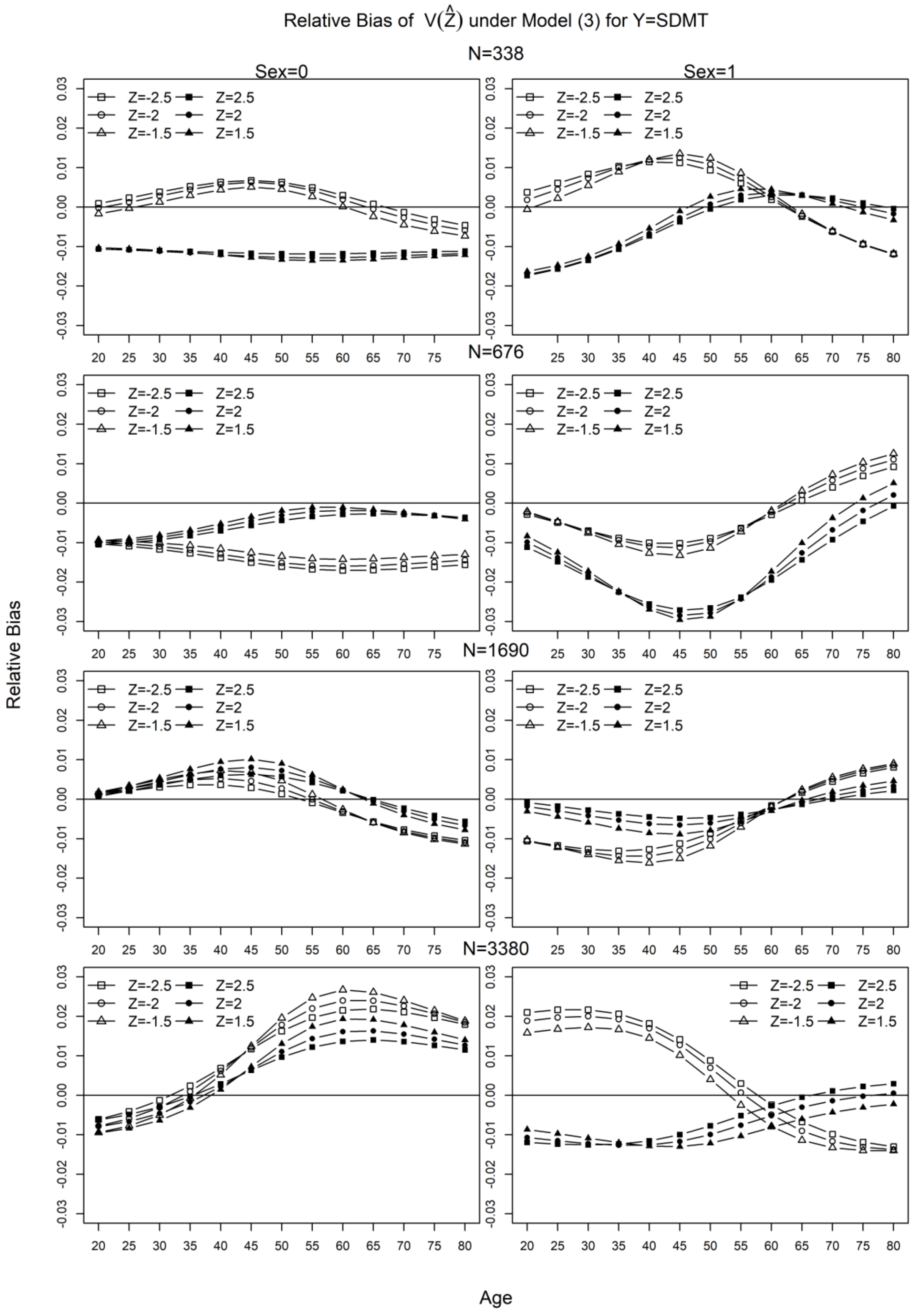

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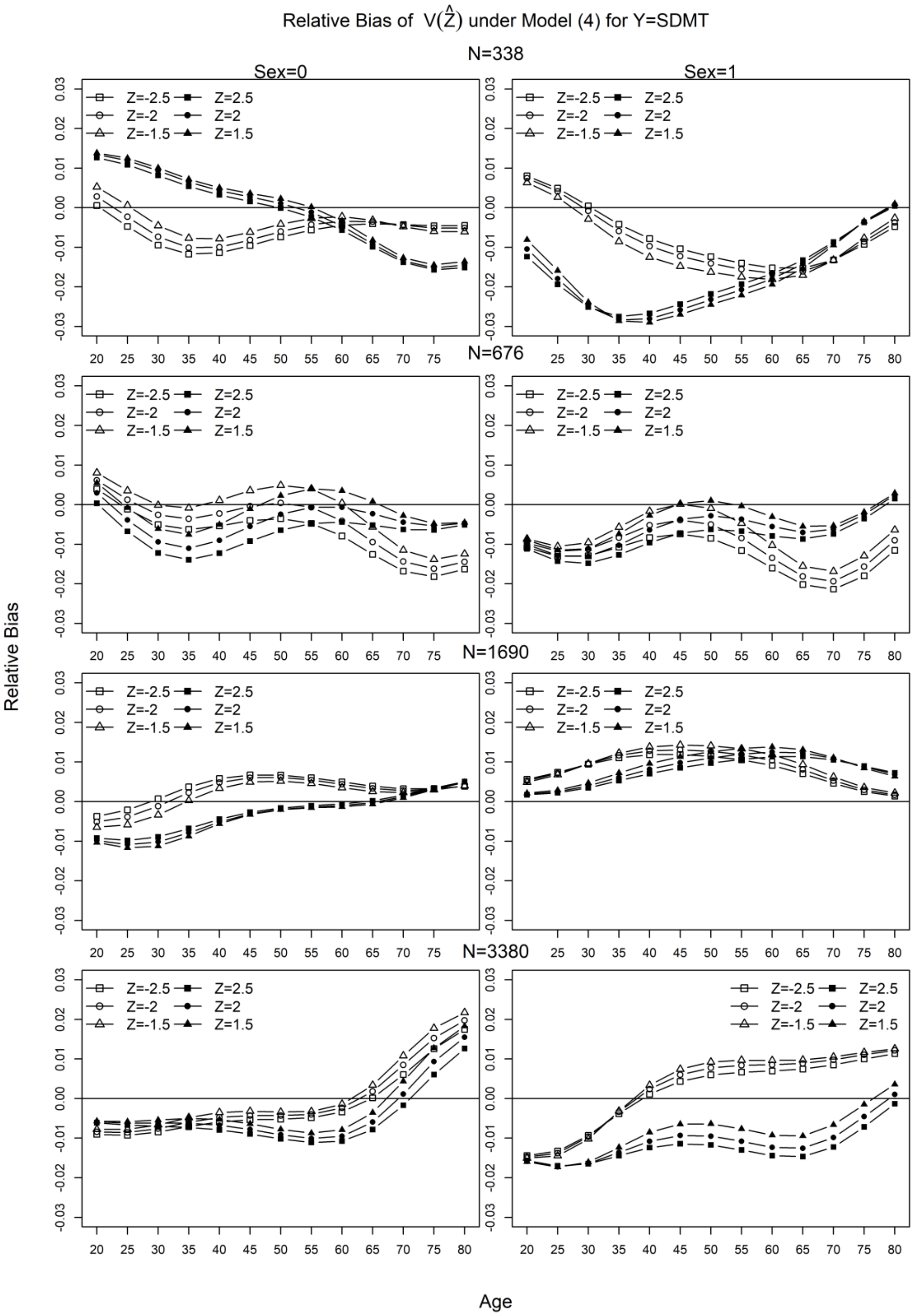

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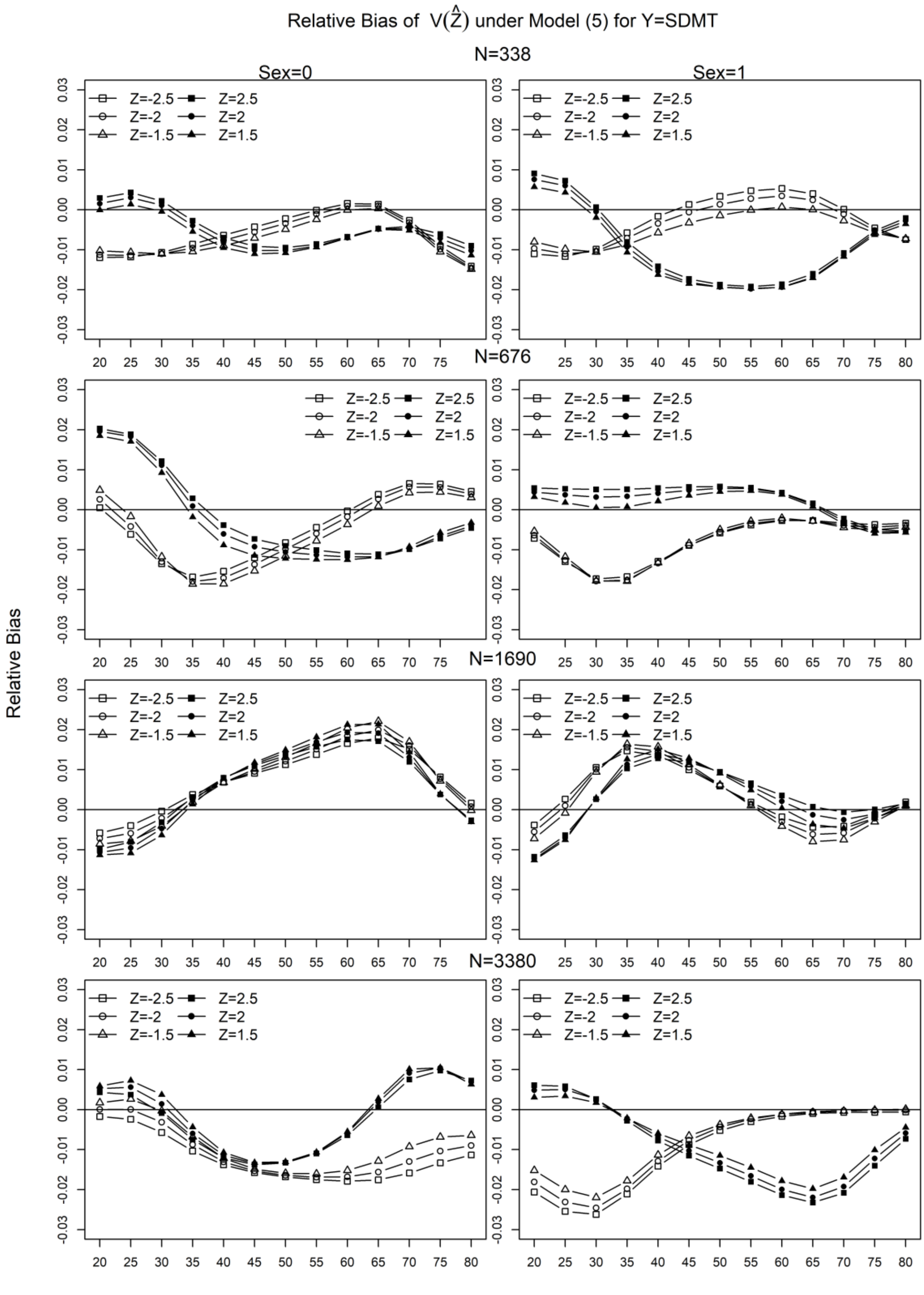

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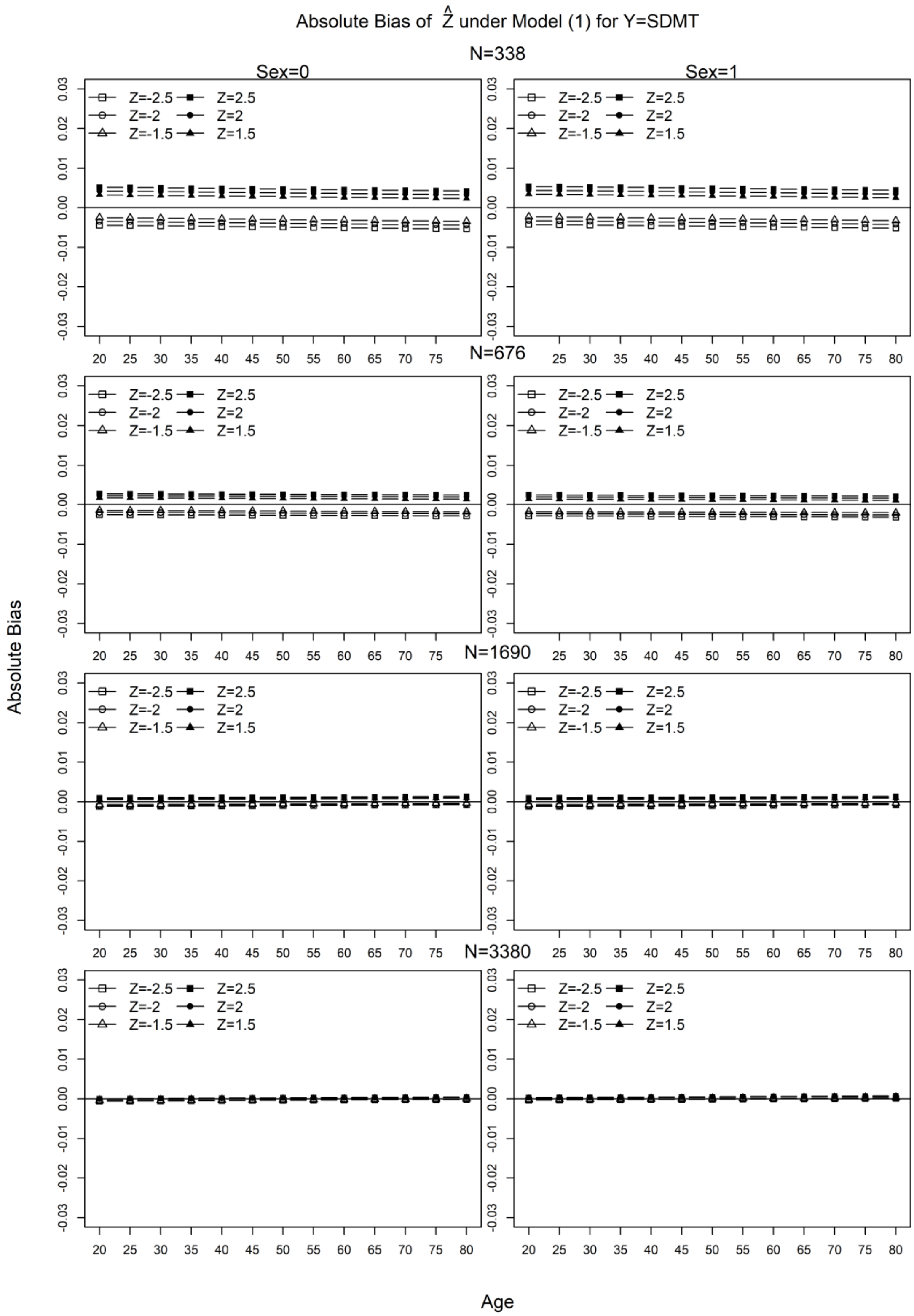

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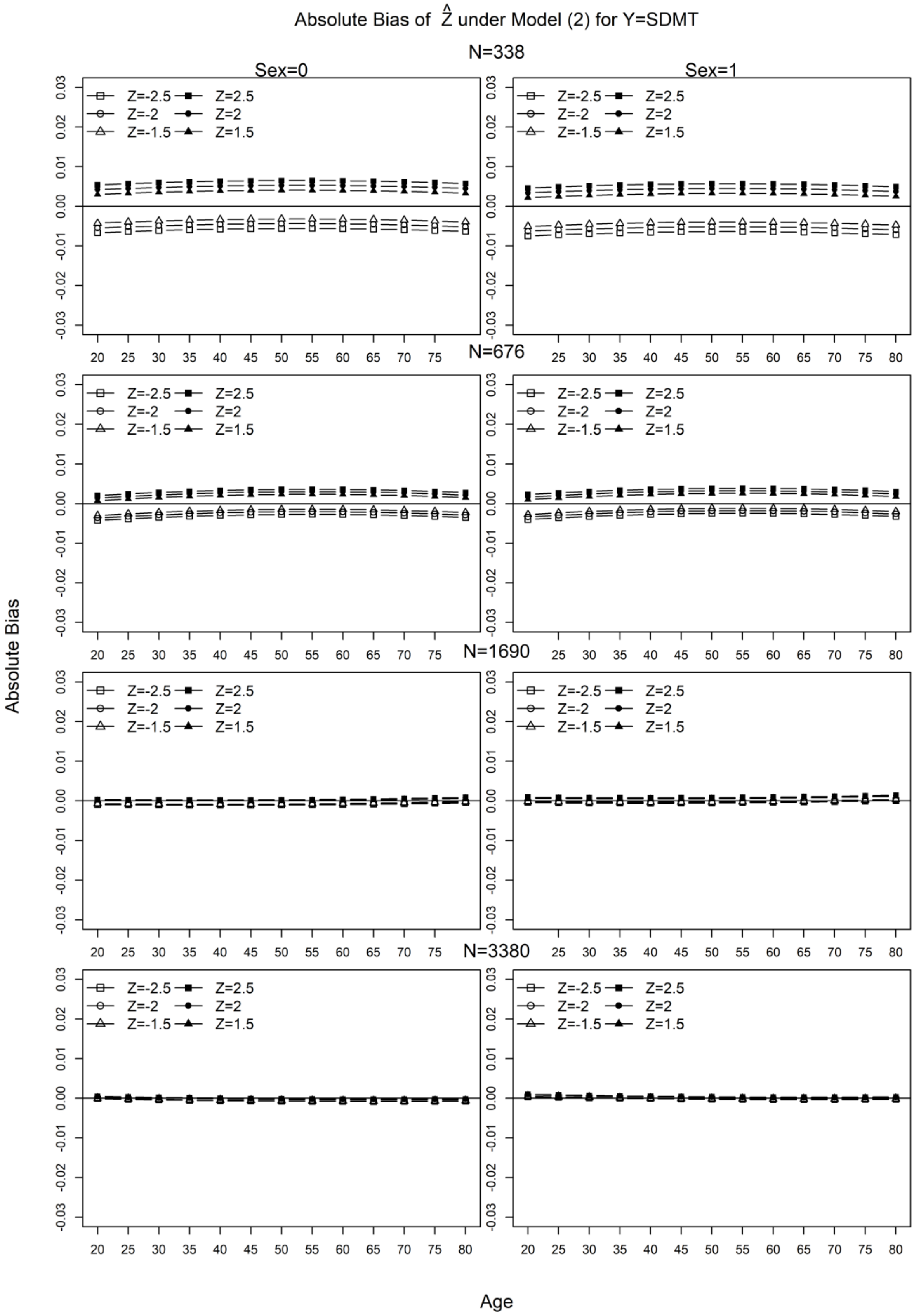

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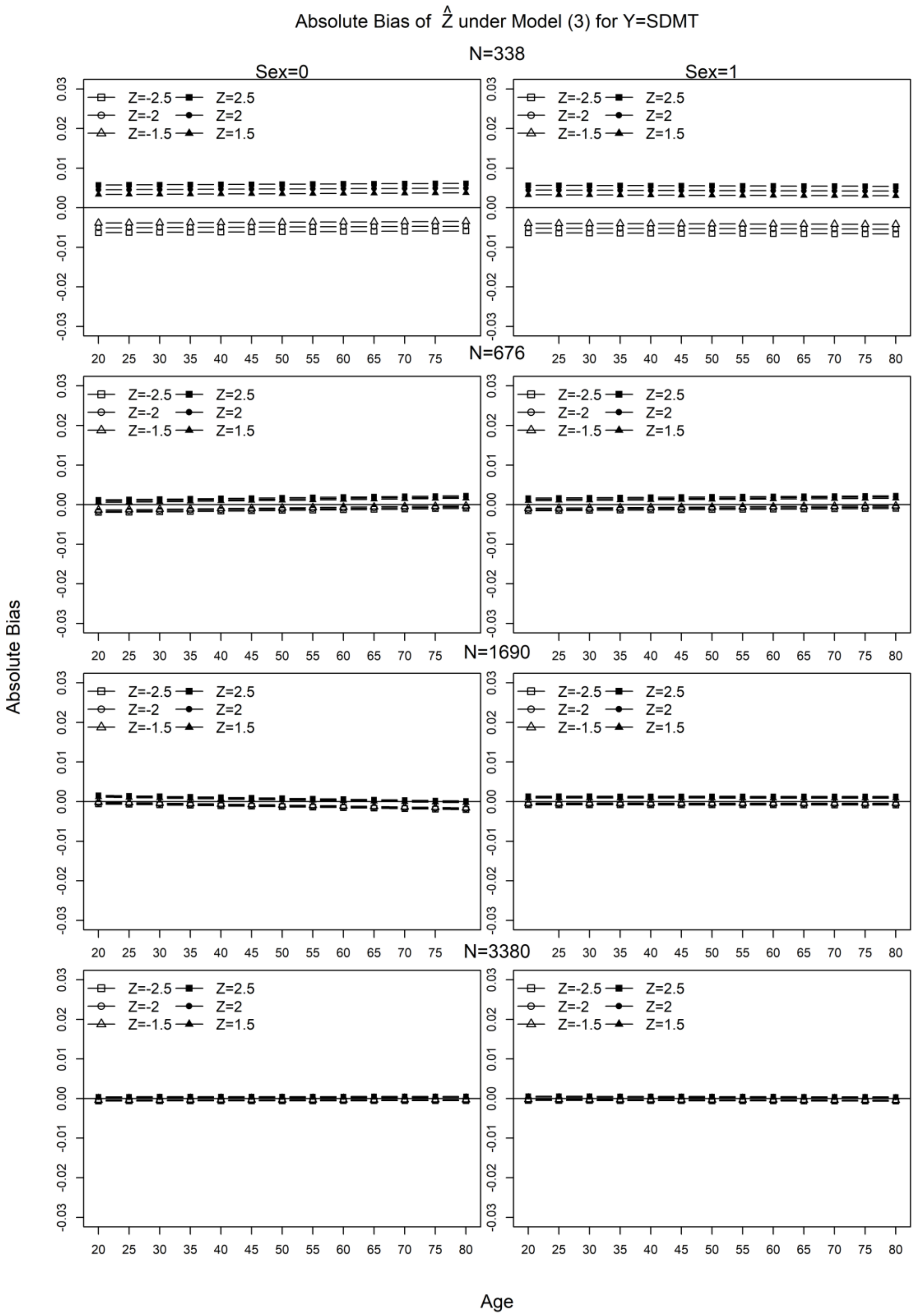

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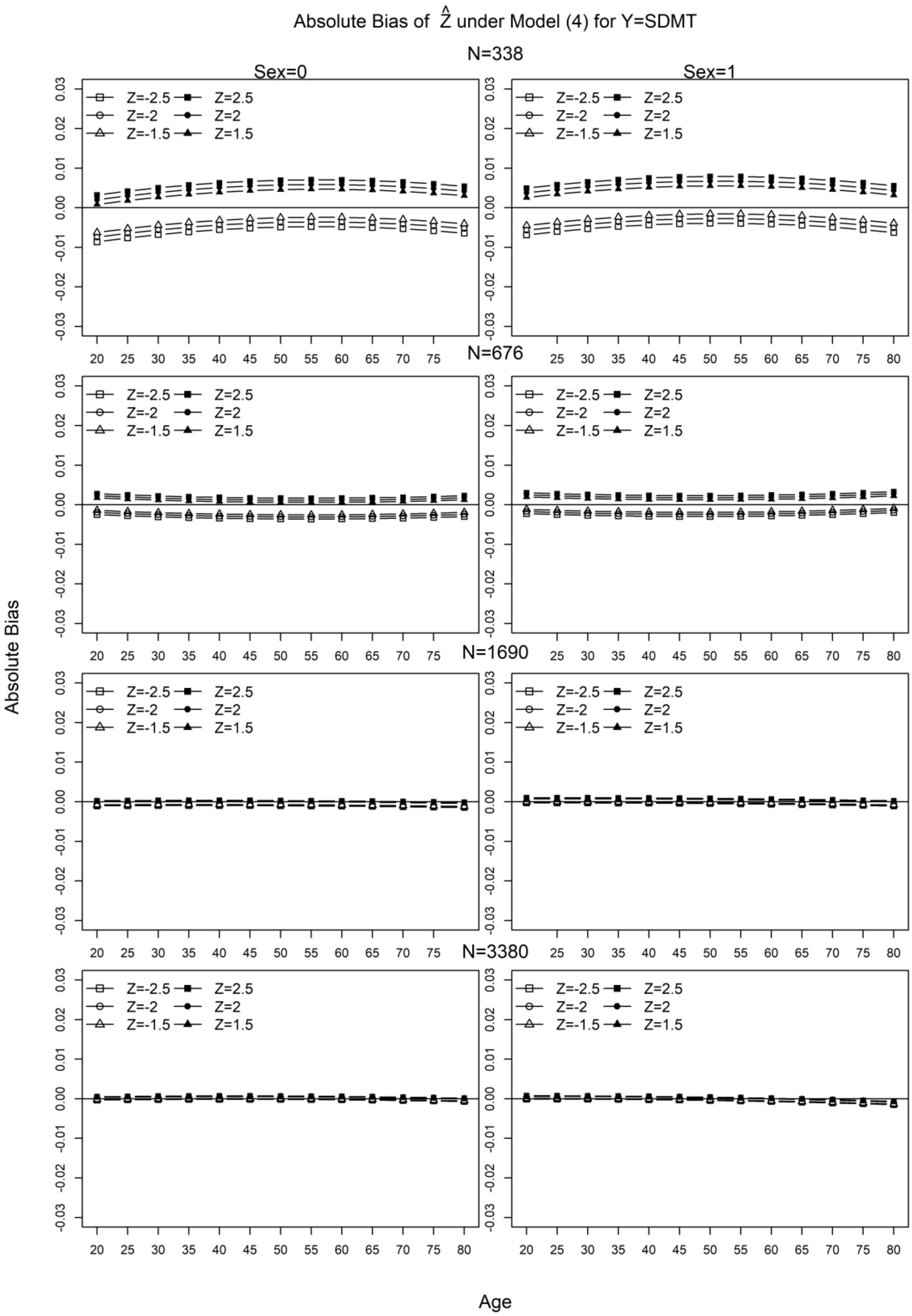

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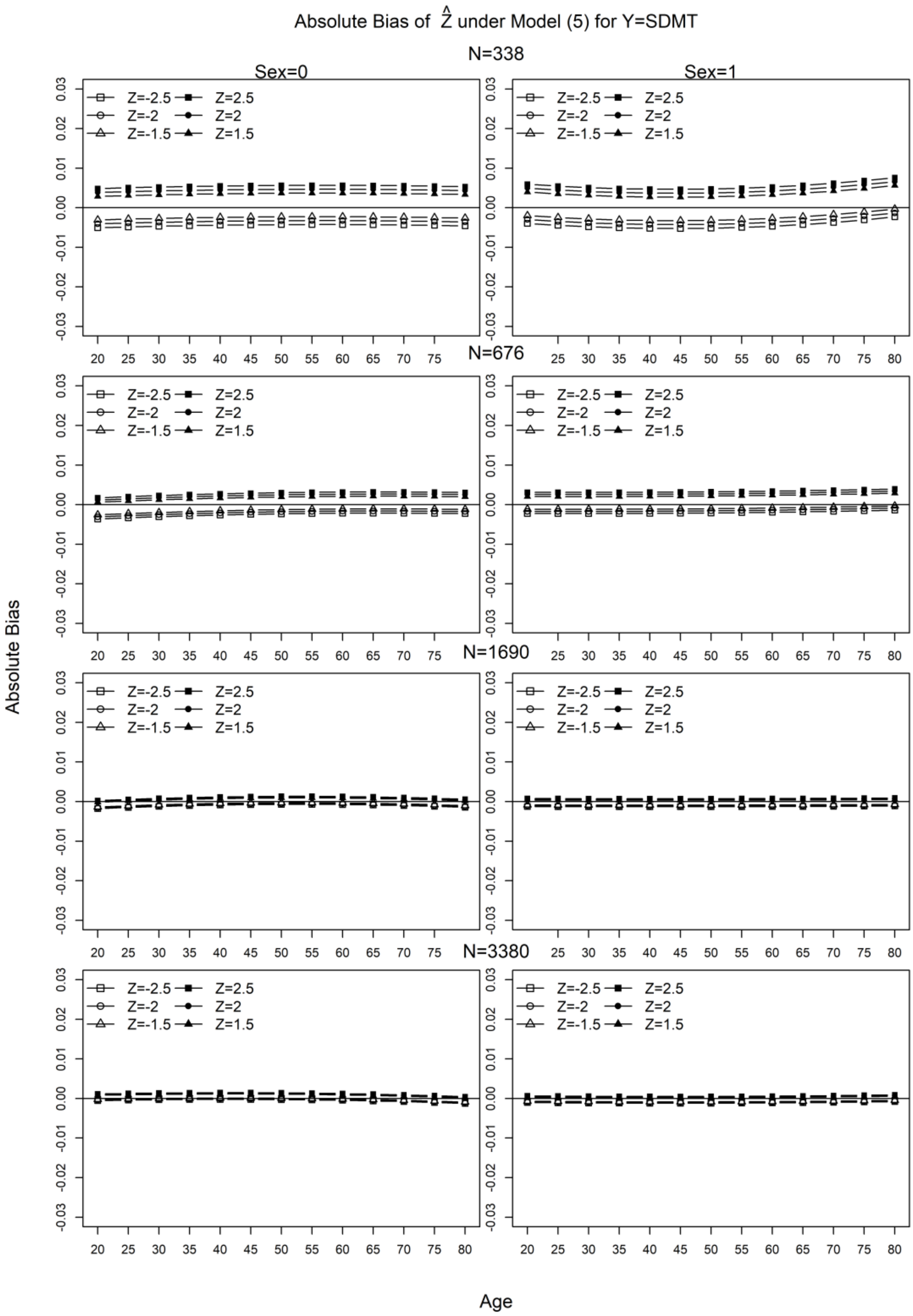

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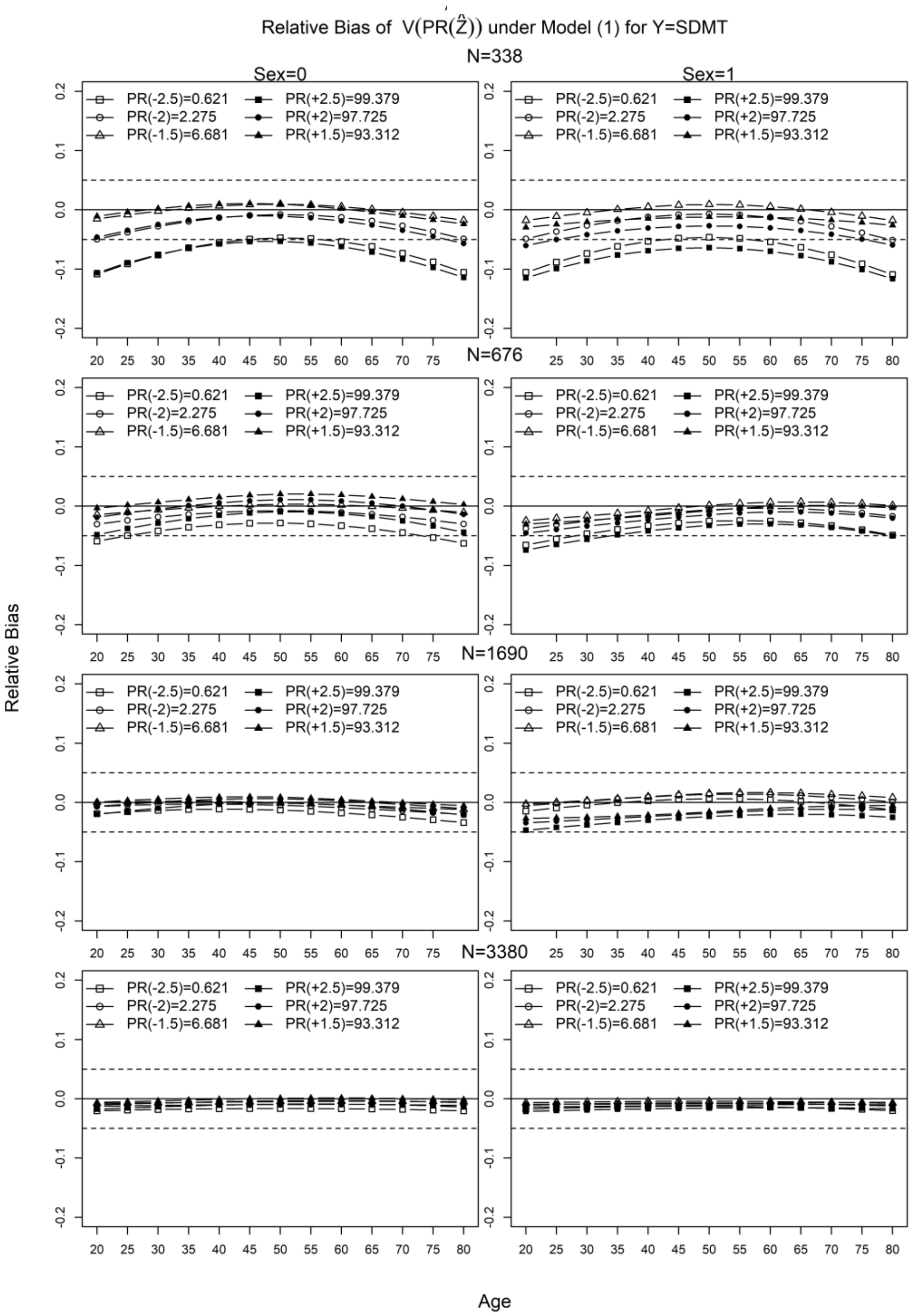

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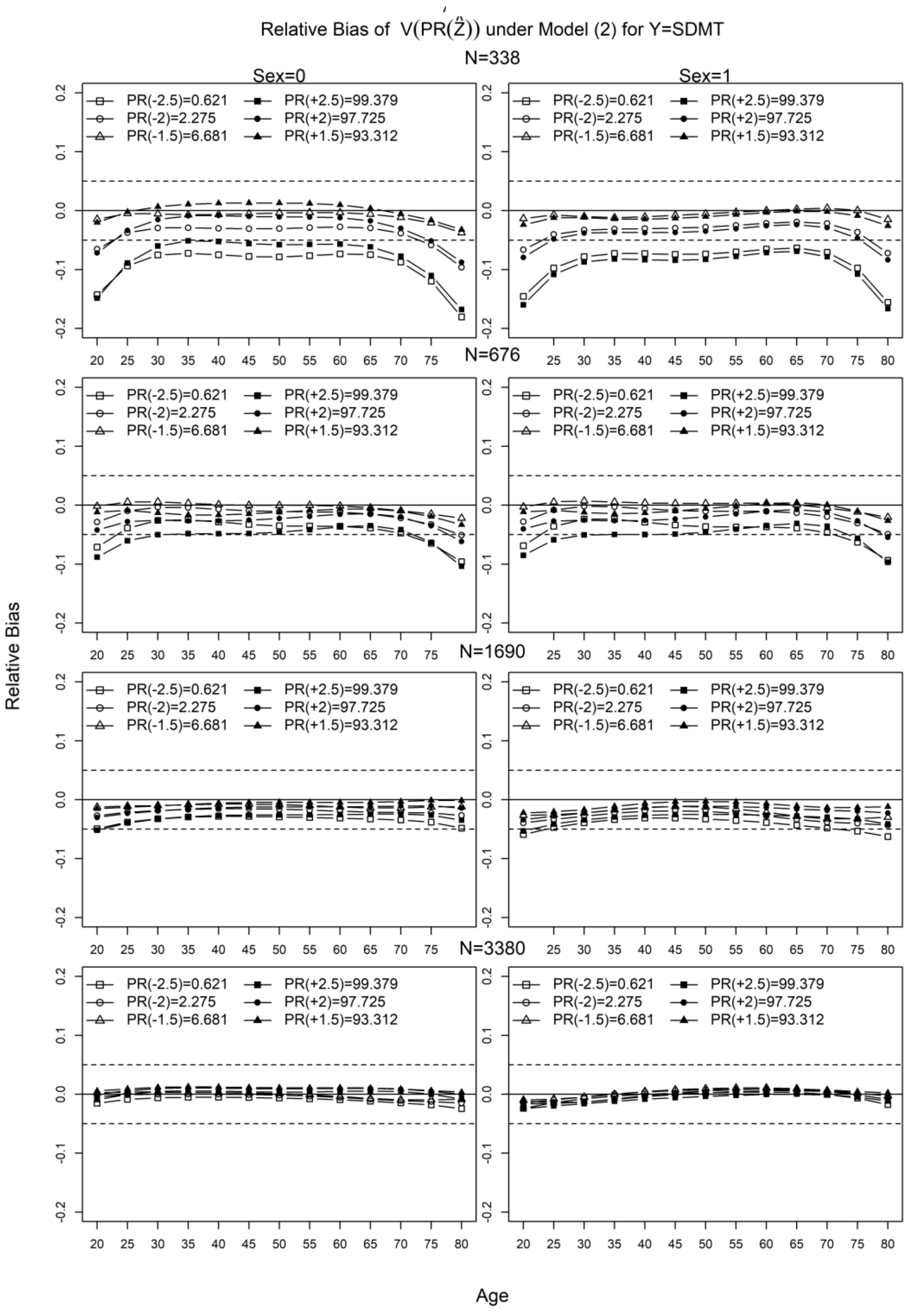

Figure S.B.2.32. Relative bias of equation (8), $V\left(PR(\hat{Z})\right)$, under model (2) for $Y = SDMT$, as a function of age $\in [20,80]$ (x-axis) and sex $\in \{0,1\}$ (columns), for different sample sizes $N \in \{338,676,1690,3380\}$ (rows), and $PR \in \{0.621,2.275,6.681,93.312,97.725,99.379\}$ (curves). The relative bias can be considered as acceptable within the range $[-5\%, 5\%]$ (horizontal dotted lines).

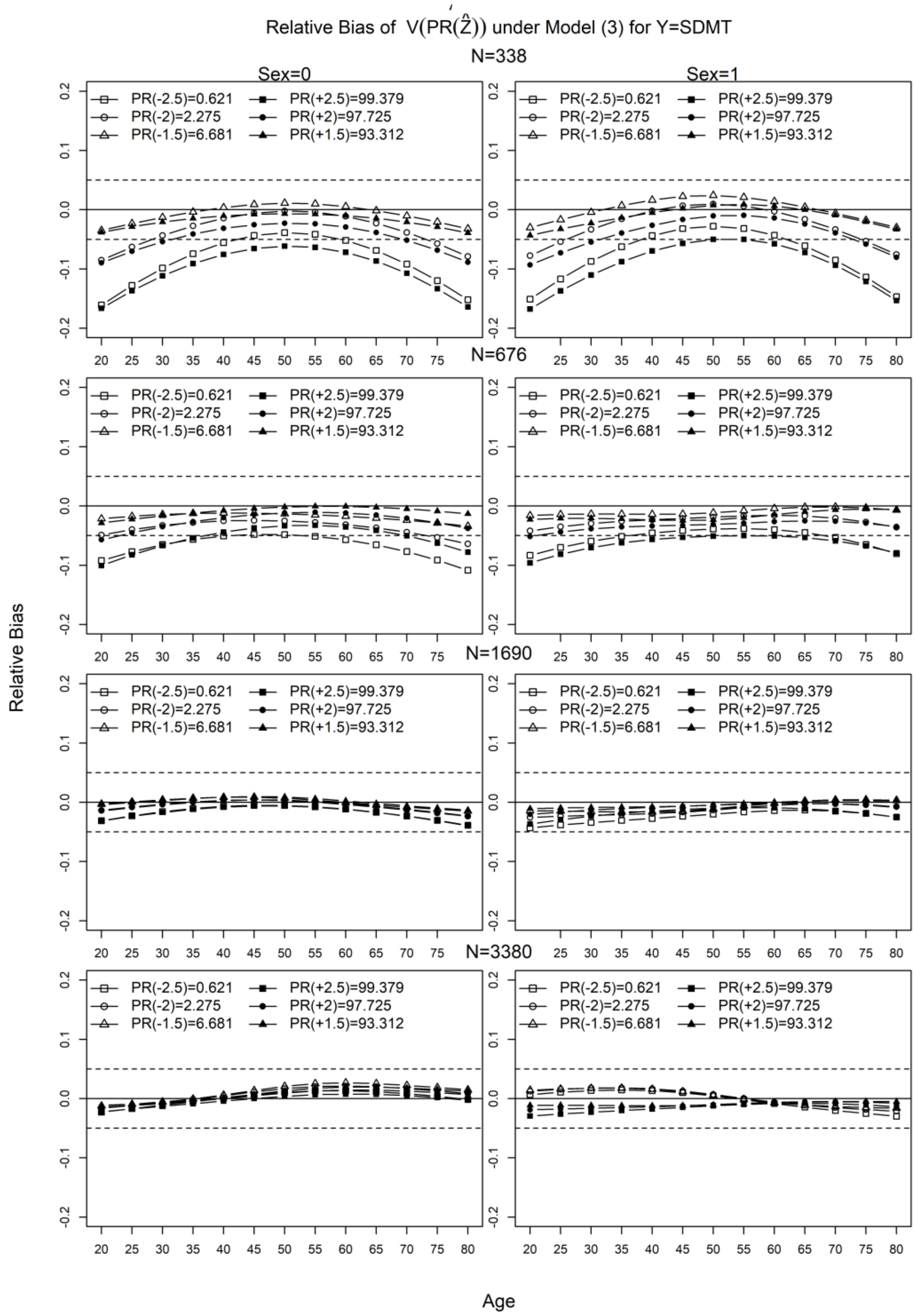

Figure S.B.2.33. Relative bias of equation (8), $V\left(PR(\hat{Z})\right)$, under model (3) for $Y = SDMT$, as a function of age $\in [20{,}80]$ (x-axis) and sex $\in \{0{,}1\}$ (columns), for different sample sizes $N \in \{338{,}676{,}1690{,}3380\}$ (rows), and $PR \in \{0.621{,}2.275{,}6.681{,}93.312{,}97.725{,}99.379\}$ (curves). The relative bias can be considered as acceptable within the range $[-5\%, 5\%]$ (horizontal dotted lines).

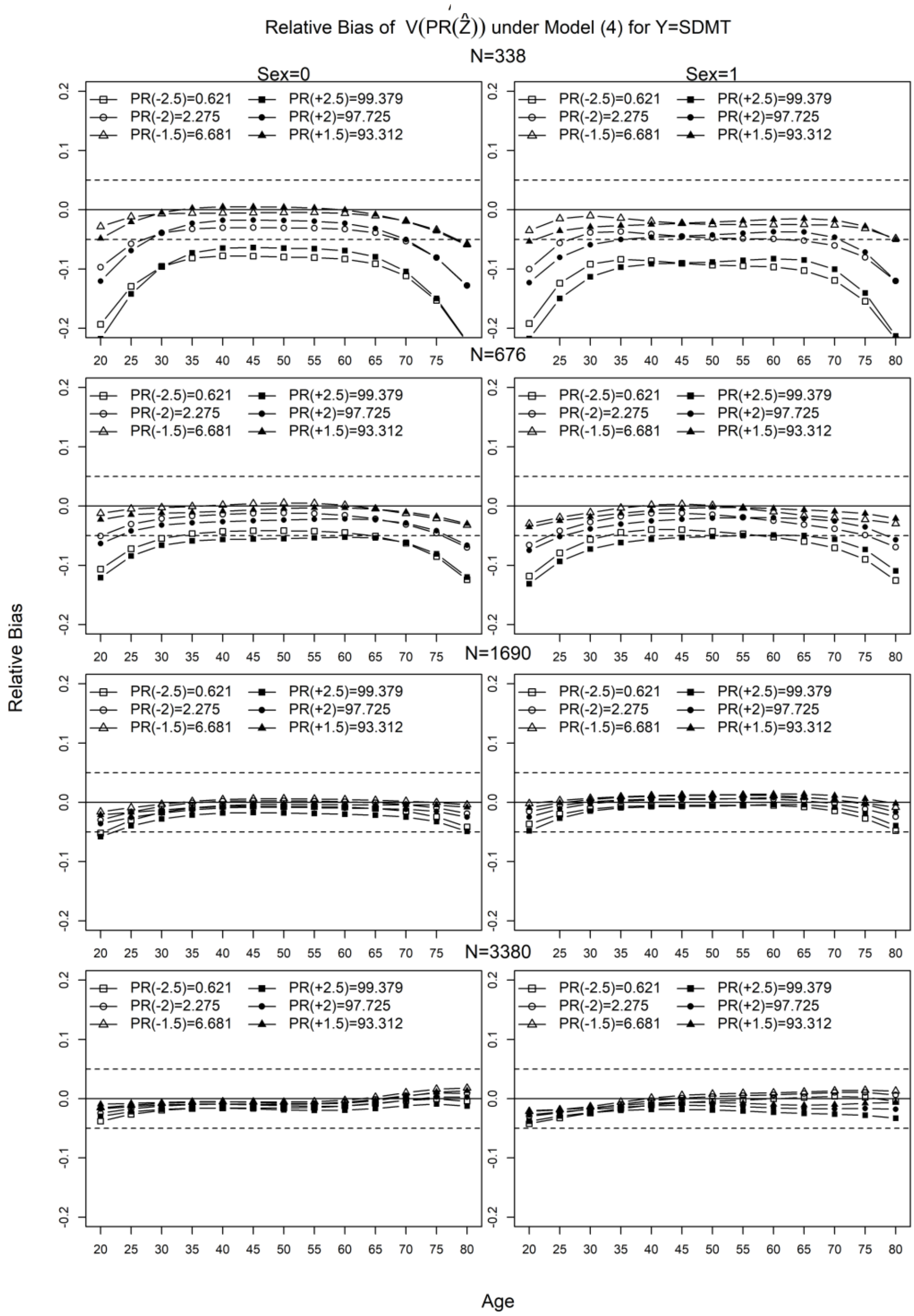

Figure S.B.2.34. Relative bias of equation (8), $V\left(PR(\hat{Z})\right)$, under model (4) for $Y = SDMT$, as a function of age $\in [20{,}80]$ (x-axis) and sex $\in \{0{,}1\}$ (columns), for different sample sizes $N \in \{338{,}676{,}1690{,}3380\}$ (rows), and $PR \in \{0.621{,}2.275{,}6.681{,}93.312{,}97.725{,}99.379\}$ (curves). The relative bias can be considered as acceptable within the range $[-5\%, 5\%]$ (horizontal dotted lines).

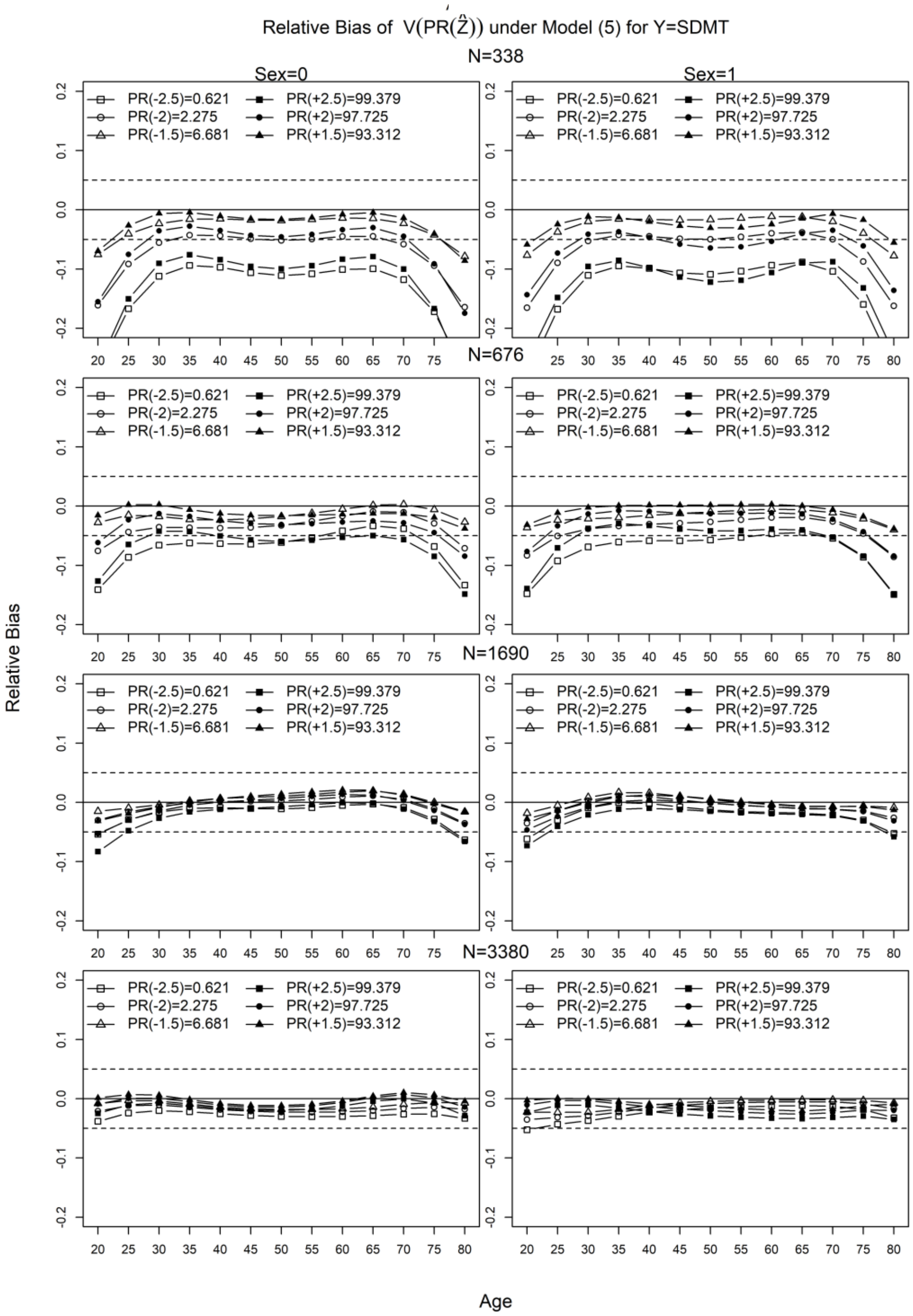

Figure S.B.2.35. Relative bias of equation (8), $V\left(PR(\hat{Z})\right)$, under model (5) for $Y = SDMT$, as a function of age $\in [20,80]$ (x-axis) and sex $\in \{0,1\}$ (columns), for different sample sizes $N \in \{338,676,1690,3380\}$ (rows), and $PR \in \{0.621,2.275,6.681,93.312,97.725,99.379\}$ (curves). The relative bias can be considered as acceptable within the range $[-5\%, 5\%]$ (horizontal dotted lines).

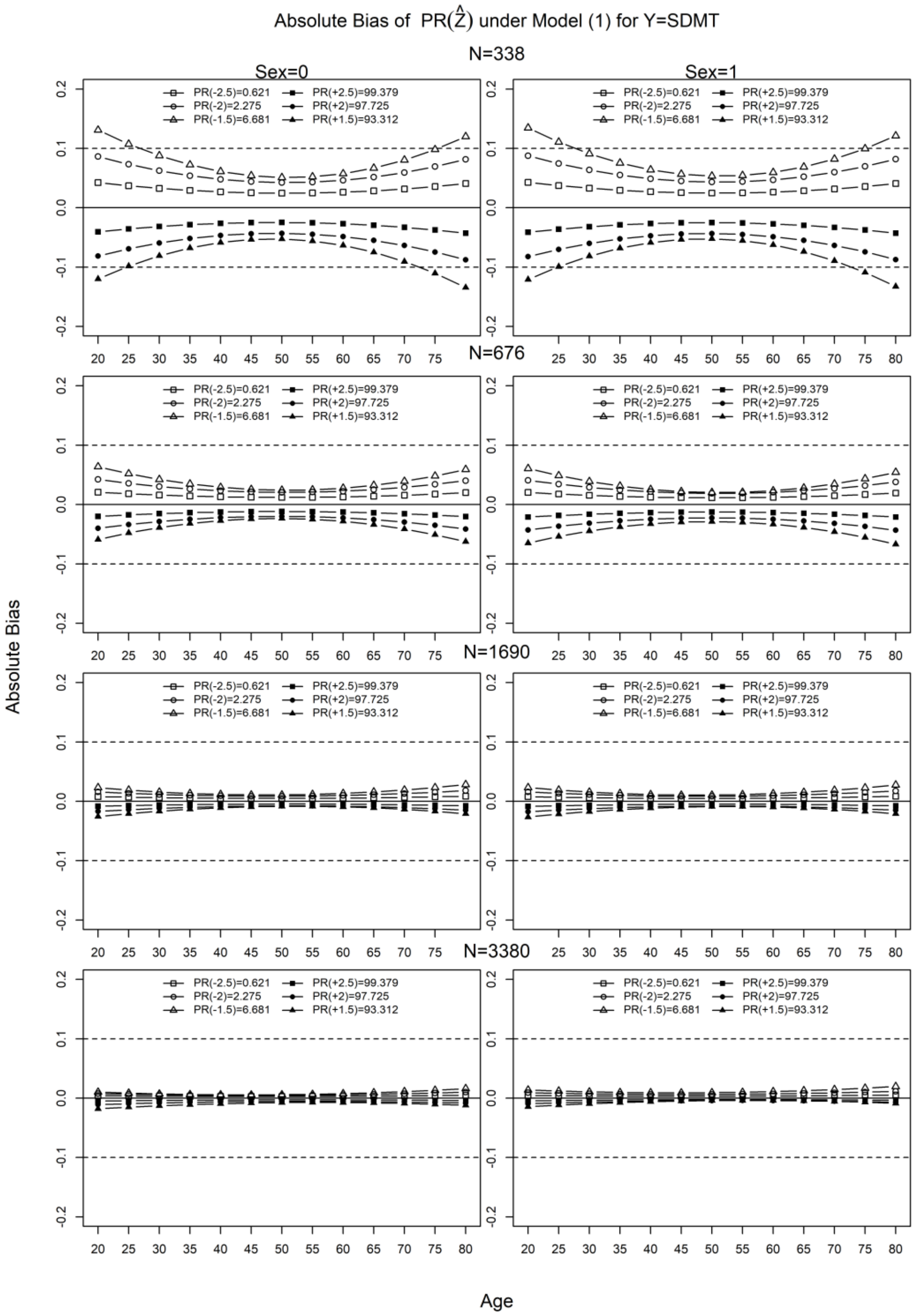

Figure S.B.2.36. Absolute bias of equation (6), $PR(\hat{Z})$, under model (1) for $Y = SDMT$, as a function of age ∈ $[20,80]$ (x-axis) and sex ∈ $\{0,1\}$ (columns), for different sample sizes $N \in \{338,676,1690,3380\}$ (rows), and $PR \in \{0.621,2.275,6.681,93.312,97.725,99.379\}$ (curves). The absolute bias can be considered as acceptable within the range $[-0.1,0.1]$ on the scale from 0 to 100 (horizontal dotted lines).

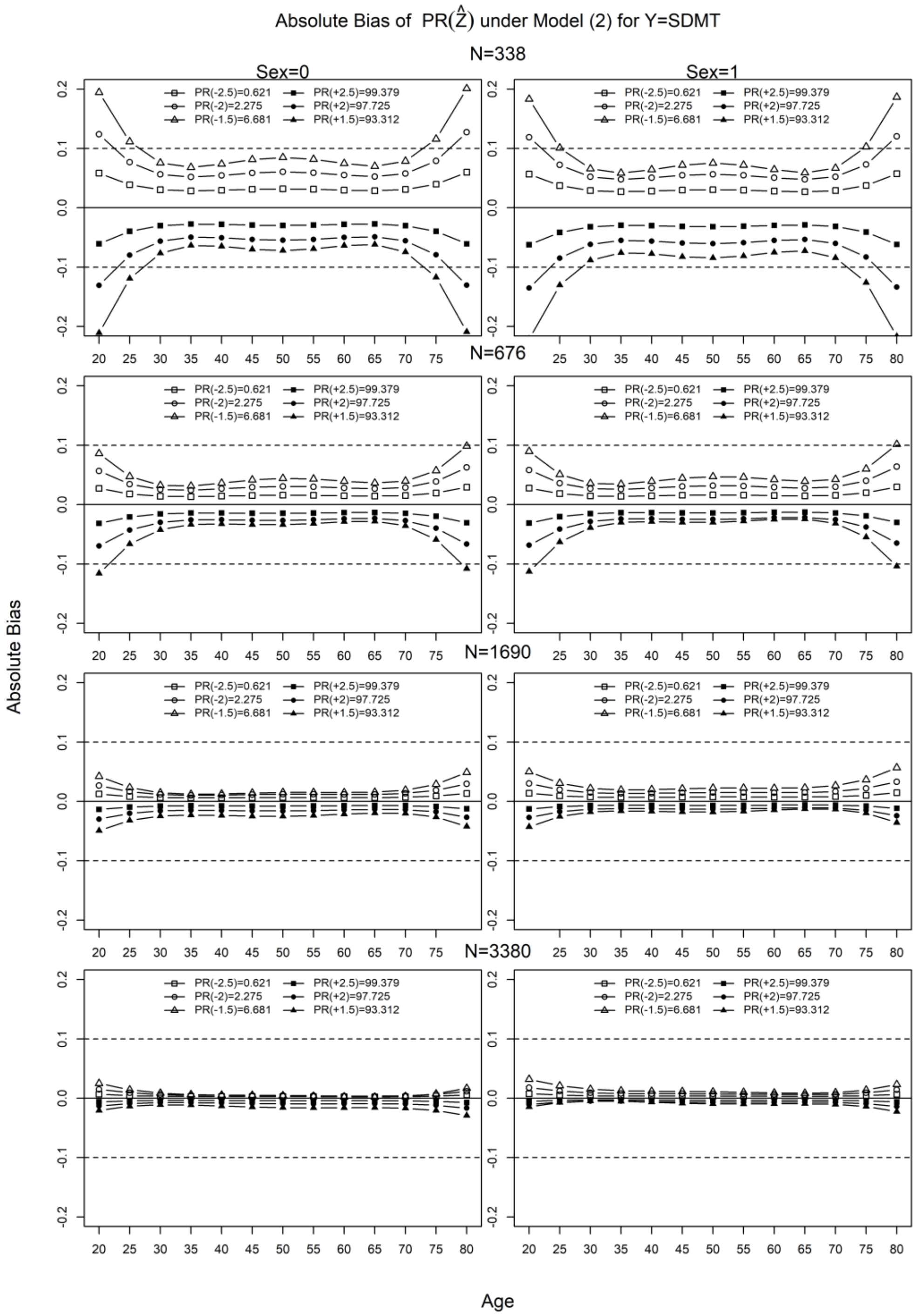

Figure S.B.2.37. Absolute bias of equation (6), $PR(\hat{Z})$, under model (2) for $Y = SDMT$, as a function of age ∈ [20,80] (x-axis) and sex ∈ {0,1} (columns), for different sample sizes $N \in \{338,676,1690,3380\}$ (rows), and $PR \in \{0.621,2.275,6.681,93.312,97.725,99.379\}$ (curves). The absolute bias can be considered as acceptable within the range $[-0.1,0.1]$ on the scale from 0 to 100 (horizontal dotted lines).

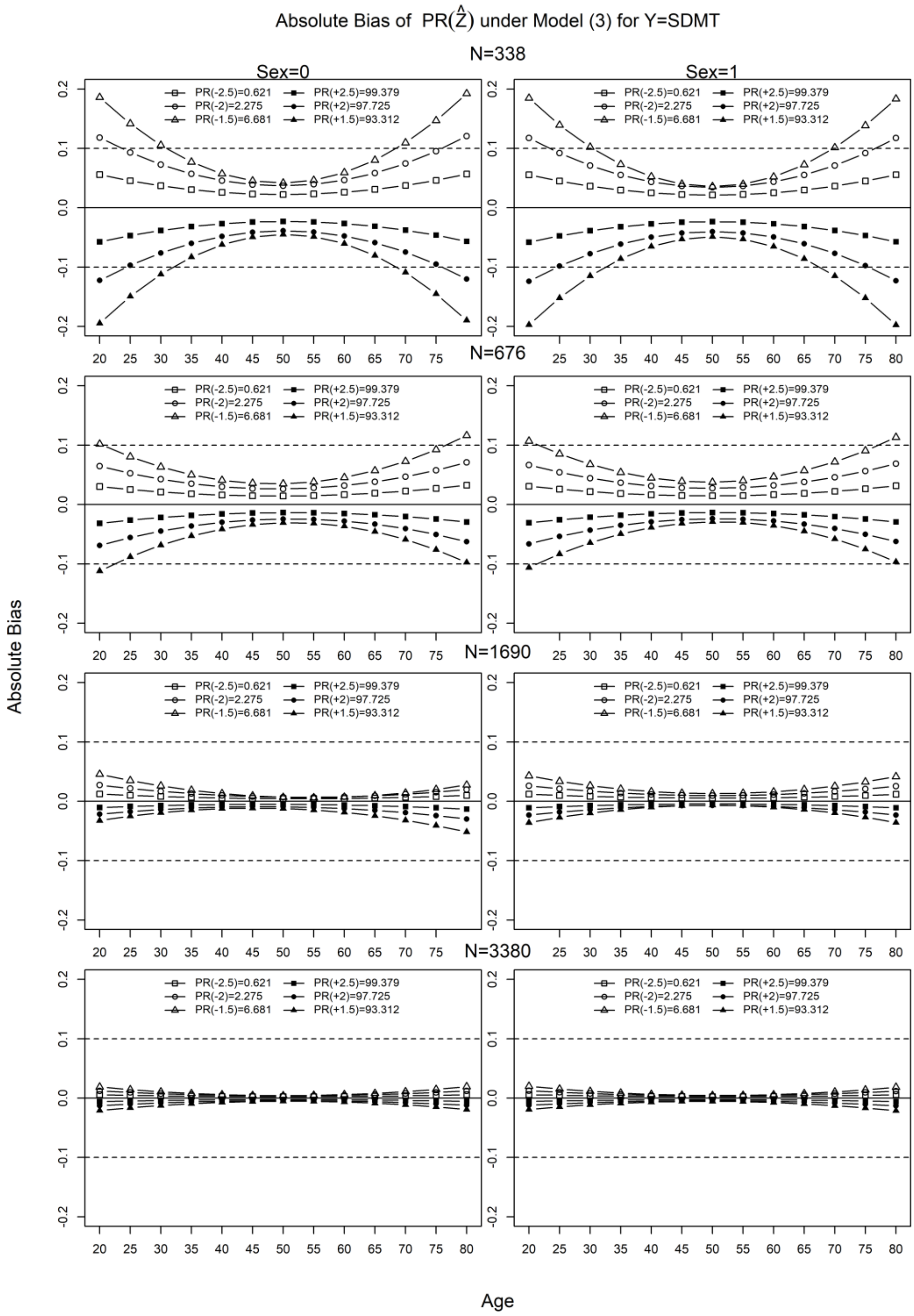

Figure S.B.2.38. Absolute bias of equation (6), $PR(\hat{Z})$, under model (3) for $Y = SDMT$, as a function of age $\in [20,80]$ (x-axis) and sex $\in \{0,1\}$ (columns), for different sample sizes $N \in \{338,676,1690,3380\}$ (rows), and $PR \in \{0.621,2.275,6.681,93.312,97.725,99.379\}$ (curves). The absolute bias can be considered as acceptable within the range $[-0.1,0.1]$ on the scale from 0 to 100 (horizontal dotted lines).

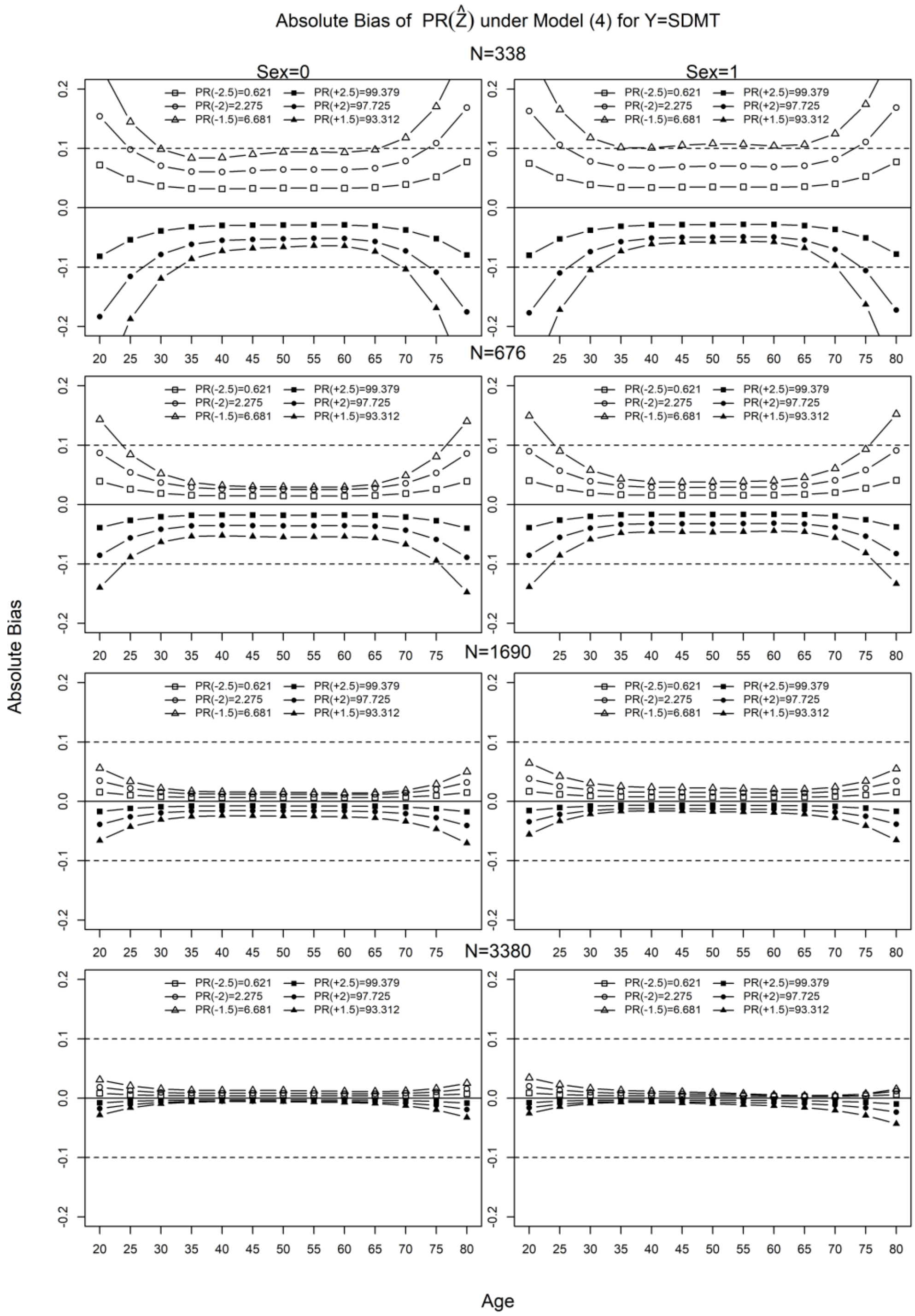

Figure S.B.2.39. Absolute bias of equation (6), $PR(\hat{Z})$, under model (4) for $Y = SDMT$, as a function of age $\in [20,80]$ (x-axis) and sex $\in \{0,1\}$ (columns), for different sample sizes $N \in \{338,676,1690,3380\}$ (rows), and $PR \in \{0.621,2.275,6.681,93.312,97.725,99.379\}$ (curves). The absolute bias can be considered as acceptable within the range $[-0.1,0.1]$ on the scale from 0 to 100 (horizontal dotted lines).

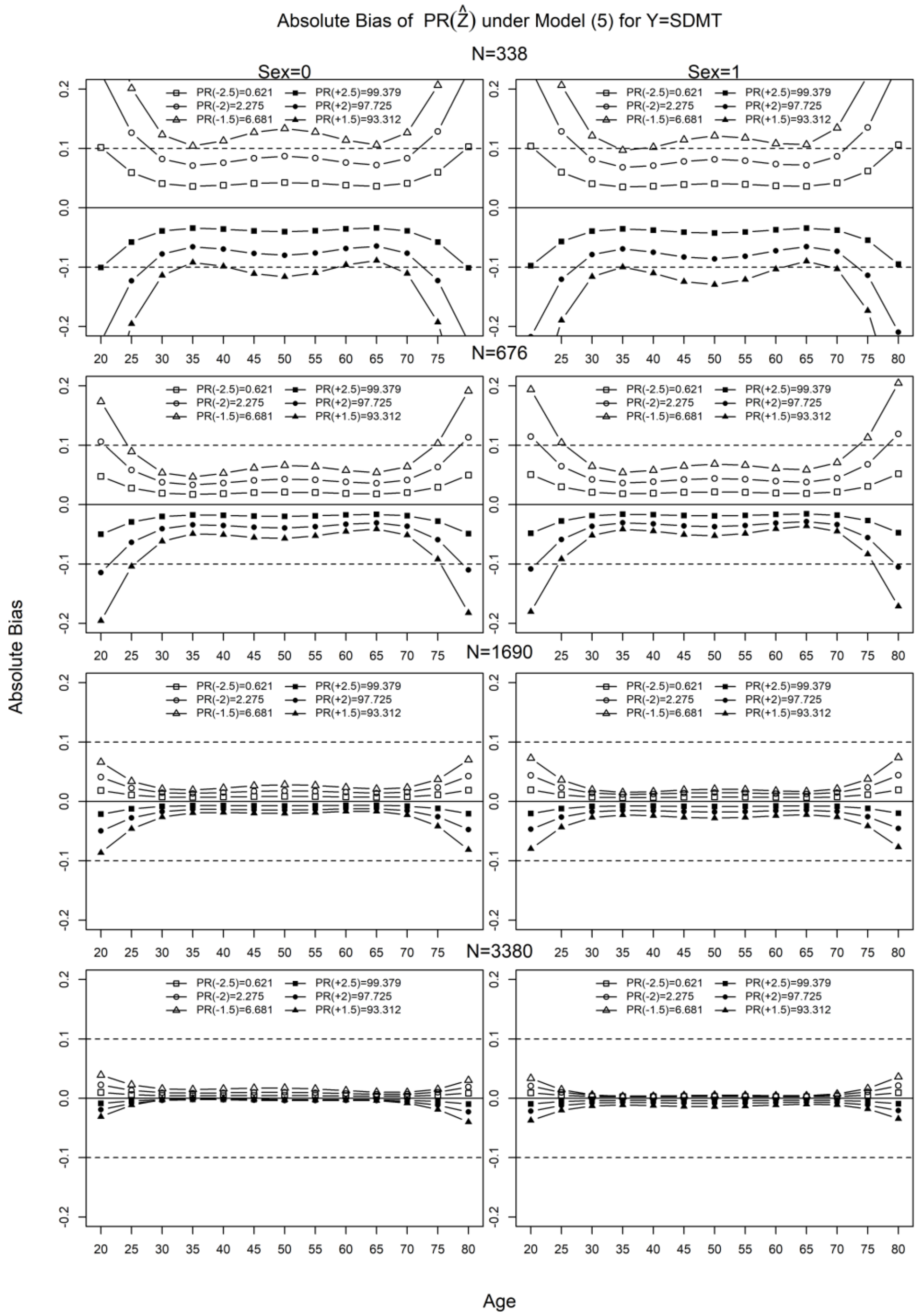

Figure S.B.2.40. Absolute bias of equation (6), $PR(\hat{Z})$, under model (5) for $Y = SDMT$, as a function of age $\in [20{,}80]$ (x-axis) and sex $\in \{0{,}1\}$ (columns), for different sample sizes $N \in \{338{,}676{,}1690{,}3380\}$ (rows), and $PR \in \{0.621{,}2.275{,}6.681{,}93.312{,}97.725{,}99.379\}$ (curves). The absolute bias can be considered as acceptable within the range $[-0.1{,}0.1]$ on the scale from 0 to 100 (horizontal dotted lines).