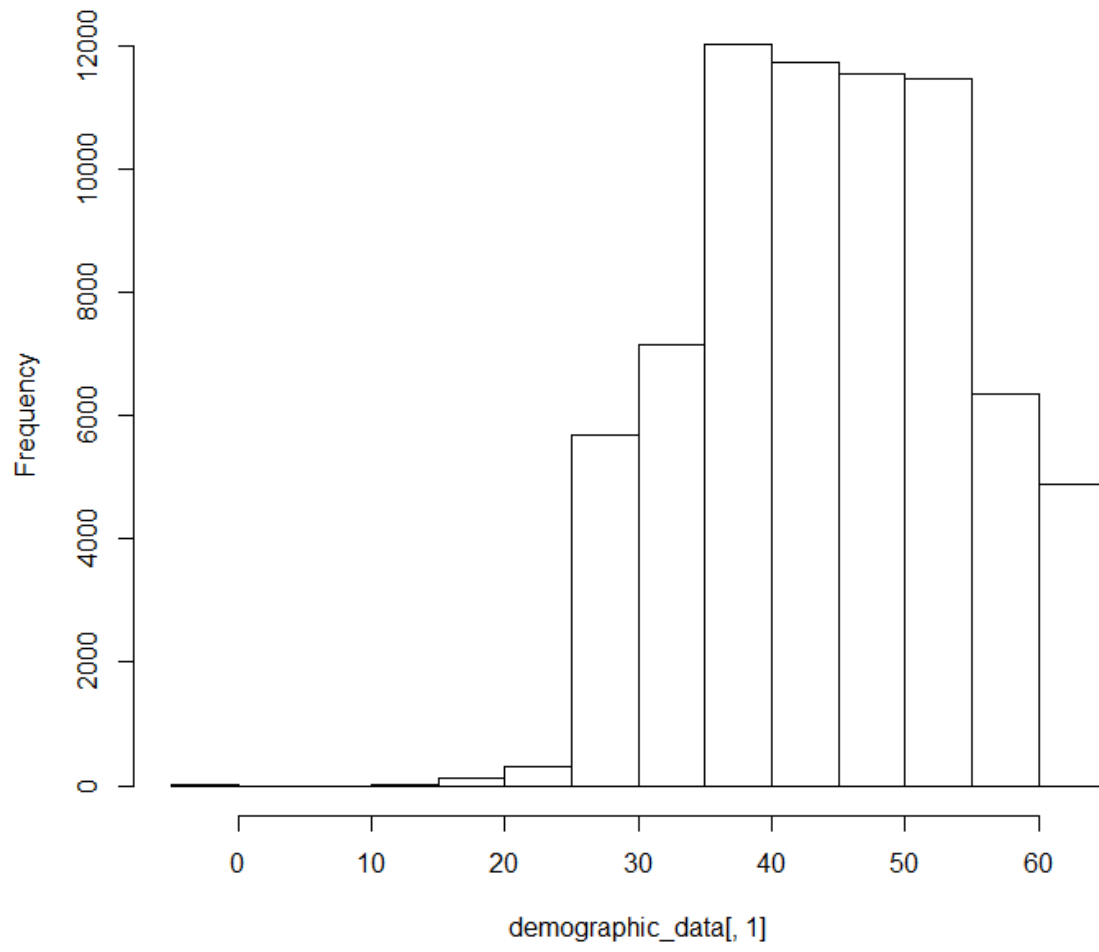
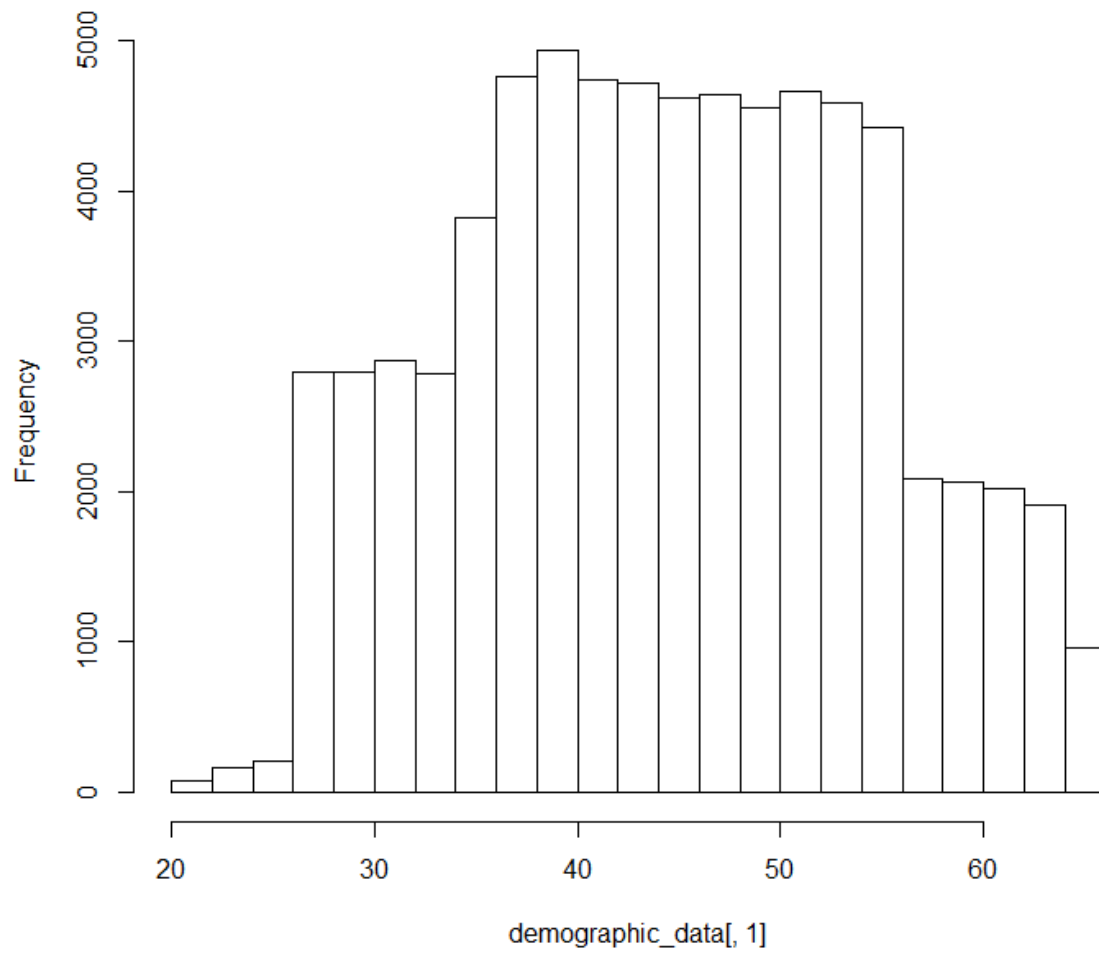
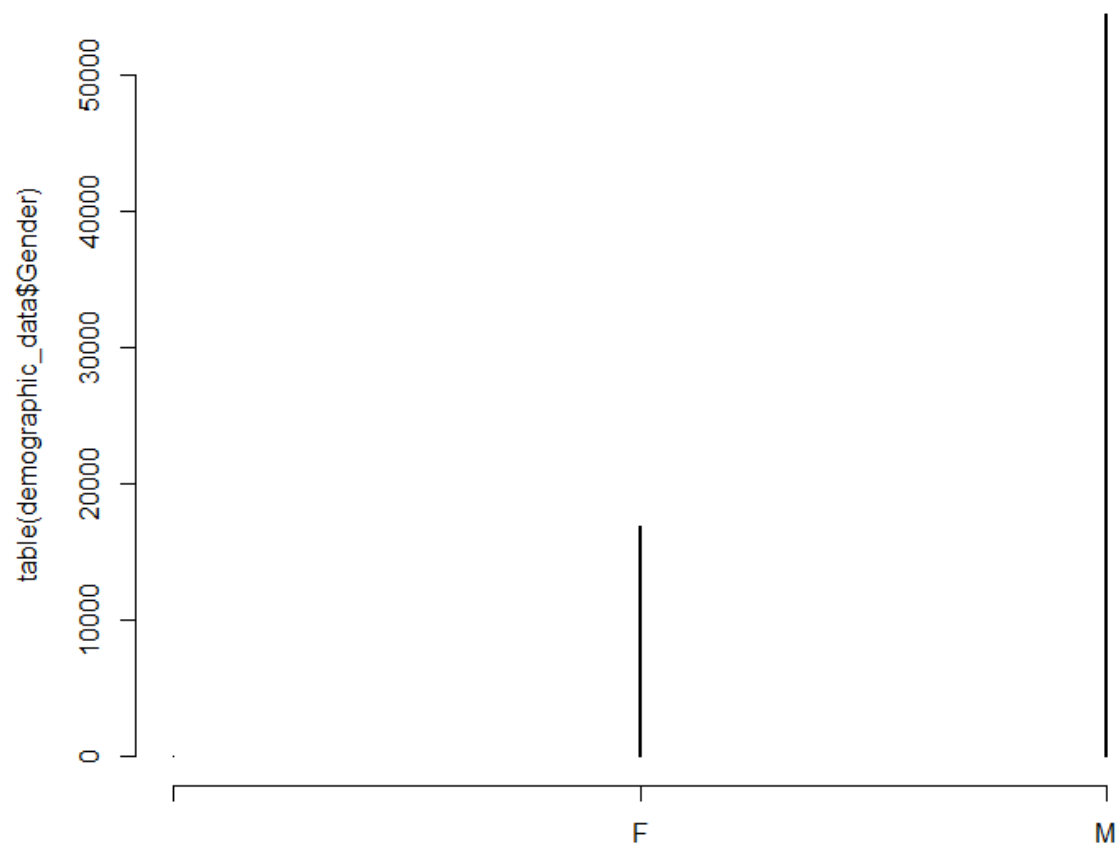


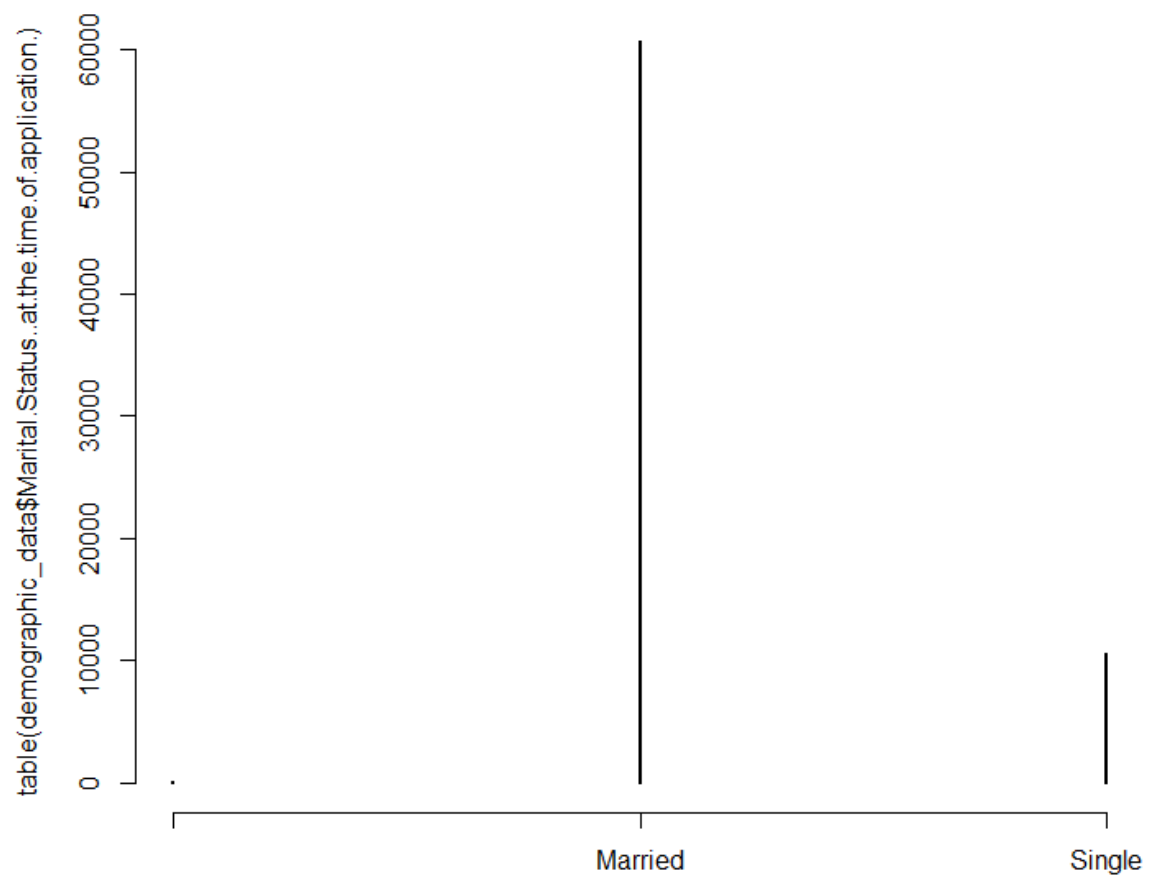
**Histogram of demographic\_data[, 1]**

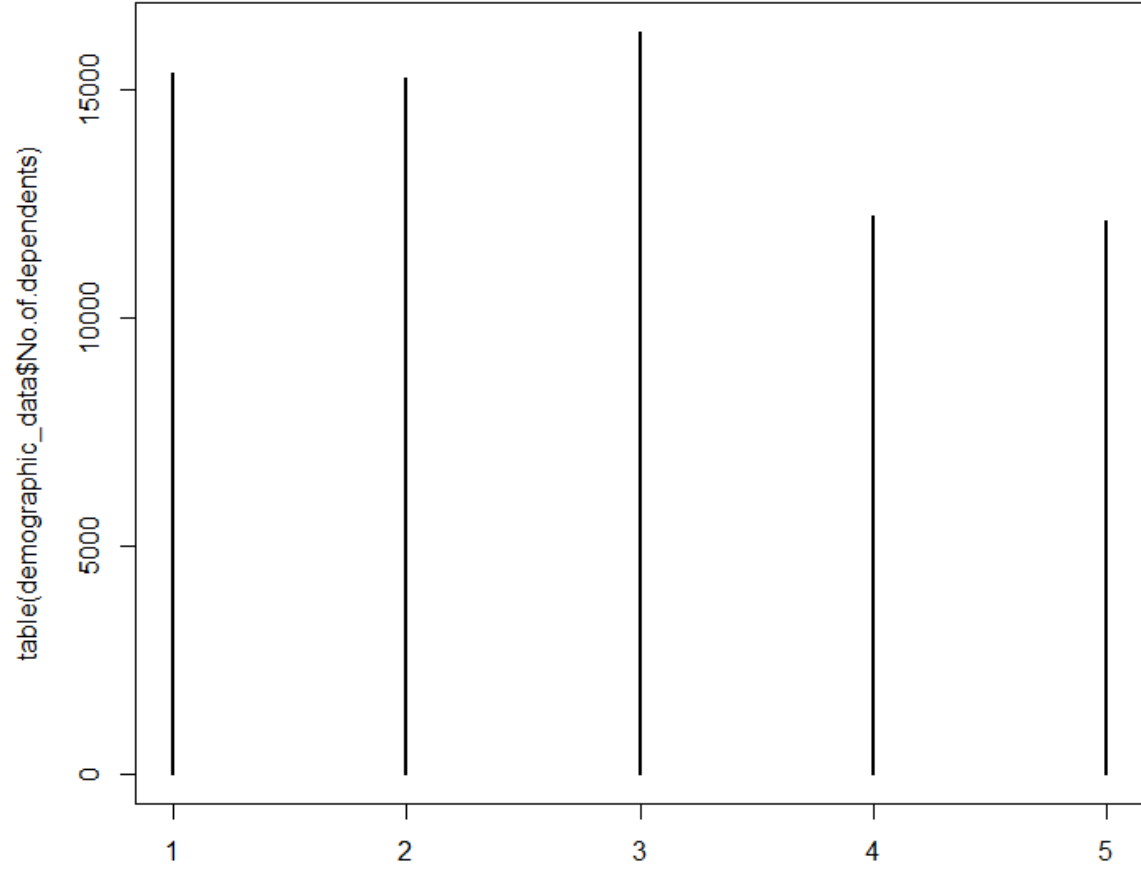


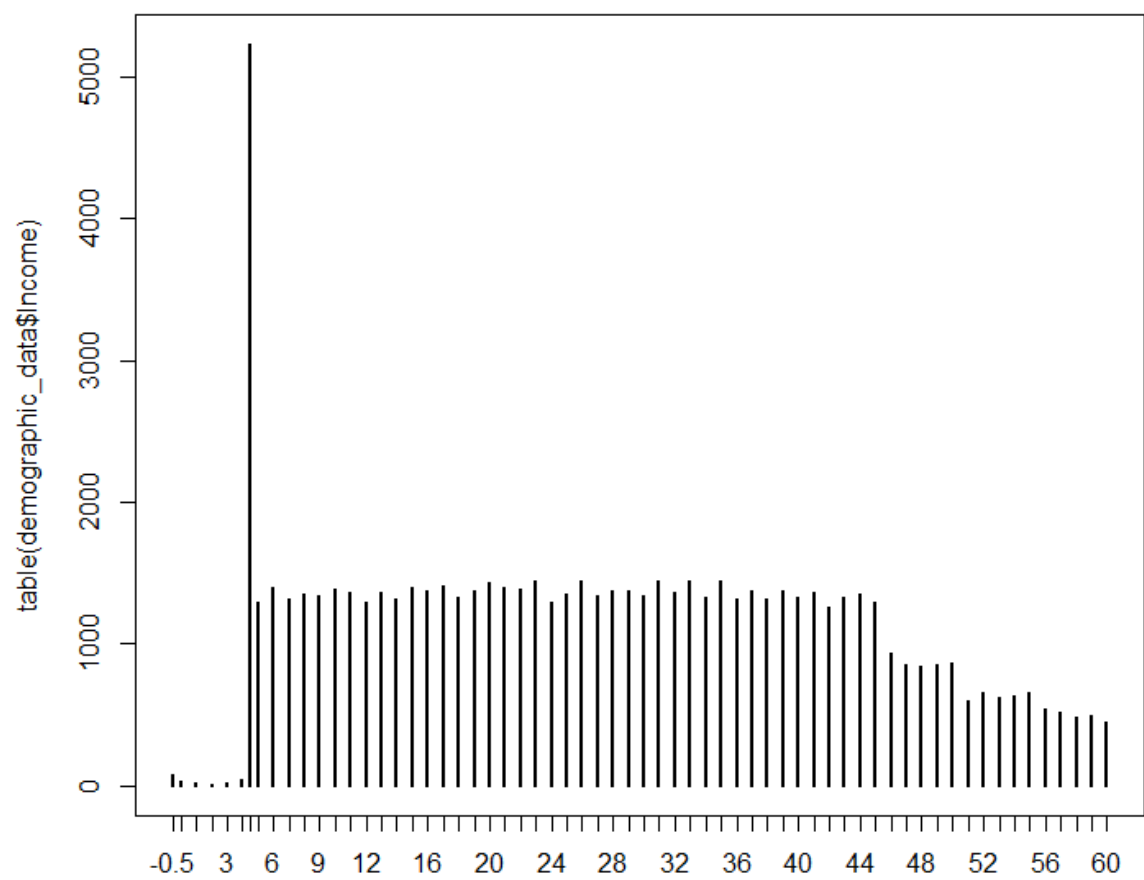
**Histogram of demographic\_data[, 1]**

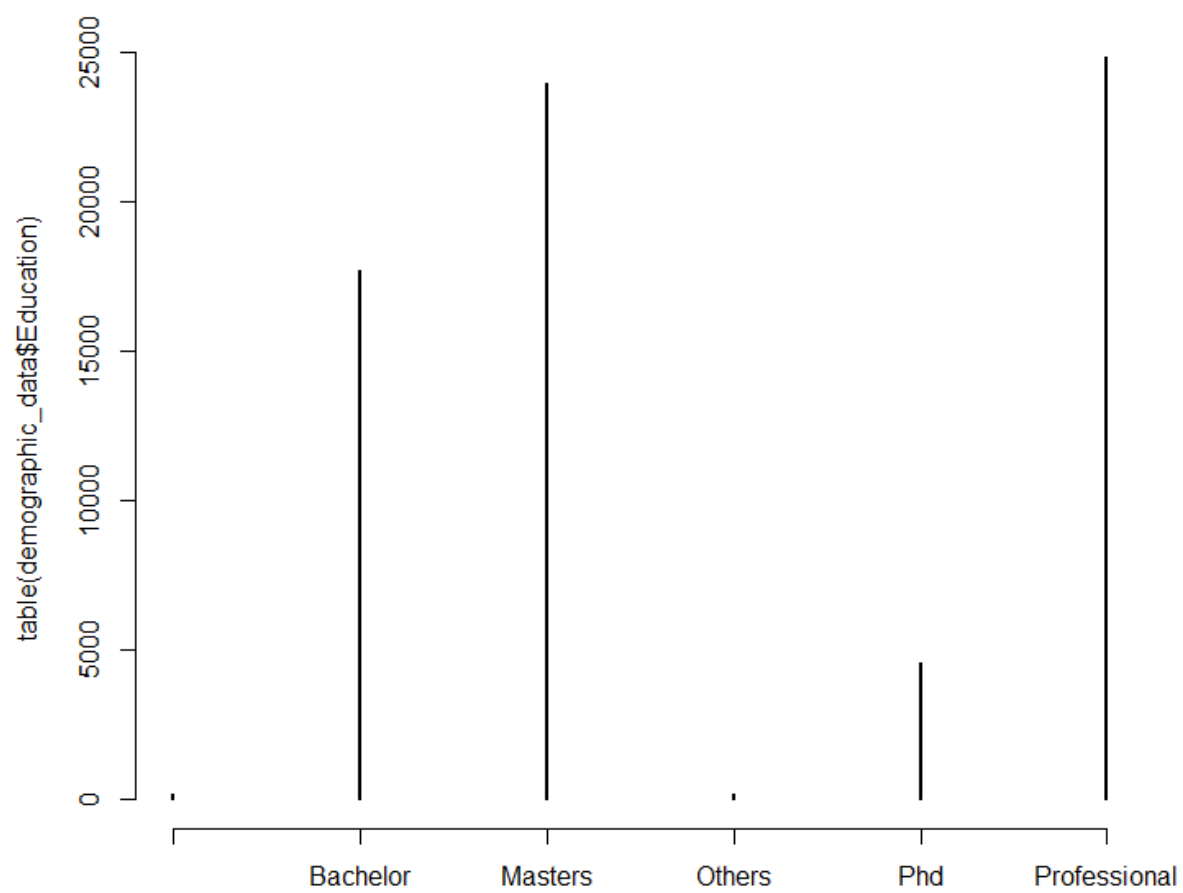


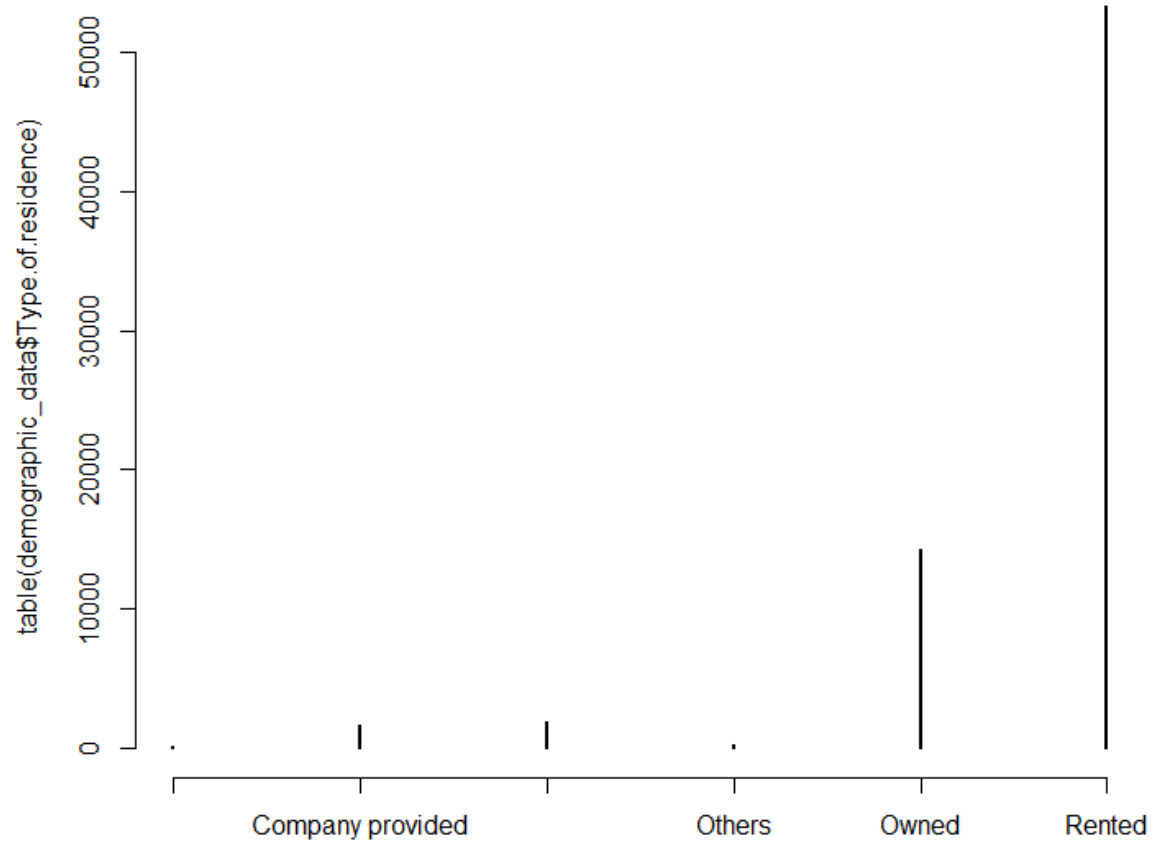




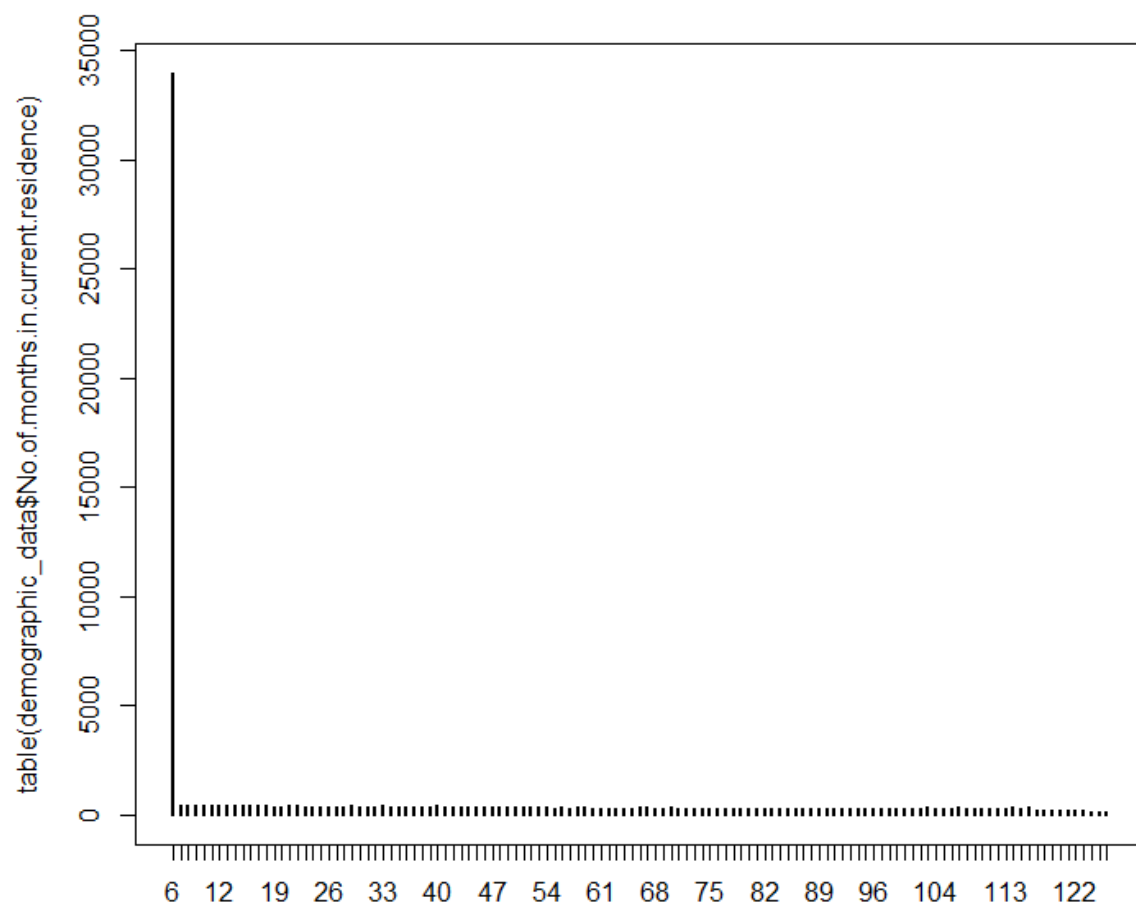


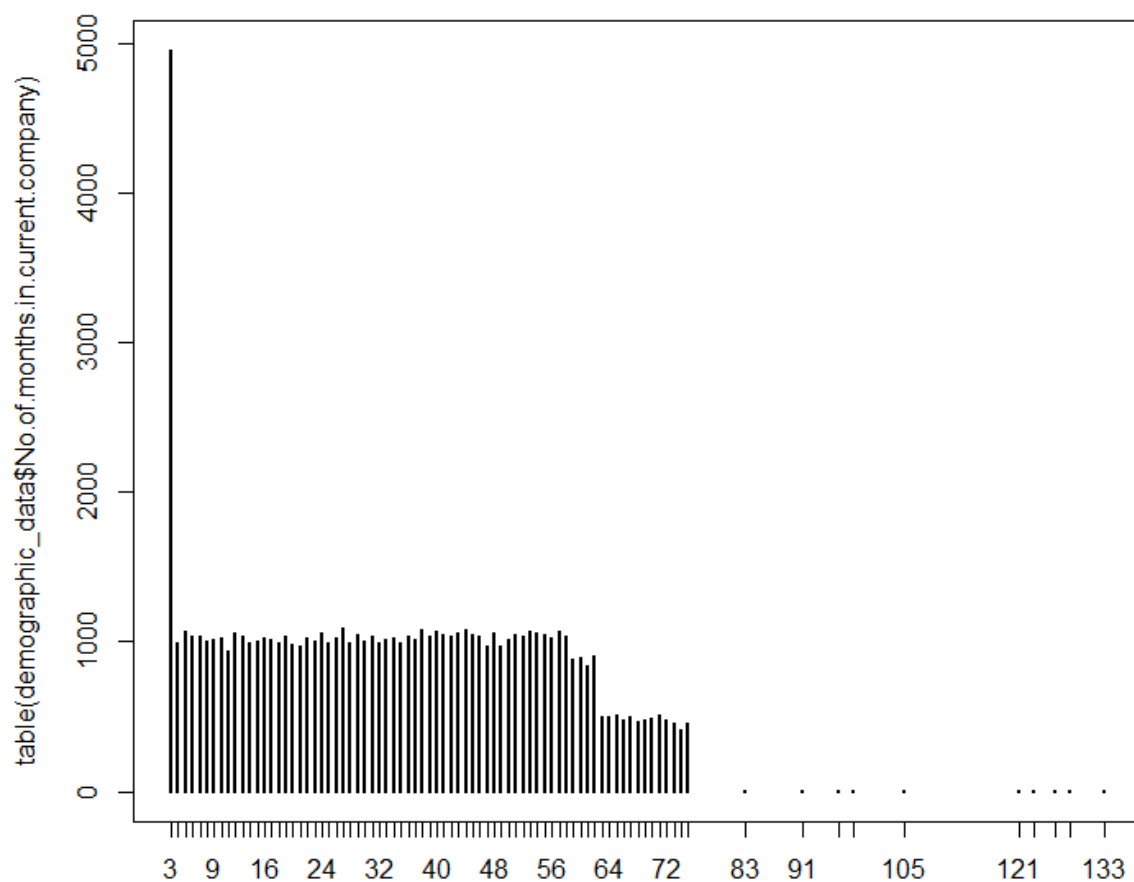








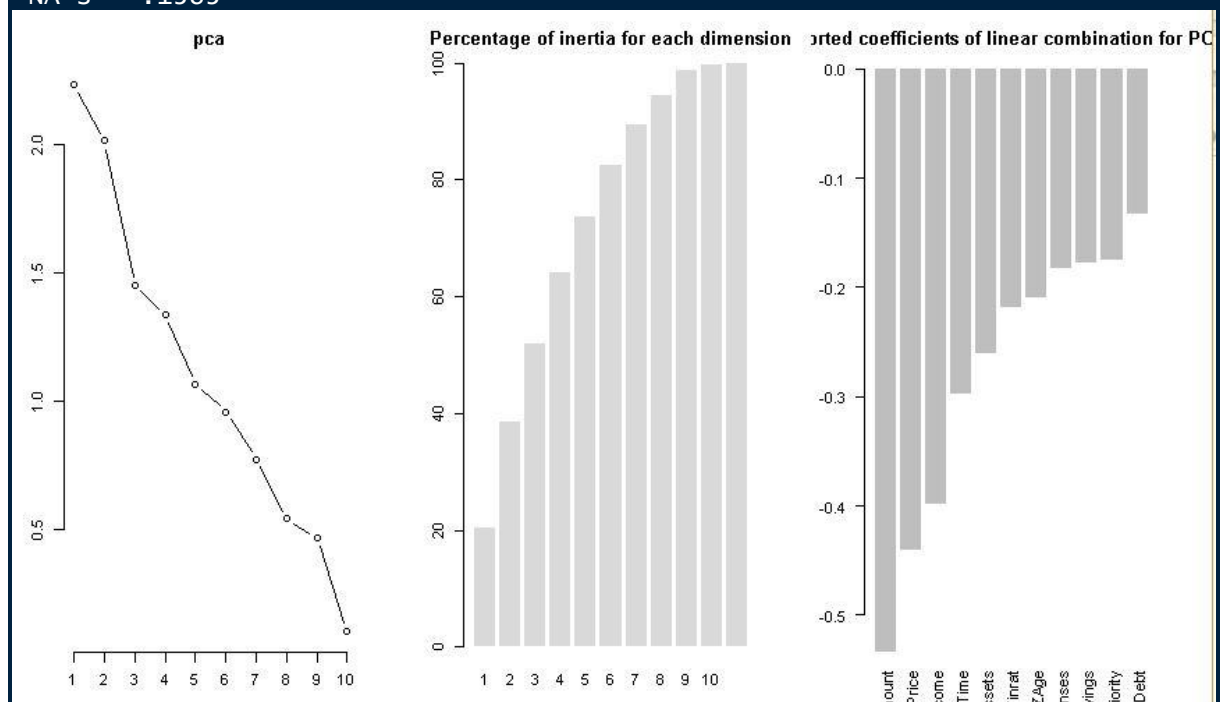


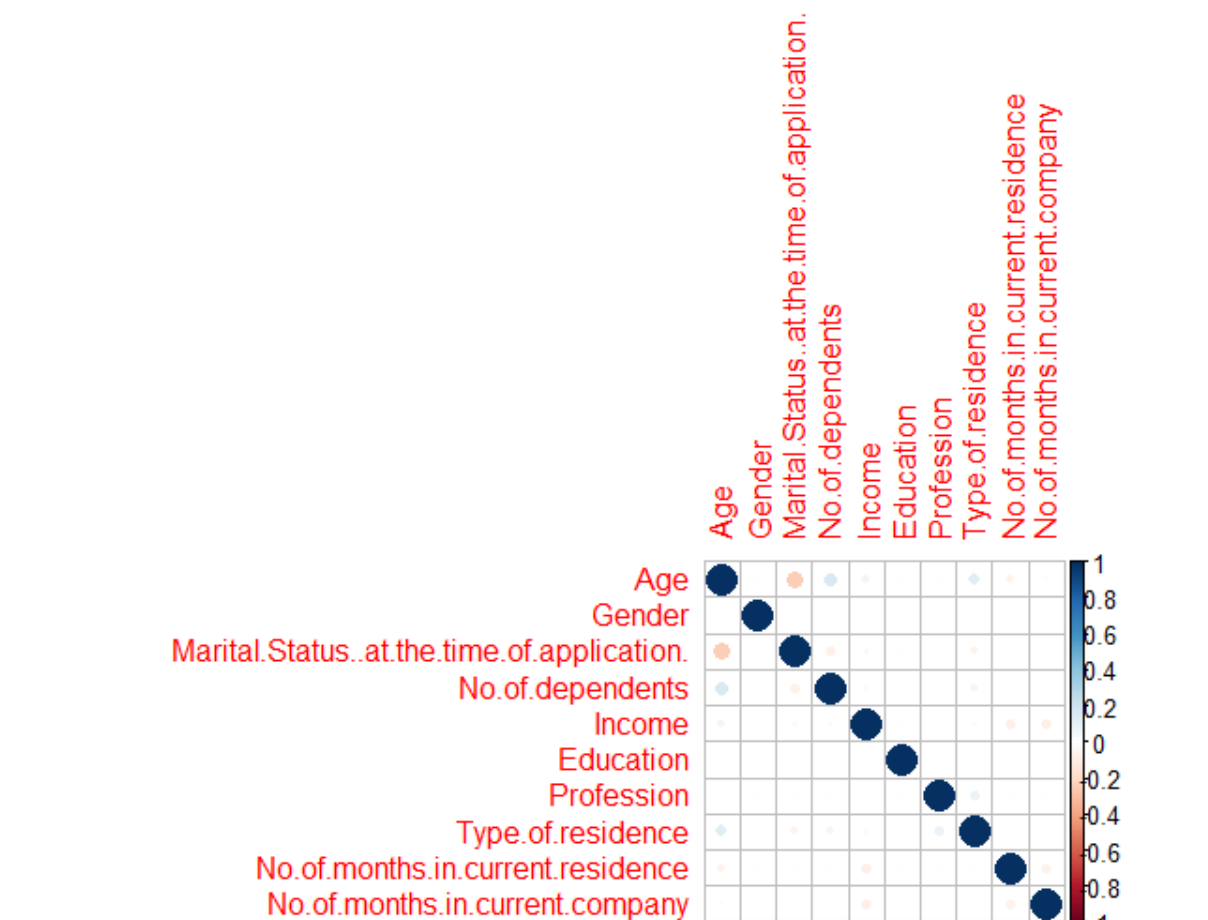


PCA:

PC1	PC2	PC3	PC4	
PC5				
Min. :-2.8961	Min. :-3.9874	Min. :-4.7208	Min. :-4.9028	M
1st Qu.:-0.8613	1st Qu.:-0.7380	1st Qu.:-0.7754	1st Qu.:-0.6461	1
Median :-0.1899	Median :-0.0294	Median : 0.0213	Median :-0.0379	M
Mean :-0.0041	Mean :-0.0064	Mean :-0.0040	Mean : 0.0037	M
3rd Qu.: 0.6845	3rd Qu.: 0.6766	3rd Qu.: 0.7560	3rd Qu.: 0.7071	3
Max. : 5.0687	Max. : 4.3789	Max. : 3.2214	Max. : 3.2087	M
NA's :1383	NA's :1383	NA's :1383	NA's :1383	N
PC6	PC7	PC8	PC9	
PC10				
Min. :-4.4140	Min. :-4.9783	Min. :-1.8446	Min. :-5.3752	M
1st Qu.:-0.6247	1st Qu.:-0.4104	1st Qu.:-0.7792	1st Qu.:-0.5644	1
st Qu.:-0.6246				

Median : -0.1209	Median : 0.0473	Median : -0.0561	Median : 0.1602	M
Median : -0.0279				
Mean : 0.0010	Mean : -0.0020	Mean : -0.0033	Mean : 0.0000	M
Mean : 0.0153				
3rd Qu.: 1.0475	3rd Qu.: 0.5884	3rd Qu.: 0.7678	3rd Qu.: 0.6968	3
3rd Qu.: 0.6280				
Max. : 1.8075	Max. : 2.5905	Max. : 3.0302	Max. : 2.3766	M
Max. : 3.8686				
NA's : 1383	NA's : 1383	NA's : 1383	NA's : 1383	N
NA's : 1383				
PC11				
Min. : -4.0338				
1st Qu.: -0.5742				
Median : 0.0112				
Mean : -0.0068				
3rd Qu.: 0.6207				
Max. : 2.3122				
NA's : 1383				





```
Call:
summary.resamples(object = results)
```

Models: LM, GLM, GLMNET, CART, KNN  
Number of resamples: 30

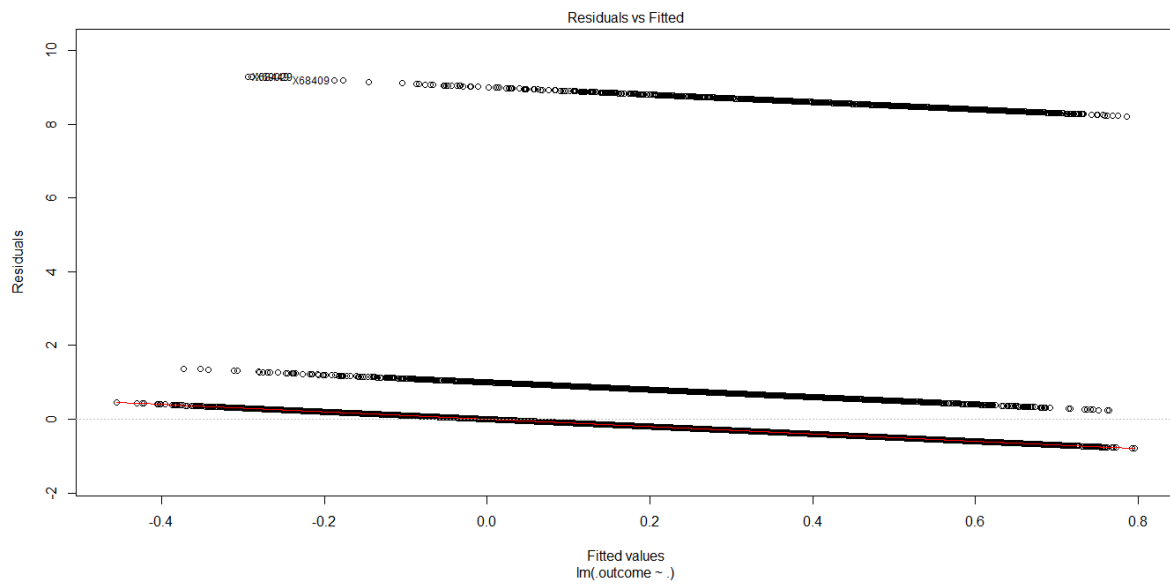
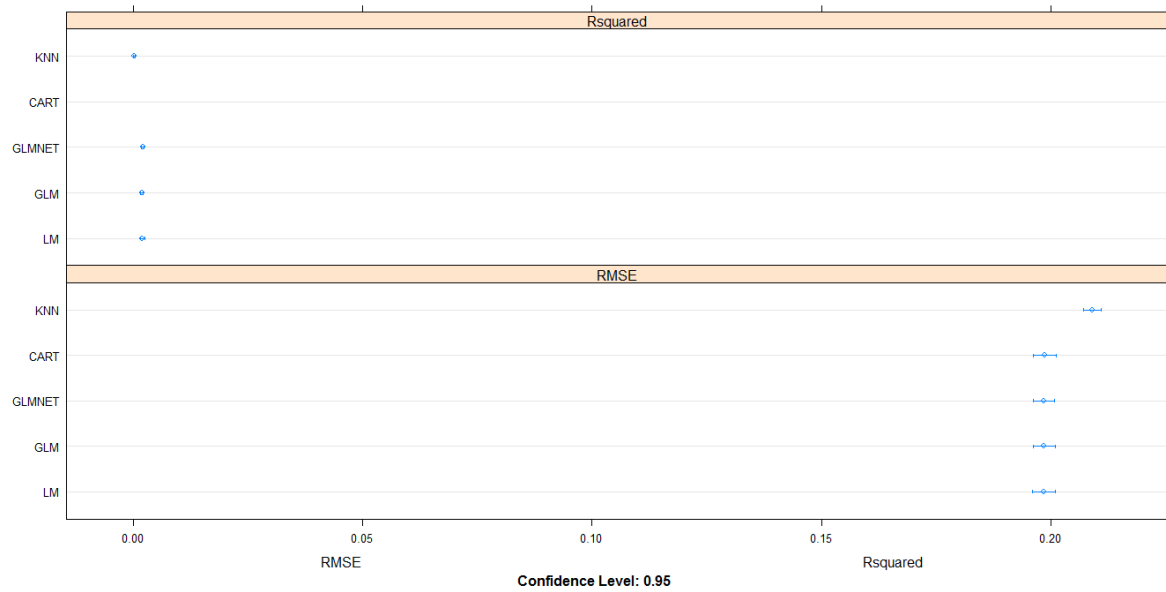
#### RMSE

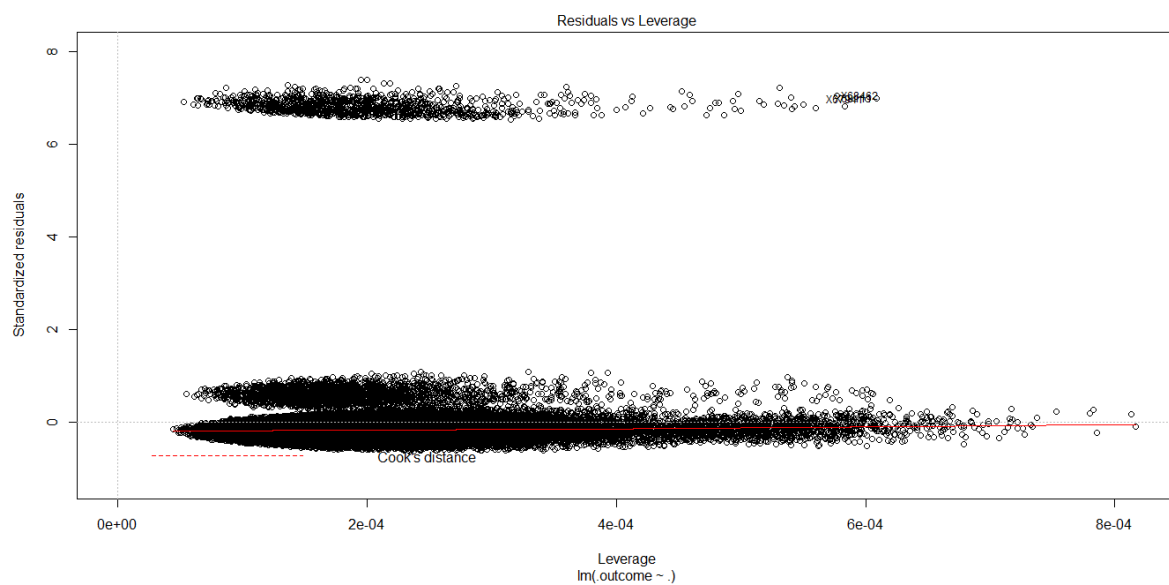
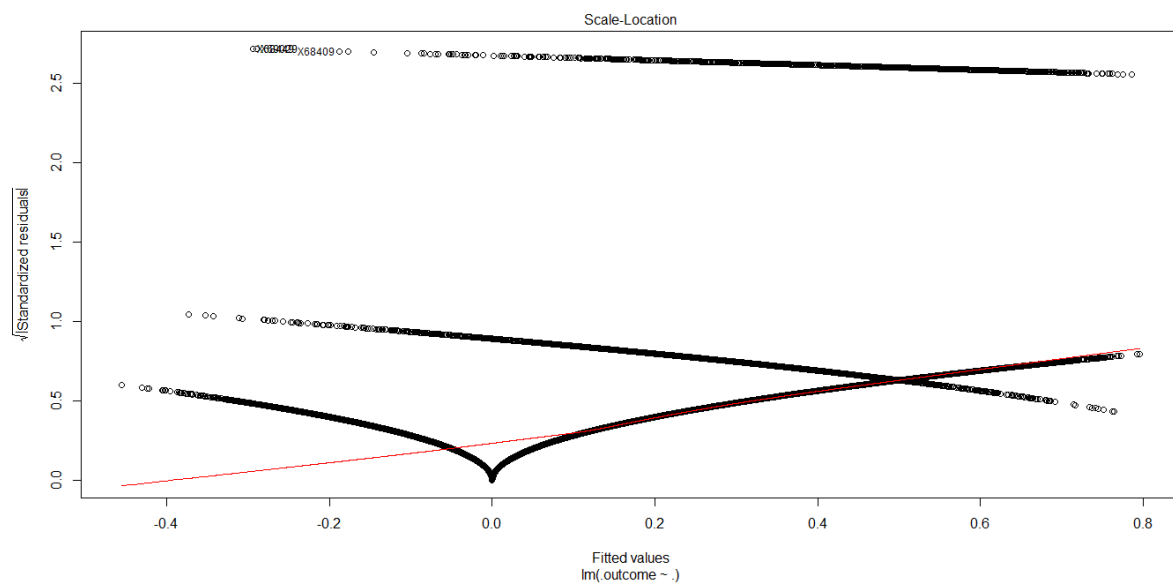
	Min.	1st Qu.	Median	Mean	3rd Qu.	Max.	NA's
LM	0.1841	0.1946	0.1973	0.1985	0.2046	0.2121	0
GLM	0.1816	0.1962	0.1980	0.1985	0.2040	0.2092	0
GLMNET	0.1851	0.1950	0.1994	0.1985	0.2039	0.2079	0
CART	0.1844	0.1947	0.1975	0.1987	0.2048	0.2122	0
KNN	0.1980	0.2054	0.2083	0.2090	0.2138	0.2172	0

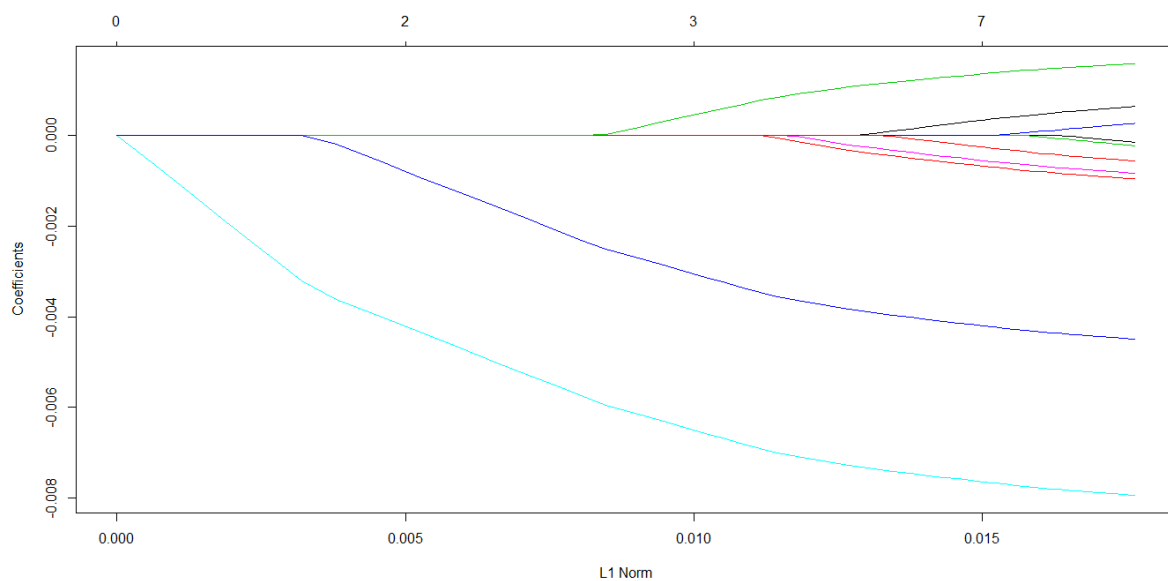
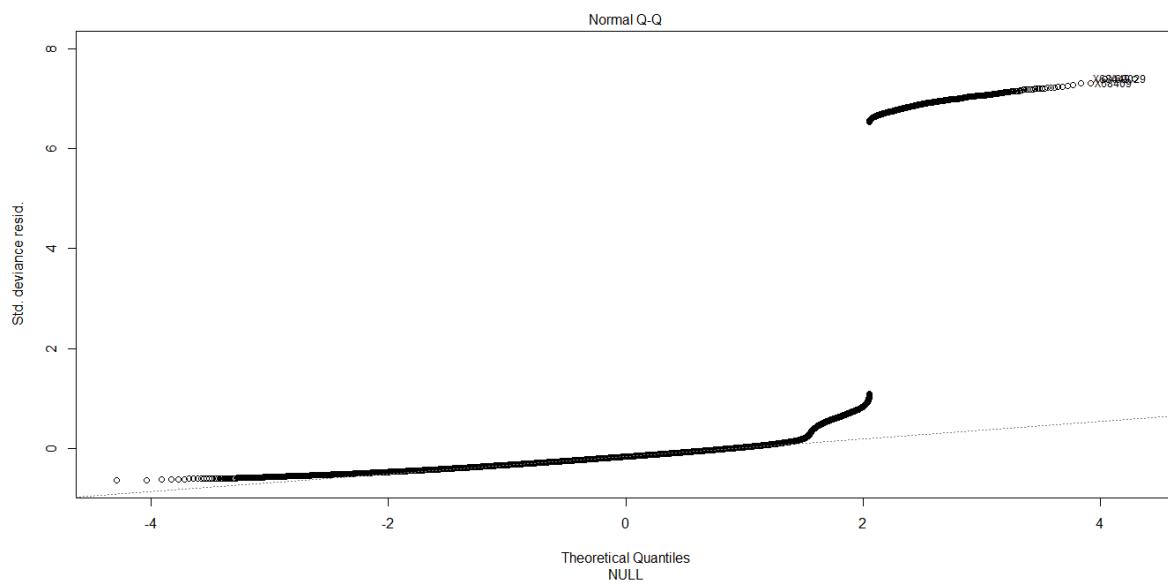
#### Rsquared

	Min.	1st Qu.	Median	Mean	3rd Qu.	Max.	NA's
LM	1.004e-04	0.001226	0.0018780	0.0020420	0.0027440	0.005301	0
GLM	5.034e-04	0.001337	0.0016990	0.0019090	0.0021450	0.003849	0
GLMNET	8.579e-07	0.001534	0.0022270	0.0021060	0.0027140	0.003925	0
CART	NA	NA	NA	NaN	NA	NA	30

KNN	4.851e-07	0.000103	0.0001594	0.0002488	0.0002919	0.001468	0
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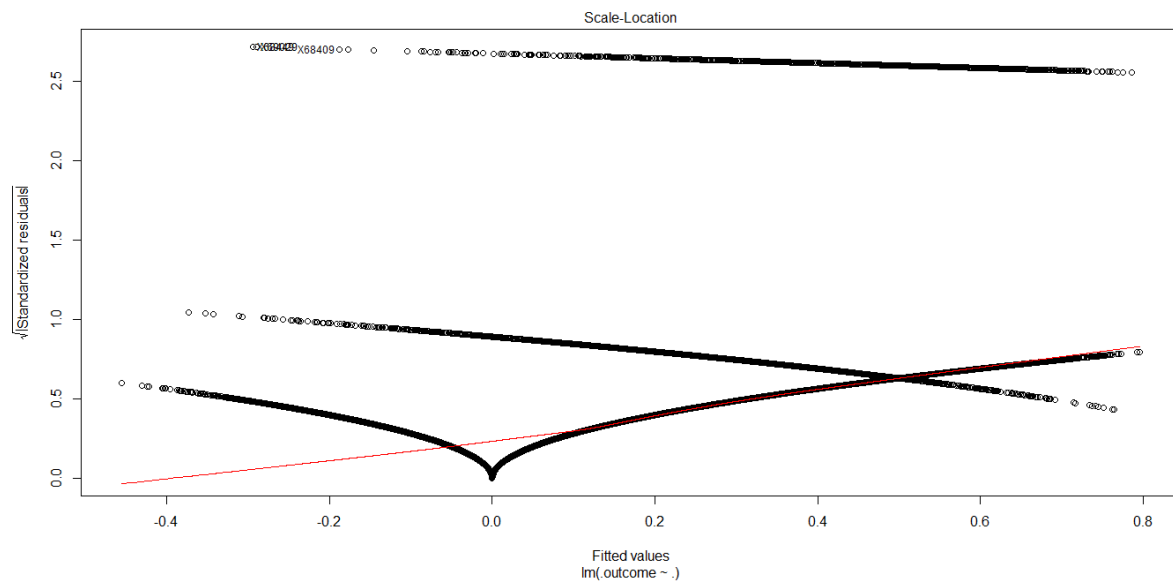
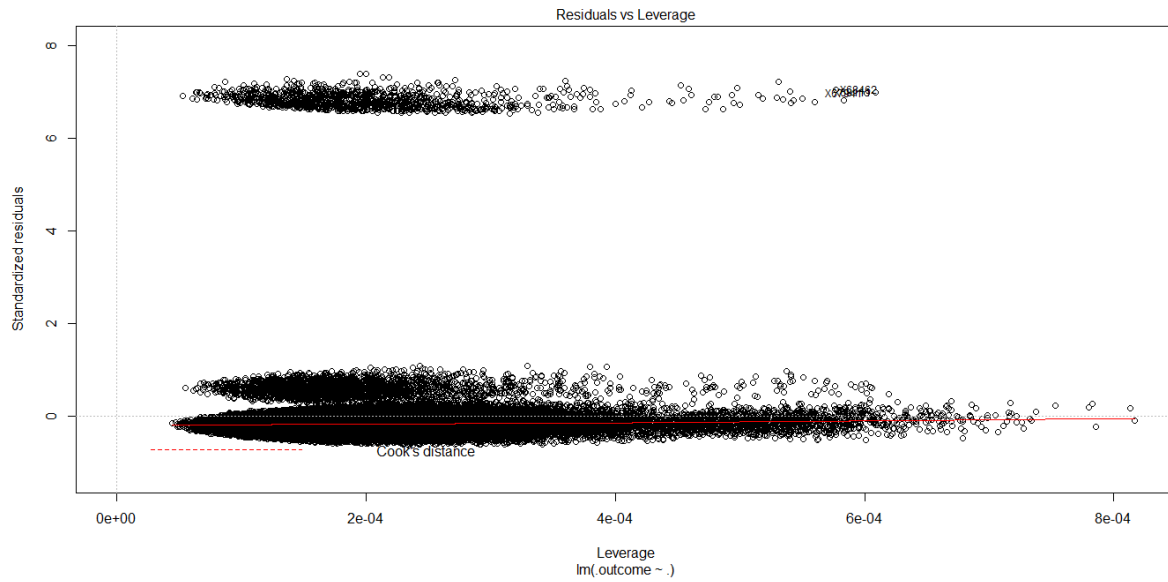


```
Call:
summary.resamples(object = results)
```

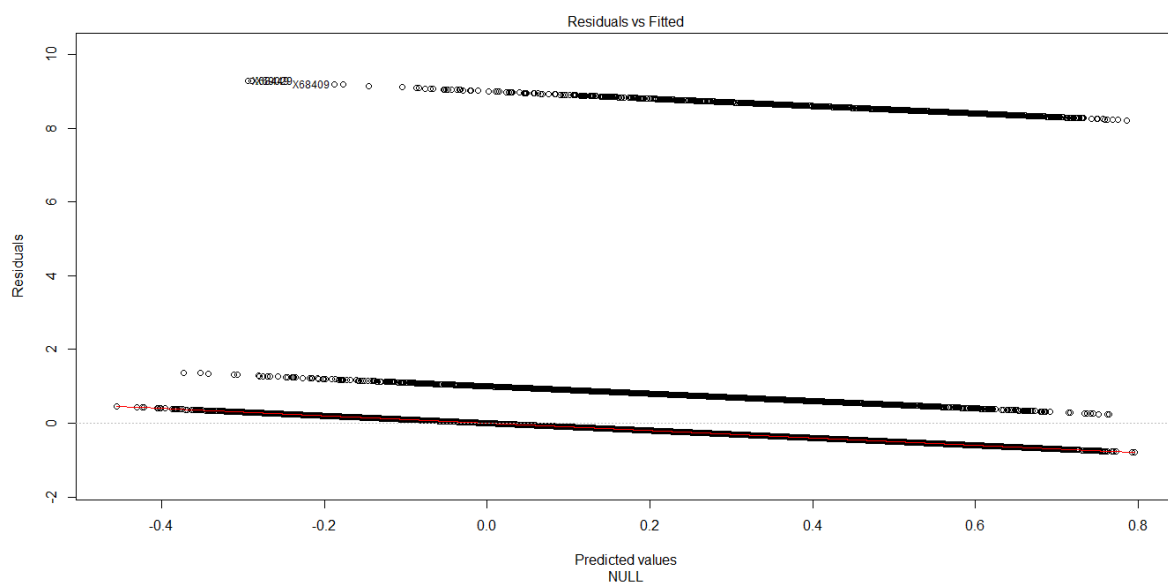
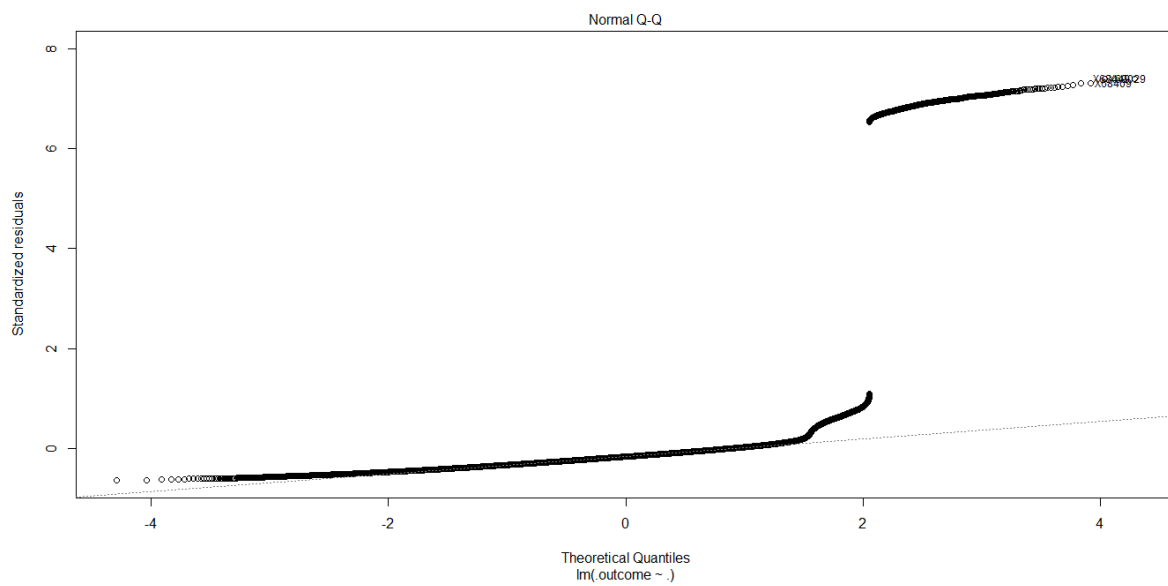
Models: LM, GLM, GLMNET, CART  
Number of resamples: 30

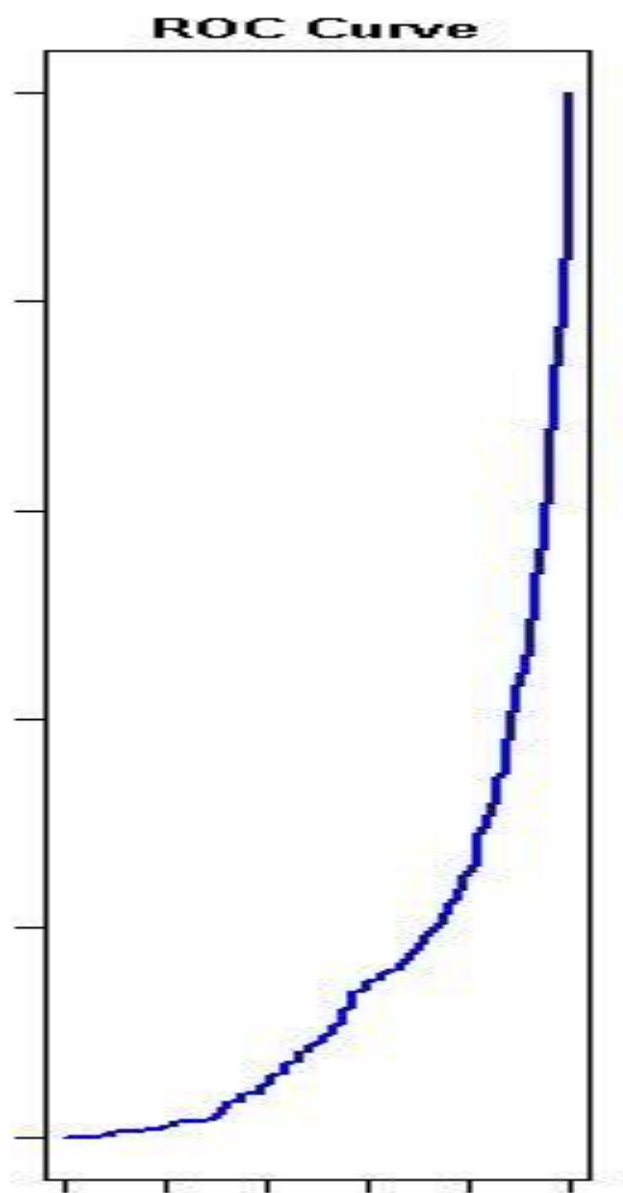
RMSE	Min.	1st Qu.	Median	Mean	3rd Qu.	Max.	NA's
LM	1.1400	1.2010	1.2690	1.2560	1.2970	1.386	0
GLM	1.1400	1.2310	1.2620	1.2560	1.2950	1.344	0
GLMNET	0.1841	0.1946	0.1973	0.1985	0.2046	0.212	0
CART	1.1510	1.2130	1.2840	1.2710	1.3150	1.407	0

	Min.	1st Qu.	Median	Mean	3rd Qu.	Max.	NA's
LM	0.0176700	0.021880	0.023370	0.023860	0.026080	0.031590	0
GLM	0.0184000	0.021870	0.023300	0.023840	0.026520	0.029170	0
GLMNET	0.0001382	0.001303	0.002137	0.002144	0.002784	0.005891	0









```
call:
summary.resamples(object = results)
```

```
Models: LM, GLM, GLMNET, CART
Number of resamples: 30
```

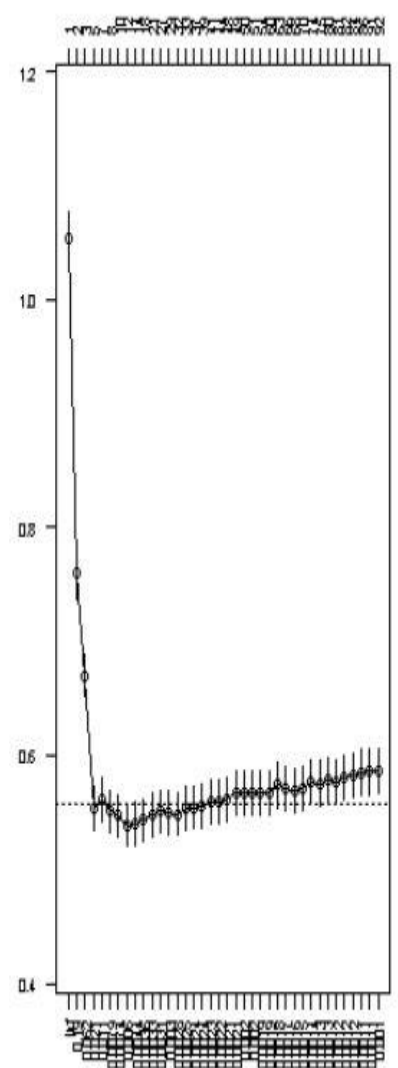
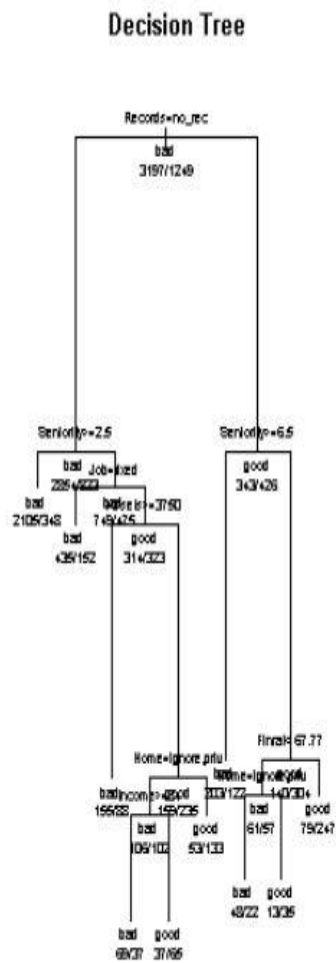
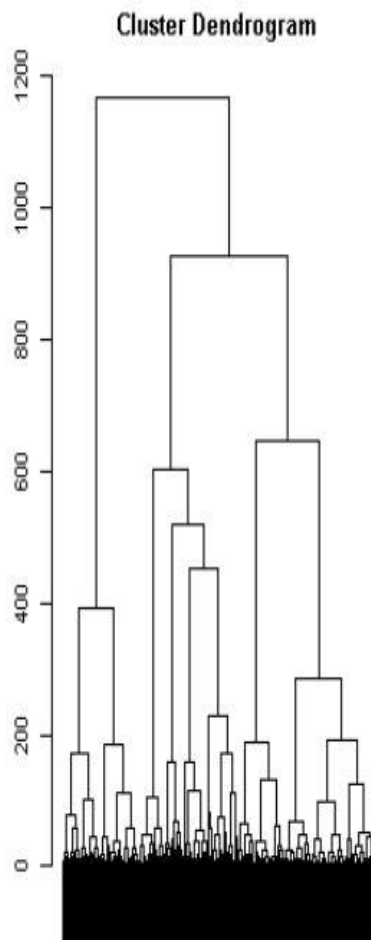
#### RMSE

	Min.	1st Qu.	Median	Mean	3rd Qu.	Max.	NA's
LM	1.1400	1.2010	1.2690	1.2560	1.2970	1.386	0
GLM	1.1400	1.2310	1.2620	1.2560	1.2950	1.344	0
GLMNET	0.1841	0.1946	0.1973	0.1985	0.2046	0.212	0
CART	1.1510	1.2130	1.2840	1.2710	1.3150	1.407	0

#### Rquared

	Min.	1st Qu.	Median	Mean	3rd Qu.	Max.	NA's
LM	0.0176700	0.021880	0.023370	0.023860	0.026080	0.031590	0
GLM	0.0184000	0.021870	0.023300	0.023840	0.026520	0.029170	0
GLMNET	0.0001382	0.001303	0.002137	0.002144	0.002784	0.005891	0





[illegible]

The graph, titled "Concentration Curve", plots a variable on the y-axis (ranging from 0 to 100) against an unlabeled x-axis. A straight line represents the ideal linear relationship, while a curved line below it shows the actual concentration curve, indicating a non-linear relationship.

