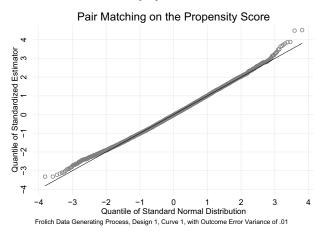
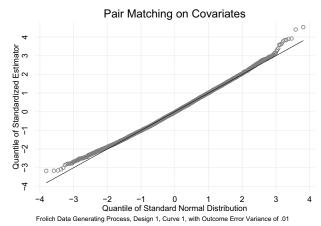
#### Web Appendix for Busso, DiNardo, and McCrary (2011) Part II: Q-Q Plots

#### 1 Q-Q Plots for Section III: Frölich DGP with $V[\varepsilon_i] = 0.01$

Q-Q Plots for Section III:  $V[\varepsilon_i] = 0.01$ , Design 1, Curve 1





Nearest Neighbor Matching on the Propensity Score
Four Neighbors

To a part of the property of

Quantile of Standardized Estimator

-2 -1 0 1 2 Quantile of Standard Normal Distribution

Frolich Data Generating Process, Design 1, Curve 1, with Outcome Error Variance of .01

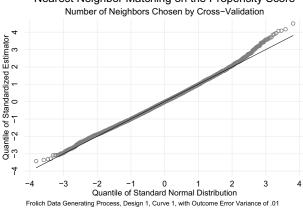
Nearest Neighbor Matching on Covariates

Four Neighbors

Nearest Neighbor Matching on the Propensity Score

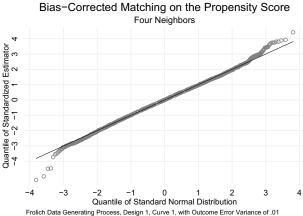
-2 -1 0 1 2 Quantile of Standard Normal Distribution

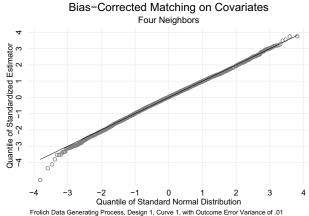
Frolich Data Generating Process, Design 1, Curve 1, with Outcome Error Variance of .01



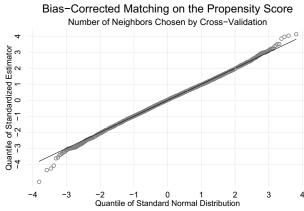
Nearest Neighbor Matching on Covariates
Number of Neighbors Chosen by Cross-Validation

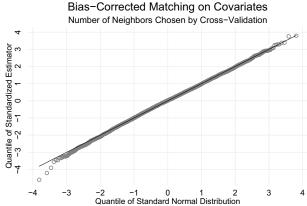
To be a constituted by Cross-Validation of Matching Covariance of Matching





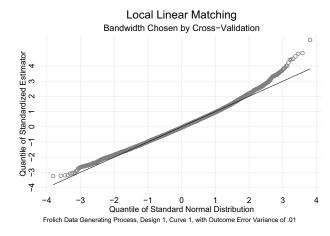


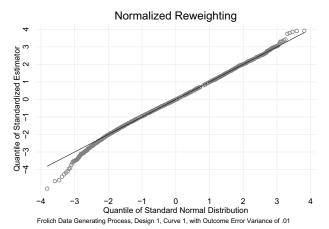




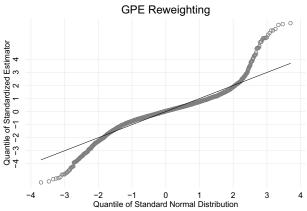
Frolich Data Generating Process, Design 1, Curve 1, with Outcome Error Variance of .01





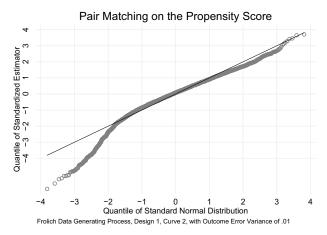


Unnormalized Reweighting Quantile of Standardized Estimator -432:01234 Quantile of Standard Normal Distribution Frolich Data Generating Process, Design 1, Curve 1, with Outcome Error Variance of .01



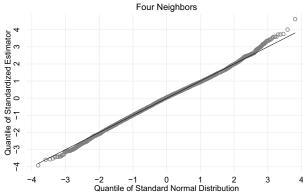
Frolich Data Generating Process, Design 1, Curve 1, with Outcome Error Variance of .01

#### Q-Q Plots for Section III: $V\left[\varepsilon_{i}\right]=0.01,$ Design 1, Curve 2



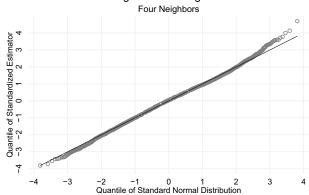
# Pair Matching on Covariates Pair Matching on Covariates Output Outp

#### Nearest Neighbor Matching on the Propensity Score



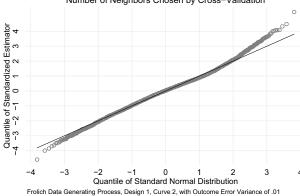
Frolich Data Generating Process, Design 1, Curve 2, with Outcome Error Variance of .01

Nearest Neighbor Matching on Covariates



Frolich Data Generating Process, Design 1, Curve 2, with Outcome Error Variance of .01

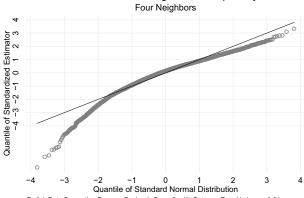
#### Nearest Neighbor Matching on the Propensity Score Number of Neighbors Chosen by Cross-Validation



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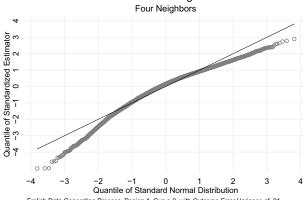
Quantile of Standard Normal Distribution
Frolich Data Generating Process, Design 1, Curve 2, with Outcome Error Variance of .01

#### Bias-Corrected Matching on the Propensity Score

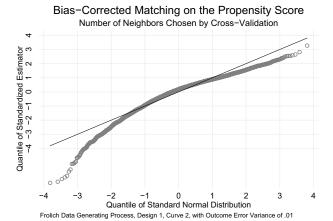


Frolich Data Generating Process, Design 1, Curve 2, with Outcome Error Variance of .01

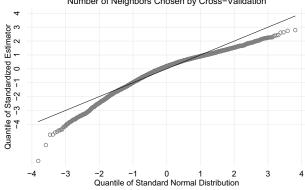
#### Bias-Corrected Matching on Covariates



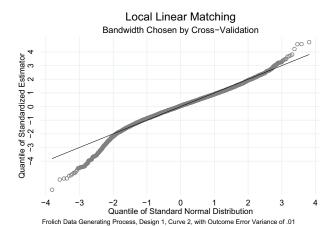
Frolich Data Generating Process, Design 1, Curve 2, with Outcome Error Variance of .01

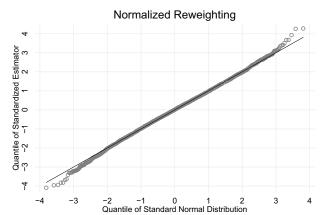


#### Bias-Corrected Matching on Covariates Number of Neighbors Chosen by Cross-Validation

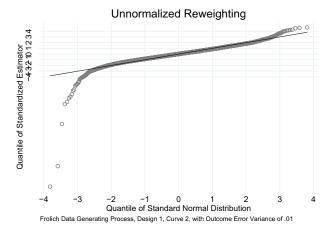


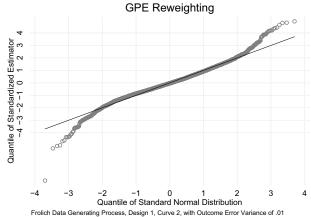
Frolich Data Generating Process, Design 1, Curve 2, with Outcome Error Variance of .01



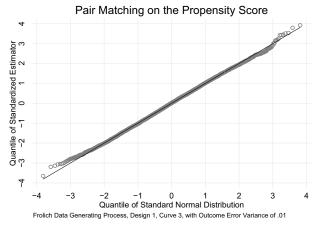


Frolich Data Generating Process, Design 1, Curve 2, with Outcome Error Variance of .01

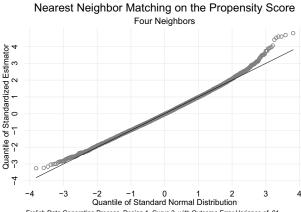


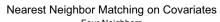


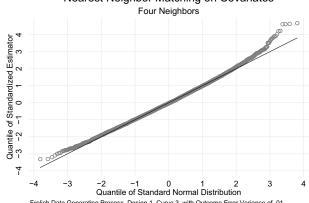
#### Q-Q Plots for Section III: $V\left[\varepsilon_{i}\right]=0.01,$ Design 1, Curve 3



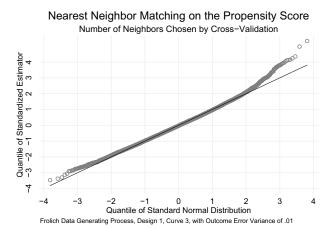
### Pair Matching on Covariates Quantile of Standardized Estimator -3 -2 -1 0 1 2 3 4 Quantile of Standard Normal Distribution Frolich Data Generating Process, Design 1, Curve 3, with Outcome Error Variance of .01



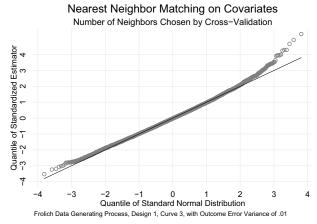




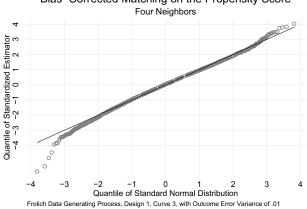
Frolich Data Generating Process, Design 1, Curve 3, with Outcome Error Variance of .01



Frolich Data Generating Process, Design 1, Curve 3, with Outcome Error Variance of .01



Bias-Corrected Matching on the Propensity Score

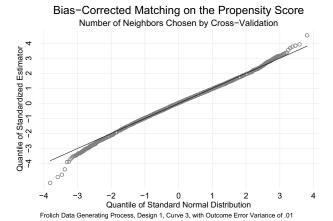


Bias-Corrected Matching on Covariates Four Neighbors Quantile of Standardized Estimator -4 -3 -2 -1 0 1 2 3 Quantile of Standard Normal Distribution

Frolich Data Generating Process, Design 1, Curve 3, with Outcome Error Variance of .01

5

#### Q-Q Plots for Section III: $V\left[ {{arepsilon _i}} \right] = 0.01,$ Design 1, Curve 3

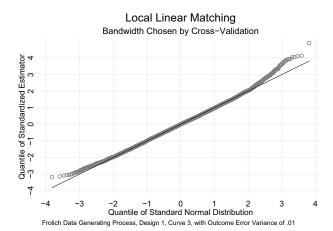


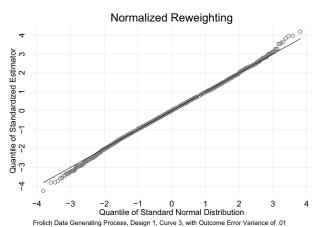
# Bias-Corrected Matching on Covariates Number of Neighbors Chosen by Cross-Validation

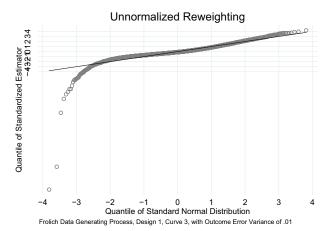
-4 -3 -2 -1 0 1 2 3

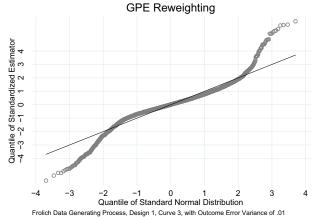
Quantile of Standard Normal Distribution

Frolich Data Generating Process, Design 1, Curve 3, with Outcome Error Variance of .01

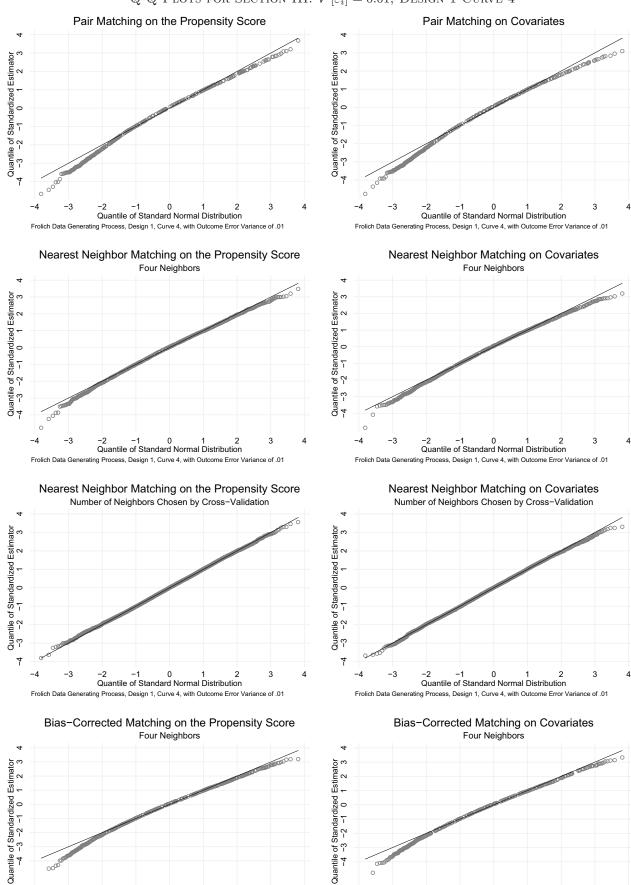








#### Q-Q Plots for Section III: $V[\varepsilon_i] = 0.01$ , Design 1 Curve 4



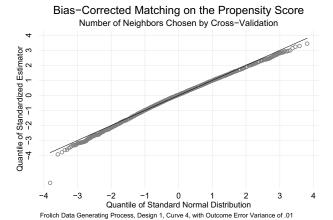
Quantile of Standard Normal Distribution

Frolich Data Generating Process, Design 1, Curve 4, with Outcome Error Variance of .01

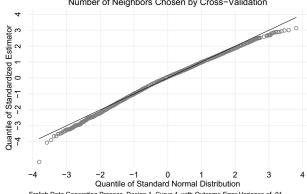
Quantile of Standard Normal Distribution

Frolich Data Generating Process, Design 1, Curve 4, with Outcome Error Variance of .01

#### Q-Q Plots for Section III: $V\left[ {{arepsilon _i}} \right] = 0.01,$ Design 1 Curve 4

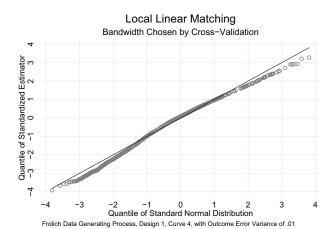


#### Bias-Corrected Matching on Covariates Number of Neighbors Chosen by Cross-Validation

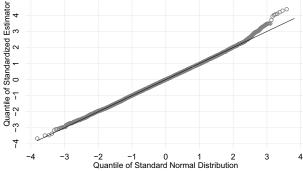


Frolich Data Generating Process, Design 1, Curve 4, with Outcome Error Variance of .01

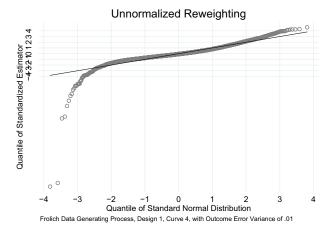
Normalized Reweighting

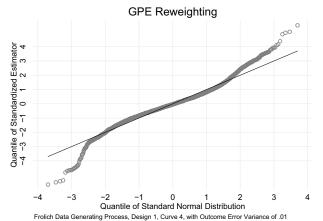




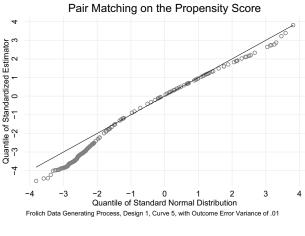


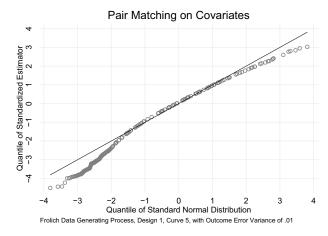
Frolich Data Generating Process, Design 1, Curve 4, with Outcome Error Variance of .01

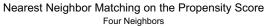


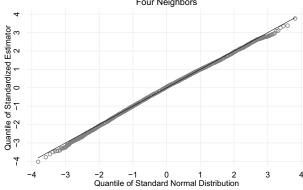


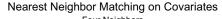
#### Q-Q Plots for Section III: $V[\varepsilon_i] = 0.01$ , Design 1 Curve 5

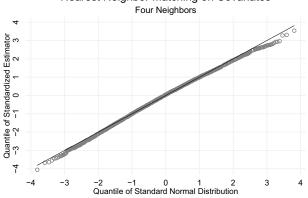




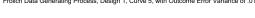


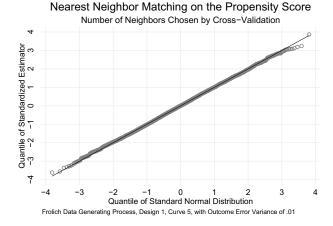




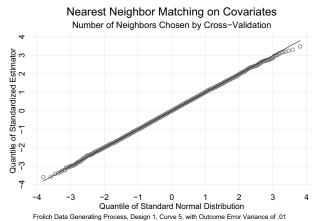


Frolich Data Generating Process, Design 1, Curve 5, with Outcome Error Variance of .01

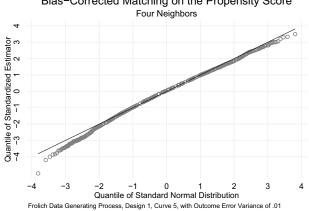




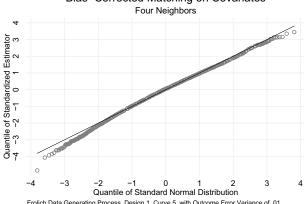
Frolich Data Generating Process, Design 1, Curve 5, with Outcome Error Variance of .01



Bias-Corrected Matching on the Propensity Score

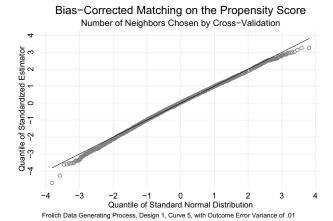


Bias-Corrected Matching on Covariates

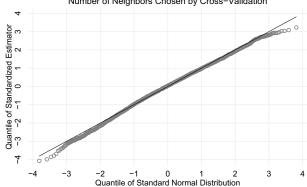


Frolich Data Generating Process, Design 1, Curve 5, with Outcome Error Variance of .01

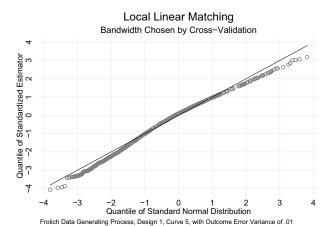
#### Q-Q Plots for Section III: $V\left[ {{arepsilon _i}} \right] = 0.01,$ Design 1 Curve 5

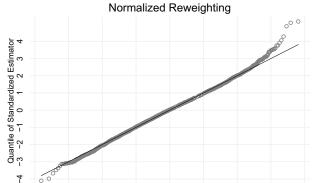


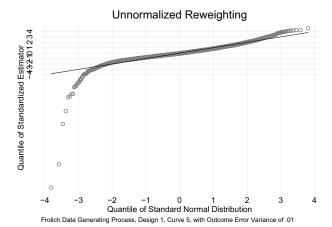
#### Bias-Corrected Matching on Covariates Number of Neighbors Chosen by Cross-Validation

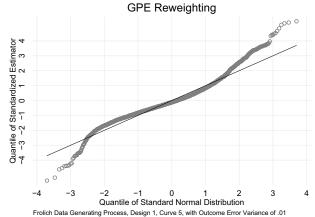


Frolich Data Generating Process, Design 1, Curve 5, with Outcome Error Variance of .01

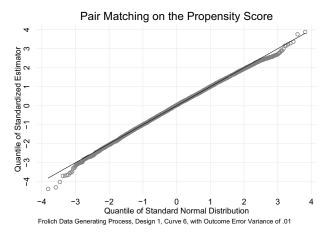


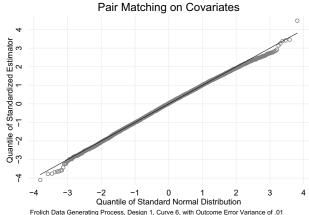




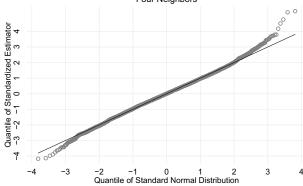


#### Q-Q Plots for Section III: $V[\varepsilon_i] = 0.01$ , Design 1 Curve 6



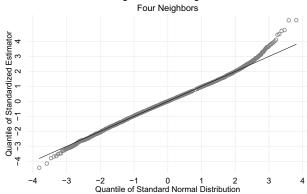


#### Nearest Neighbor Matching on the Propensity Score Four Neighbors



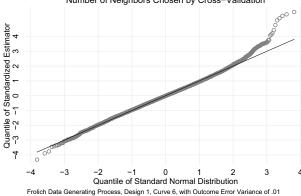


#### Nearest Neighbor Matching on Covariates

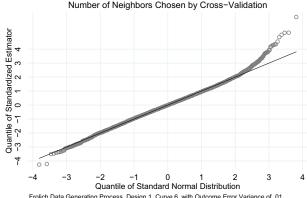


Frolich Data Generating Process, Design 1, Curve 6, with Outcome Error Variance of .01

#### Nearest Neighbor Matching on the Propensity Score Number of Neighbors Chosen by Cross-Validation



#### Nearest Neighbor Matching on Covariates Number of Neighbors Chosen by Cross-Validation

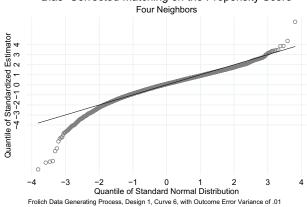


Frolich Data Generating Process, Design 1, Curve 6, with Outcome Error Variance of .01

Bias-Corrected Matching on Covariates

Four Neighbors

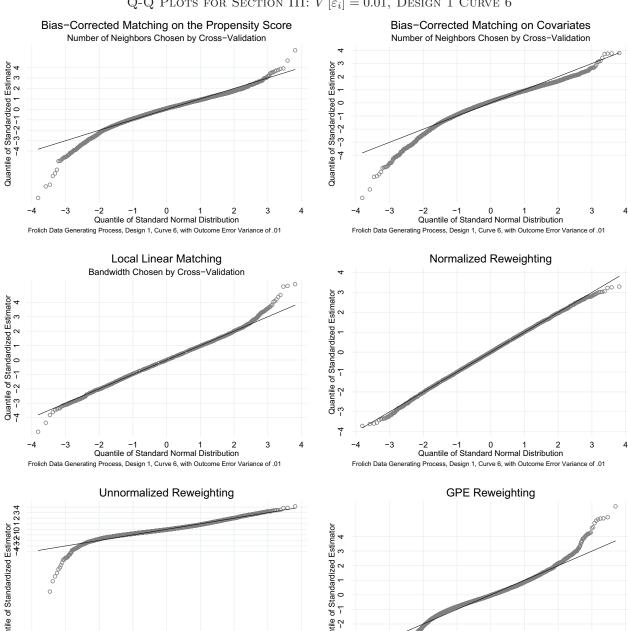
#### Bias-Corrected Matching on the Propensity Score

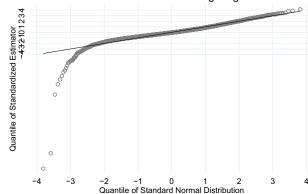


Quantile of Standardized Estimator -4 -3 -2 -1 0 1 2 3

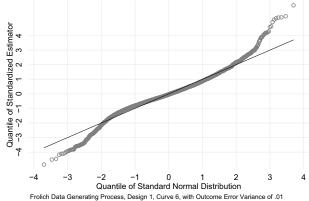
Quantile of Standard Normal Distribution Frolich Data Generating Process, Design 1, Curve 6, with Outcome Error Variance of .01

#### Q-Q Plots for Section III: $V\left[ {{arepsilon _i}} \right] = 0.01,$ Design 1 Curve 6

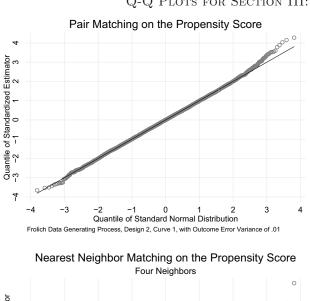


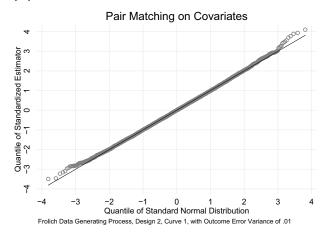


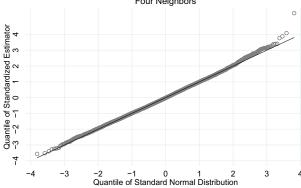
Frolich Data Generating Process, Design 1, Curve 6, with Outcome Error Variance of .01



#### Q-Q PLOTS FOR SECTION III: $V\left[\varepsilon_{i}\right]=0.01$ , DESIGN 2 CURVE 1

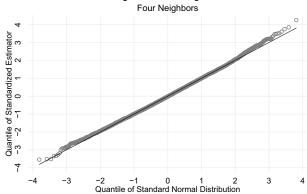






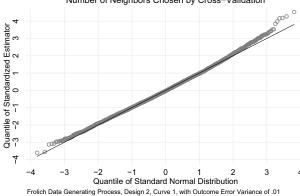
Frolich Data Generating Process, Design 2, Curve 1, with Outcome Error Variance of .01

#### Nearest Neighbor Matching on Covariates

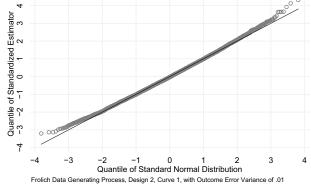


Frolich Data Generating Process, Design 2, Curve 1, with Outcome Error Variance of .01

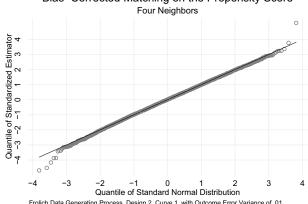
#### Nearest Neighbor Matching on the Propensity Score Number of Neighbors Chosen by Cross-Validation







#### Bias-Corrected Matching on the Propensity Score



Frolich Data Generating Process, Design 2, Curve 1, with Outcome Error Variance of .01

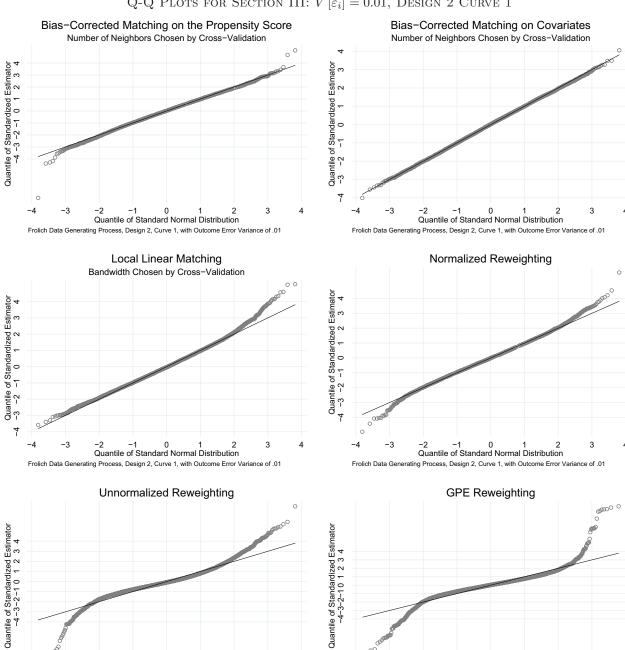
# Four Neighbors Quantile of Standardized Estimator . -3 -2 -1 0 1 2 3

Bias-Corrected Matching on Covariates

Quantile of Standard Normal Distribution Frolich Data Generating Process, Design 2, Curve 1, with Outcome Error Variance of .01

#### 13

#### Q-Q Plots for Section III: $V\left[ {{arepsilon _i}} \right] = 0.01,$ Design 2 Curve 1



-2 -1 0 1 2 Quantile of Standard Normal Distribution

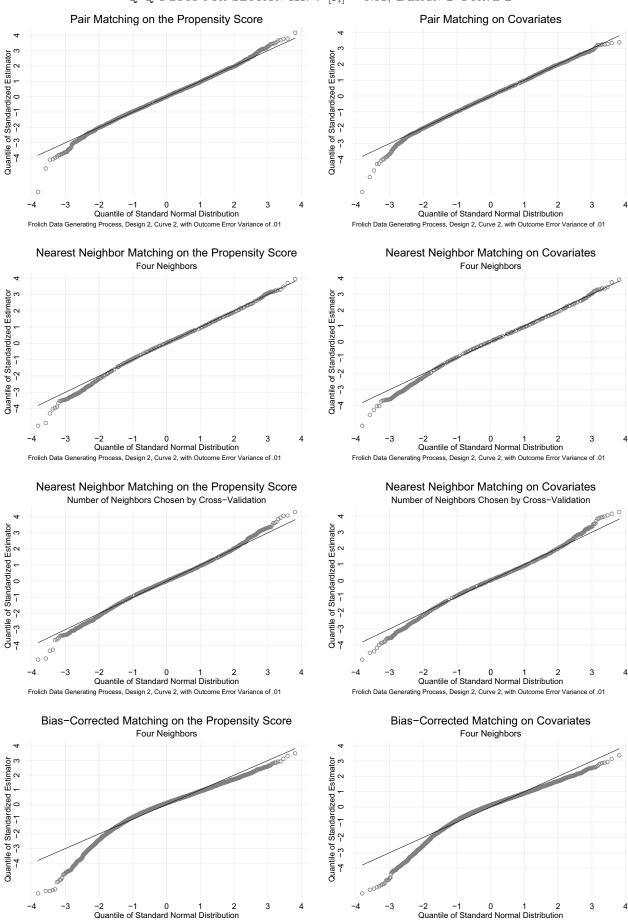
Frolich Data Generating Process, Design 2, Curve 1, with Outcome Error Variance of .01

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-2 -1 0 1 2 Quantile of Standard Normal Distribution

Frolich Data Generating Process, Design 2, Curve 1, with Outcome Error Variance of .01

#### Q-Q PLOTS FOR SECTION III: $V[\varepsilon_i] = 0.01$ , DESIGN 2 CURVE 2

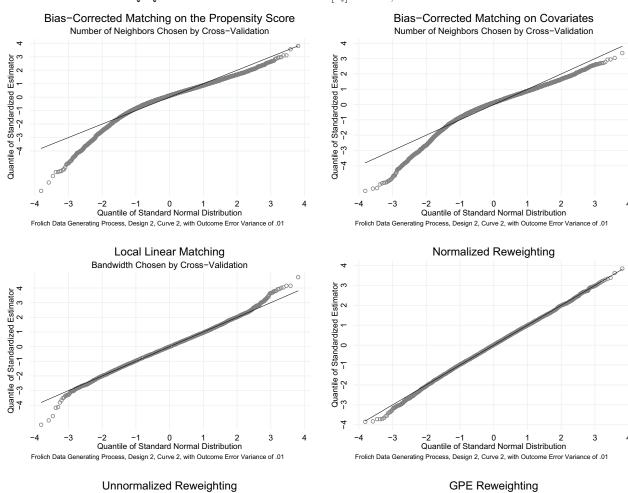


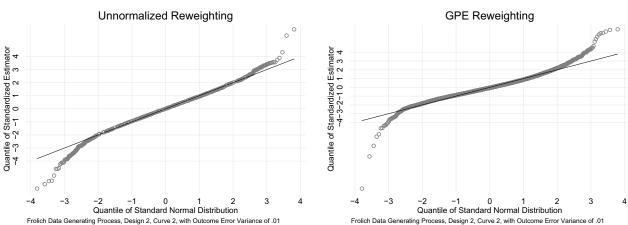
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Frolich Data Generating Process, Design 2, Curve 2, with Outcome Error Variance of .01

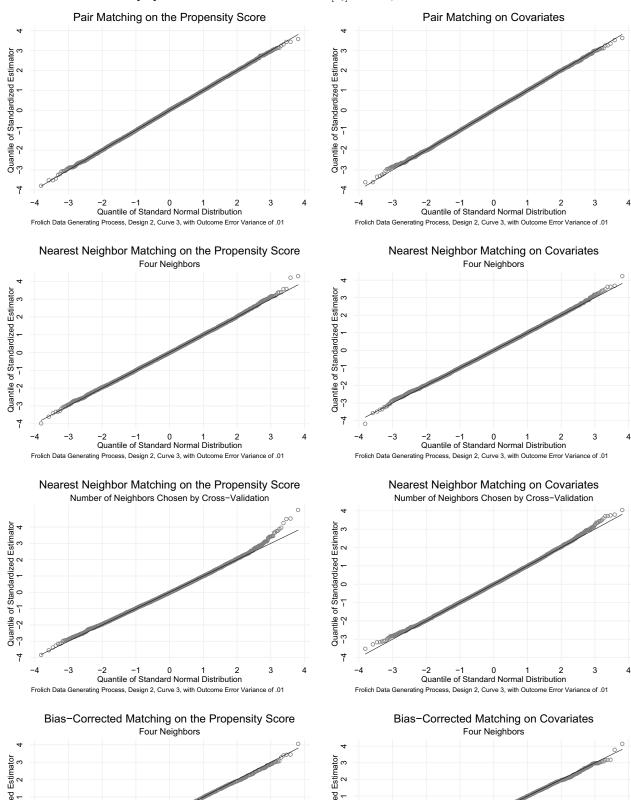
Frolich Data Generating Process, Design 2, Curve 2, with Outcome Error Variance of .01

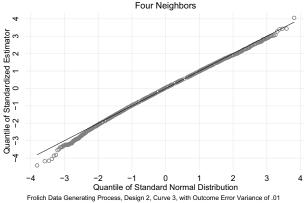
#### Q-Q Plots for Section III: $V\left[ {{arepsilon _i}} \right] = 0.01,$ Design 2 Curve 2

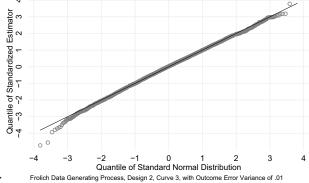




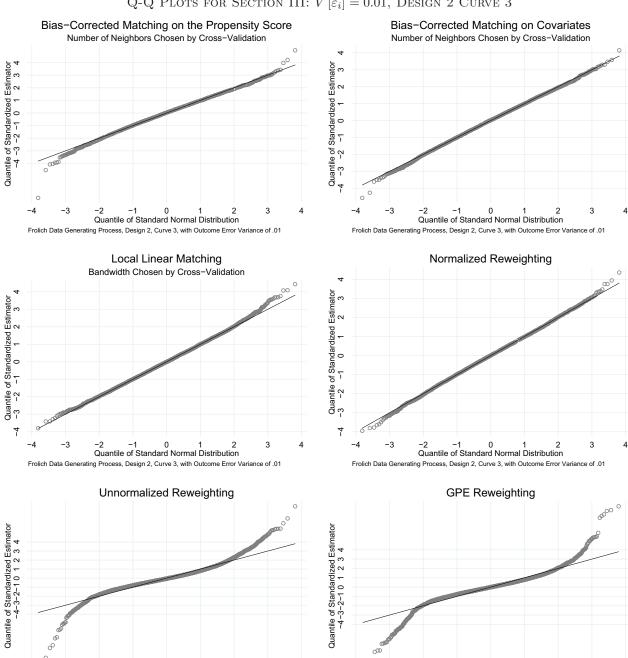
#### Q-Q Plots for Section III: $V[\varepsilon_i] = 0.01$ , Design 2 Curve 3







#### Q-Q Plots for Section III: $V\left[ {{arepsilon _i}} \right] = 0.01,$ Design 2 Curve 3



-2 -1 0 1 2 Quantile of Standard Normal Distribution

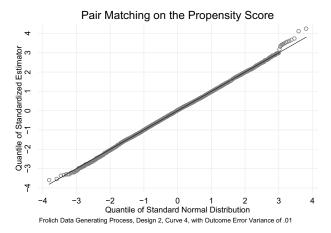
Frolich Data Generating Process, Design 2, Curve 3, with Outcome Error Variance of .01

0 0

-2 -1 0 1 2 Quantile of Standard Normal Distribution

Frolich Data Generating Process, Design 2, Curve 3, with Outcome Error Variance of .01

#### Q-Q PLOTS FOR SECTION III: $V[\varepsilon_i] = 0.01$ , DESIGN 2 CURVE 4

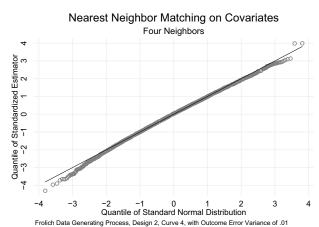


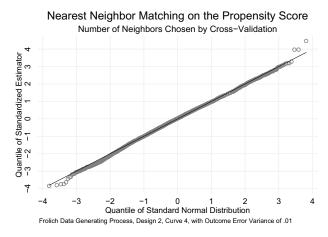
## Pair Matching on Covariates Quantile of Standardized Estimator -3 -2 -1 0 1 2 3 4 Quantile of Standard Normal Distribution

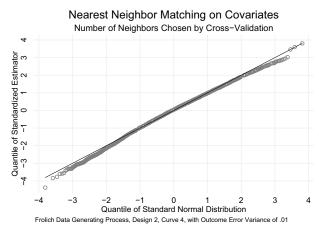
Frolich Data Generating Process, Design 2, Curve 4, with Outcome Error Variance of .01

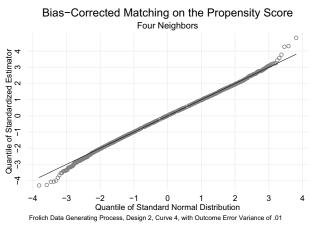
# Nearest Neighbor Matching on the Propensity Score Four Neighbors Quantile of Standardized Estimator -3 -2 -1 0 1 2 3 4

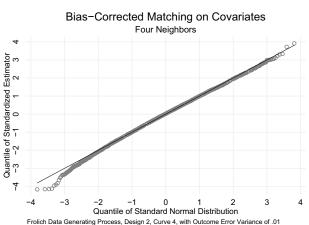




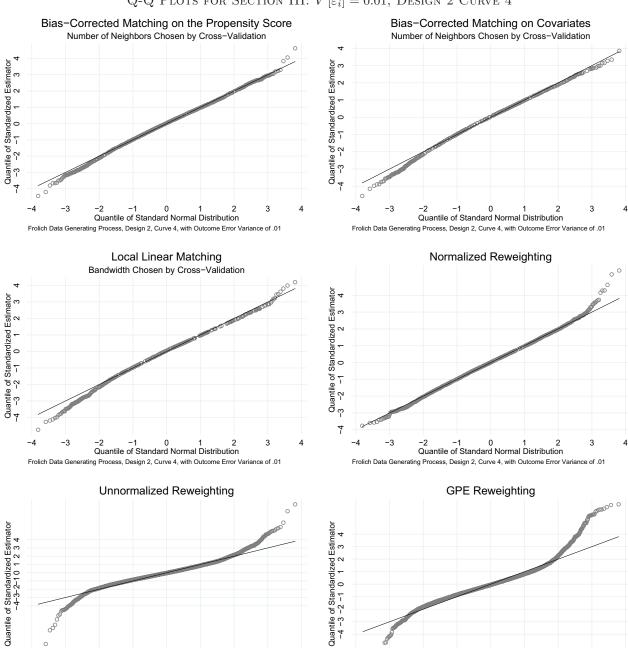








#### Q-Q Plots for Section III: $V\left[ {{arepsilon _i}} \right] = 0.01,$ Design 2 Curve 4



-4 -3 -2 -1 0 1 2 3

Quantile of Standard Normal Distribution

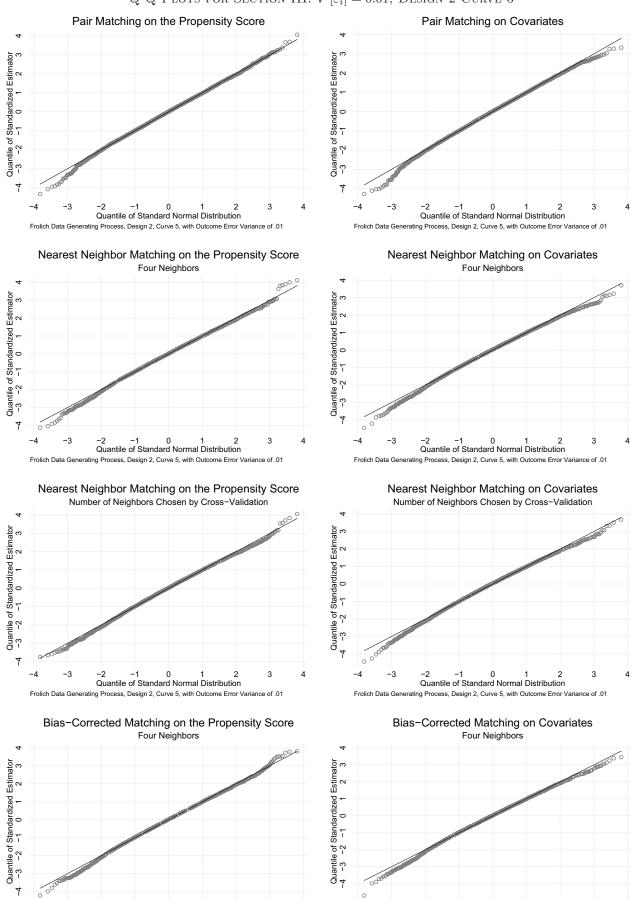
Frolich Data Generating Process, Design 2, Curve 4, with Outcome Error Variance of .01

0

-2 -1 0 1 2 Quantile of Standard Normal Distribution

Frolich Data Generating Process, Design 2, Curve 4, with Outcome Error Variance of .01

#### Q-Q Plots for Section III: $V[\varepsilon_i] = 0.01$ , Design 2 Curve 5



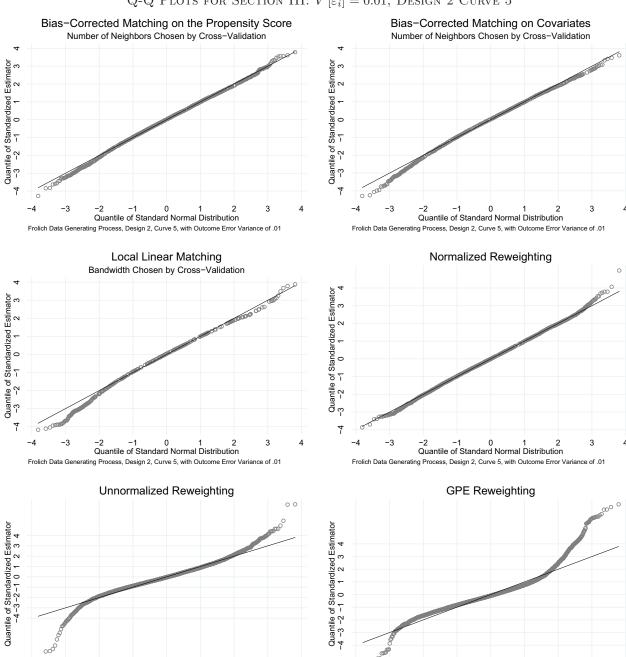
Quantile of Standard Normal Distribution

Frolich Data Generating Process, Design 2, Curve 5, with Outcome Error Variance of .01

Quantile of Standard Normal Distribution

Frolich Data Generating Process, Design 2, Curve 5, with Outcome Error Variance of .01

#### Q-Q Plots for Section III: $V\left[ {{arepsilon _i}} \right] = 0.01,$ Design 2 Curve 5



-4 -3 -2 -1 0 1 2 3

Quantile of Standard Normal Distribution

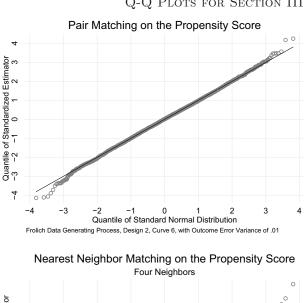
Frolich Data Generating Process, Design 2, Curve 5, with Outcome Error Variance of .01

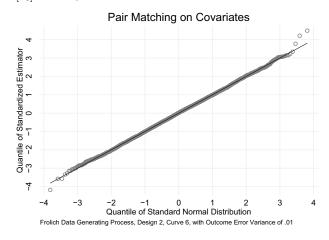
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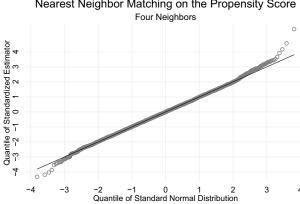
-2 -1 0 1 2 Quantile of Standard Normal Distribution

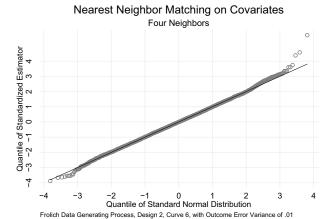
Frolich Data Generating Process, Design 2, Curve 5, with Outcome Error Variance of .01

#### Q-Q Plots for Section III: $V[\varepsilon_i] = 0.01$ , Design 2 Curve 6

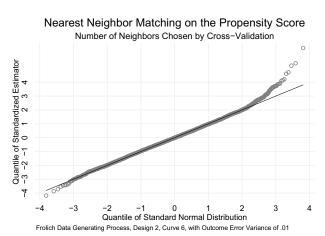


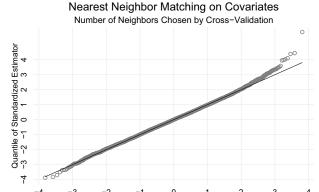






Frolich Data Generating Process, Design 2, Curve 6, with Outcome Error Variance of .01





Quantile of Standard Normal Distribution
Frolich Data Generating Process, Design 2, Curve 6, with Outcome Error Variance of .01

Bias-Corrected Matching on the Propensity Score
Four Neighbors

Four Neighbors

Bias-Corrected Matching on Covariates

Four Neighbors

Topic Bias - Corrected Matching on Covariates

Four Neighbors

Topic Bias - Corrected Matching on Covariates

Four Neighbors

Topic Bias - Corrected Matching on Covariates

Four Neighbors

Topic Bias - Corrected Matching on Covariates

Four Neighbors

Topic Bias - Corrected Matching on Covariates

Four Neighbors

Topic Bias - Corrected Matching on Covariates

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Topic Bias - Corrected Matching on Covariates

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Topic Bias - Corrected Matching on Covariates

Four Neighbors

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Four Neighbors

Topic Bias - Corrected Matching on Covariates

Four Neighbors

Topic Bias - Covariates

Four Neighbors

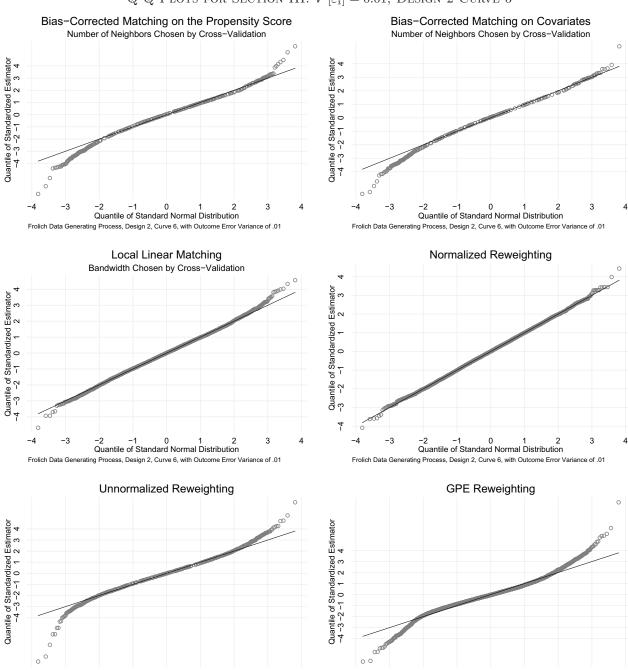
Four

Frolich Data Generating Process, Design 2, Curve 6, with Outcome Error Variance of .01

Quantile of Standard Normal Distribution
Frolich Data Generating Process, Design 2, Curve 6, with Outcome Error Variance of .01

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#### Q-Q Plots for Section III: $V\left[ {{arepsilon _i}} \right] = 0.01,$ Design 2 Curve 6



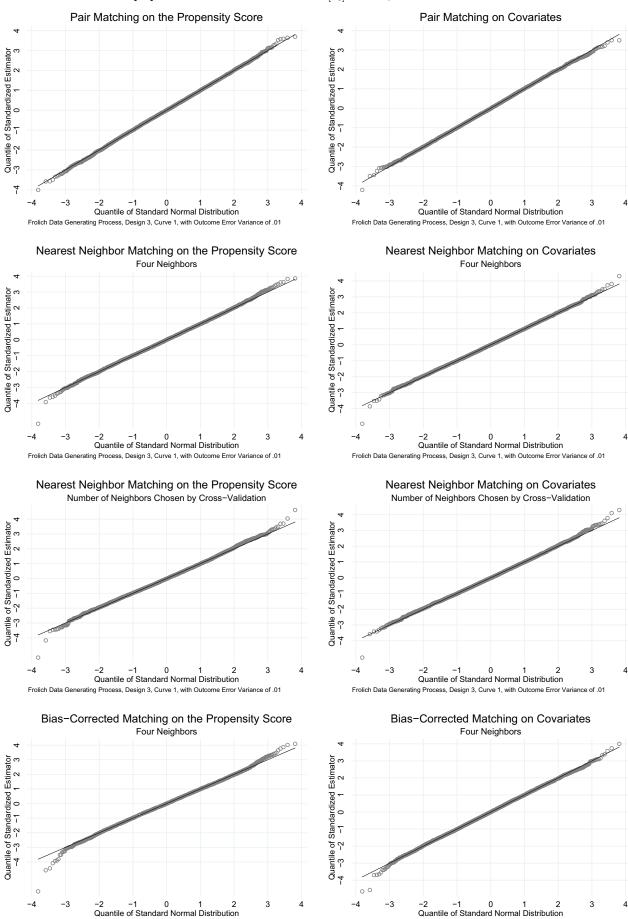
-2 -1 0 1 2 Quantile of Standard Normal Distribution

Frolich Data Generating Process, Design 2, Curve 6, with Outcome Error Variance of .01

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-2 -1 0 1 2 Quantile of Standard Normal Distribution Frolich Data Generating Process, Design 2, Curve 6, with Outcome Error Variance of .01

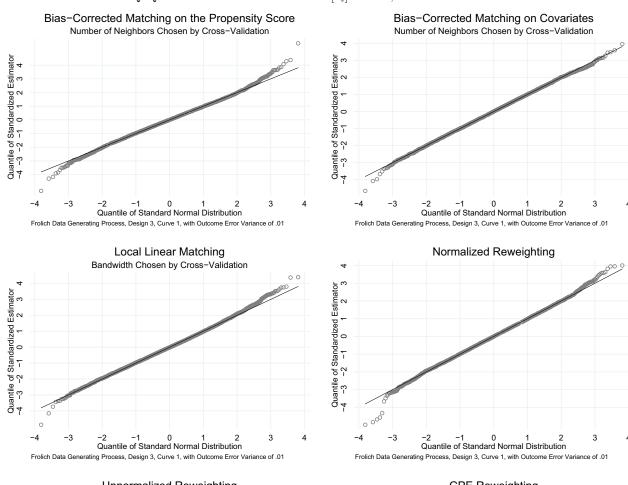
#### Q-Q Plots for Section III: $V[\varepsilon_i] = 0.01$ , Design 3 Curve 1

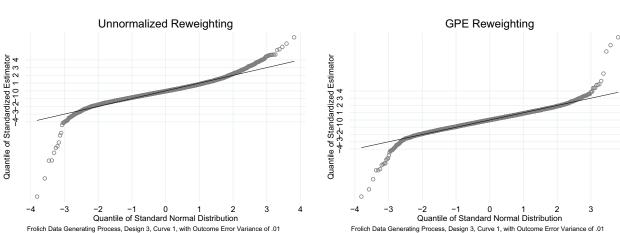


Frolich Data Generating Process, Design 3, Curve 1, with Outcome Error Variance of .01

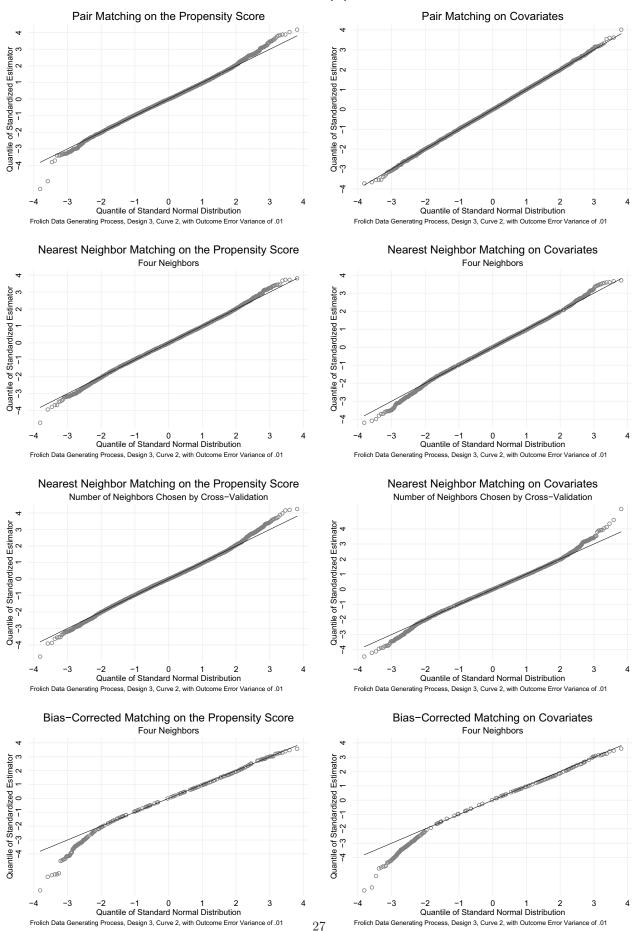
Frolich Data Generating Process, Design 3, Curve 1, with Outcome Error Variance of .01

#### Q-Q Plots for Section III: $V\left[ {{arepsilon _i}} \right] = 0.01,$ Design 3 Curve 1

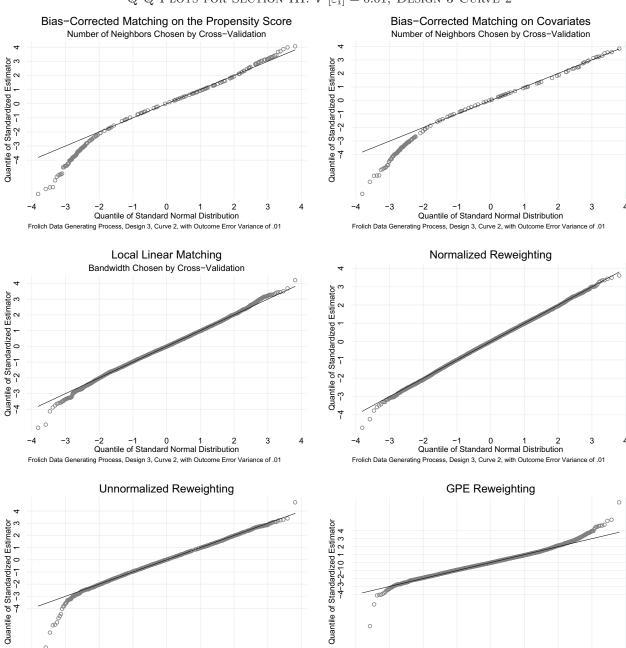




#### Q-Q Plots for Section III: $V[\varepsilon_i] = 0.01$ , Design 3 Curve 2



#### Q-Q Plots for Section III: $V\left[ {{arepsilon _i}} \right] = 0.01,$ Design 3 Curve 2



-2 -1 0 1 2 Quantile of Standard Normal Distribution

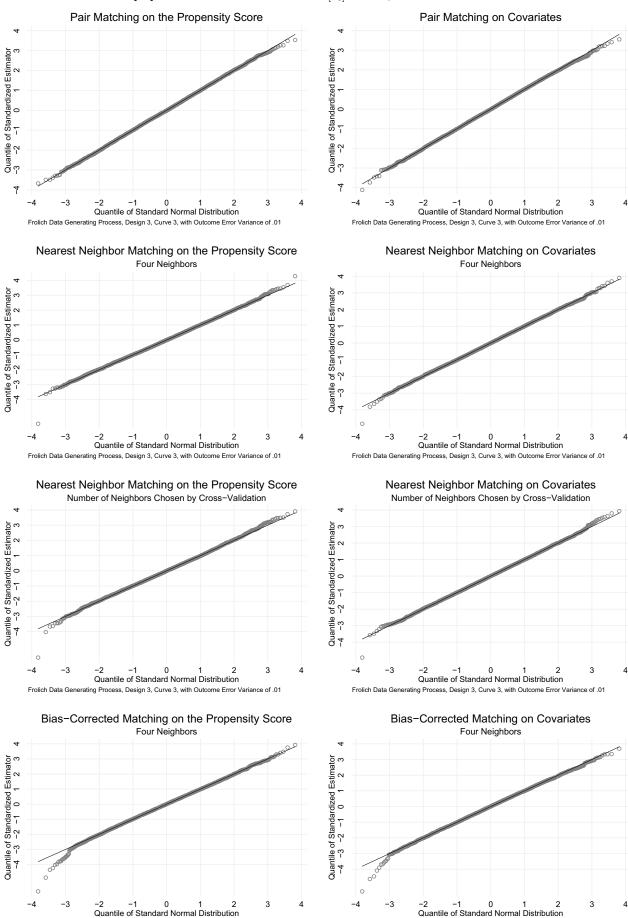
Frolich Data Generating Process, Design 3, Curve 2, with Outcome Error Variance of .01

0

-2 -1 0 1 2 Quantile of Standard Normal Distribution

Frolich Data Generating Process, Design 3, Curve 2, with Outcome Error Variance of .01

#### Q-Q PLOTS FOR SECTION III: $V[\varepsilon_i] = 0.01$ , DESIGN 3 CURVE 3

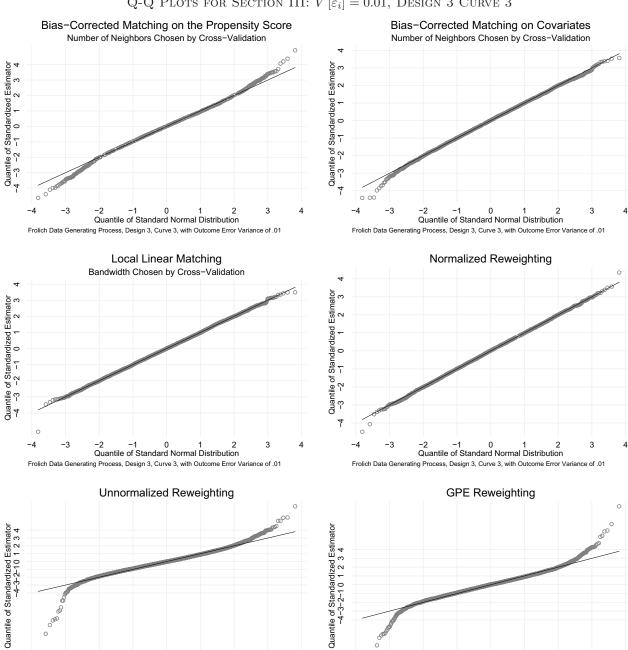


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Frolich Data Generating Process, Design 3, Curve 3, with Outcome Error Variance of .01

Frolich Data Generating Process, Design 3, Curve 3, with Outcome Error Variance of .01

#### Q-Q Plots for Section III: $V\left[ {{arepsilon _i}} \right] = 0.01,$ Design 3 Curve 3



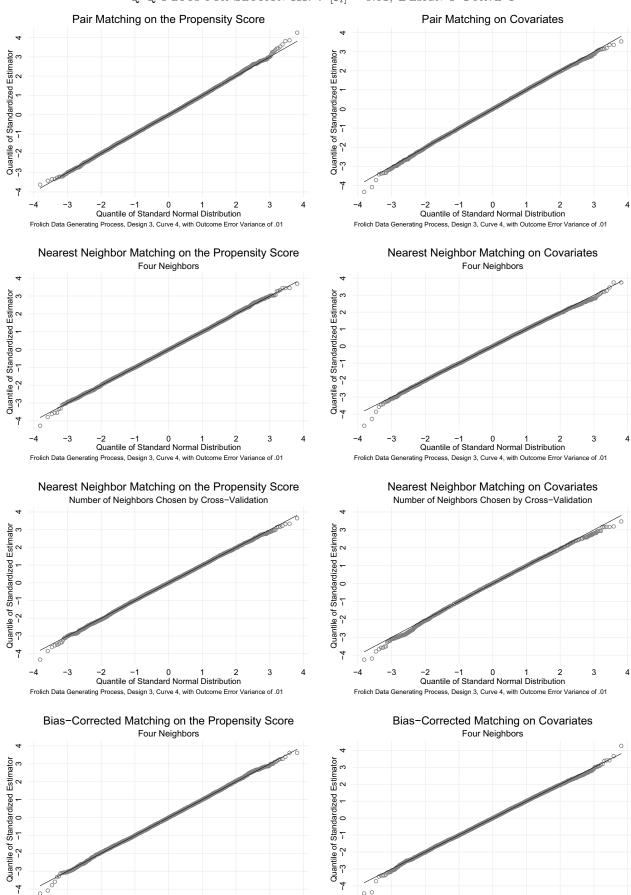
-2 -1 0 1 2 Quantile of Standard Normal Distribution

Frolich Data Generating Process, Design 3, Curve 3, with Outcome Error Variance of .01

-2 -1 0 1 2 Quantile of Standard Normal Distribution

Frolich Data Generating Process, Design 3, Curve 3, with Outcome Error Variance of .01

#### Q-Q PLOTS FOR SECTION III: $V\left[\varepsilon_{i}\right]=0.01$ , DESIGN 3 CURVE 4



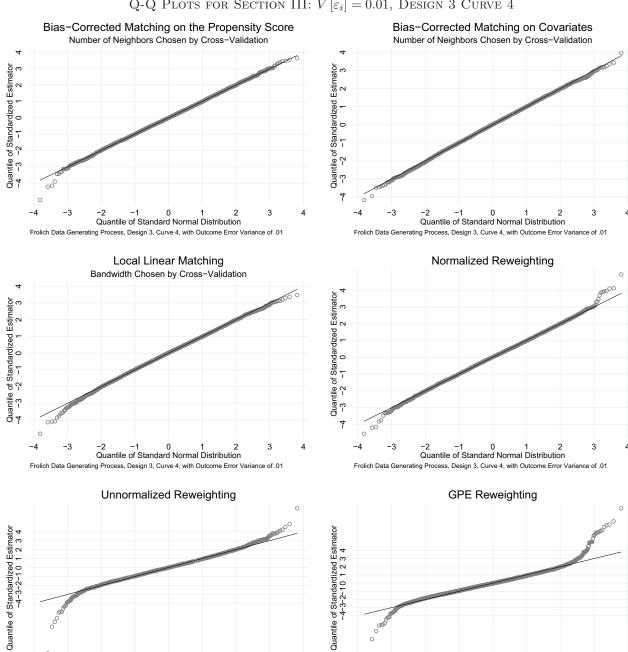
Quantile of Standard Normal Distribution

Frolich Data Generating Process, Design 3, Curve 4, with Outcome Error Variance of .01

Quantile of Standard Normal Distribution

Frolich Data Generating Process, Design 3, Curve 4, with Outcome Error Variance of .01

#### Q-Q Plots for Section III: $V\left[ {{arepsilon _i}} \right] = 0.01,$ Design 3 Curve 4



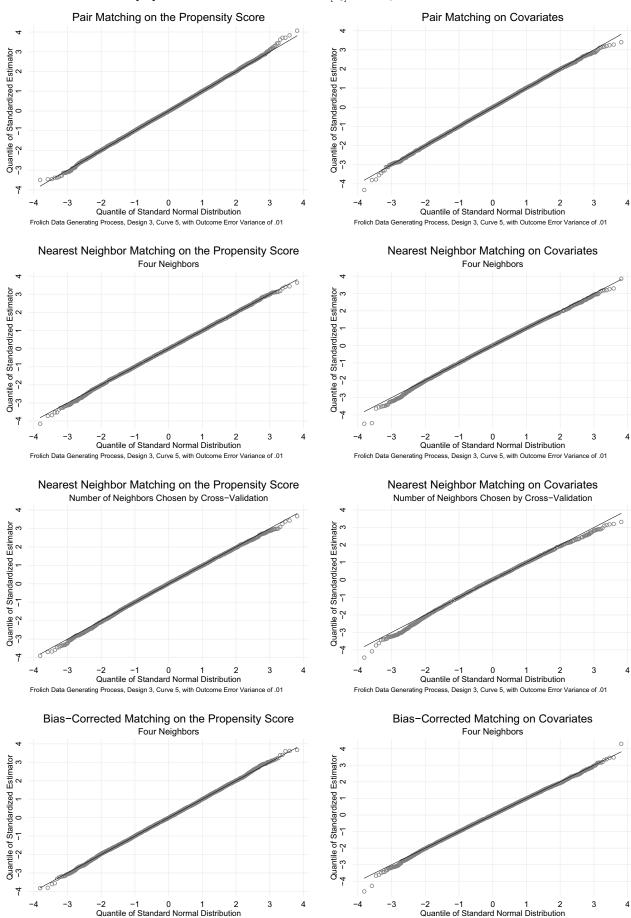
-2 -1 0 1 2 Quantile of Standard Normal Distribution Frolich Data Generating Process, Design 3, Curve 4, with Outcome Error Variance of .01

0

-2 -1 0 1 2 Quantile of Standard Normal Distribution

Frolich Data Generating Process, Design 3, Curve 4, with Outcome Error Variance of .01

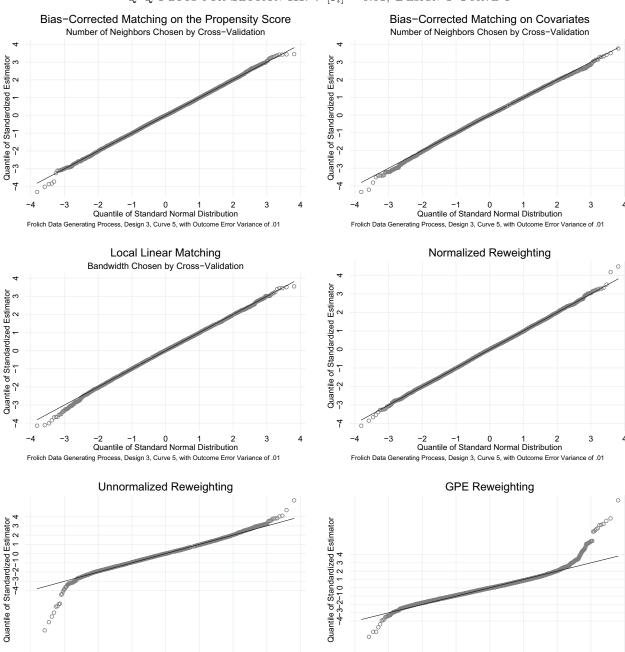
#### Q-Q PLOTS FOR SECTION III: $V\left[\varepsilon_{i}\right]=0.01$ , DESIGN 3 CURVE 5



Frolich Data Generating Process, Design 3, Curve 5, with Outcome Error Variance of .01

Frolich Data Generating Process, Design 3, Curve 5, with Outcome Error Variance of .01

#### Q-Q Plots for Section III: $V\left[ {{arepsilon _i}} \right] = 0.01,$ Design 3 Curve 5

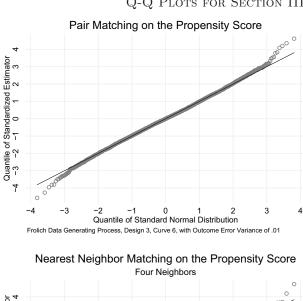


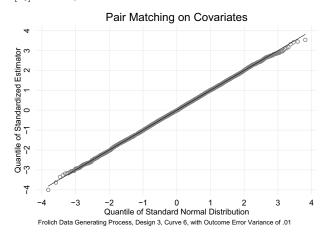
-4 -3 -2 -1 0 1 2 3
Quantile of Standard Normal Distribution
Frolich Data Generating Process, Design 3, Curve 5, with Outcome Error Variance of .01

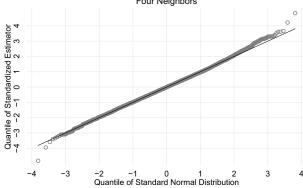
-2 -1 0 1 2 Quantile of Standard Normal Distribution

Frolich Data Generating Process, Design 3, Curve 5, with Outcome Error Variance of .01

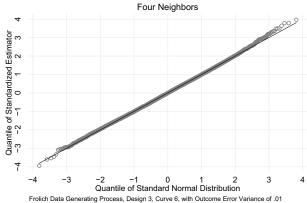
#### Q-Q PLOTS FOR SECTION III: $V\left[\varepsilon_{i}\right]=0.01$ , DESIGN 3 CURVE 6





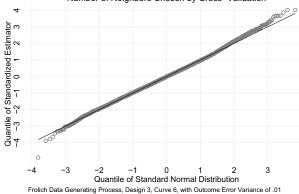


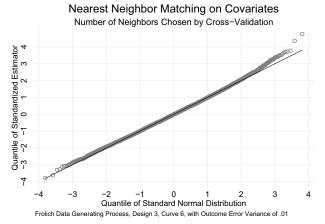
Nearest Neighbor Matching on Covariates



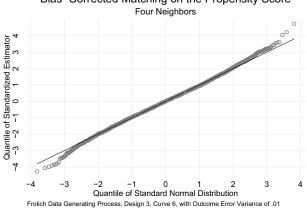
Frolich Data Generating Process, Design 3, Curve 6, with Outcome Error Variance of .01

#### Nearest Neighbor Matching on the Propensity Score Number of Neighbors Chosen by Cross-Validation

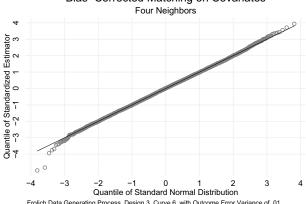




Bias-Corrected Matching on the Propensity Score

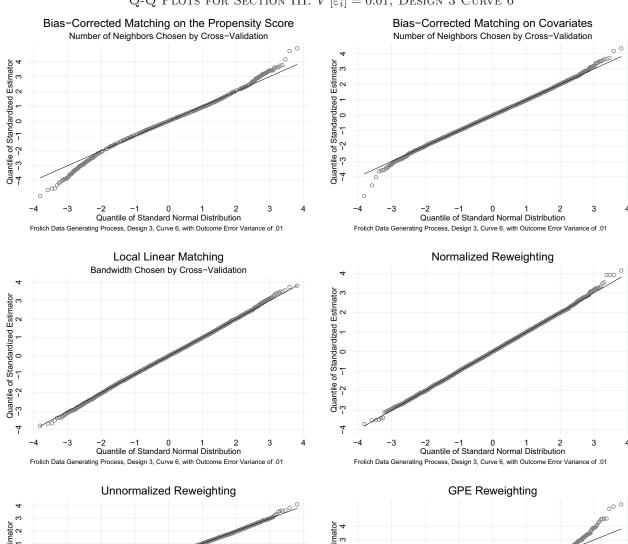


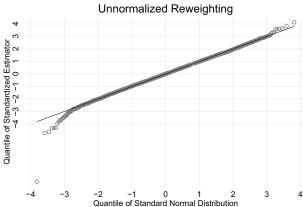
#### Bias-Corrected Matching on Covariates



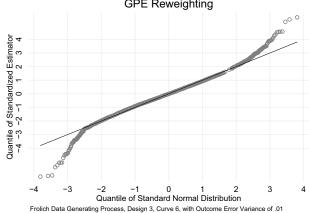
Frolich Data Generating Process, Design 3, Curve 6, with Outcome Error Variance of .01

#### Q-Q Plots for Section III: $V\left[ {{arepsilon _i}} \right] = 0.01,$ Design 3 Curve 6

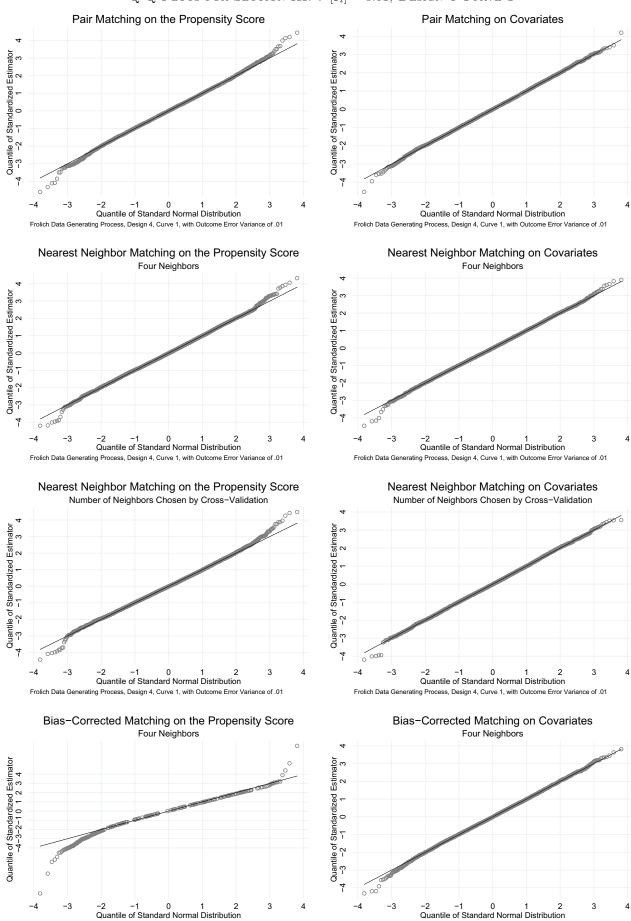




Frolich Data Generating Process, Design 3, Curve 6, with Outcome Error Variance of .01



#### Q-Q Plots for Section III: $V[\varepsilon_i] = 0.01$ , Design 4 Curve 1

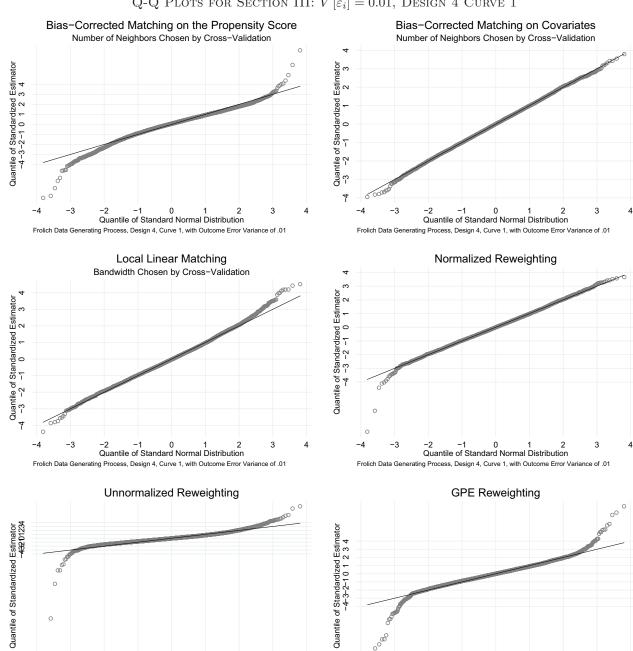


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Frolich Data Generating Process, Design 4, Curve 1, with Outcome Error Variance of .01

Frolich Data Generating Process, Design 4, Curve 1, with Outcome Error Variance of .01

# Q-Q Plots for Section III: $V\left[\varepsilon_{i}\right]=0.01,$ Design 4 Curve 1



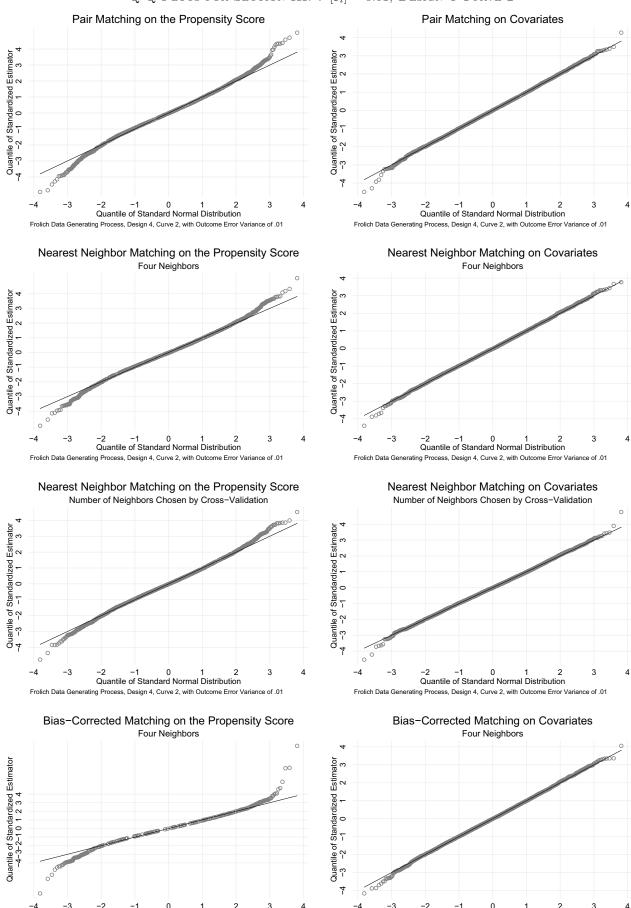
-2 -1 0 1 2 Quantile of Standard Normal Distribution Frolich Data Generating Process, Design 4, Curve 1, with Outcome Error Variance of .01

0

-2 -1 0 1 2 Quantile of Standard Normal Distribution

Frolich Data Generating Process, Design 4, Curve 1, with Outcome Error Variance of .01

# Q-Q Plots for Section III: $V\left[ {{arepsilon _i}} \right] = 0.01,$ Design 4 Curve 2



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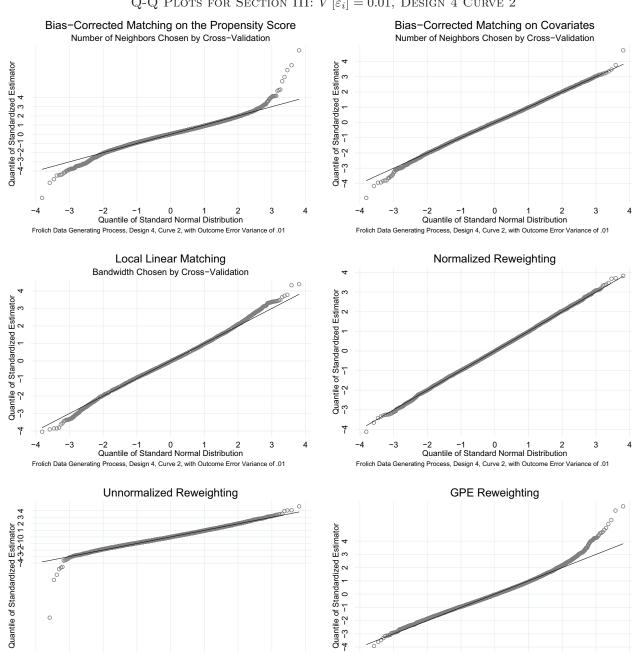
Quantile of Standard Normal Distribution

Frolich Data Generating Process, Design 4, Curve 2, with Outcome Error Variance of .01

Quantile of Standard Normal Distribution

Frolich Data Generating Process, Design 4, Curve 2, with Outcome Error Variance of .01

# Q-Q Plots for Section III: $V\left[ {{arepsilon _i}} \right] = 0.01,$ Design 4 Curve 2



-2 -1 0 1 2 Quantile of Standard Normal Distribution

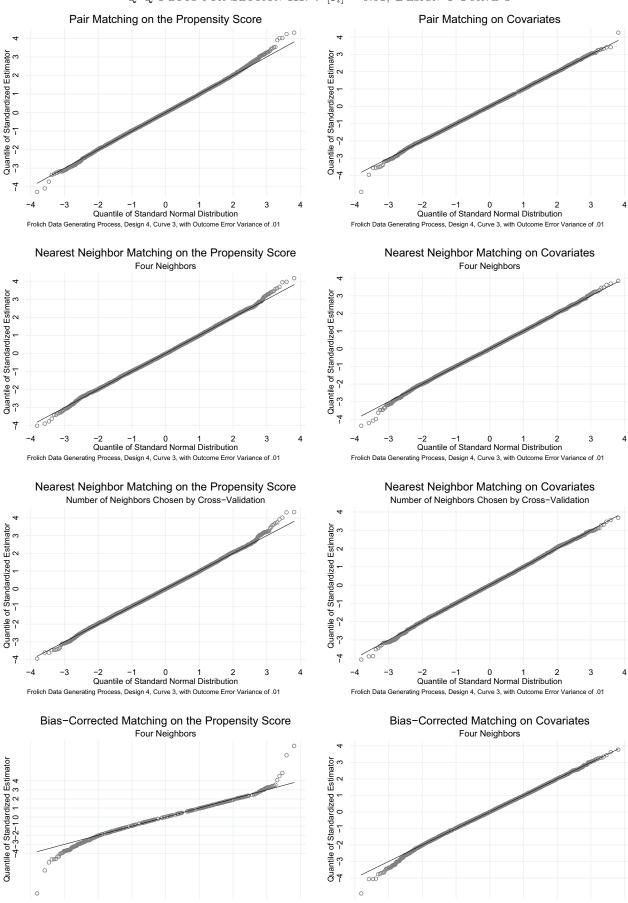
Frolich Data Generating Process, Design 4, Curve 2, with Outcome Error Variance of .01

0

-2 -1 0 1 2 Quantile of Standard Normal Distribution

Frolich Data Generating Process, Design 4, Curve 2, with Outcome Error Variance of .01

#### Q-Q Plots for Section III: $V[\varepsilon_i] = 0.01$ , Design 4 Curve 3



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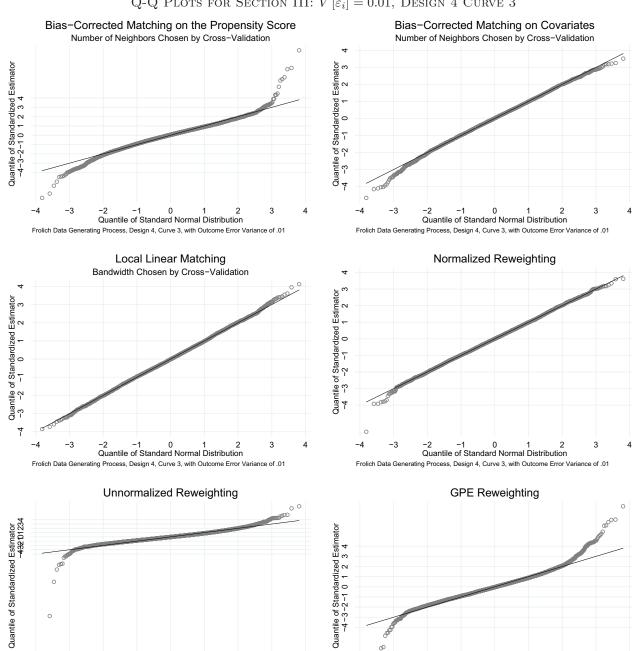
Quantile of Standard Normal Distribution

Frolich Data Generating Process, Design 4, Curve 3, with Outcome Error Variance of .01

Quantile of Standard Normal Distribution

Frolich Data Generating Process, Design 4, Curve 3, with Outcome Error Variance of .01

# Q-Q Plots for Section III: $V\left[ {{arepsilon _i}} \right] = 0.01,$ Design 4 Curve 3



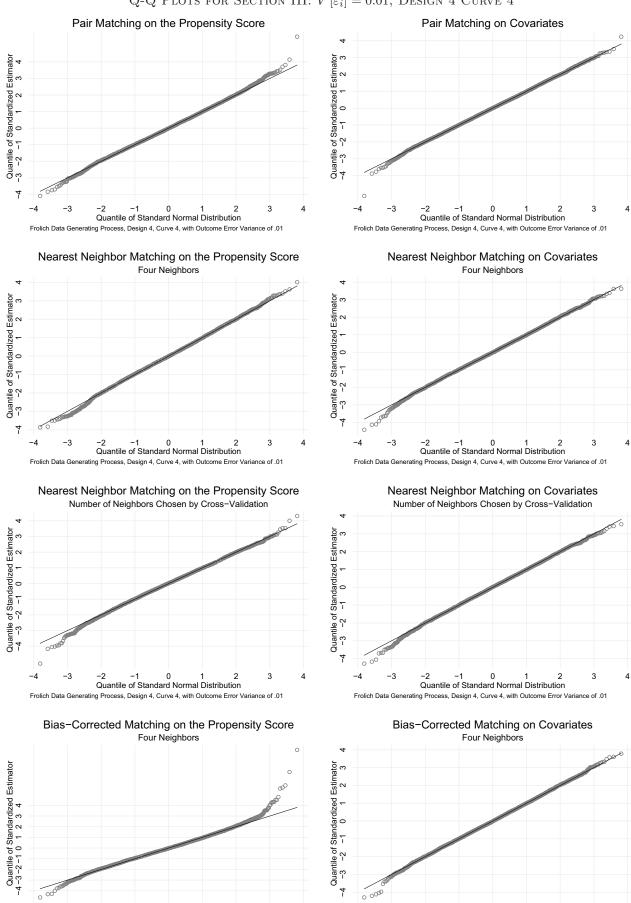
-2 -1 0 1 2 Quantile of Standard Normal Distribution Frolich Data Generating Process, Design 4, Curve 3, with Outcome Error Variance of .01

0

-2 -1 0 1 2 Quantile of Standard Normal Distribution

Frolich Data Generating Process, Design 4, Curve 3, with Outcome Error Variance of .01

#### Q-Q PLOTS FOR SECTION III: $V\left[\varepsilon_{i}\right]=0.01$ , DESIGN 4 CURVE 4



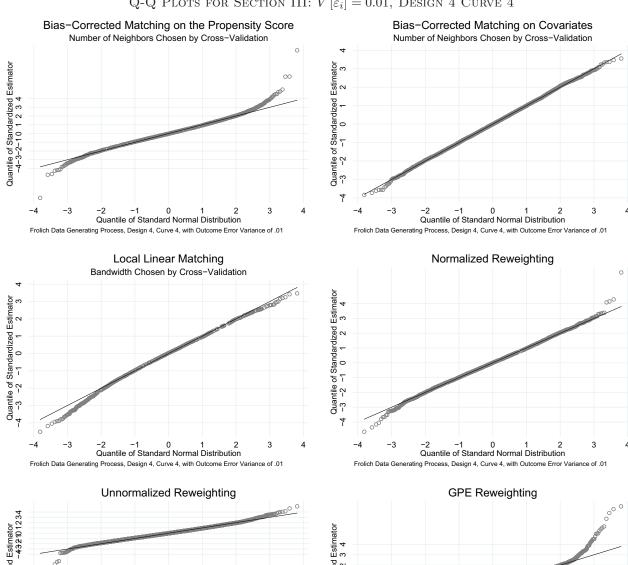
Quantile of Standard Normal Distribution

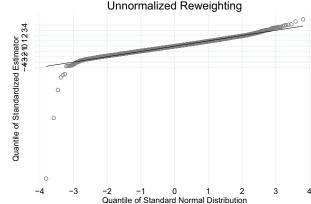
Frolich Data Generating Process, Design 4, Curve 4, with Outcome Error Variance of .01

Quantile of Standard Normal Distribution

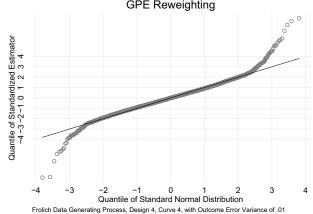
Frolich Data Generating Process, Design 4, Curve 4, with Outcome Error Variance of .01

# Q-Q Plots for Section III: $V\left[ {{arepsilon _i}} \right] = 0.01,$ Design 4 Curve 4

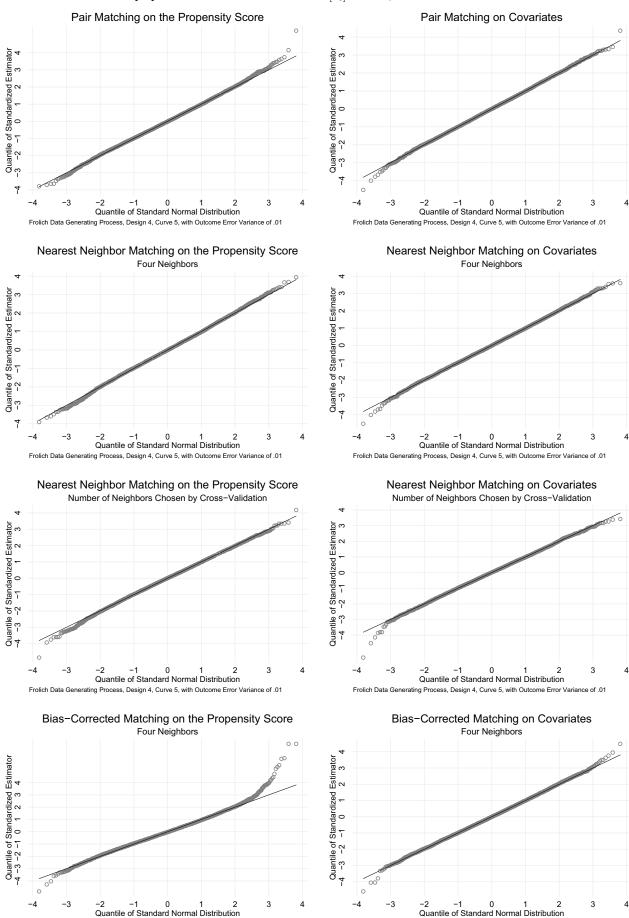




Frolich Data Generating Process, Design 4, Curve 4, with Outcome Error Variance of .01



#### Q-Q PLOTS FOR SECTION III: $V[\varepsilon_i] = 0.01$ , DESIGN 4 CURVE 5

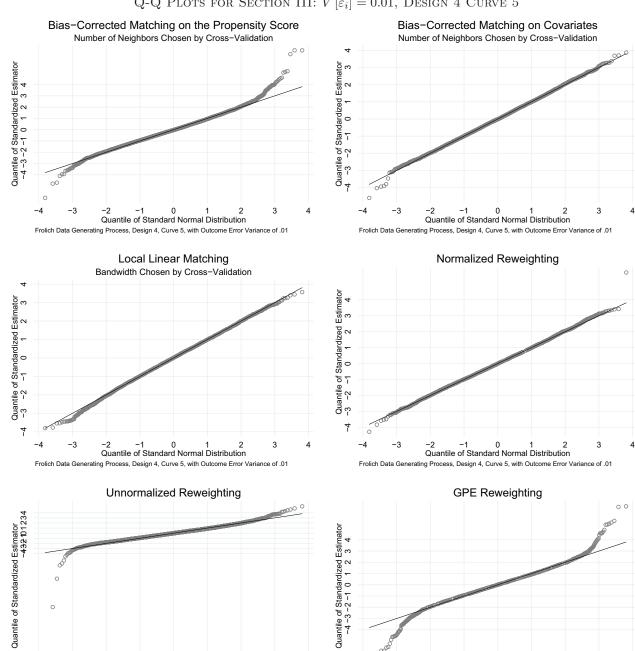


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Frolich Data Generating Process, Design 4, Curve 5, with Outcome Error Variance of .01

Frolich Data Generating Process, Design 4, Curve 5, with Outcome Error Variance of .01

# Q-Q Plots for Section III: $V\left[ {{arepsilon _i}} \right] = 0.01,$ Design 4 Curve 5



-2 -1 0 1 2 Quantile of Standard Normal Distribution

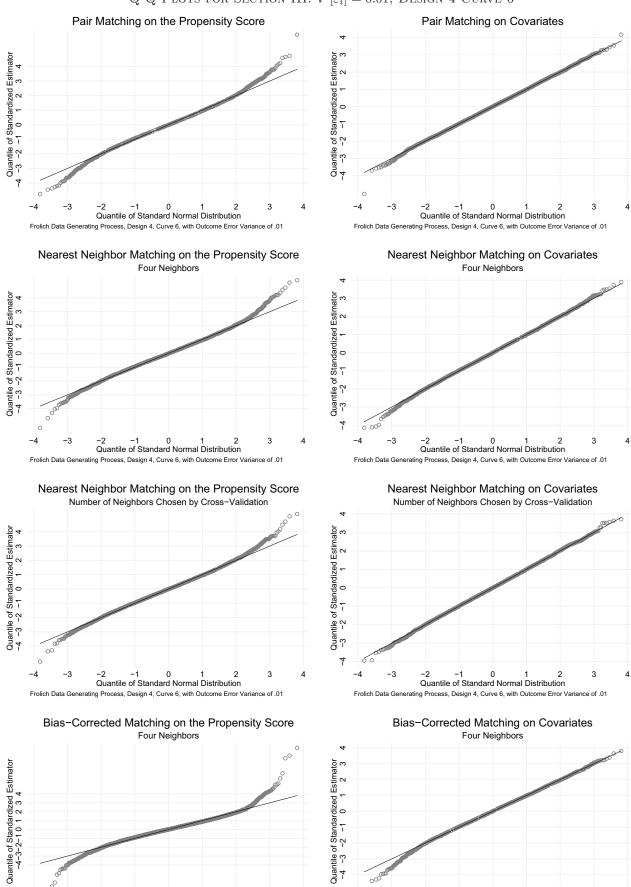
Frolich Data Generating Process, Design 4, Curve 5, with Outcome Error Variance of .01

0

-2 -1 0 1 2 Quantile of Standard Normal Distribution

Frolich Data Generating Process, Design 4, Curve 5, with Outcome Error Variance of .01

#### Q-Q Plots for Section III: $V[\varepsilon_i] = 0.01$ , Design 4 Curve 6



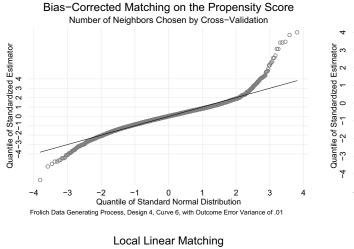
Quantile of Standard Normal Distribution

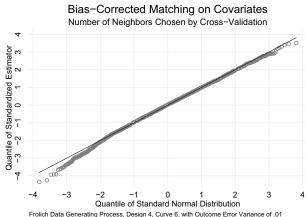
Frolich Data Generating Process, Design 4, Curve 6, with Outcome Error Variance of .01

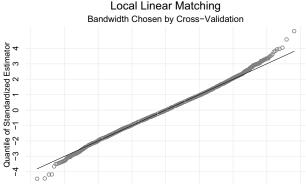
Quantile of Standard Normal Distribution

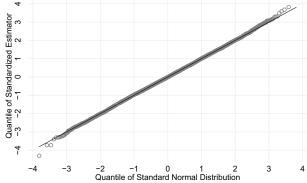
Frolich Data Generating Process, Design 4, Curve 6, with Outcome Error Variance of .01

# Q-Q Plots for Section III: $V\left[ {{arepsilon _i}} \right] = 0.01,$ Design 4 Curve 6



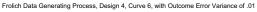


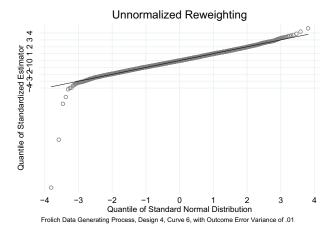


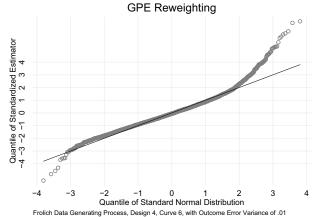


Normalized Reweighting

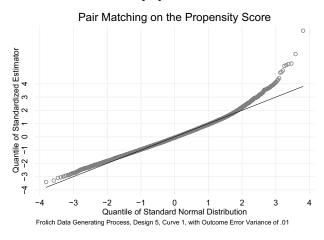


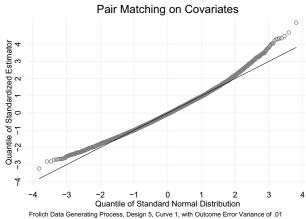


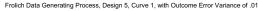


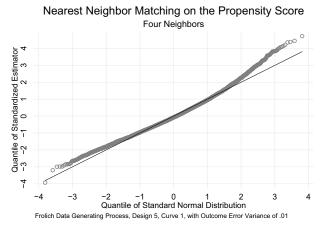


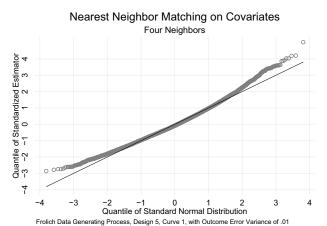
#### Q-Q PLOTS FOR SECTION III: $V\left[\varepsilon_{i}\right]=0.01$ , DESIGN 5 CURVE 1

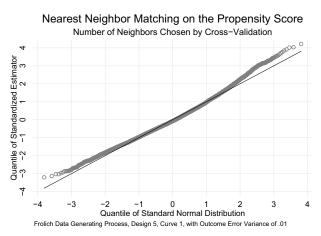


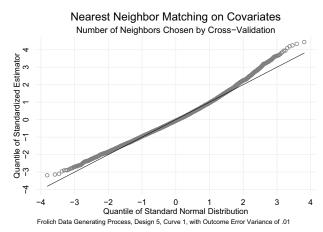


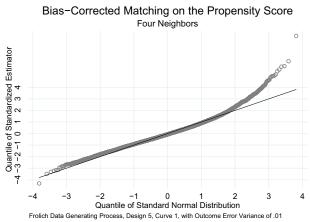


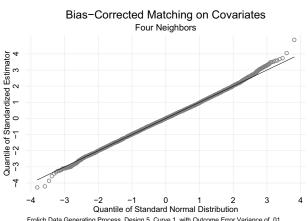






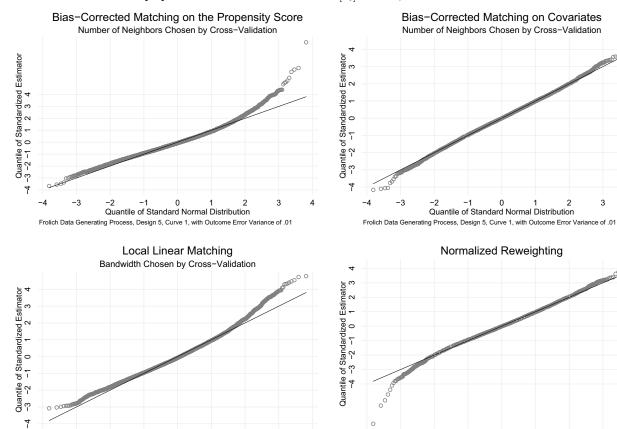


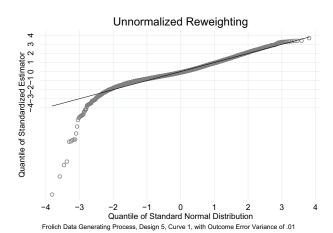




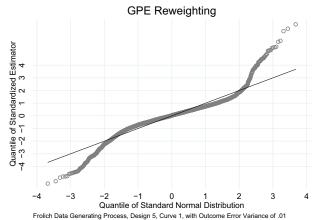
Frolich Data Generating Process, Design 5, Curve 1, with Outcome Error Variance of .01

# Q-Q Plots for Section III: $V\left[ {{arepsilon _i}} \right] = 0.01,$ Design 5 Curve 1





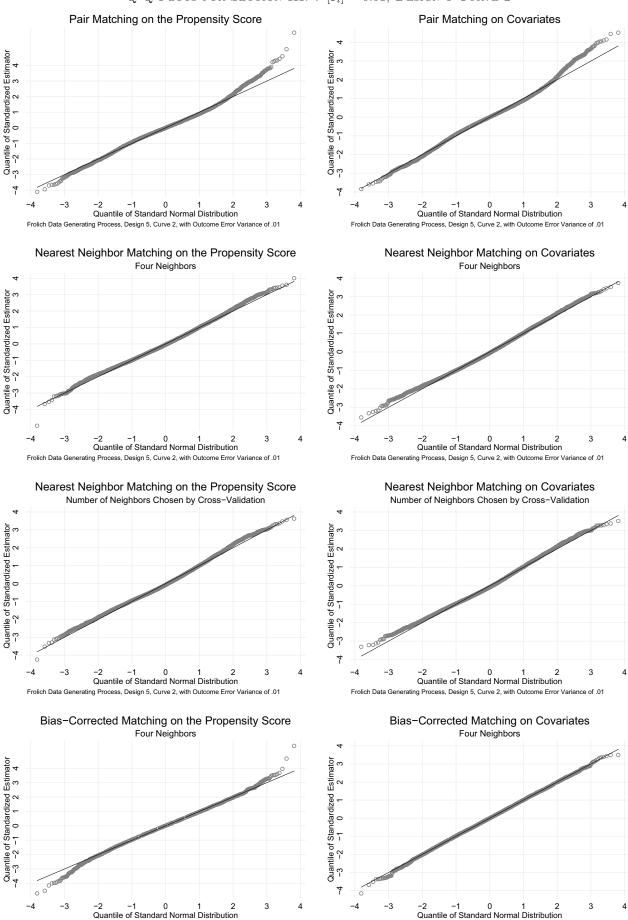
Frolich Data Generating Process, Design 5, Curve 1, with Outcome Error Variance of .01



Quantile of Standard Normal Distribution

Frolich Data Generating Process, Design 5, Curve 1, with Outcome Error Variance of .01

#### Q-Q Plots for Section III: $V[\varepsilon_i] = 0.01$ , Design 5 Curve 2

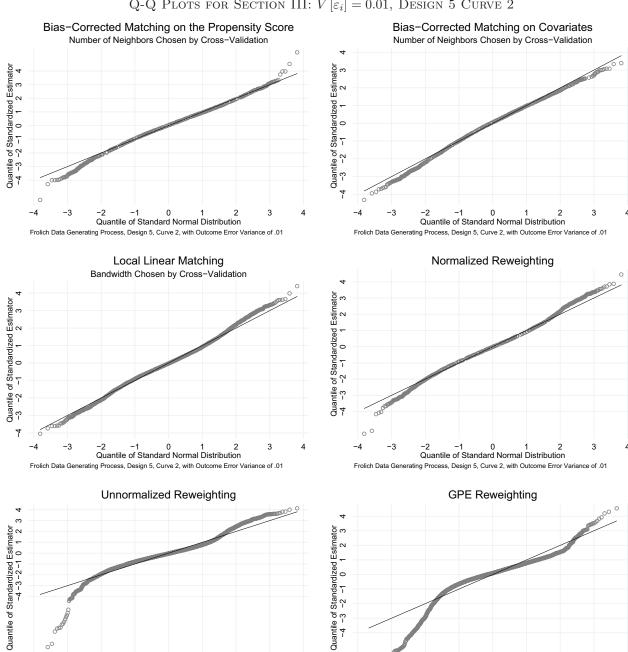


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Frolich Data Generating Process, Design 5, Curve 2, with Outcome Error Variance of .01

Frolich Data Generating Process, Design 5, Curve 2, with Outcome Error Variance of .01

# Q-Q Plots for Section III: $V\left[ {{arepsilon _i}} \right] = 0.01,$ Design 5 Curve 2



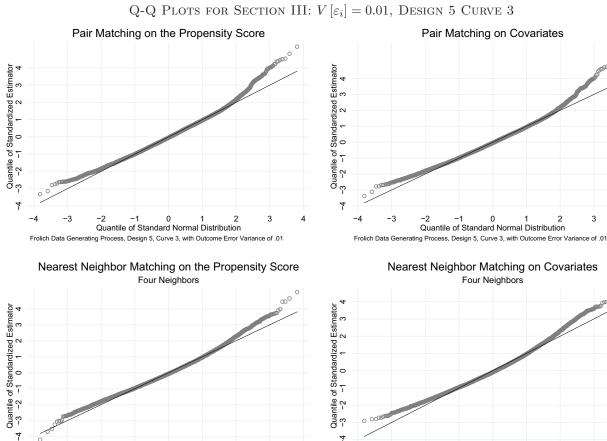
-2 -1 0 1 2 Quantile of Standard Normal Distribution

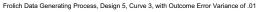
Frolich Data Generating Process, Design 5, Curve 2, with Outcome Error Variance of .01

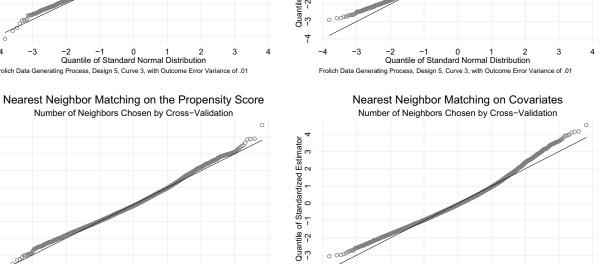
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-2 -1 0 1 2 Quantile of Standard Normal Distribution

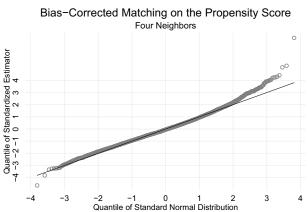
Frolich Data Generating Process, Design 5, Curve 2, with Outcome Error Variance of .01







Quantile of Standardized Estimator
-3 -2 -1 0 1 2 3 4 Quantile of Standard Normal Distribution Frolich Data Generating Process, Design 5, Curve 3, with Outcome Error Variance of .01



Frolich Data Generating Process, Design 5, Curve 3, with Outcome Error Variance of .01

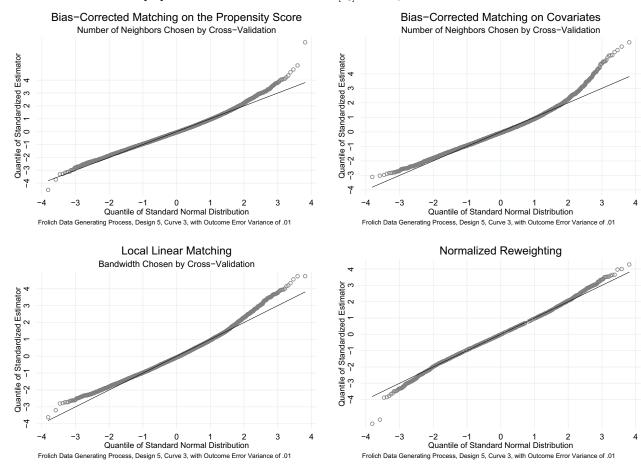
Four Neighbors Quantile of Standardized Estimator -3 -2 -1 0 1 2 3 4 Quantile of Standard Normal Distribution

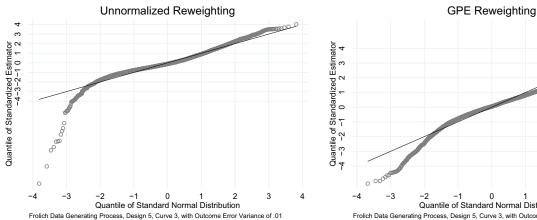
Quantile of Standard Normal Distribution Frolich Data Generating Process, Design 5, Curve 3, with Outcome Error Variance of .01

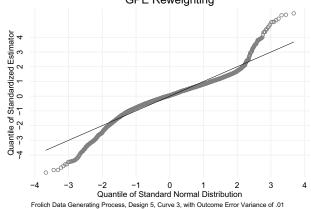
Bias-Corrected Matching on Covariates

Frolich Data Generating Process, Design 5, Curve 3, with Outcome Error Variance of .01

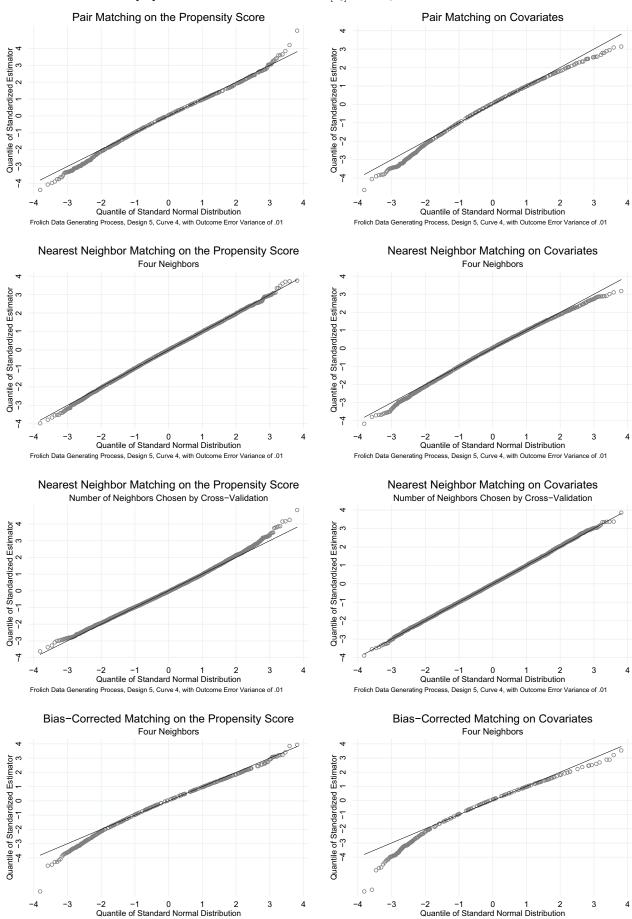
# Q-Q Plots for Section III: $V\left[ {{arepsilon _i}} \right] = 0.01,$ Design 5 Curve 3







#### Q-Q PLOTS FOR SECTION III: $V\left[\varepsilon_{i}\right]=0.01$ , DESIGN 5 CURVE 4

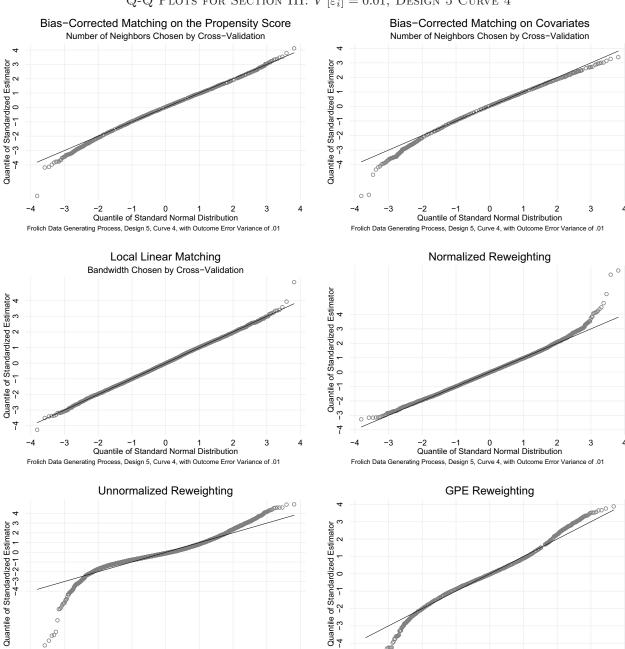


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Frolich Data Generating Process, Design 5, Curve 4, with Outcome Error Variance of .01

Frolich Data Generating Process, Design 5, Curve 4, with Outcome Error Variance of .01

# Q-Q Plots for Section III: $V\left[ {{arepsilon _i}} \right] = 0.01,$ Design 5 Curve 4



-2 -1 0 1 2 Quantile of Standard Normal Distribution

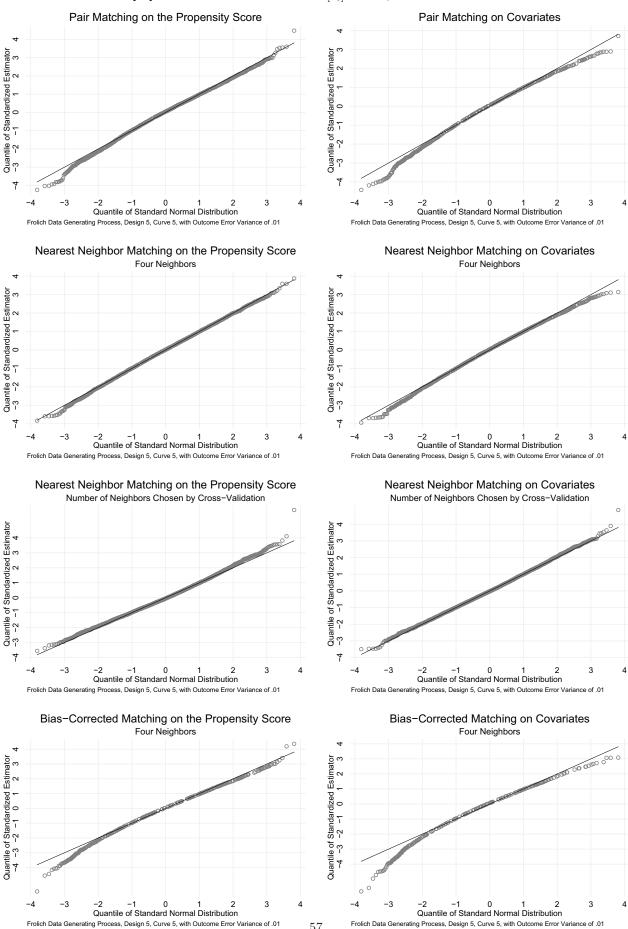
Frolich Data Generating Process, Design 5, Curve 4, with Outcome Error Variance of .01

0

-2 -1 0 1 2 Quantile of Standard Normal Distribution

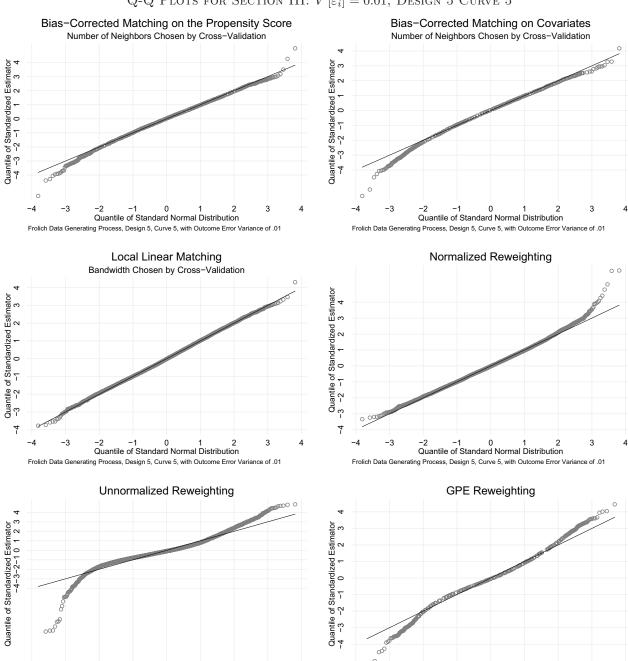
Frolich Data Generating Process, Design 5, Curve 4, with Outcome Error Variance of .01

#### Q-Q PLOTS FOR SECTION III: $V\left[\varepsilon_{i}\right]=0.01$ , DESIGN 5 CURVE 5



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# Q-Q Plots for Section III: $V\left[ {{arepsilon _i}} \right] = 0.01,$ Design 5 Curve 5



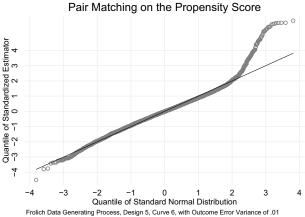
-2 -1 0 1 2 Quantile of Standard Normal Distribution

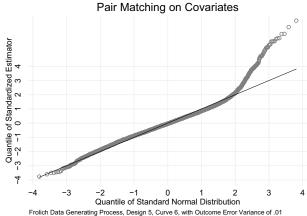
Frolich Data Generating Process, Design 5, Curve 5, with Outcome Error Variance of .01

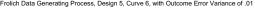
-2 -1 0 1 2 Quantile of Standard Normal Distribution

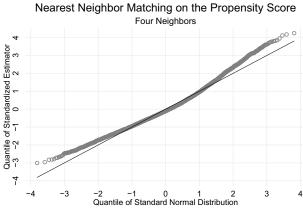
Frolich Data Generating Process, Design 5, Curve 5, with Outcome Error Variance of .01

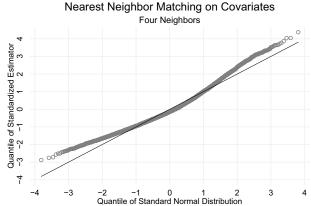
#### Q-Q PLOTS FOR SECTION III: $V[\varepsilon_i] = 0.01$ , DESIGN 5 CURVE 6





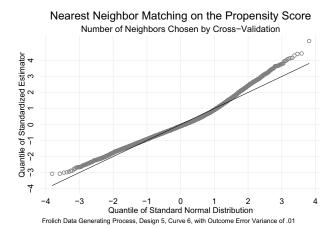


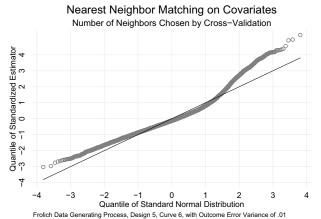




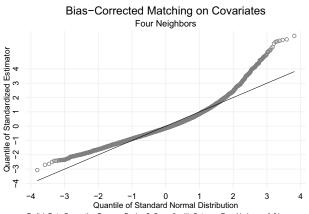
Frolich Data Generating Process, Design 5, Curve 6, with Outcome Error Variance of .01

Frolich Data Generating Process, Design 5, Curve 6, with Outcome Error Variance of .01



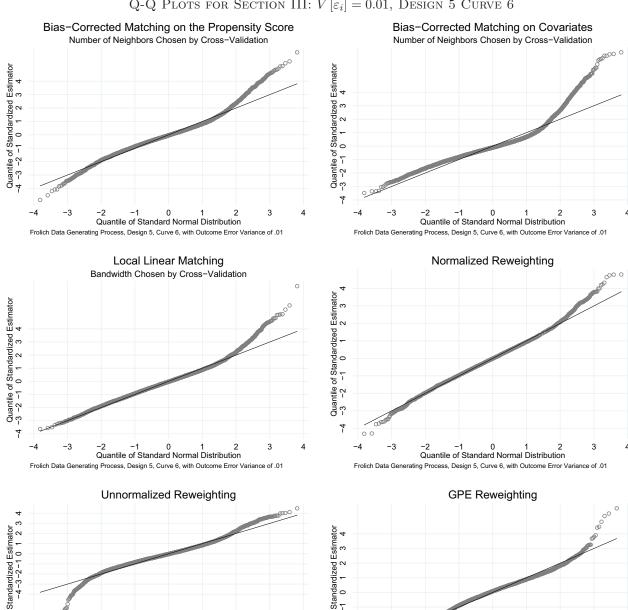


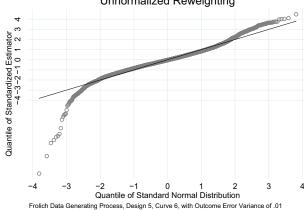
Bias-Corrected Matching on the Propensity Score Four Neighbors Quantile of Standardized Estimator  $-4 -3 -2 -1 \ 0 \ 1 \ 2 \ 3 \ 4$ 0 0 Quantile of Standard Normal Distribution Frolich Data Generating Process, Design 5, Curve 6, with Outcome Error Variance of .01

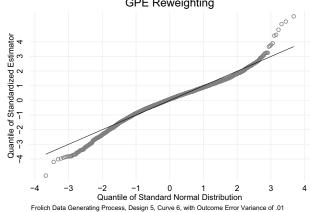


Frolich Data Generating Process, Design 5, Curve 6, with Outcome Error Variance of .01

# Q-Q Plots for Section III: $V\left[ {{arepsilon _i}} \right] = 0.01,$ Design 5 Curve 6

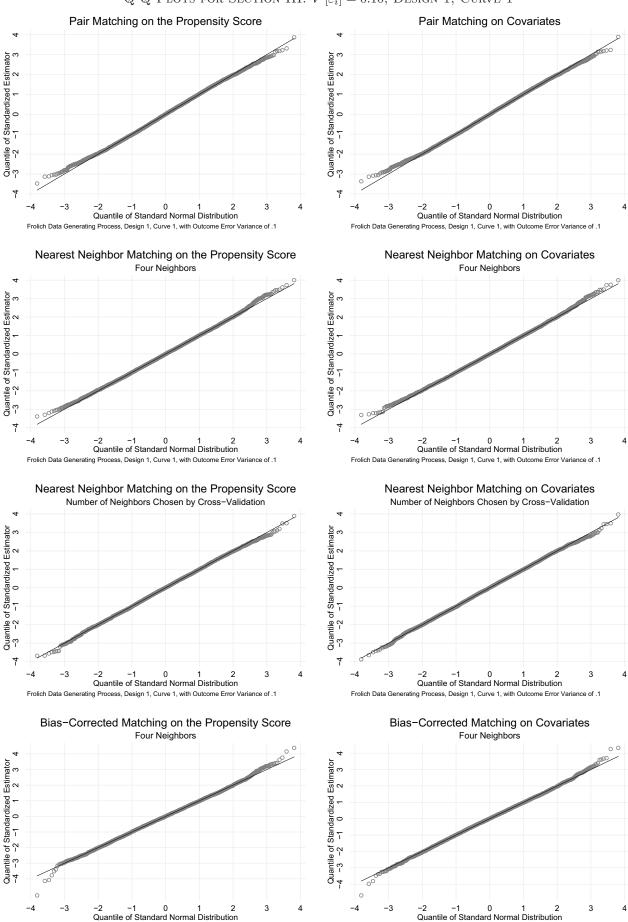






2 Q-Q Plots for Section III: Frölich DGP with  $\mathbb{V}[\varepsilon_i] = 0.10$ 

#### Q-Q Plots for Section III: $V[\varepsilon_i] = 0.10$ , Design 1, Curve 1

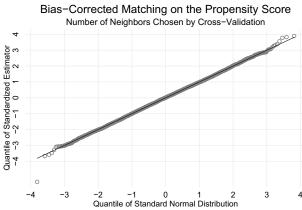


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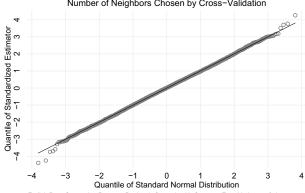
Frolich Data Generating Process, Design 1, Curve 1, with Outcome Error Variance of .1

Frolich Data Generating Process, Design 1, Curve 1, with Outcome Error Variance of .1

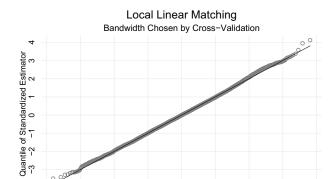
# Q-Q Plots for Section III: $V\left[ {{arepsilon _i}} \right] = 0.10,$ Design 1, Curve 1



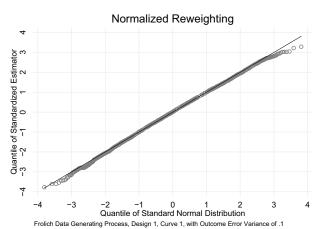
# Bias-Corrected Matching on Covariates Number of Neighbors Chosen by Cross-Validation

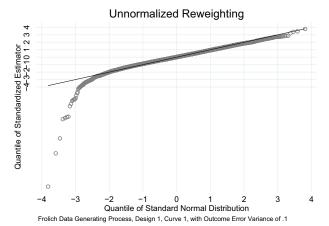


Frolich Data Generating Process, Design 1, Curve 1, with Outcome Error Variance of .1



Frolich Data Generating Process, Design 1, Curve 1, with Outcome Error Variance of .1



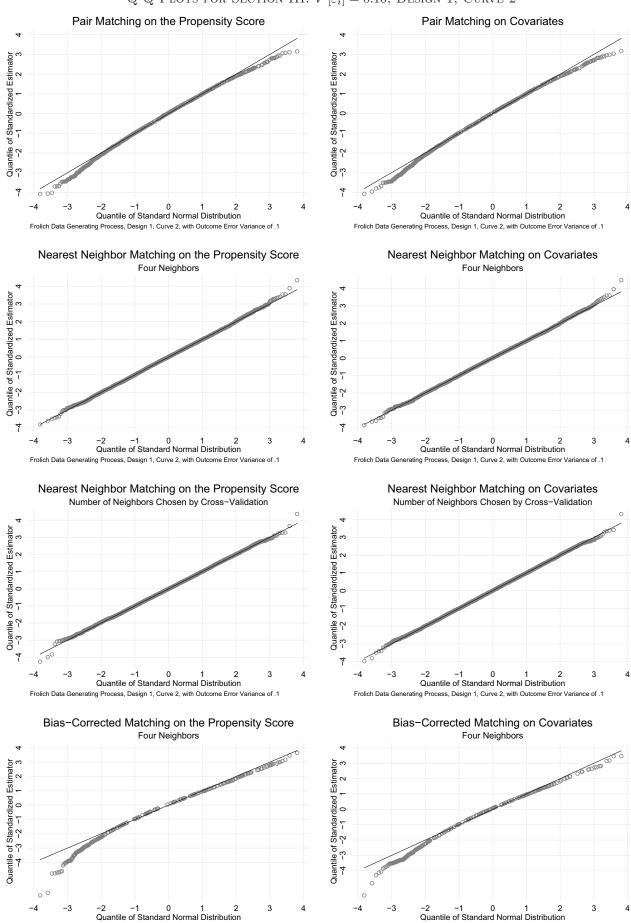


GPE Reweighting

GPE Reweighting

Total Company of the Company of

#### Q-Q Plots for Section III: $V\left[\varepsilon_{i}\right]=0.10,$ Design 1, Curve 2

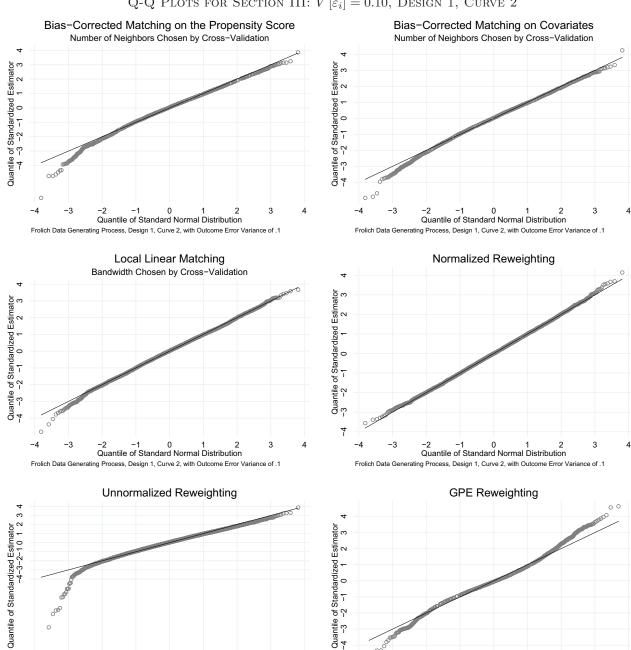


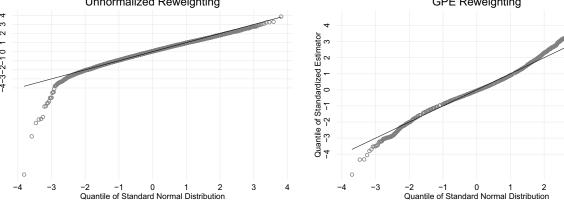
64

Frolich Data Generating Process, Design 1, Curve 2, with Outcome Error Variance of .1

Frolich Data Generating Process, Design 1, Curve 2, with Outcome Error Variance of .1

# Q-Q Plots for Section III: $V\left[ {{arepsilon _i}} \right] = 0.10,$ Design 1, Curve 2

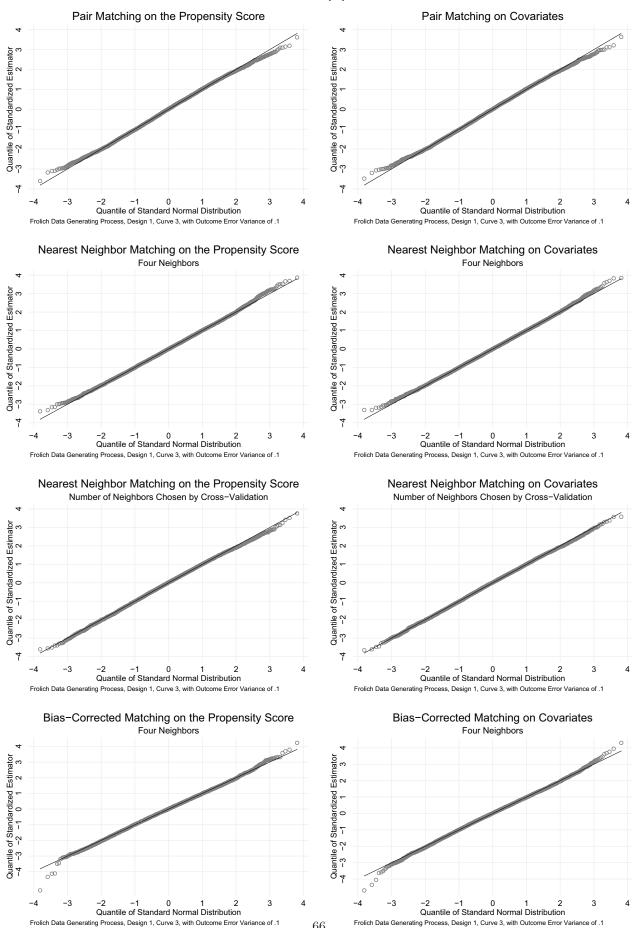




Frolich Data Generating Process, Design 1, Curve 2, with Outcome Error Variance of .1

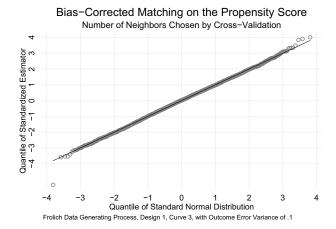
Frolich Data Generating Process, Design 1, Curve 2, with Outcome Error Variance of .1

#### Q-Q Plots for Section III: $V\left[\varepsilon_{i}\right]=0.10,$ Design 1, Curve 3



66

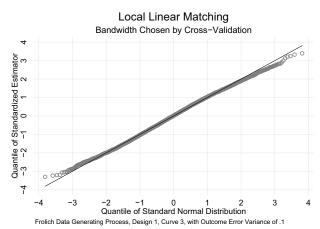
# Q-Q Plots for Section III: $V\left[ {{arepsilon _i}} \right] = 0.10,$ Design 1, Curve 3

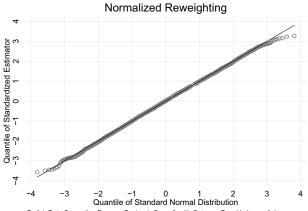


# Number of Neighbors Chosen by Cross-Validation Quantile of Standardized Estimator -4 -3 -2 -1 0 1 2 3

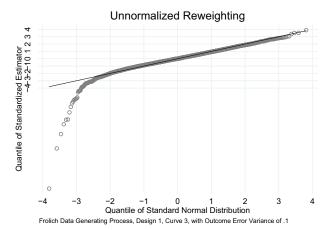
Bias-Corrected Matching on Covariates

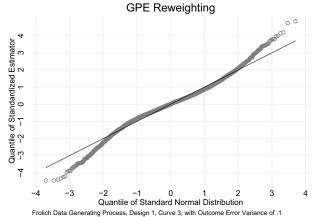
-2 -1 0 1 2 Quantile of Standard Normal Distribution Frolich Data Generating Process, Design 1, Curve 3, with Outcome Error Variance of .1



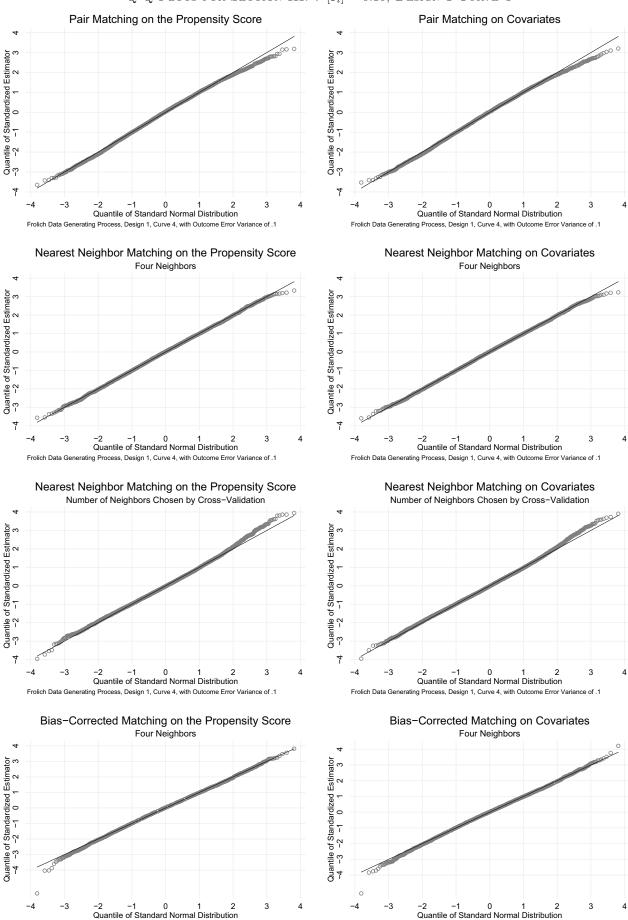


Frolich Data Generating Process, Design 1, Curve 3, with Outcome Error Variance of .1





#### Q-Q Plots for Section III: $V[\varepsilon_i] = 0.10$ , Design 1 Curve 4

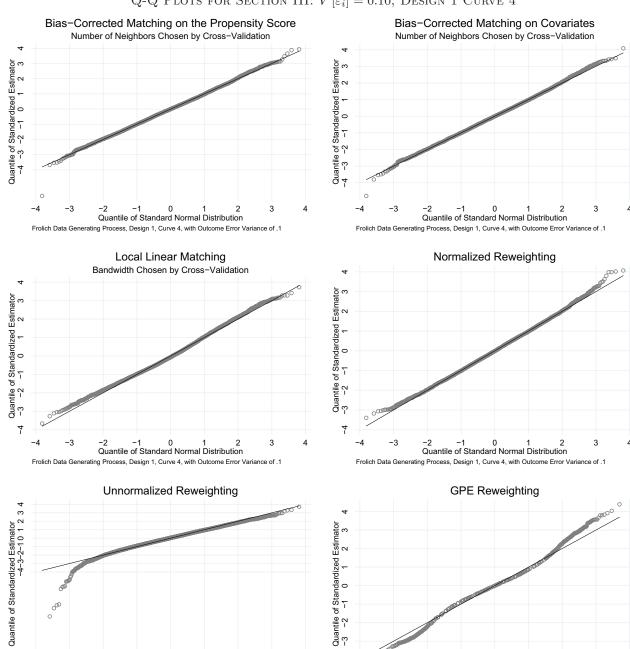


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Frolich Data Generating Process, Design 1, Curve 4, with Outcome Error Variance of .1

Frolich Data Generating Process, Design 1, Curve 4, with Outcome Error Variance of .1

# Q-Q Plots for Section III: $V\left[ {{arepsilon _i}} \right] = 0.10,$ Design 1 Curve 4

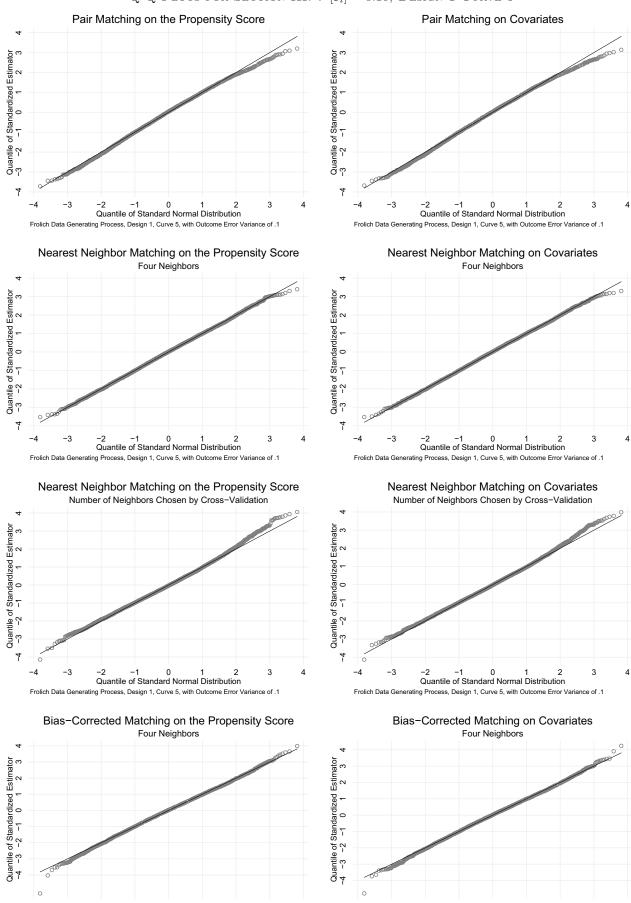


-4 -3 -2 -1 0 1 2 3 Quantile of Standard Normal Distribution Frolich Data Generating Process, Design 1, Curve 4, with Outcome Error Variance of .1

-2 -1 0 1 2 Quantile of Standard Normal Distribution

Frolich Data Generating Process, Design 1, Curve 4, with Outcome Error Variance of .1

#### Q-Q Plots for Section III: $V[\varepsilon_i] = 0.10$ , Design 1 Curve 5



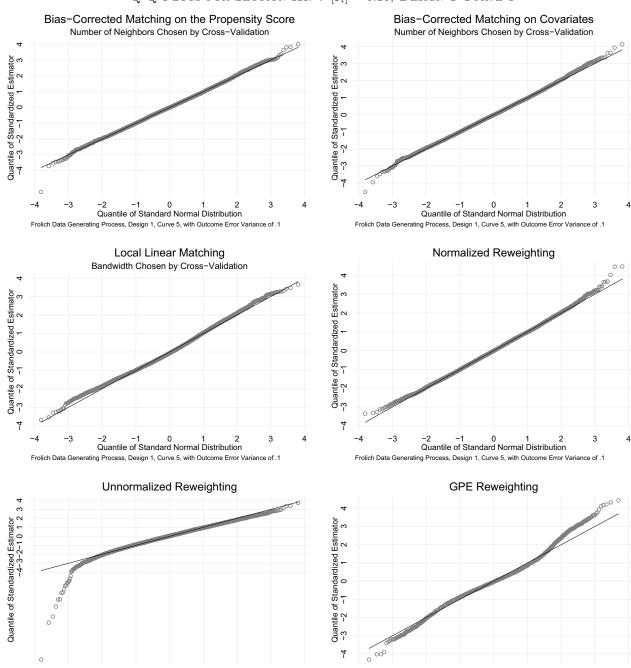
Quantile of Standard Normal Distribution

Frolich Data Generating Process, Design 1, Curve 5, with Outcome Error Variance of .1

Quantile of Standard Normal Distribution

Frolich Data Generating Process, Design 1, Curve 5, with Outcome Error Variance of .1

# Q-Q Plots for Section III: $V\left[ {{arepsilon _i}} \right] = 0.10,$ Design 1 Curve 5



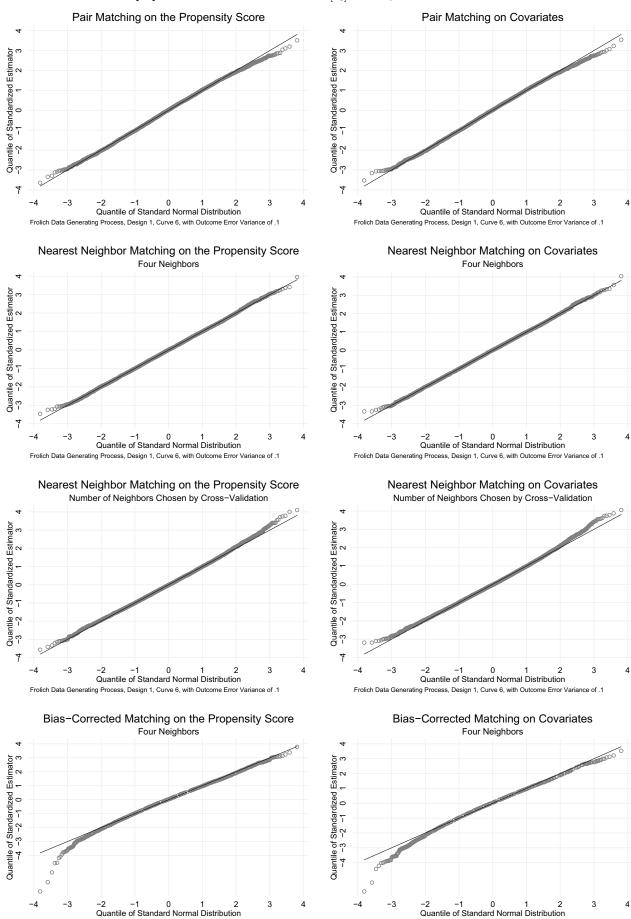
-2 -1 0 1 2 Quantile of Standard Normal Distribution

Frolich Data Generating Process, Design 1, Curve 5, with Outcome Error Variance of .1

-2 -1 0 1 2 Quantile of Standard Normal Distribution

Frolich Data Generating Process, Design 1, Curve 5, with Outcome Error Variance of .1

#### Q-Q Plots for Section III: $V[\varepsilon_i] = 0.10$ , Design 1 Curve 6

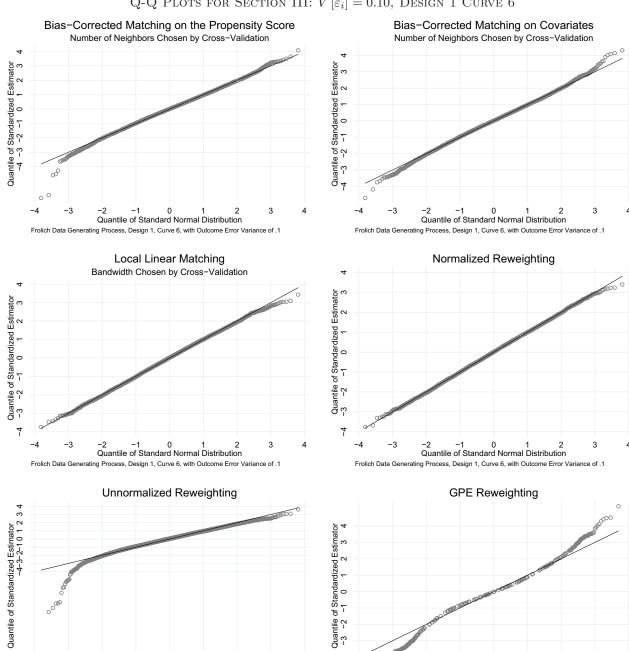


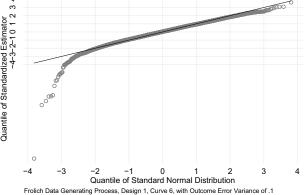
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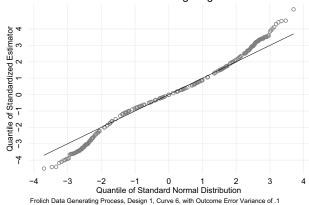
Frolich Data Generating Process, Design 1, Curve 6, with Outcome Error Variance of .1

Frolich Data Generating Process, Design 1, Curve 6, with Outcome Error Variance of .1

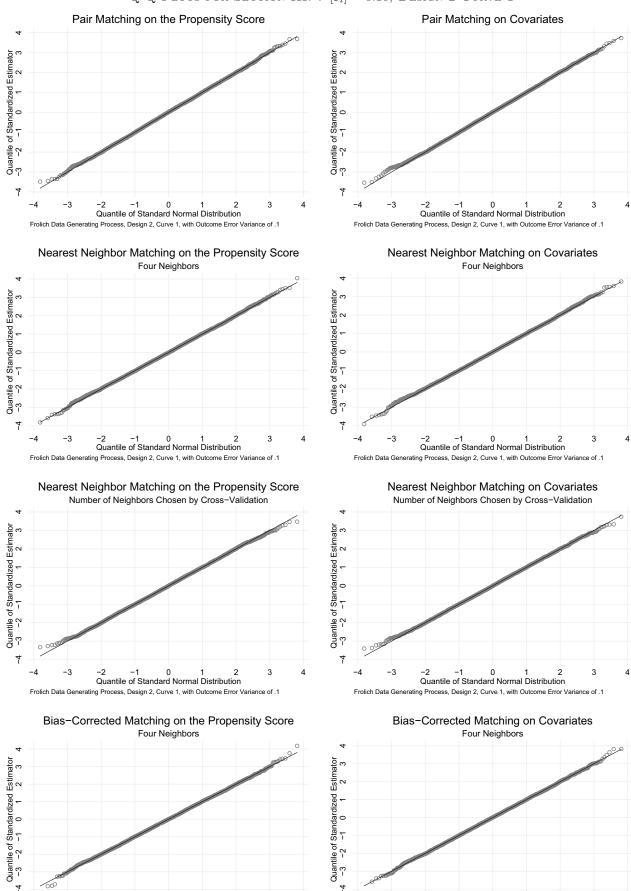
# Q-Q Plots for Section III: $V\left[ {{arepsilon _i}} \right] = 0.10,$ Design 1 Curve 6







### Q-Q Plots for Section III: $V[\varepsilon_i] = 0.10$ , Design 2 Curve 1



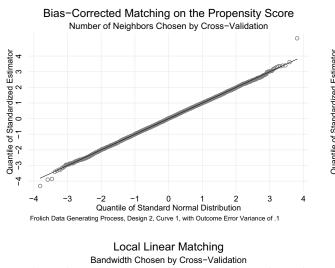
Quantile of Standard Normal Distribution

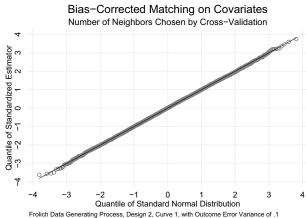
Frolich Data Generating Process, Design 2, Curve 1, with Outcome Error Variance of .1

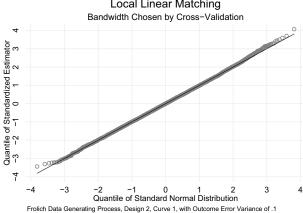
Quantile of Standard Normal Distribution

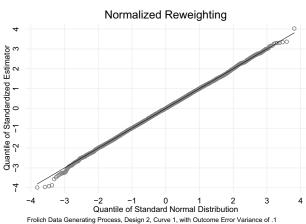
Frolich Data Generating Process, Design 2, Curve 1, with Outcome Error Variance of .1

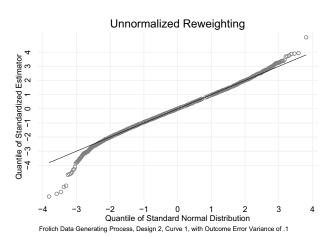
# Q-Q Plots for Section III: $V\left[ {{arepsilon _i}} \right] = 0.10,$ Design 2 Curve 1

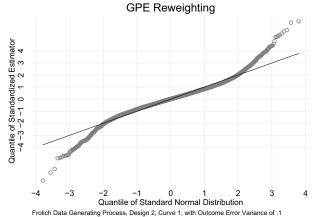




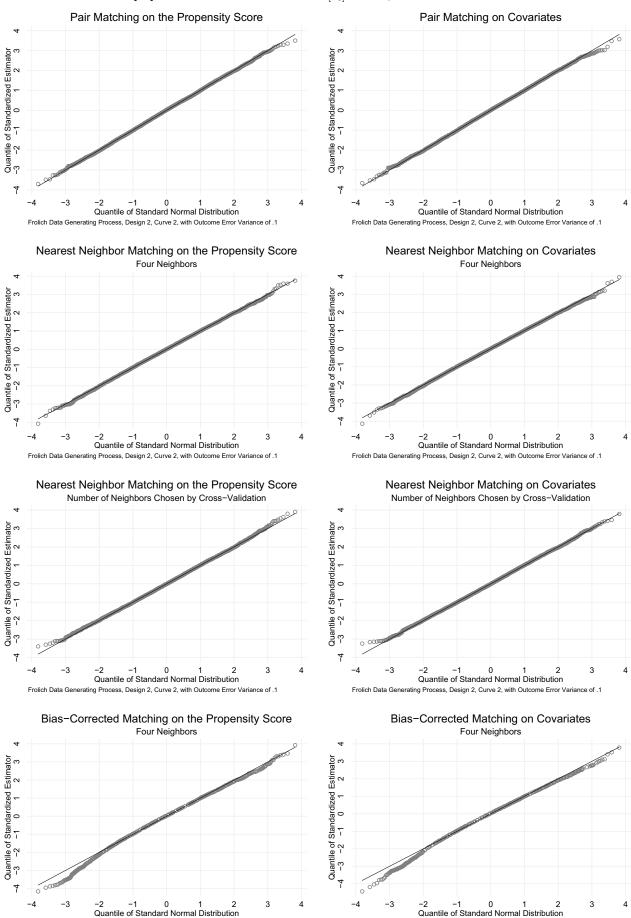








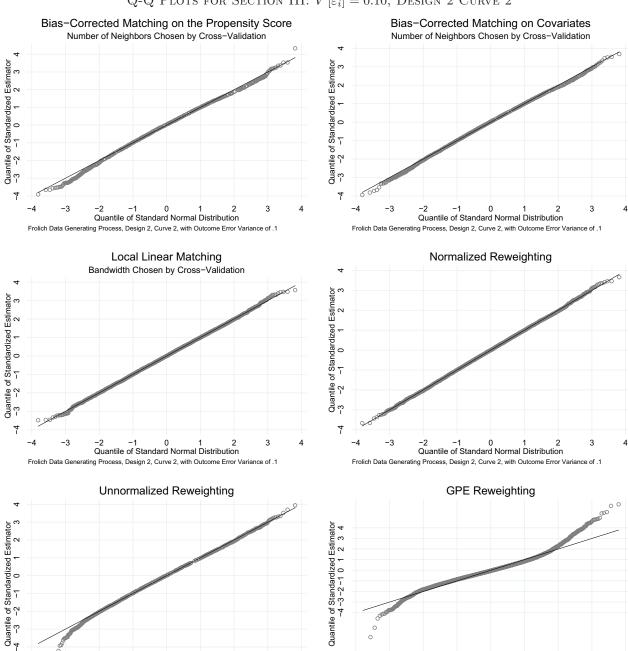
### Q-Q Plots for Section III: $V[\varepsilon_i] = 0.10$ , Design 2 Curve 2



Frolich Data Generating Process, Design 2, Curve 2, with Outcome Error Variance of .1

Frolich Data Generating Process, Design 2, Curve 2, with Outcome Error Variance of .1

# Q-Q Plots for Section III: $V\left[ {{arepsilon _i}} \right] = 0.10,$ Design 2 Curve 2

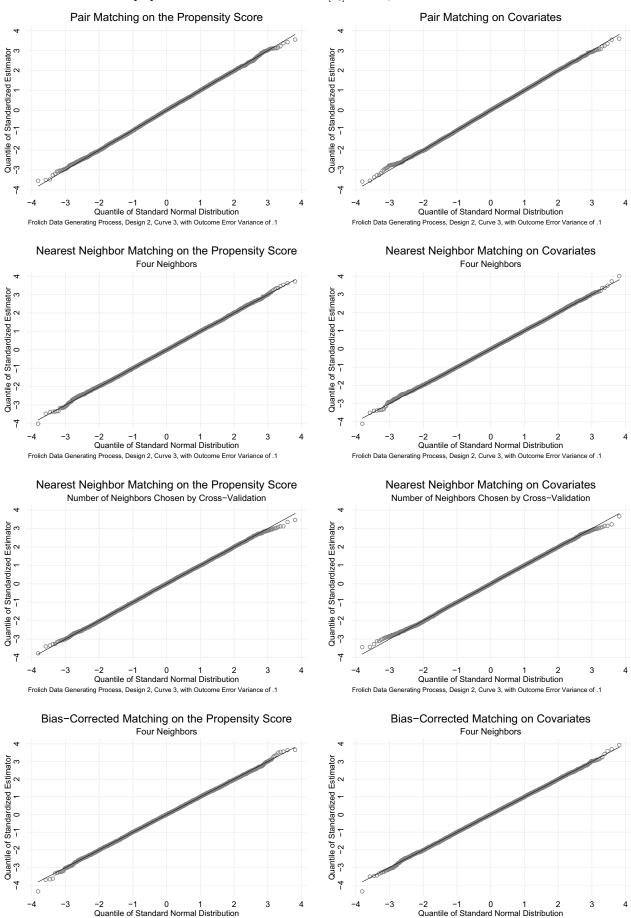


-4 -3 -2 -1 0 1 2 3 Quantile of Standard Normal Distribution Frolich Data Generating Process, Design 2, Curve 2, with Outcome Error Variance of .1

-2 -1 0 1 2 Quantile of Standard Normal Distribution

Frolich Data Generating Process, Design 2, Curve 2, with Outcome Error Variance of .1

### Q-Q Plots for Section III: $V[\varepsilon_i] = 0.10$ , Design 2 Curve 3

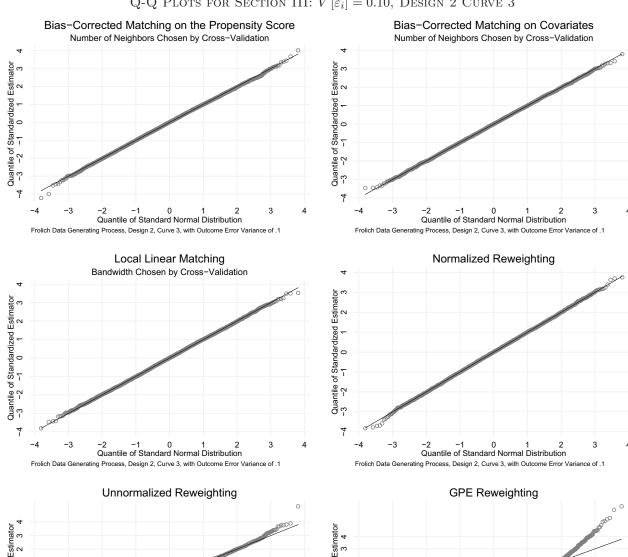


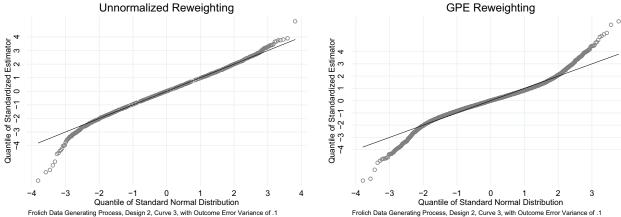
78

Frolich Data Generating Process, Design 2, Curve 3, with Outcome Error Variance of .1

Frolich Data Generating Process, Design 2, Curve 3, with Outcome Error Variance of .1

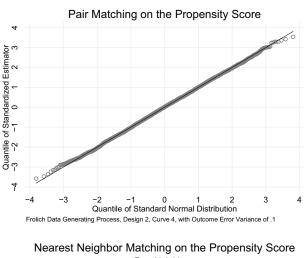
# Q-Q Plots for Section III: $V\left[ {{arepsilon _i}} \right] = 0.10,$ Design 2 Curve 3

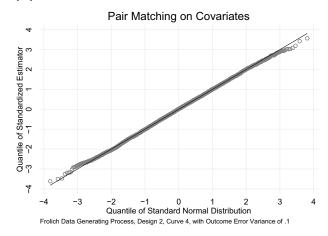




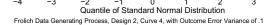
Frolich Data Generating Process, Design 2, Curve 3, with Outcome Error Variance of .1

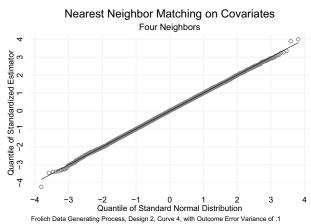
### Q-Q Plots for Section III: $V\left[\varepsilon_{i}\right]=0.10$ , Design 2 Curve 4

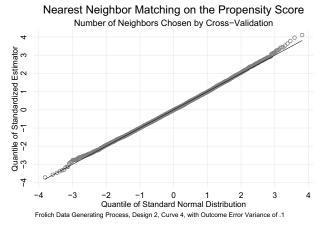


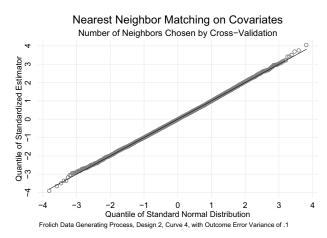


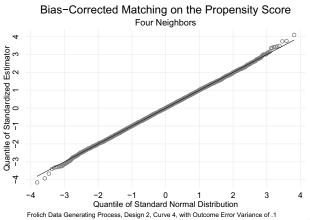


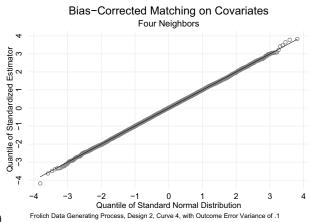




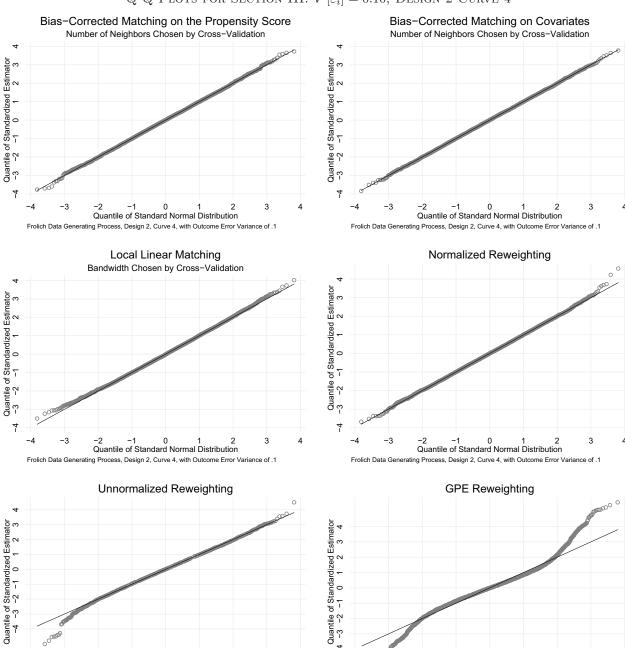








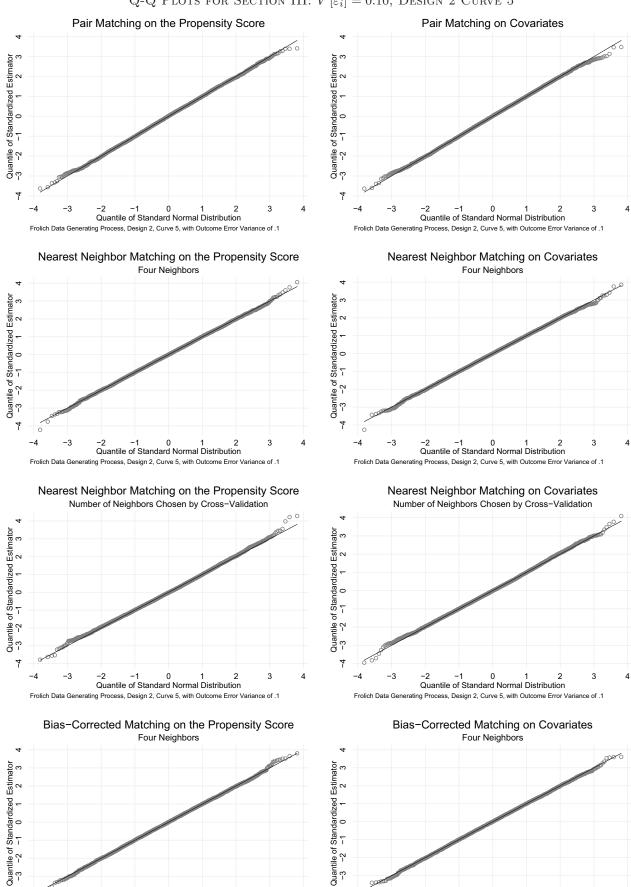
# Q-Q Plots for Section III: $V\left[ {{arepsilon _i}} \right] = 0.10,$ Design 2 Curve 4



-2 -1 0 1 2 Quantile of Standard Normal Distribution

Frolich Data Generating Process, Design 2, Curve 4, with Outcome Error Variance of .1

### Q-Q Plots for Section III: $V\left[\varepsilon_{i}\right]=0.10$ , Design 2 Curve 5



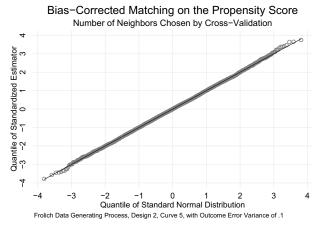
Quantile of Standard Normal Distribution

Frolich Data Generating Process, Design 2, Curve 5, with Outcome Error Variance of .1

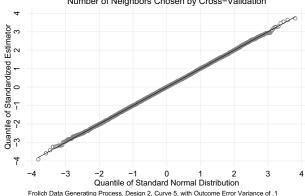
Quantile of Standard Normal Distribution

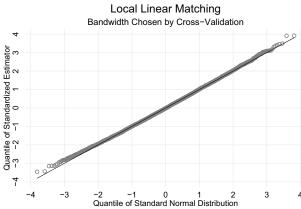
Frolich Data Generating Process, Design 2, Curve 5, with Outcome Error Variance of .1

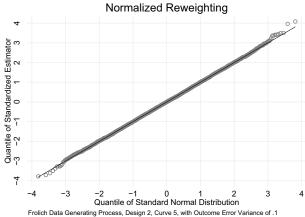
# Q-Q Plots for Section III: $V\left[ {{arepsilon _i}} \right] = 0.10,$ Design 2 Curve 5



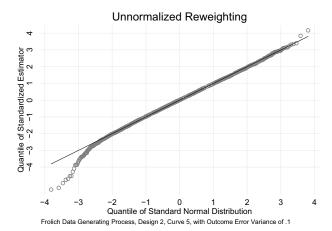
#### Bias-Corrected Matching on Covariates Number of Neighbors Chosen by Cross-Validation





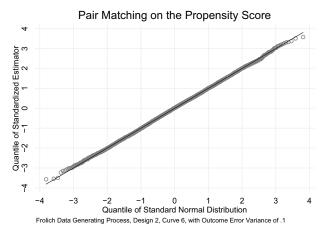


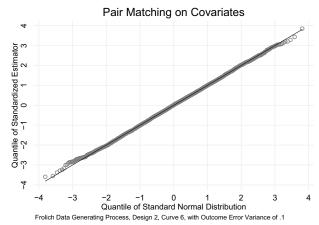
Frolich Data Generating Process, Design 2, Curve 5, with Outcome Error Variance of .1  $\,$ 



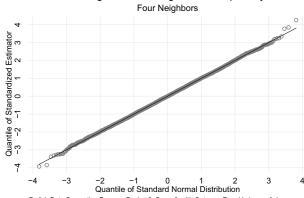
Frolich Data Generating Process, Design 2, Curve 5, with Outcome Error Variance of .1

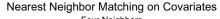
### Q-Q Plots for Section III: $V[\varepsilon_i] = 0.10$ , Design 2 Curve 6

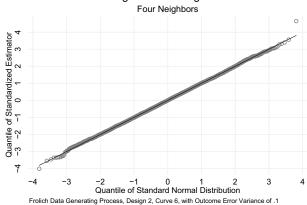




Nearest Neighbor Matching on the Propensity Score

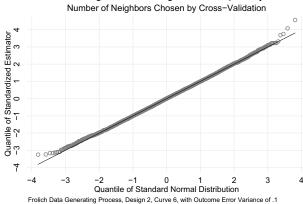


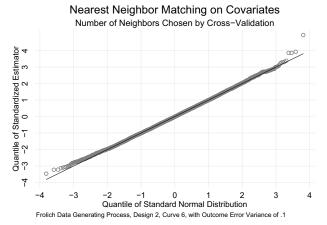




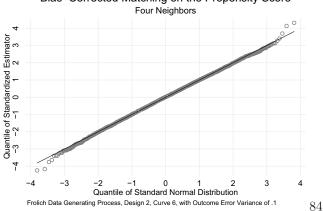
Frolich Data Generating Process, Design 2, Curve 6, with Outcome Error Variance of .1



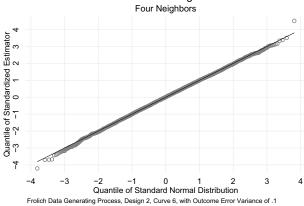




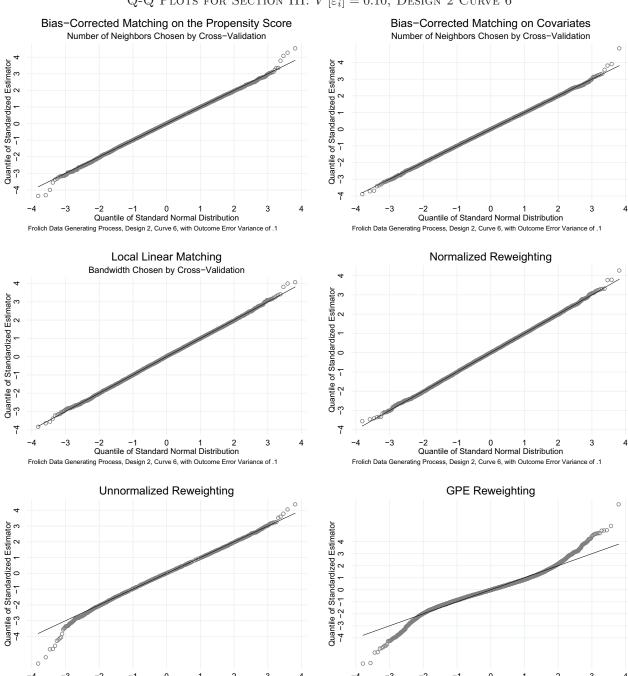
Bias-Corrected Matching on the Propensity Score



# Bias-Corrected Matching on Covariates



# Q-Q Plots for Section III: $V\left[ {{arepsilon _i}} \right] = 0.10,$ Design 2 Curve 6

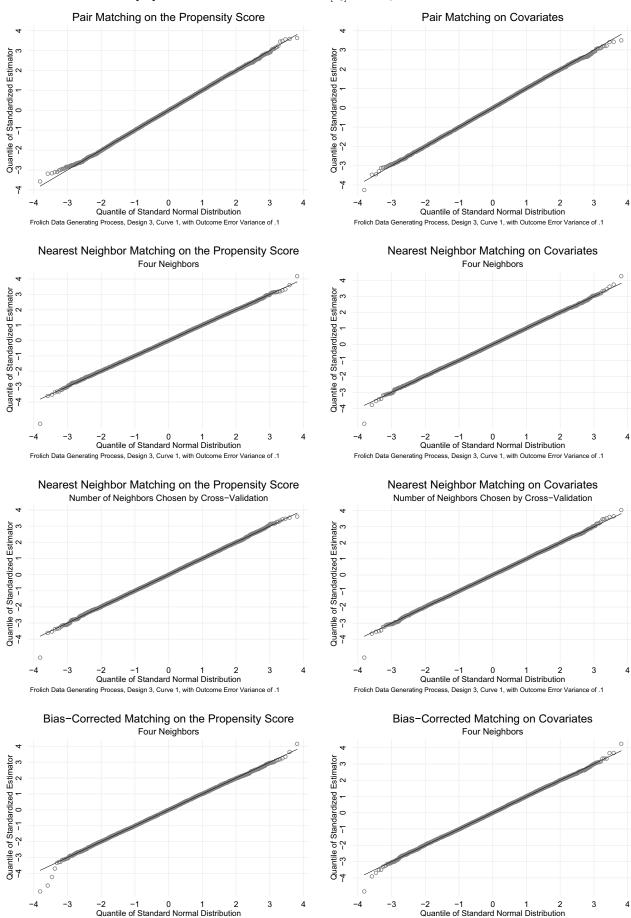


-4 -3 -2 -1 0 1 2 3 Quantile of Standard Normal Distribution Frolich Data Generating Process, Design 2, Curve 6, with Outcome Error Variance of .1

-2 -1 0 1 2 Quantile of Standard Normal Distribution

Frolich Data Generating Process, Design 2, Curve 6, with Outcome Error Variance of .1

### Q-Q Plots for Section III: $V\left[\varepsilon_{i}\right]=0.10$ , Design 3 Curve 1

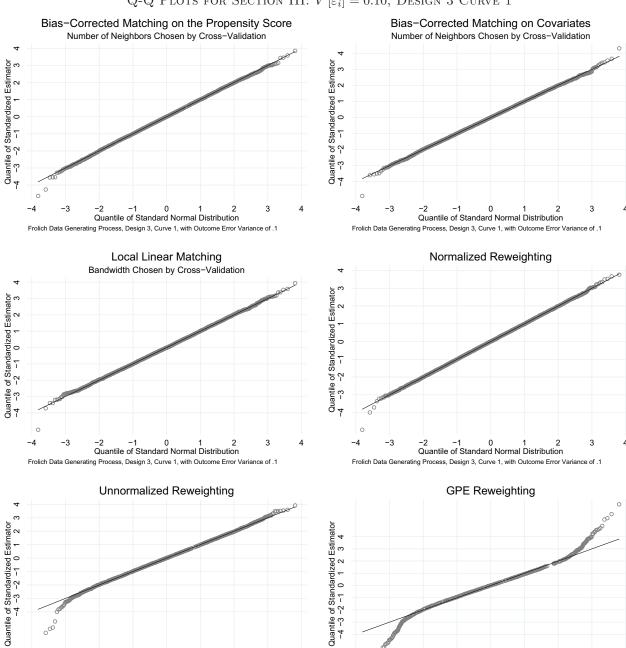


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Frolich Data Generating Process, Design 3, Curve 1, with Outcome Error Variance of .1

Frolich Data Generating Process, Design 3, Curve 1, with Outcome Error Variance of .1

# Q-Q Plots for Section III: $V\left[ {{arepsilon _i}} \right] = 0.10,$ Design 3 Curve 1



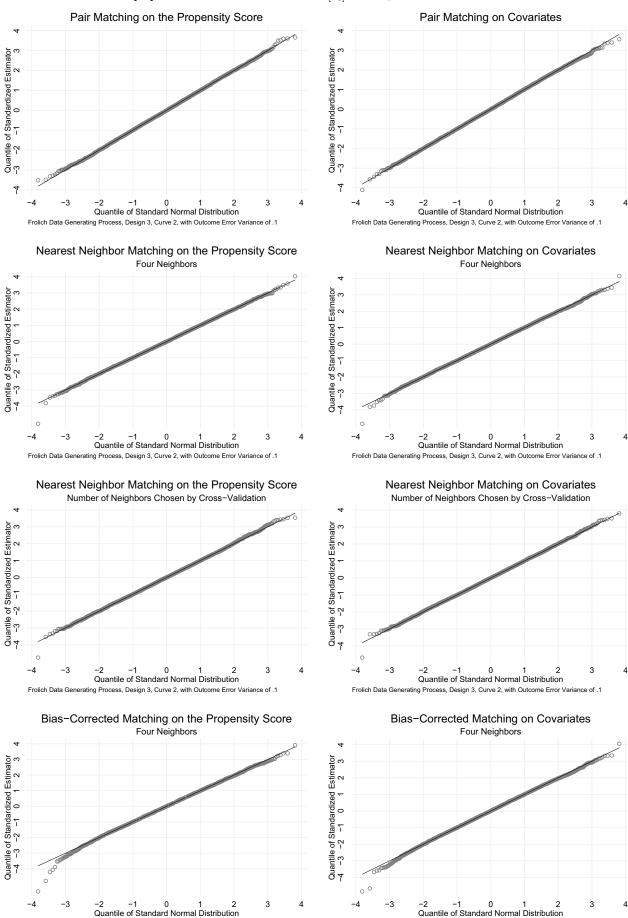
-2 -1 0 1 2 Quantile of Standard Normal Distribution

Frolich Data Generating Process, Design 3, Curve 1, with Outcome Error Variance of .1

-2 -1 0 1 2 Quantile of Standard Normal Distribution

Frolich Data Generating Process, Design 3, Curve 1, with Outcome Error Variance of .1

### Q-Q Plots for Section III: $V[\varepsilon_i] = 0.10$ , Design 3 Curve 2

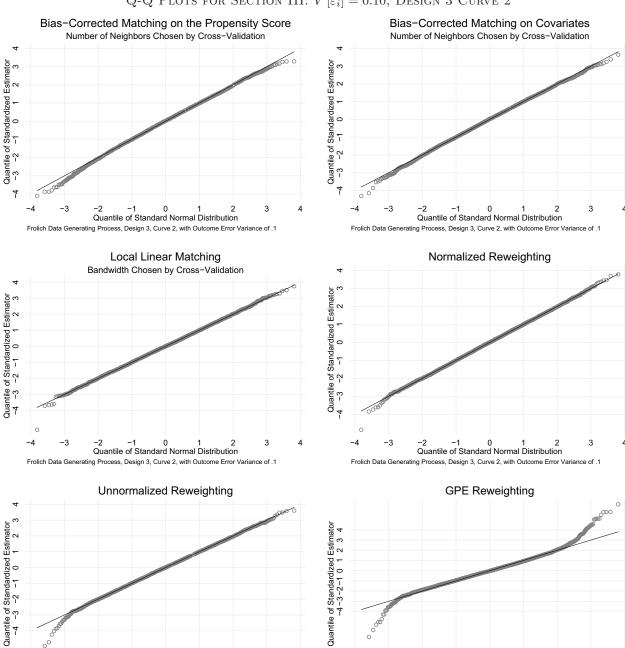


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Frolich Data Generating Process, Design 3, Curve 2, with Outcome Error Variance of .1

Frolich Data Generating Process, Design 3, Curve 2, with Outcome Error Variance of .1

# Q-Q Plots for Section III: $V\left[ {{arepsilon _i}} \right] = 0.10,$ Design 3 Curve 2

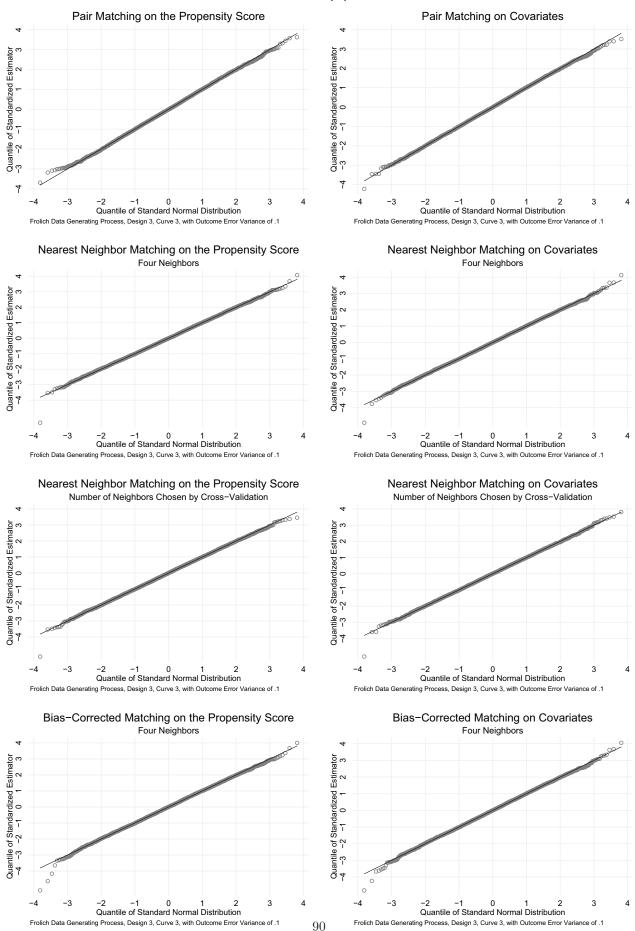


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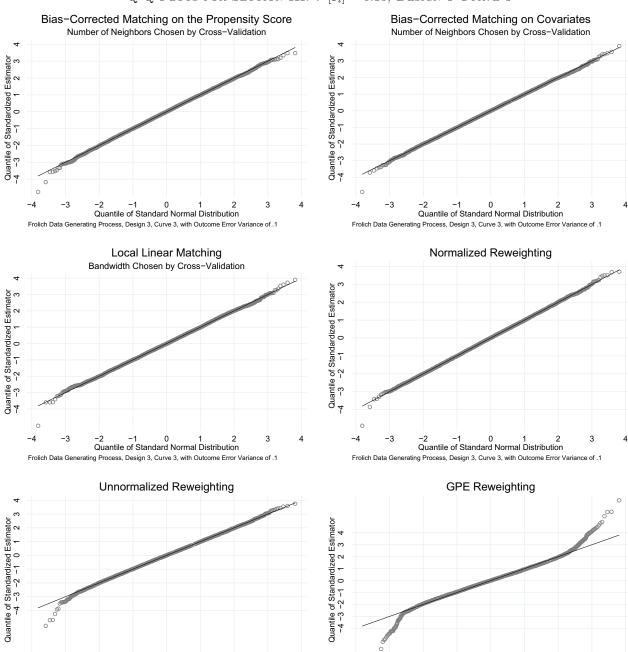
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Frolich Data Generating Process, Design 3, Curve 2, with Outcome Error Variance of .1

### Q-Q Plots for Section III: $V[\varepsilon_i] = 0.10$ , Design 3 Curve 3



# Q-Q Plots for Section III: $V\left[ {{arepsilon _i}} \right] = 0.10,$ Design 3 Curve 3

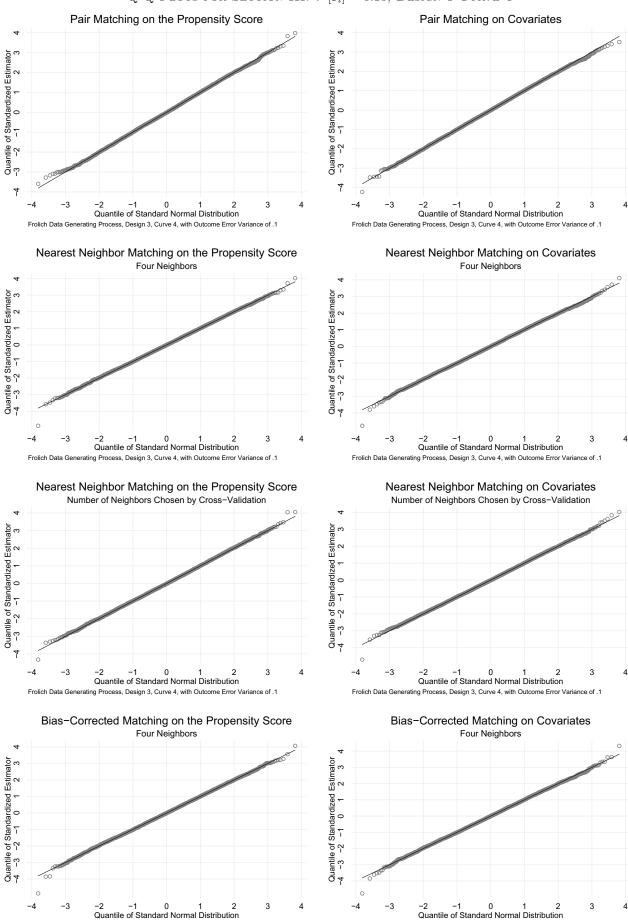


-4 -3 -2 -1 0 1 2 3 Quantile of Standard Normal Distribution Frolich Data Generating Process, Design 3, Curve 3, with Outcome Error Variance of .1

-2 -1 0 1 2 Quantile of Standard Normal Distribution

Frolich Data Generating Process, Design 3, Curve 3, with Outcome Error Variance of .1

### Q-Q Plots for Section III: $V\left[\varepsilon_{i}\right]=0.10$ , Design 3 Curve 4

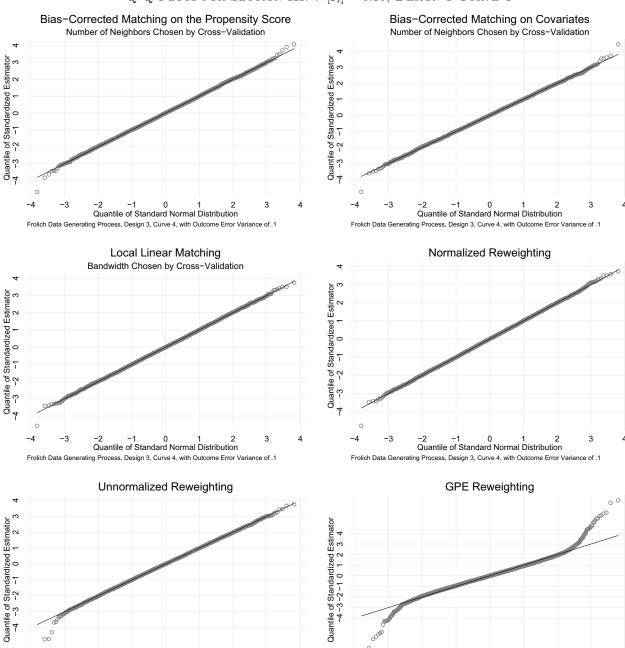


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Frolich Data Generating Process, Design 3, Curve 4, with Outcome Error Variance of .1

Frolich Data Generating Process, Design 3, Curve 4, with Outcome Error Variance of .1

# Q-Q Plots for Section III: $V\left[ {{arepsilon _i}} \right] = 0.10,$ Design 3 Curve 4

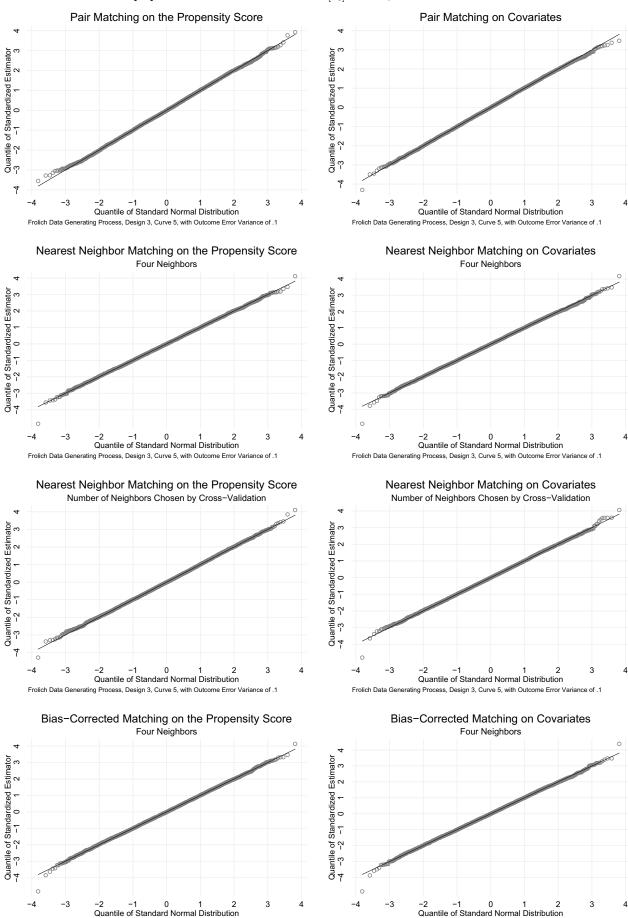


-4 -3 -2 -1 0 1 2 3 Quantile of Standard Normal Distribution Frolich Data Generating Process, Design 3, Curve 4, with Outcome Error Variance of .1

-2 -1 0 1 2 Quantile of Standard Normal Distribution

Frolich Data Generating Process, Design 3, Curve 4, with Outcome Error Variance of .1

### Q-Q Plots for Section III: $V\left[\varepsilon_{i}\right]=0.10$ , Design 3 Curve 5

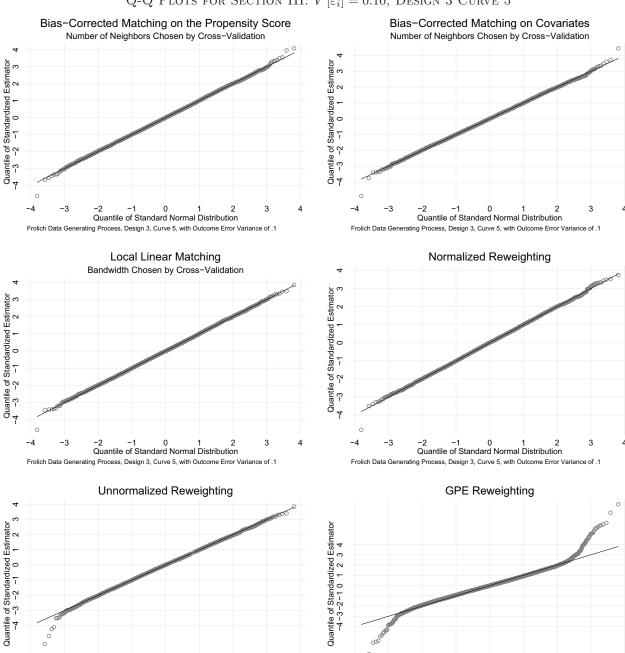


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Frolich Data Generating Process, Design 3, Curve 5, with Outcome Error Variance of .1

Frolich Data Generating Process, Design 3, Curve 5, with Outcome Error Variance of .1

# Q-Q Plots for Section III: $V\left[ {{arepsilon _i}} \right] = 0.10,$ Design 3 Curve 5

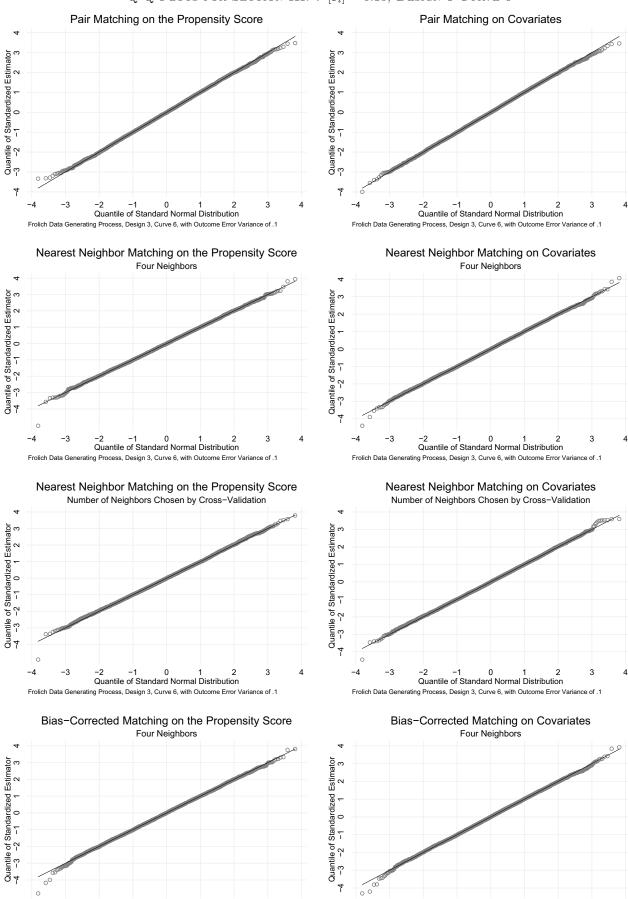


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-2 -1 0 1 2 Quantile of Standard Normal Distribution

Frolich Data Generating Process, Design 3, Curve 5, with Outcome Error Variance of .1

### Q-Q Plots for Section III: $V[\varepsilon_i] = 0.10$ , Design 3 Curve 6



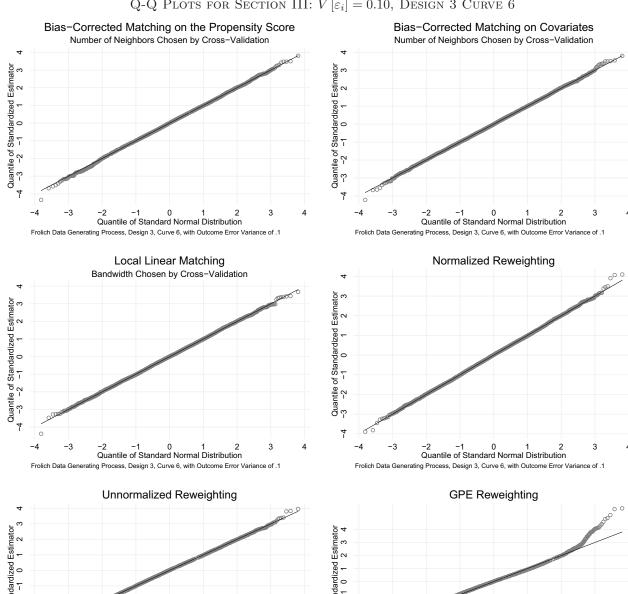
Quantile of Standard Normal Distribution

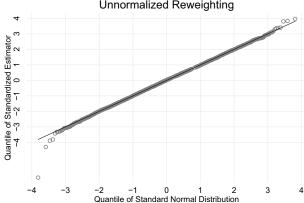
Frolich Data Generating Process, Design 3, Curve 6, with Outcome Error Variance of .1

Quantile of Standard Normal Distribution

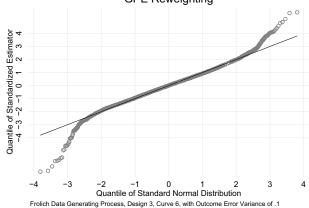
Frolich Data Generating Process, Design 3, Curve 6, with Outcome Error Variance of .1

# Q-Q Plots for Section III: $V\left[ {{arepsilon _i}} \right] = 0.10,$ Design 3 Curve 6

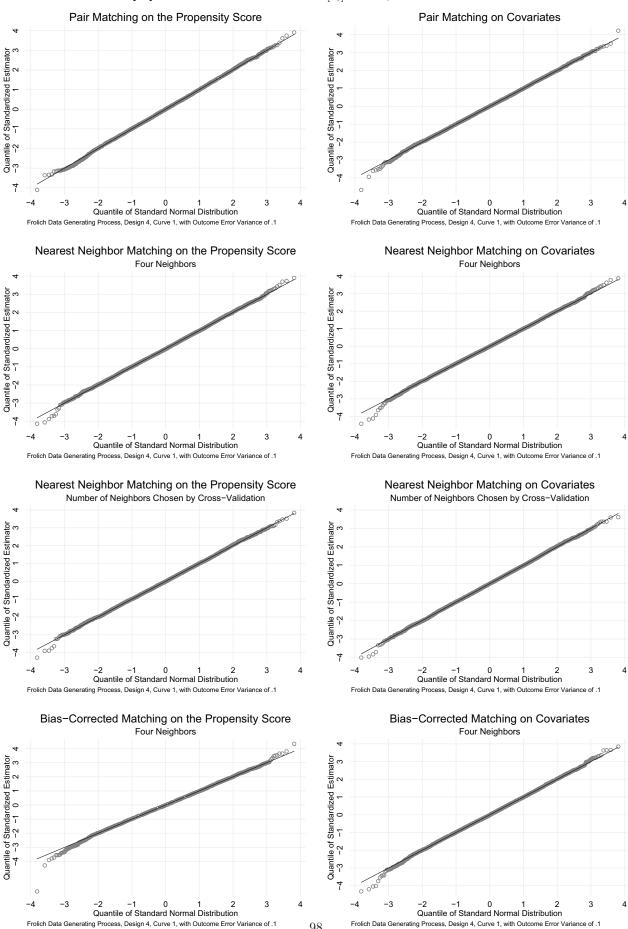




Frolich Data Generating Process, Design 3, Curve 6, with Outcome Error Variance of .1

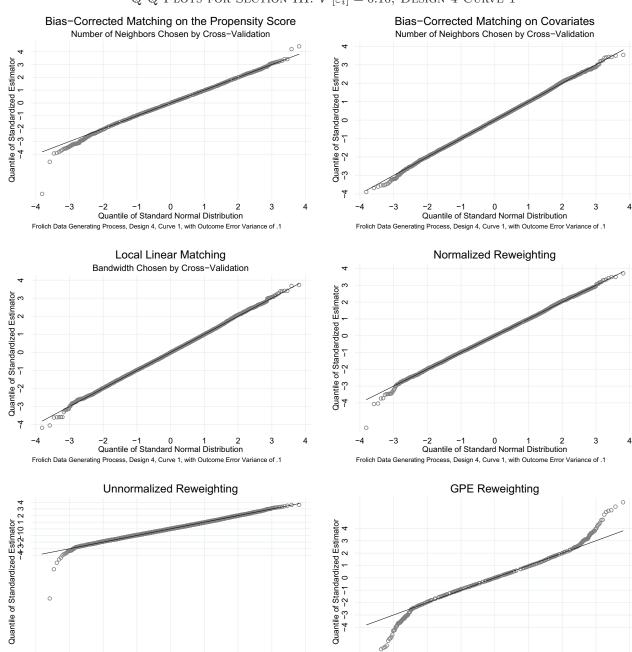


### Q-Q PLOTS FOR SECTION III: $V\left[\varepsilon_{i}\right]=0.10$ , DESIGN 4 CURVE 1



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# Q-Q Plots for Section III: $V\left[ {{arepsilon _i}} \right] = 0.10,$ Design 4 Curve 1



-2 -1 0 1 2 Quantile of Standard Normal Distribution

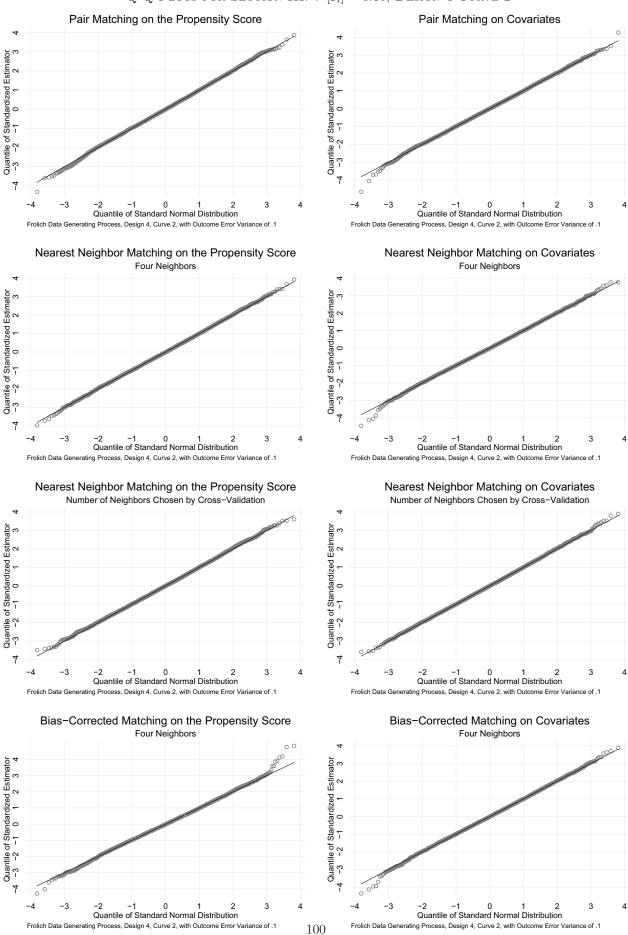
Frolich Data Generating Process, Design 4, Curve 1, with Outcome Error Variance of .1

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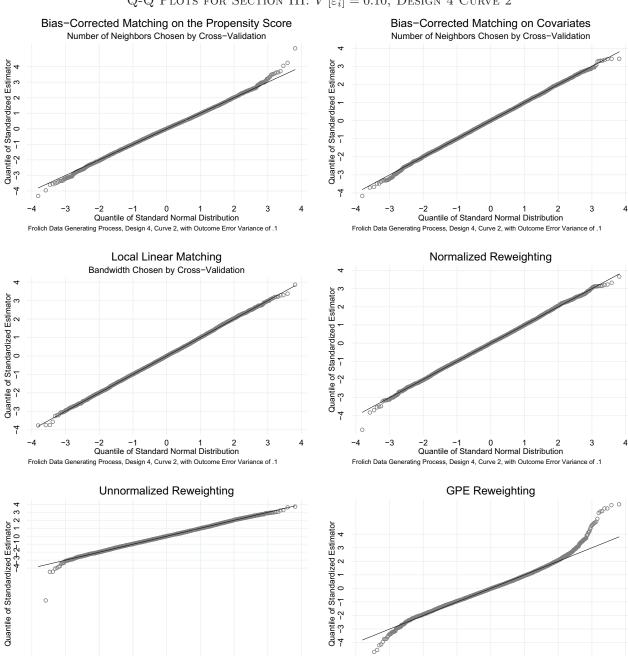
-2 -1 0 1 2 Quantile of Standard Normal Distribution

Frolich Data Generating Process, Design 4, Curve 1, with Outcome Error Variance of .1

### Q-Q Plots for Section III: $V[\varepsilon_i] = 0.10$ , Design 4 Curve 2



# Q-Q Plots for Section III: $V\left[ {{arepsilon _i}} \right] = 0.10,$ Design 4 Curve 2



Quantile of Standard Normal Distribution

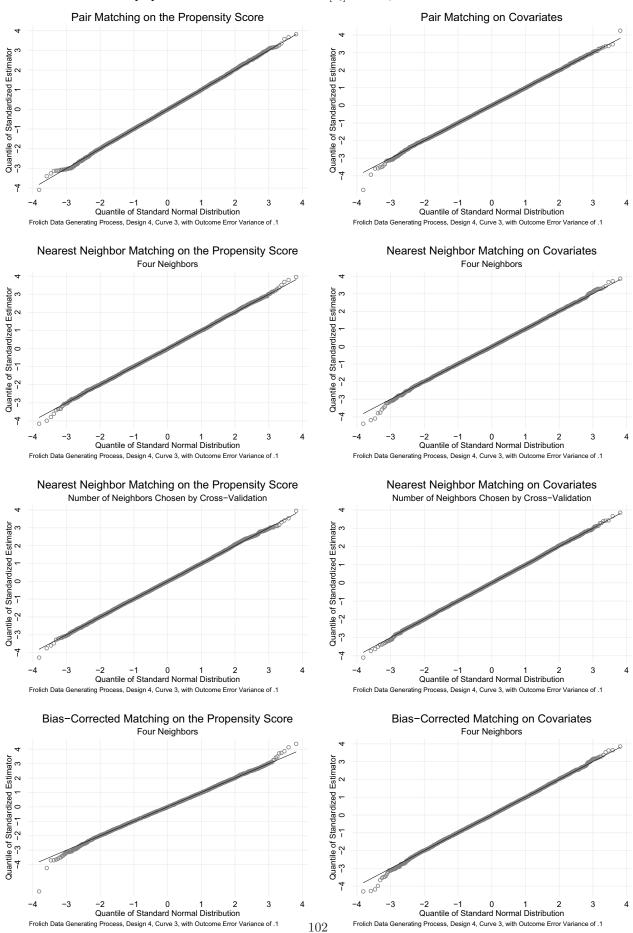
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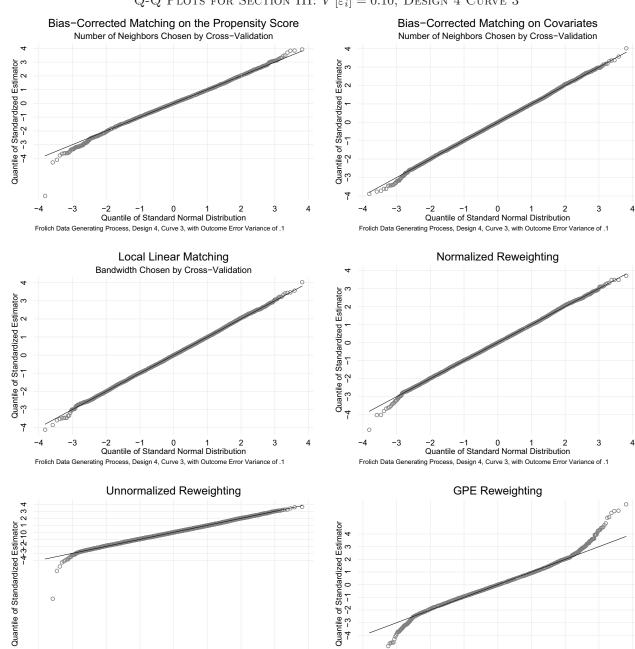
-2 -1 0 1 2 Quantile of Standard Normal Distribution

Frolich Data Generating Process, Design 4, Curve 2, with Outcome Error Variance of .1

### Q-Q PLOTS FOR SECTION III: $V\left[\varepsilon_{i}\right]=0.10$ , DESIGN 4 CURVE 3



# Q-Q Plots for Section III: $V\left[ {{arepsilon _i}} \right] = 0.10,$ Design 4 Curve 3



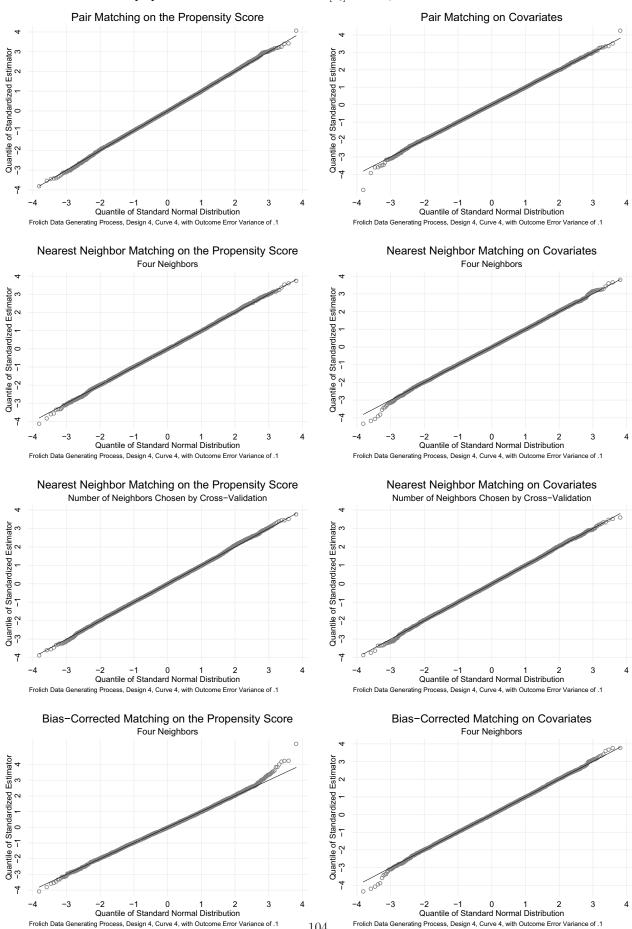
-4 -3 -2 -1 0 1 2 3 Quantile of Standard Normal Distribution Frolich Data Generating Process, Design 4, Curve 3, with Outcome Error Variance of .1

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-2 -1 0 1 2 Quantile of Standard Normal Distribution

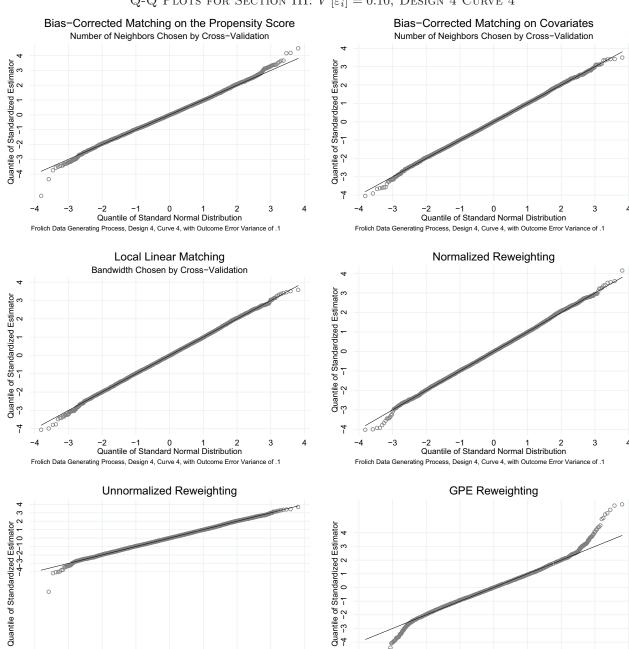
Frolich Data Generating Process, Design 4, Curve 3, with Outcome Error Variance of .1

### Q-Q PLOTS FOR SECTION III: $V\left[\varepsilon_{i}\right]=0.10$ , DESIGN 4 CURVE 4



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# Q-Q Plots for Section III: $V\left[ {{arepsilon _i}} \right] = 0.10,$ Design 4 Curve 4



-2 -1 0 1 2 Quantile of Standard Normal Distribution

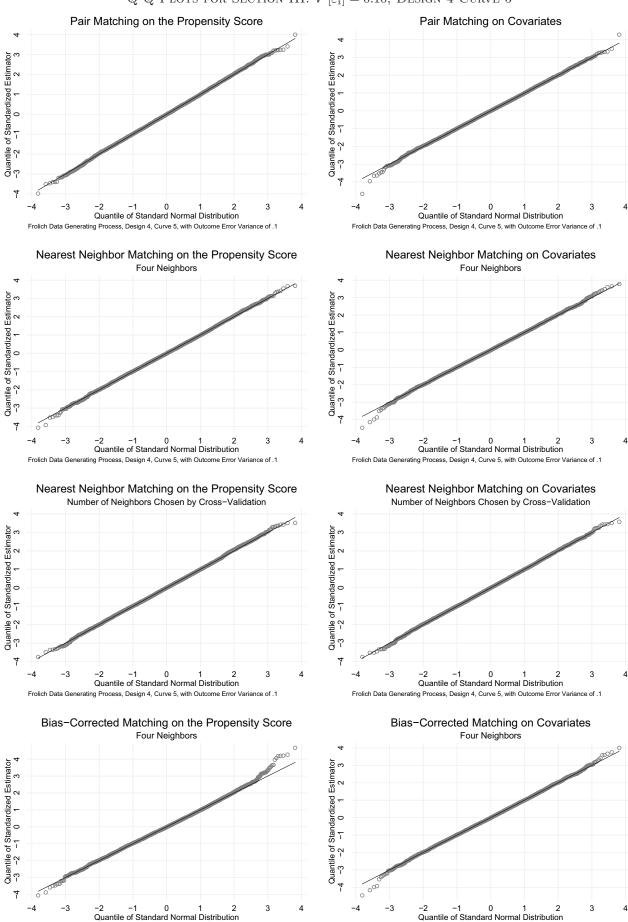
Frolich Data Generating Process, Design 4, Curve 4, with Outcome Error Variance of .1

0

-2 -1 0 1 2 Quantile of Standard Normal Distribution

Frolich Data Generating Process, Design 4, Curve 4, with Outcome Error Variance of .1

### Q-Q PLOTS FOR SECTION III: $V\left[\varepsilon_{i}\right]=0.10$ , DESIGN 4 CURVE 5

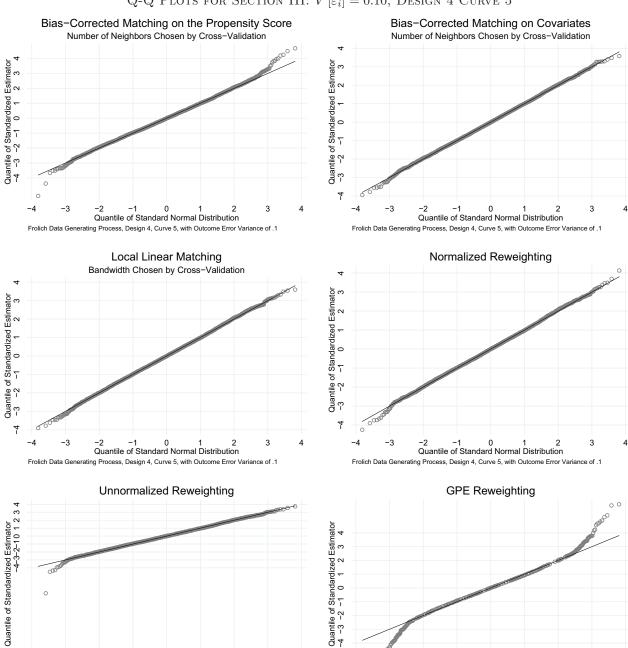


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Frolich Data Generating Process, Design 4, Curve 5, with Outcome Error Variance of .1

Frolich Data Generating Process, Design 4, Curve 5, with Outcome Error Variance of .1

# Q-Q Plots for Section III: $V\left[ {{arepsilon _i}} \right] = 0.10,$ Design 4 Curve 5



-2 -1 0 1 2 Quantile of Standard Normal Distribution

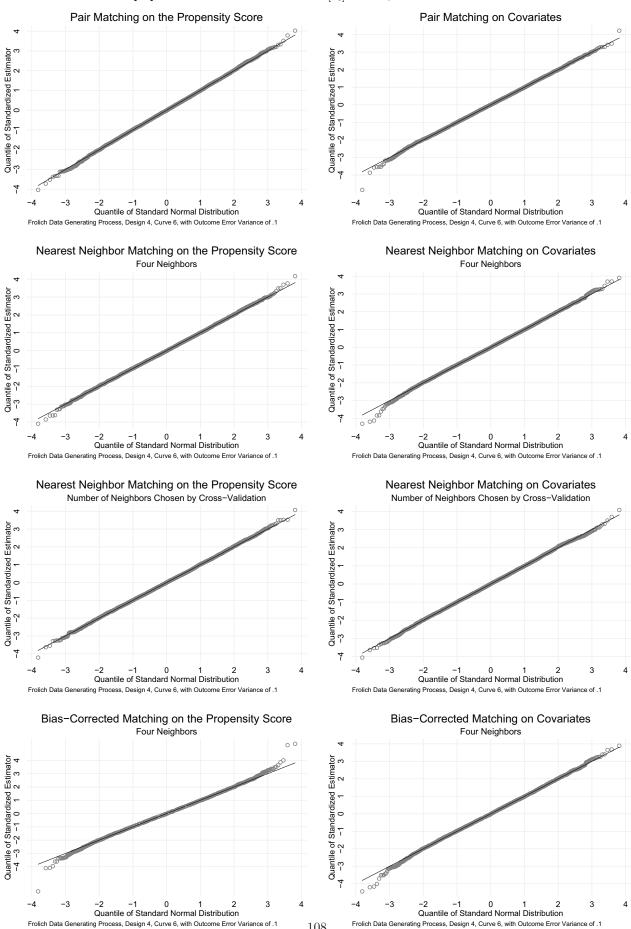
Frolich Data Generating Process, Design 4, Curve 5, with Outcome Error Variance of .1

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-2 -1 0 1 2 Quantile of Standard Normal Distribution

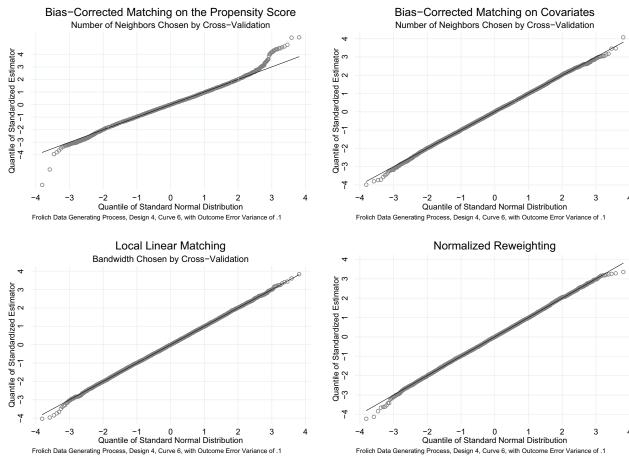
Frolich Data Generating Process, Design 4, Curve 5, with Outcome Error Variance of .1

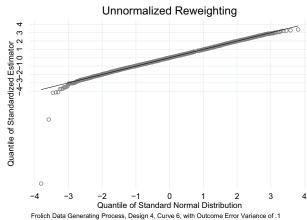
### Q-Q PLOTS FOR SECTION III: $V\left[\varepsilon_{i}\right]=0.10$ , DESIGN 4 CURVE 6

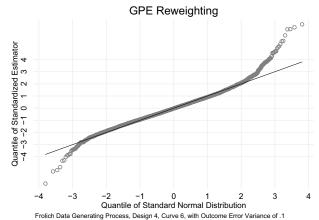


108

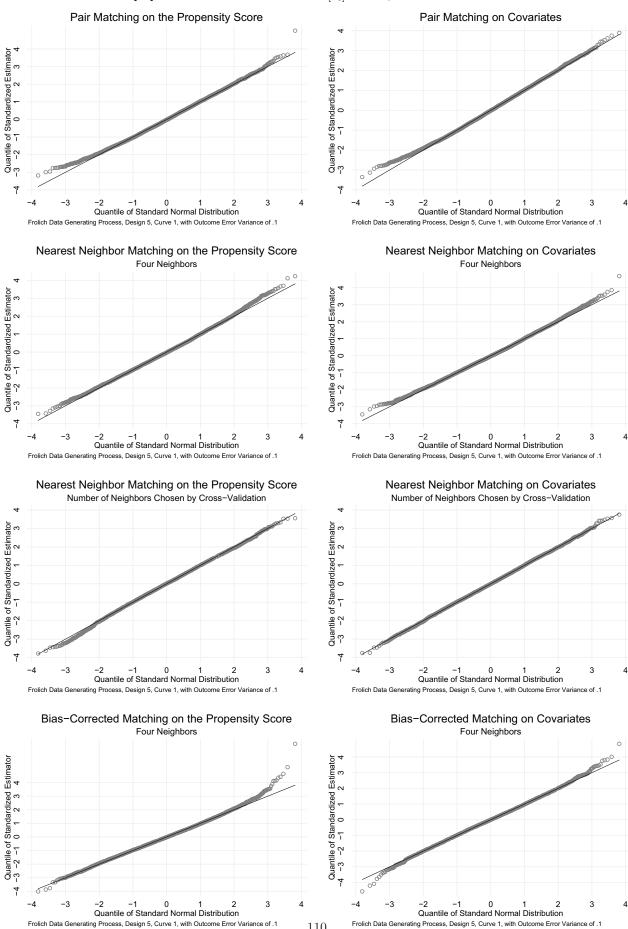
## Q-Q Plots for Section III: $V\left[ {{arepsilon _i}} \right] = 0.10,$ Design 4 Curve 6



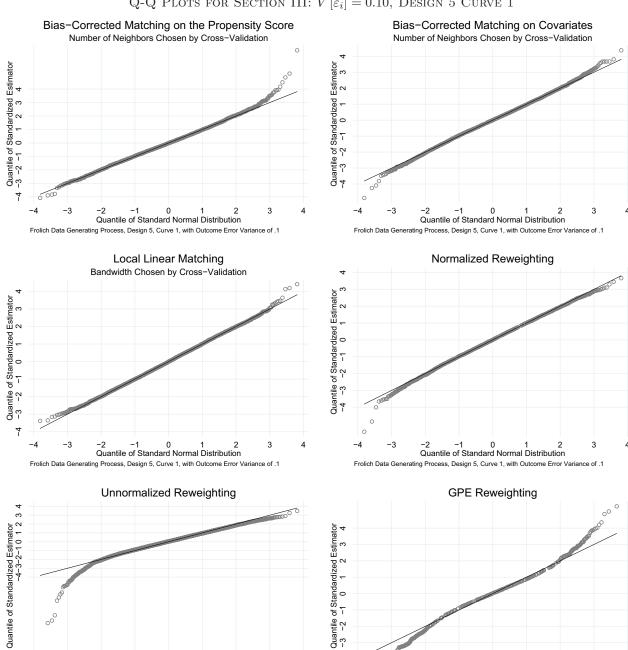


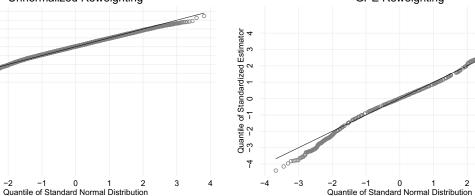


#### Q-Q PLOTS FOR SECTION III: $V\left[\varepsilon_{i}\right]=0.10$ , DESIGN 5 CURVE 1



## Q-Q Plots for Section III: $V\left[ {{arepsilon _i}} \right] = 0.10,$ Design 5 Curve 1

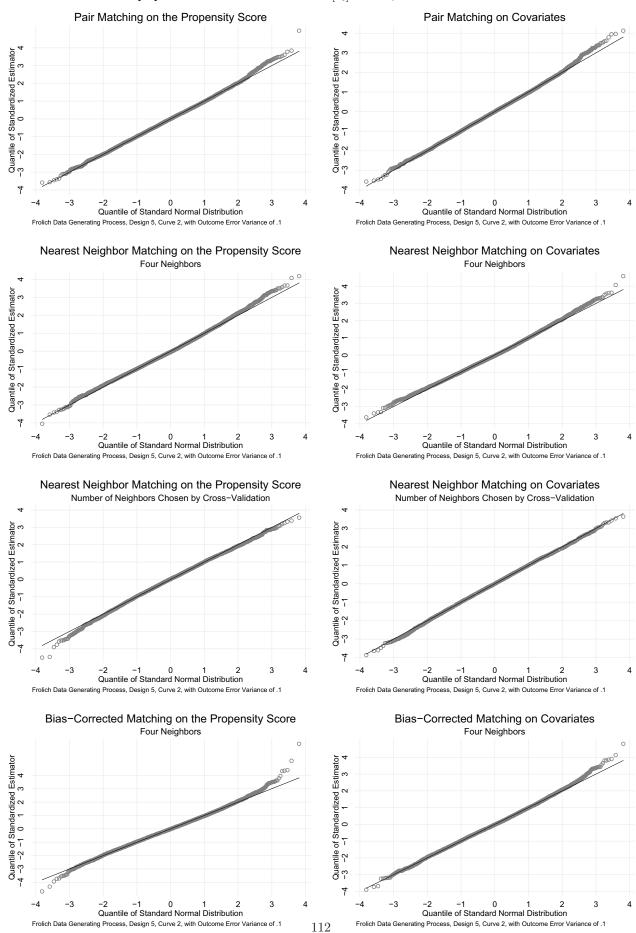




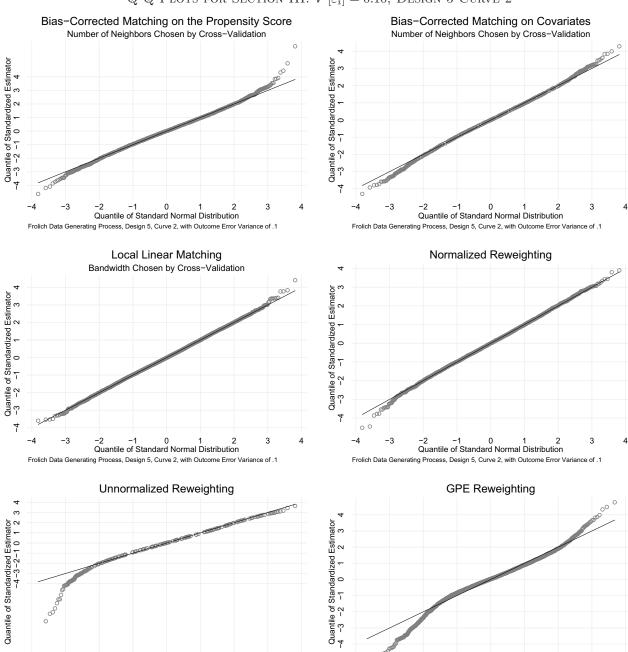
Frolich Data Generating Process, Design 5, Curve 1, with Outcome Error Variance of .1

Frolich Data Generating Process, Design 5, Curve 1, with Outcome Error Variance of .1

#### Q-Q Plots for Section III: $V[\varepsilon_i] = 0.10$ , Design 5 Curve 2



## Q-Q Plots for Section III: $V\left[ {{arepsilon _i}} \right] = 0.10,$ Design 5 Curve 2



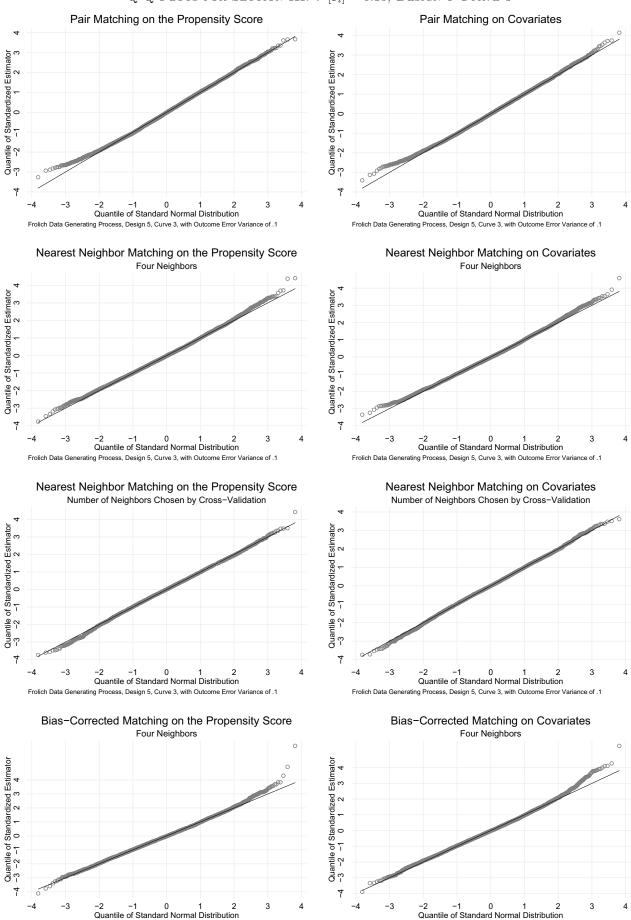
Quantile of Standard Normal Distribution

Frolich Data Generating Process, Design 5, Curve 2, with Outcome Error Variance of .1

-2 -1 0 1 2 Quantile of Standard Normal Distribution

Frolich Data Generating Process, Design 5, Curve 2, with Outcome Error Variance of .1

#### Q-Q PLOTS FOR SECTION III: $V\left[\varepsilon_{i}\right]=0.10$ , DESIGN 5 CURVE 3

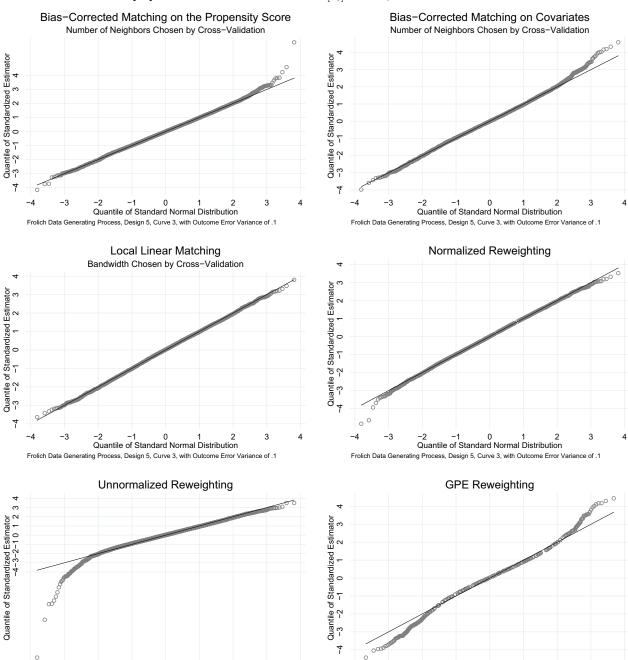


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Frolich Data Generating Process, Design 5, Curve 3, with Outcome Error Variance of .1

Frolich Data Generating Process, Design 5, Curve 3, with Outcome Error Variance of .1

## Q-Q Plots for Section III: $V\left[ {{arepsilon _i}} \right] = 0.10,$ Design 5 Curve 3



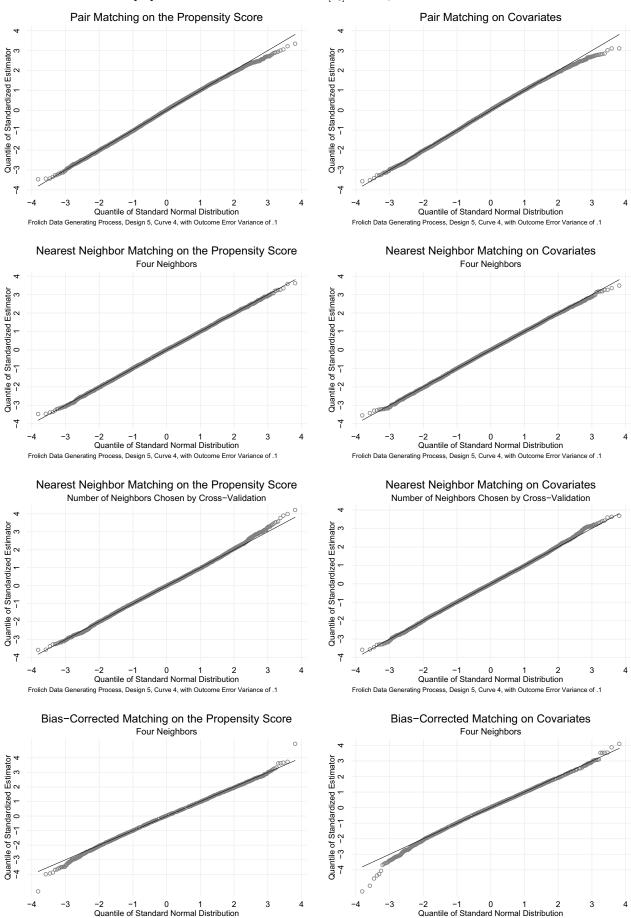
-2 -1 0 1 2 Quantile of Standard Normal Distribution

Frolich Data Generating Process, Design 5, Curve 3, with Outcome Error Variance of .1

-2 -1 0 1 2 Quantile of Standard Normal Distribution

Frolich Data Generating Process, Design 5, Curve 3, with Outcome Error Variance of .1

#### Q-Q Plots for Section III: $V[\varepsilon_i] = 0.10$ , Design 5 Curve 4

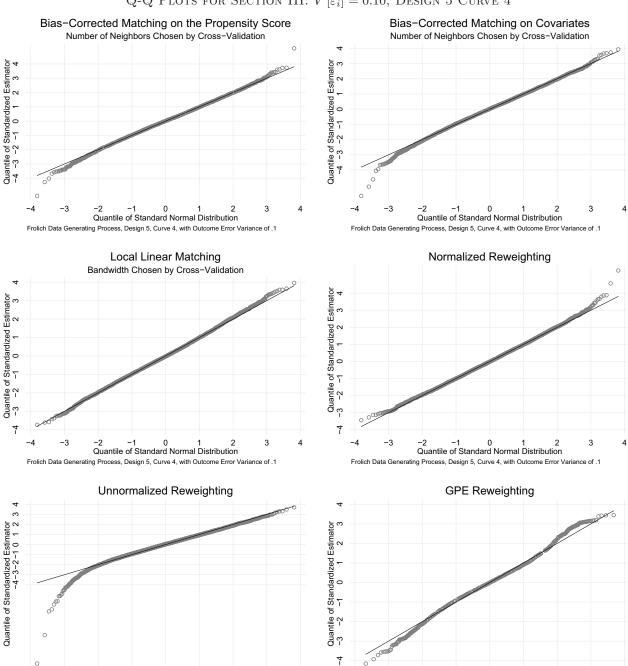


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Frolich Data Generating Process, Design 5, Curve 4, with Outcome Error Variance of .1

Frolich Data Generating Process, Design 5, Curve 4, with Outcome Error Variance of .1

## Q-Q Plots for Section III: $V\left[ {{arepsilon _i}} \right] = 0.10,$ Design 5 Curve 4



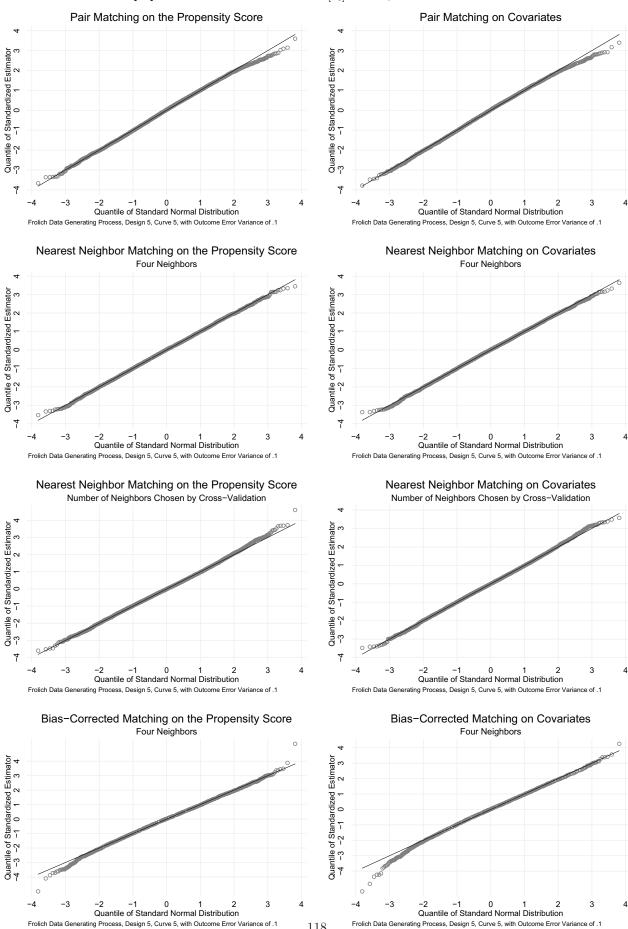
-2 -1 0 1 2 Quantile of Standard Normal Distribution

Frolich Data Generating Process, Design 5, Curve 4, with Outcome Error Variance of .1

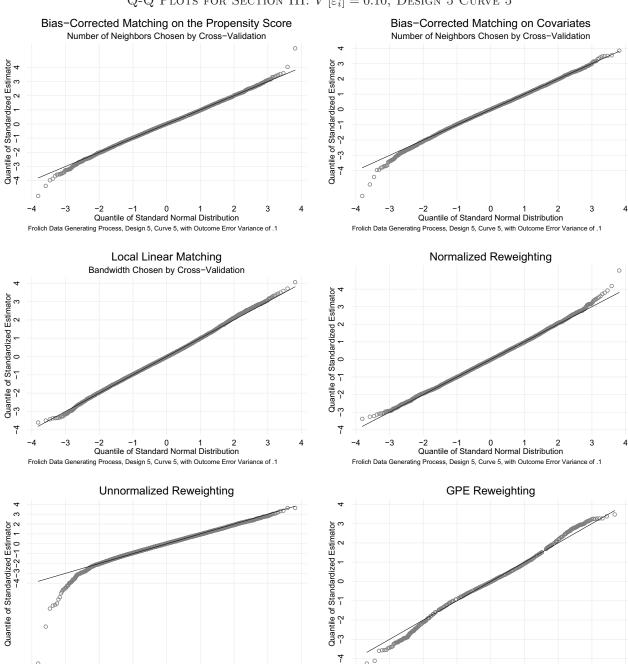
-2 -1 0 1 2 Quantile of Standard Normal Distribution

Frolich Data Generating Process, Design 5, Curve 4, with Outcome Error Variance of .1

#### Q-Q PLOTS FOR SECTION III: $V\left[\varepsilon_{i}\right]=0.10$ , DESIGN 5 CURVE 5



## Q-Q Plots for Section III: $V\left[ {{arepsilon _i}} \right] = 0.10,$ Design 5 Curve 5



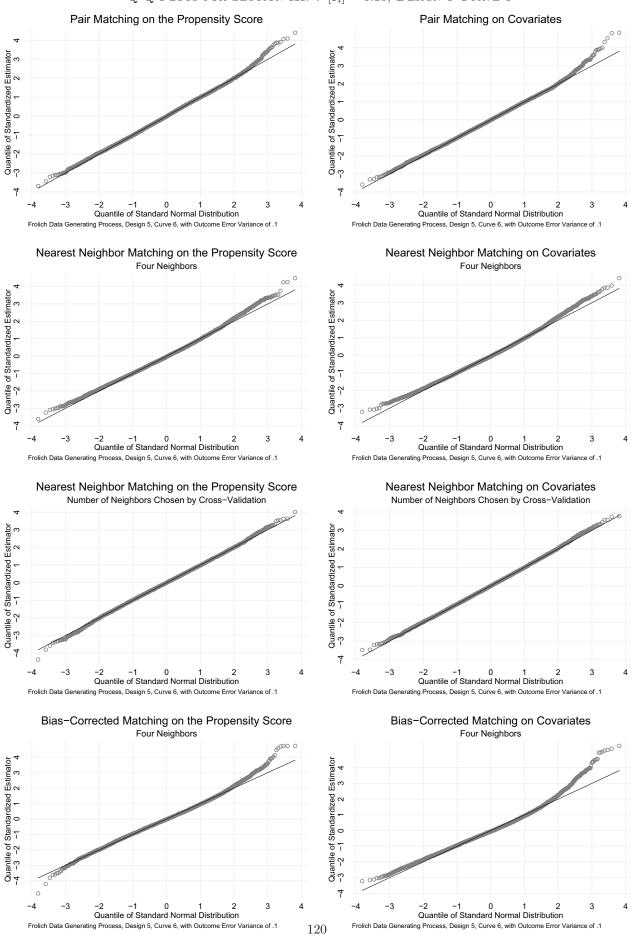
-2 -1 0 1 2 Quantile of Standard Normal Distribution

Frolich Data Generating Process, Design 5, Curve 5, with Outcome Error Variance of .1

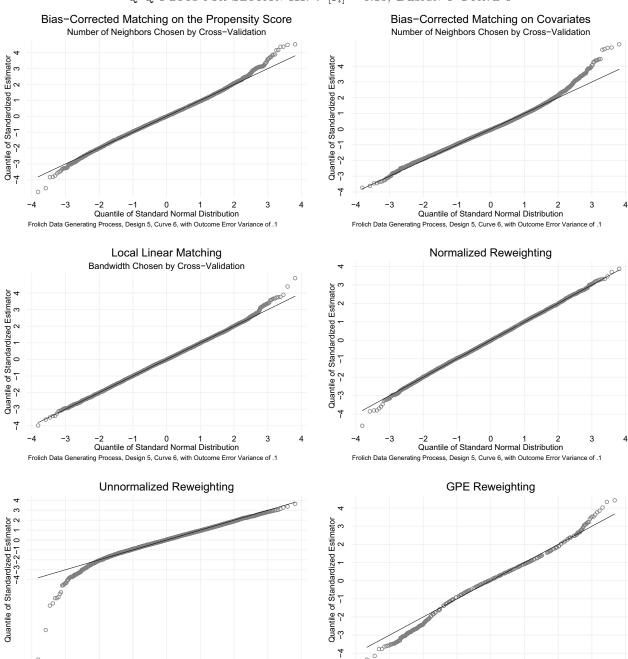
-2 -1 0 1 2 Quantile of Standard Normal Distribution

Frolich Data Generating Process, Design 5, Curve 5, with Outcome Error Variance of .1

#### Q-Q Plots for Section III: $V[\varepsilon_i] = 0.10$ , Design 5 Curve 6



## Q-Q Plots for Section III: $V\left[ {{arepsilon _i}} \right] = 0.10,$ Design 5 Curve 6

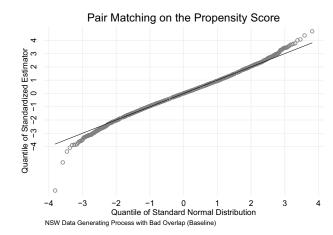


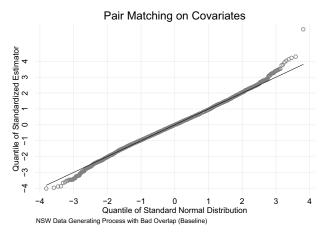
-4 -3 -2 -1 0 1 2 3 Quantile of Standard Normal Distribution Frolich Data Generating Process, Design 5, Curve 6, with Outcome Error Variance of .1

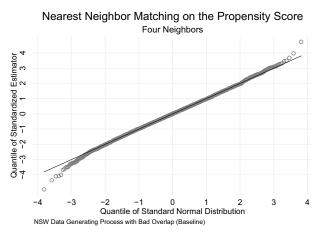
-2 -1 0 1 2 Quantile of Standard Normal Distribution

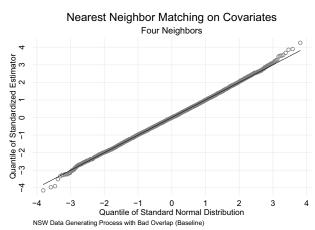
Frolich Data Generating Process, Design 5, Curve 6, with Outcome Error Variance of .1

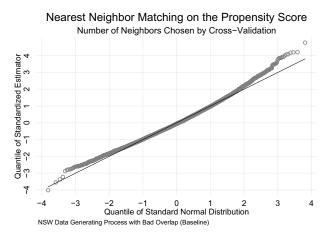
## 3 Q-Q Plots for Section IV. NSW DGP with $X_i \sim \hat{F}_n(x)$

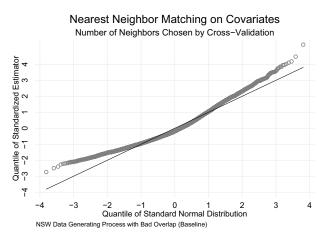


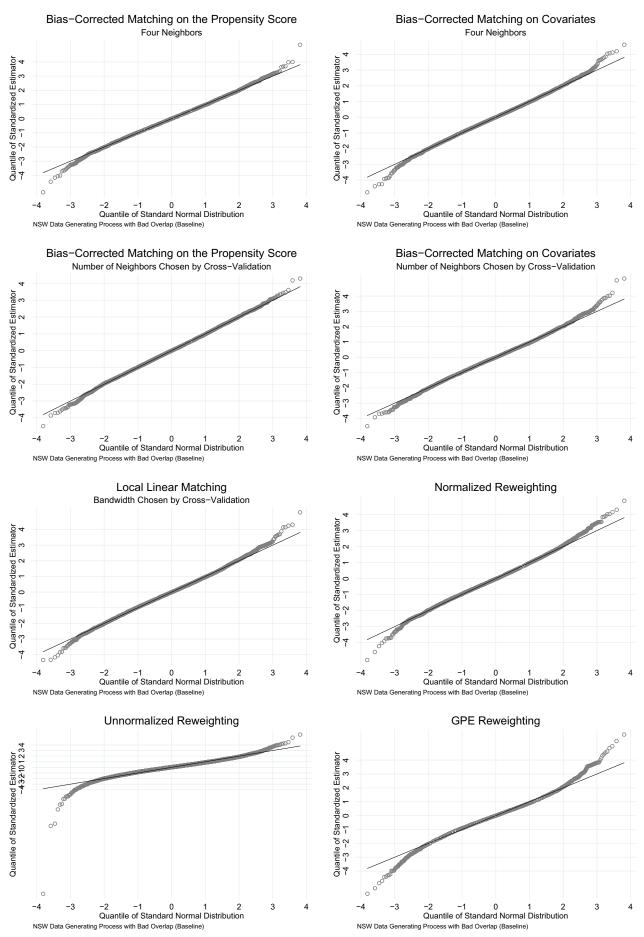




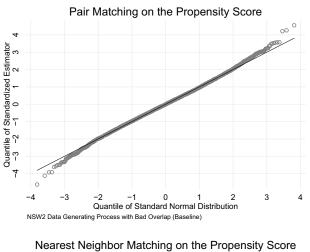


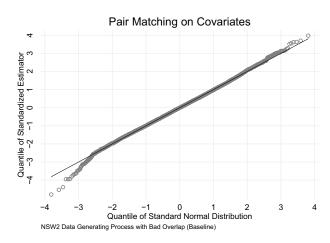


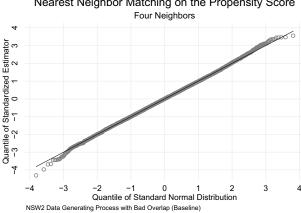


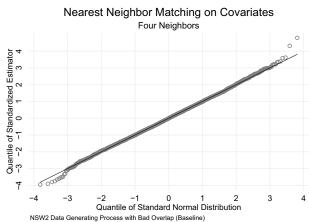


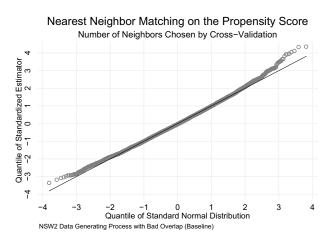
### 4 Q-Q Plots for Section IV. NSW DGP with $X_i \sim F_n(x)$

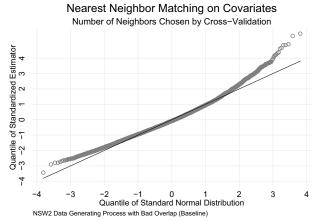


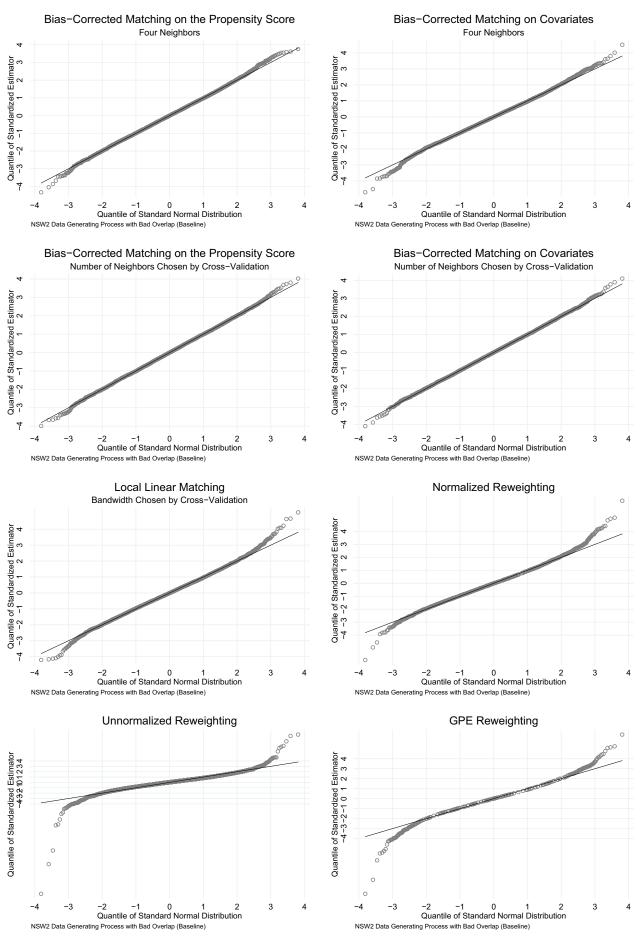






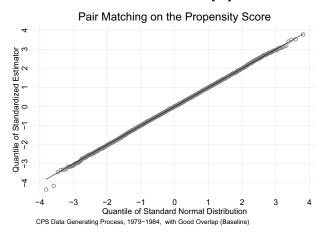


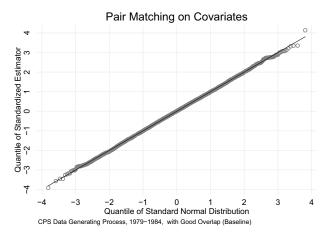


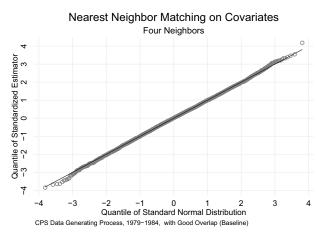


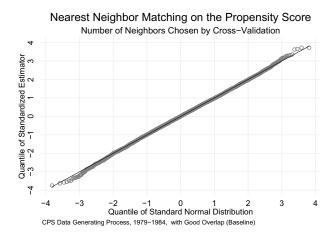
#### 5 Q-Q Plots for Section V. CPS DGP

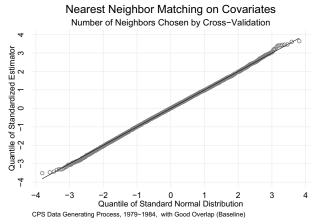
#### Q-Q PLOTS FOR SECTION V: 1979-1984



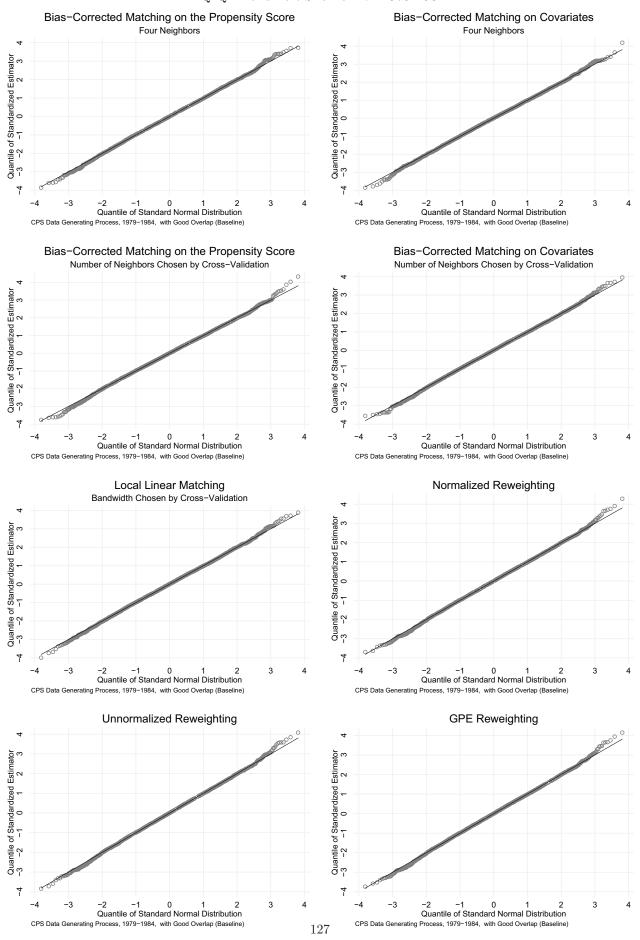




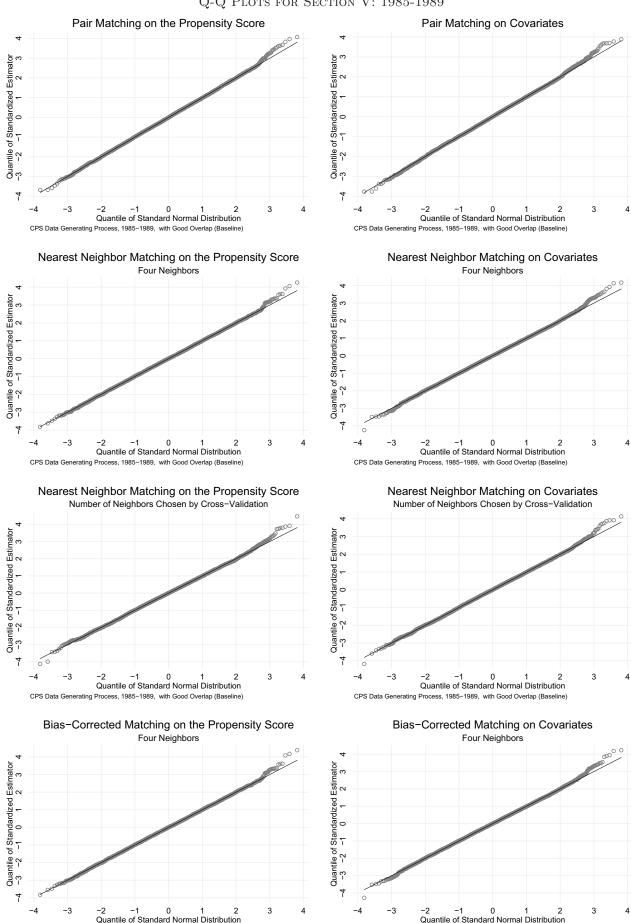




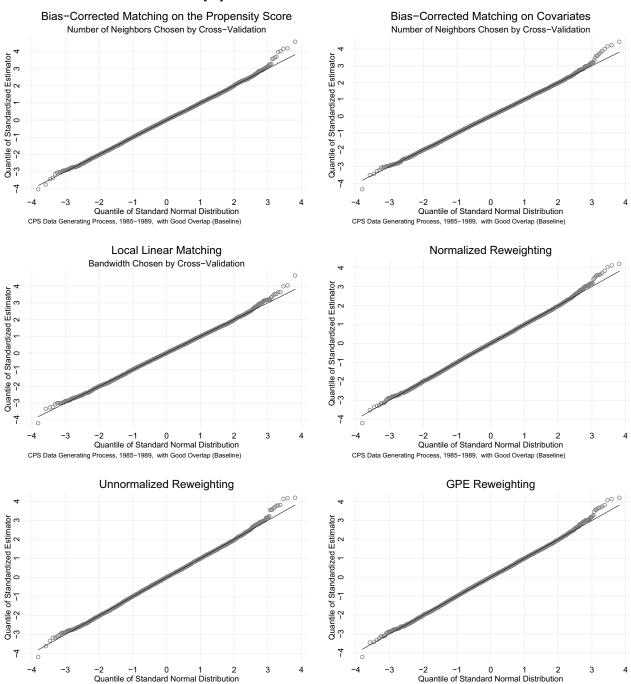
#### Q-Q PLOTS FOR SECTION V: 1979-1984



#### Q-Q PLOTS FOR SECTION V: 1985-1989



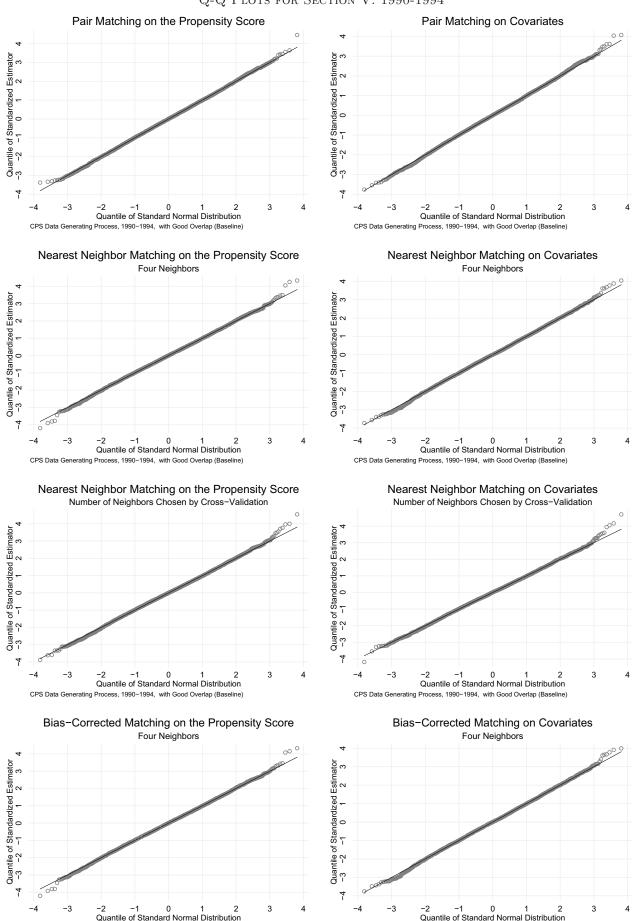
#### Q-Q PLOTS FOR SECTION V: 1985-1989



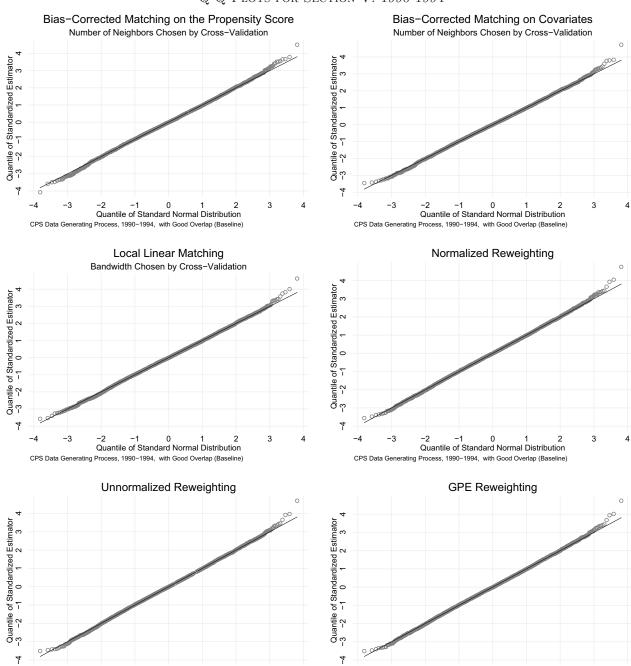
CPS Data Generating Process, 1985-1989, with Good Overlap (Baseline)

CPS Data Generating Process, 1985-1989, with Good Overlap (Baseline)

#### Q-Q PLOTS FOR SECTION V: 1990-1994



#### Q-Q PLOTS FOR SECTION V: 1990-1994



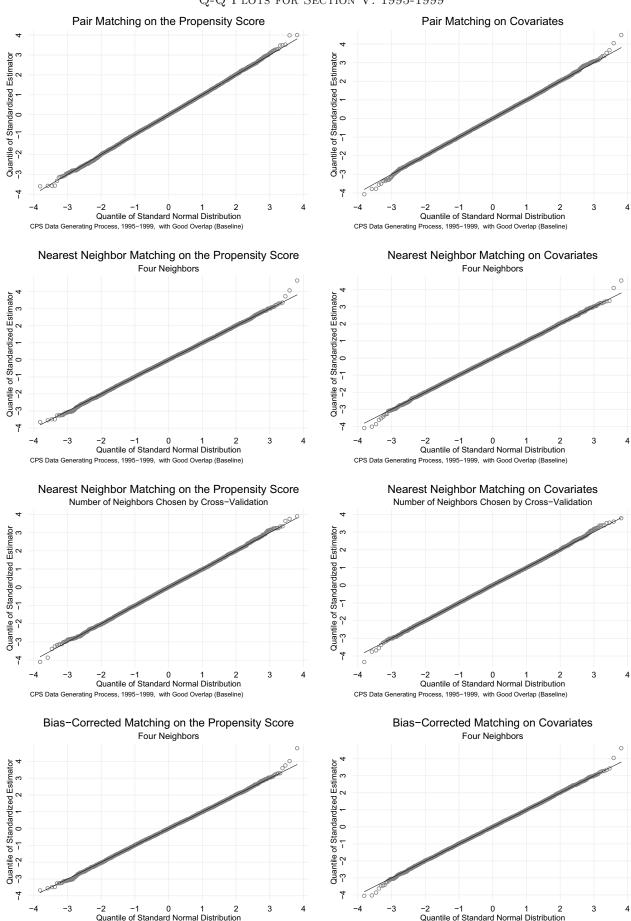
Quantile of Standard Normal Distribution

CPS Data Generating Process, 1990-1994, with Good Overlap (Baseline)

Quantile of Standard Normal Distribution

CPS Data Generating Process, 1990-1994, with Good Overlap (Baseline)

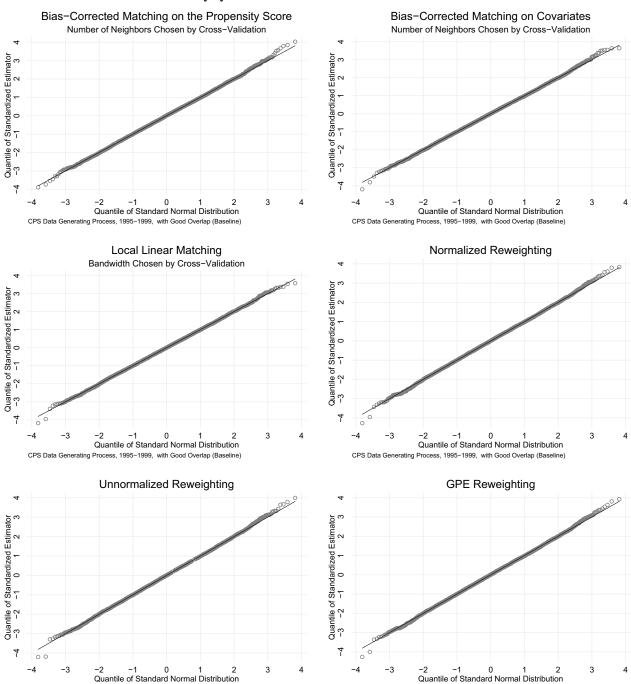
#### Q-Q PLOTS FOR SECTION V: 1995-1999



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CPS Data Generating Process, 1995–1999, with Good Overlap (Baseline)

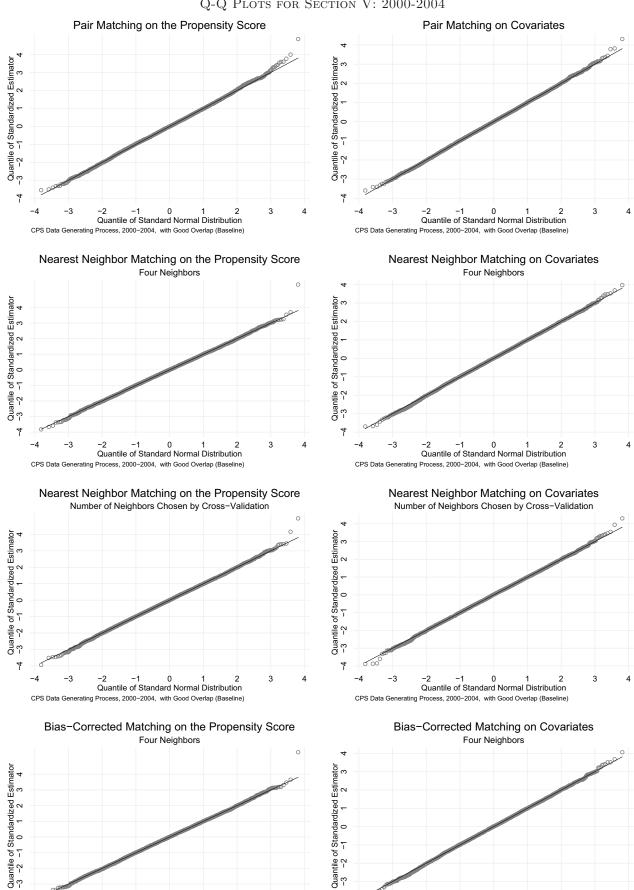
#### Q-Q PLOTS FOR SECTION V: 1995-1999



CPS Data Generating Process, 1995-1999, with Good Overlap (Baseline)

CPS Data Generating Process, 1995-1999, with Good Overlap (Baseline)

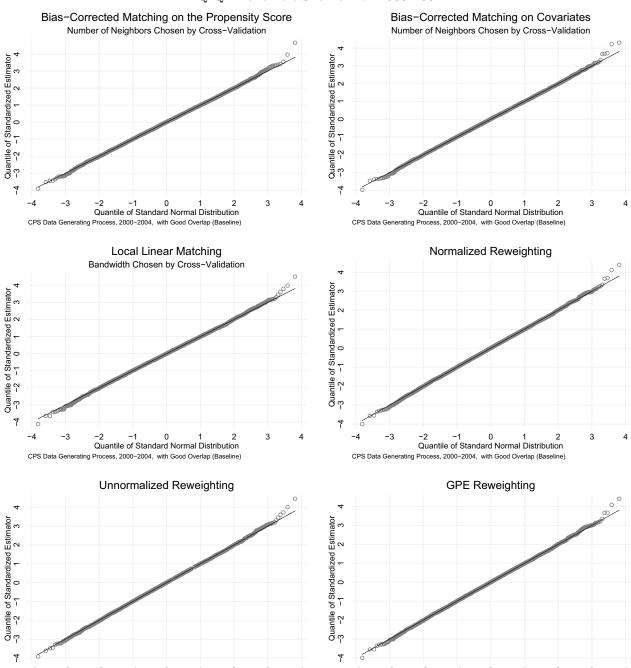
#### Q-Q PLOTS FOR SECTION V: 2000-2004



-2 -1 0 1 2 Quantile of Standard Normal Distribution

-2 -1 0 1 2 Quantile of Standard Normal Distribution

#### Q-Q PLOTS FOR SECTION V: 2000-2004



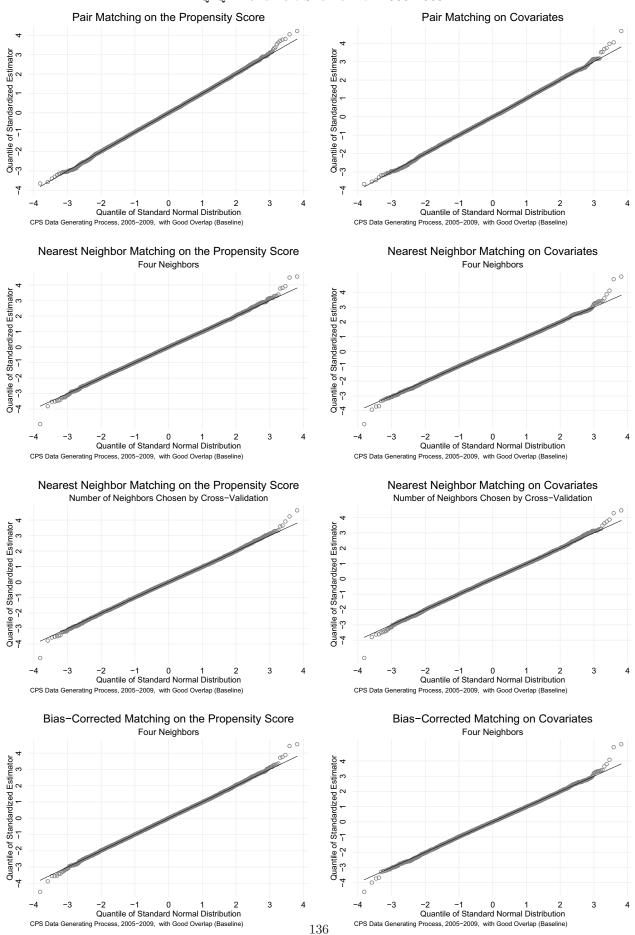
Quantile of Standard Normal Distribution

CPS Data Generating Process, 2000-2004, with Good Overlap (Baseline)

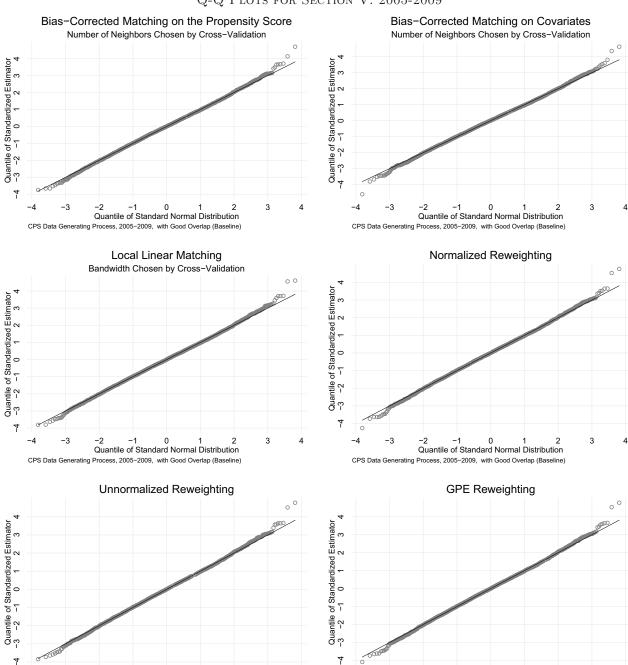
Quantile of Standard Normal Distribution

CPS Data Generating Process, 2000-2004, with Good Overlap (Baseline)

#### Q-Q PLOTS FOR SECTION V: 2005-2009



#### Q-Q PLOTS FOR SECTION V: 2005-2009



Quantile of Standard Normal Distribution

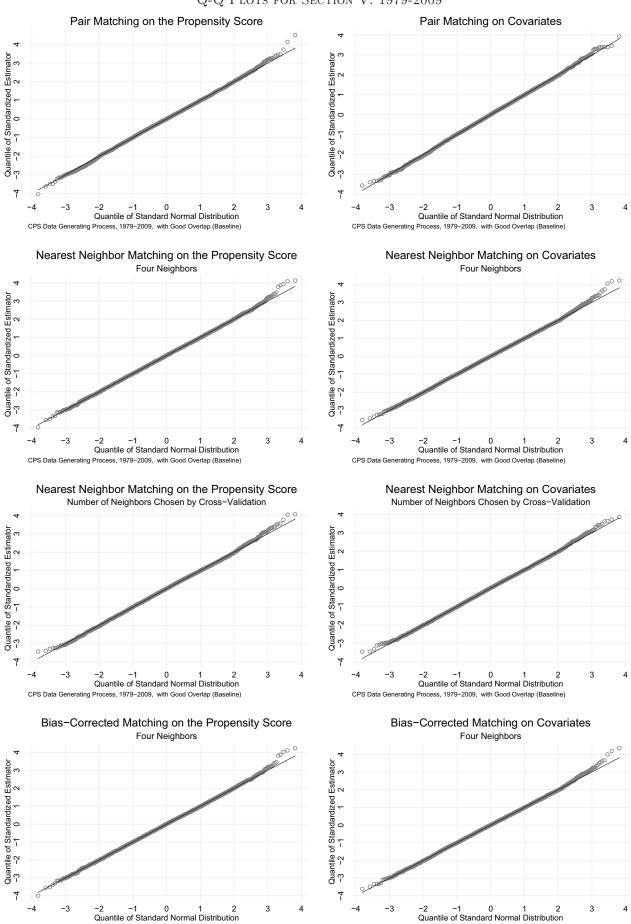
CPS Data Generating Process, 2005-2009, with Good Overlap (Baseline)

3

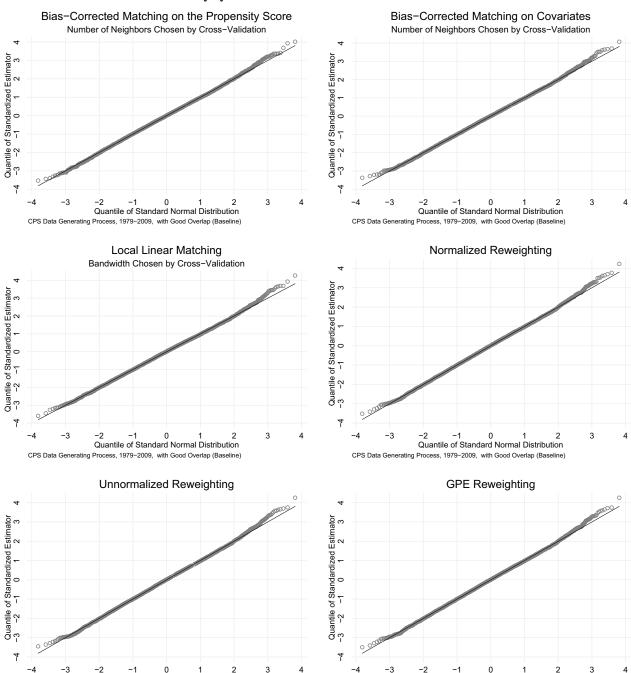
Quantile of Standard Normal Distribution

CPS Data Generating Process, 2005-2009, with Good Overlap (Baseline)

#### Q-Q PLOTS FOR SECTION V: 1979-2009



#### Q-Q PLOTS FOR SECTION V: 1979-2009



Quantile of Standard Normal Distribution

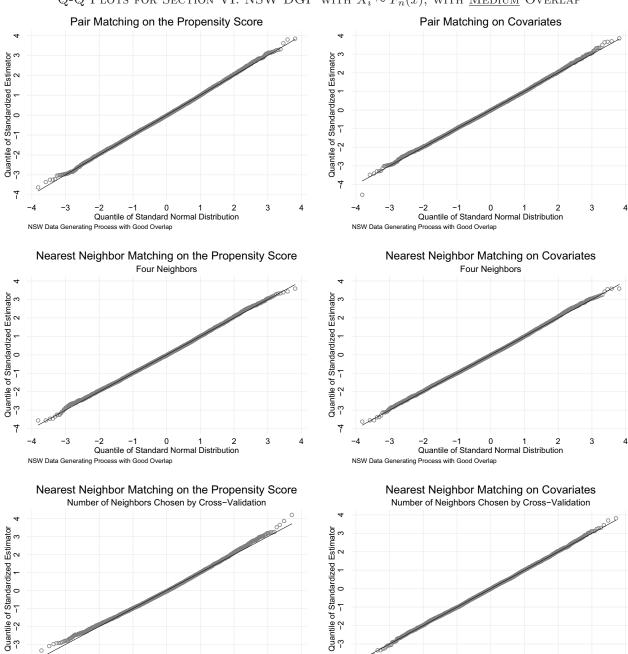
CPS Data Generating Process, 1979-2009, with Good Overlap (Baseline)

Quantile of Standard Normal Distribution

CPS Data Generating Process, 1979-2009, with Good Overlap (Baseline)

#### 6 Q-Q Plots for Section VI. Overlap

## Q-Q Plots for Section VI: NSW DGP with $X_i \sim \hat{F}_n(x)$ , with Medium Overlap



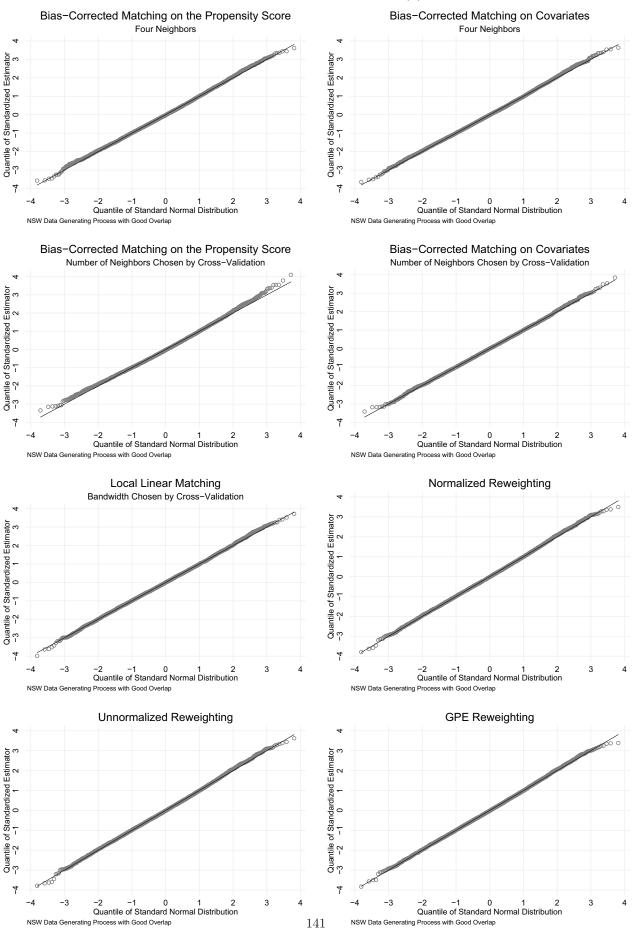
-2 -1 0 1 2 Quantile of Standard Normal Distribution

NSW Data Generating Process with Good Overlap

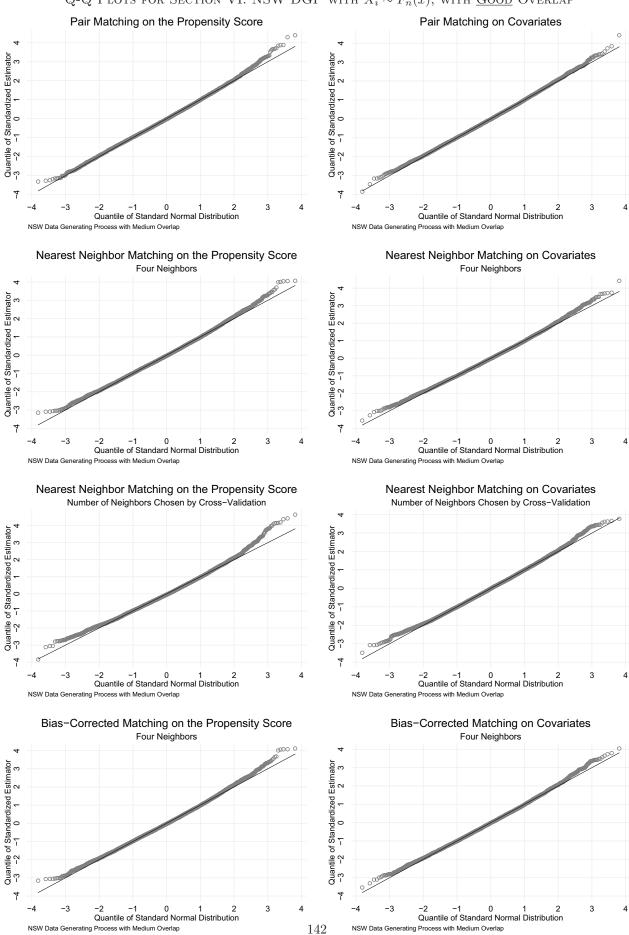
-2 -1 0 1 2 Quantile of Standard Normal Distribution

NSW Data Generating Process with Good Overlap

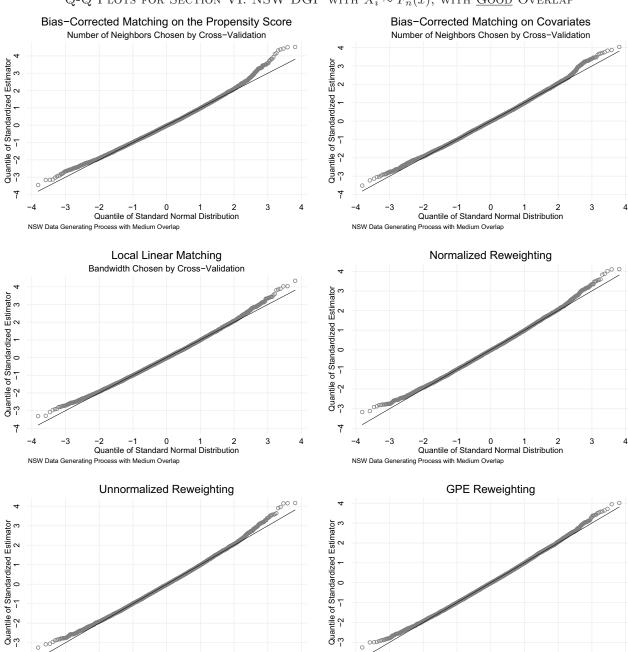
# Q-Q Plots for Section VI: NSW DGP with $X_i \sim \hat{F}_n(x)$ , with Medium Overlap



## Q-Q Plots for Section VI: NSW DGP with $X_i \sim \hat{F}_n(x)$ , with Good Overlap



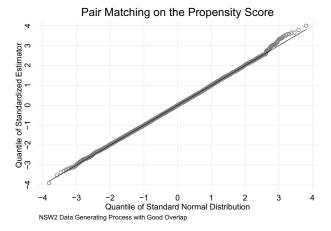
# Q-Q Plots for Section VI: NSW DGP with $X_i \sim \hat{F}_n(x)$ , with Good Overlap

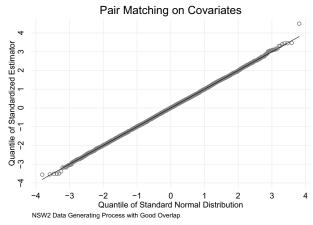


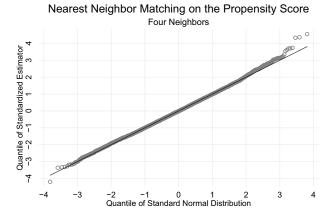
-2 -1 0 1 2 Quantile of Standard Normal Distribution

4-

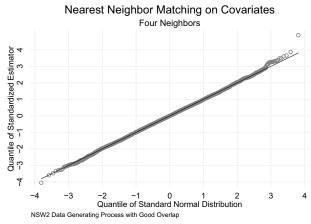
## Q-Q Plots for Section VI: NSW DGP with $X_i \sim F_n(x)$ , with Medium Overlap

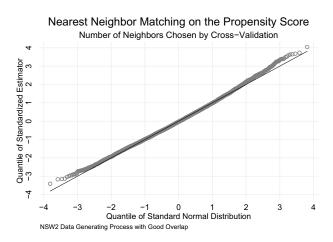


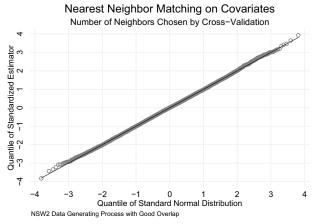


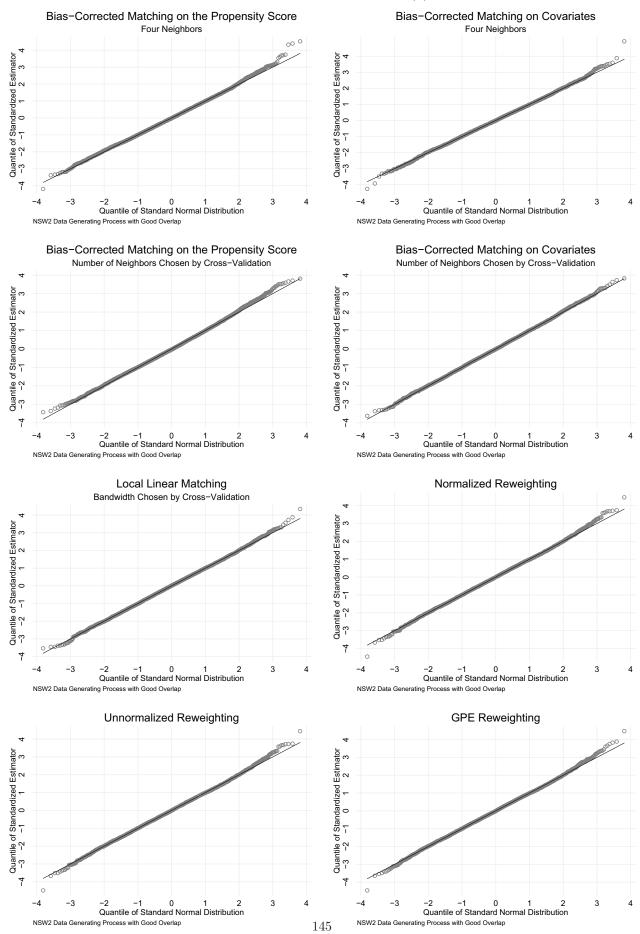


NSW2 Data Generating Process with Good Overlap

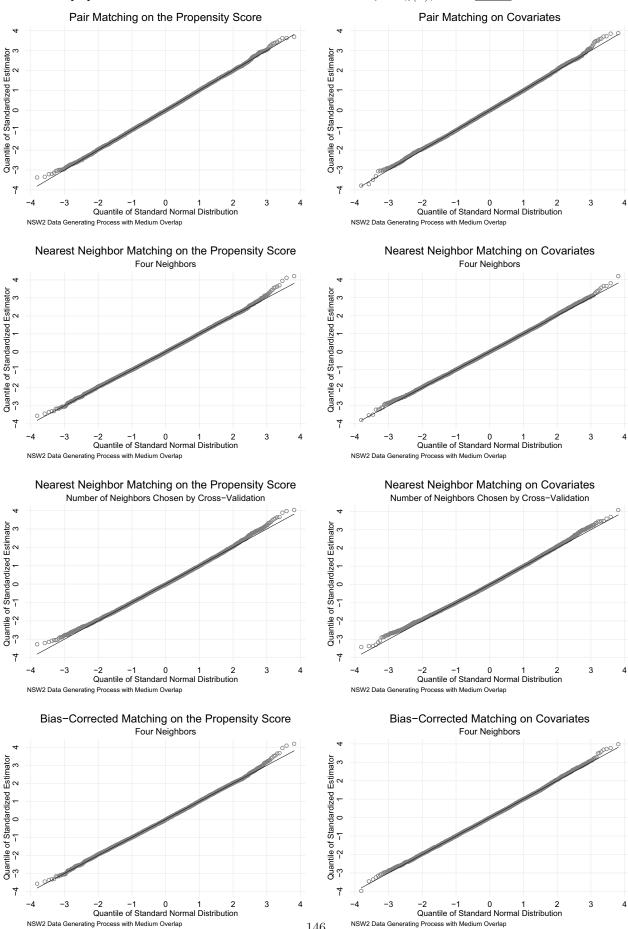




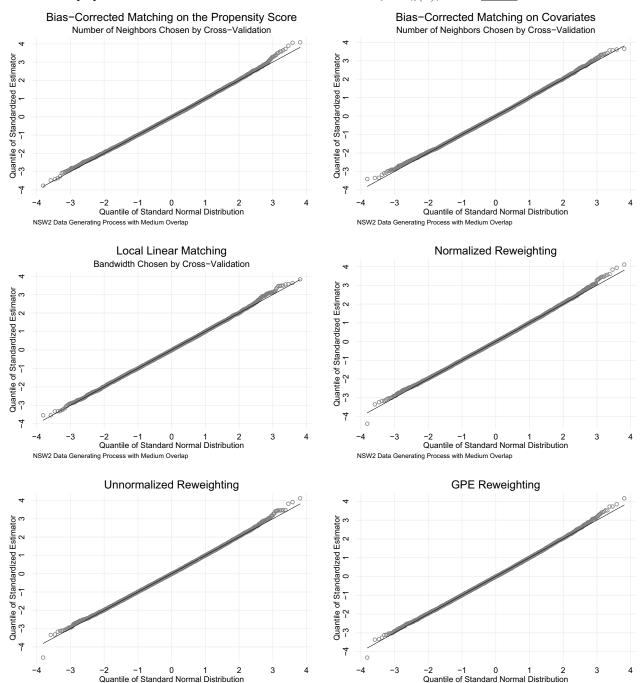




## Q-Q Plots for Section VI: NSW DGP with $X_i \sim F_n(x)$ , with Good Overlap



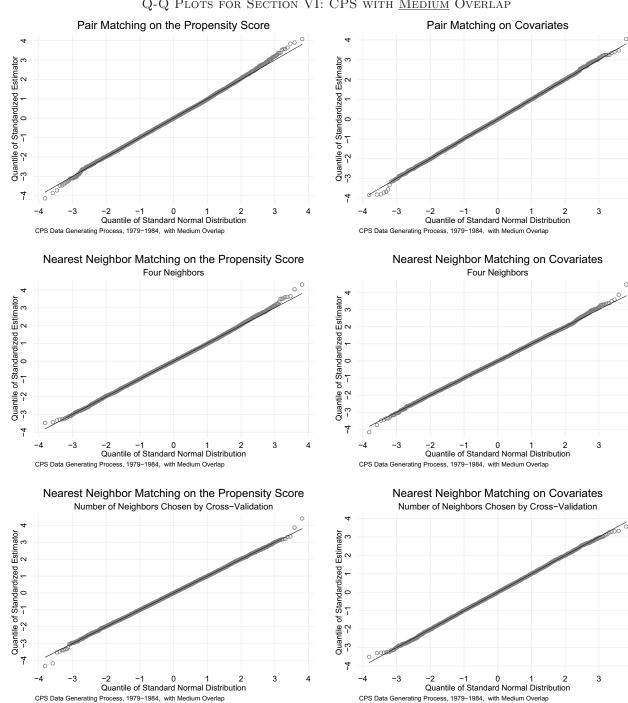
## Q-Q Plots for Section VI: NSW DGP with $X_i \sim F_n(x)$ , with Good Overlap

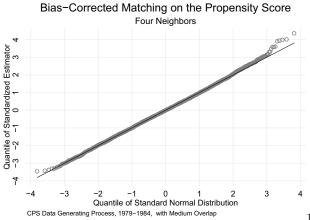


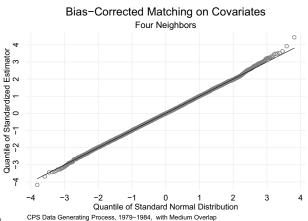
NSW2 Data Generating Process with Medium Overlap

NSW2 Data Generating Process with Medium Overlap

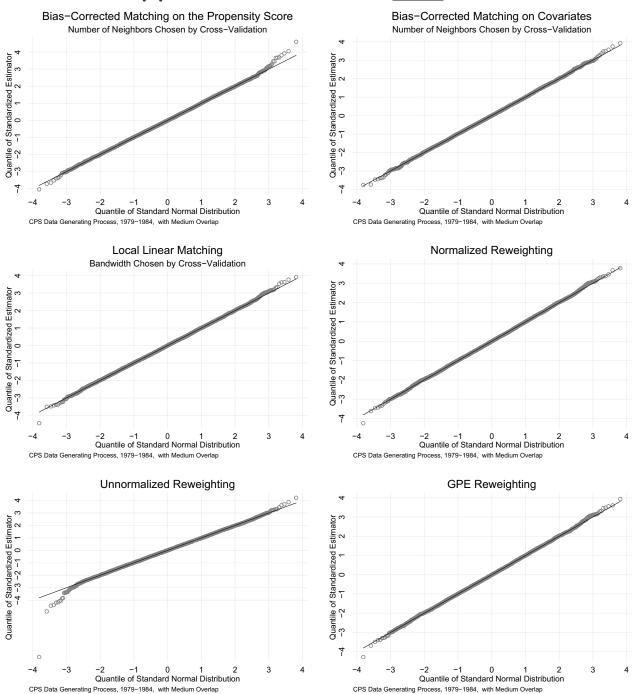
#### Q-Q PLOTS FOR SECTION VI: CPS WITH MEDIUM OVERLAP



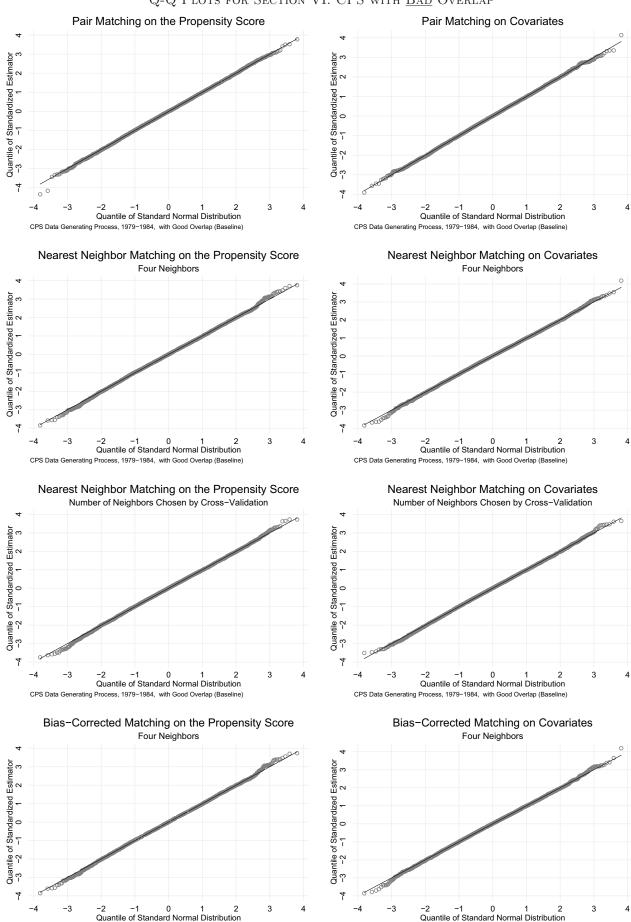




#### Q-Q PLOTS FOR SECTION VI: CPS WITH MEDIUM OVERLAP



#### Q-Q PLOTS FOR SECTION VI: CPS WITH BAD OVERLAP

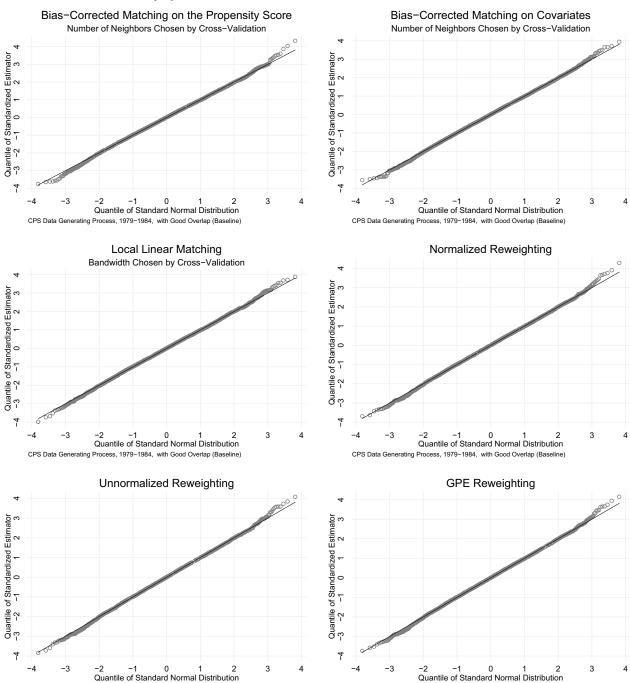


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CPS Data Generating Process, 1979-1984, with Good Overlap (Baseline)

CPS Data Generating Process, 1979-1984, with Good Overlap (Baseline)

#### Q-Q PLOTS FOR SECTION VI: CPS WITH BAD OVERLAP



CPS Data Generating Process, 1979-1984, with Good Overlap (Baseline)

CPS Data Generating Process, 1979-1984, with Good Overlap (Baseline)