Results of Principal Component Analysis

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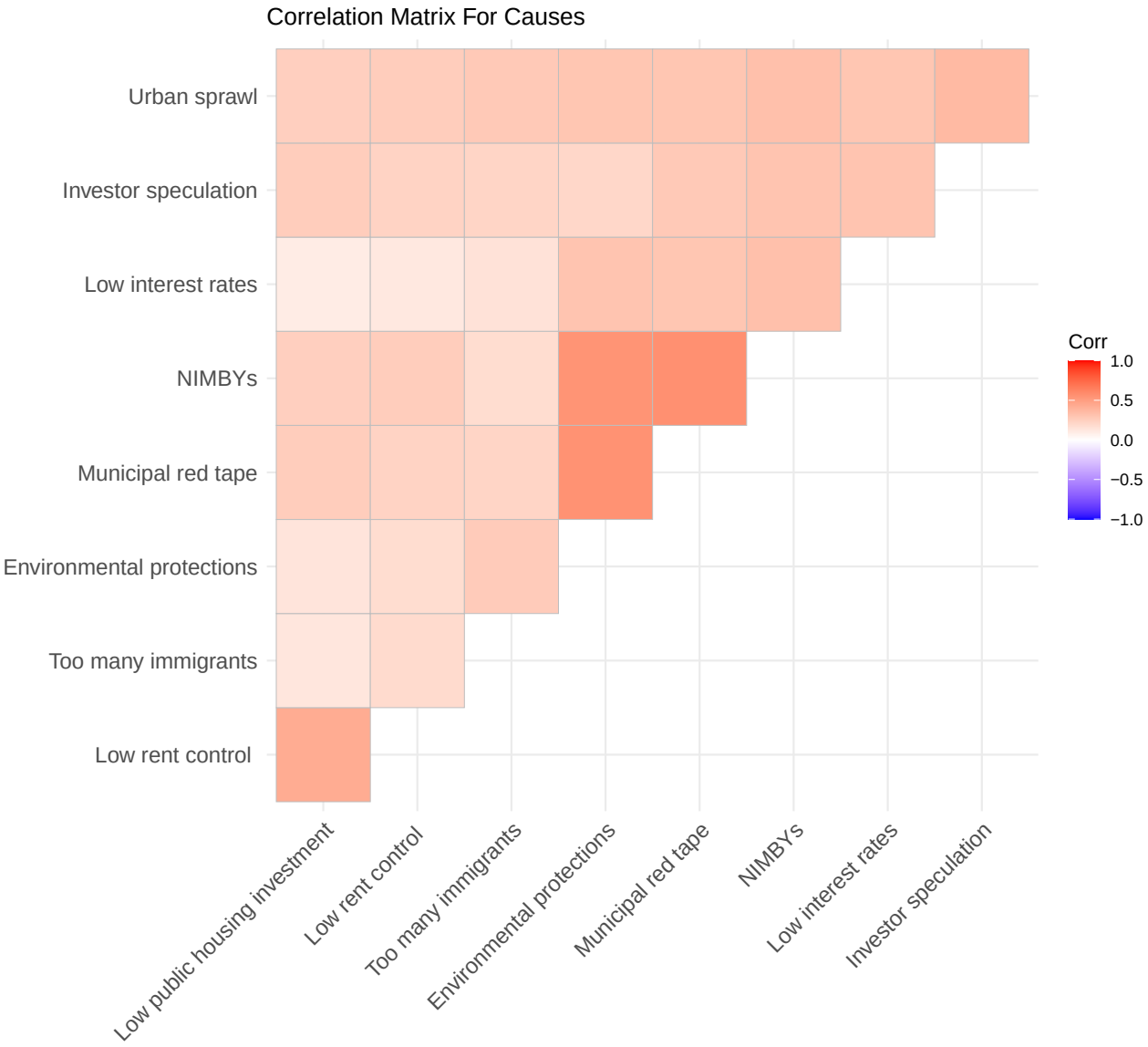
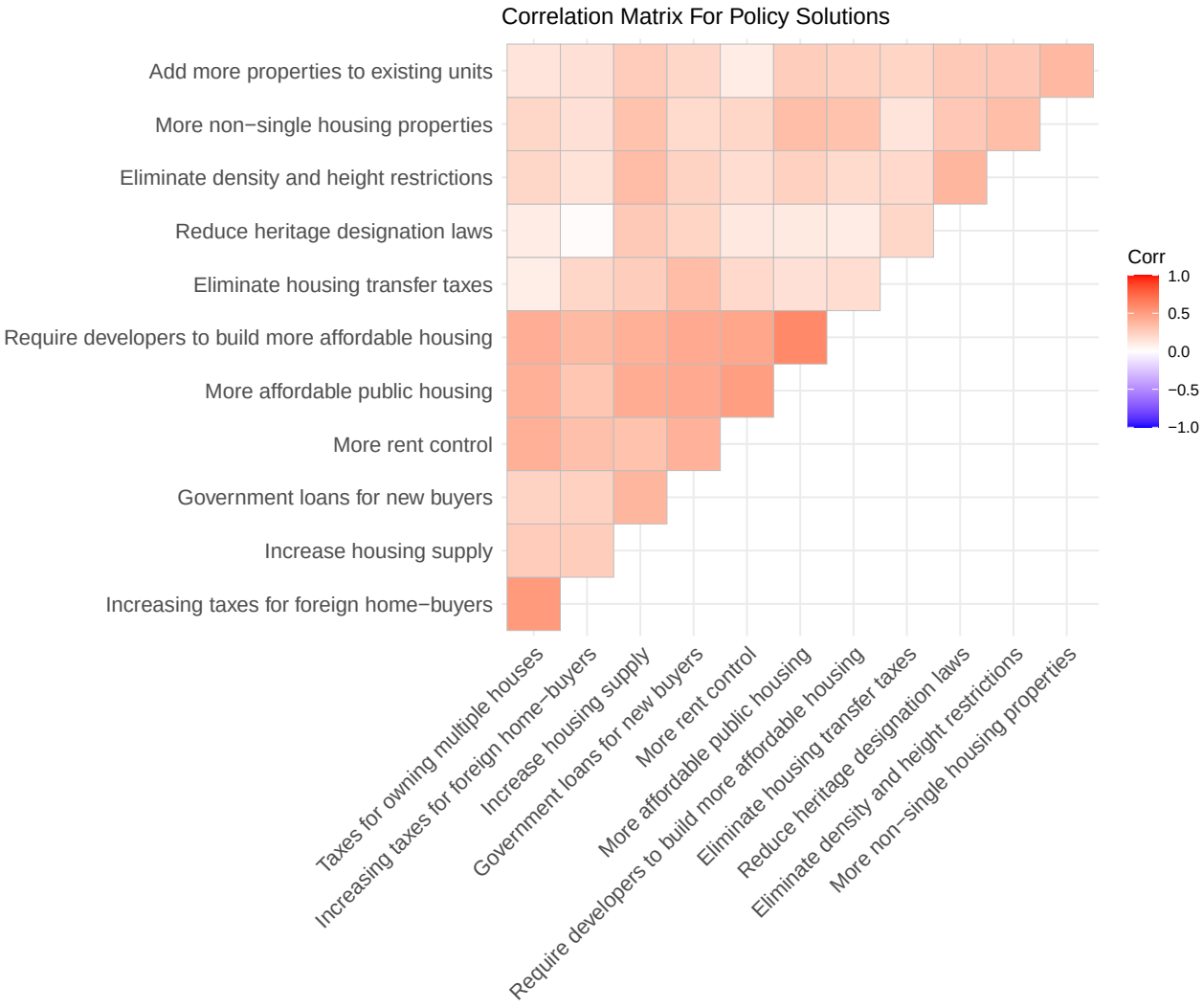
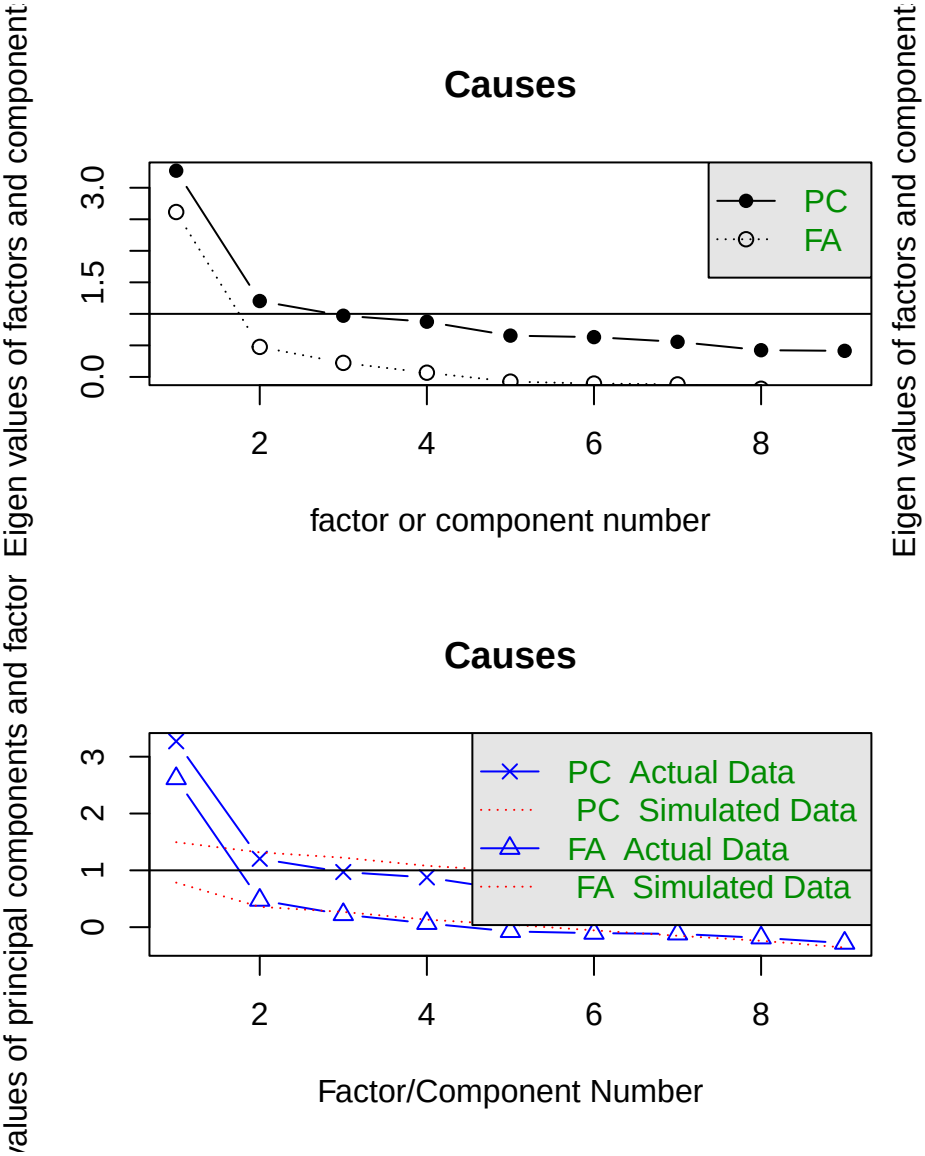
Here are the correlation matrices for the cause items and the solution items.



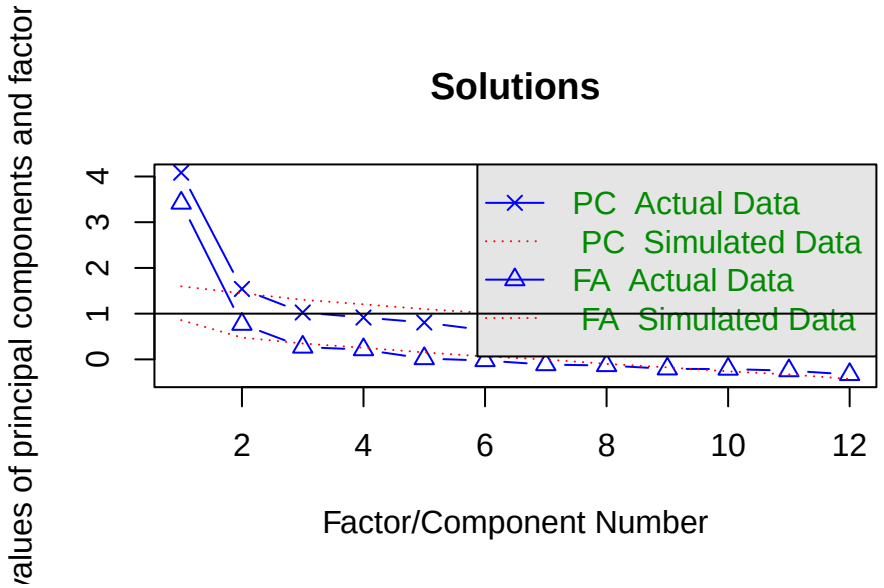


Results of PCA

How many components to extract?




```
## Parallel analysis suggests that the number of factors =  2  and the number of components =  1
```




```
## Parallel analysis suggests that the number of factors =  2  and the number of components =  1
```

% Called in the psych package fa2latex % Called in the psych package fa.sort(cause_pca) % Called in the psych package T % Called in the psych package 0.3 % Called in the psych package PCA of Causes % Called in the psych package Test

Table 1: PCA of Causes

A factor analysis table from the psych package in R

Variable	RC1	RC3	RC2	h^2	u^2	com
Environmental protections	**0.82**			0.71	0.29	1.11
Municipal red tape	**0.81**			0.71	0.29	1.18
NIMBYs	**0.79**			0.70	0.30	1.24
Investor speculation		**0.69**		0.54	0.46	1.28
Urban sprawl		**0.68**		0.54	0.46	1.37
Too many immigrants		**0.61**		0.38	0.62	1.07
Low interest rates	**0.36**	**0.58**		0.48	0.52	1.80
Low public housing investment			**0.83**	0.71	0.29	1.08
Low rent control			**0.79**	0.67	0.33	1.14

	RC1	RC3	RC2
SS loadings	2.16	1.78	1.5
Proportion Var	0.24	0.2	0.17
Cumulative Var	0.24	0.44	0.6
Cum. total Var	0.40	0.72	1.00

Note: Based on the above, we could get away with extracting two components. That would look like this.

% Called in the psych package fa2latex % Called in the psych package fa.sort(support_pca) % Called in the psych package T % Called in the psych package 0.3 % Called in the psych package PCA of Solutions

```
## % Called in the psych package  fa2latex % Called in the psych package  support_pca
## \begin{table}[htpb]\caption{fa2latex}
## \begin{center}
## \begin{scriptsize}
## \begin{tabular} {l r r r r r r }
##  \multicolumn{ 6 }{l}{ A factor analysis table from the psych package in R } \cr
##  \hline Variable  &   RC1  &  RC2  &  RC3  &  $h^2$  &  $u^2$  &  com \cr
##   \hline
## More affordable public housing   &  \bf{ 0.71}  &  0.24  &   0.19  &  0.60  &  0.40  &  1.38 \cr
##  Taxes for owning multiple houses   &  \bf{ 0.76}  &  0.13  &  -0.10  &  0.60  &  0.40  &  1.09 \cr
##  Increasing taxes for foreign home-buyers   &  \bf{ 0.67}  &  0.03  &   0.06  &  0.45  &  0.55  &  1
##  More non-single housing properties   &   0.28  &  \bf{0.70}  &  -0.10  &  0.58  &  0.42  &  1.36 \cr
```

Table 2: PCA of Solutions

A factor analysis table from the psych package in R

Variable	RC1	RC2	RC3	h^2	u^2	com
Taxes for owning multiple houses	**0.76**			0.60	0.40	1.09
Require developers to build more affordable housing	**0.73**			0.61	0.39	1.28
More affordable public housing	**0.71**			0.60	0.40	1.38
More rent control	**0.67**		0.30	0.54	0.46	1.39
Increasing taxes for foreign home-buyers	**0.67**			0.45	0.55	1.02
More non-single housing properties		**0.70**		0.58	0.42	1.36
Eliminate density and height restrictions		**0.69**		0.51	0.49	1.13
Reduce heritage designation laws		**0.67**		0.54	0.46	1.39
Add more properties to existing units		**0.65**		0.45	0.55	1.10
Increase housing supply	**0.40**	**0.44**	**0.34**	0.47	0.53	2.88
Eliminate housing transfer taxes			**0.80**	0.67	0.33	1.07
Government loans for new buyers	**0.40**		**0.68**	0.64	0.36	1.71

	RC1	RC2	RC3
SS loadings	2.95	2.19	1.51
Proportion Var	0.25	0.18	0.13
Cumulative Var	0.25	0.43	0.55
Cum. total Var	0.44	0.77	1.00

```
##  Require developers to build more affordable housing   &  \bf{ 0.73}  &  0.19  &   0.20  &  0.61  &
##  Add more properties to existing units   &   0.12  &  \bf{0.65}  &   0.08  &  0.45  &  0.55  &  1.10
##  Reduce heritage designation laws   &  -0.10  &  \bf{0.67}  &   0.28  &  0.54  &  0.46  &  1.39 \cr
##  Eliminate density and height restrictions   &   0.12  &  \bf{0.69}  &   0.12  &  0.51  &  0.49  &
##  Increase housing supply   &  \bf{ 0.40}  &  \bf{0.44}  &  \bf{ 0.34}  &  0.47  &  0.53  &  2.88 \cr
##  Government loans for new buyers   &  \bf{ 0.40}  &  0.14  &  \bf{ 0.68}  &  0.64  &  0.36  &  1.71
##  Eliminate housing transfer taxes   &   0.04  &  0.15  &  \bf{ 0.80}  &  0.67  &  0.33  &  1.07 \cr
##  More rent control   &  \bf{ 0.67}  &  0.03  &   0.30  &  0.54  &  0.46  &  1.39 \cr
## \hline \cr & RC1  &  RC2  &  RC3  &  \cr
##  SS loadings & 2.95 &  2.19 &  1.51 &  \cr
##  \hline
## \end{tabular}
## \end{scriptsize}
## \end{center}
## \label{default}
## \end{table}
```