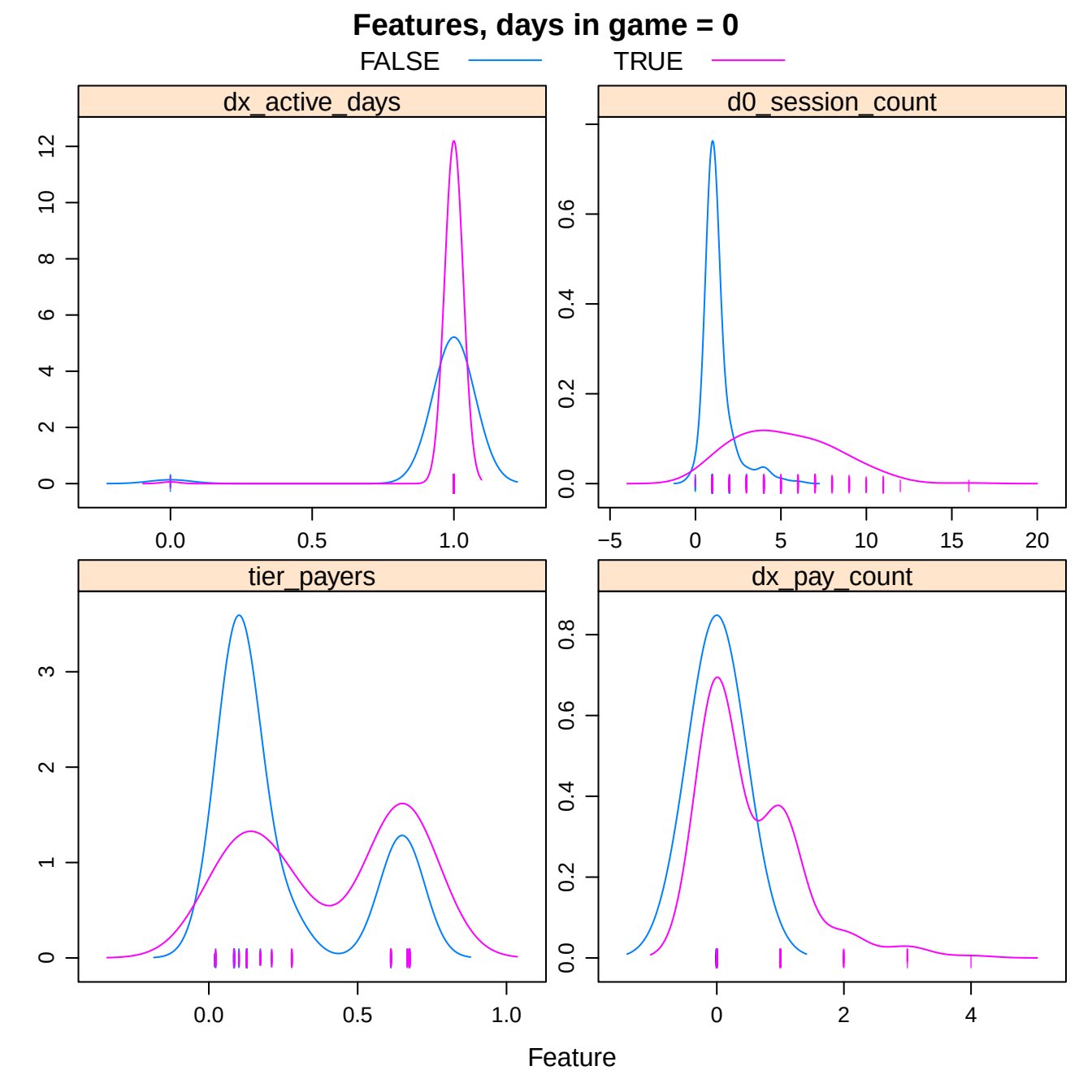
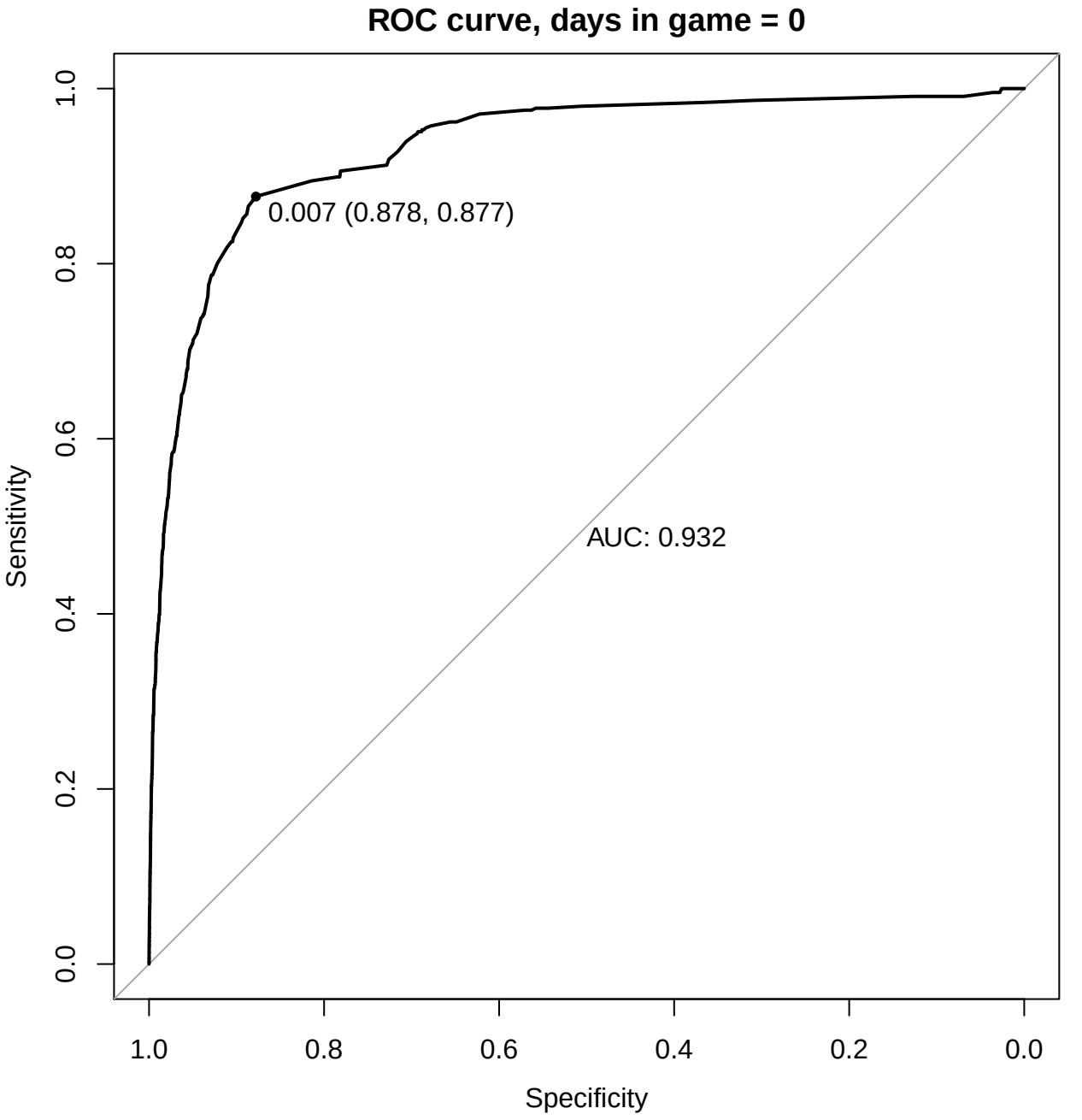
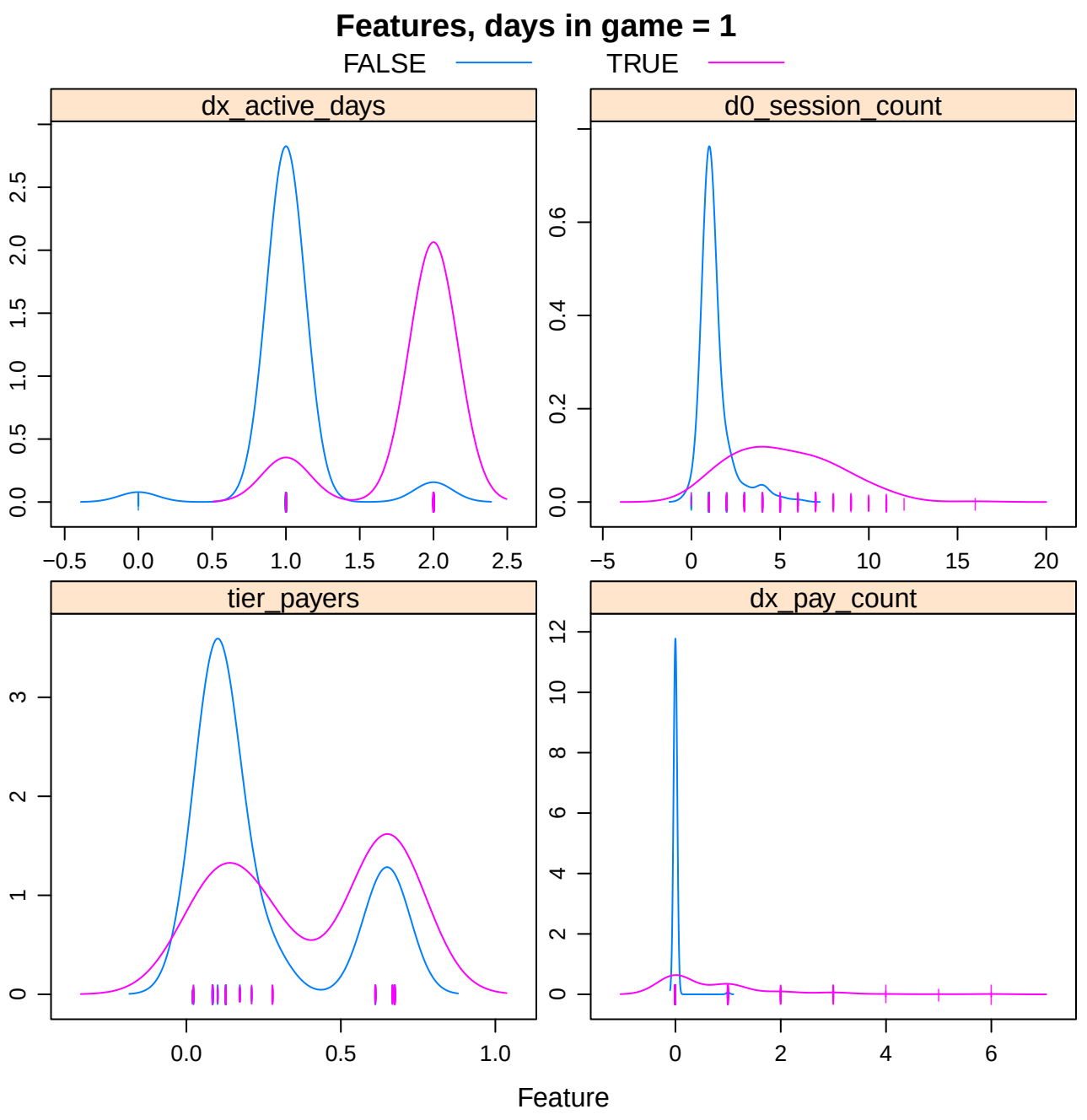
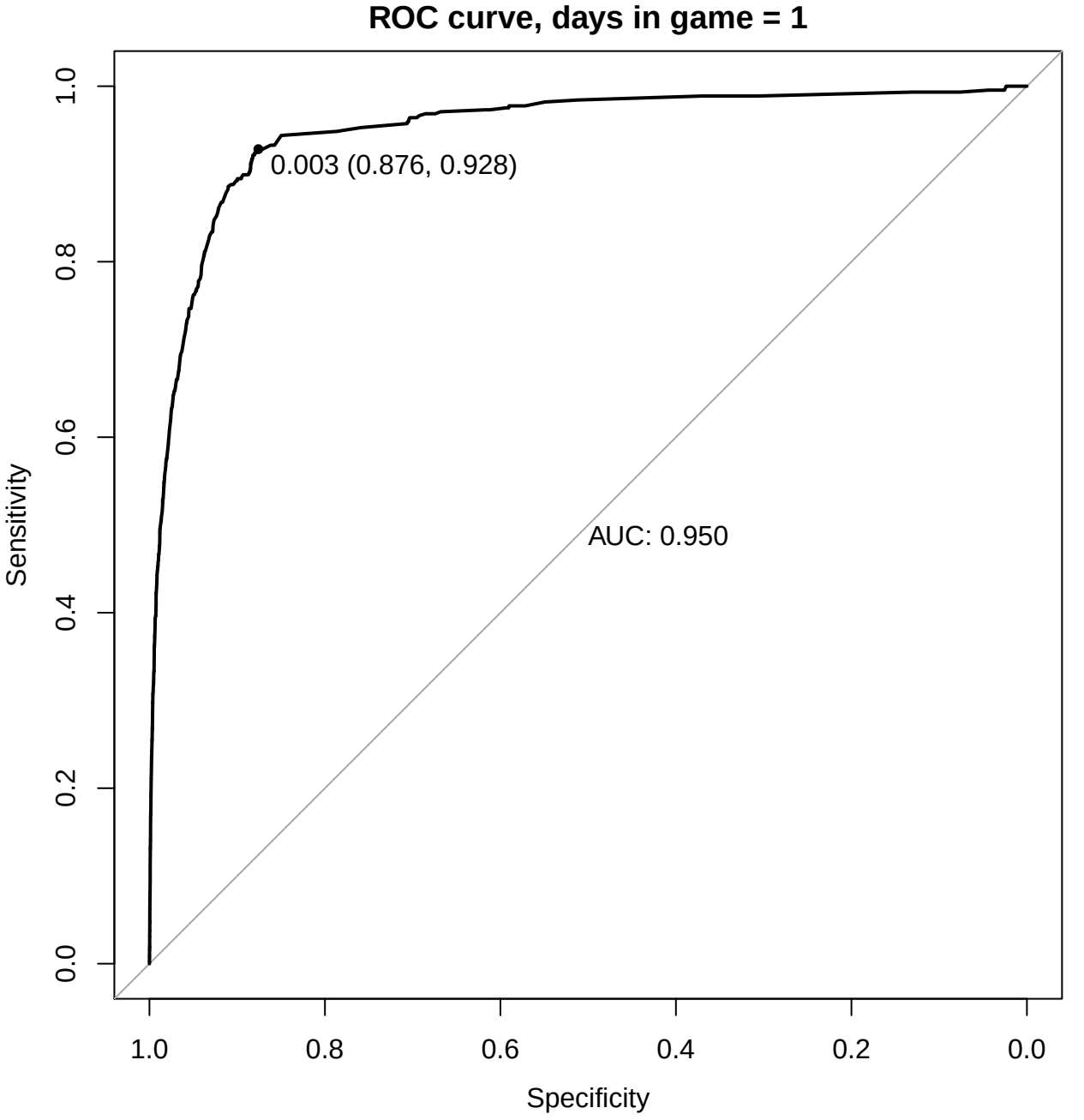

Features, days in game = 0
FALSE
TRUE
dx_active_days
d0_session_count
tier_payers
dx_pay_count
Feature

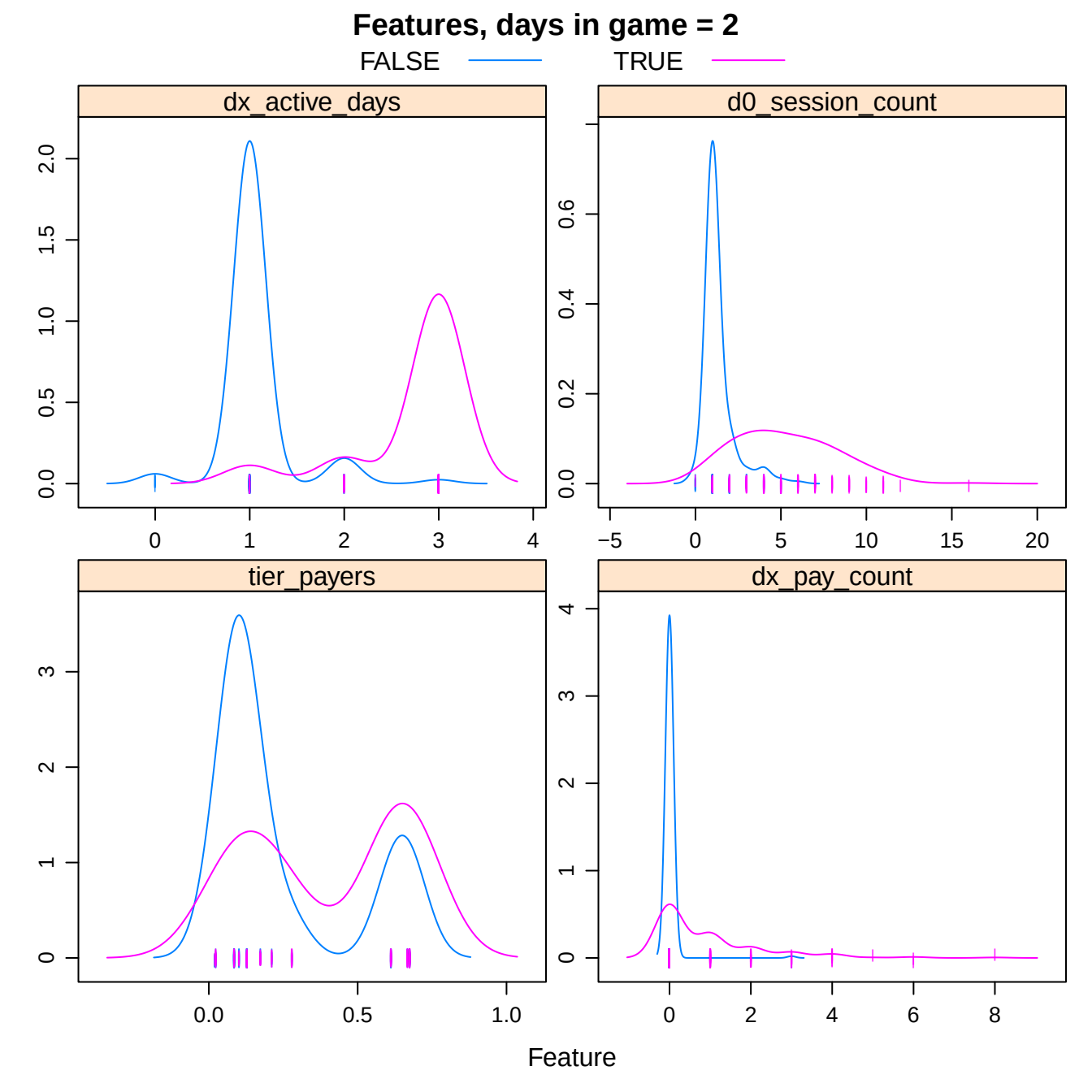
```
Call:
glm(formula = dy_payer ~ tier_payers + dx_pay_count + d0_session_count,
    family = "binomial", data = datTrain)

Deviance Residuals:
    Min       1Q   Median       3Q      Max
−4.3922  −0.1092  −0.0674  −0.0646   3.6269

Coefficients:
                  Estimate Std. Error z value Pr(>|z|)
(Intercept)      −6.745851   0.057149 −118.04   <2e−16 ***
tier_payers       1.994292   0.100251   19.89   <2e−16 ***
dx_pay_count      1.704146   0.048175   35.37   <2e−16 ***
d0_session_count  0.405221   0.007282   55.64   <2e−16 ***
−−−
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

(Dispersion parameter for binomial family taken to be 1)

    Null deviance: 20526  on 205491  degrees of freedom
Residual deviance: 14472  on 205488  degrees of freedom
AIC: 14480

Number of Fisher Scoring iterations: 8
```


ROC curve, days in game = 0
Sensitivity
1.0
0.8
0.6
0.4
0.2
0.0
0.007 (0.878, 0.877)
AUC: 0.932
1.0
0.8
0.6
0.4
0.2
0.0
Specificity

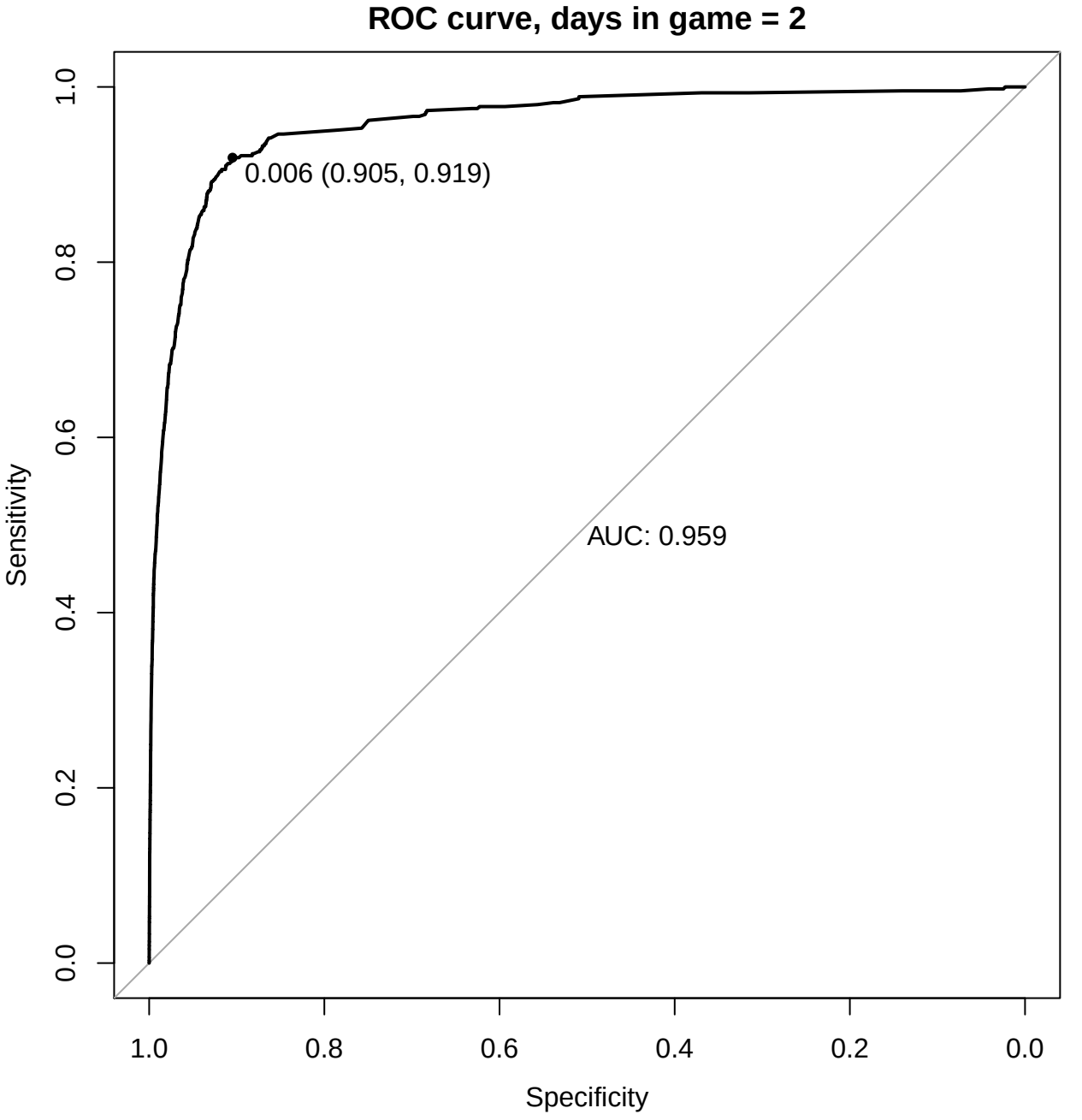

Features, days in game = 1
FALSE
TRUE
dx_active_days
d0_session_count
tier_payers
dx_pay_count
Feature

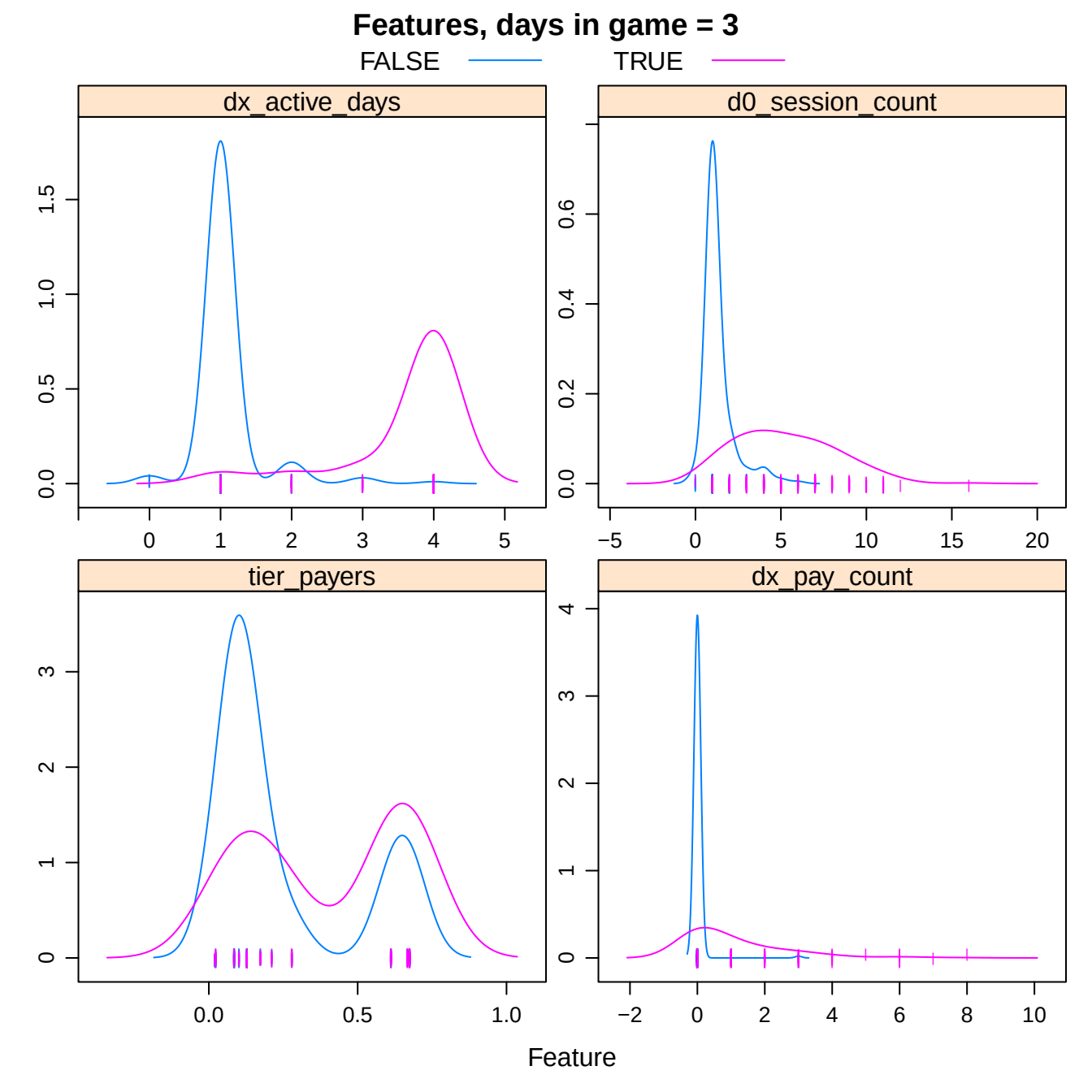
```
Call:
glm(formula = dy_payer ~ ., family = "binomial", data = datTrain)

Deviance Residuals:
    Min       1Q   Median       3Q      Max
−3.9377  −0.0622  −0.0413  −0.0398   4.5387

Coefficients:
                   Estimate Std. Error z value Pr(>|z|)
(Intercept)      −10.443981   0.147140  −70.98   <2e−16 ***
tier_payers        1.692076   0.101072   16.74   <2e−16 ***
dx_pay_count       1.228874   0.038926   31.57   <2e−16 ***
dx_active_days     2.992971   0.085171   35.14   <2e−16 ***
d0_session_count   0.167922   0.009266   18.12   <2e−16 ***
−−−
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

(Dispersion parameter for binomial family taken to be 1)

    Null deviance: 20526  on 205491  degrees of freedom
Residual deviance: 12689  on 205487  degrees of freedom
AIC: 12699

Number of Fisher Scoring iterations: 9
```


ROC curve, days in game = 1
Sensitivity
1.0
0.8
0.6
0.4
0.2
0.0
0.003 (0.876, 0.928)
AUC: 0.950
1.0
0.8
0.6
0.4
0.2
0.0
Specificity

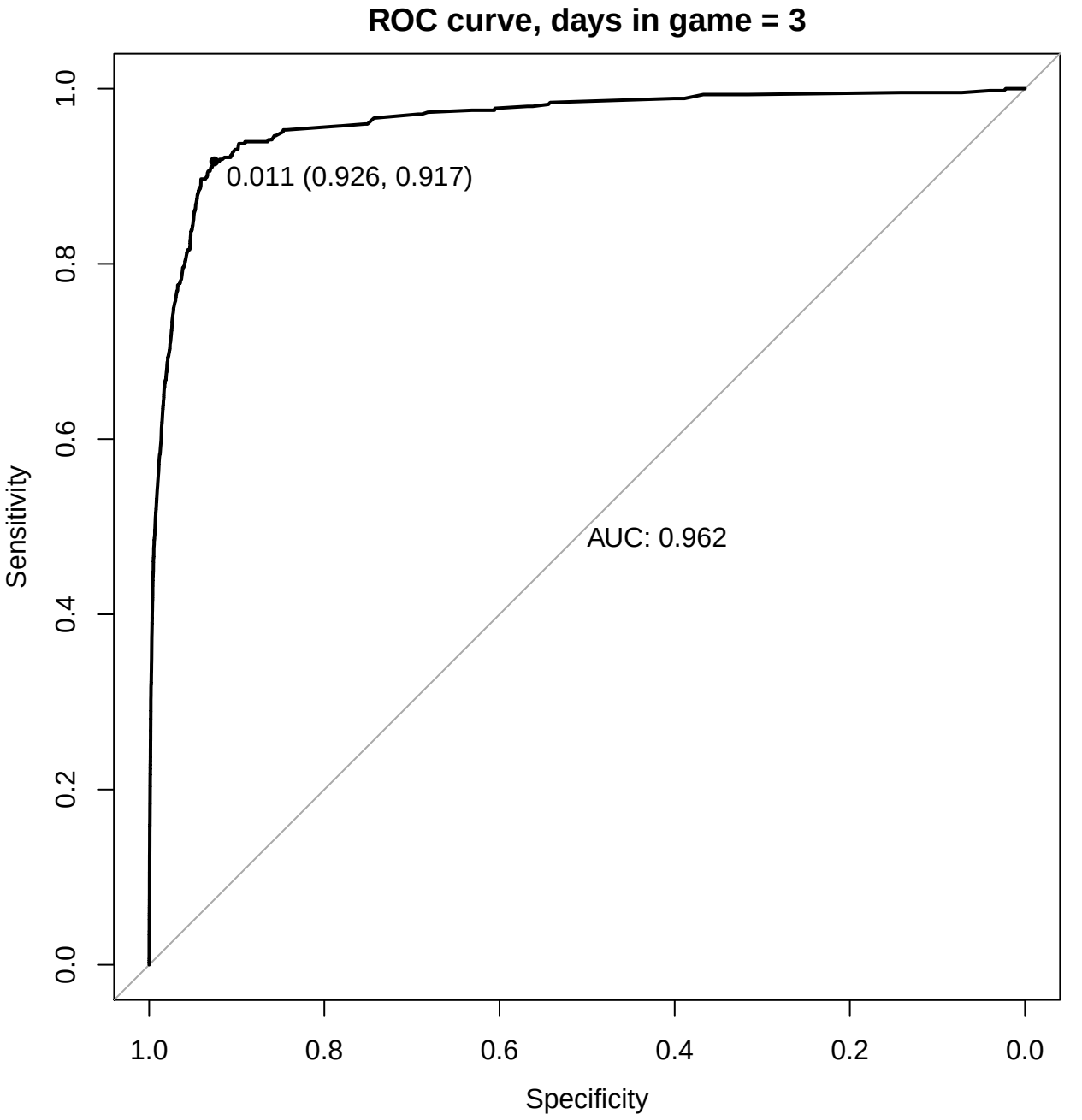

Features, days in game = 2
FALSE
TRUE
dx_active_days
d0_session_count
tier_payers
dx_pay_count
Feature

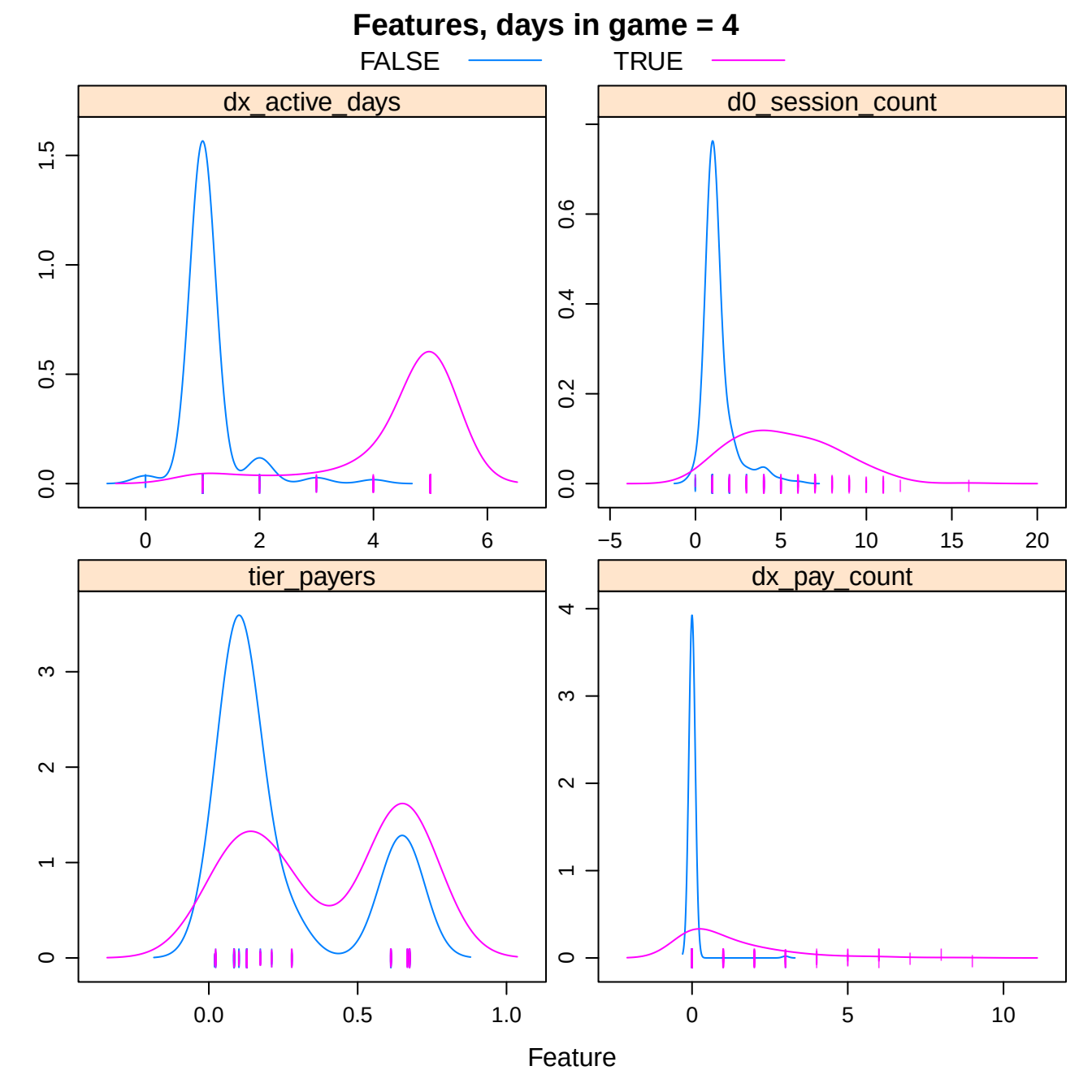
```
Call:
glm(formula = dy_payer ~ ., family = "binomial", data = datTrain)

Deviance Residuals:
    Min       1Q   Median       3Q      Max
−3.5977  −0.0521  −0.0355  −0.0343   4.3765

Coefficients:
                 Estimate Std. Error z value Pr(>|z|)
(Intercept)      −9.71276    0.12209 −79.551  < 2e−16 ***
tier_payers       1.59309    0.10383  15.343  < 2e−16 ***
dx_pay_count      1.05477    0.03268  32.276  < 2e−16 ***
dx_active_days    2.06519    0.04823  42.821  < 2e−16 ***
d0_session_count  0.07175    0.01017   7.057 1.71e−12 ***
−−−
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

(Dispersion parameter for binomial family taken to be 1)

    Null deviance: 20526  on 205491  degrees of freedom
Residual deviance: 11517  on 205487  degrees of freedom
AIC: 11527

Number of Fisher Scoring iterations: 9
```


ROC curve, days in game = 2
Sensitivity
1.0
0.8
0.6
0.4
0.2
0.0
0.006 (0.905, 0.919)
AUC: 0.959
1.0
0.8
0.6
0.4
0.2
0.0
Specificity

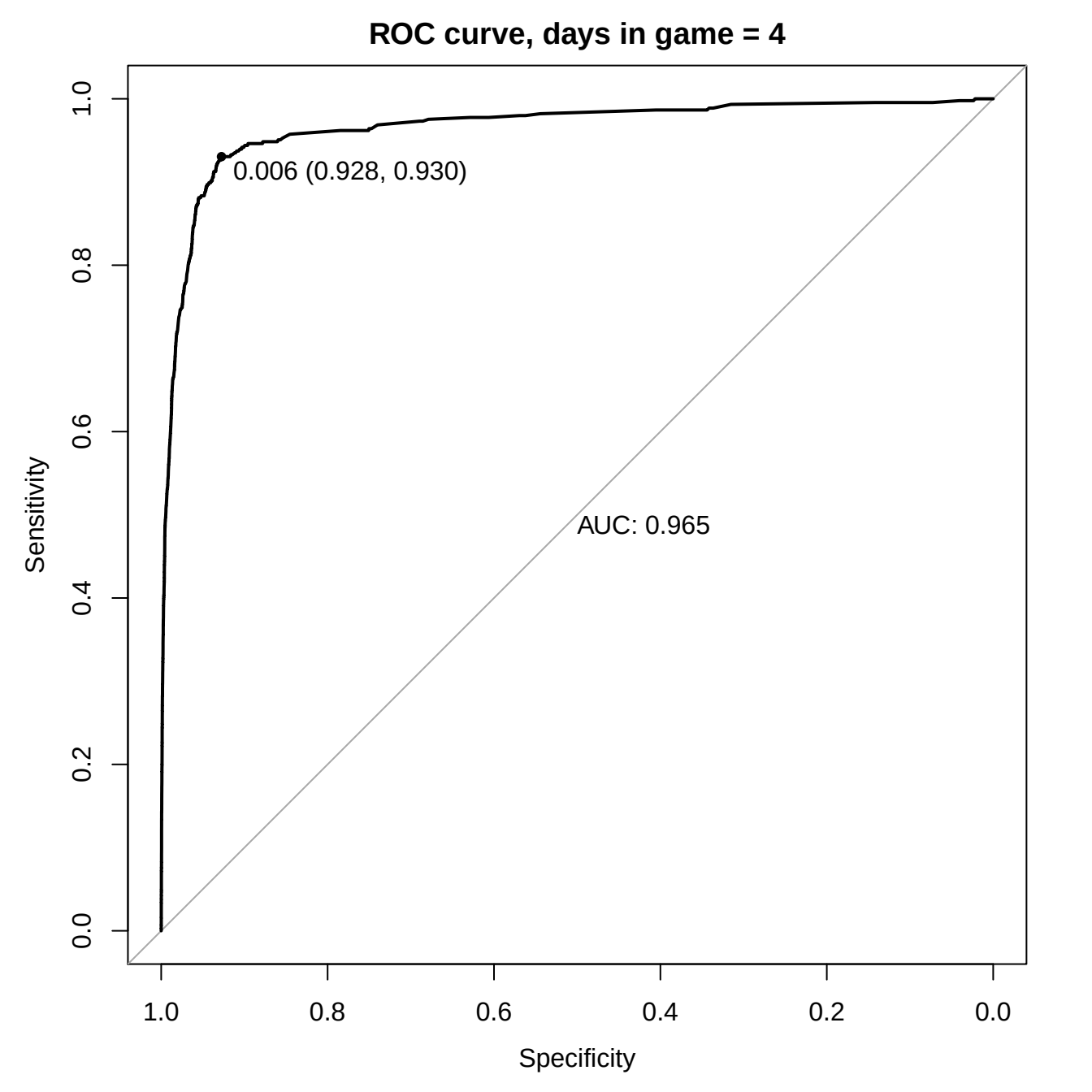

Features, days in game = 3
FALSE
TRUE
dx_active_days
d0_session_count
tier_payers
dx_pay_count
Feature

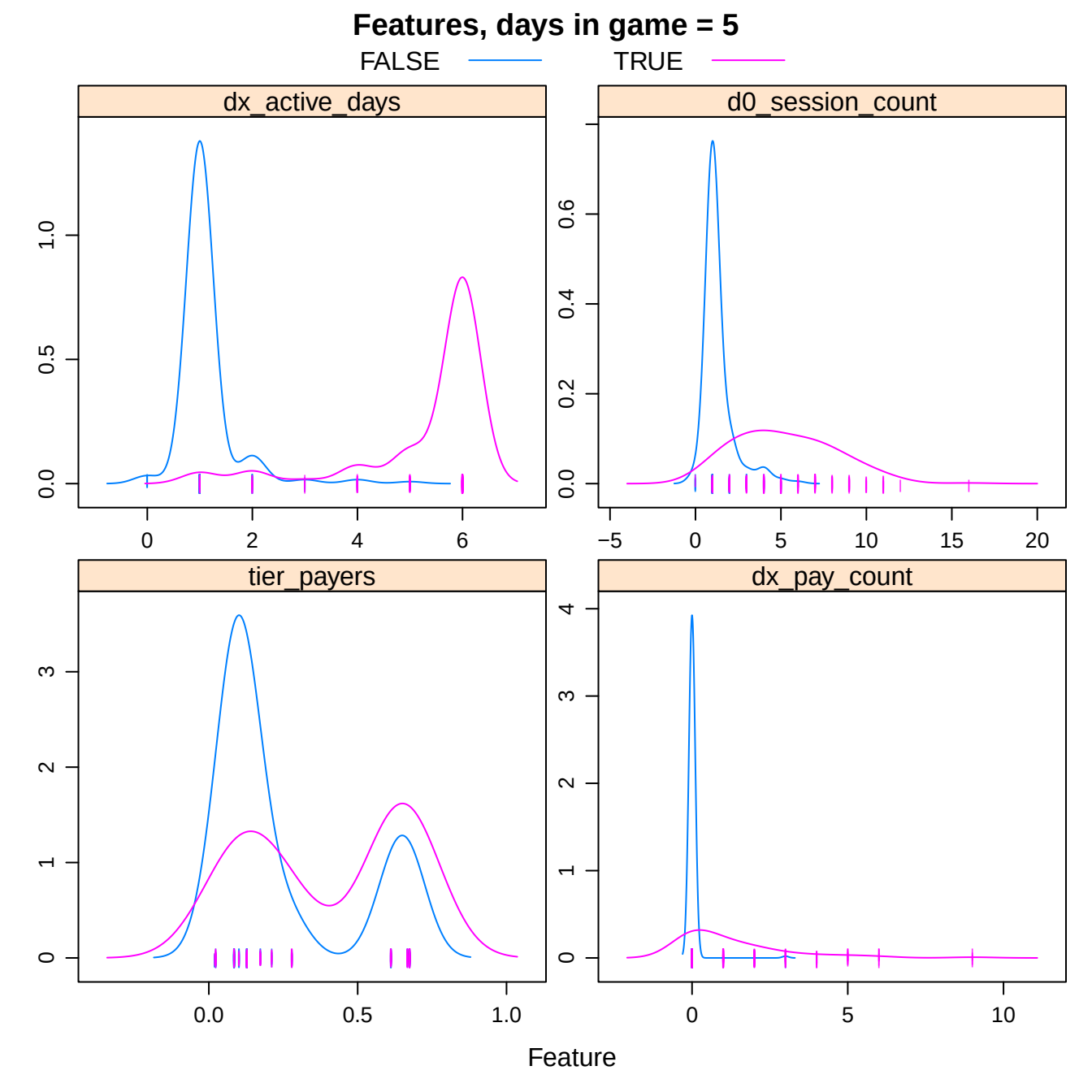
```
Call:
glm(formula = dy_payer ~ ., family = "binomial", data = datTrain)

Deviance Residuals:
    Min       1Q   Median       3Q      Max
−3.7326  −0.0501  −0.0336  −0.0325   4.2730

Coefficients:
                 Estimate Std. Error z value Pr(>|z|)
(Intercept)      −9.26434    0.11233 −82.472  < 2e−16 ***
tier_payers       1.58586    0.10601  14.960  < 2e−16 ***
dx_pay_count      0.97846    0.03058  31.994  < 2e−16 ***
dx_active_days    1.55401    0.03351  46.369  < 2e−16 ***
d0_session_count  0.02955    0.01058   2.792  0.00524 **
−−−
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

(Dispersion parameter for binomial family taken to be 1)

    Null deviance: 20526  on 205491  degrees of freedom
Residual deviance: 10857  on 205487  degrees of freedom
AIC: 10867

Number of Fisher Scoring iterations: 9
```


ROC curve, days in game = 3
Sensitivity
1.0
0.8
0.6
0.4
0.2
0.0
0.011 (0.926, 0.917)
AUC: 0.962
1.0
0.8
0.6
0.4
0.2
0.0
Specificity

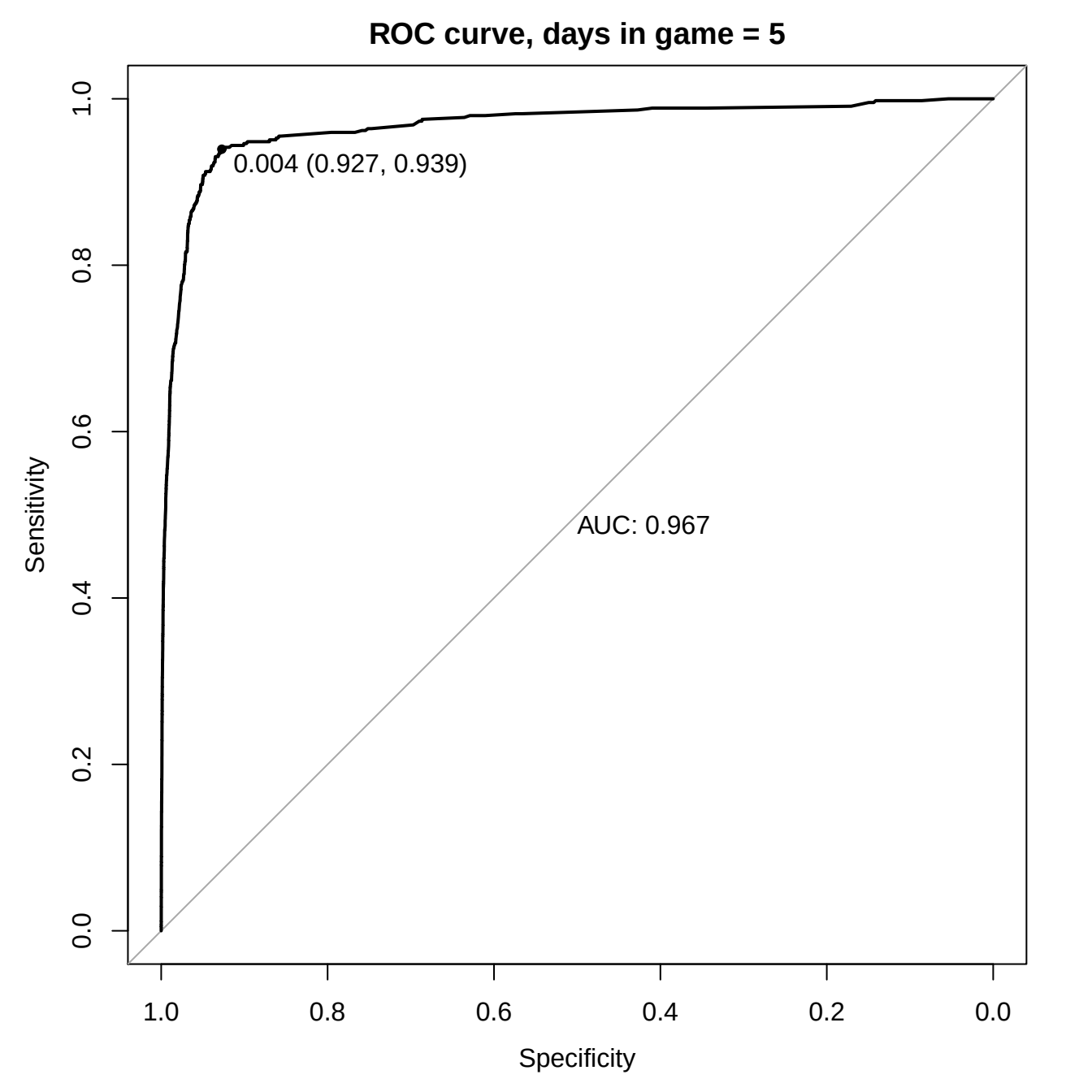

Features, days in game = 4
FALSE
TRUE
dx_active_days
d0_session_count
tier_payers
dx_pay_count
Feature

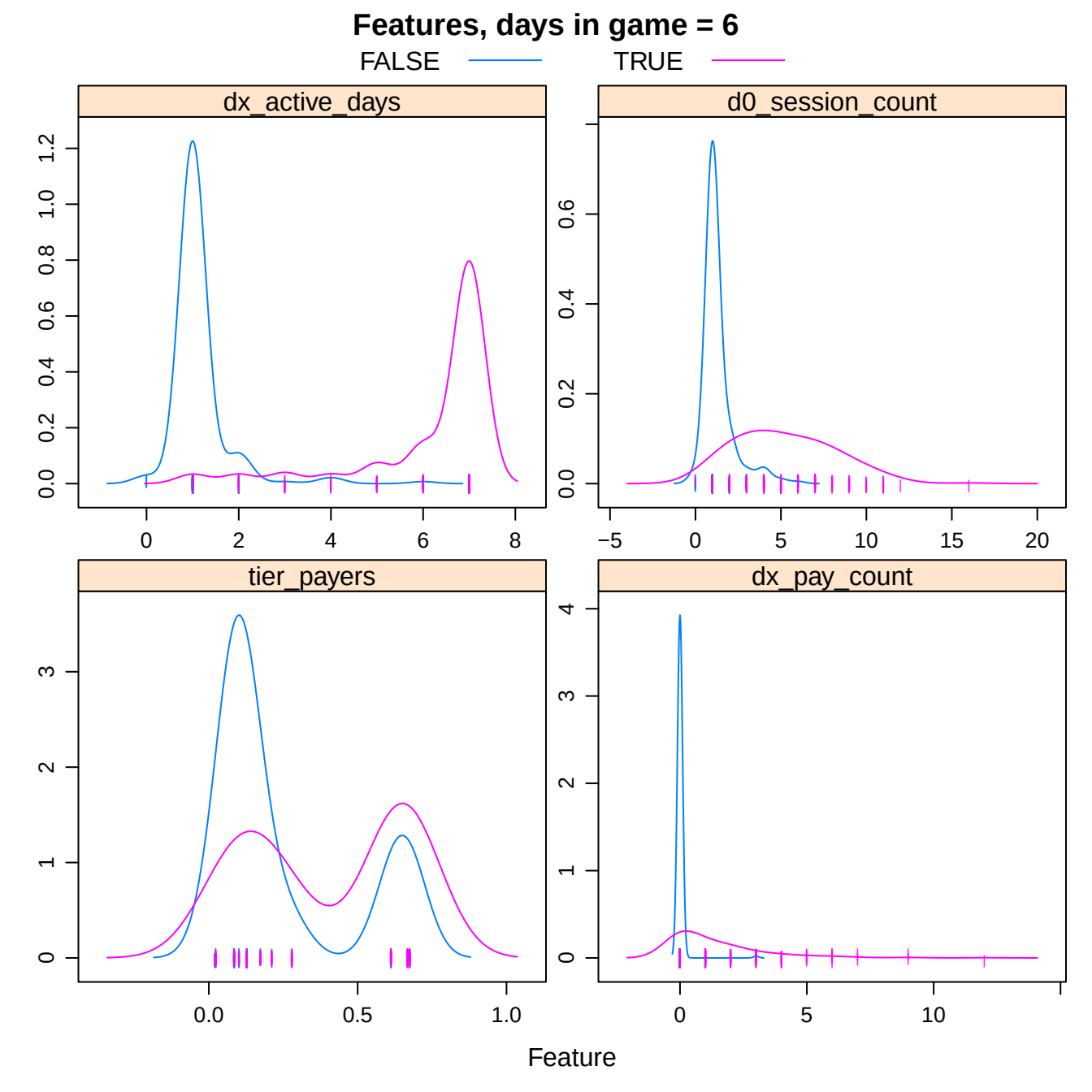
```
Call:
glm(formula = dy_payer ~ ., family = "binomial", data = datTrain)

Deviance Residuals:
    Min       1Q   Median       3Q      Max
−3.6205  −0.0479  −0.0326  −0.0315   4.2115

Coefficients:
                 Estimate Std. Error z value Pr(>|z|)
(Intercept)      −9.00231    0.10799 −83.361   <2e−16 ***
tier_payers       1.57134    0.10797  14.554   <2e−16 ***
dx_pay_count      0.92006    0.02918  31.526   <2e−16 ***
dx_active_days    1.25756    0.02579  48.761   <2e−16 ***
d0_session_count  0.00310    0.01081   0.287    0.774
−−−
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

(Dispersion parameter for binomial family taken to be 1)

    Null deviance: 20526  on 205491  degrees of freedom
Residual deviance: 10354  on 205487  degrees of freedom
AIC: 10364

Number of Fisher Scoring iterations: 9
```


ROC curve, days in game = 4
Sensitivity
1.0
0.8
0.6
0.4
0.2
0.0
0.006 (0.928, 0.930)
AUC: 0.965
1.0
0.8
0.6
0.4
0.2
0.0
Specificity

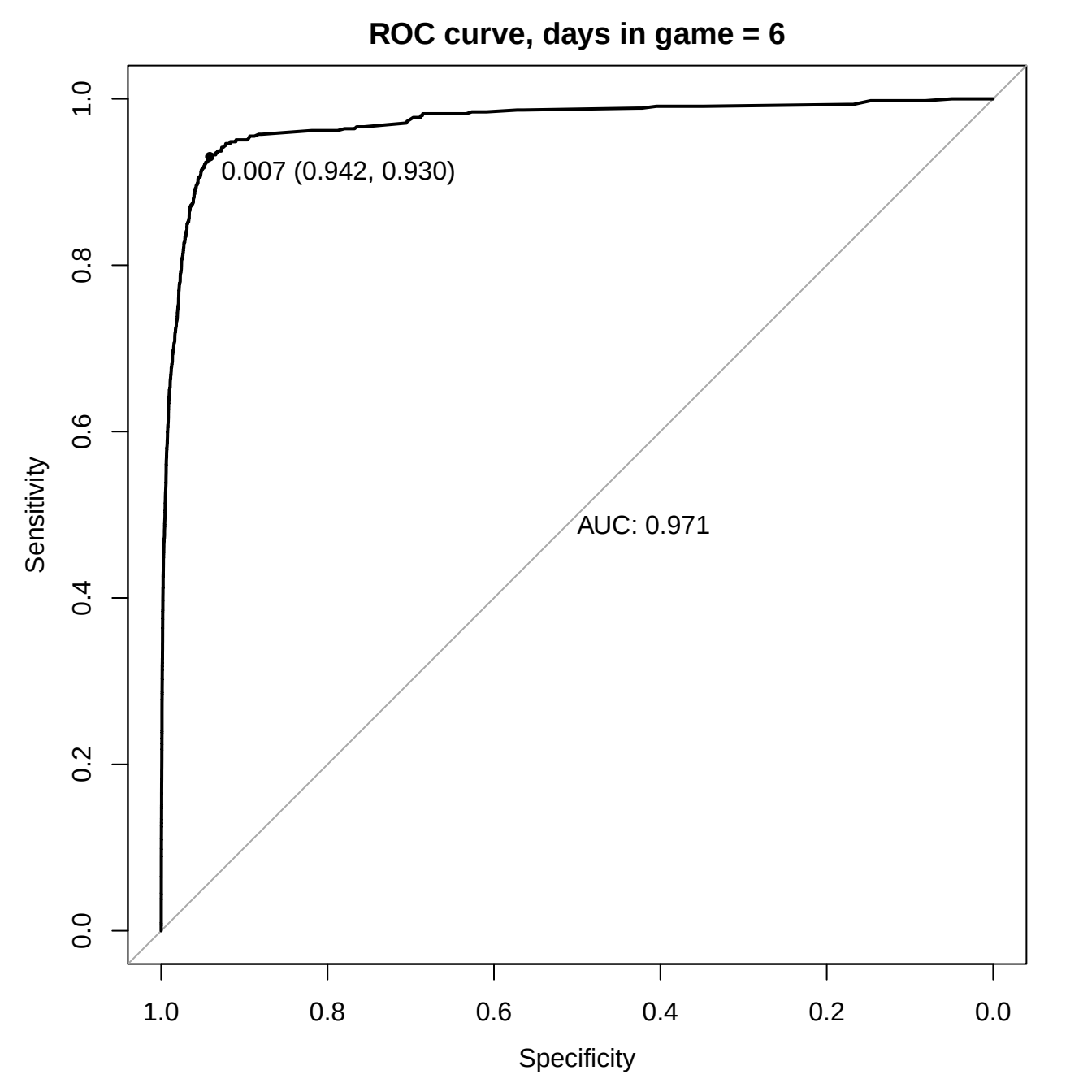

Features, days in game = 5
FALSE
TRUE
dx_active_days
d0_session_count
tier_payers
dx_pay_count
Feature

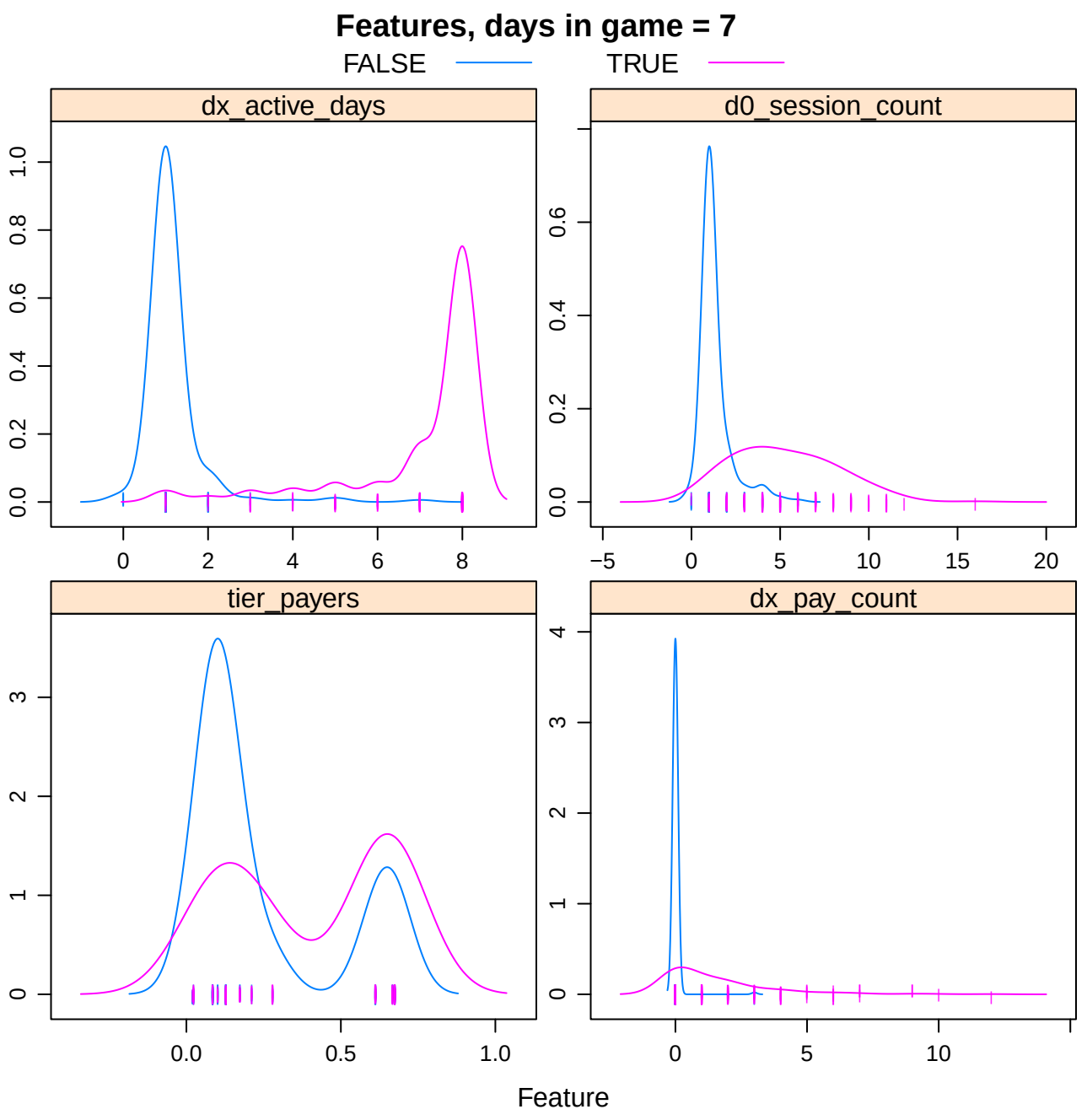
```
Call:
glm(formula = dy_payer ~ ., family = "binomial", data = datTrain)

Deviance Residuals:
    Min       1Q   Median       3Q      Max
−3.2718  −0.0481  −0.0319  −0.0308   4.1702

Coefficients:
                 Estimate Std. Error z value Pr(>|z|)
(Intercept)      −8.83080    0.10569 −83.554   <2e−16 ***
tier_payers       1.59252    0.10994  14.485   <2e−16 ***
dx_pay_count      0.89329    0.02847  31.379   <2e−16 ***
dx_active_days    1.05838    0.02103  50.331   <2e−16 ***
d0_session_count −0.01601    0.01101  −1.453    0.146
−−−
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

(Dispersion parameter for binomial family taken to be 1)

    Null deviance: 20526.0  on 205491  degrees of freedom
Residual deviance:  9919.4  on 205487  degrees of freedom
AIC: 9929.4

Number of Fisher Scoring iterations: 9
```


ROC curve, days in game = 5
Sensitivity
Specificity
1.0
0.8
0.6
0.4
0.2
0.0
0.004 (0.927, 0.939)
AUC: 0.967

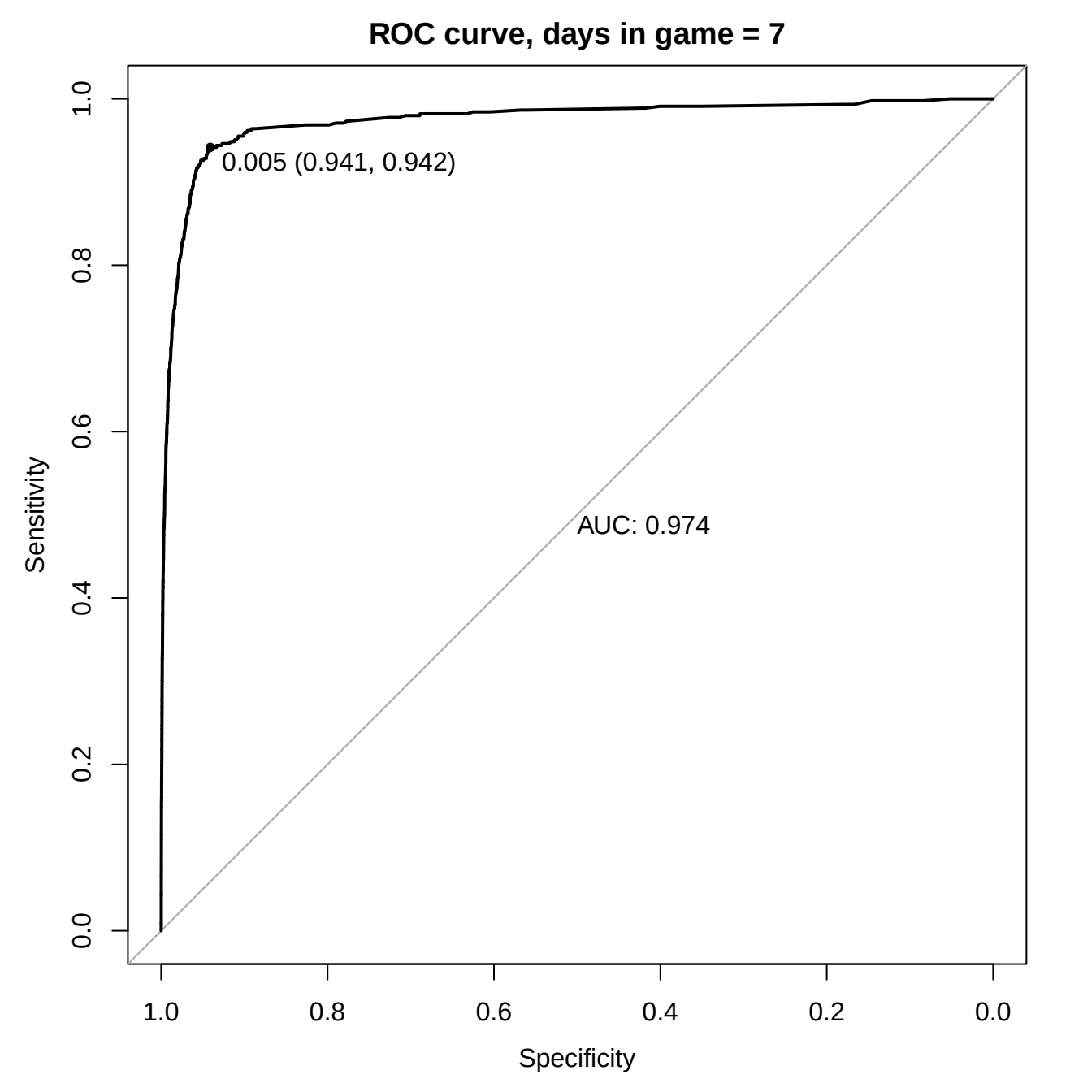

Features, days in game = 6
FALSE
TRUE
dx_active_days
d0_session_count
tier_payers
dx_pay_count
Feature

```
Call:
glm(formula = dy_payer ~ ., family = "binomial", data = datTrain)

Deviance Residuals:
    Min       1Q   Median       3Q      Max
−3.1335  −0.0466  −0.0317  −0.0306   4.1351

Coefficients:
                 Estimate Std. Error z value Pr(>|z|)
(Intercept)      −8.68593    0.10374 −83.727   <2e−16 ***
tier_payers       1.60142    0.11179  14.326   <2e−16 ***
dx_pay_count      0.87350    0.02801  31.188   <2e−16 ***
dx_active_days    0.91130    0.01776  51.310   <2e−16 ***
d0_session_count −0.02861    0.01123  −2.549   0.0108 *
−−−
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

(Dispersion parameter for binomial family taken to be 1)

    Null deviance: 20526.0  on 205491  degrees of freedom
Residual deviance:  9598.3  on 205487  degrees of freedom
AIC: 9608.3

Number of Fisher Scoring iterations: 9
```


ROC curve, days in game = 6
Sensitivity
1.0
0.8
0.6
0.4
0.2
0.0
0.007 (0.942, 0.930)
AUC: 0.971
1.0
0.8
0.6
0.4
0.2
0.0
Specificity


Features, days in game = 7
FALSE
TRUE
dx_active_days
d0_session_count
tier_payers
dx_pay_count
Feature

```
Call:
glm(formula = dy_payer ~ ., family = "binomial", data = datTrain)

Deviance Residuals:
    Min       1Q   Median       3Q      Max
−3.1841  −0.0460  −0.0314  −0.0304   4.1090

Coefficients:
                 Estimate Std. Error z value Pr(>|z|)
(Intercept)      −8.57613    0.10272 −83.493  < 2e−16 ***
tier_payers       1.57695    0.11376  13.862  < 2e−16 ***
dx_pay_count      0.87990    0.02758  31.899  < 2e−16 ***
dx_active_days    0.80072    0.01540  52.005  < 2e−16 ***
d0_session_count −0.03980    0.01141  −3.488 0.000487 ***
−−−
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

(Dispersion parameter for binomial family taken to be 1)

    Null deviance: 20526.0  on 205491  degrees of freedom
Residual deviance:  9274.6  on 205487  degrees of freedom
AIC: 9284.6

Number of Fisher Scoring iterations: 9
```


ROC curve, days in game = 7
Sensitivity
1.0
0.8
0.6
0.4
0.2
0.0
0.005 (0.941, 0.942)
AUC: 0.974
1.0
0.8
0.6
0.4
0.2
0.0
Specificity