Catastrophic Success: Why Foreign-Imposed Regime Change Goes Wrong
Ithaca, N.Y.: Cornell University Press, 2021

Supplementary Materials for Chapter 4, Part 2: Genetic Matching[1]

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TABLE OF CONTENTS

Irregular Exit from Office: All FIRC 2

Irregular Exit from Office: Leadership FIRC 10

Irregular Exit from Office: Institutional FIRC 19

Irregular Exit from Office: Restoration FIRC 28

Regular Exit from Office: All FIRC 36

Regular Exit from Office: Leadership FIRC 44

Regular Exit from Office: Institutional FIRC 52

Regular Exit from Office: Restoration FIRC 62

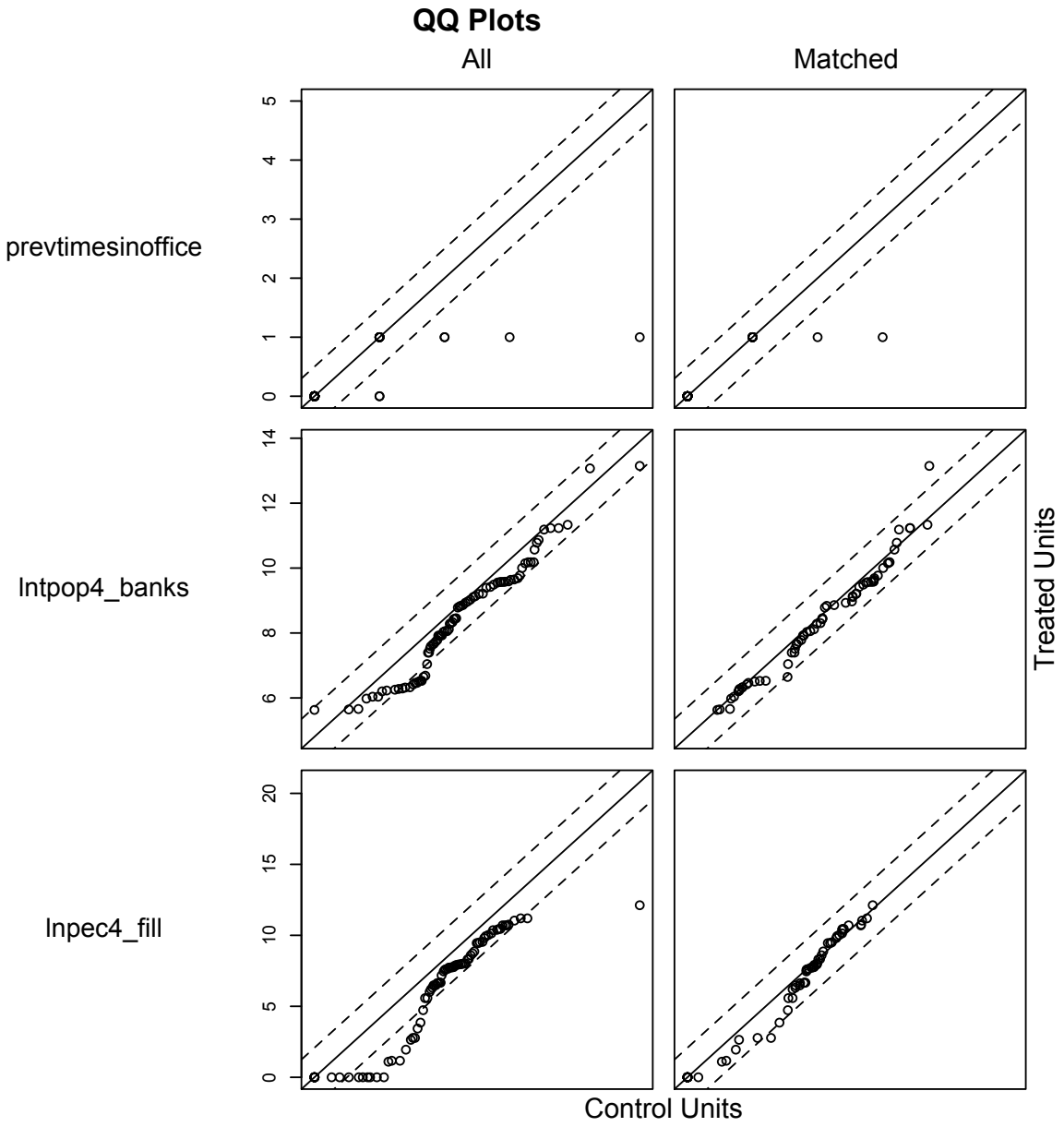
[1] For information on the procedures used to create the matched datasets and perform the subsequent analyses, see pp. 233-35 of the book. All matching is performed using genetic matching on the leader-spell data.

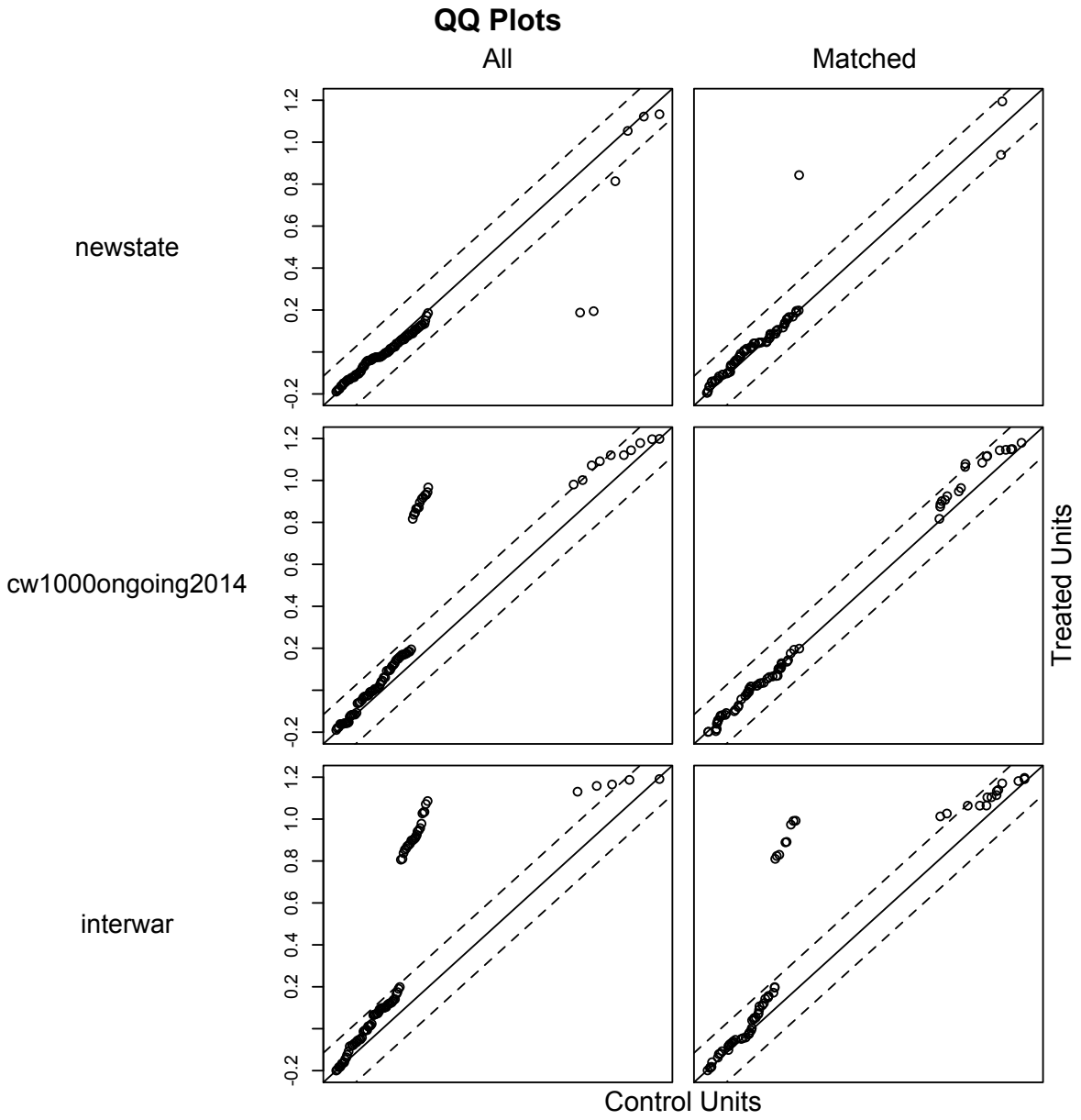
IRREGULAR EXIT FROM OFFICE

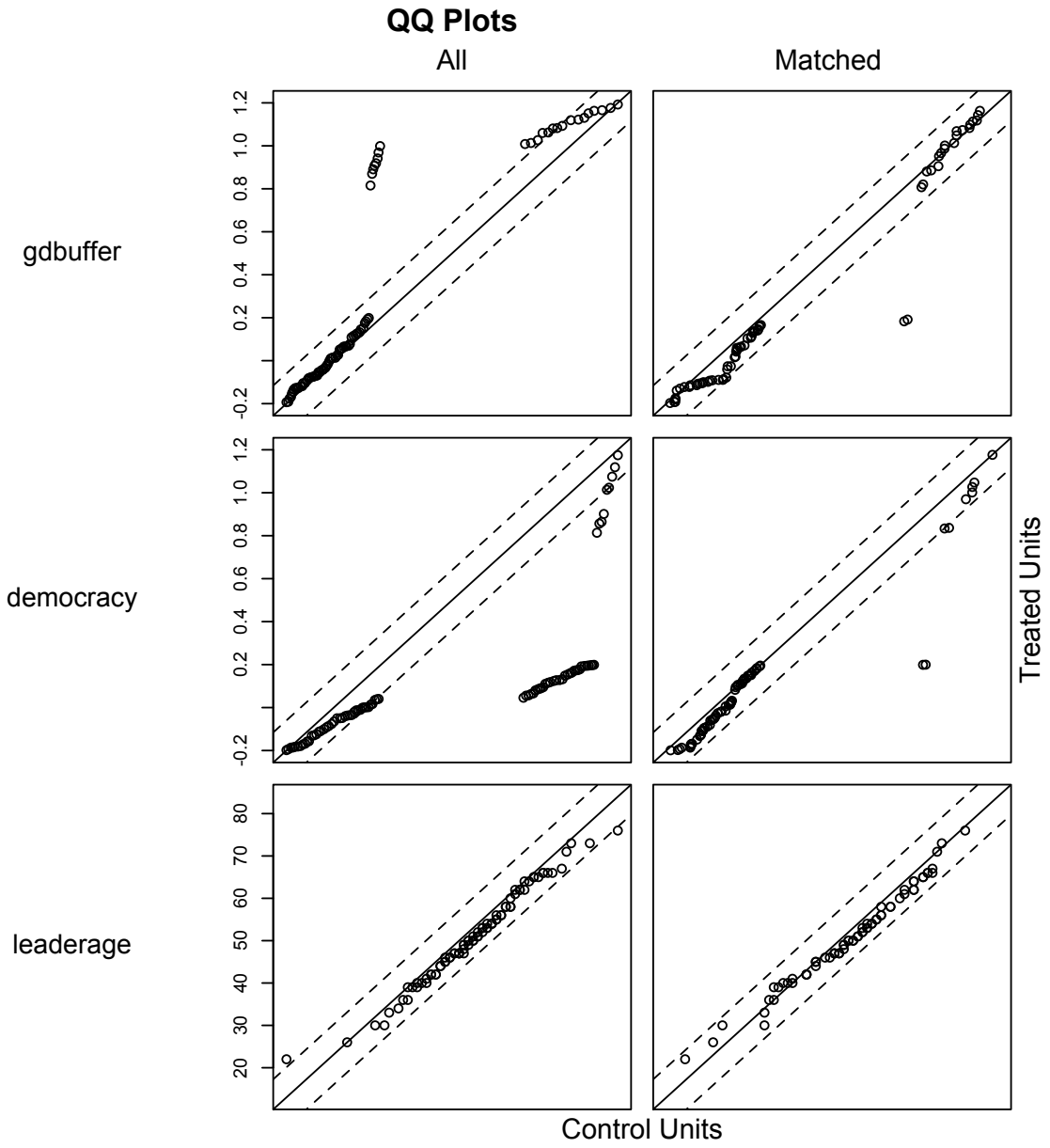
All FIRC

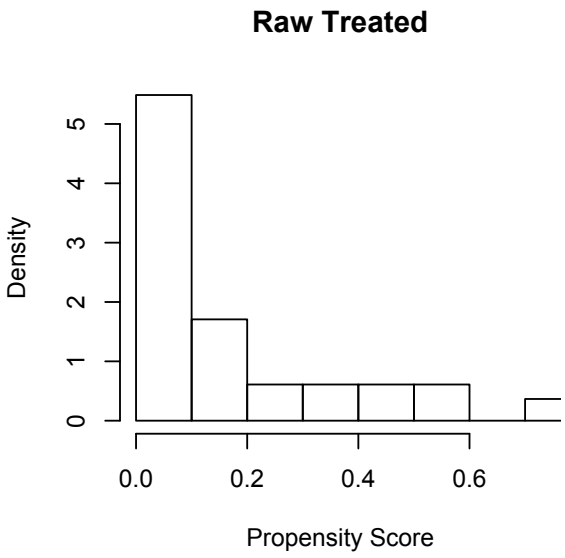
Note: **mountainous** is excluded from matching because the balance between treated (0.233) and control (0.228) cases was already very good.

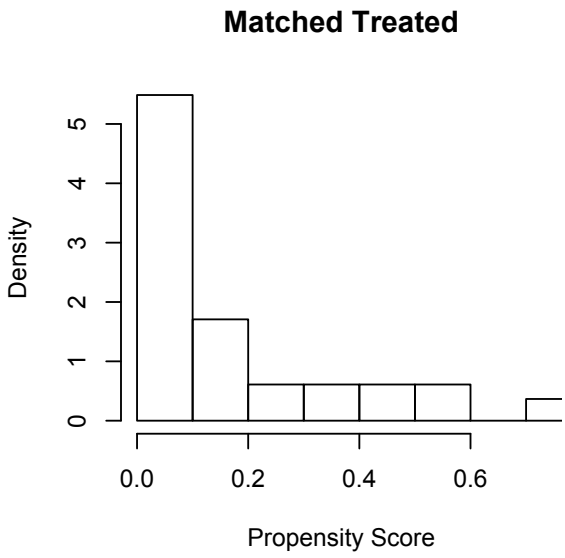
```
summary(firc.out2)

Call:
matchit(formula = foreign_entryabd ~ prevtimesinoffice + lntpop4_banks +
    lnpec4_fill + newstate + cw1000ongoing2014 + interwar + gdbuffer +
    democracy + leaderage, data = firc, method = "genetic", pop.size = 150)

Summary of balance for all data:
                  Means Treated Means Control SD Control Mean Diff eQQ Med eQQ Mean eQQ Max
distance                 0.1786        0.0418     0.0628    0.1368  0.0701   0.1336  0.5196
prevtimesinoffice        0.1585        0.2444     0.6142   -0.0859  0.0000   0.1220  4.0000
lntpop4_banks            8.4214        8.9106     1.5326   -0.4892  0.4563   0.5212  1.2759
lnpec4_fill              5.9014        7.5152     3.7693   -1.6138  1.3338   1.6716  8.6740
newstate                 0.0488        0.0720     0.2585   -0.0232  0.0000   0.0244  1.0000
cw1000ongoing2014        0.2805        0.1166     0.3211    0.1639  0.0000   0.1585  1.0000
interwar                 0.3415        0.0527     0.2236    0.2887  0.0000   0.2805  1.0000
gdbuffer                 0.2927        0.1873     0.3903    0.1053  0.0000   0.0976  1.0000
democracy                0.1098        0.4950     0.5001   -0.3853  0.0000   0.3902  1.0000
leaderage               51.1829       53.4361    11.0008   -2.2532  2.0000   2.4024  9.0000


Summary of balance for matched data:
                  Means Treated Means Control SD Control Mean Diff eQQ Med eQQ Mean eQQ Max
distance                 0.1786        0.1690     0.1675    0.0096  0.0150   0.0529  0.2552
prevtimesinoffice        0.1585        0.2317     0.5290   -0.0732  0.0000   0.0455  2.0000
lntpop4_banks            8.4214        8.5901     1.6446   -0.1687  0.2030   0.2415  1.5829
lnpec4_fill              5.9014        5.8558     3.9697    0.0456  0.2878   0.4392  2.5671
newstate                 0.0488        0.0244     0.1554    0.0244  0.0000   0.0152  1.0000
cw1000ongoing2014        0.2805        0.2927     0.4585   -0.0122  0.0000   0.0000  0.0000
interwar                 0.3415        0.3415     0.4778    0.0000  0.0000   0.1212  1.0000
gdbuffer                 0.2927        0.3049     0.4639   -0.0122  0.0000   0.0303  1.0000
democracy                0.1098        0.1098     0.3150    0.0000  0.0000   0.0303  1.0000
leaderage               51.1829       52.1220    11.5412   -0.9390  3.0000   2.3030  5.0000

Percent Balance Improvement:
                  Mean Diff.  eQQ Med eQQ Mean  eQQ Max
distance             92.9571  78.5300  60.3945  50.8835
prevtimesinoffice    14.7992   0.0000  62.7273  50.0000
lntpop4_banks        65.5073  55.5250  53.6691 -24.0600
lnpec4_fill          97.1759  78.4202  73.7246  70.4053
newstate             -5.2219   0.0000  37.8788   0.0000
cw1000ongoing2014    92.5577   0.0000 100.0000 100.0000
interwar            100.0000   0.0000  56.7852   0.0000
gdbuffer             88.4229   0.0000  68.9394   0.0000
democracy           100.0000   0.0000  92.2348   0.0000
leaderage            58.3244 -50.0000   4.1378  44.4444

Sample sizes:
          Control Treated
All          1612      82
Matched        66      82
Unmatched    1546       0
Discarded       0       0
```

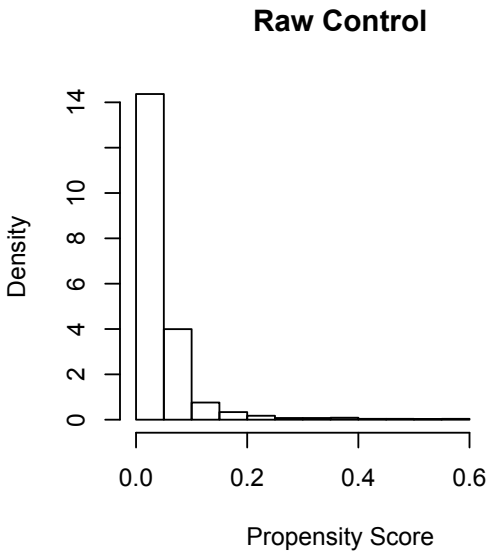

QQ Plots
All
Matched
prevtimesinoffice
lntpop4_banks
lnpec4_fill
Treated Units
Control Units

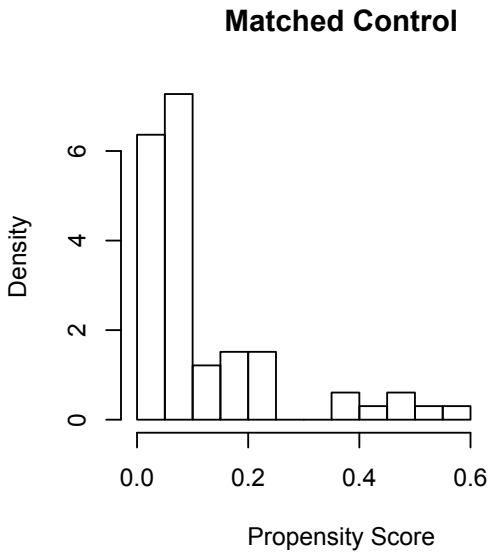

QQ Plots
All
Matched
newstate
cw1000ongoing2014
interwar
Treated Units
Control Units
-0.2
0.2
0.4
0.6
0.8
1.0
1.2


QQ Plots
All
Matched
gdbuffer
democracy
leaderage
Treated Units
Control Units
-0.2
0.2
0.4
0.6
0.8
1.0
1.2
20
30
40
50
60
70
80

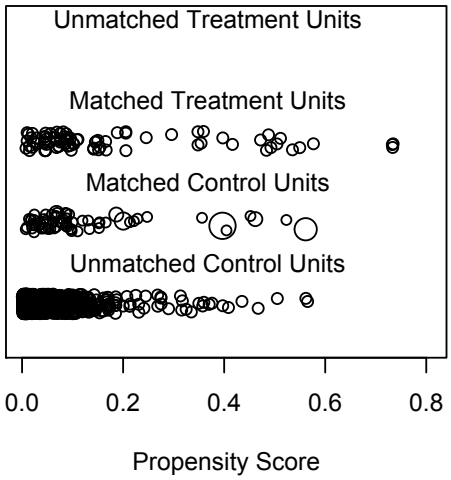

Raw Treated
Density
0
1
2
3
4
5
0.0
0.2
0.4
0.6
Propensity Score


Matched Treated
Density
0
1
2
3
4
5
0.0
0.2
0.4
0.6
Propensity Score


Raw Control
Density
0
2
4
6
8
10
14
0.0
0.2
0.4
0.6
Propensity Score


Matched Control
Density
0
2
4
6
0.0
0.2
0.4
0.6
Propensity Score

Distribution of Propensity Scores



```
tab irregbothfail foreign_entryabd, col chi2

irregbothf |   foreign_entryabd
       ail |         0          1 |     Total
-----------+----------------------+----------
         0 |        51         46 |        97
           |     77.27      56.10 |     65.54
-----------+----------------------+----------
         1 |        15         36 |        51
           |     22.73      43.90 |     34.46
-----------+----------------------+----------
     Total |        66         82 |       148
           |    100.00     100.00 |    100.00

          Pearson chi2(1) =   7.2599   Pr = 0.007

ttest irregbothfail, by(foreign_entryabd)

Two-sample t test with equal variances
------------------------------------------------------------------------------
   Group |     Obs        Mean    Std. Err.   Std. Dev.   [95% Conf. Interval]
---------+--------------------------------------------------------------------
       0 |      66    .2272727    .0519793    .4222815     .123463    .3310825
       1 |      82    .4390244    .0551409     .499322    .3293113    .5487375
---------+--------------------------------------------------------------------
combined |     148    .3445946    .0391968    .4768496    .2671326    .4220566
---------+--------------------------------------------------------------------
    diff |           -.2117517    .0771603               -.364247   -.0592563
------------------------------------------------------------------------------
    diff = mean(0) - mean(1)                                      t =  -2.7443
Ho: diff = 0                                     degrees of freedom =      146

    Ha: diff < 0                 Ha: diff != 0                 Ha: diff > 0
 Pr(T < t) = 0.0034         Pr(|T| > |t|) = 0.0068          Pr(T > t) = 0.9966

stset tenure, failure(failtype==1)

     failure event:  failtype == 1
obs. time interval:  (0, tenure]
 exit on or before:  failure

------------------------------------------------------------------------------
        148  total observations
          1  observation ends on or before enter()
------------------------------------------------------------------------------
        147  observations remaining, representing
         50  failures in single-record/single-failure data
    299,806  total analysis time at risk and under observation
                                            at risk from t =         0
                                 earliest observed entry t =         0
                                      last observed exit t =    13,361
```

```
stcrreg foreign_entryabd, compete(failtype==2 3) vce(cluster ccode)

         failure _d:  failtype == 1
   analysis time _t:  tenure

Iteration 0:   log pseudolikelihood = -232.76061
Iteration 1:   log pseudolikelihood = -232.75926
Iteration 2:   log pseudolikelihood = -232.75926

Competing-risks regression                    No. of obs       =        147
                                              No. of subjects  =        147
Failure event   : failtype == 1               No. failed       =         50
Competing events: failtype == 2 3             No. competing    =         86
                                              No. censored     =         11

                                              Wald chi2(1)     =       7.93
Log pseudolikelihood = -232.75926             Prob > chi2      =     0.0049

                                  (Std. Err. adjusted for 81 clusters in ccode)
------------------------------------------------------------------------------
             |               Robust
          _t |        SHR   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
foreign_entryabd |   2.400803   .7467026     2.82   0.005     1.305011    4.416711
------------------------------------------------------------------------------



stcrreg foreign_entryabd mountainous lntpop4_banks lnpec4_fill newstate cw1000ongoing2014
interwar gdbuffer democracy leaderage, compete(failtype==2 3) vce(cluster ccode)

         failure _d:  failtype == 1
   analysis time _t:  tenure

Iteration 0:   log pseudolikelihood = -227.69395
Iteration 1:   log pseudolikelihood = -225.79718
Iteration 2:   log pseudolikelihood =  -225.7327
Iteration 3:   log pseudolikelihood = -225.73249
Iteration 4:   log pseudolikelihood = -225.73249

Competing-risks regression                    No. of obs       =        147
                                              No. of subjects  =        147
Failure event   : failtype == 1               No. failed       =         50
Competing events: failtype == 2 3             No. competing    =         86
                                              No. censored     =         11

                                              Wald chi2(10)    =      24.16
Log pseudolikelihood = -225.73249             Prob > chi2      =     0.0072

                                  (Std. Err. adjusted for 81 clusters in ccode)
------------------------------------------------------------------------------
             |               Robust
          _t |        SHR   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
 foreign_entryabd |   2.451998   .6779689     3.24   0.001     1.426152    4.215746
      mountainous |   .6998036   .3456409    -0.72   0.470     .2658019    1.842444
    lntpop4_banks |   1.105484   .1549191     0.72   0.474     .8399776    1.454913
      lnpec4_fill |   .9219537   .0620138    -1.21   0.227     .8080799    1.051874
         newstate |     2.0964    2.36295     0.66   0.511     .2301683    19.09427
cw1000ongoing2014 |   .9305998    .287079    -0.23   0.816      .508367    1.703525
         interwar |   .8743139   .3598321    -0.33   0.744      .390254    1.958788
         gdbuffer |   .8540534   .3201506    -0.42   0.674      .409641    1.780601
        democracy |   .4925797   .5096029    -0.68   0.494     .0648423    3.741923
        leaderage |   .9800806   .0128543    -1.53   0.125     .9552076    1.005601
------------------------------------------------------------------------------
```

Leadership FIRC

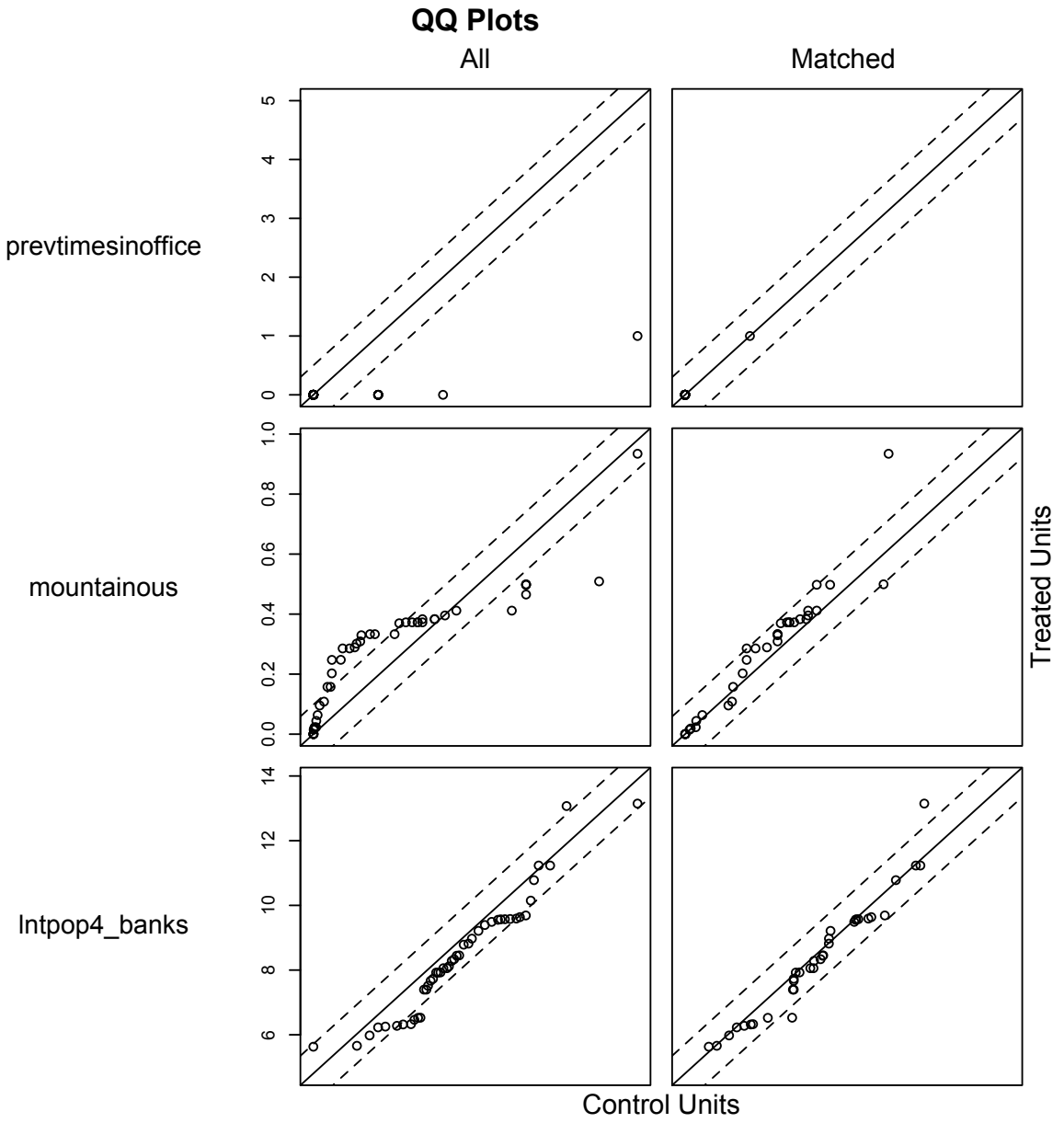
Note: **newstate** is excluded from matching because the balance between treated (0.089) and control (0.070) cases was already good and matching worsened it.

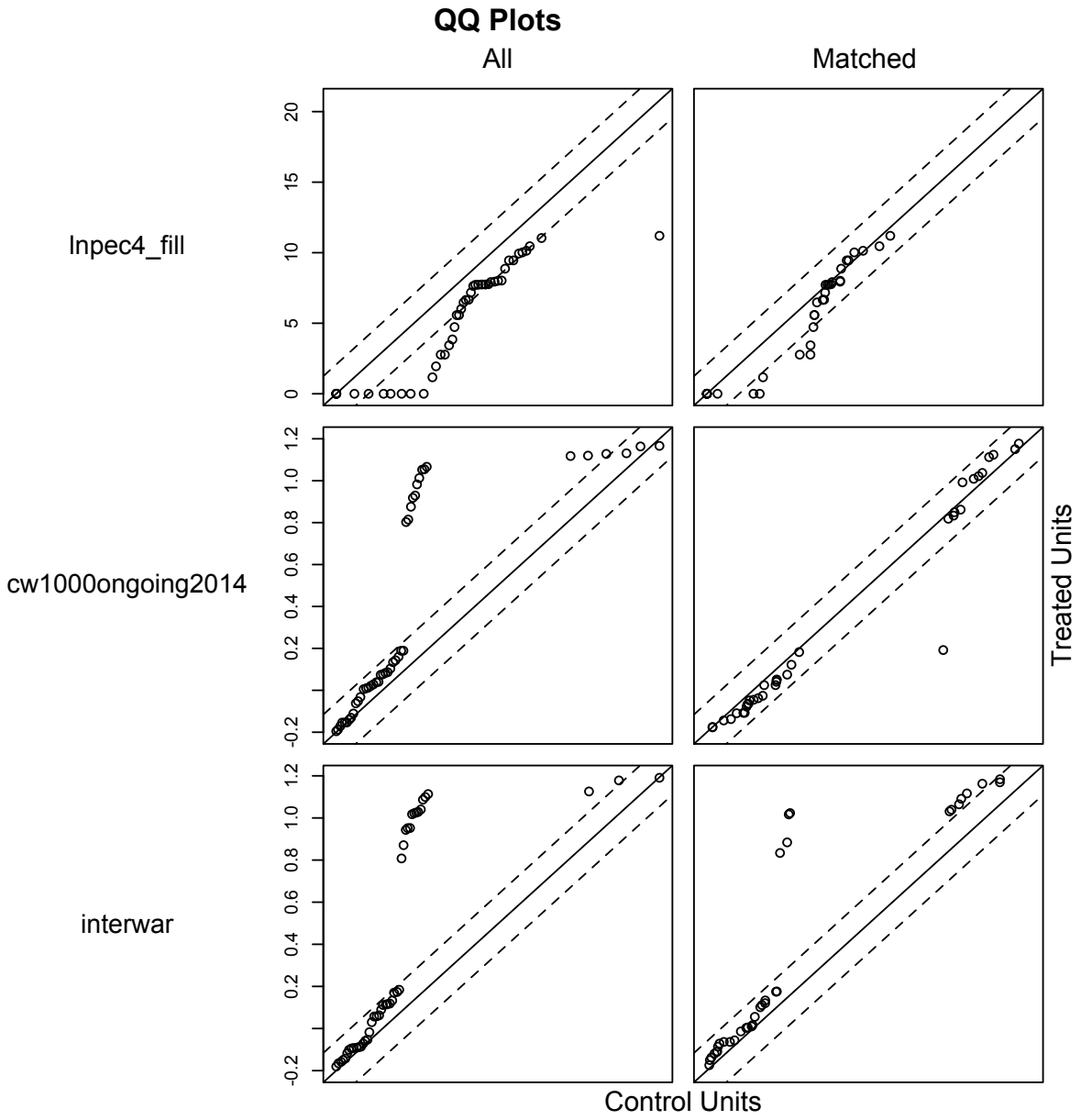
```
summary(firc.out1)

Call:
matchit(formula = leadfirc_entry ~ prevtimesinoffice + mountainous +
    lntpop4_banks + lnpec4_fill + cw1000ongoing2014 + interwar +
    gdbuffer + democracy + leaderage, data = firc, method = "genetic",
    pop.size = 150)

Summary of balance for all data:
                 Means Treated Means Control SD Control Mean Diff eQQ Med eQQ Mean eQQ Max
distance                0.1522        0.0231     0.0466    0.1291  0.0607   0.1226  0.4400
prevtimesinoffice       0.0222        0.2462     0.6114   -0.2240  0.0000   0.2889  4.0000
mountainous             0.2713        0.2268     0.2393    0.0444  0.0764   0.0939  0.3550
lntpop4_banks           8.4196        8.8997     1.5363   -0.4801  0.4431   0.5770  1.2800
lnpec4_fill             5.1915        7.4984     3.7727   -2.3069  2.0250   2.4318  9.5977
cw1000ongoing2014       0.3556        0.1183     0.3230    0.2373  0.0000   0.2222  1.0000
interwar                0.3556        0.0588     0.2354    0.2967  0.0000   0.2889  1.0000
gdbuffer                0.2667        0.1904     0.3928    0.0762  0.0000   0.0667  1.0000
democracy               0.0444        0.4882     0.5000   -0.4437  0.0000   0.4444  1.0000
leaderage              46.8667       53.5033    10.9733   -6.6367  7.0000   6.9111 11.0000


Summary of balance for matched data:
                 Means Treated Means Control SD Control Mean Diff eQQ Med eQQ Mean eQQ Max
distance                0.1522        0.1384     0.1520    0.0138  0.0144   0.0449  0.2254
prevtimesinoffice       0.0222        0.0222     0.1496    0.0000  0.0000   0.0000  0.0000
mountainous             0.2713        0.2389     0.1597    0.0324  0.0355   0.0462  0.3191
lntpop4_banks           8.4196        8.4622     1.5939   -0.0426  0.1826   0.2823  1.6342
lnpec4_fill             5.1915        5.8775     3.3983   -0.6860  0.5384   0.9160  3.8874
cw1000ongoing2014       0.3556        0.3778     0.4919   -0.0222  0.0000   0.0286  1.0000
interwar                0.3556        0.3556     0.4857    0.0000  0.0000   0.1143  1.0000
gdbuffer                0.2667        0.2667     0.4487    0.0000  0.0000   0.0000  0.0000
democracy               0.0444        0.0444     0.2091    0.0000  0.0000   0.0000  0.0000
leaderage              46.8667       48.2000    11.4661   -1.3333  2.0000   2.4857  7.0000

Percent Balance Improvement:
                 Mean Diff. eQQ Med eQQ Mean  eQQ Max
distance             89.3164 76.3237  63.4115  48.7702
prevtimesinoffice   100.0000  0.0000 100.0000 100.0000
mountainous          27.0324 53.5443  50.8310  10.1128
lntpop4_banks        91.1295 58.7849  51.0745 -27.6741
lnpec4_fill          70.2619 73.4102  62.3320  59.4968
cw1000ongoing2014    90.6355  0.0000  87.1429   0.0000
interwar            100.0000  0.0000  60.4396   0.0000
gdbuffer            100.0000  0.0000 100.0000 100.0000
democracy           100.0000  0.0000 100.0000 100.0000
leaderage            79.9096 71.4286  64.0331  36.3636

Sample sizes:
          Control Treated
All          1649      45
Matched        35      45
Unmatched    1614       0
Discarded       0       0
```

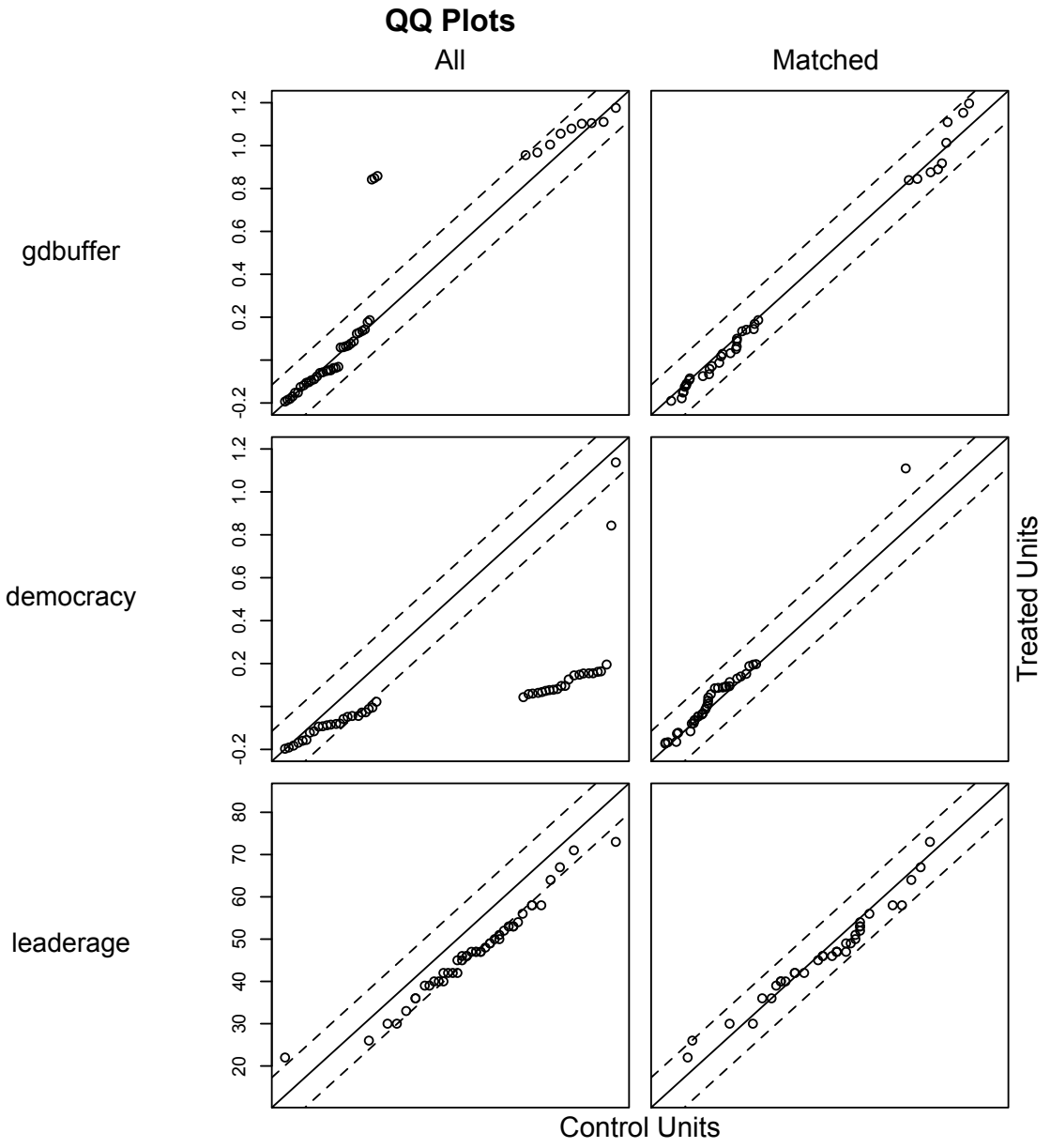
Table 5.9. Balance Statistics for Genetic Matching of Leadership Regime Change

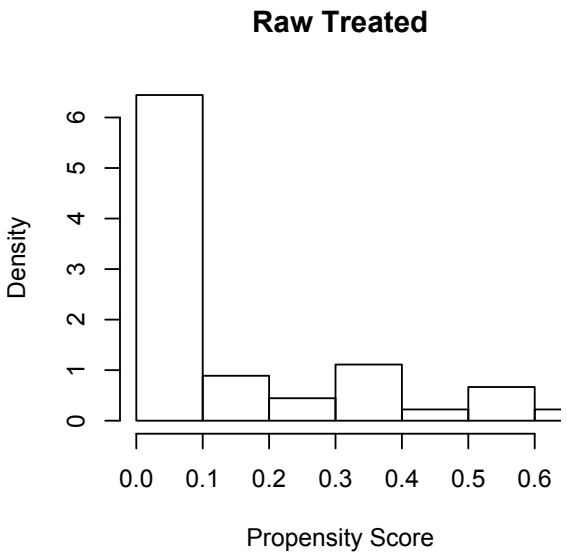
Variable	Mean Treated	Mean Control, before Matching	Mean Control, after Matching	Percent Improvement
Distance	0.1522	0.0231	0.1384	89.3164
Economic Development	5.1915	7.4984	5.8775	70.2619
Population	8.4196	8.8997	8.4622	91.1295
Rough Terrain	0.2713	0.2268	0.2389	27.0324
New State*	0.0889	0.0703	–	–
Democracy	0.0444	0.4882	0.0444	100
Lose Interstate War	0.3556	0.0588	0.3556	100
Ongoing Civil War	0.3556	0.1183	0.3778	90.6355
Buffer State	0.2667	0.1904	0.2667	100
Previous Times in Office	0.0222	0.2462	0.0222	100
Leader Age	46.8667	53.5033	48.2000	79.9096

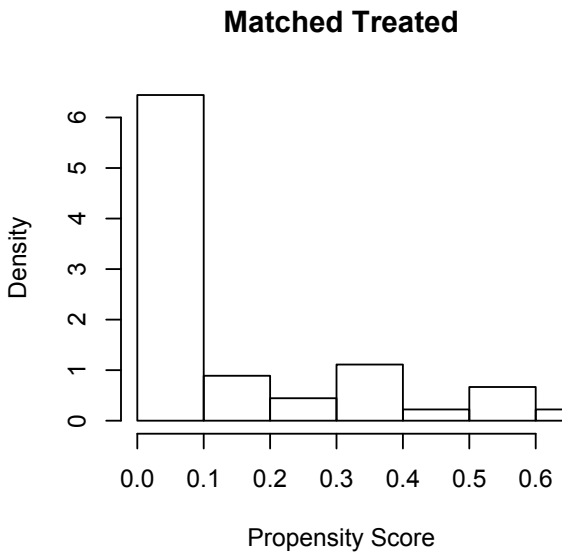
Note: *N* before matching was 1,694 (45 treated, 1,649 control). *N* after matching was 80 (45 treated, 35 control, some of which were matched to more than one case of regime change).
* The variable for new states was omitted from matching because balance between treated and control cases was already acceptable and matching consistently worsened balance for this variable.

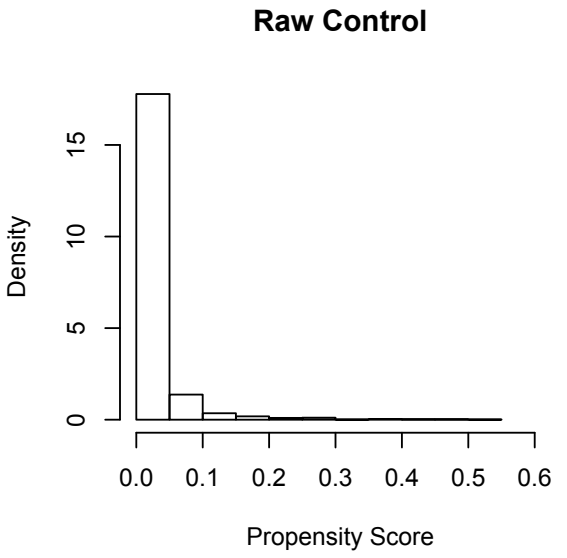

QQ Plots
All
Matched
prevtimesinoffice
mountainous
lntpop4_banks
Treated Units
Control Units
0
1
2
3
4
5
0.0
0.2
0.4
0.6
0.8
1.0
6
8
10
12
14

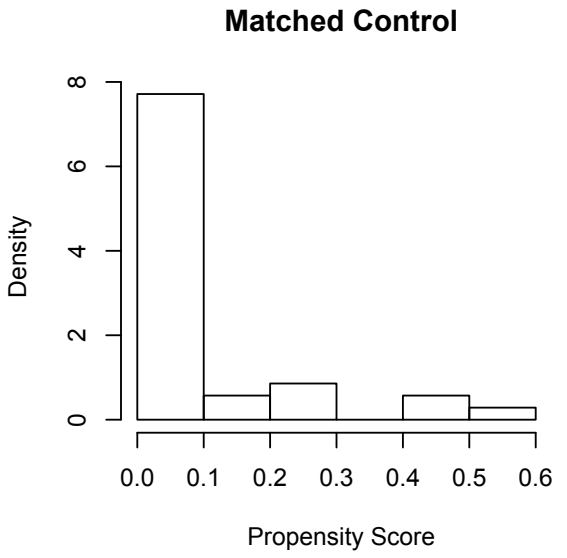

QQ Plots
All
Matched
lnpec4_fill
cw1000ongoing2014
interwar
Treated Units
Control Units
0
5
10
15
20
-0.2
0.2
0.4
0.6
0.8
1.0
1.2


QQ Plots
All
Matched
gdbuffer
democracy
leaderage
Treated Units
Control Units
-0.2
0.2
0.4
0.6
0.8
1.0
1.2
20
30
40
50
60
70
80

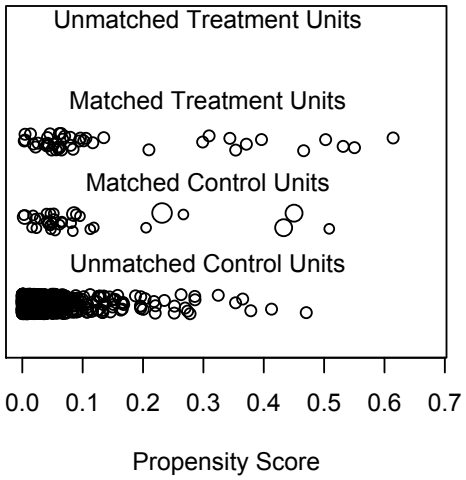

Raw Treated
Density
0
1
2
3
4
5
6
0.0
0.1
0.2
0.3
0.4
0.5
0.6
Propensity Score


Matched Treated
Density
0
1
2
3
4
5
6
0.0
0.1
0.2
0.3
0.4
0.5
0.6
Propensity Score


Raw Control
Density
0
5
10
15
0.0
0.1
0.2
0.3
0.4
0.5
0.6
Propensity Score


Matched Control
Density
0
2
4
6
8
0.0
0.1
0.2
0.3
0.4
0.5
0.6
Propensity Score

Distribution of Propensity Scores

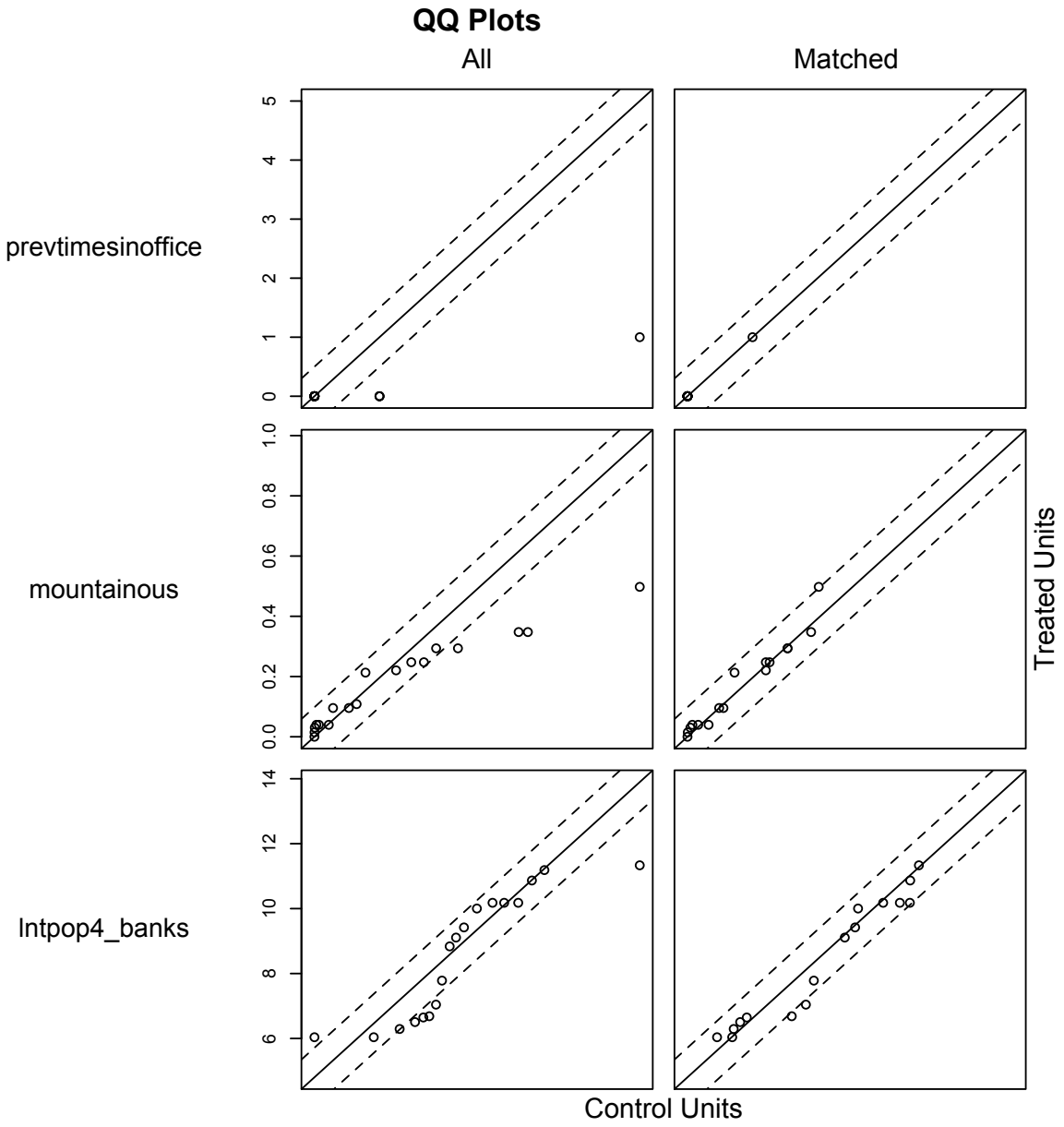


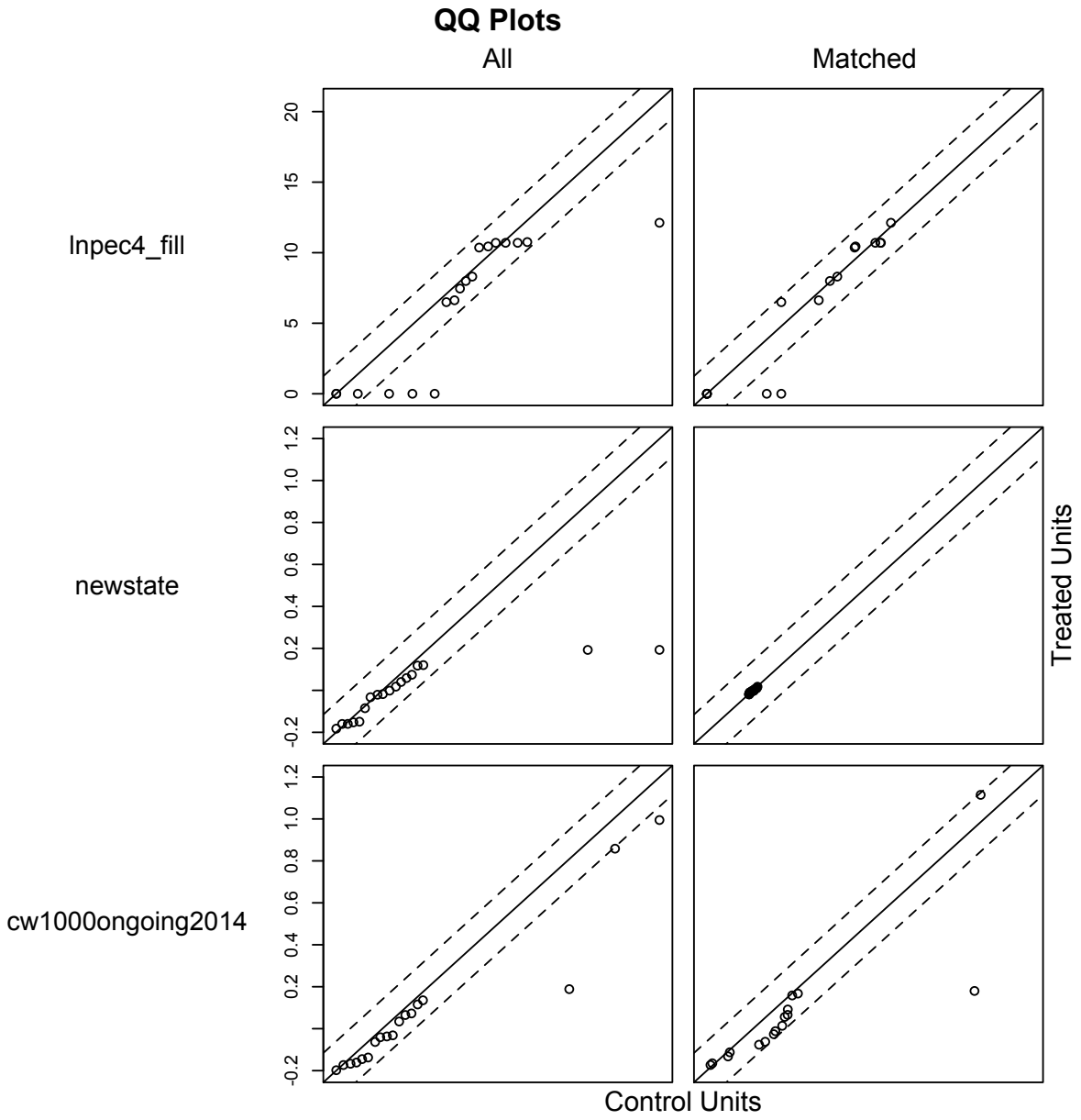
```
tab irregbothfail leadfirc_entry, col chi2

irregbothf |    leadfirc_entry
       ail |         0          1 |     Total
-----------+----------------------+----------
         0 |        23         15 |        38
           |     65.71      33.33 |     47.50
-----------+----------------------+----------
         1 |        12         30 |        42
           |     34.29      66.67 |     52.50
-----------+----------------------+----------
     Total |        35         45 |        80
           |    100.00     100.00 |    100.00

          Pearson chi2(1) =   8.2778   Pr = 0.004

ttest irregbothfail, by(leadfirc_entry)

Two-sample t test with equal variances
------------------------------------------------------------------------------
   Group |     Obs        Mean    Std. Err.   Std. Dev.   [95% Conf. Interval]
---------+--------------------------------------------------------------------
       0 |      35    .3428571    .0814042     .481594    .1774238    .5082905
       1 |      45    .6666667    .0710669    .4767313    .5234407    .8098926
---------+--------------------------------------------------------------------
combined |      80        .525     .056184    .5025253    .4131685    .6368315
---------+--------------------------------------------------------------------
    diff |           -.3238095    .1079221               -.538666    -.108953
------------------------------------------------------------------------------
    diff = mean(0) - mean(1)                                      t =  -3.0004
Ho: diff = 0                                     degrees of freedom =       78

    Ha: diff < 0                 Ha: diff != 0                 Ha: diff > 0
 Pr(T < t) = 0.0018         Pr(|T| > |t|) = 0.0036          Pr(T > t) = 0.9982

stset tenure, failure(failtype==1)

     failure event:  failtype == 1
obs. time interval:  (0, tenure]
 exit on or before:  failure

------------------------------------------------------------------------------
         80  total observations
          0  exclusions
------------------------------------------------------------------------------
         80  observations remaining, representing
         42  failures in single-record/single-failure data
    156,822  total analysis time at risk and under observation
                                            at risk from t =         0
                                 earliest observed entry t =         0
                                      last observed exit t =    16,800
```

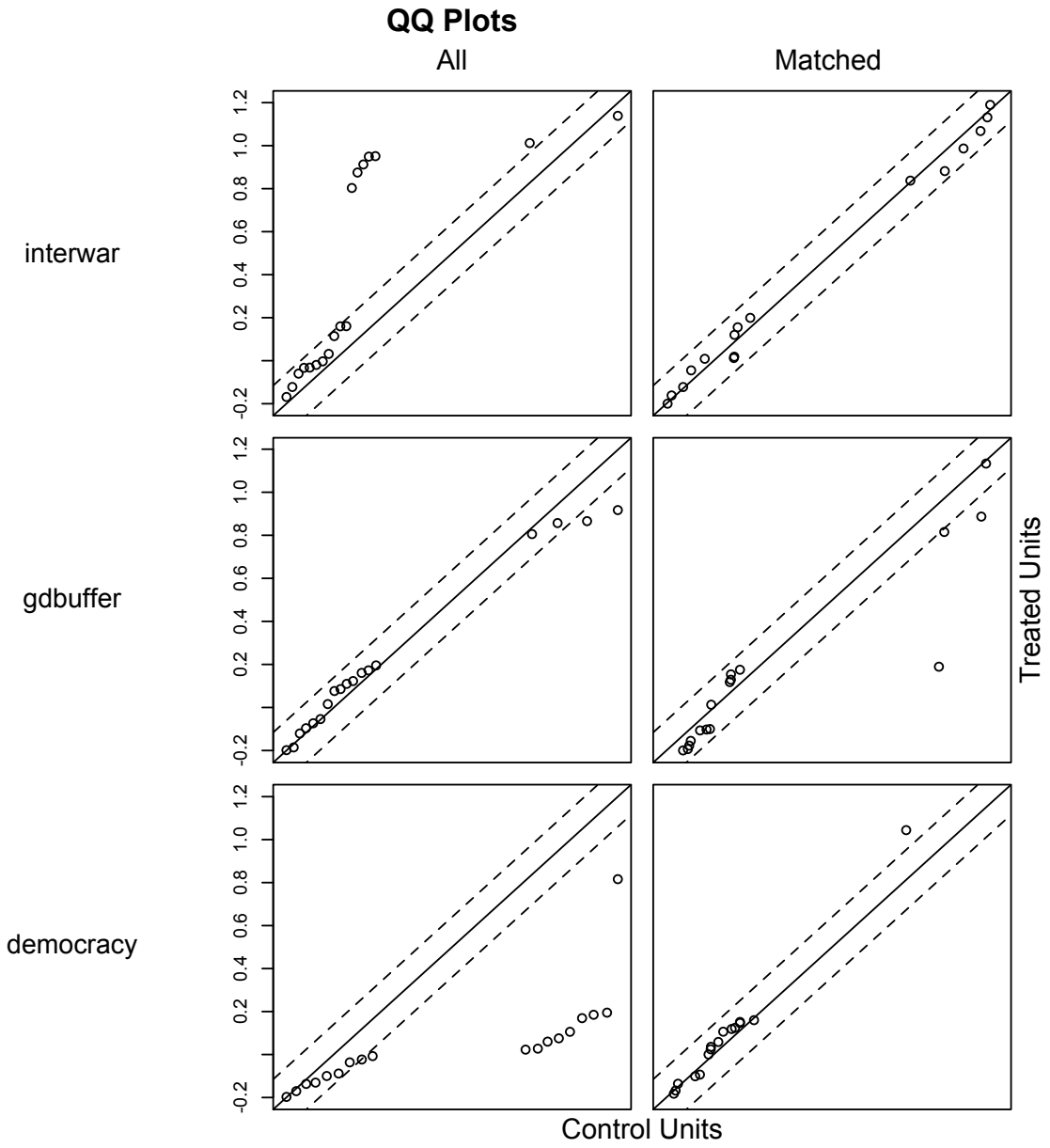
```
stcrreg leadfirc_entry, compete(failtype==2 3) vce(cluster ccode)

         failure _d:  failtype == 1
   analysis time _t:  tenure

Iteration 0:   log pseudolikelihood = -165.64558
Iteration 1:   log pseudolikelihood = -165.61988
Iteration 2:   log pseudolikelihood = -165.61987

Competing-risks regression                    No. of obs       =         80
                                              No. of subjects  =         80
Failure event   : failtype == 1               No. failed       =         42
Competing events: failtype == 2 3             No. competing    =         34
                                              No. censored     =          4

                                              Wald chi2(1)     =       7.00
Log pseudolikelihood = -165.61987             Prob > chi2      =     0.0082

                                 (Std. Err. adjusted for 54 clusters in ccode)
------------------------------------------------------------------------------
             |               Robust
          _t |        SHR   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
leadfirc_entry |   2.503631   .8684476     2.65   0.008     1.268556    4.941184
------------------------------------------------------------------------------

stcrreg leadfirc_entry mountainous lntpop4_banks lnpec4_fill newstate cw1000ongoing2014 interwar
gdbuffer democracy leaderage, compete(failtype==2 3) vce(cluster ccode)

         failure _d:  failtype == 1
   analysis time _t:  tenure

Iteration 0:   log pseudolikelihood = -165.27546
Iteration 1:   log pseudolikelihood = -163.94308
Iteration 2:   log pseudolikelihood = -163.91876
Iteration 3:   log pseudolikelihood = -163.91876

Competing-risks regression                    No. of obs       =         80
                                              No. of subjects  =         80
Failure event   : failtype == 1               No. failed       =         42
Competing events: failtype == 2 3             No. competing    =         34
                                              No. censored     =          4

                                              Wald chi2(10)    =      12.14
Log pseudolikelihood = -163.91876             Prob > chi2      =     0.2756

                                 (Std. Err. adjusted for 54 clusters in ccode)
------------------------------------------------------------------------------
             |               Robust
          _t |        SHR   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
leadfirc_entry |   2.689375   1.108677     2.40   0.016     1.198807    6.03328
  mountainous |   1.027537   .9056926     0.03   0.975     .1826127    5.781815
 lntpop4_banks |    1.02185   .1677202     0.13   0.895     .7407577    1.409608
   lnpec4_fill |   1.014701   .0914606     0.16   0.871     .8503831     1.21077
     newstate |   1.278289   .7921081     0.40   0.692     .3794647    4.306128
cw1000ongoing2014 |   .8392948   .2679475    -0.55   0.583     .4489167    1.569146
     interwar |   .9687252   .4473083    -0.07   0.945     .3918851    2.394652
     gdbuffer |   .6156084   .3151969    -0.95   0.343     .2256742    1.679296
    democracy |   3.847119   4.282186     1.21   0.226     .4341826    34.08779
    leaderage |   .9973651   .0206374    -0.13   0.899     .9577257    1.038645
------------------------------------------------------------------------------
```

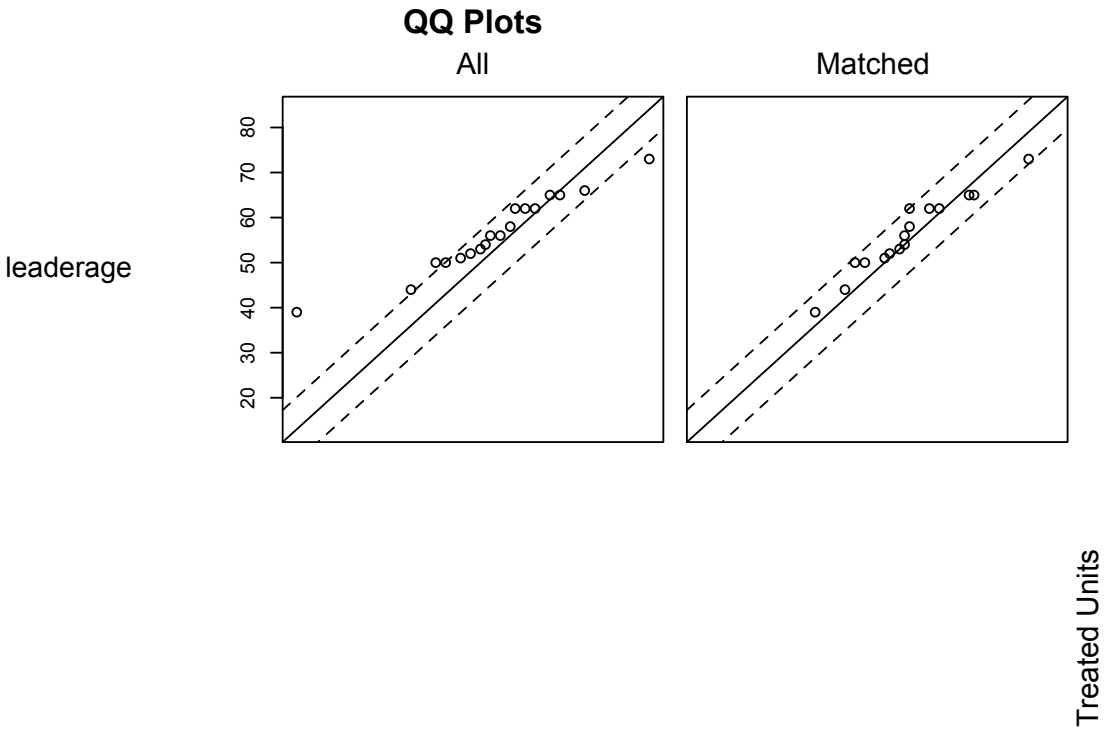
Institutional FIRC

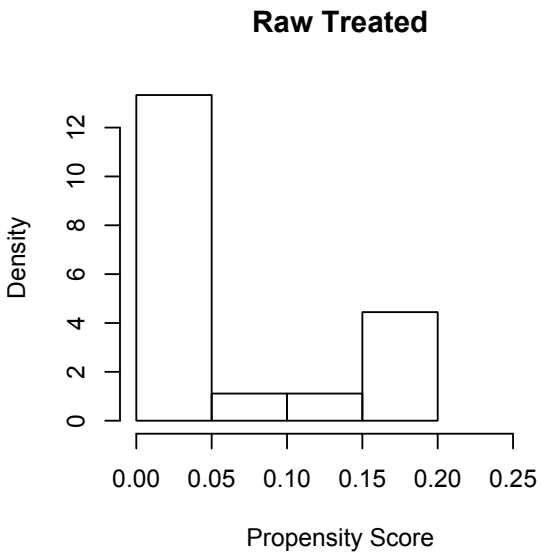
```
summary(firc.out4)

Call:
matchit(formula = instfirc_entry ~ prevtimesinoffice + mountainous +
    lntpop4_banks + lnpec4_fill + newstate + cw1000ongoing2014 +
    interwar + gdbuffer + democracy + leaderage, data = firc,
    method = "genetic", pop.size = 150)

Summary of balance for all data:
                Means Treated Means Control SD Control Mean Diff eQQ Med eQQ Mean eQQ Max
distance               0.0659        0.0100     0.0222    0.0559  0.0284   0.0529  0.1514
prevtimesinoffice      0.0556        0.2422     0.6072   -0.1867  0.0000   0.3889  4.0000
mountainous            0.1762        0.2286     0.2390   -0.0524  0.0366   0.0912  0.4824
lntpop4_banks          8.5732        8.8903     1.5408   -0.3171  0.5119   0.7248  2.5631
lnpec4_fill            6.2588        7.4498     3.7804   -1.1910  0.8193   1.8074  8.6740
newstate               0.0000        0.0716     0.2579   -0.0716  0.0000   0.1111  1.0000
cw1000ongoing2014      0.1111        0.1247     0.3305   -0.0136  0.0000   0.0556  1.0000
interwar               0.3889        0.0632     0.2435    0.3256  0.0000   0.2778  1.0000
gdbuffer               0.2222        0.1921     0.3941    0.0301  0.0000   0.0000  0.0000
democracy              0.0556        0.4809     0.4998   -0.4254  0.0000   0.4444  1.0000
leaderage             56.5556       53.2924    11.0370    3.2632  4.0000   5.5556 26.0000


Summary of balance for matched data:
                Means Treated Means Control SD Control Mean Diff eQQ Med eQQ Mean eQQ Max
distance               0.0659        0.0659     0.0730    0.0001  0.0023   0.0055  0.0180
prevtimesinoffice      0.0556        0.0556     0.2366    0.0000  0.0000   0.0000  0.0000
mountainous            0.1762        0.1663     0.1422    0.0099  0.0133   0.0216  0.1023
lntpop4_banks          8.5732        8.4673     2.0411    0.1059  0.2117   0.3755  1.0717
lnpec4_fill            6.2588        6.0524     4.4762    0.2064  0.3697   0.8863  4.7864
newstate               0.0000        0.0000     0.0000    0.0000  0.0000   0.0000  0.0000
cw1000ongoing2014      0.1111        0.1111     0.3246    0.0000  0.0000   0.0625  1.0000
interwar               0.3889        0.3889     0.5035    0.0000  0.0000   0.0000  0.0000
gdbuffer               0.2222        0.2222     0.4294    0.0000  0.0000   0.0625  1.0000
democracy              0.0556        0.0556     0.2366    0.0000  0.0000   0.0000  0.0000
leaderage             56.5556       55.2222    10.5187    1.3333  2.5000   2.7500  7.0000

Percent Balance Improvement:
                Mean Diff. eQQ Med eQQ Mean  eQQ Max
distance            99.9095 91.8368  89.5499  88.1288
prevtimesinoffice  100.0000  0.0000 100.0000 100.0000
mountainous         81.0023 63.7069  76.3332  78.7999
lntpop4_banks       66.6232 58.6472  48.1987  58.1863
lnpec4_fill         82.6720 54.8725  50.9609  44.8189
newstate           100.0000  0.0000 100.0000 100.0000
cw1000ongoing2014  100.0000  0.0000 -12.5000   0.0000
interwar           100.0000  0.0000 100.0000 100.0000
gdbuffer           100.0000  0.0000     -Inf     -Inf
democracy          100.0000  0.0000 100.0000 100.0000
leaderage           59.1402 37.5000  50.5000  73.0769

Sample sizes:
          Control Treated
All          1676      18
Matched        16      18
Unmatched    1660       0
Discarded       0       0
```

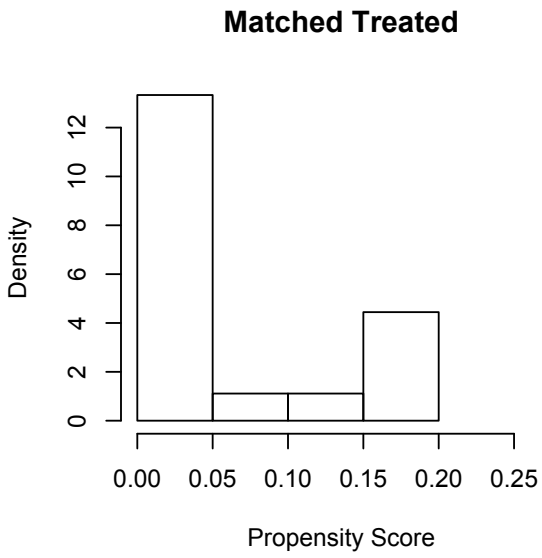

QQ Plots
All
Matched
prevtimesinoffice
mountainous
lntpop4_banks
Treated Units
Control Units
0
1
2
3
4
5
0.0
0.2
0.4
0.6
0.8
1.0
6
8
10
12
14

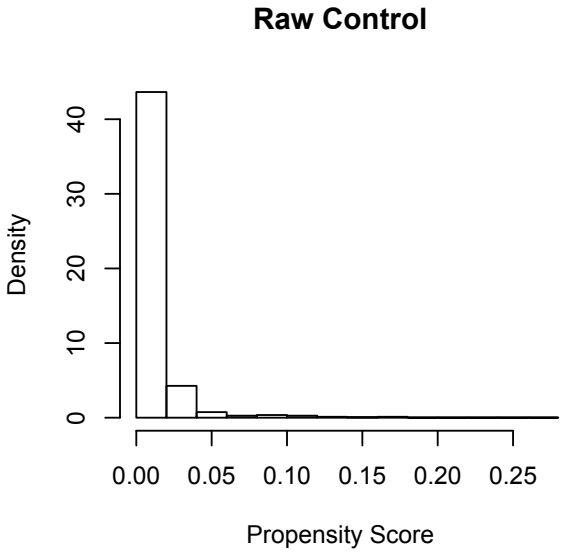

QQ Plots
All
Matched
lnpec4_fill
newstate
cw1000ongoing2014
Treated Units
Control Units
0
5
10
15
20
-0.2
0.2
0.4
0.6
0.8
1.0
1.2

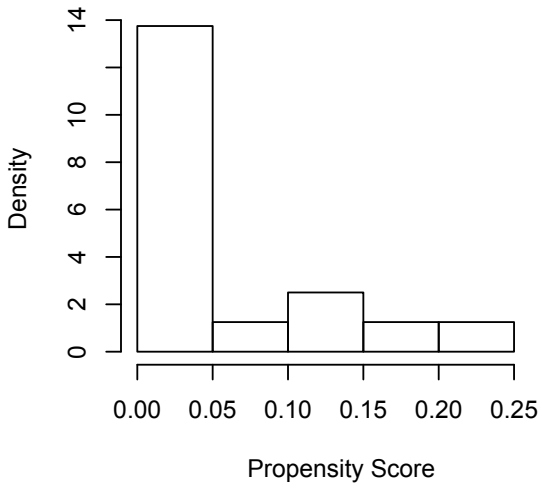

QQ Plots
All
Matched
interwar
gdbuffer
democracy
-0.2
0.2
0.4
0.6
0.8
1.0
1.2
Treated Units
Control Units


QQ Plots
All
Matched
leaderage
20
30
40
50
60
70
80
Treated Units
Control Units

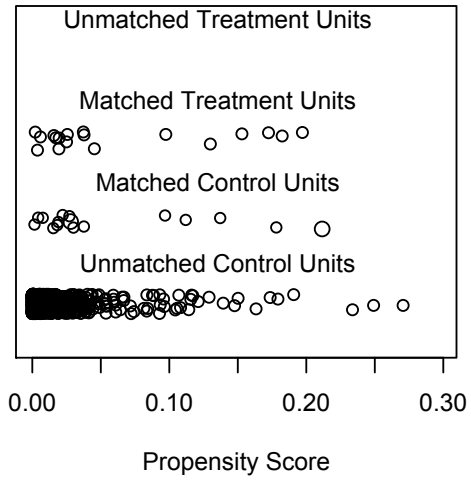

Raw Treated
Density
0
2
4
6
8
10
12
0.00
0.05
0.10
0.15
0.20
0.25
Propensity Score


Matched Treated
Density
0
2
4
6
8
10
12
0.00
0.05
0.10
0.15
0.20
0.25
Propensity Score


Raw Control
Density
0
10
20
30
40
0.00
0.05
0.10
0.15
0.20
0.25
Propensity Score


Matched Control
Density
0
2
4
6
8
10
14
0.00
0.05
0.10
0.15
0.20
0.25
Propensity Score

Distribution of Propensity Scores



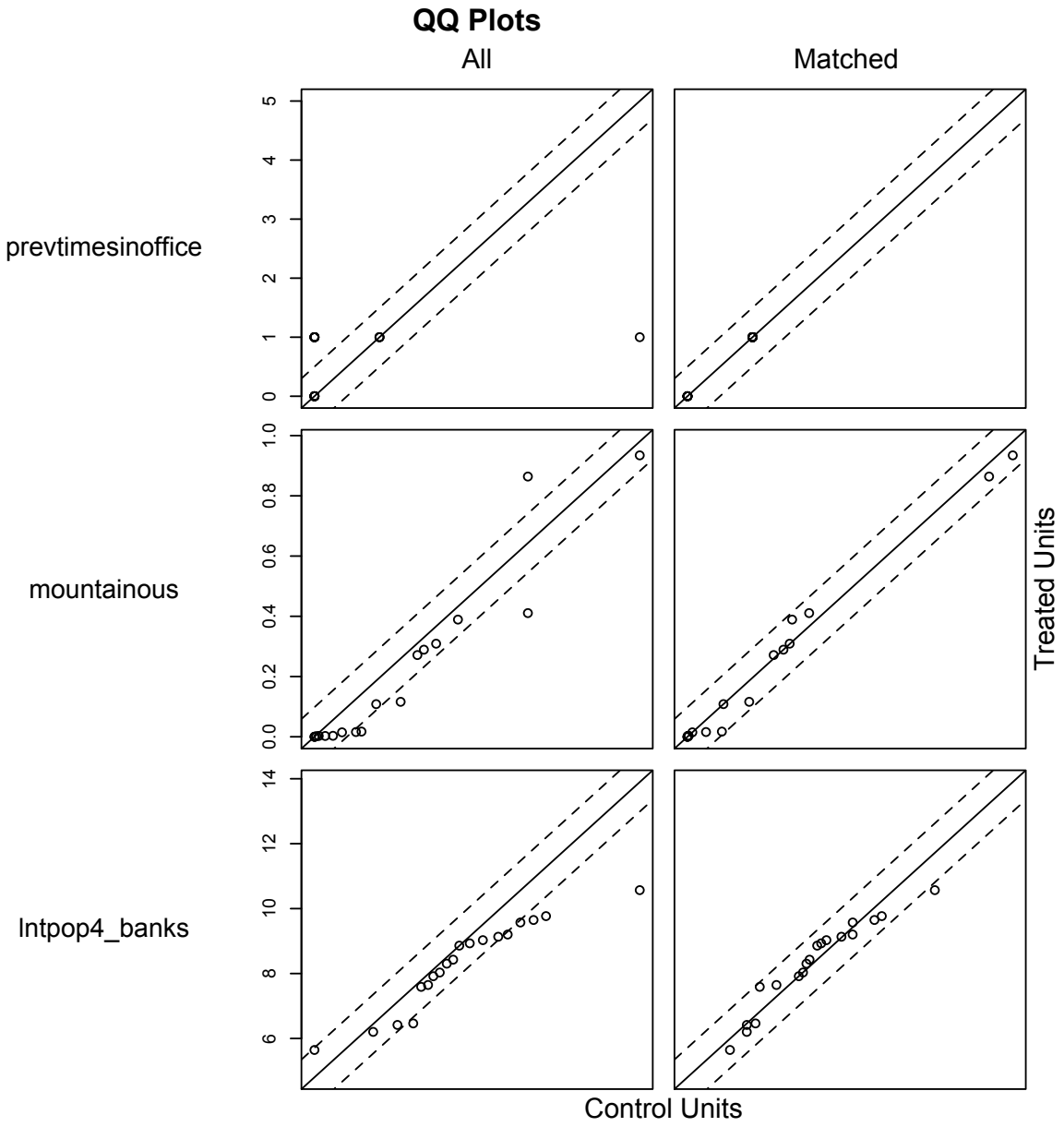
```
tab irregbothfail instfirc_entry, col chi2

irregbothf |    instfirc_entry
       ail |         0          1 |     Total
-----------+----------------------+----------
         0 |        13         14 |        27
           |     81.25      77.78 |     79.41
-----------+----------------------+----------
         1 |         3          4 |         7
           |     18.75      22.22 |     20.59
-----------+----------------------+----------
     Total |        16         18 |        34
           |    100.00     100.00 |    100.00

          Pearson chi2(1) =   0.0625   Pr = 0.803

ttest irregbothfail, by(instfirc_entry)

Two-sample t test with equal variances
------------------------------------------------------------------------------
   Group |     Obs        Mean    Std. Err.   Std. Dev.   [95% Conf. Interval]
---------+--------------------------------------------------------------------
       0 |      16       .1875    .1007782    .4031129   -.0273037    .4023037
       1 |      18    .2222222    .1008317    .4277926     .009486    .4349585
---------+--------------------------------------------------------------------
combined |      34    .2058824    .0703874    .4104256    .0626781    .3490866
---------+--------------------------------------------------------------------
    diff |           -.0347222    .1430739               -.3261542    .2567097
------------------------------------------------------------------------------
    diff = mean(0) - mean(1)                                      t =  -0.2427
Ho: diff = 0                                     degrees of freedom =       32

    Ha: diff < 0                 Ha: diff != 0                 Ha: diff > 0
 Pr(T < t) = 0.4049         Pr(|T| > |t|) = 0.8098          Pr(T > t) = 0.5951

stset tenure, failure(failtype==1)

     failure event:  failtype == 1
obs. time interval:  (0, tenure]
 exit on or before:  failure

------------------------------------------------------------------------------
         34  total observations
          0  exclusions
------------------------------------------------------------------------------
         34  observations remaining, representing
          7  failures in single-record/single-failure data
     52,395  total analysis time at risk and under observation
                                             at risk from t =         0
                                  earliest observed entry t =         0
                                       last observed exit t =    11,522
```

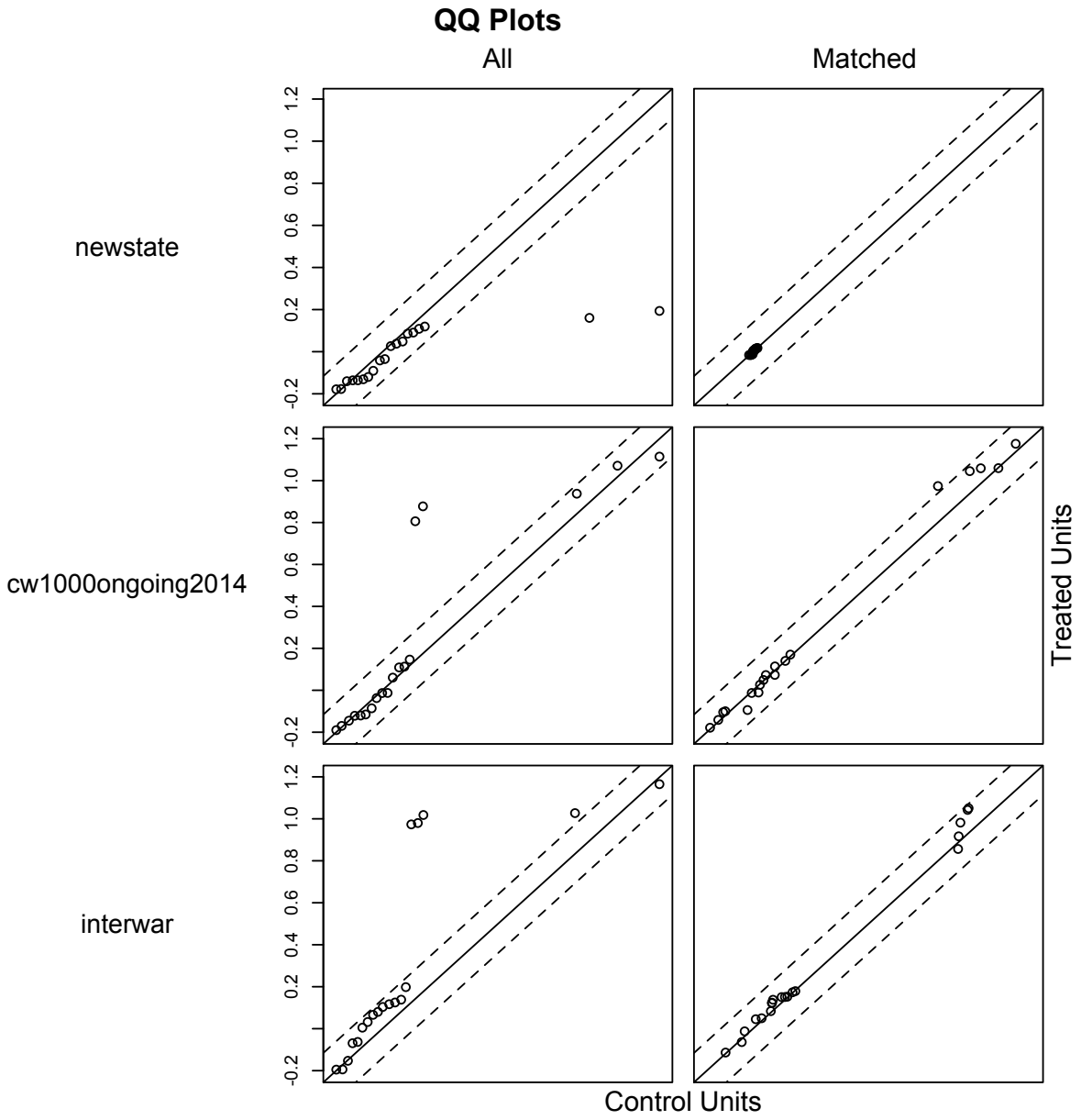
```
stcrreg instfirc_entry, compete(failtype==2 3) vce(cluster ccode)

         failure _d:  failtype == 1
   analysis time _t:  tenure

Iteration 0:   log pseudolikelihood = -23.723462
Iteration 1:   log pseudolikelihood = -23.680524
Iteration 2:   log pseudolikelihood = -23.680498
Iteration 3:   log pseudolikelihood = -23.680498

Competing-risks regression                      No. of obs       =         34
                                                No. of subjects  =         34
Failure event   : failtype == 1                 No. failed       =          7
Competing events: failtype == 2 3               No. competing    =         24
                                                No. censored     =          3

                                                Wald chi2(1)     =       0.05
Log pseudolikelihood = -23.680498               Prob > chi2      =     0.8234

                                  (Std. Err. adjusted for 21 clusters in ccode)
------------------------------------------------------------------------------
             |               Robust
          _t |        SHR   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
instfirc_entry |   1.182962    .890663     0.22   0.823      .270454     5.17426
------------------------------------------------------------------------------

stcrreg instfirc_entry mountainous lntpop4_banks lnpec4_fill newstate cw1000ongoing2014 interwar
gdbuffer democracy leaderage, compete(failtype==2 3) vce(cluster ccode)
note: newstate omitted because of collinearity

         failure _d:  failtype == 1
   analysis time _t:  tenure

Iteration 0:   log pseudolikelihood = -21.550942
Iteration 1:   log pseudolikelihood = -17.917352
Iteration 2:   log pseudolikelihood = -16.327958
Iteration 3:   log pseudolikelihood = -16.221154
Iteration 4:   log pseudolikelihood = -16.219949
Iteration 5:   log pseudolikelihood = -16.219943
Iteration 6:   log pseudolikelihood = -16.219942

Competing-risks regression                      No. of obs       =         34
                                                No. of subjects  =         34
Failure event   : failtype == 1                 No. failed       =          7
Competing events: failtype == 2 3               No. competing    =         24
                                                No. censored     =          3

                                                Wald chi2(9)     =    1727.77
Log pseudolikelihood = -16.219942               Prob > chi2      =     0.0000

                                  (Std. Err. adjusted for 21 clusters in ccode)
------------------------------------------------------------------------------
             |               Robust
          _t |        SHR   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
instfirc_entry |   .7656872   .7106188    -0.29   0.774     .1241848    4.721003
   mountainous |    .035922   .2002008    -0.60   0.551     6.48e-07    1991.997
 lntpop4_banks |   .6952941   .8417182    -0.30   0.764     .0648201    7.458084
   lnpec4_fill |   .6384914   .1288641    -2.22   0.026     .4298931    .9483083
      newstate |          1  (omitted)
cw1000ongoing2014 |   2.32e-08   2.41e-08   -16.89   0.000     3.01e-09    1.78e-07
      interwar |   2.347947    4.72074     0.42   0.671     .0456329    120.8088
      gdbuffer |   12.16544   13.55643     2.24   0.025     1.369621    108.0576
     democracy |   2.02e-09   7.23e-09    -5.61   0.000     1.85e-12    2.22e-06
     leaderage |   1.005935   .0574225     0.10   0.917     .8994564    1.125018
------------------------------------------------------------------------------
```

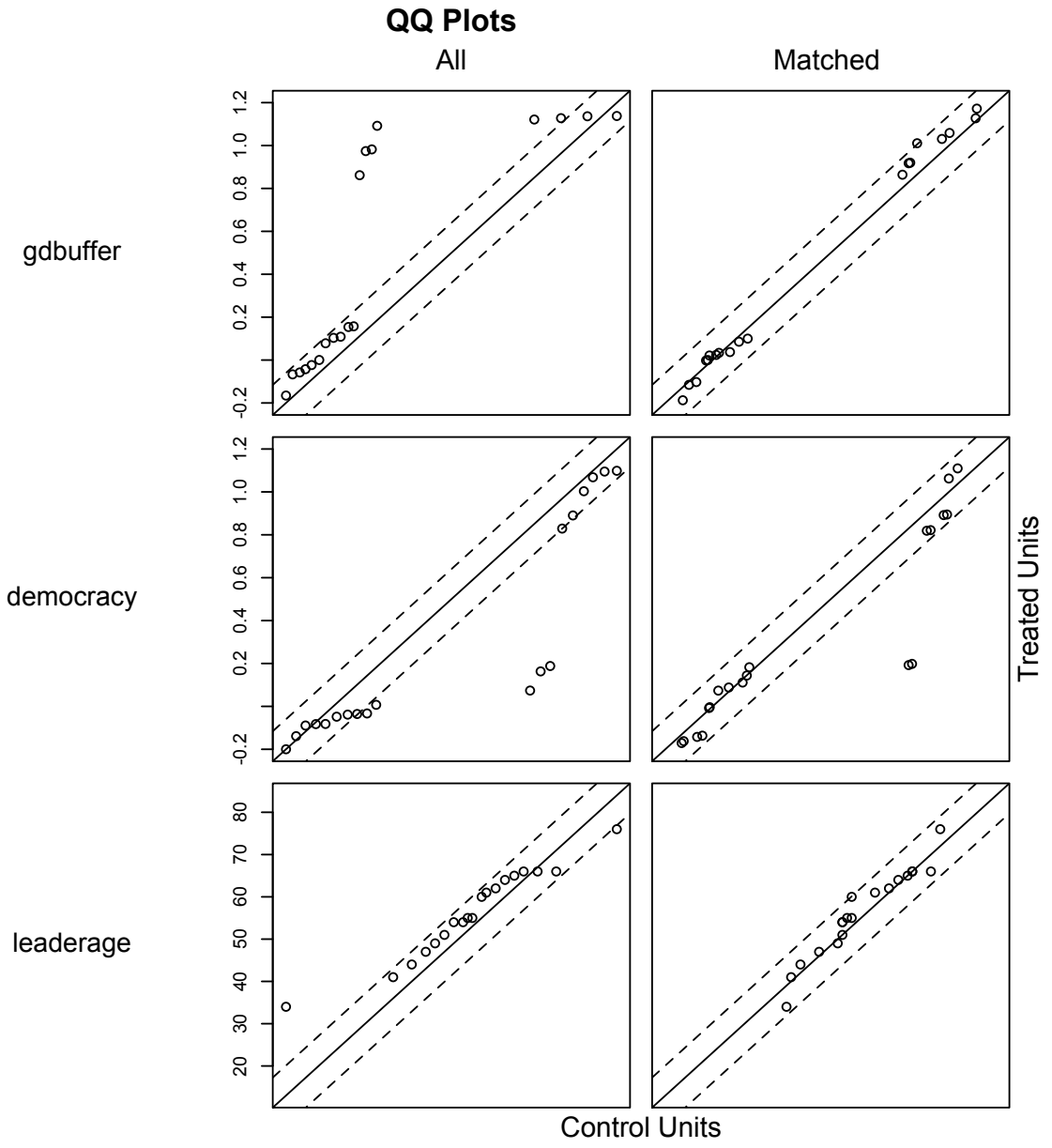
Restoration FIRC

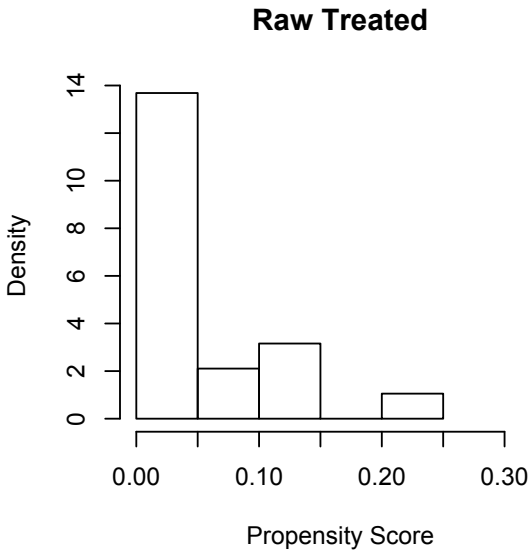
Note: **lnpec4_fill** is excluded from matching because the balance between treated (7.244) and control (7.439) cases was already good and matching worsened it.

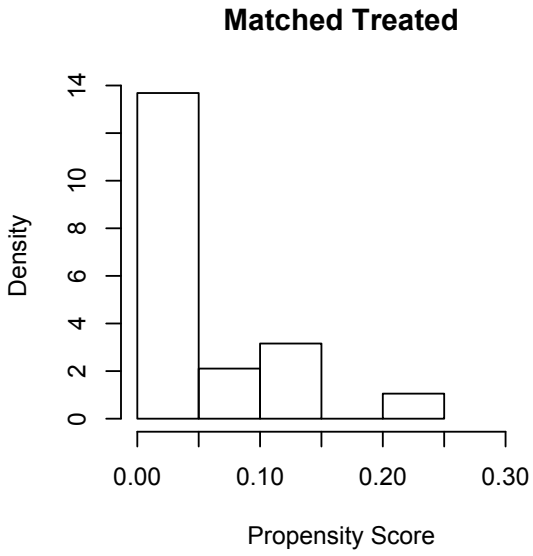
```
summary(firc.out3)

Call:
matchit(formula = restfirc_entry ~ prevtimesinoffice + mountainous +
    lntpop4_banks + newstate + cw1000ongoing2014 + interwar +
    gdbuffer + democracy + leaderage, data = firc, method = "genetic",
    pop.size = 150)

Summary of balance for all data:
                  Means Treated Means Control SD Control Mean Diff eQQ Med eQQ Mean eQQ Max
distance                 0.0519        0.0108     0.0211    0.0412  0.0237   0.0398  0.1210
prevtimesinoffice        0.5789        0.2364     0.6048    0.3425  0.0000   0.5789  4.0000
mountainous              0.1974        0.2284     0.2378   -0.0310  0.0458   0.0685  0.2325
lntpop4_banks            8.2819        8.8938     1.5461   -0.6119  0.4832   0.7359  3.3281
newstate                 0.0000        0.0716     0.2580   -0.0716  0.0000   0.1053  1.0000
cw1000ongoing2014        0.2632        0.1230     0.3285    0.1402  0.0000   0.1053  1.0000
interwar                 0.2632        0.0645     0.2457    0.1987  0.0000   0.1579  1.0000
gdbuffer                 0.4211        0.1899     0.3923    0.2312  0.0000   0.2105  1.0000
democracy                0.3158        0.4782     0.4997   -0.1624  0.0000   0.1579  1.0000
leaderage               56.3158       53.2931    11.0212    3.0227  4.0000   4.8421 21.0000


Summary of balance for matched data:
                  Means Treated Means Control SD Control Mean Diff eQQ Med eQQ Mean eQQ Max
distance                 0.0519        0.0485     0.0478    0.0034  0.0029   0.0070  0.0637
prevtimesinoffice        0.5789        0.5789     0.5073    0.0000  0.0000   0.0000  0.0000
mountainous              0.1974        0.2055     0.2910   -0.0081  0.0011   0.0221  0.0865
lntpop4_banks            8.2819        8.2960     1.4887   -0.0141  0.2589   0.3134  1.1495
newstate                 0.0000        0.0000     0.0000    0.0000  0.0000   0.0000  0.0000
cw1000ongoing2014        0.2632        0.2632     0.4524    0.0000  0.0000   0.0000  0.0000
interwar                 0.2632        0.2632     0.4524    0.0000  0.0000   0.0000  0.0000
gdbuffer                 0.4211        0.4211     0.5073    0.0000  0.0000   0.0000  0.0000
democracy                0.3158        0.4211     0.5073   -0.1053  0.0000   0.1053  1.0000
leaderage               56.3158       55.2105     9.9587    1.1053  2.0000   2.1579  7.0000

Percent Balance Improvement:
                  Mean Diff. eQQ Med eQQ Mean  eQQ Max
distance              91.6573 87.8605  82.3690  47.2965
prevtimesinoffice    100.0000  0.0000 100.0000 100.0000
mountainous           73.7938 97.5029  67.6717  62.8044
lntpop4_banks         97.6891 46.4117  57.4188  65.4603
newstate             100.0000  0.0000 100.0000 100.0000
cw1000ongoing2014    100.0000  0.0000 100.0000 100.0000
interwar             100.0000  0.0000 100.0000 100.0000
gdbuffer             100.0000  0.0000 100.0000 100.0000
democracy             35.1906  0.0000  33.3333   0.0000
leaderage             63.4340 50.0000  55.4348  66.6667

Sample sizes:
          Control Treated
All          1675      19
Matched        19      19
Unmatched    1656       0
Discarded       0       0
```

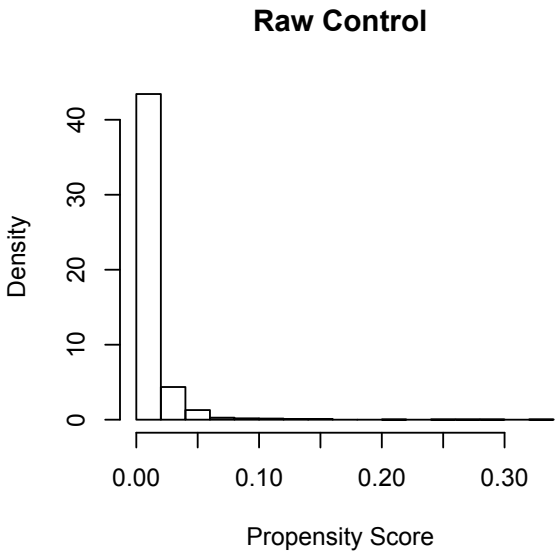

QQ Plots
All
Matched
prevtimesinoffice
mountainous
lntpop4_banks
Treated Units
Control Units
0
1
2
3
4
5
0.0
0.2
0.4
0.6
0.8
1.0
6
8
10
12
14

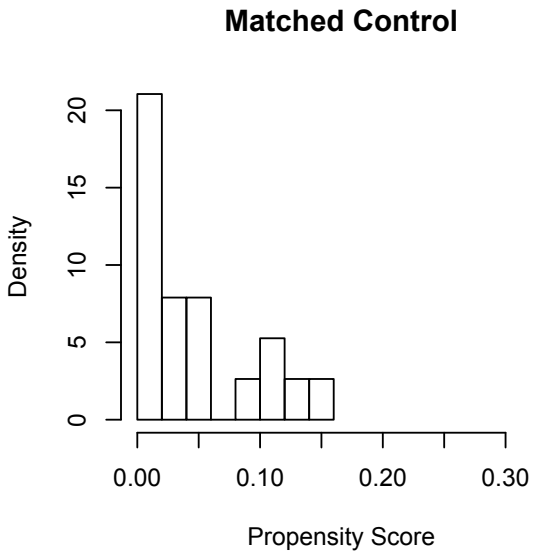

QQ Plots
All
Matched
newstate
cw1000ongoing2014
interwar
-0.2
0.2
0.4
0.6
0.8
1.0
1.2
Treated Units
Control Units


QQ Plots
All
Matched
gdbuffer
democracy
leaderage
Treated Units
Control Units
-0.2
0.2
0.4
0.6
0.8
1.0
1.2
20
30
40
50
60
70
80

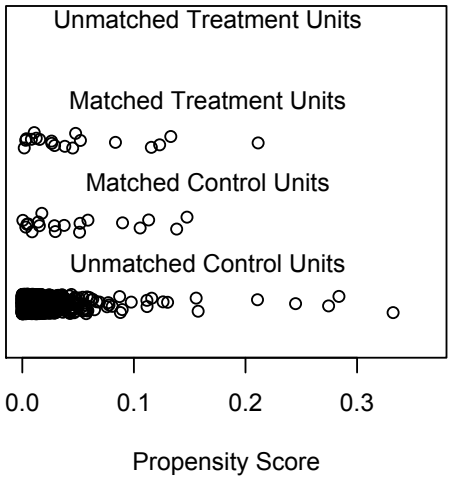

Raw Treated
Density
0
2
4
6
8
10
14
0.00
0.10
0.20
0.30
Propensity Score


Matched Treated
Density
0
2
4
6
8
10
14
0.00
0.10
0.20
0.30
Propensity Score


Raw Control
Density
0
10
20
30
40
0.00
0.10
0.20
0.30
Propensity Score


Matched Control
Density
0
5
10
15
20
0.00
0.10
0.20
0.30
Propensity Score

Distribution of Propensity Scores



```
tab irregbothfail restfirc_entry, col chi2

irregbothf |    restfirc_entry
       ail |         0          1 |     Total
-----------+----------------------+----------
         0 |        12         17 |        29
           |     63.16      89.47 |     76.32
-----------+----------------------+----------
         1 |         7          2 |         9
           |     36.84      10.53 |     23.68
-----------+----------------------+----------
     Total |        19         19 |        38
           |    100.00     100.00 |    100.00

          Pearson chi2(1) =   3.6398   Pr = 0.056

ttest irregbothfail, by(restfirc_entry)

Two-sample t test with equal variances
------------------------------------------------------------------------------
   Group |     Obs        Mean    Std. Err.   Std. Dev.   [95% Conf. Interval]
---------+--------------------------------------------------------------------
       0 |      19    .3684211    .1136972    .4955946    .1295521      .60729
       1 |      19    .1052632    .0723352    .3153018   -.0467074    .2572337
---------+--------------------------------------------------------------------
combined |      38    .2368421    .0698933    .4308515    .0952247    .3784595
---------+--------------------------------------------------------------------
    diff |            .2631579    .1347569               -.0101419    .5364576
------------------------------------------------------------------------------
    diff = mean(0) - mean(1)                                      t =   1.9528
Ho: diff = 0                                     degrees of freedom =       36

    Ha: diff < 0                 Ha: diff != 0                 Ha: diff > 0
 Pr(T < t) = 0.9707         Pr(|T| > |t|) = 0.0586          Pr(T > t) = 0.0293

stset tenure, failure(failtype==1)

     failure event:  failtype == 1
obs. time interval:  (0, tenure]
 exit on or before:  failure

------------------------------------------------------------------------------
         38  total observations
          0  exclusions
------------------------------------------------------------------------------
         38  observations remaining, representing
          9  failures in single-record/single-failure data
     88,337  total analysis time at risk and under observation
                                             at risk from t =         0
                                  earliest observed entry t =         0
                                       last observed exit t =    12,183
```

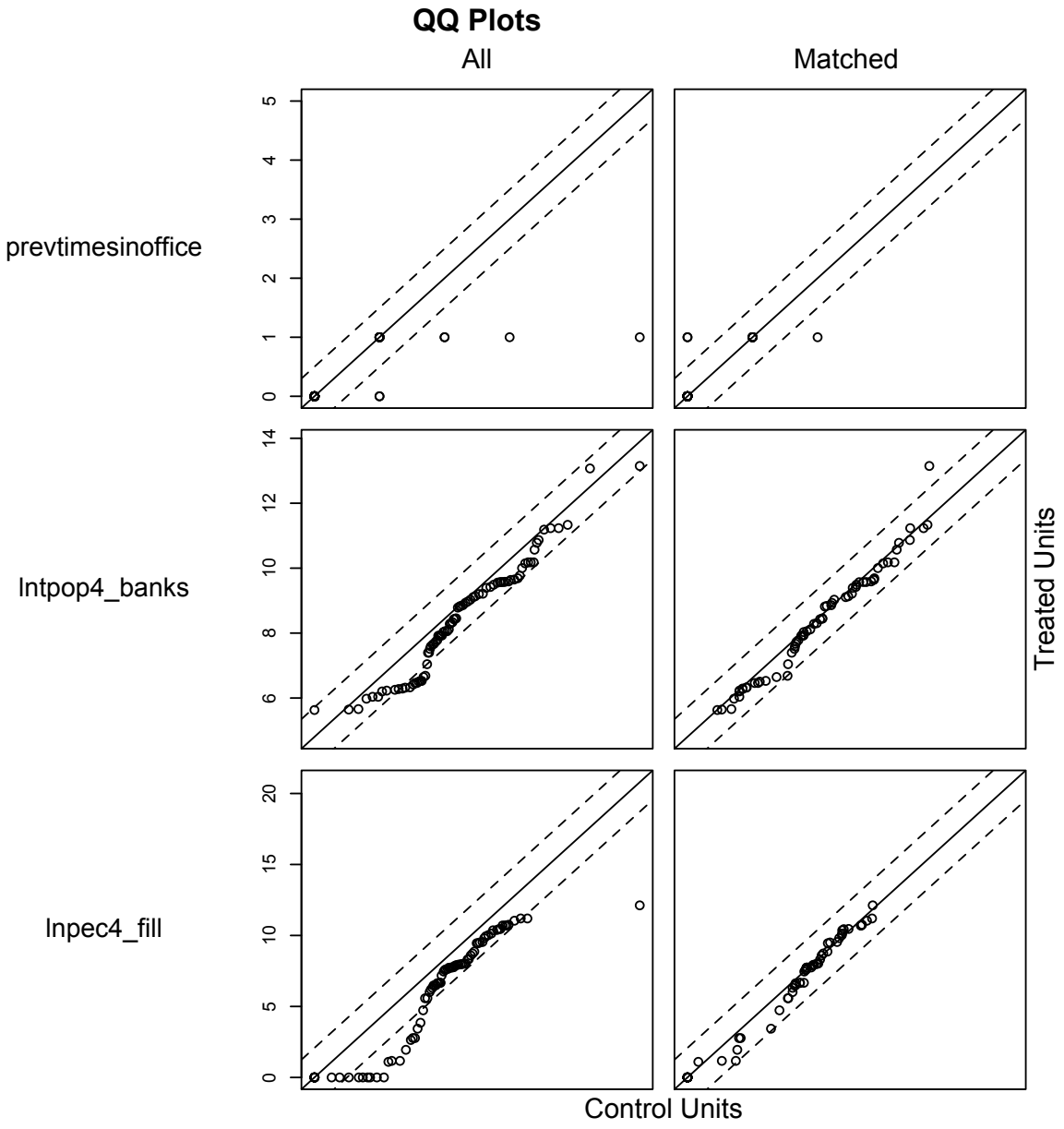
```
stcrreg restfirc_entry, compete(failtype==2 3) vce(cluster ccode)

         failure _d:  failtype == 1
   analysis time _t:  tenure

Iteration 0:   log pseudolikelihood = -29.077046
Iteration 1:   log pseudolikelihood = -28.684782
Iteration 2:   log pseudolikelihood = -28.601384
Iteration 3:   log pseudolikelihood = -28.601231
Iteration 4:   log pseudolikelihood = -28.601231

Competing-risks regression                      No. of obs       =         38
                                                No. of subjects  =         38
Failure event   : failtype == 1                 No. failed       =          9
Competing events: failtype == 2 3               No. competing    =         26
                                                No. censored     =          3

                                                Wald chi2(1)     =       3.56
Log pseudolikelihood = -28.601231               Prob > chi2      =     0.0592

                                  (Std. Err. adjusted for 30 clusters in ccode)
------------------------------------------------------------------------------
             |               Robust
          _t |        SHR   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
restfirc_entry |   .2312673   .1794519    -1.89   0.059     .0505387    1.058289
------------------------------------------------------------------------------

stcrreg restfirc_entry mountainous lntpop4_banks lnpec4_fill newstate cw1000ongoing2014 interwar
gdbuffer democracy leaderage, compete(failtype==2 3) vce(cluster ccode)
note: newstate omitted because of collinearity

         failure _d:  failtype == 1
   analysis time _t:  tenure

Iteration 0:   log pseudolikelihood = -41.986617
Iteration 1:   log pseudolikelihood = -29.294013
Iteration 2:   log pseudolikelihood =  -28.06021
Iteration 3:   log pseudolikelihood = -21.946988
Iteration 4:   log pseudolikelihood = -20.494525
Iteration 5:   log pseudolikelihood = -20.437405
Iteration 6:   log pseudolikelihood = -20.437162
Iteration 7:   log pseudolikelihood = -20.437162

Competing-risks regression                      No. of obs       =         38
                                                No. of subjects  =         38
Failure event   : failtype == 1                 No. failed       =          9
Competing events: failtype == 2 3               No. competing    =         26
                                                No. censored     =          3

                                                Wald chi2(9)     =      50.35
Log pseudolikelihood = -20.437162               Prob > chi2      =     0.0000

                                  (Std. Err. adjusted for 30 clusters in ccode)
------------------------------------------------------------------------------
             |               Robust
          _t |        SHR   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
restfirc_entry |   .1458069    .141333    -1.99   0.047      .021812    .9746791
  mountainous |   4.711794   15.17075     0.48   0.630     .0085613    2593.191
 lntpop4_banks |   1.152267   .7116855     0.23   0.819     .3434138    3.866239
   lnpec4_fill |   .9285368   .2966748    -0.23   0.816      .496402     1.73686
     newstate |          1  (omitted)
cw1000ongoing2014 |    1.21456   1.301373     0.18   0.856     .1487225    9.918853
      interwar |   9.343161   14.80512     1.41   0.158       .41849    208.5944
      gdbuffer |    .078188   .1615339    -1.23   0.217     .0013633    4.484293
     democracy |    3.58356   6.609265     0.69   0.489     .0964759      133.11
     leaderage |   .8951257   .0545426    -1.82   0.069      .794361    1.008672
------------------------------------------------------------------------------
```

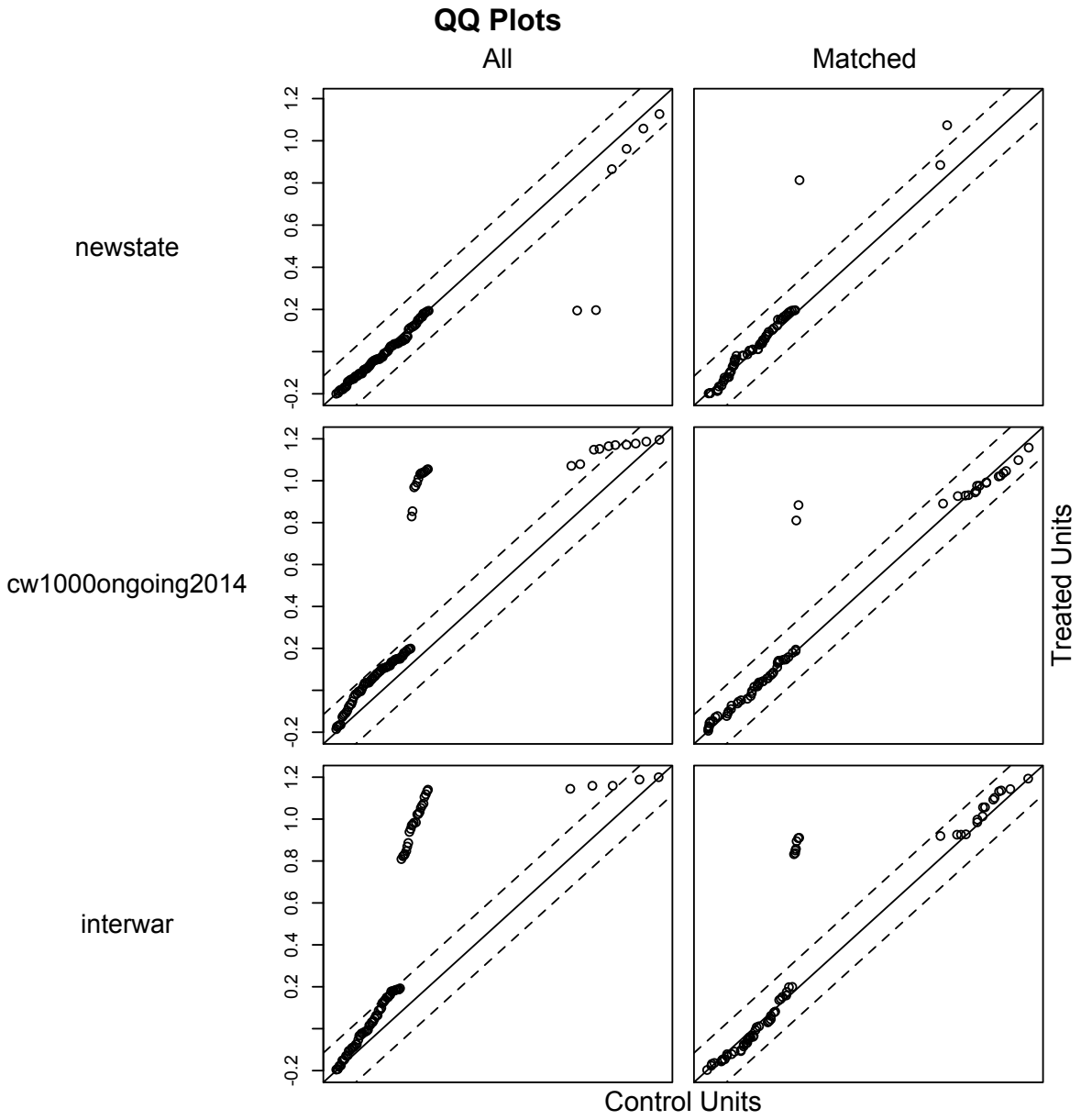
REGULAR EXIT FROM OFFICE

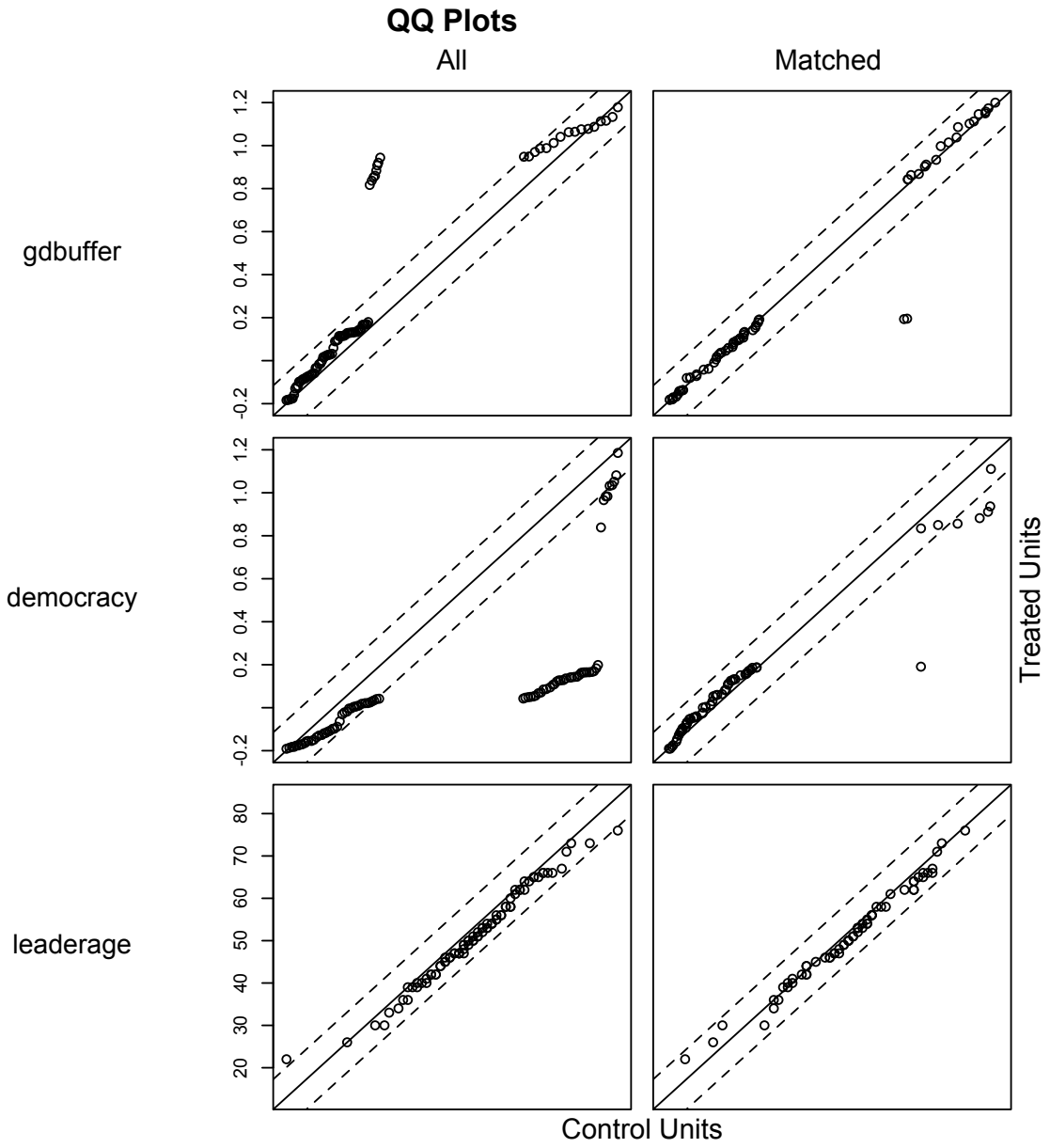
All FIRC

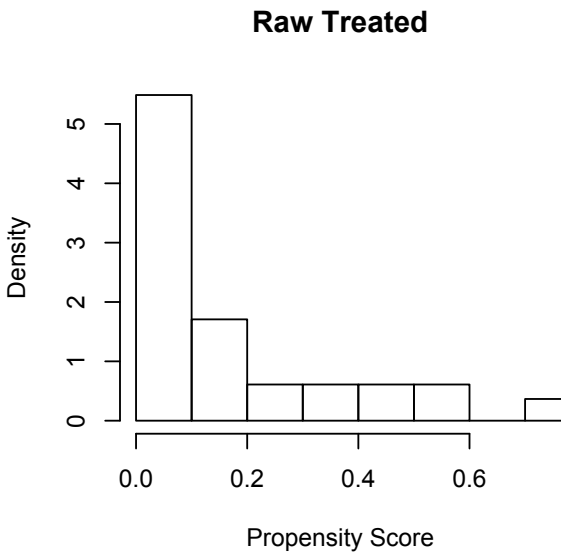
Note: **mountainous** is excluded from matching because the balance between treated (0.233) and control (0.228) cases was already good and matching worsened it.

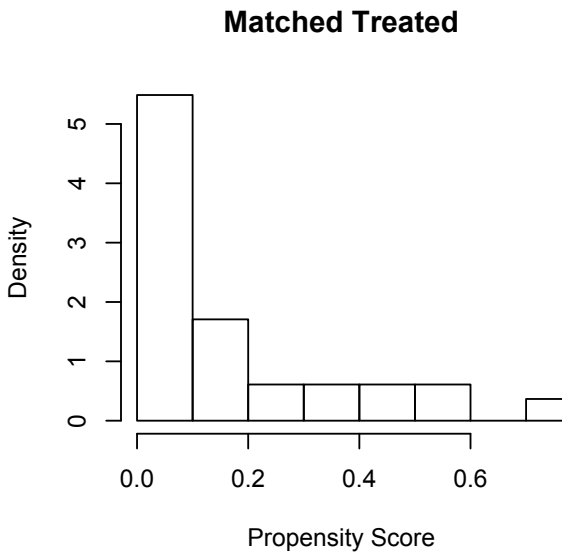
```
summary(regfirc.out1)

Call:
matchit(formula = foreign_entryabd ~ prevtimesinoffice + lntpop4_banks +
    lnpec4_fill + newstate + cw1000ongoing2014 + interwar + gdbuffer +
    democracy + leaderage, data = regfirc, method = "genetic",
    pop.size = 150)

Summary of balance for all data:
                  Means Treated Means Control SD Control Mean Diff eQQ Med eQQ Mean eQQ Max
distance                 0.1786        0.0418     0.0628    0.1368  0.0701   0.1336  0.5196
prevtimesinoffice        0.1585        0.2444     0.6142   -0.0859  0.0000   0.1220  4.0000
lntpop4_banks            8.4214        8.9106     1.5326   -0.4892  0.4563   0.5212  1.2759
lnpec4_fill              5.9014        7.5152     3.7693   -1.6138  1.3338   1.6716  8.6740
newstate                 0.0488        0.0720     0.2585   -0.0232  0.0000   0.0244  1.0000
cw1000ongoing2014        0.2805        0.1166     0.3211    0.1639  0.0000   0.1585  1.0000
interwar                 0.3415        0.0527     0.2236    0.2887  0.0000   0.2805  1.0000
gdbuffer                 0.2927        0.1873     0.3903    0.1053  0.0000   0.0976  1.0000
democracy                0.1098        0.4950     0.5001   -0.3853  0.0000   0.3902  1.0000
leaderage               51.1829       53.4361    11.0008   -2.2532  2.0000   2.4024  9.0000


Summary of balance for matched data:
                  Means Treated Means Control SD Control Mean Diff eQQ Med eQQ Mean eQQ Max
distance                 0.1786        0.1698     0.1663    0.0089  0.0099   0.0443  0.2098
prevtimesinoffice        0.1585        0.1707     0.4106   -0.0122  0.0000   0.0469  1.0000
lntpop4_banks            8.4214        8.5433     1.6080   -0.1218  0.1288   0.2089  1.5829
lnpec4_fill              5.9014        5.8809     4.0143    0.0205  0.2102   0.3391  1.9245
newstate                 0.0488        0.0366     0.1892    0.0122  0.0000   0.0156  1.0000
cw1000ongoing2014        0.2805        0.2805     0.4528    0.0000  0.0000   0.0312  1.0000
interwar                 0.3415        0.3415     0.4779    0.0000  0.0000   0.1094  1.0000
gdbuffer                 0.2927        0.2927     0.4586    0.0000  0.0000   0.0312  1.0000
democracy                0.1098        0.1098     0.3151    0.0000  0.0000   0.0156  1.0000
leaderage               51.1829       52.1098    11.4227   -0.9268  2.0000   1.7344  5.0000

Percent Balance Improvement:
                  Mean Diff. eQQ Med eQQ Mean  eQQ Max
distance             93.5315 85.8440  66.8831  59.6287
prevtimesinoffice    85.7999  0.0000  61.5625  75.0000
lntpop4_banks        75.0931 71.7745  59.9243 -24.0600
lnpec4_fill          98.7312 84.2403  79.7170  77.8136
newstate             47.3890  0.0000  35.9375   0.0000
cw1000ongoing2014   100.0000  0.0000  80.2885   0.0000
interwar            100.0000  0.0000  61.0054   0.0000
gdbuffer            100.0000  0.0000  67.9688   0.0000
democracy           100.0000  0.0000  95.9961   0.0000
leaderage            58.8657  0.0000  27.8077  44.4444

Sample sizes:
          Control Treated
All          1612      82
Matched        64      82
Unmatched    1548       0
Discarded       0       0
```

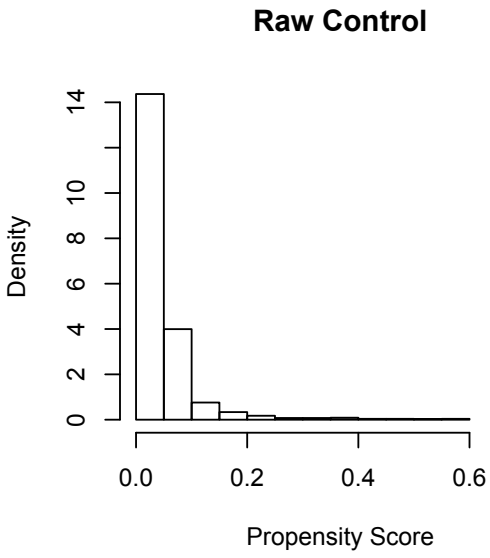

QQ Plots
All
Matched
prevtimesinoffice
lntpop4_banks
lnpec4_fill
Treated Units
Control Units

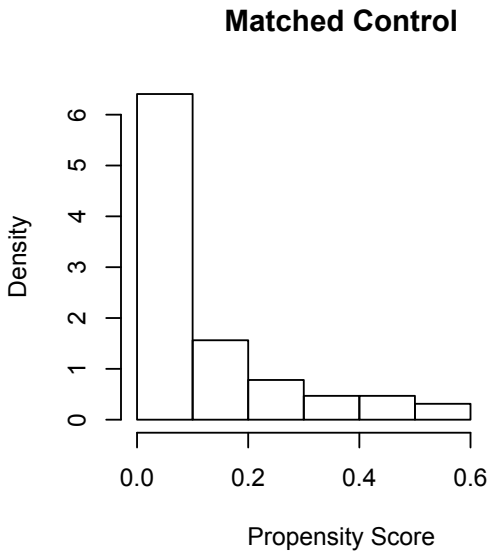

QQ Plots
All
Matched
newstate
cw1000ongoing2014
interwar
Treated Units
Control Units
-0.2
0.2
0.4
0.6
0.8
1.0
1.2


QQ Plots
All
Matched
gdbuffer
democracy
leaderage
Treated Units
Control Units
-0.2
0.2
0.4
0.6
0.8
1.0
1.2
20
30
40
50
60
70
80

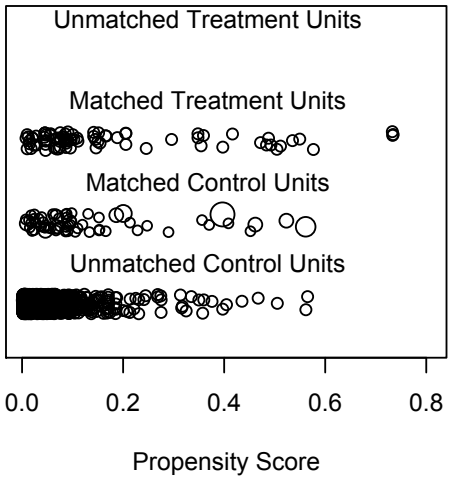

Raw Treated
Density
0
1
2
3
4
5
0.0
0.2
0.4
0.6
Propensity Score


Matched Treated
Density
0
1
2
3
4
5
0.0
0.2
0.4
0.6
Propensity Score


Raw Control
Density
0
2
4
6
8
10
14
0.0
0.2
0.4
0.6
Propensity Score


Matched Control
Density
0
1
2
3
4
5
6
0.0
0.2
0.4
0.6
Propensity Score

Distribution of Propensity Scores



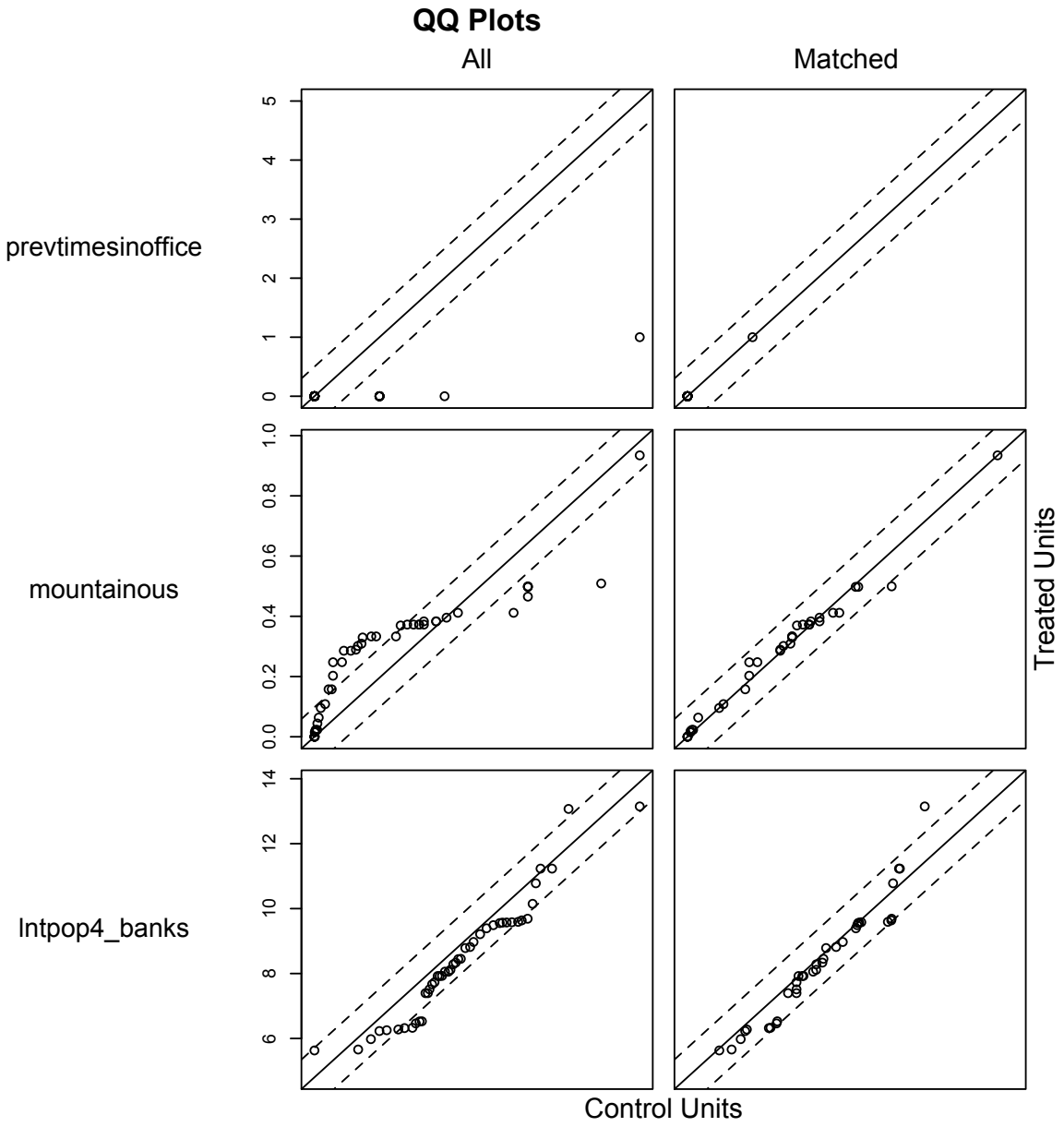
```
gen reg_exit = 0

replace reg_exit = 1 if failtype==1
(73 real changes made)

tab reg_exit foreign_entryabd, col chi2

           |   foreign_entryabd
  reg_exit |         0          1 |     Total
-----------+----------------------+----------
         0 |        27         46 |        73
           |     42.19      56.10 |     50.00
-----------+----------------------+----------
         1 |        37         36 |        73
           |     57.81      43.90 |     50.00
-----------+----------------------+----------
     Total |        64         82 |       146
           |    100.00     100.00 |    100.00

          Pearson chi2(1) =   2.7820   Pr = 0.095

ttest reg_exit, by(foreign_entryabd)

Two-sample t test with equal variances
------------------------------------------------------------------------------
   Group |     Obs        Mean    Std. Err.   Std. Dev.   [95% Conf. Interval]
---------+--------------------------------------------------------------------
       0 |      64     .578125    .0622204    .4977629    .4537875    .7024625
       1 |      82    .4390244    .0551409     .499322    .3293113    .5487375
---------+--------------------------------------------------------------------
combined |     146          .5    .0415227    .5017212     .417932     .582068
---------+--------------------------------------------------------------------
    diff |            .1391006    .0831701               -.0252913    .3034925
------------------------------------------------------------------------------
    diff = mean(0) - mean(1)                                      t =   1.6725
Ho: diff = 0                                     degrees of freedom =      144

    Ha: diff < 0                 Ha: diff != 0                 Ha: diff > 0
 Pr(T < t) = 0.9517         Pr(|T| > |t|) = 0.0966          Pr(T > t) = 0.0483

stset tenure, failure(failtype==1)

     failure event:  failtype == 1
obs. time interval:  (0, tenure]
 exit on or before:  failure

------------------------------------------------------------------------------
        146  total observations
          0  exclusions
------------------------------------------------------------------------------
        146  observations remaining, representing
         73  failures in single-record/single-failure data
    288,206  total analysis time at risk and under observation
                                                at risk from t =         0
                                     earliest observed entry t =         0
                                          last observed exit t =    13,361
```

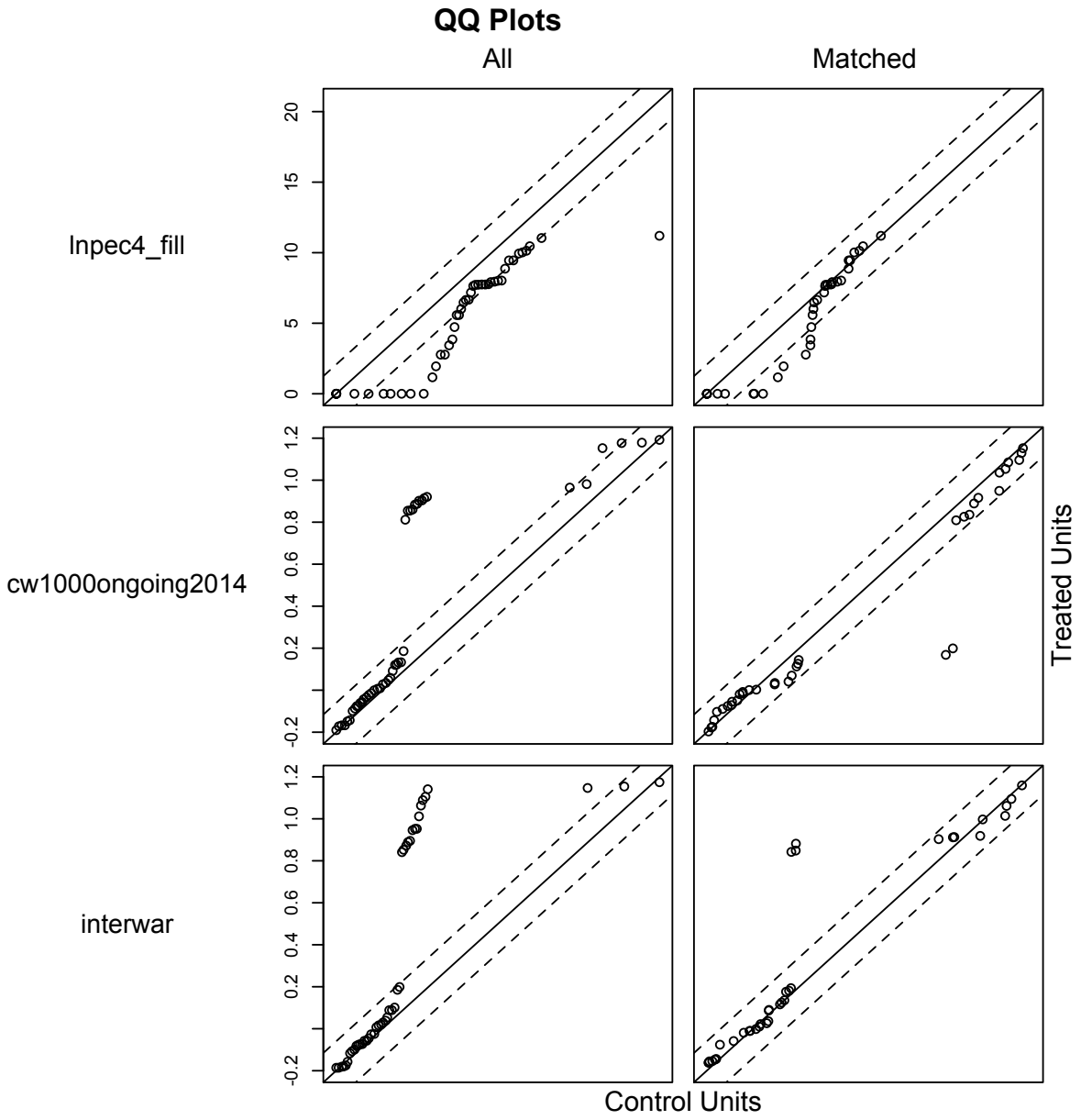
```
stcrreg foreign_entryabd, compete(failtype==2 3) vce(cluster ccode)

         failure _d:  failtype == 1
   analysis time _t:  tenure

Iteration 0:   log pseudolikelihood = -336.03927
Iteration 1:   log pseudolikelihood = -335.64488
Iteration 2:   log pseudolikelihood = -335.64487

Competing-risks regression                    No. of obs       =        146
                                              No. of subjects  =        146
Failure event   : failtype == 1               No. failed       =         73
Competing events: failtype == 2 3             No. competing    =         61
                                              No. censored     =         12

                                              Wald chi2(1)     =       2.65
Log pseudolikelihood = -335.64487             Prob > chi2      =     0.1039

                                  (Std. Err. adjusted for 83 clusters in ccode)
------------------------------------------------------------------------------
             |               Robust
          _t |        SHR   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
foreign_entryabd |   .6863922   .1588118    -1.63   0.104     .4361424     1.08023
------------------------------------------------------------------------------

stcrreg foreign_entryabd mountainous lntpop4_banks lnpec4_fill newstate cw1000ongoing2014
interwar gdbuffer democracy leaderage, compete(failtype==2 3) vce(cluster ccode)

         failure _d:  failtype == 1
   analysis time _t:  tenure

Iteration 0:   log pseudolikelihood = -335.10642
Iteration 1:   log pseudolikelihood = -327.43709
Iteration 2:   log pseudolikelihood = -326.66944
Iteration 3:   log pseudolikelihood = -326.65832
Iteration 4:   log pseudolikelihood =  -326.6583

Competing-risks regression                    No. of obs       =        146
                                              No. of subjects  =        146
Failure event   : failtype == 1               No. failed       =         73
Competing events: failtype == 2 3             No. competing    =         61
                                              No. censored     =         12

                                              Wald chi2(10)    =      35.52
Log pseudolikelihood =  -326.6583             Prob > chi2      =     0.0001

                                  (Std. Err. adjusted for 83 clusters in ccode)
------------------------------------------------------------------------------
             |               Robust
          _t |        SHR   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
 foreign_entryabd |   .6842173   .1768517    -1.47   0.142     .4122696    1.135551
      mountainous |   1.509644   .6803713     0.91   0.361     .6240973    3.651715
    lntpop4_banks |   .9767249   .1001595    -0.23   0.818     .7988858    1.194152
      lnpec4_fill |   .9936789   .0612097    -0.10   0.918     .8806692     1.12119
         newstate |    .680155   .7585296    -0.35   0.730     .0764402     6.05193
cw1000ongoing2014 |   .9533641   .3297711    -0.14   0.890     .4839784    1.877983
         interwar |   1.292795   .3086937     1.08   0.282     .8096176    2.064333
         gdbuffer |    1.34018   .5465495     0.72   0.473     .6025978    2.980564
        democracy |   1.905757   .7368716     1.67   0.095     .8931938    4.066206
        leaderage |   1.028189   .0111366     2.57   0.010     1.006592     1.05025
------------------------------------------------------------------------------
```

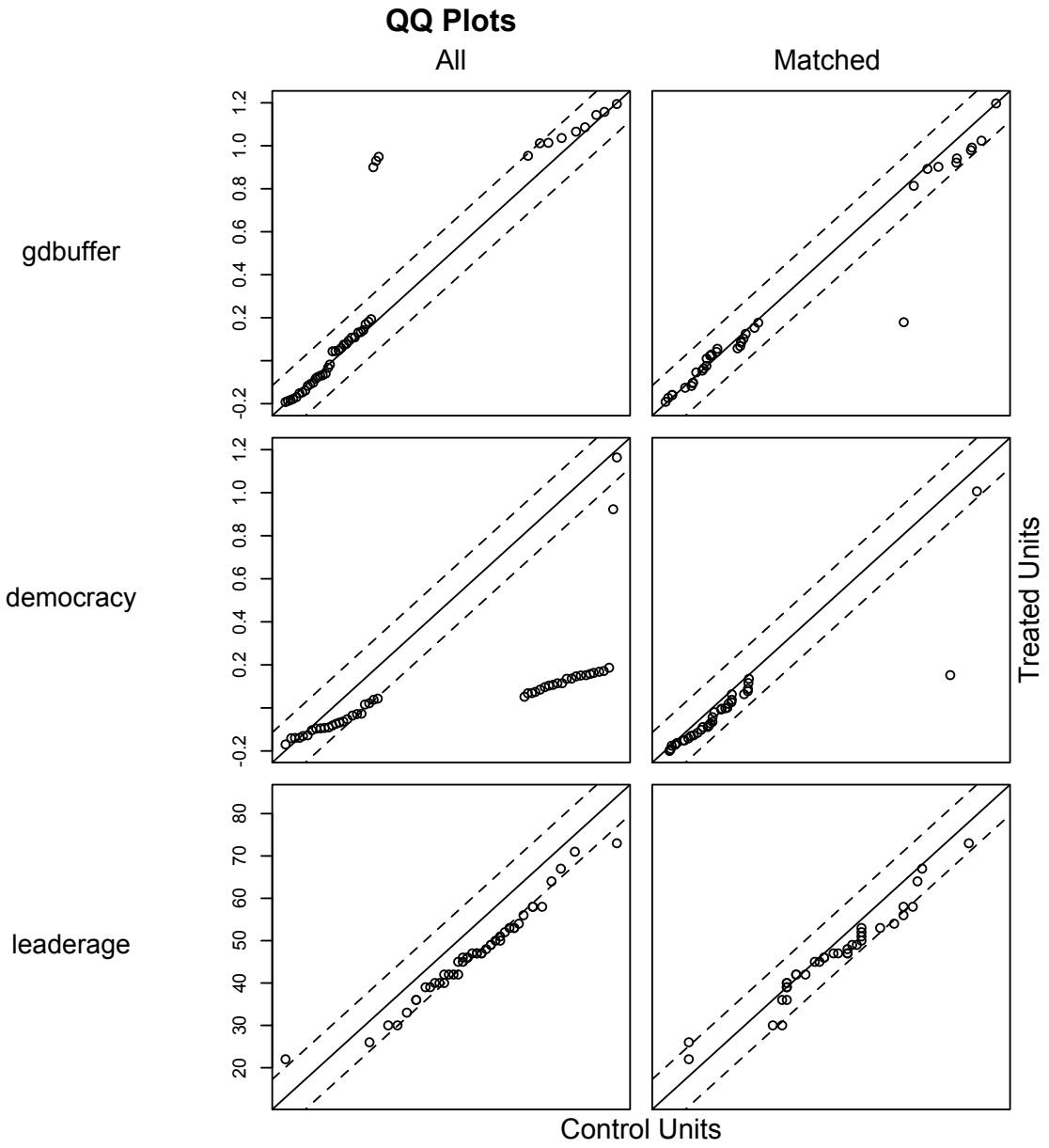
Leadership FIRC

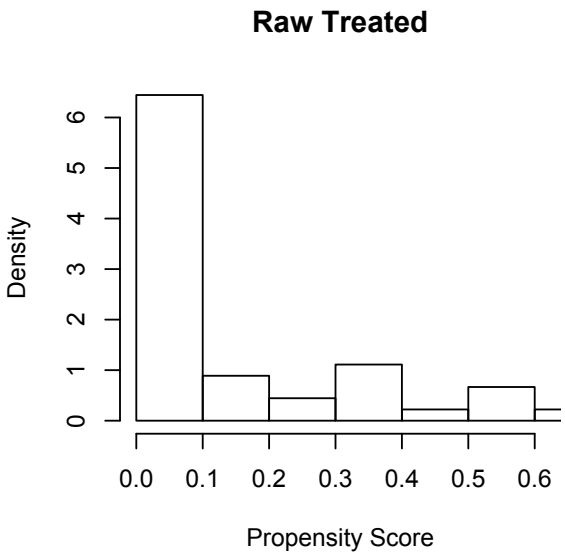
Note: **newstate** is excluded from matching because the balance between treated (0.089) and control (0.070) cases was already good and matching worsened it.

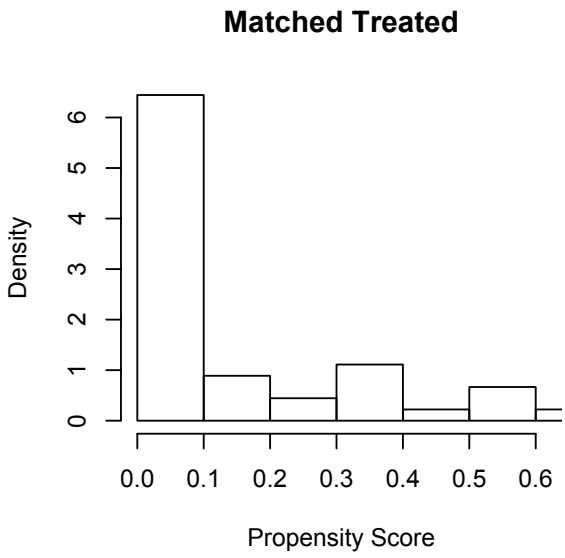
```
summary(regfirc.out2)

Call:
matchit(formula = leadfirc_entry ~ prevtimesinoffice + mountainous +
    lntpop4_banks + lnpec4_fill + cw1000ongoing2014 + interwar +
    gdbuffer + democracy + leaderage, data = regfirc, method = "genetic",
    pop.size = 150)

Summary of balance for all data:
                  Means Treated Means Control SD Control Mean Diff eQQ Med eQQ Mean eQQ Max
distance                 0.1522        0.0231     0.0466    0.1291  0.0607   0.1226  0.4400
prevtimesinoffice        0.0222        0.2462     0.6114   -0.2240  0.0000   0.2889  4.0000
mountainous              0.2713        0.2268     0.2393    0.0444  0.0764   0.0939  0.3550
lntpop4_banks            8.4196        8.8997     1.5363   -0.4801  0.4431   0.5770  1.2800
lnpec4_fill              5.1915        7.4984     3.7727   -2.3069  2.0250   2.4318  9.5977
cw1000ongoing2014        0.3556        0.1183     0.3230    0.2373  0.0000   0.2222  1.0000
interwar                 0.3556        0.0588     0.2354    0.2967  0.0000   0.2889  1.0000
gdbuffer                 0.2667        0.1904     0.3928    0.0762  0.0000   0.0667  1.0000
democracy                0.0444        0.4882     0.5000   -0.4437  0.0000   0.4444  1.0000
leaderage               46.8667       53.5033    10.9733   -6.6367  7.0000   6.9111 11.0000


Summary of balance for matched data:
                  Means Treated Means Control SD Control Mean Diff eQQ Med eQQ Mean eQQ Max
distance                 0.1522        0.1433     0.1610    0.0089  0.0110   0.0374  0.2208
prevtimesinoffice        0.0222        0.0222     0.1495    0.0000  0.0000   0.0000  0.0000
mountainous              0.2713        0.2673     0.1930    0.0040  0.0095   0.0166  0.1159
lntpop4_banks            8.4196        8.4073     1.5568    0.0123  0.2244   0.3584  1.7112
lnpec4_fill              5.1915        5.6807     3.4433   -0.4892  0.4175   1.0200  3.6109
cw1000ongoing2014        0.3556        0.4000     0.4968   -0.0444  0.0000   0.0556  1.0000
interwar                 0.3556        0.3556     0.4855    0.0000  0.0000   0.0833  1.0000
gdbuffer                 0.2667        0.2222     0.4216    0.0444  0.0000   0.0278  1.0000
democracy                0.0444        0.0444     0.2090    0.0000  0.0000   0.0278  1.0000
leaderage               46.8667       48.3111    14.0136   -1.4444  3.0000   3.5000  8.0000

Percent Balance Improvement:
                  Mean Diff. eQQ Med eQQ Mean  eQQ Max
distance             93.1290 81.9358  69.5034  49.8150
prevtimesinoffice   100.0000  0.0000 100.0000 100.0000
mountainous          91.0316 87.5587  82.3077  67.3573
lntpop4_banks        97.4300 49.3621  37.8800 -33.6932
lnpec4_fill          78.7928 79.3823  58.0574  62.3774
cw1000ongoing2014    81.2709  0.0000  75.0000   0.0000
interwar            100.0000  0.0000  71.1538   0.0000
gdbuffer             41.7109  0.0000  58.3333   0.0000
democracy           100.0000  0.0000  93.7500   0.0000
leaderage            78.2354 57.1429  49.3569  27.2727

Sample sizes:
          Control Treated
All          1649      45
Matched        36      45
Unmatched    1613       0
Discarded       0       0
```

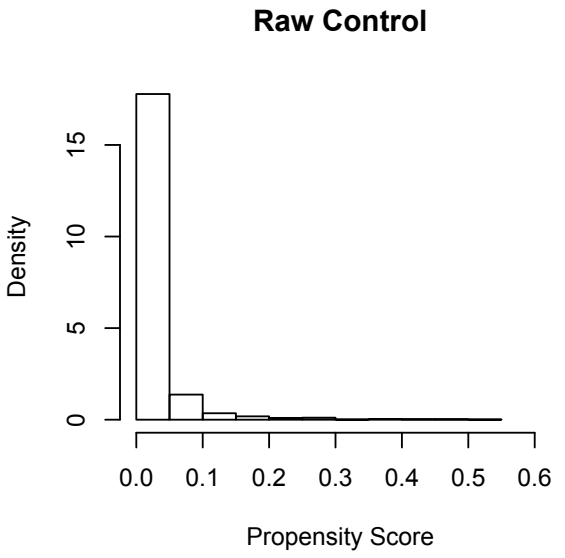

QQ Plots
All
Matched
prevtimesinoffice
mountainous
lntpop4_banks
Treated Units
Control Units
0
1
2
3
4
5
0.0
0.2
0.4
0.6
0.8
1.0
6
8
10
12
14

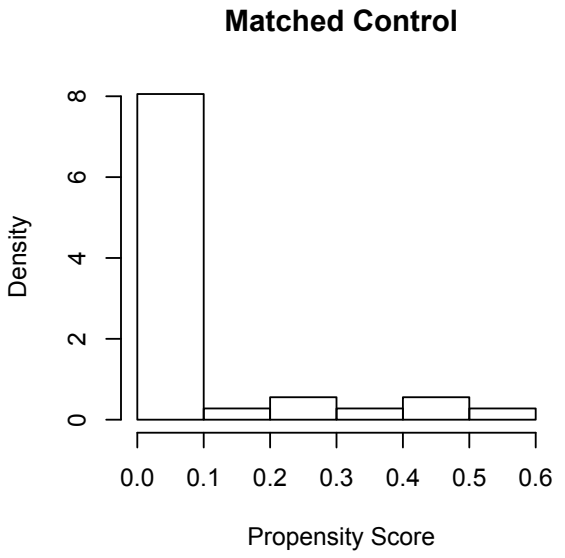

QQ Plots
All
Matched
lnpec4_fill
cw1000ongoing2014
interwar
Treated Units
Control Units
0
5
10
15
20
-0.2
0.2
0.4
0.6
0.8
1.0
1.2


QQ Plots
All
Matched
gdbuffer
democracy
leaderage
Treated Units
Control Units
-0.2
0.2
0.4
0.6
0.8
1.0
1.2
20
30
40
50
60
70
80

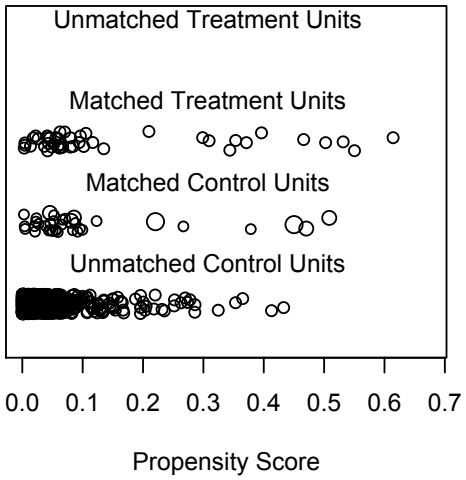

Raw Treated
Density
0
1
2
3
4
5
6
0.0
0.1
0.2
0.3
0.4
0.5
0.6
Propensity Score


Matched Treated
Density
0
1
2
3
4
5
6
0.0
0.1
0.2
0.3
0.4
0.5
0.6
Propensity Score


Raw Control
Density
0
5
10
15
0.0
0.1
0.2
0.3
0.4
0.5
0.6
Propensity Score


Matched Control
Density
0
2
4
6
8
0.0
0.1
0.2
0.3
0.4
0.5
0.6
Propensity Score

Distribution of Propensity Scores

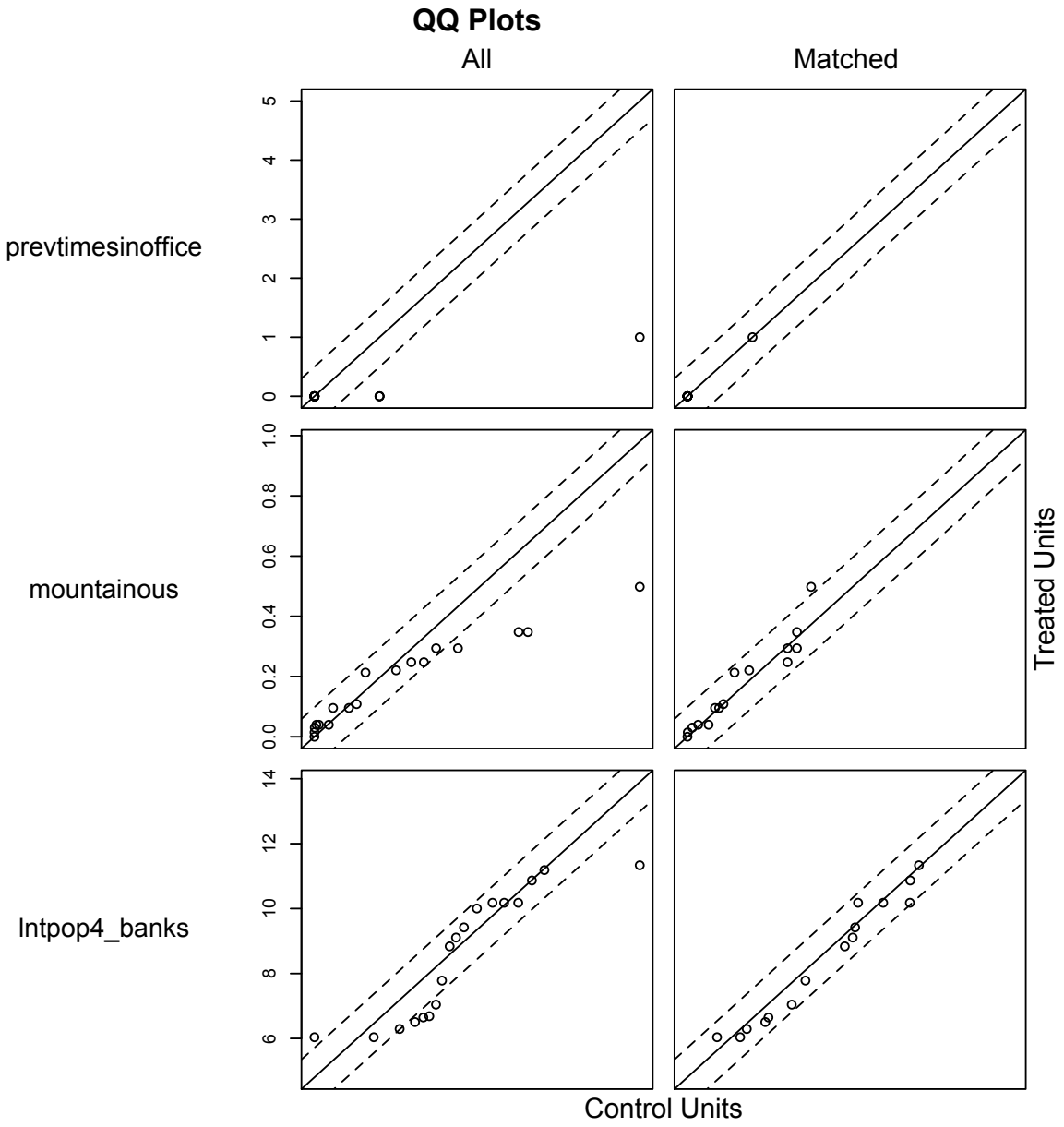


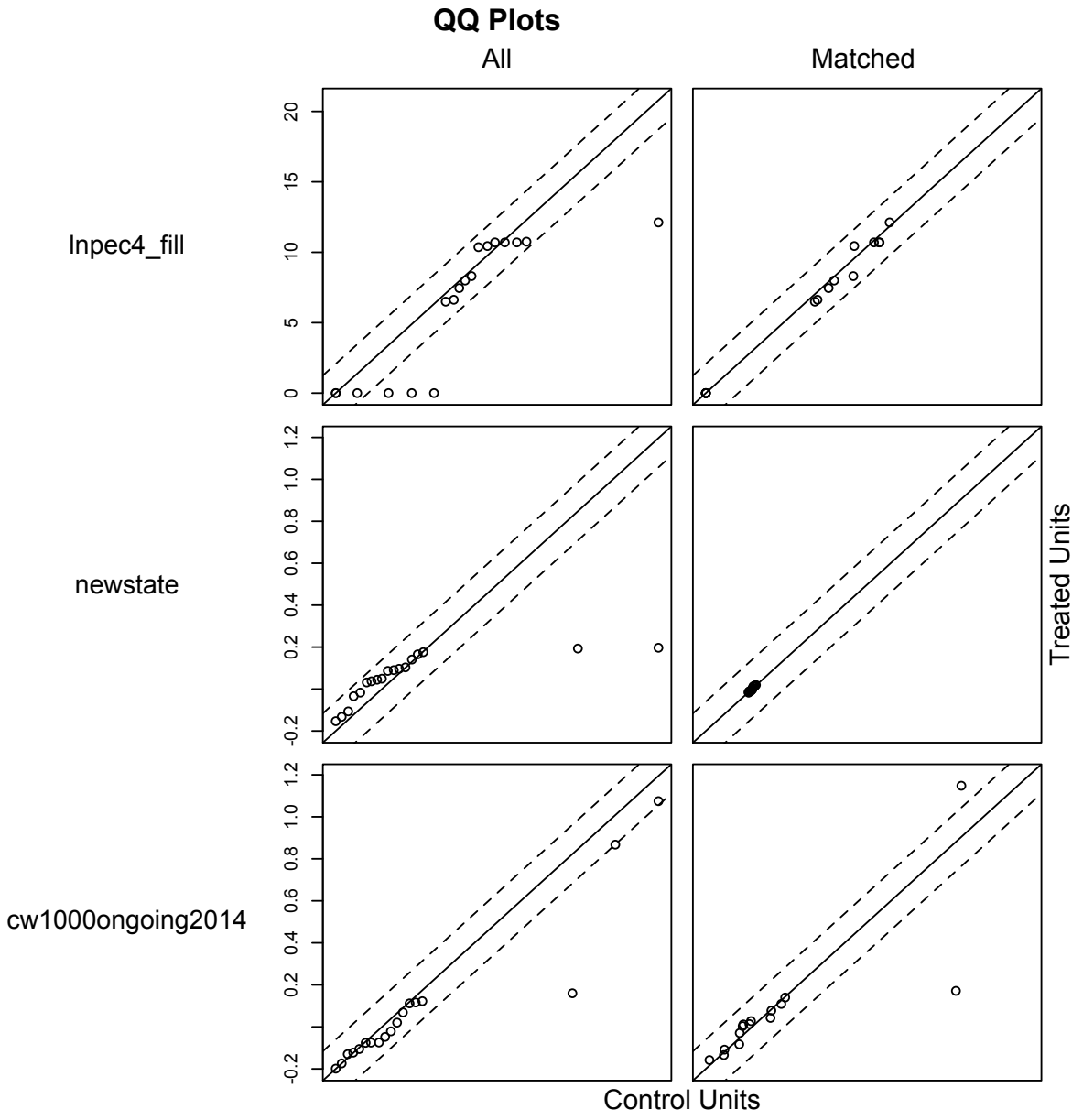
```
gen reg_exit = 0

replace reg_exit = 1 if failtype==1
(32 real changes made)

tab reg_exit leadfirc_entry, col chi2

           |    leadfirc_entry
  reg_exit |         0          1 |     Total
-----------+----------------------+----------
         0 |        16         33 |        49
           |     44.44      73.33 |     60.49
-----------+----------------------+----------
         1 |        20         12 |        32
           |     55.56      26.67 |     39.51
-----------+----------------------+----------
     Total |        36         45 |        81
           |    100.00     100.00 |    100.00

          Pearson chi2(1) =   6.9842   Pr = 0.008

ttest reg_exit, by(leadfirc_entry)

Two-sample t test with equal variances
------------------------------------------------------------------------------
   Group |     Obs        Mean    Std. Err.   Std. Dev.   [95% Conf. Interval]
---------+--------------------------------------------------------------------
       0 |      36    .5555556    .0839921    .5039526    .3850425    .7260686
       1 |      45    .2666667    .0666667    .4472136    .1323088    .4010245
---------+--------------------------------------------------------------------
combined |      81    .3950617    .0546567    .4919099    .2862915    .5038319
---------+--------------------------------------------------------------------
    diff |            .2888889    .1058088                .0782818     .499496
------------------------------------------------------------------------------
    diff = mean(0) - mean(1)                                      t =   2.7303
Ho: diff = 0                                     degrees of freedom =       79

    Ha: diff < 0                 Ha: diff != 0                 Ha: diff > 0
 Pr(T < t) = 0.9961         Pr(|T| > |t|) = 0.0078          Pr(T > t) = 0.0039

stset tenure, failure(failtype==1)

     failure event:  failtype == 1
obs. time interval:  (0, tenure]
 exit on or before:  failure

------------------------------------------------------------------------------
         81  total observations
          0  exclusions
------------------------------------------------------------------------------
         81  observations remaining, representing
         32  failures in single-record/single-failure data
    195,377  total analysis time at risk and under observation
                                                at risk from t =         0
                                     earliest observed entry t =         0
                                          last observed exit t =    24,825
```

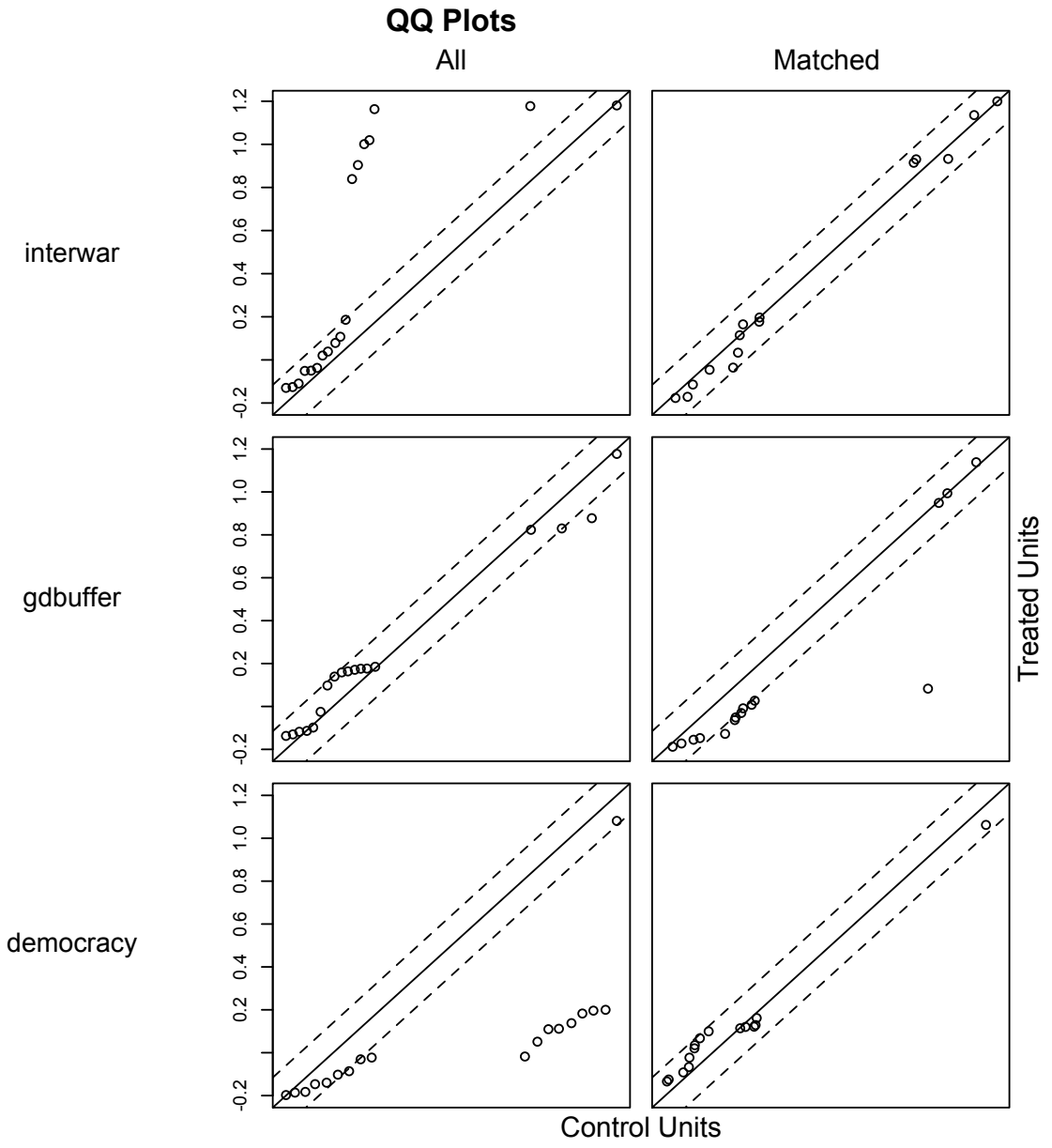
```
stcrreg leadfirc_entry, compete(failtype==2 3) vce(cluster ccode)

         failure _d:  failtype == 1
   analysis time _t:  tenure

Iteration 0:   log pseudolikelihood = -129.49157
Iteration 1:   log pseudolikelihood = -128.50214
Iteration 2:   log pseudolikelihood = -128.50171
Iteration 3:   log pseudolikelihood = -128.50171

Competing-risks regression                      No. of obs       =         81
                                                No. of subjects  =         81
Failure event   : failtype == 1                 No. failed       =         32
Competing events: failtype == 2 3               No. competing    =         46
                                                No. censored     =          3

                                                Wald chi2(1)     =       7.96
Log pseudolikelihood = -128.50171               Prob > chi2      =     0.0048

                                  (Std. Err. adjusted for 54 clusters in ccode)
------------------------------------------------------------------------------
             |               Robust
          _t |        SHR   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
leadfirc_entry |   .3731932   .1303767    -2.82   0.005     .1881754    .7401243
------------------------------------------------------------------------------

stcrreg leadfirc_entry mountainous lntpop4_banks lnpec4_fill newstate cw1000ongoing2014 interwar
gdbuffer democracy leaderage, compete(failtype==2 3) vce(cluster ccode)

         failure _d:  failtype == 1
   analysis time _t:  tenure

Iteration 0:   log pseudolikelihood =  -123.3361
Iteration 1:   log pseudolikelihood = -121.35679
Iteration 2:   log pseudolikelihood = -121.34638
Iteration 3:   log pseudolikelihood = -121.34638

Competing-risks regression                      No. of obs       =         81
                                                No. of subjects  =         81
Failure event   : failtype == 1                 No. failed       =         32
Competing events: failtype == 2 3               No. competing    =         46
                                                No. censored     =          3

                                                Wald chi2(10)    =      37.96
Log pseudolikelihood = -121.34638               Prob > chi2      =     0.0000

                                  (Std. Err. adjusted for 54 clusters in ccode)
------------------------------------------------------------------------------
             |               Robust
          _t |        SHR   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
leadfirc_entry |   .2734939   .1121443    -3.16   0.002     .1224386    .6109096
   mountainous |   .8924158   .8412466    -0.12   0.904     .1406604    5.661906
 lntpop4_banks |   .7710183   .1757207    -1.14   0.254      .493253    1.205202
   lnpec4_fill |   .9543233   .0830152    -0.54   0.591      .804731    1.131724
      newstate |   .2845811   .2419153    -1.48   0.139       .05378    1.505883
cw1000ongoing2014 |   1.175956   .5742574     0.33   0.740     .4515664    3.062389
      interwar |   1.252468   .4531793     0.62   0.534     .6162784      2.5454
      gdbuffer |    2.21243   1.088005     1.61   0.106     .8438682    5.800486
     democracy |   .7288824   .5105944    -0.45   0.652     .1846615    2.876991
     leaderage |   1.030377   .0142893     2.16   0.031     1.002748    1.058767
------------------------------------------------------------------------------
```

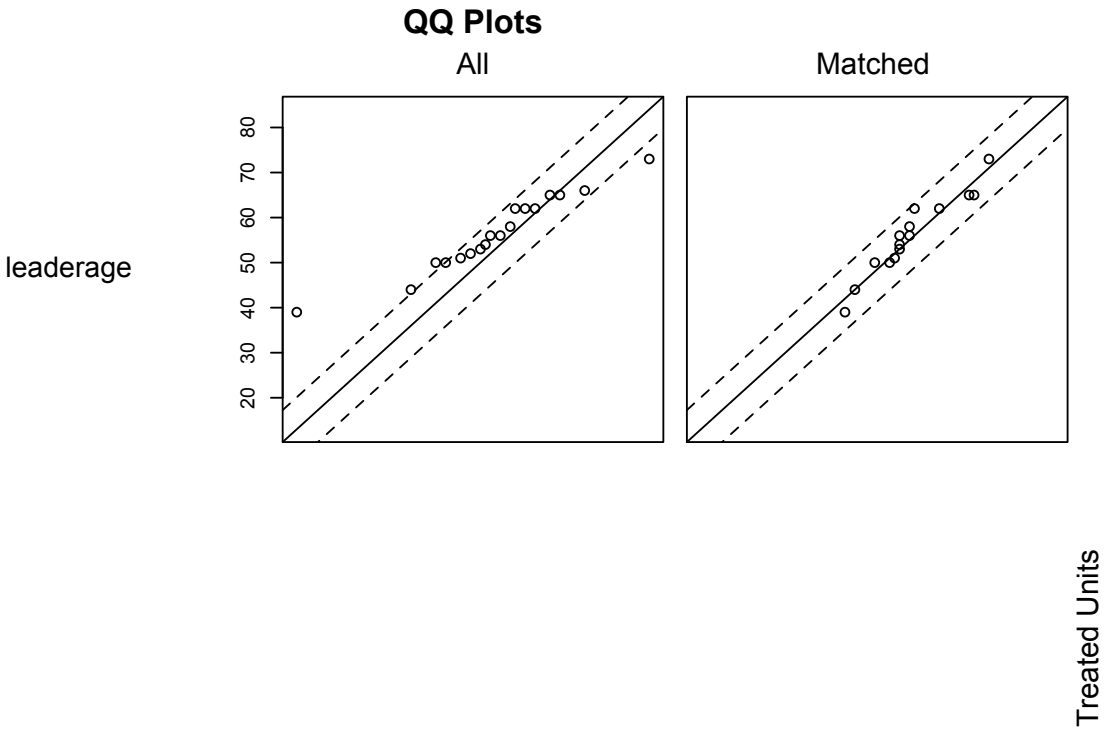
Institutional FIRC

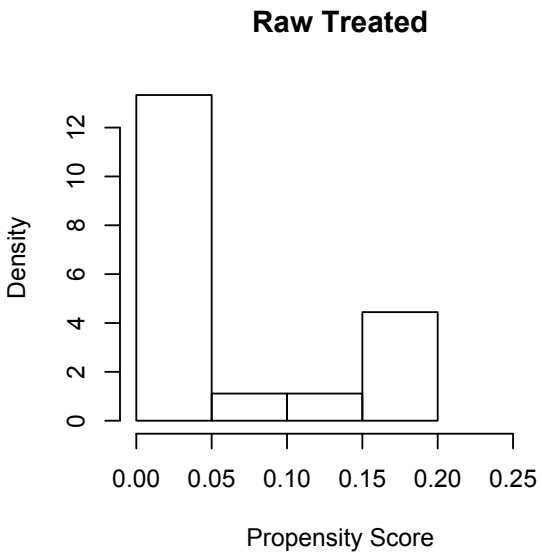
```
summary(regfirc.out4)

Call:
matchit(formula = instfirc_entry ~ prevtimesinoffice + mountainous +
    lntpop4_banks + lnpec4_fill + newstate + cw1000ongoing2014 +
    interwar + gdbuffer + democracy + leaderage, data = regfirc,
    method = "genetic", pop.size = 150)

Summary of balance for all data:
                Means Treated Means Control SD Control Mean Diff eQQ Med eQQ Mean eQQ Max
distance               0.0659        0.0100     0.0222    0.0559  0.0284   0.0529  0.1514
prevtimesinoffice      0.0556        0.2422     0.6072   -0.1867  0.0000   0.3889  4.0000
mountainous            0.1762        0.2286     0.2390   -0.0524  0.0366   0.0912  0.4824
lntpop4_banks          8.5732        8.8903     1.5408   -0.3171  0.5119   0.7248  2.5631
lnpec4_fill            6.2588        7.4498     3.7804   -1.1910  0.8193   1.8074  8.6740
newstate               0.0000        0.0716     0.2579   -0.0716  0.0000   0.1111  1.0000
cw1000ongoing2014      0.1111        0.1247     0.3305   -0.0136  0.0000   0.0556  1.0000
interwar               0.3889        0.0632     0.2435    0.3256  0.0000   0.2778  1.0000
gdbuffer               0.2222        0.1921     0.3941    0.0301  0.0000   0.0000  0.0000
democracy              0.0556        0.4809     0.4998   -0.4254  0.0000   0.4444  1.0000
leaderage             56.5556       53.2924    11.0370    3.2632  4.0000   5.5556 26.0000


Summary of balance for matched data:
                Means Treated Means Control SD Control Mean Diff eQQ Med eQQ Mean eQQ Max
distance               0.0659        0.0645     0.0696    0.0014  0.0065   0.0105  0.0353
prevtimesinoffice      0.0556        0.0556     0.2371    0.0000  0.0000   0.0000  0.0000
mountainous            0.1762        0.1633     0.1356    0.0129  0.0156   0.0280  0.1253
lntpop4_banks          8.5732        8.6064     1.9161   -0.0333  0.3193   0.3483  0.8416
lnpec4_fill            6.2588        6.3103     4.8304   -0.0515  0.2793   0.3519  1.1977
newstate               0.0000        0.0000     0.0000    0.0000  0.0000   0.0000  0.0000
cw1000ongoing2014      0.1111        0.1111     0.3253    0.0000  0.0000   0.0667  1.0000
interwar               0.3889        0.3889     0.5046    0.0000  0.0000   0.0000  0.0000
gdbuffer               0.2222        0.2222     0.4303    0.0000  0.0000   0.0667  1.0000
democracy              0.0556        0.0556     0.2371    0.0000  0.0000   0.0000  0.0000
leaderage             56.5556       55.8333     8.1595    0.7222  2.0000   1.9333  6.0000

Percent Balance Improvement:
                Mean Diff. eQQ Med eQQ Mean  eQQ Max
distance           97.4962 77.0623  80.1552  76.6952
prevtimesinoffice 100.0000  0.0000 100.0000 100.0000
mountainous        75.3220 57.4685  69.2975  74.0366
lntpop4_banks      89.5068 37.6298  51.9432  67.1663
lnpec4_fill        95.6784 65.9106  80.5292  86.1923
newstate          100.0000  0.0000 100.0000 100.0000
cw1000ongoing2014 100.0000  0.0000 -20.0000   0.0000
interwar          100.0000  0.0000 100.0000 100.0000
gdbuffer          100.0000  0.0000     -Inf     -Inf
democracy         100.0000  0.0000 100.0000 100.0000
leaderage          77.8676 50.0000  65.2000  76.9231

Sample sizes:
          Control Treated
All          1676      18
Matched        15      18
Unmatched    1661       0
Discarded       0       0
```

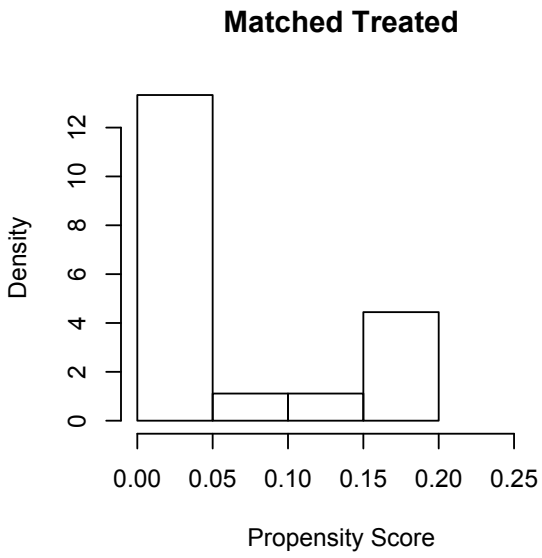

QQ Plots
All
Matched
prevtimesinoffice
mountainous
lntpop4_banks
Treated Units
Control Units
0
1
2
3
4
5
0.0
0.2
0.4
0.6
0.8
1.0
6
8
10
12
14

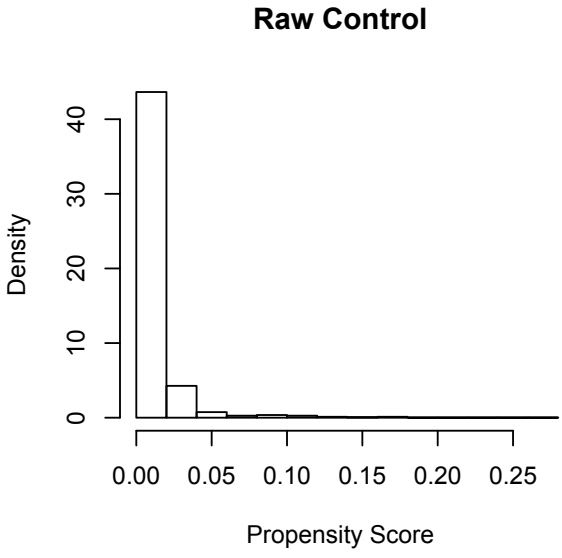

QQ Plots
All
Matched
lnpec4_fill
newstate
cw1000ongoing2014
Treated Units
Control Units
0
5
10
15
20
-0.2
0.2
0.4
0.6
0.8
1.0
1.2

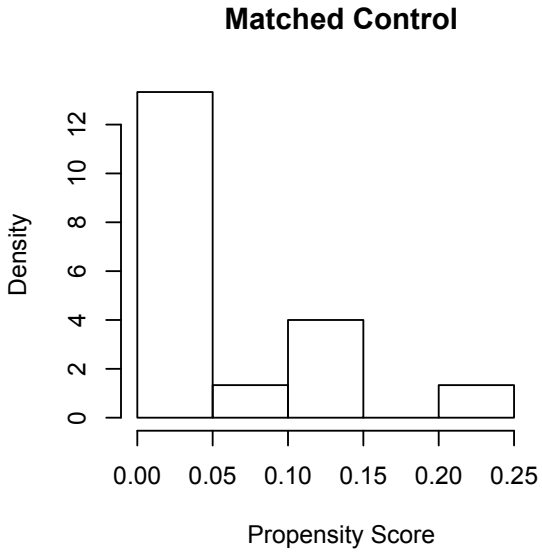

QQ Plots
All
Matched
interwar
gdbuffer
democracy
-0.2
0.2
0.4
0.6
0.8
1.0
1.2
Treated Units
Control Units

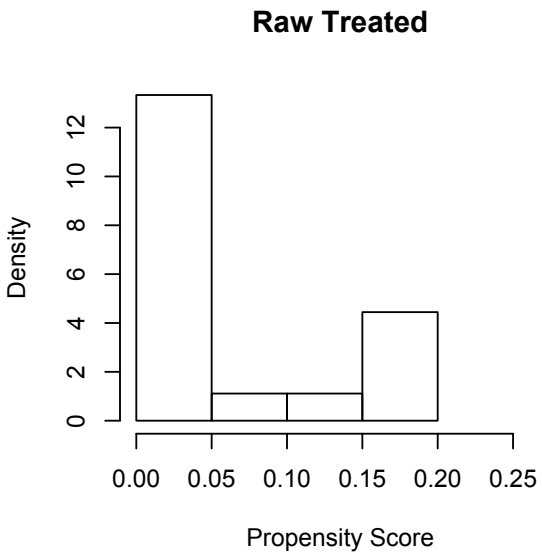

QQ Plots
All
Matched
leaderage
20
30
40
50
60
70
80
Treated Units
Control Units

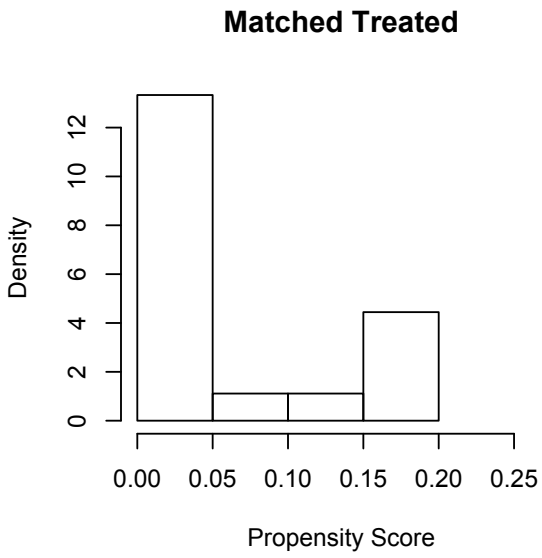

Raw Treated
Density
0
2
4
6
8
10
12
0.00
0.05
0.10
0.15
0.20
0.25
Propensity Score

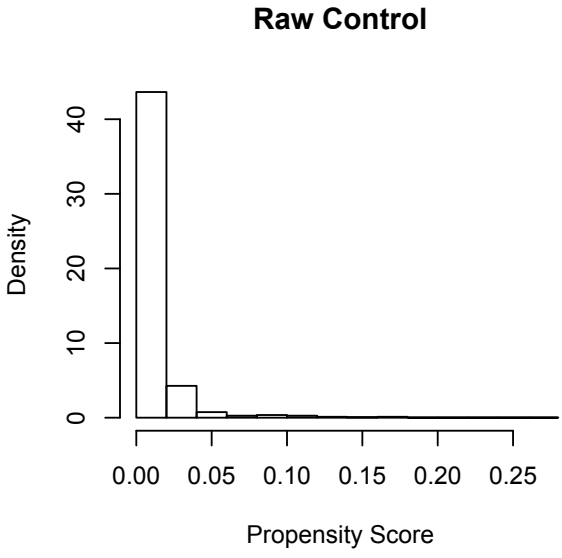

Matched Treated
Density
0
2
4
6
8
10
12
0.00
0.05
0.10
0.15
0.20
0.25
Propensity Score

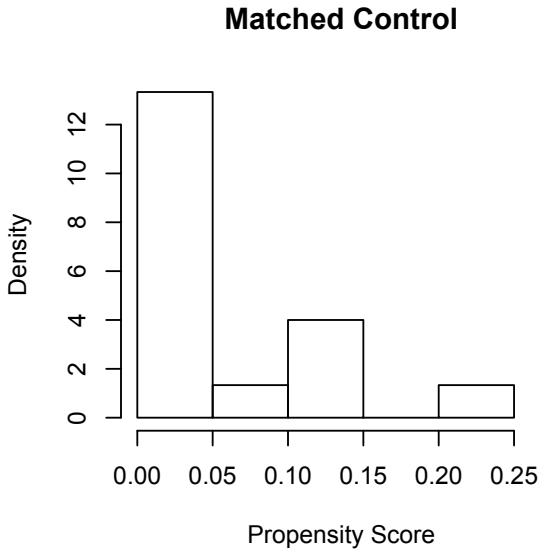

Raw Control
Density
0
10
20
30
40
0.00
0.05
0.10
0.15
0.20
0.25
Propensity Score


Matched Control
Density
0
2
4
6
8
10
12
0.00
0.05
0.10
0.15
0.20
0.25
Propensity Score

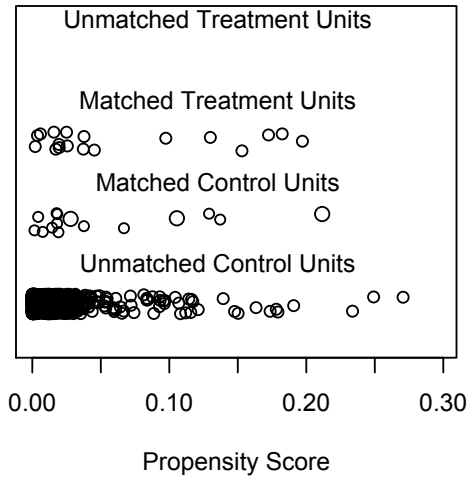

Raw Treated
Density
0
2
4
6
8
10
12
0.00
0.05
0.10
0.15
0.20
0.25
Propensity Score


Matched Treated
Density
0
2
4
6
8
10
12
0.00
0.05
0.10
0.15
0.20
0.25
Propensity Score


Raw Control
Density
0
10
20
30
40
0.00
0.05
0.10
0.15
0.20
0.25
Propensity Score


Matched Control
Density
0
2
4
6
8
10
12
0.00
0.05
0.10
0.15
0.20
0.25
Propensity Score

Distribution of Propensity Scores

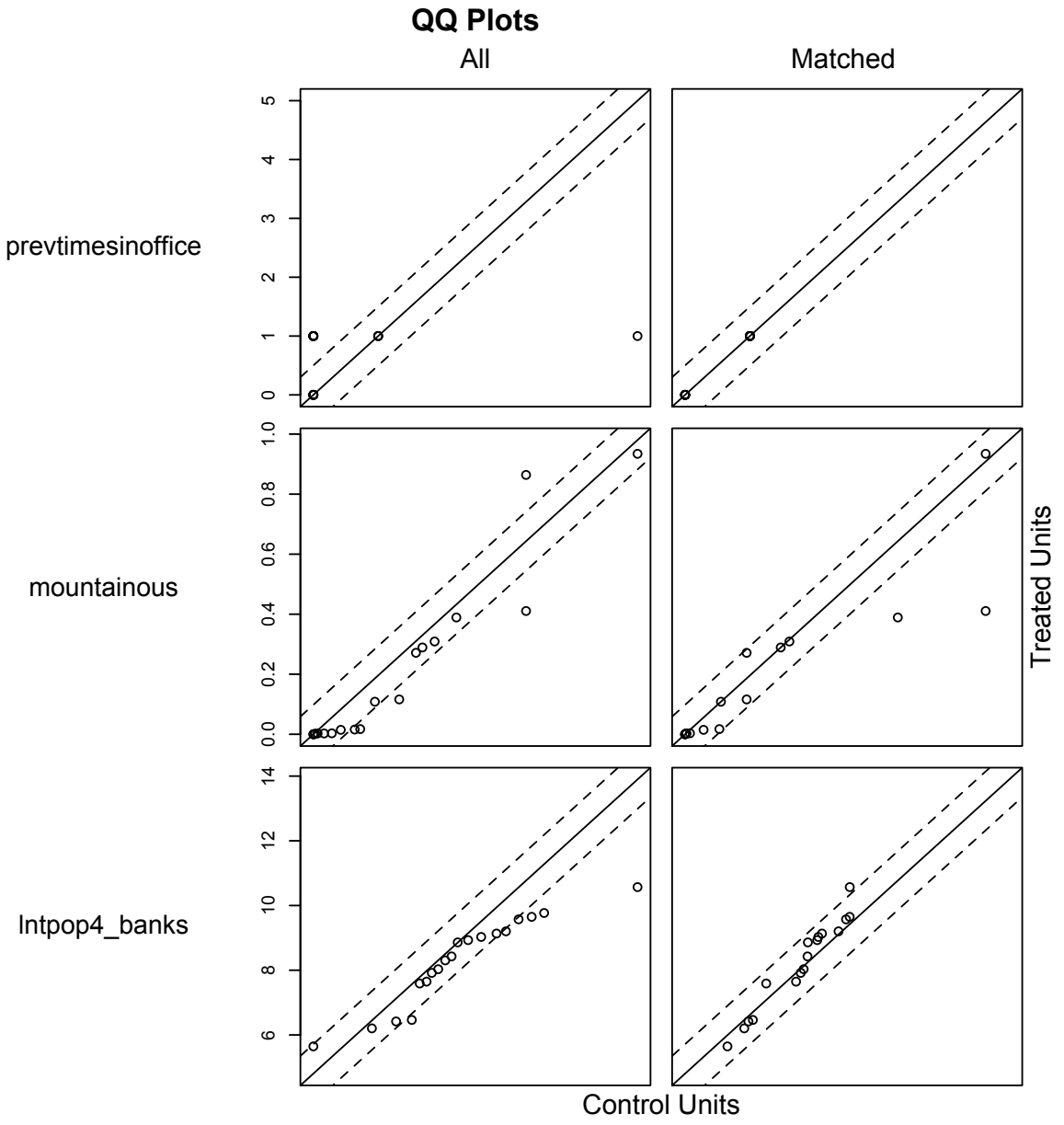


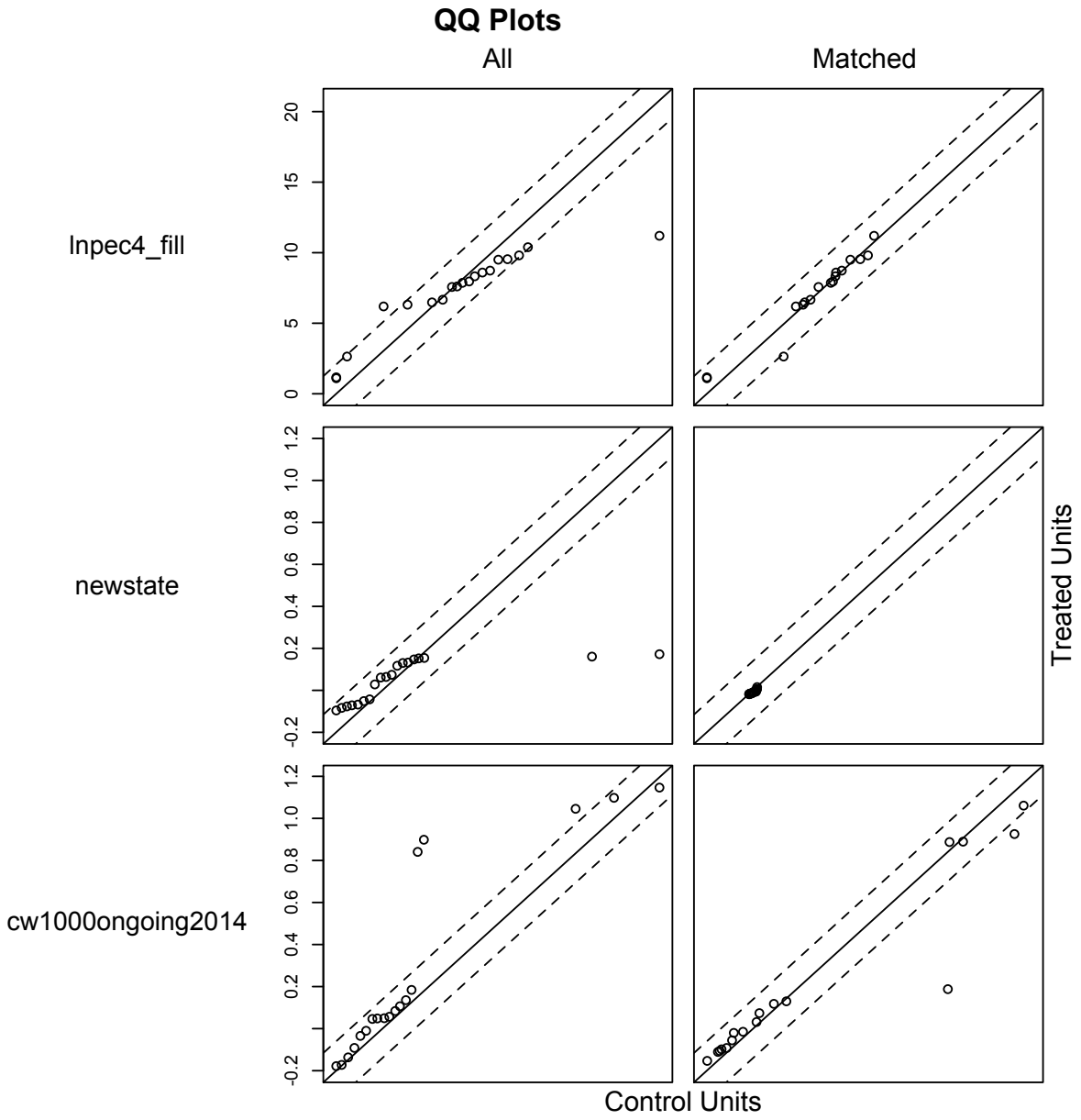
```
gen reg_exit = 0

replace reg_exit = 1 if failtype==1
(21 real changes made)

tab reg_exit instfirc_entry, col chi2

           |    instfirc_entry
  reg_exit |         0          1 |     Total
-----------+----------------------+----------
         0 |         6          6 |        12
           |     40.00      33.33 |     36.36
-----------+----------------------+----------
         1 |         9         12 |        21
           |     60.00      66.67 |     63.64
-----------+----------------------+----------
     Total |        15         18 |        33
           |    100.00     100.00 |    100.00

          Pearson chi2(1) =   0.1571   Pr = 0.692

ttest reg_exit, by(instfirc_entry)

Two-sample t test with equal variances
------------------------------------------------------------------------------
   Group |     Obs        Mean    Std. Err.   Std. Dev.   [95% Conf. Interval]
---------+--------------------------------------------------------------------
       0 |      15          .6    .1309307    .5070926    .3191815    .8808185
       1 |      18    .6666667    .1143324    .4850713    .4254464    .9078869
---------+--------------------------------------------------------------------
combined |      33    .6363636    .0850377    .4885042    .4631476    .8095797
---------+--------------------------------------------------------------------
    diff |           -.0666667    .1731016               -.4197097    .2863763
------------------------------------------------------------------------------
    diff = mean(0) - mean(1)                                      t =  -0.3851
Ho: diff = 0                                     degrees of freedom =       31

    Ha: diff < 0                 Ha: diff != 0                 Ha: diff > 0
 Pr(T < t) = 0.3514         Pr(|T| > |t|) = 0.7028          Pr(T > t) = 0.6486

stset tenure, failure(failtype==1)

     failure event:  failtype == 1
obs. time interval:  (0, tenure]
 exit on or before:  failure

------------------------------------------------------------------------------
         33  total observations
          0  exclusions
------------------------------------------------------------------------------
         33  observations remaining, representing
         21  failures in single-record/single-failure data
     52,120  total analysis time at risk and under observation
                                             at risk from t =         0
                                  earliest observed entry t =         0
                                       last observed exit t =    11,522
```

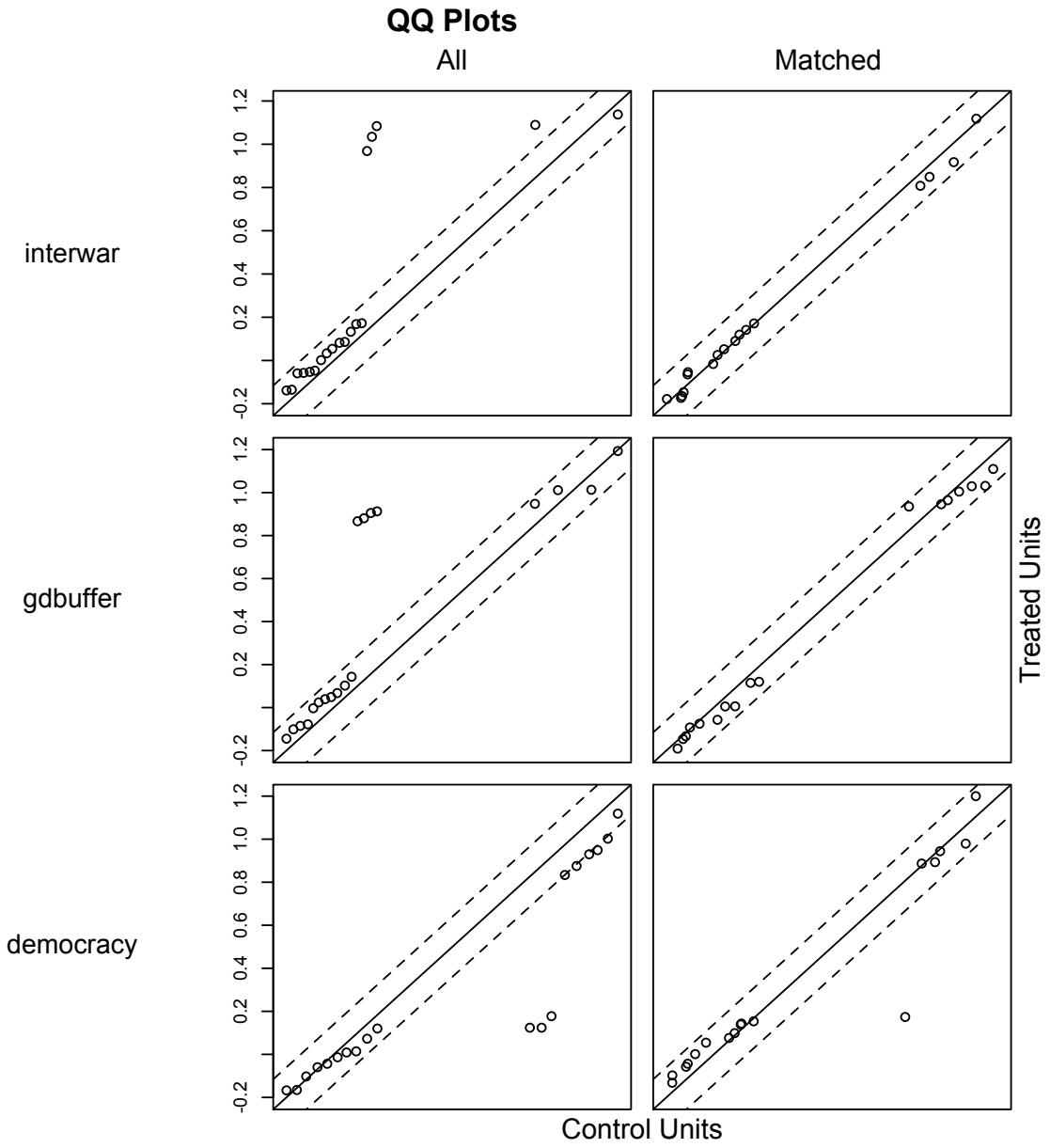
```
stcrreg instfirc_entry, compete(failtype==2 3) vce(cluster ccode)

         failure _d:  failtype == 1
   analysis time _t:  tenure

Iteration 0:   log pseudolikelihood = -63.866982
Iteration 1:   log pseudolikelihood = -63.503192
Iteration 2:   log pseudolikelihood =   -63.5022
Iteration 3:   log pseudolikelihood =   -63.5022

Competing-risks regression                      No. of obs       =         33
                                                No. of subjects  =         33
Failure event   : failtype == 1                 No. failed       =         21
Competing events: failtype == 2 3               No. competing    =         10
                                                No. censored     =          2

                                                Wald chi2(1)     =       0.47
Log pseudolikelihood =   -63.5022               Prob > chi2      =     0.4942

                                  (Std. Err. adjusted for 22 clusters in ccode)
------------------------------------------------------------------------------
             |               Robust
          _t |        SHR   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
instfirc_entry |   1.354758   .6016198     0.68   0.494     .5673625    3.234913
------------------------------------------------------------------------------

stcrreg instfirc_entry mountainous lntpop4_banks lnpec4_fill newstate cw1000ongoing2014 interwar
gdbuffer democracy leaderage, compete(failtype==2 3) vce(cluster ccode)
note: newstate omitted because of collinearity

         failure _d:  failtype == 1
   analysis time _t:  tenure

Iteration 0:   log pseudolikelihood = -65.234151
Iteration 1:   log pseudolikelihood = -57.336011
Iteration 2:   log pseudolikelihood = -54.611059
Iteration 3:   log pseudolikelihood = -54.446873
Iteration 4:   log pseudolikelihood = -54.446232
Iteration 5:   log pseudolikelihood = -54.446232

Competing-risks regression                      No. of obs       =         33
                                                No. of subjects  =         33
Failure event   : failtype == 1                 No. failed       =         21
Competing events: failtype == 2 3               No. competing    =         10
                                                No. censored     =          2

                                                Wald chi2(9)     =      35.34
Log pseudolikelihood = -54.446232               Prob > chi2      =     0.0001

                                  (Std. Err. adjusted for 22 clusters in ccode)
------------------------------------------------------------------------------
             |               Robust
          _t |        SHR   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
instfirc_entry |   1.115363   .4962563     0.25   0.806     .4663297    2.667717
  mountainous |   .0001407   .0003664    -3.40   0.001     8.53e-07    .0232065
lntpop4_banks |   1.232769   .4616586     0.56   0.576     .5917193     2.56831
  lnpec4_fill |   .9772738   .1682525    -0.13   0.894     .6973792    1.369505
     newstate |          1  (omitted)
cw1000ongoing2014 |   .8658171   .7723142    -0.16   0.872     .1507124    4.973971
     interwar |    .515701    .364253    -0.94   0.348     .1291731    2.058846
     gdbuffer |   .1376055   .0719813    -3.79   0.000     .0493598    .3836173
    democracy |   .2132825    .353956    -0.93   0.352     .0082477    5.515423
    leaderage |   1.110769   .0558128     2.09   0.037     1.006592    1.225728
------------------------------------------------------------------------------
```

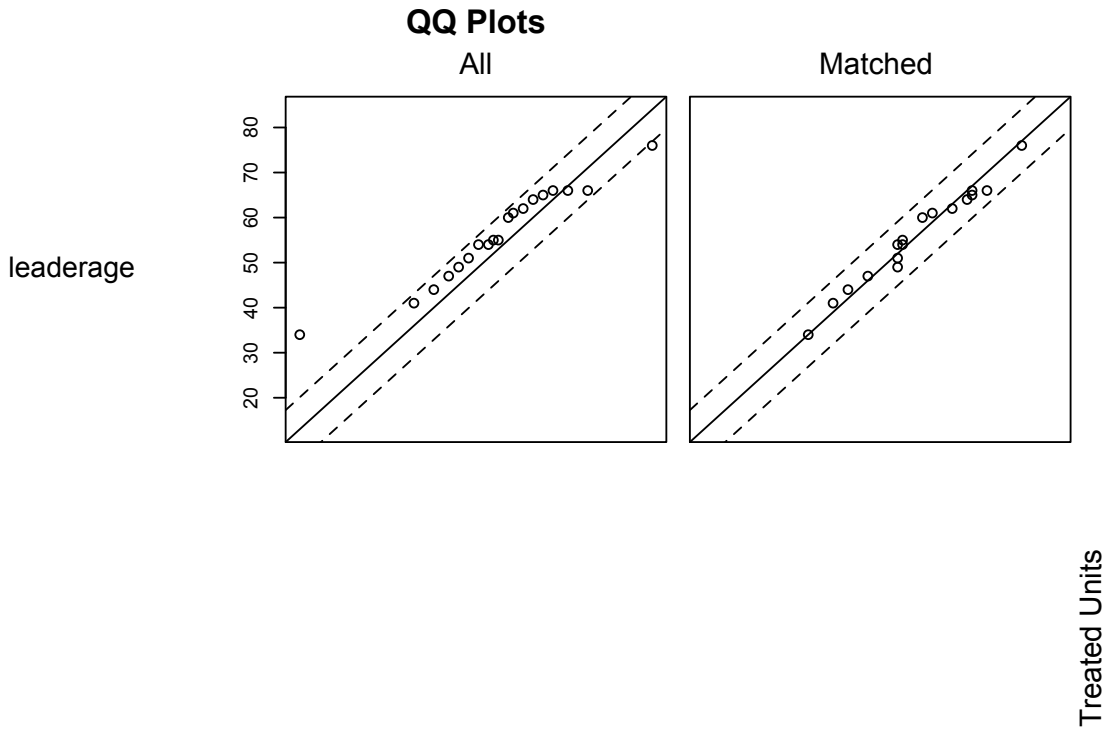
Restoration FIRC

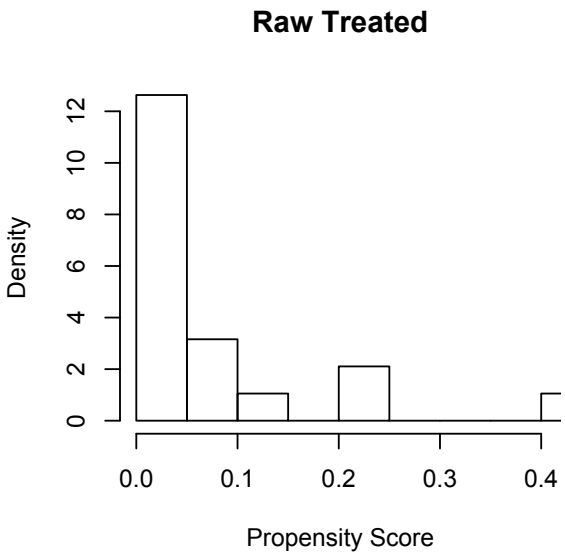
```
summary(regfirc.out3)

Call:
matchit(formula = restfirc_entry ~ prevtimesinoffice + mountainous +
    lntpop4_banks + lnpec4_fill + newstate + cw1000ongoing2014 +
    interwar + gdbuffer + democracy + leaderage, data = regfirc,
    method = "genetic", pop.size = 150)

Summary of balance for all data:
                 Means Treated Means Control SD Control Mean Diff eQQ Med eQQ Mean eQQ Max
distance                0.0782        0.0105     0.0215    0.0678  0.0258   0.0554  0.2134
prevtimesinoffice       0.5789        0.2364     0.6048    0.3425  0.0000   0.5789  4.0000
mountainous             0.1974        0.2284     0.2378   -0.0310  0.0458   0.0685  0.2325
lntpop4_banks           8.2819        8.8938     1.5461   -0.6119  0.4832   0.7359  3.3281
lnpec4_fill             7.2442        7.4393     3.8027   -0.1951  1.0986   1.5355  9.5977
newstate                0.0000        0.0716     0.2580   -0.0716  0.0000   0.1053  1.0000
cw1000ongoing2014       0.2632        0.1230     0.3285    0.1402  0.0000   0.1053  1.0000
interwar                0.2632        0.0645     0.2457    0.1987  0.0000   0.1579  1.0000
gdbuffer                0.4211        0.1899     0.3923    0.2312  0.0000   0.2105  1.0000
democracy               0.3158        0.4782     0.4997   -0.1624  0.0000   0.1579  1.0000
leaderage              56.3158       53.2931    11.0212    3.0227  4.0000   4.8421 21.0000


Summary of balance for matched data:
                 Means Treated Means Control SD Control Mean Diff eQQ Med eQQ Mean eQQ Max
distance                0.0782        0.0720     0.0846    0.0062  0.0048   0.0143  0.1002
prevtimesinoffice       0.5789        0.5263     0.5147    0.0526  0.0000   0.0000  0.0000
mountainous             0.1974        0.1972     0.2996    0.0002  0.0063   0.0636  0.4982
lntpop4_banks           8.2819        8.0898     1.0624    0.1921  0.2605   0.3494  1.1458
lnpec4_fill             7.2442        7.0543     2.9326    0.1899  0.2864   0.4688  2.2966
newstate                0.0000        0.0000     0.0000    0.0000  0.0000   0.0000  0.0000
cw1000ongoing2014       0.2632        0.2632     0.4539    0.0000  0.0000   0.0588  1.0000
interwar                0.2632        0.3158     0.4791   -0.0526  0.0000   0.0000  0.0000
gdbuffer                0.4211        0.4737     0.5147   -0.0526  0.0000   0.0000  0.0000
democracy               0.3158        0.3684     0.4972   -0.0526  0.0000   0.0588  1.0000
leaderage              56.3158       56.7895    12.0838   -0.4737  2.0000   1.7647  4.0000

Percent Balance Improvement:
                 Mean Diff. eQQ Med eQQ Mean   eQQ Max
distance             90.8342 81.5711  74.1334   53.0506
prevtimesinoffice    84.6344  0.0000 100.0000  100.0000
mountainous          99.4763 86.2902   7.1431 -114.2655
lntpop4_banks        68.6148 46.0886  52.5212   65.5721
lnpec4_fill           2.6716 73.9265  69.4695   76.0712
newstate            100.0000  0.0000 100.0000  100.0000
cw1000ongoing2014   100.0000  0.0000  44.1176    0.0000
interwar             73.5094  0.0000 100.0000  100.0000
gdbuffer             77.2357  0.0000 100.0000  100.0000
democracy            67.5953  0.0000  62.7451    0.0000
leaderage            84.3289 50.0000  63.5550   80.9524

Sample sizes:
          Control Treated
All          1675      19
Matched        17      19
Unmatched    1658       0
Discarded       0       0
```

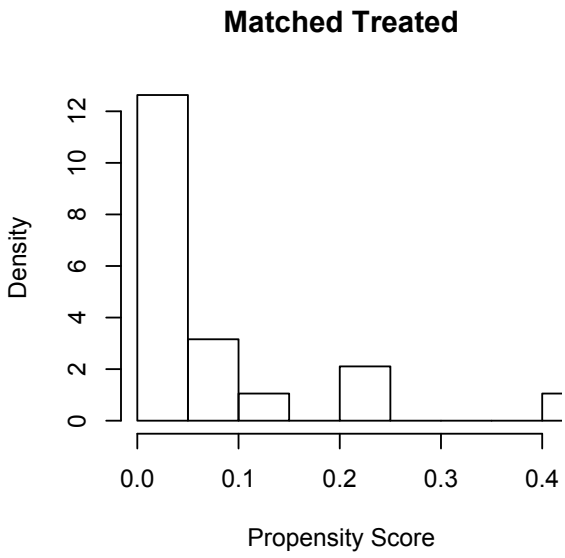

QQ Plots
All
Matched
prevtimesinoffice
mountainous
lntpop4_banks
Treated Units
Control Units
0
1
2
3
4
5
0.0
0.2
0.4
0.6
0.8
1.0
6
8
10
12
14

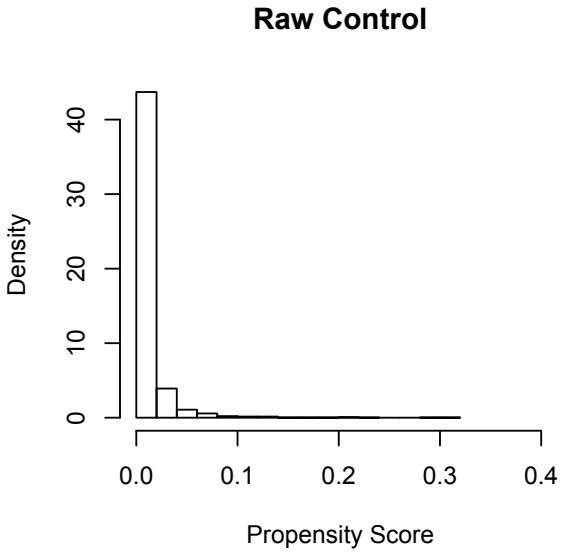

QQ Plots
All
Matched
lnpec4_fill
newstate
cw1000ongoing2014
Treated Units
Control Units
0
5
10
15
20
-0.2
0.2
0.4
0.6
0.8
1.0
1.2

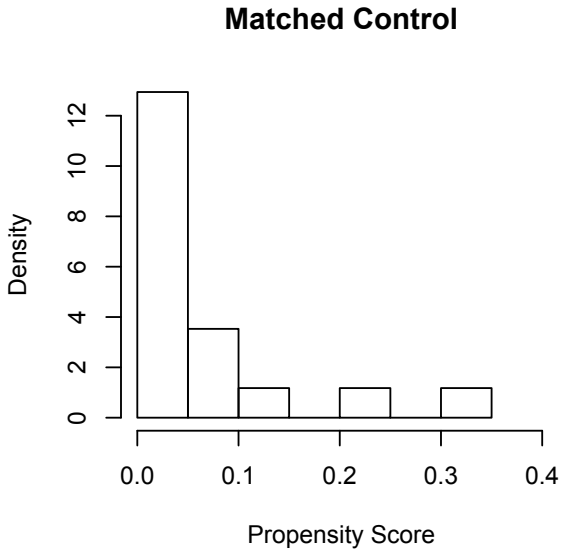

QQ Plots
All
Matched
interwar
gdbuffer
democracy
Treated Units
Control Units
-0.2
0.2
0.4
0.6
0.8
1.0
1.2


QQ Plots
All
Matched
leaderage
20
30
40
50
60
70
80
Treated Units
Control Units

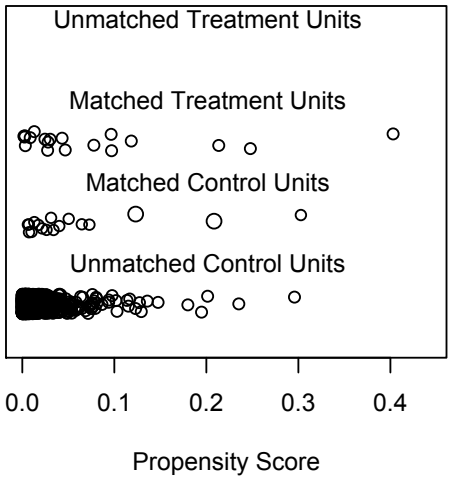

Raw Treated
Density
0
2
4
6
8
10
12
0.0
0.1
0.2
0.3
0.4
Propensity Score


Matched Treated
Density
0
2
4
6
8
10
12
0.0
0.1
0.2
0.3
0.4
Propensity Score


Raw Control
Density
0
10
20
30
40
0.0
0.1
0.2
0.3
0.4
Propensity Score


Matched Control
Density
0
2
4
6
8
10
12
0.0
0.1
0.2
0.3
0.4
Propensity Score

Distribution of Propensity Scores



```
gen reg_exit = 0

replace reg_exit = 1 if failtype==1
(23 real changes made)

tab reg_exit restfirc_entry, col chi2


           |    restfirc_entry
  reg_exit |         0          1 |     Total
-----------+----------------------+----------
         0 |         6          7 |        13
           |     35.29      36.84 |     36.11
-----------+----------------------+----------
         1 |        11         12 |        23
           |     64.71      63.16 |     63.89
-----------+----------------------+----------
     Total |        17         19 |        36
           |    100.00     100.00 |    100.00

          Pearson chi2(1) =   0.0093   Pr = 0.923

ttest reg_exit, by(restfirc_entry)

Two-sample t test with equal variances
------------------------------------------------------------------------------
   Group |     Obs        Mean    Std. Err.   Std. Dev.   [95% Conf. Interval]
---------+--------------------------------------------------------------------
       0 |      17    .6470588    .1194712    .4925922    .3937913    .9003264
       1 |      19    .6315789    .1136972    .4955946      .39271    .8704479
---------+--------------------------------------------------------------------
combined |      36    .6388889    .0811894    .4871361    .4740657     .803712
---------+--------------------------------------------------------------------
    diff |            .0154799    .1649828               -.3198055    .3507653
------------------------------------------------------------------------------
    diff = mean(0) - mean(1)                                      t =   0.0938
Ho: diff = 0                                     degrees of freedom =       34

    Ha: diff < 0                 Ha: diff != 0                 Ha: diff > 0
 Pr(T < t) = 0.5371         Pr(|T| > |t|) = 0.9258          Pr(T > t) = 0.4629

stset tenure, failure(failtype==1)

     failure event:  failtype == 1
obs. time interval:  (0, tenure]
 exit on or before:  failure

------------------------------------------------------------------------------
         36  total observations
          0  exclusions
------------------------------------------------------------------------------
         36  observations remaining, representing
         23  failures in single-record/single-failure data
     82,476  total analysis time at risk and under observation
                                             at risk from t =         0
                                  earliest observed entry t =         0
                                       last observed exit t =    12,183
```

```
stcrreg restfirc_entry, compete(failtype==2 3) vce(cluster ccode)

         failure _d:  failtype == 1
   analysis time _t:  tenure

Iteration 0:   log pseudolikelihood = -72.280964
Iteration 1:   log pseudolikelihood = -71.802787
Iteration 2:   log pseudolikelihood = -71.802617
Iteration 3:   log pseudolikelihood = -71.802617

Competing-risks regression                      No. of obs       =         36
                                                No. of subjects  =         36
Failure event   : failtype == 1                 No. failed       =         23
Competing events: failtype == 2 3               No. competing    =         10
                                                No. censored     =          3

                                                Wald chi2(1)     =       0.09
Log pseudolikelihood = -71.802617               Prob > chi2      =     0.7687

                                  (Std. Err. adjusted for 28 clusters in ccode)
------------------------------------------------------------------------------
             |               Robust
          _t |        SHR   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
restfirc_entry |   1.126394   .4558338     0.29   0.769     .5095917    2.489763
------------------------------------------------------------------------------

stcrreg restfirc_entry mountainous lntpop4_banks lnpec4_fill newstate cw1000ongoing2014 interwar
gdbuffer democracy leaderage, compete(failtype==2 3) vce(cluster ccode)
note: newstate omitted because of collinearity

         failure _d:  failtype == 1
   analysis time _t:  tenure

Iteration 0:   log pseudolikelihood = -68.212423
Iteration 1:   log pseudolikelihood = -66.245683
Iteration 2:   log pseudolikelihood = -66.150722
Iteration 3:   log pseudolikelihood = -66.150368
Iteration 4:   log pseudolikelihood = -66.150368

Competing-risks regression                      No. of obs       =         36
                                                No. of subjects  =         36
Failure event   : failtype == 1                 No. failed       =         23
Competing events: failtype == 2 3               No. competing    =         10
                                                No. censored     =          3

                                                Wald chi2(9)     =      12.85
Log pseudolikelihood = -66.150368               Prob > chi2      =     0.1696

                                  (Std. Err. adjusted for 28 clusters in ccode)
------------------------------------------------------------------------------
             |               Robust
          _t |        SHR   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
   restfirc_entry |   1.438878   .7842292     0.67   0.504     .4944187    4.187481
      mountainous |   3.238536    2.87865     1.32   0.186     .5672025    18.49096
    lntpop4_banks |   1.394961   .4129418     1.12   0.261     .7808834    2.491943
      lnpec4_fill |   .8625642   .1019574    -1.25   0.211     .6841906    1.087441
         newstate |          1  (omitted)
cw1000ongoing2014 |    .446913    .433887    -0.83   0.407     .0666548    2.996504
         interwar |   1.535406   .9352777     0.70   0.481     .4652882    5.066691
         gdbuffer |   .9982364   .7631458    -0.00   0.998     .2230976    4.466548
        democracy |   5.464084   4.514903     2.06   0.040     1.081883    27.59653
        leaderage |   1.006578   .0188837     0.35   0.727     .9702386    1.044278
------------------------------------------------------------------------------
```