

Script para calculo de coeficiente de correlacion

entre tasa de pobreza y porcentaje de votos en EUA.

"The poverty rate (number/1000) varies greatly among the states in the United States. An interesting question to ask is: Is there any correlation between the poverty rate and the strength of the two political parties in the states? I compared different state's poverty rate (PR) data for 1996 with the results of the 1996 presidential election for each state."

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Importacion de datos

Fuente <http://arts.bev.net/roperldavid/politics/poverty.htm>

```
load povertyUSAv2.txt
```

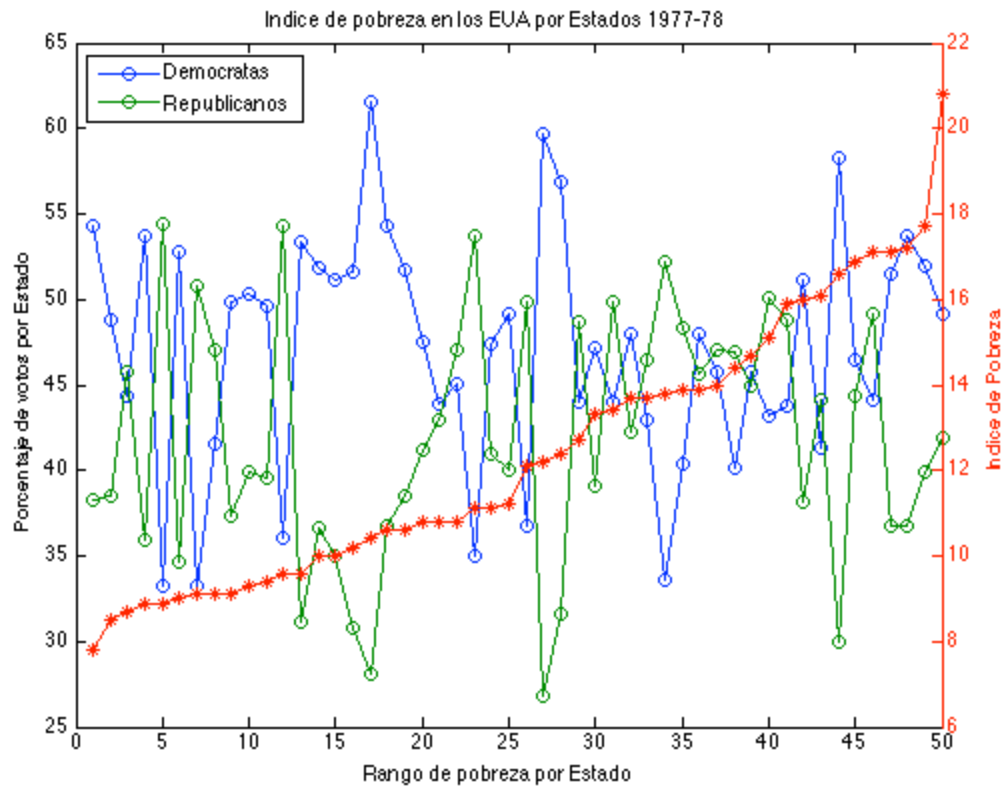
Asignacion de variables

Poverty Rate

```
ipob = povertyUSAv2(:,1);  
% Porcentaje de votos Partido Demócrata  
dem = povertyUSAv2(:,2);  
% Porcentaje de votos Partido Republicano  
rep = povertyUSAv2(:,3);  
% Porcentaje de los dos partidos  
partidos = povertyUSAv2(:,2:3);  
% Rango de pobreza de cada estado de EUA  
rank = povertyUSAv2(:,4);
```

Despliegue grafico de los datos

```
figure(1)  
[AX,H1,H2] = plotyy(rank,partidos,rank,ipob,'plot');  
set(get(AX(1),'Ylabel'),'String','Porcentaje de votos por Estado')  
set(get(AX(2),'Ylabel'),'String','Indice de Pobreza')  
xlabel('Rango de pobreza por Estado')  
title('Indice de pobreza en los EUA por Estados 1977-78')  
set(H1,'Marker','o')  
set(H2,'Marker','*')  
hleg1 = legend('Demócratas','Republicanos');  
set(hleg1,'Location','NorthWest')
```



Calculo del coeficiente de correlacion

```
rRep = corrcoef(ipob,rep)
rDem = corrcoef(ipob,dem)
```

rRep =

1.0000	0.1096
0.1096	1.0000

rDem =

1.0000	0.0090
0.0090	1.0000

Conclusiones:

"That is, the Democratic votes for the states had a 1% positive correlation with increasing PR and the Republican votes had a 11% positive correlation. States with high poverty rate vote more Republican than Democratic and vice versa."