

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

Deviance Residuals:
    Min     1Q     Median     3Q     Max
-4.8634     -0.1250     -0.1215     -0.0697     3.6248
```

Coefficients:

```
Estimate Std. Error z value Pr(>|z|)

(Intercept) -6.663498 0.037324 -178.53 <2e-16 ***

tier_payers 1.562504 0.044771 34.90 <2e-16 ***

dx_pay_count 1.567655 0.041073 38.17 <2e-16 ***

d0_session_count 0.513010 0.004803 106.82 <2e-16 ***
```

d0_session_count 0.513010 0.004803 106.82 <2e-16 ***

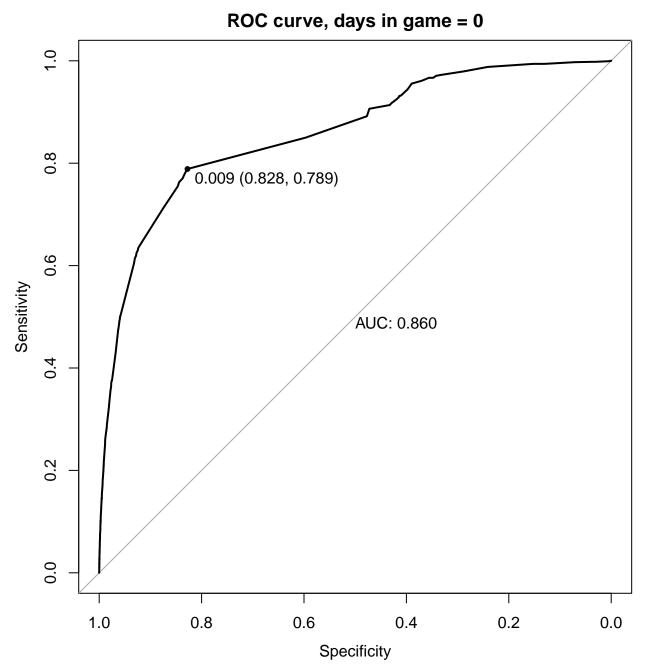
```
Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' '1

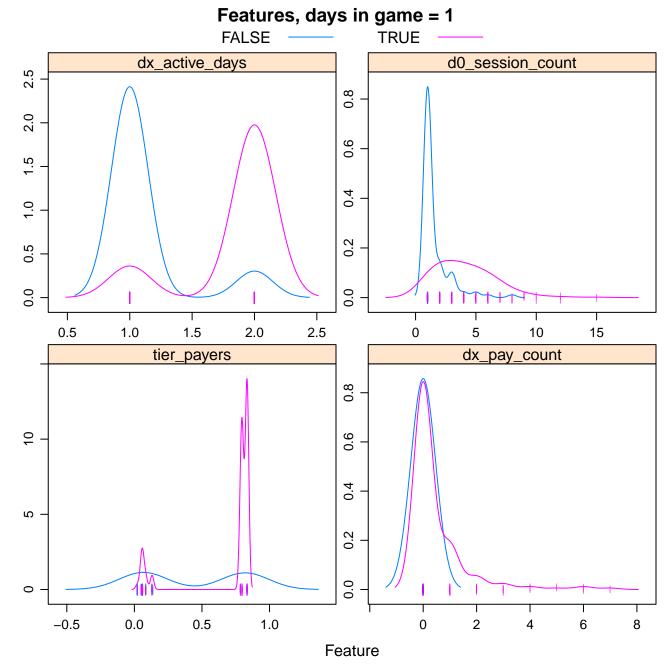
(Dispersion parameter for binomial family taken to be 1)
```

Null deviance: 66254 on 545220 degrees of freedom

Residual deviance: 52761 on 545217 degrees of freedom AIC: 52769

Number of Fisher Scoring iterations: 8

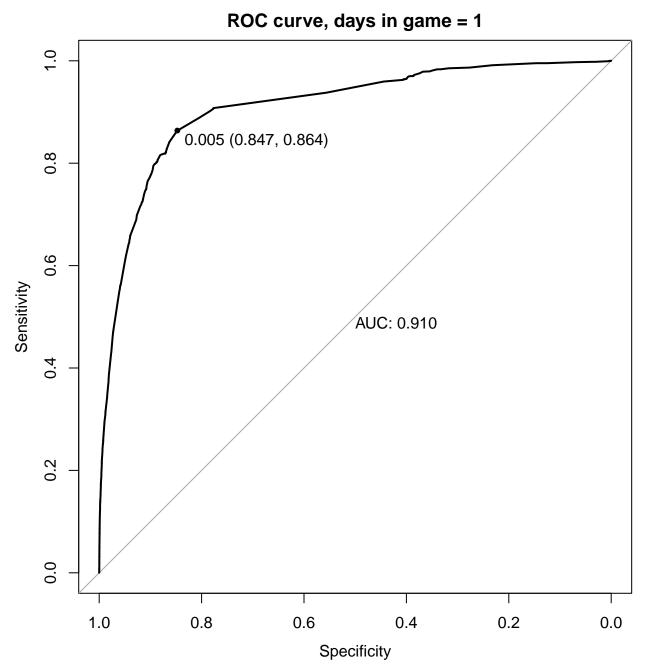


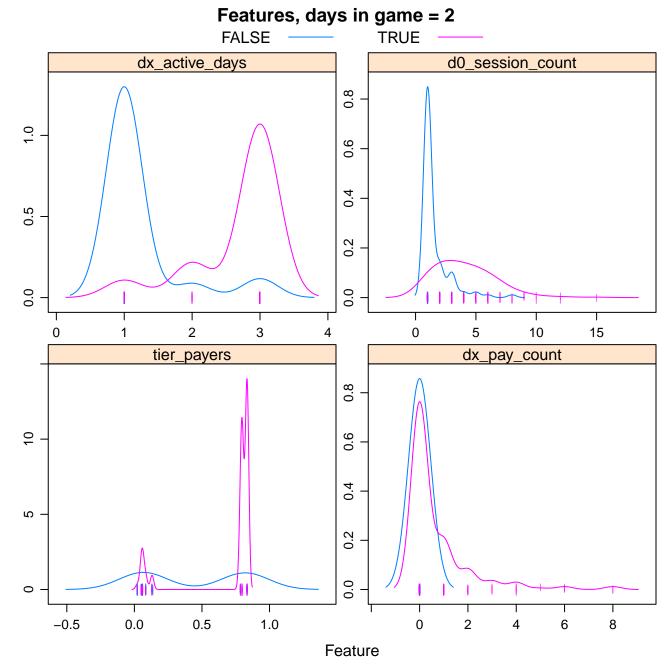


```
Call:
glm(formula = dy_payer ~ ., family = "binomial", data = datTrain)
Deviance Residuals:
            1Q Median 3Q
   Min
                                    Max
-5.7666 -0.0803 -0.0782 -0.0474 4.1564
Coefficients:
               Estimate Std. Error z value Pr(>|z|)
             -9.743501 0.068332 -142.59 <2e-16 ***
(Intercept)
tier_payers
               1.408726 0.044831 31.42 <2e-16 ***
               1.190269 0.029265 40.67 <2e-16 ***
dx_pay_count
dx_active_days 2.591737 0.037826 68.52 <2e-16 ***
d0_session_count 0.242034 0.005822 41.57 <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: 66254 on 545220 degrees of freedom Residual deviance: 46527 on 545216 degrees of freedom

Number of Fisher Scoring iterations: 8



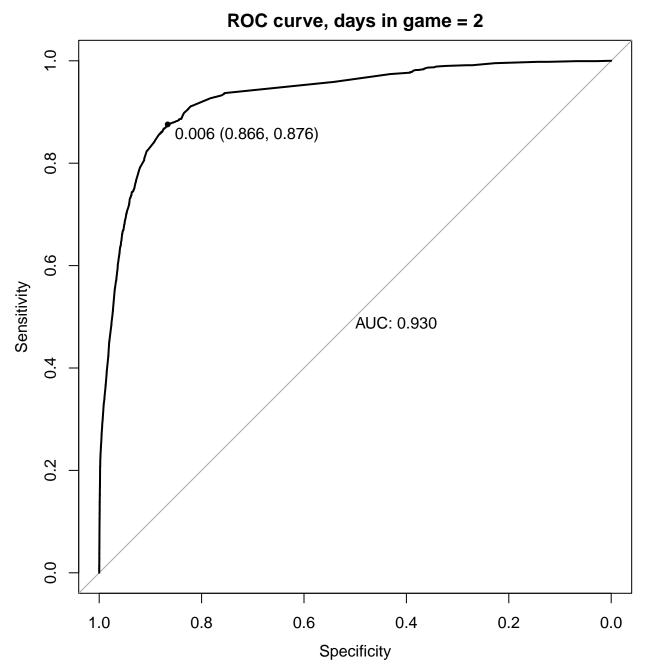


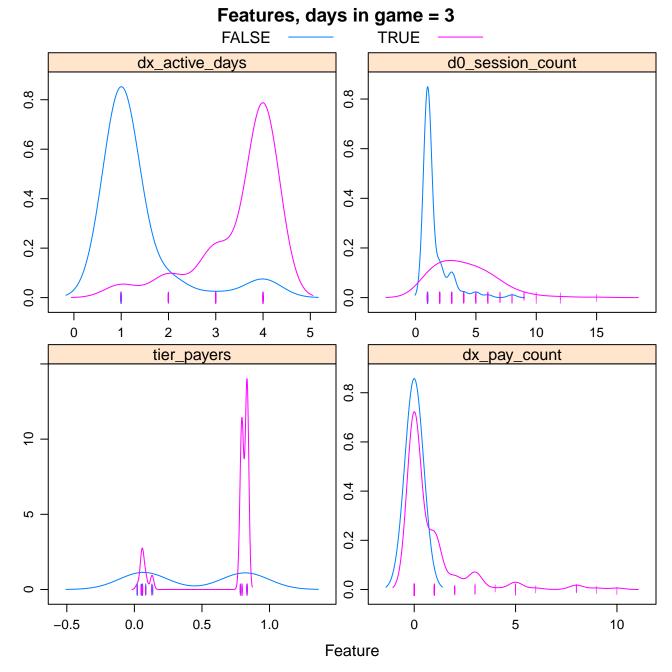
```
glm(formula = dy_payer ~ ., family = "binomial", data = datTrain)
Deviance Residuals:
            1Q Median 3Q
   Min
                                     Max
-5.4829 \quad -0.0713 \quad -0.0695 \quad -0.0429 \quad 3.7627
Coefficients:
               Estimate Std. Error z value Pr(>|z|)
(Intercept)
              -9.035533 0.057405 -157.40 <2e-16 ***
tier_payers
               1.358959 0.045430 29.91 <2e-16 ***
               1.063741 0.024800 42.89 <2e-16 ***
dx_pay_count
dx_active_days 1.803064 0.021802 82.70 <2e-16 ***
d0_session_count 0.126181 0.006432 19.62 <2e-16 ***
Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
(Dispersion parameter for binomial family taken to be 1)
```

Number of Fisher Scoring iterations: 9

Null deviance: 66254 on 545220 degrees of freedom Residual deviance: 43162 on 545216 degrees of freedom

Call:



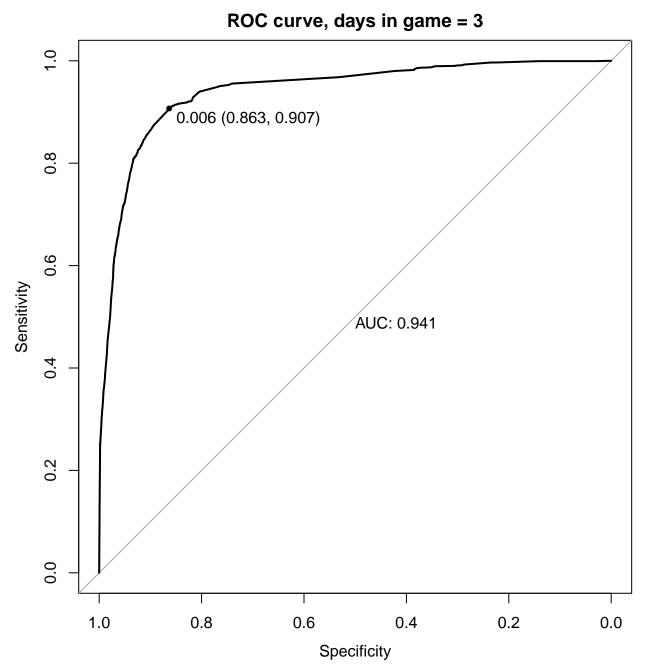


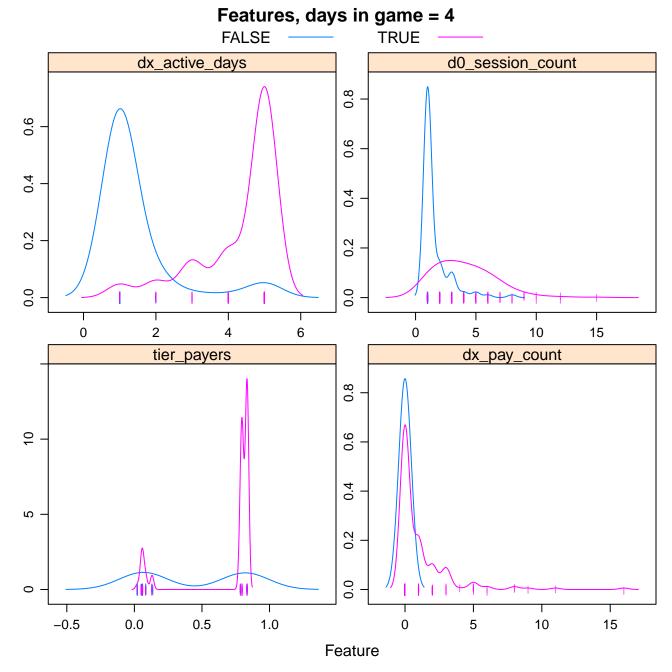
```
glm(formula = dy_payer ~ ., family = "binomial", data = datTrain)
Deviance Residuals:
            10 Median 30
   Min
                                    Max
-5.4320 -0.0675 -0.0653 -0.0406 3.7916
Coefficients:
               Estimate Std. Error z value Pr(>|z|)
(Intercept)
             -8.667244 0.054181 -159.97 <2e-16 ***
tier_payers
               1.338370 0.046185 28.98 <2e-16 ***
              1.031027 0.022826 45.17 <2e-16 ***
dx_pay_count
dx_active_days 1.386661 0.015408 90.00 <2e-16 ***
d0_session_count 0.065352 0.006772 9.65 <2e-16 ***
Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
(Dispersion parameter for binomial family taken to be 1)
```

Number of Fisher Scoring iterations: 9

Null deviance: 66254 on 545220 degrees of freedom Residual deviance: 40647 on 545216 degrees of freedom

Call:

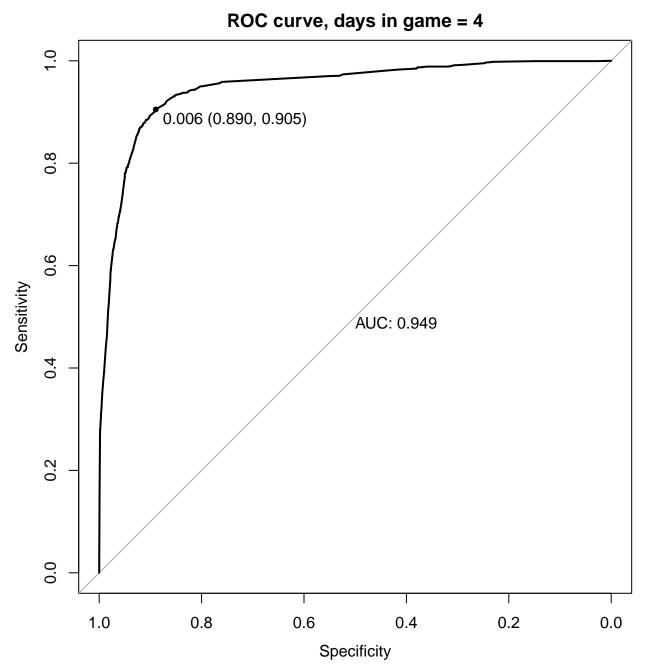


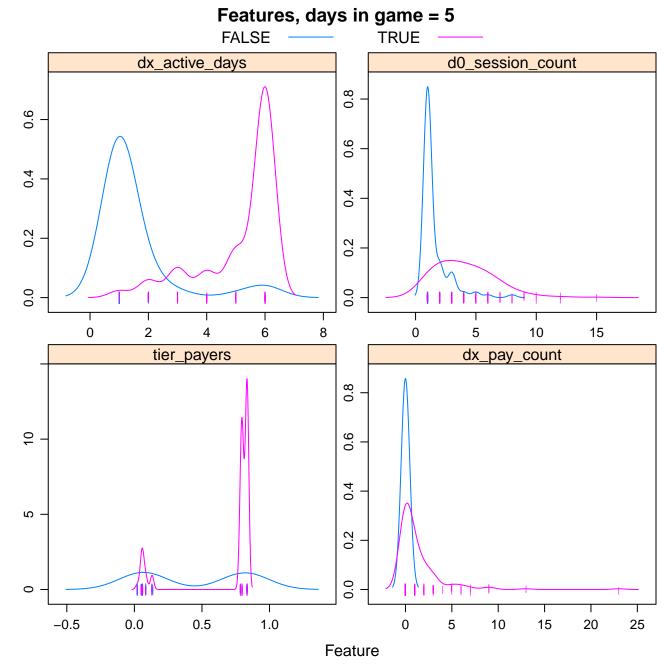


```
Call:
glm(formula = dy_payer ~ ., family = "binomial", data = datTrain)
Deviance Residuals:
           10 Median 30
   Min
                                  Max
-5.5221 -0.0654 -0.0638 -0.0396 3.8010
Coefficients:
              Estimate Std. Error z value Pr(>|z|)
             -8.397043 0.052475 -160.019 < 2e-16 ***
(Intercept)
tier_payers
              1.323215 0.046790 28.280 < 2e-16 ***
              dx_pay_count
dx_active_days 1.114414 0.011855 94.005 < 2e-16 ***
d0_session_count 0.032082 0.006981 4.596 4.32e-06 ***
Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
(Dispersion parameter for binomial family taken to be 1)
```

Null deviance: 66254 on 545220 degrees of freedom Residual deviance: 38995 on 545216 degrees of freedom

Number of Fisher Scoring iterations: 9





```
glm(formula = dy_payer ~ ., family = "binomial", data = datTrain)
Deviance Residuals:
           1Q Median 3Q
   Min
                                Max
-6.1976 -0.0643 -0.0628 -0.0389 3.8057
Coefficients:
             Estimate Std. Error z value Pr(>|z|)
(Intercept)
            -8.209980 0.051622 -159.040 <2e-16 ***
tier_payers
             1.304576 0.047355 27.549 <2e-16 ***
             dx_pay_count
dx_active_days 0.931445 0.009656 96.461 <2e-16 ***
d0_session_count 0.010348 0.007133 1.451 0.147
Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

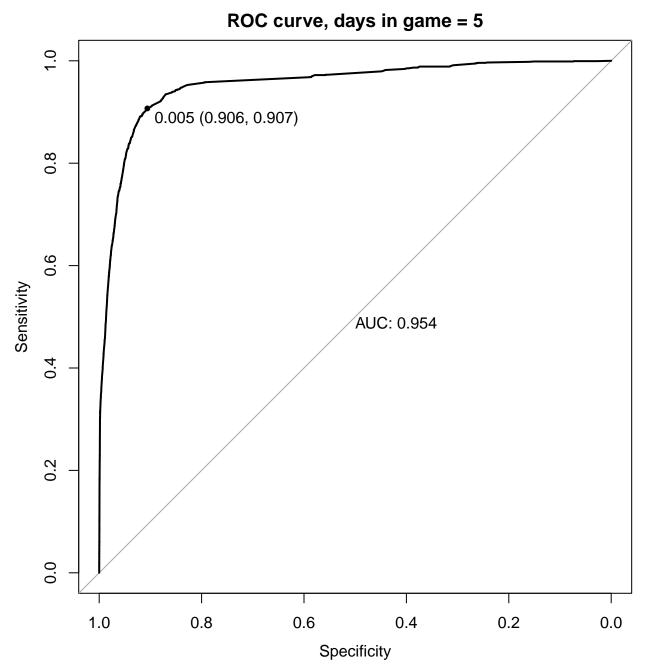
(Dispersion parameter for binomial family taken to be 1)

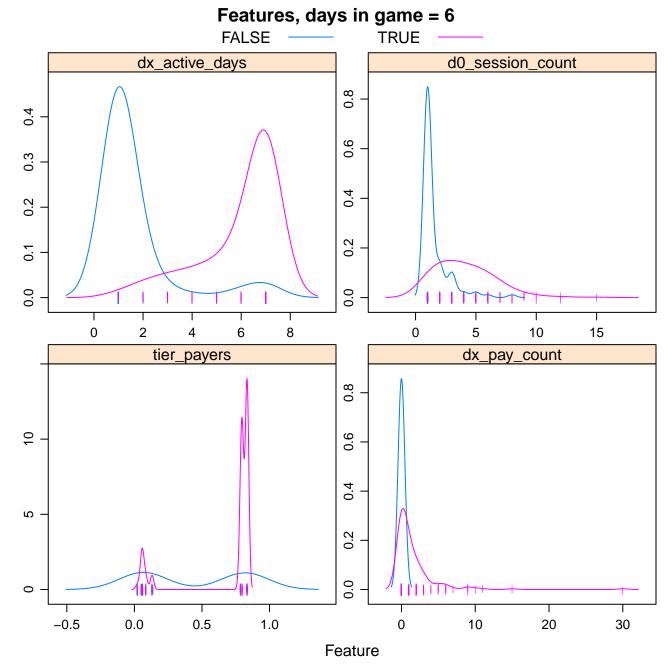
Null deviance: 66254 on 545220 degrees of freedom
Residual deviance: 37623 on 545216 degrees of freedom

Residual deviance: 37623 on 545216 degrees of freedom AIC: 37633

Number of Fisher Scoring iterations: 9

Call:





```
glm(formula = dy_payer ~ ., family = "binomial", data = datTrain)
Deviance Residuals:
            10 Median 30
   Min
                                   Max
-6.1609 -0.0629 -0.0614 -0.0382 3.8159
Coefficients:
               Estimate Std. Error z value Pr(>|z|)
(Intercept)
             -8.101549 0.051460 -157.434 <2e-16 ***
tier_payers
              1.292078 0.047862 26.996 <2e-16 ***
              0.970228 0.019496 49.766 <2e-16 ***
dx_pay_count
dx_active_days 0.805772 0.008186 98.427 <2e-16 ***
d0_session_count -0.006320 0.007245 -0.872 0.383
Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

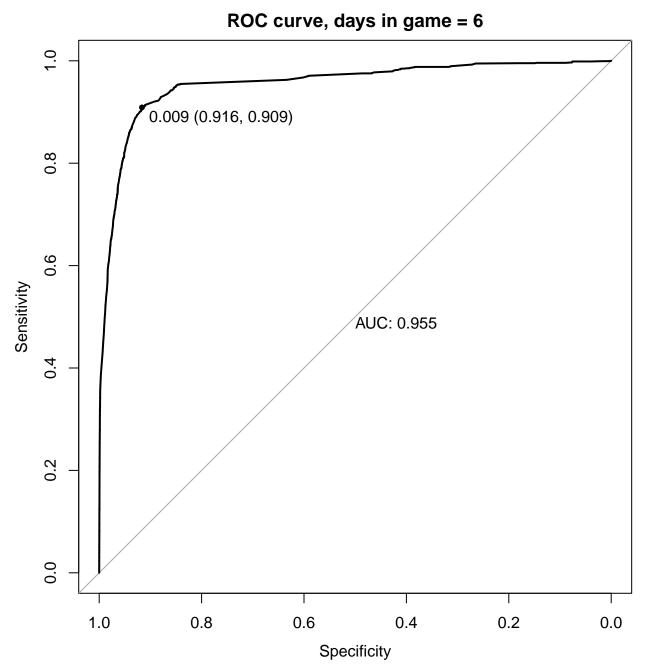
(Dispersion parameter for binomial family taken to be 1)

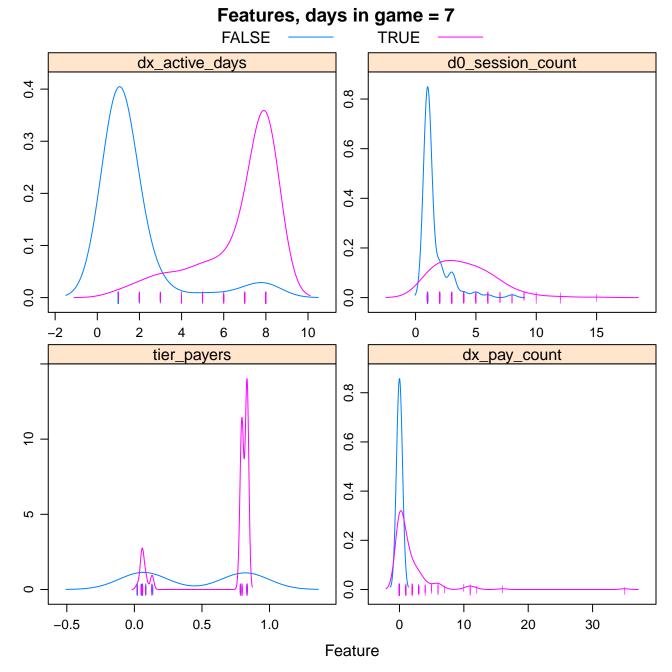
Null deviance: 66254 on 545220 degrees of freedom

Null deviance: 66254 on 545220 degrees of freedom Residual deviance: 36411 on 545216 degrees of freedom AIC: 36421

Number of Fisher Scoring iterations: 9

Call:





```
glm(formula = dy_payer ~ ., family = "binomial", data = datTrain)
Deviance Residuals:
   Min
            1Q Median 3Q
                                    Max
-6.3505 -0.0620 -0.0606 -0.0378 3.8292
Coefficients:
               Estimate Std. Error z value Pr(>|z|)
             -8.013585 0.051435 -155.801 <2e-16 ***
(Intercept)
tier_payers
               1.284648 0.048439 26.521 <2e-16 ***
              0.976461 0.019103 51.116 <2e-16 ***
dx_pay_count
dx_active_days 0.707552 0.007115 99.447 <2e-16 ***
d0_session_count -0.017904 0.007351 -2.435 0.0149 *
Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
(Dispersion parameter for binomial family taken to be 1)
```

Number of Fisher Scoring iterations: 9

Null deviance: 66254 on 545220 degrees of freedom Residual deviance: 35313 on 545216 degrees of freedom

Call:

ROC curve, days in game = 7 1.0 0.006 (0.913, 0.925) 0.8 Sensitivity AUC: 0.959 0.2 0.0 1.0 0.6 8.0 0.4 0.2 0.0

Specificity