

the report for store in CA

Firstly, let's read the data from computer.

```
setwd("~/Documents/")
```

```
datadata=read.csv('srp1001.csv')
```

```
library(ggplot2)
```

```
## Warning: package 'ggplot2' was built under R version 3.1.3
```

```
data8=data.frame(datadata$SITE.NUMBER,datadata$DIM,datadata$ATTRIBUTE,datadata$TOTAL.UNITS,datadata$BEG.OCC.U  
NITS,datadata$VACANT.UNITS,datadata$NEW.RENTALS,datadata$STREET.RATE,datadata$Year,datadata$Month)  
names(data8)=c('SITE.NUMBER','DIM','ATTRIBUTE','TOTAL.UNITS','BEG','VACANT.UNITS','NEW.RENTALS','STREET.RATE'  
, 'Year','Month')
```

```
newdata2=read.csv('srp666.csv')
```

```
newdata2clean=newdata2[-which(newdata2$NEW.RENTALS==0&newdata2$TOTAL.UNIT==newdata2$BEG),]
```

```
write.csv(newdata2clean,'srp777.csv')
```

```
n201302=newdata2[which(newdata2$Month=='2'&newdata2$Year==2013),]
```

```
dataclean1=newdata2clean[-c(as.numeric(row.names(n201302[0:3280,])),as.numeric(row.names(n201303[0:3284,]))),  
]
```

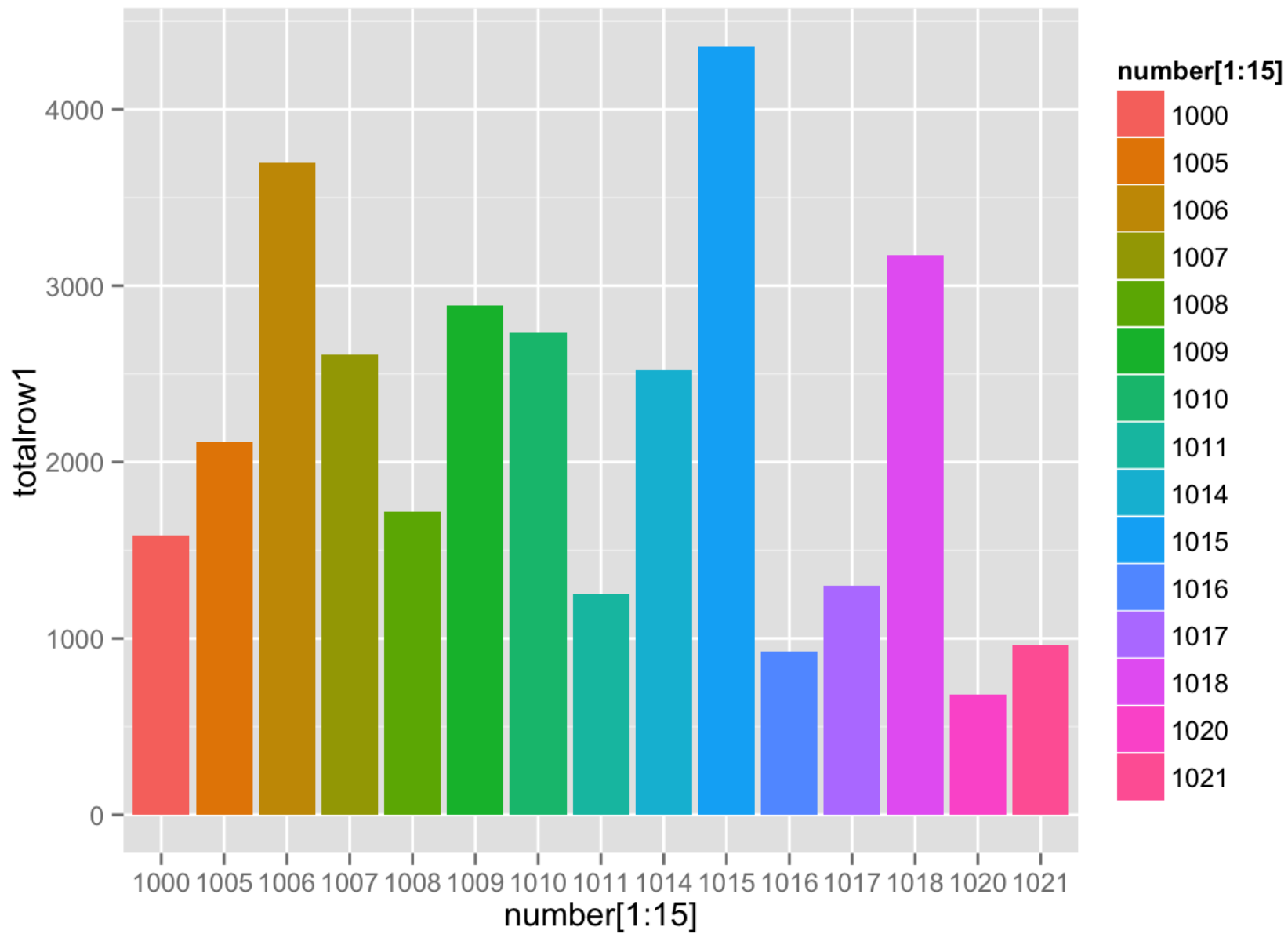
```
write.csv(dataclean1, 'srp888.csv')

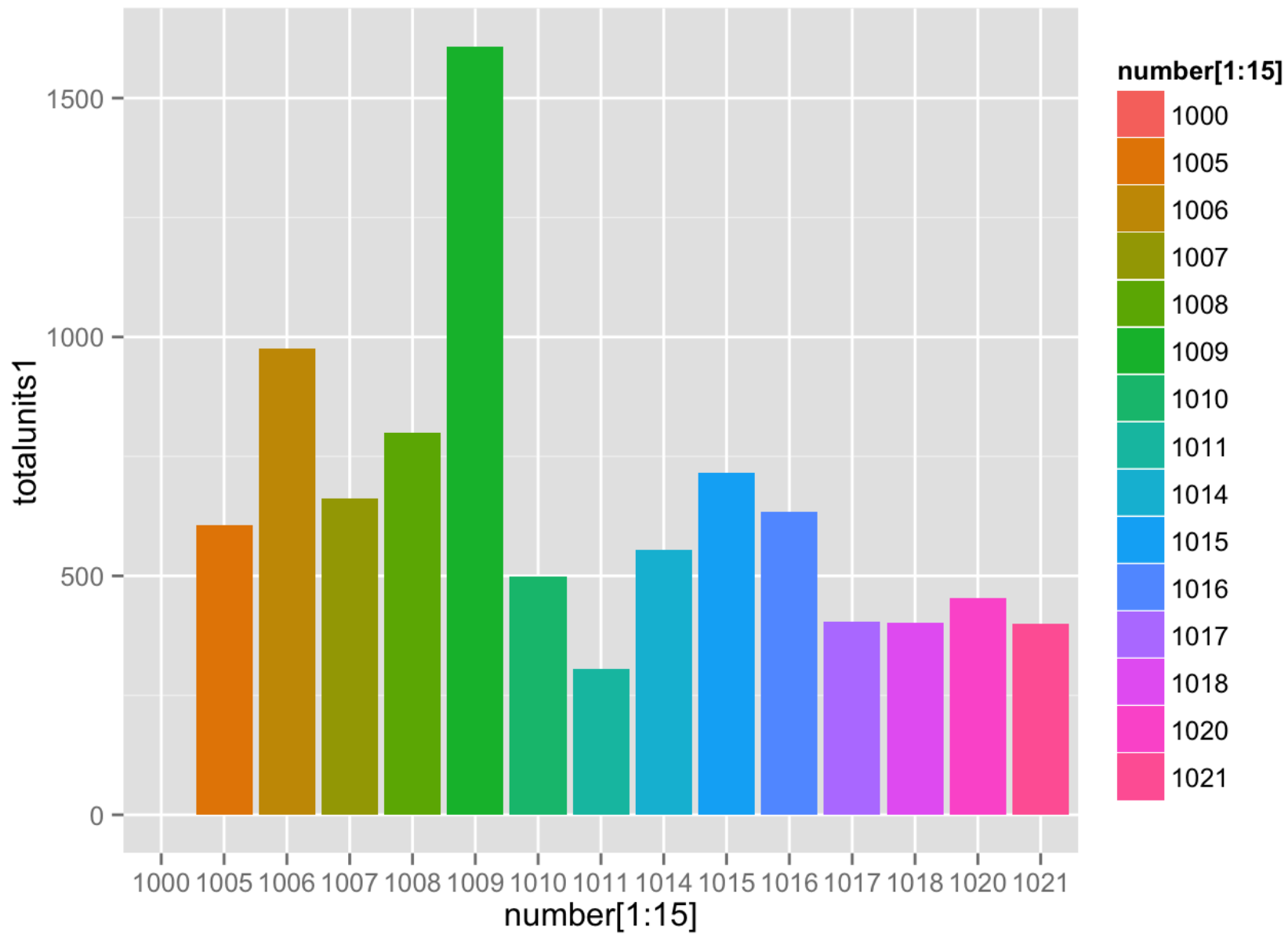
n201303=newdata2[which(newdata2$Month==3&newdata2$Year==2013), ]

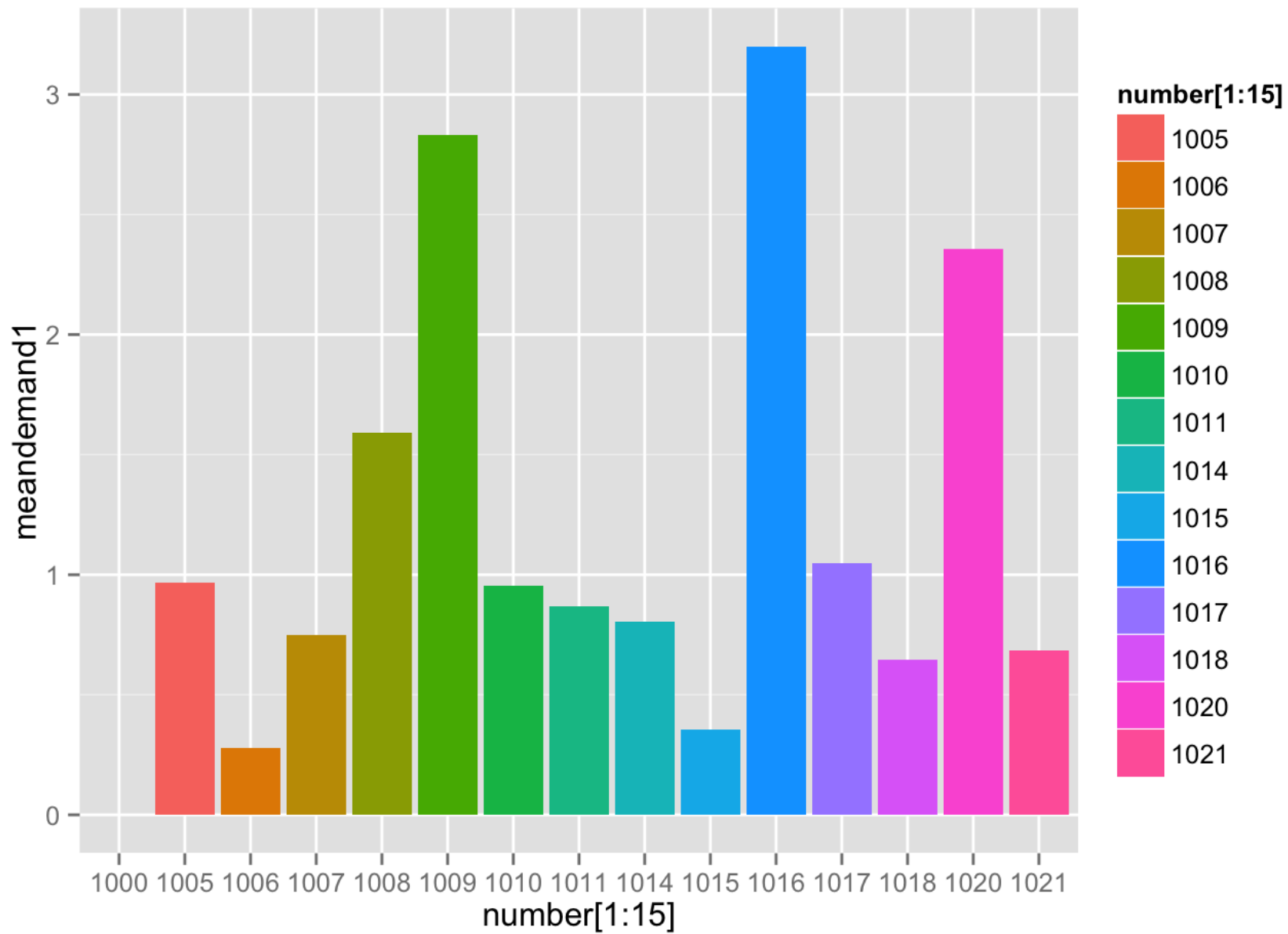
d1001=read.csv('srp888.csv')
d1001=d1001[which(d1001$SITE.NUMBER=='1001'), ]

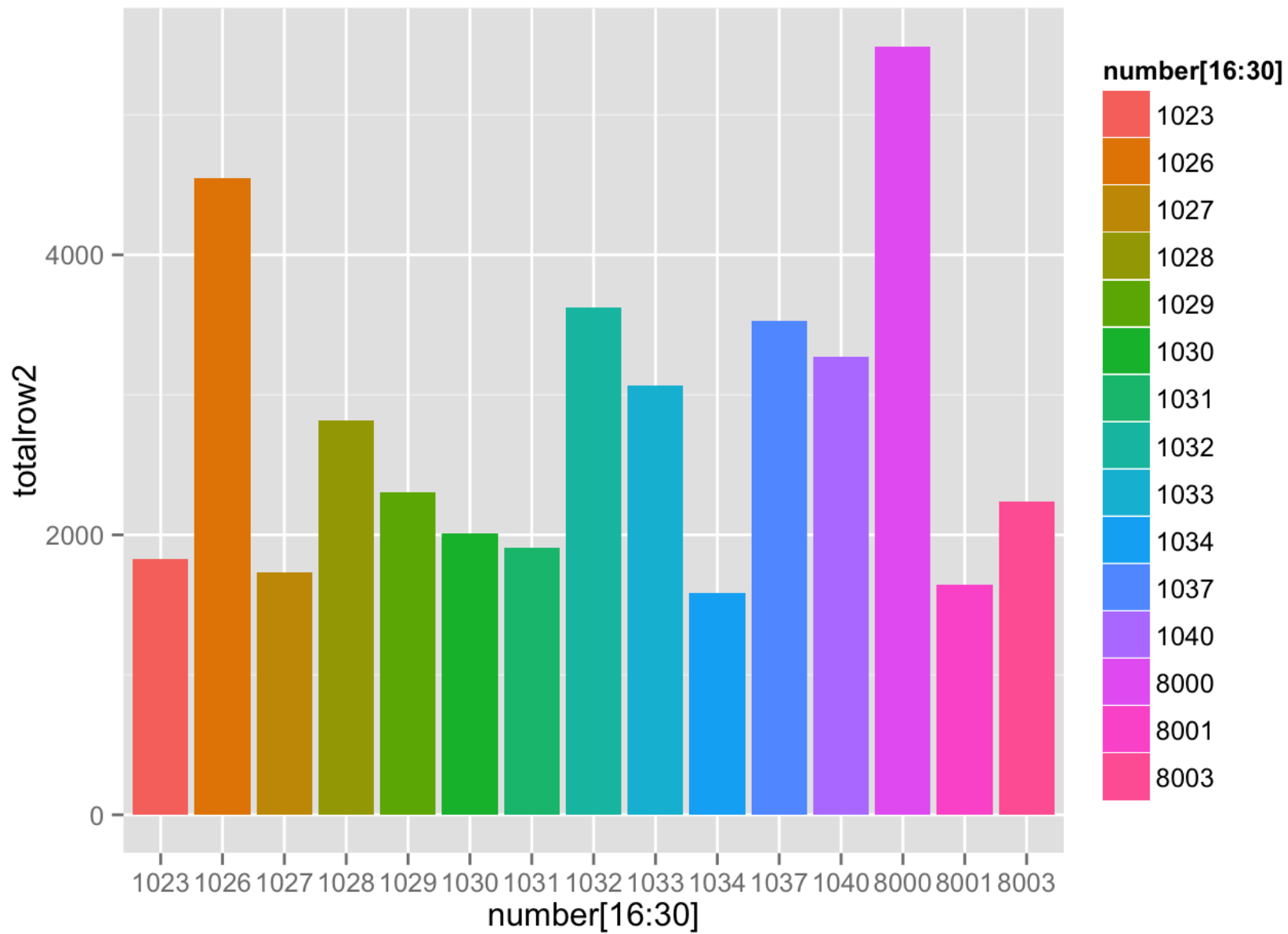

number=unique(newdata2$SITE.NUMBER[which(newdata2$state=='CA')])
number[51]=9075
number[57]=1011
number[58]=9076
```

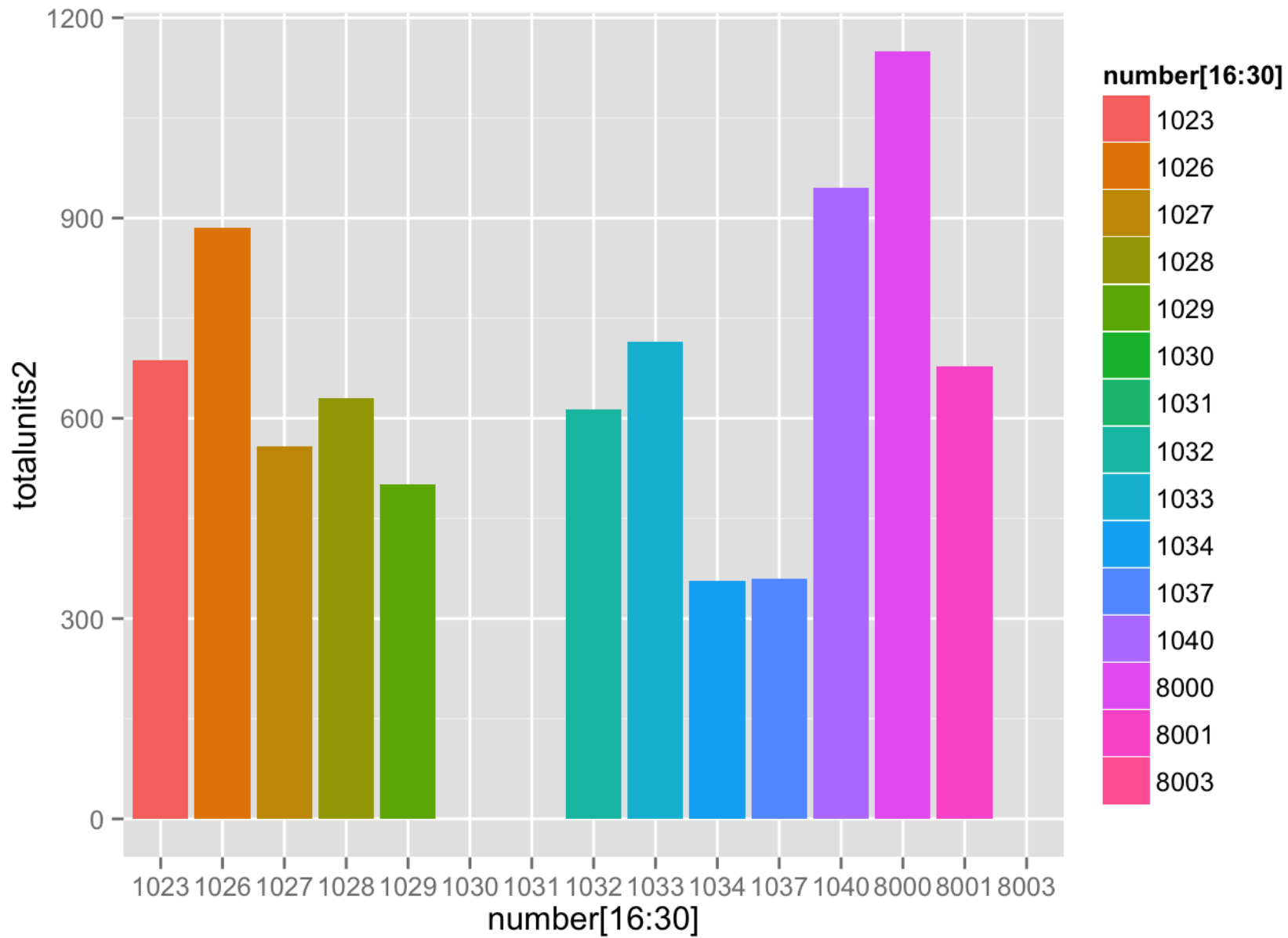
we would like to see the total rows of data for each store.

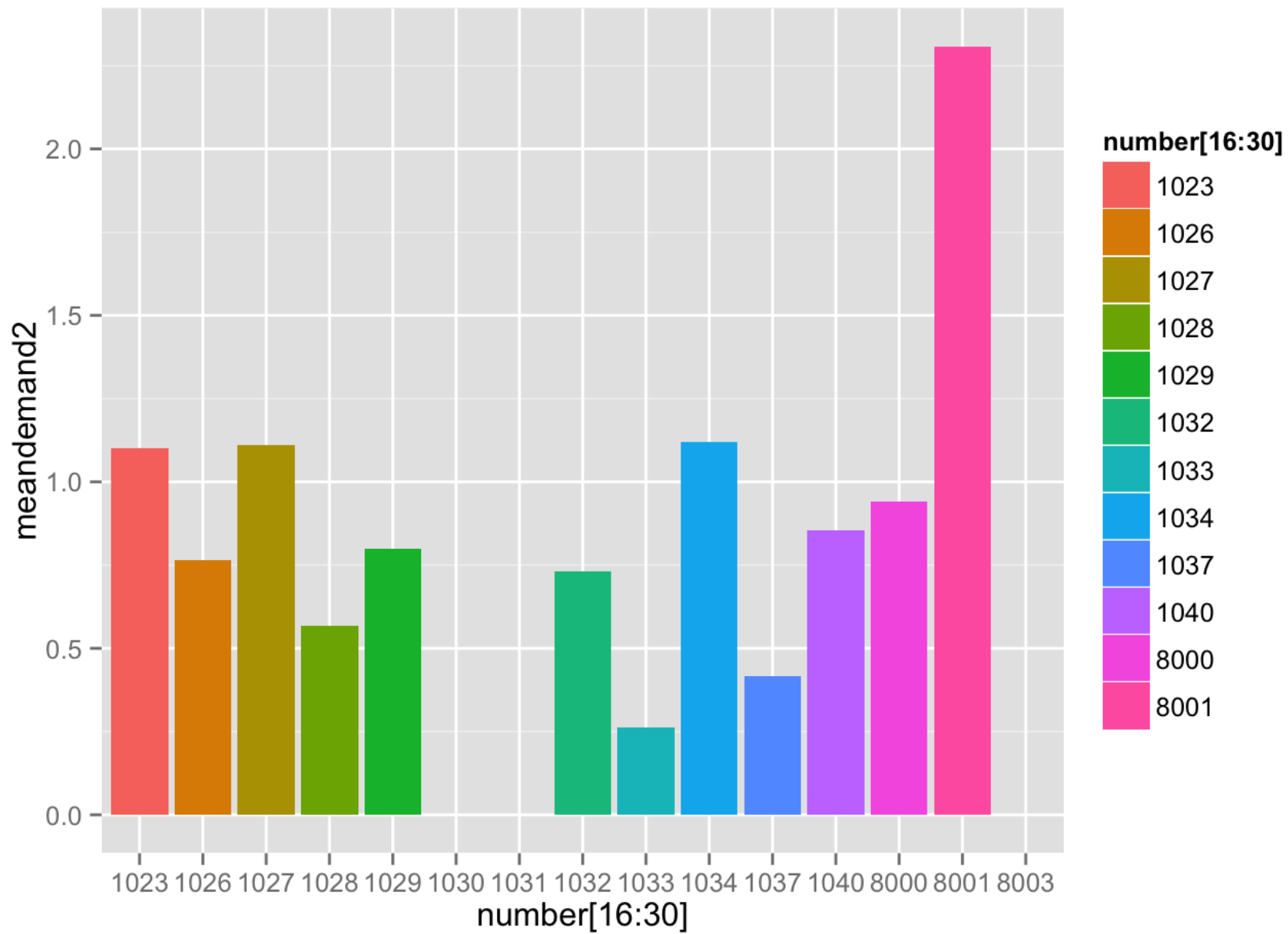


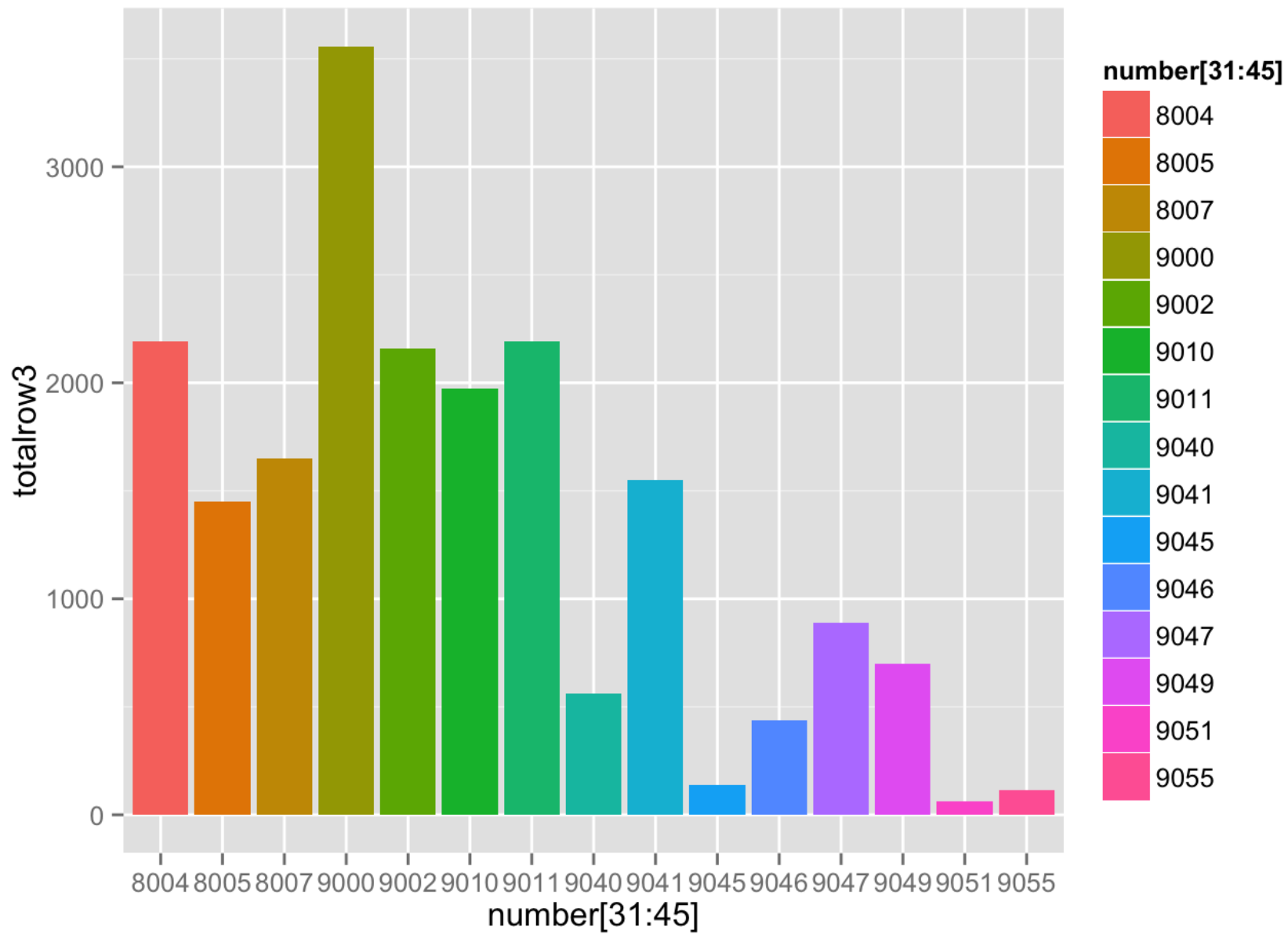


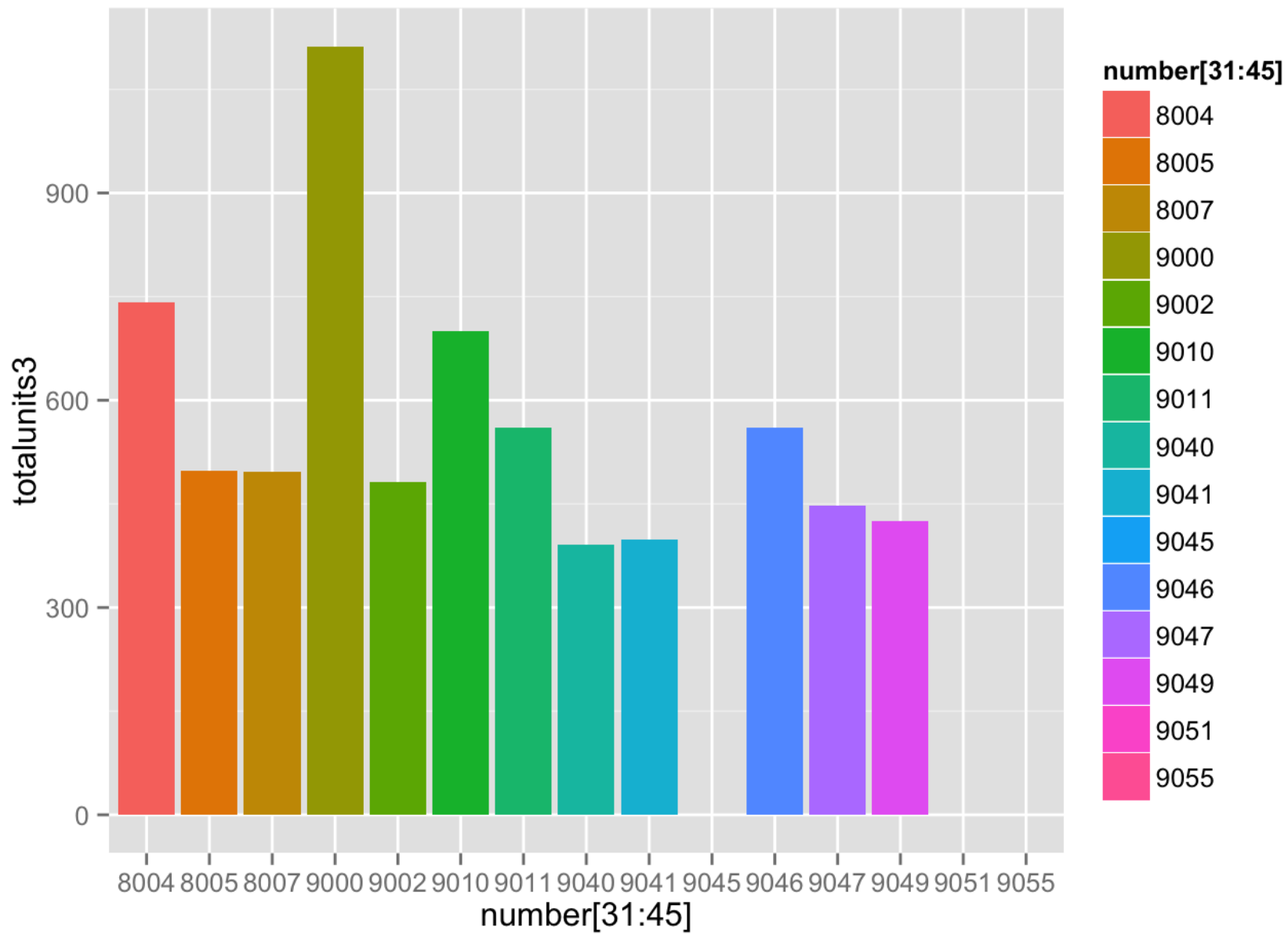


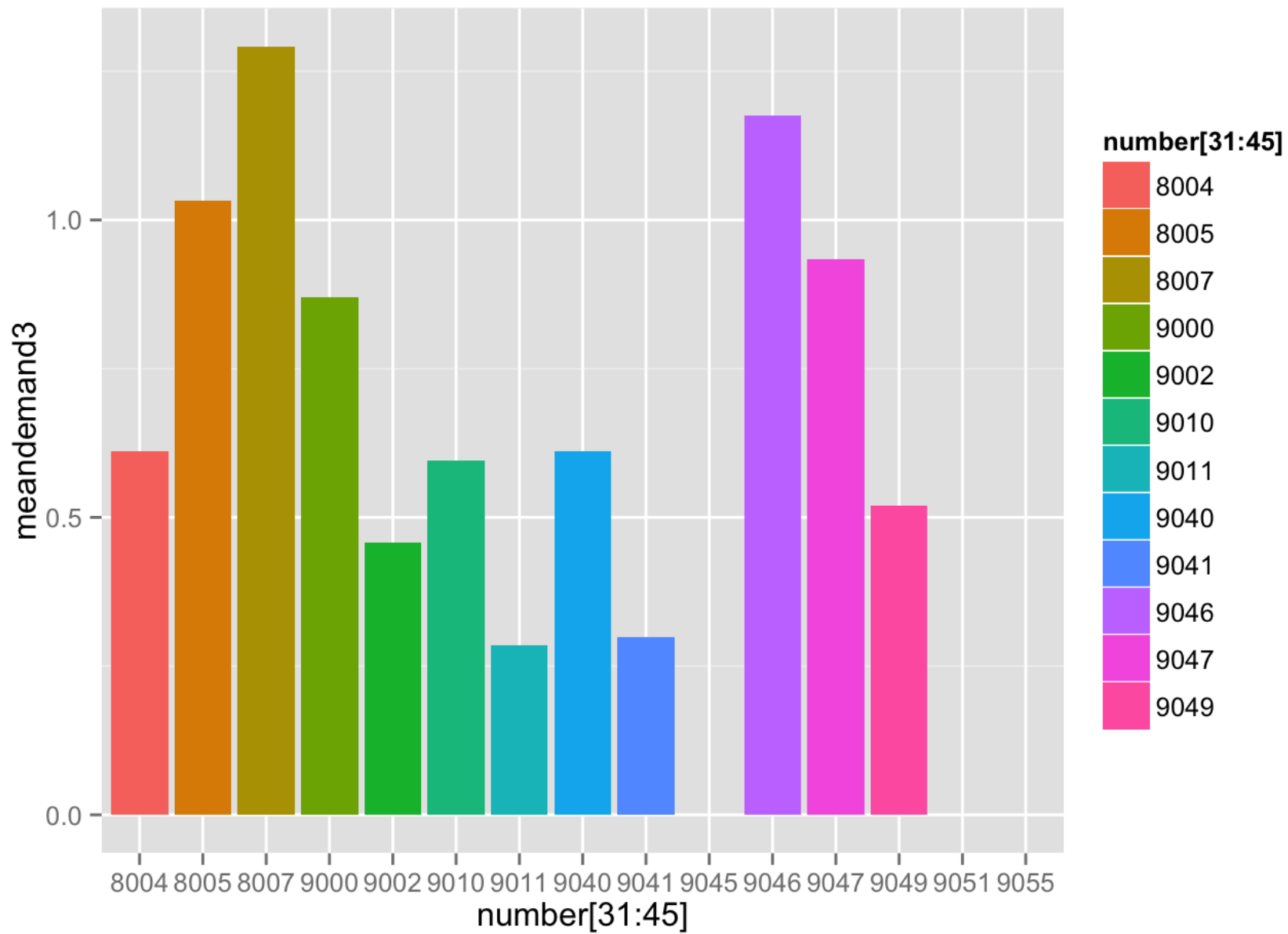


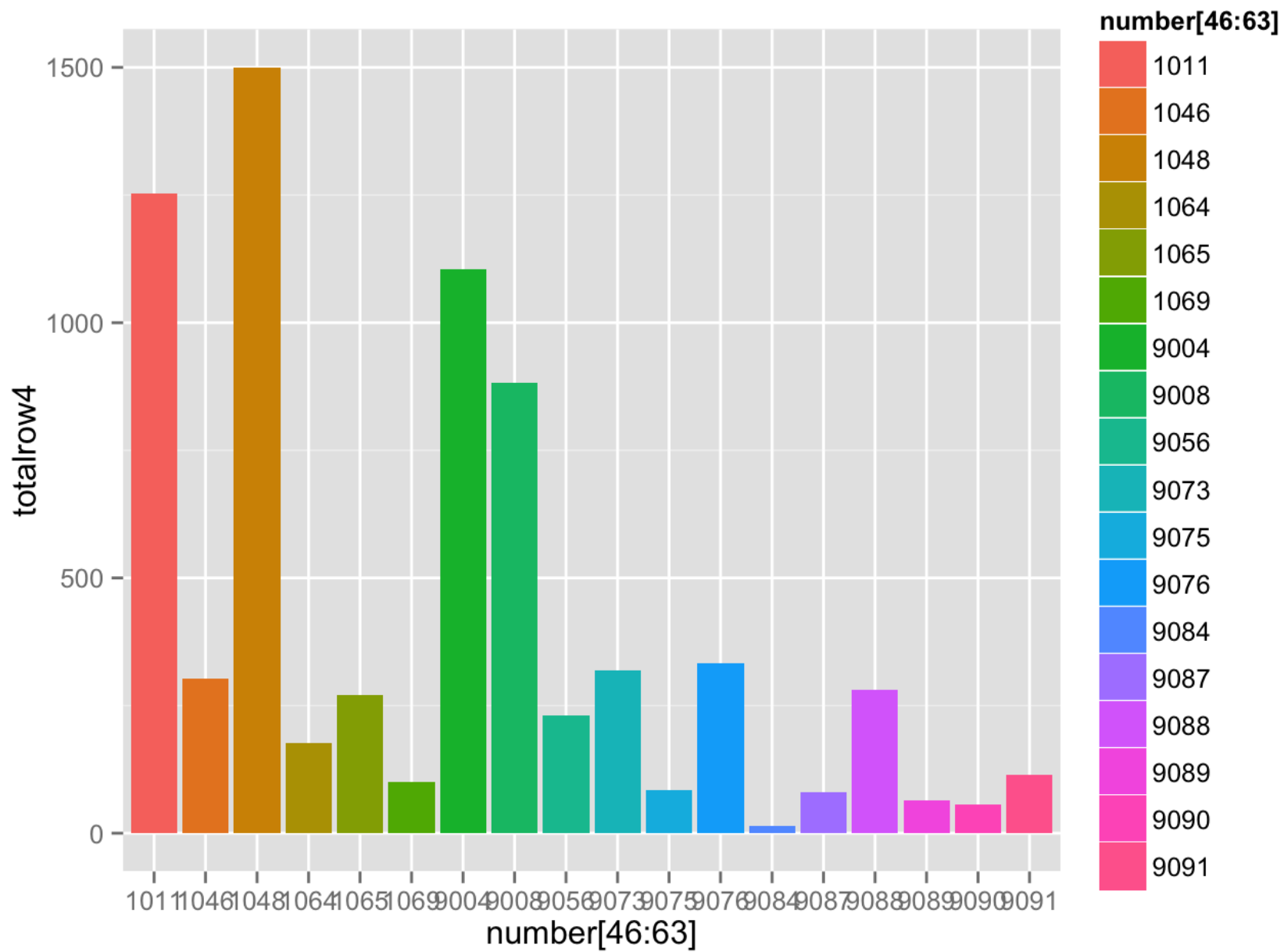


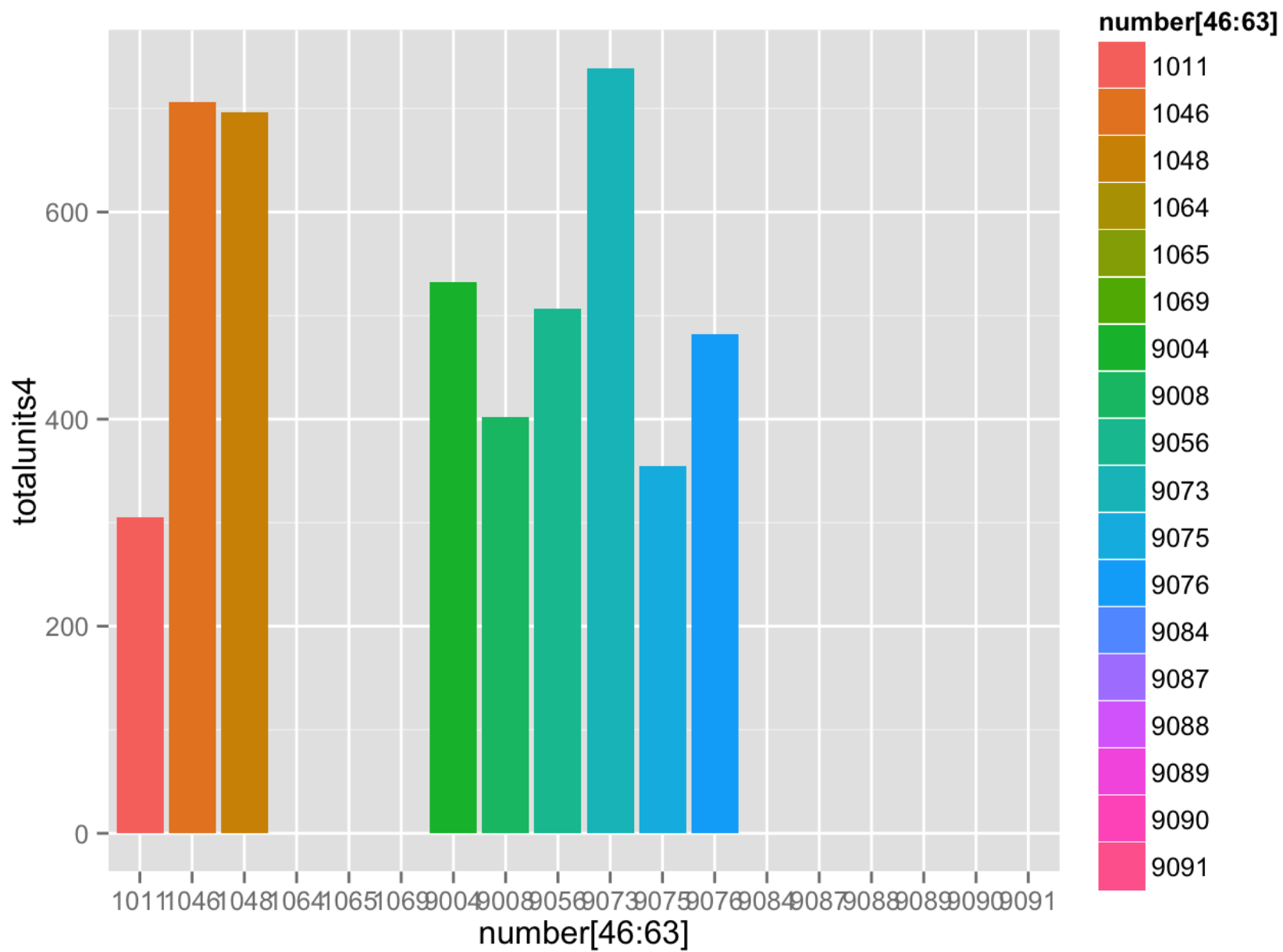


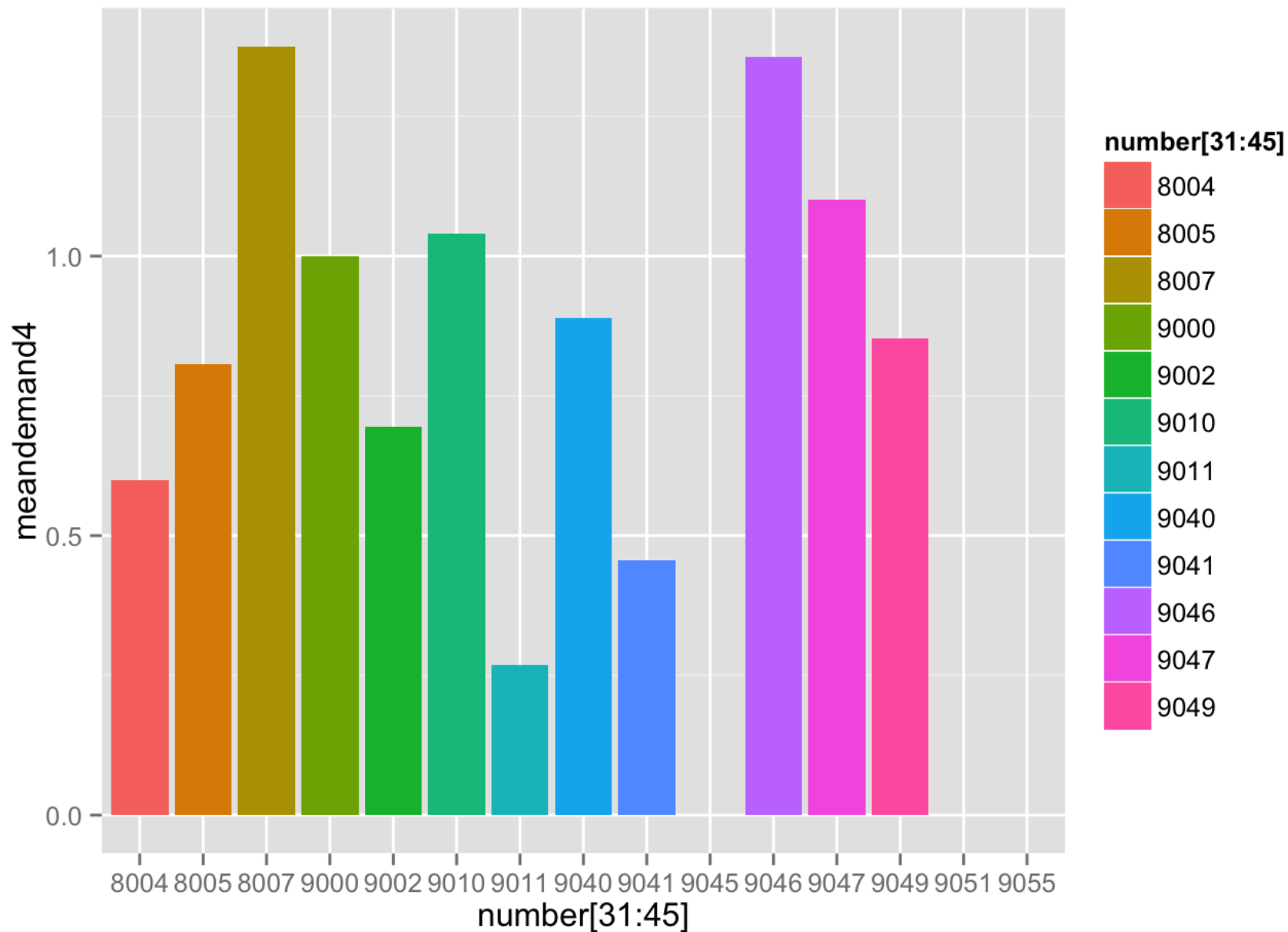












``` Now we would like to see the store which has less than 50 total units.

```
totalunits=c(totalunits1,totalunits2,totalunits3,totalunits4)
meandemands=c(meandemand1,meandemand2,meandemand3,meandemand4)
```

```
print(unique(number[which(totalunits<100)]))
```

```
[1] 1000 1030 1031 8003 9045 9051 9055 9087 9088 9089 9090 9091 1064 1065
[15] 1069 9084
160 Levels: 1000 1001 1002 1003 1004 1005 1006 1007 1008 1009 1010 ... zzz 9076
```

Now we would like to eliminate these stores for analysis.

```
eliminate=unique(number[which(totalunits<100)])
newdata3=newdata2[-which(newdata2$SITE.NUMBER%in%eliminate),]
newdata3=newdata3[-which(newdata3$SITE.NUMBER==1015),]
newdata3=newdata3[-which(newdata3$SITE.NUMBER==1040),]
newdata3=newdata3[-which(newdata3$SITE.NUMBER==8000),]

newdata3=newdata3[which(newdata3$state=='CA'),]
newdata3$SITE.NUMBER[which(newdata3$SITE.NUMBER=='zzz 9075')]=9075
newdata3$SITE.NUMBER[which(newdata3$SITE.NUMBER=='zzz 1011')]=1011
newdata3$SITE.NUMBER[which(newdata3$SITE.NUMBER=='zzz 9076')]=9076
newdata3=newdata3[-which(newdata3$SITE.NUMBER==9075),]
newdata3=newdata3[-which(newdata3$SITE.NUMBER==9076),]
number11=unique(newdata3$SITE.NUMBER)
```

Note that the `echo = FALSE` parameter was added to the code chunk to prevent printing of the R code that generated the plot.

```
stat=read.csv('mse_CA.csv')
```

```
knitr::kable(stat, format = "html")
```

| X  | number11 | X1        | X2        | X3        | X4        | X5        | meanss    | totalunitss | meandemandss |
|----|----------|-----------|-----------|-----------|-----------|-----------|-----------|-------------|--------------|
| 1  | 1005     | 1.1720995 | 1.2447851 | 1.0878583 | 1.1404759 | 1.2046044 | 1.1699646 | 606         | 0.9677419    |
| 2  | 1006     | 0.7936335 | 0.8752805 | 0.8681538 | 0.8838754 | 0.9291254 | 0.8700137 | 976         | 0.2794118    |
| 3  | 1007     | 1.3351735 | 1.1688611 | 1.6440349 | 1.7777863 | 1.4949842 | 1.4841680 | 663         | 0.7500000    |
| 4  | 1008     | 1.3268043 | 1.8309827 | 1.5003903 | 1.5499877 | 1.8993503 | 1.6215031 | 799         | 1.5925926    |
| 5  | 1009     | 4.3507725 | 2.9654707 | 6.0624278 | 4.3606030 | 3.6838814 | 4.2846311 | 1608        | 2.8297872    |
| 6  | 1010     | 1.2035018 | 1.0251375 | 0.9989989 | 1.0758823 | 0.9276646 | 1.0462370 | 499         | 0.9555556    |
| 7  | 1011     | 1.5922496 | 1.5704336 | 1.2561042 | 1.1942306 | 1.2436910 | 1.3713418 | 305         | 0.8695652    |
| 8  | 1014     | 0.9819361 | 1.1099309 | 0.9547782 | 1.0708933 | 1.1331118 | 1.0501300 | 554         | 0.8055556    |
| 9  | 1016     | 1.8696942 | 2.3468179 | 2.8374273 | 2.4462260 | 2.2140169 | 2.3428364 | 635         | 3.2000000    |
| 10 | 1017     | 0.8675394 | 0.9545530 | 1.0262472 | 0.9992576 | 1.0135478 | 0.9722290 | 404         | 1.0500000    |
| 11 | 1018     | 1.3309749 | 1.1829252 | 1.2930920 | 1.1848874 | 1.3376800 | 1.2659119 | 402         | 0.6458333    |
| 12 | 1020     | 1.5975989 | 1.7598603 | 1.4355052 | 1.6571846 | 1.7455052 | 1.6391309 | 453         | 2.3571429    |
| 13 | 1021     | 1.3221875 | 1.6000762 | 1.6461182 | 1.3551245 | 1.3892949 | 1.4625603 | 399         | 0.6842105    |
| 14 | 1023     | 1.4345790 | 1.5243331 | 1.4495688 | 1.5806817 | 1.5630431 | 1.5104412 | 687         | 1.1000000    |
| 15 | 1026     | 1.6355930 | 1.2453480 | 1.6634106 | 1.7739210 | 1.7745792 | 1.6185704 | 886         | 0.7647059    |
| 16 | 1027     | 1.3000797 | 1.3968561 | 1.4300978 | 1.2822746 | 1.3983958 | 1.3615408 | 558         | 1.1111111    |



|    |      |           |           |           |           |           |           |      |           |
|----|------|-----------|-----------|-----------|-----------|-----------|-----------|------|-----------|
| 17 | 1028 | 0.9183672 | 0.9574954 | 1.1371979 | 0.9580545 | 1.0278922 | 0.9998014 | 630  | 0.5681818 |
| 18 | 1029 | 0.9625822 | 1.2663975 | 1.1562688 | 1.0907191 | 1.1091132 | 1.1170161 | 501  | 0.8000000 |
| 19 | 1032 | 0.9889998 | 1.1561267 | 1.2444253 | 0.9874472 | 1.1021306 | 1.0958259 | 613  | 0.7307692 |
| 20 | 1033 | 0.9034563 | 0.8330403 | 0.9199456 | 0.8603584 | 0.8368222 | 0.8707245 | 715  | 0.2619048 |
| 21 | 1034 | 1.3330298 | 1.0651863 | 1.2593618 | 1.1574329 | 1.2985410 | 1.2227104 | 357  | 1.1200000 |
| 22 | 1037 | 0.7562577 | 0.8751826 | 0.8543998 | 0.7402963 | 0.7647421 | 0.7981757 | 360  | 0.4150943 |
| 23 | 8001 | 1.7034733 | 1.6835894 | 1.4233727 | 1.5337471 | 1.5286287 | 1.5745622 | 678  | 2.3076923 |
| 24 | 8004 | 1.0341525 | 1.0388568 | 1.1092692 | 1.1329023 | 1.0248636 | 1.0680089 | 742  | 0.6111111 |
| 25 | 8005 | 1.1737657 | 1.1112367 | 1.2187657 | 1.0265424 | 1.0532098 | 1.1167040 | 498  | 1.0322581 |
| 26 | 8007 | 1.3420408 | 1.3105765 | 1.2362036 | 1.4863470 | 1.4230084 | 1.3596353 | 496  | 1.2916667 |
| 27 | 9000 | 1.0705122 | 1.1736196 | 1.1405008 | 1.2389285 | 1.1764940 | 1.1600110 | 1112 | 0.8703704 |
| 28 | 9002 | 1.1066941 | 1.3051638 | 1.1431765 | 1.2653384 | 1.4661240 | 1.2572993 | 482  | 0.4571429 |
| 29 | 9010 | 1.0507402 | 1.4248500 | 1.4819281 | 1.2977581 | 1.0284102 | 1.2567373 | 700  | 0.5961538 |
| 30 | 9011 | 1.1852462 | 1.1706420 | 0.8906400 | 0.9568812 | 0.8501245 | 1.0107068 | 560  | 0.2857143 |
| 31 | 9040 | 0.9720534 | 1.4025609 | 0.7212720 | 0.9987670 | 0.9904292 | 1.0170165 | 391  | 0.6111111 |
| 32 | 9046 | 2.0216038 | 1.3808556 | 1.6360765 | 1.9732178 | 1.6967797 | 1.7417067 | 560  | 1.1764706 |
| 33 | 9047 | 1.2955268 | 1.6744987 | 1.8340572 | 1.5666136 | 1.6115950 | 1.5964583 | 448  | 0.9333333 |
|    |      |           |           |           |           |           |           |      |           |

|    |      |           |           |           |           |           |           |     |           |
|----|------|-----------|-----------|-----------|-----------|-----------|-----------|-----|-----------|
| 34 | 9041 | 1.1697533 | 1.1562356 | 0.7272816 | 0.9507804 | 0.6720897 | 0.9352281 | 398 | 0.2982456 |
| 35 | 9049 | 0.8640788 | 0.7663606 | 0.7740572 | 0.9014875 | 0.9100830 | 0.8432134 | 425 | 0.5200000 |
| 36 | 9008 | 2.2594420 | 1.7573098 | 1.6330631 | 2.0076180 | 1.5035148 | 1.8321895 | 402 | 0.6111111 |
| 37 | 9004 | 1.5203060 | 1.5436202 | 2.8949840 | 2.6241404 | 1.0305288 | 1.9227159 | 532 | 1.0322581 |
| 38 | 1046 | 2.5779957 | 2.5338868 | 2.5945360 | 2.3638644 | 2.5662168 | 2.5273000 | 706 | 1.2916667 |
| 39 | 1048 | 1.2373210 | 1.1897544 | 1.5930380 | 0.7325937 | 1.0002647 | 1.1505944 | 696 | 0.8703704 |
| 40 | 9056 | 1.7974808 | 2.4972843 | 1.1843091 | 1.5685426 | 2.3827153 | 1.8860664 | 507 | 0.4571429 |
| 41 | 9073 | 0.7748636 | 0.7683345 | 0.4984916 | 1.1392221 | 3.0098792 | 1.2381582 | 739 | 1.0322581 |

From the data above we found that STORE 9073 is a good choice because it has a relatively low mse ,high total units and appropriate deamand.