

Background documentation on

**Electoral Victory and Statistical Defeat?
Economics, Politics, and the 2004 Election**

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These notes are intended to provide sufficient background for researchers to reproduce and test the empirical results in the above article, to be published in *The Quarterly Journal of Political Science*. This background documentation gives details on the estimation, gives references to data sources and files, and provides detailed regression results.

Data, programs, and regression files are also provided on the Documentation page.

I. BASIC EQUATIONS

The current version of the Fair equation has the following variables (with definitions from Fair):

- VOTE = Incumbent share of the two-party presidential vote.
- PART Y = 1 if there is a Democratic incumbent at the time of the election and -1 if there is a Republican incumbent.
- PERSON = 1 if the incumbent is running for election and 0 otherwise.
- DURAT ION = 0 if the incumbent party has been in power for one term, 1 if the incumbent party has been in power for two consecutive terms, 1.25 if the incumbent party has been in power for three consecutive terms, 1.50 for four consecutive terms, and so on.
- WAR = 1 for the elections of 1920, 1944, and 1948 and 0 otherwise.
- GROWTH = growth rate of real per capita GDP in the first three quarters of the election year (annual rate).
- INFLAT ION = absolute value of the growth rate of the GDP deflator in the first 15 quarters of the administration (annual rate) except for 1920, 1944, and 1948, where the values are zero.
- GOODNEWS = number of quarters in the first 15 quarters of the administration in which the growth rate of real per capita GDP is greater than 3.2 percent at an annual rate except for 1920, 1944, and 1948, where the values are zero.

The data values used in the regressions for the time series are as follows:

YEAR	Vote (V)	Growth (G)	Inflation (Pi)	GOOD	Goodnews (Good)	Duration (Dur)	Party (Dem)	WAR
1880	50.220	3.879	1.974	9	0	1.750	-1	0
1884	49.846	1.589	1.055	2	0	2.000	-1	0
1888	50.414	-5.553	0.604	3	1	0.000	1	0
1892	48.268	2.763	2.274	7	1	0.000	-1	0
1896	47.760	-10.024	3.410	6	0	0.000	1	0
1900	53.171	-1.425	2.548	7	1	0.000	-1	0
1904	60.006	-2.421	1.442	5	0	1.000	-1	0
1908	54.483	-6.281	1.879	8	0	1.250	-1	0
1912	54.708	4.164	2.172	8	1	1.500	-1	0
1916	51.682	2.229	4.252	3	1	0.000	1	0
1920	36.119	-11.463	0.000	0	0	1.000	1	1
1924	58.244	-3.872	5.161	10	1	0.000	-1	0
1928	58.820	4.623	0.183	7	0	1.000	-1	0
1932	40.841	-14.557	7.160	4	1	1.250	-1	0
1936	62.458	11.677	2.454	9	1	0.000	1	0
1940	54.999	3.611	0.055	8	1	1.000	1	0
1944	53.774	4.433	0.000	0	1	1.250	1	1
1948	52.370	2.858	0.000	0	1	1.500	1	1
1952	44.595	0.840	2.316	6	0	1.750	1	0
1956	57.764	-1.394	1.930	5	1	0.000	-1	0
1960	49.913	0.417	1.963	5	0	1.000	-1	0
1964	61.344	5.109	1.267	10	1	0.000	1	0
1968	49.596	5.070	3.156	7	0	1.000	1	0
1972	61.789	6.125	4.813	4	1	0.000	-1	0
1976	48.948	4.026	7.579	4	0	1.000	-1	0
1980	44.697	-3.594	7.926	5	1	0.000	1	0
1984	59.170	5.568	5.286	8	1	0.000	-1	0
1988	53.902	2.261	3.001	4	0	1.000	-1	0
1992	46.545	2.223	3.333	2	1	1.250	-1	0
1996	54.736	2.712	2.146	4	1	0.000	1	0
2000	50.265	1.603	1.679	7	0	1.000	1	0
2004	51.600	2.900	2.000	2	1	0.000	-1	0

The source for the data for 1916-2000 are from Fair. The balance are from other sources and are not always consistent before 1916 because of the unavailability of quarterly data.

We have replicated Fair's reported results for 1916-2000, which gives the following estimated equation (using EViews 5.0). The results are identical to Fair's. The variable keys here are slightly different from Fairs and are provided in the list above.

Dependent Variable: V
Method: Least Squares
Date: 01/13/06 Time: 13:23
Sample: 10 31
Included observations: 22

Variable	Coefficient	Std. Error	t-Statistic	Prob.
G	0.690918	0.102834	6.718790	0.0000
PI	-0.775116	0.286564	-2.704858	0.0171
GOOD	0.837385	0.268433	3.119527	0.0075
INCUM	3.251009	1.300865	2.499113	0.0255
DUR	-3.627585	1.191417	-3.044766	0.0087
DEM	-2.713041	0.583658	-4.648337	0.0004
WAR	3.854587	2.633451	1.463702	0.1654
C	49.60743	2.744390	18.07594	0.0000
R-squared	0.923076	Mean dependent var	52.38959	
Adjusted R-squared	0.884614	S.D. dependent var	6.968960	
S.E. of regression	2.367251	Akaike info criterion	4.836623	
Sum squared resid	78.45425	Schwarz criterion	5.233366	
Log likelihood	-45.20285	F-statistic	23.99972	
Durbin-Watson stat	2.643660	Prob(F-statistic)	0.000001	

In most of our estimates, we use the 1916-2004 sample period, which yields the following:

Dependent Variable: V

Method: Least Squares

Sample: 10 32 (1916-2000)

Included observations: 23

Variable	Coefficient	Std. Error	t-Statistic	Prob.
G	0.693834	0.113826	6.095578	0.0000
PI	-0.577948	0.299598	-1.929078	0.0729
GOOD	1.075199	0.269227	3.993652	0.0012
INCUM	3.169970	1.439412	2.202267	0.0437
DUR	-2.921378	1.264906	-2.309561	0.0356
DEM	-2.497382	0.635960	-3.926946	0.0013
WAR	5.470270	2.787181	1.962653	0.0685
C	46.95141	2.693805	17.42941	0.0000
R-squared	0.899061	Mean dependent var	52.35526	
Adjusted R-squared	0.851955	S.D. dependent var	6.810723	
S.E. of regression	2.620532	Akaike info criterion	5.032840	
Sum squared resid	103.0078	Schwarz criterion	5.427794	
Log likelihood	-49.87766	F-statistic	19.08627	
Durbin-Watson stat	2.632964	Prob(F-statistic)	0.000002	

The original Fair specification was slightly different. This omits the war, duration, and goodnews variables. For this specification, I have omitted the time trend that Fair sometimes included as that does not reflect any underlying fundamentals. The “original Fair” equation estimated for 1916-2004 is the follows:

Dependent Variable: V

Method: Least Squares

Sample: 10 32 (1916-2004)

Included observations: 23

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	49.30229	1.771827	27.82568	0.0000
G	0.851433	0.160073	5.319036	0.0000
PI	-0.429712	0.398544	-1.078205	0.2952
INCUM	4.858749	1.817584	2.673191	0.0155
DEM	-2.030840	0.917713	-2.212937	0.0401
R-squared	0.707644	Mean dependent var	52.35526	
Adjusted R-squared	0.642676	S.D. dependent var	6.810723	
S.E. of regression	4.071219	Akaike info criterion	5.835422	
Sum squared resid	298.3468	Schwarz criterion	6.082269	
Log likelihood	-62.10735	F-statistic	10.89218	
Durbin-Watson stat	2.141928	Prob(F-statistic)	0.000115	

The results shown in Figure 1 are the following:

YEAR	Actual	Prediction latest Fair	Prediction original Fair
1916	51.682	49.939	52.201
1920	36.119	39.050	37.511
1924	58.244	57.701	50.677
1928	58.820	57.156	55.191
1932	40.841	39.030	40.721
1936	62.458	63.984	61.018
1940	54.999	55.778	55.181
1944	53.774	52.518	55.905
1948	52.370	50.695	54.564
1952	44.595	45.037	46.991
1956	57.764	55.912	54.176
1960	49.913	51.058	50.845
1964	61.344	61.189	55.936
1968	49.596	50.753	50.232
1972	61.789	58.388	59.339
1976	48.948	49.241	51.504
1980	44.697	45.926	45.664
1984	59.170	62.029	58.661
1988	53.902	50.663	51.969
1992	46.545	50.734	56.652
1996	54.736	52.566	53.517
2000	50.265	49.201	47.915
2004	51.600	55.625	57.802

The employment equation estimates the growth in employment over the last 12 months. These data are incomplete because monthly data are only available since World War II. Using the 1948-2000 sample as the basis of an out-of-sample forecast, the forecast error in 2004 is 58.08 using employment versus 57.69 for output growth. The estimated equation is:

Dependent Variable: V

Method: Least Squares

Sample: 18 31 (1948-2000)

Included observations: 14

Variable	Coefficient	Std. Error	t-Statistic	Prob.
EGR12MO	1.888913	0.429463	4.398318	0.0046
PI	-1.134389	0.251324	-4.513644	0.0040
GOOD	0.210992	0.348729	0.605032	0.5673
INCUM	-0.876151	1.692147	-0.517774	0.6231
DUR	-7.243647	1.489099	-4.864449	0.0028
DEM	-1.946703	0.600724	-3.240597	0.0177
WAR	6.143443	3.209138	1.914359	0.1041
C	55.43816	3.348188	16.55766	0.0000
R-squared	0.957624	Mean dependent var		52.54529
Adjusted R-squared	0.908185	S.D. dependent var		5.786121
S.E. of regression	1.753256	Akaike info criterion		4.256385
Sum squared resid	18.44344	Schwarz criterion		4.621561
Log likelihood	-21.79470	F-statistic		19.36978
Durbin-Watson stat	2.000114	Prob(F-statistic)		0.001014

II. ROLLING REGRESSION

The rolling regressions were undertaken using EView 5.0. The program for estimating the rolling regressions is labeled "fair_rekurs_v2.prg," and is listed below. The program requires the EViews file "qjps_101406.wf1." Both programs are available on the author's web site at http://www.econ.yale.edu/~nordhaus/homepage/elec_qjps.htm.

```
'BEGIN PROGRAM
' Program to estimate the forecasts of rolling regressions of Fair model.
' Version 1 is the first out-of-sample forecast
' Version 2 is the last observation forecast
' Version 3 is the from the last equation

' Equation 1 is Ray's latest equation
' Equation 2 is my preferred

' INITIALIZE
wfopen C:\Major\Research\Election\QJPS\fair_011306.wf1
smpl @all
vector(32) vv
stom(v,vv)
!eqnum = 1
group gg1 dem dur g good incum pi war
group gg2 dem g incum pi
group gg3 dem g incum pi ttt

' LOOP FOR EQUATIONS
for %eqnum 1 2 3

' VERSION 1: FIRST OUT OF SAMPLE
vector(32) vforc_oos_{%eqnum}
for !n = 1 to 14
    !date=17+!n
    smpl 1 !date
    ls v c gg{%eqnum}

    smpl !date+1 !date+1
    forecast vfflos_{%eqnum}
    vforc_oos_{%eqnum}(!date+1)=vfflos_{%eqnum}(!date+1)
next
smpl 1 32
mtos(vforc_oos_{%eqnum},forc_oos_{%eqnum})
series fairerror_oos_{%eqnum}=v-forc_oos_{%eqnum}

' VERSION 2: FINAL OBSERVATION IN SAMPLE

vector(32) vforc_lis_{%eqnum}

for !n = 1 to 15
    !date=17+!n
    smpl 1 !date
```



```

ls v c gg{%eqnum}
    smpl !date !date
    forecast vfflis_{%eqnum}
    vforc_lis_{%eqnum}(!date)=vfflis_{%eqnum}(!date)
next
smpl 1 32
mtos(vforc_lis_{%eqnum},forc_lis_{%eqnum})
series fairerror_lis_{%eqnum}=v-forc_lis_{%eqnum}

' NOW FOR THE PLOTS OF VARIOUS
smpl 19 32
'plot v forc_lis_{%eqnum} forc_oos_{%eqnum}
plot fairerror_lis_{%eqnum} fairerror_oos_{%eqnum}

!eqnum=!eqnum+1
Next

' END PROGRAM

```

III. RESULTS FROM THE EXIT POLLS

The exit poll results are from a relatively large data set. The raw data are available in an Excel file on the documentation page.

The equations were estimated using the panel data estimator from EViews 5.0. The file is named "qjps_1011306.wf1," and is available at the above address. Researchers are warned that the use is non-trivial because it requires several hours mastering the EViews panel data procedures. The basic analysis is as follows:

A panel estimate of each equation was made using all available data for the major demographic groups. There are no cross-equation restrictions for equation (1), but for equation (2) the combined effect of fundamentals and party are constrained to have the same coefficient. The equations are estimated with efficient cross-equation weights..

The basic margin data are as follows:

obs	Incumbe nt vote share for TOTR	Incumbe nt vote share for MENR	Incumbe nt vote share for WOME NR	Incumbe nt vote share for WHITE R	Incumbe nt vote share for BLACK R	Incumbe nt vote share for HISPR	Incumbe nt vote share for YR1829R
1972	0.6289	0.6327	0.6224	0.6837	0.1800	0.3571	0.5306
1976	0.4898	0.4898	0.4898	0.5253	0.1616	0.2400	0.4796
1980	0.4457	0.3956	0.4891	0.3913	0.8854	0.6413	0.5057
1984	0.5960	0.6263	0.5600	0.6465	0.0909	0.3737	0.5960
1988	0.5408	0.5816	0.5051	0.5960	0.1224	0.3030	0.5253
1992	0.4691	0.4810	0.4512	0.5063	0.1075	0.2907	0.4416
1996	0.5444	0.4943	0.5870	0.4831	0.8750	0.7742	0.6092
2000	0.5000	0.4421	0.5567	0.4375	0.9184	0.6837	0.5106
2004	0.5152	0.5556	0.4848	0.5859	0.1111	0.4257	0.4545

obs	Incumbe nt vote share for YR3044R	Incumbe nt vote share for YR4559R	Incumbe nt vote share for YR60PL USR	Incumbe nt vote share for PROTR	Incumbe nt vote share for WHPRO TR	Incumbe nt vote share for CATHR	Incumbe nt vote share for JEW R
1972	0.6598	0.6598	0.6869	0.7143	0.7755	0.5510	0.3469
1976	0.5000	0.5253	0.5253	0.5556	0.5859	0.4490	0.3469
1980	0.3956	0.4149	0.4316	0.3723	0.3298	0.4565	0.5357
1984	0.5758	0.6000	0.6061	0.6768	0.7273	0.5455	0.3163
1988	0.5455	0.5758	0.5051	0.6162	0.6667	0.5253	0.3535
1992	0.4810	0.4938	0.4318	0.5556	0.5875	0.4430	0.1209
1996	0.5393	0.5393	0.5217	0.4505	0.4045	0.5889	0.8298
2000	0.4948	0.4948	0.5204	0.4082	0.3505	0.5104	0.8061
2004	0.5354	0.5152	0.5400	0.5960	0.6768	0.5253	0.2525

obs	Incumbe nt vote share for UNION R	Incumbe nt vote share for WHITE MENR	Incumbe nt vote share for WHITE WOMR	Incumbe nt vote share for BLACK MENR	Incumbe nt vote share for BLACK WOMR	Incumbe nt vote share for EASTR	Incumbe nt vote share for MIDWE STR
1972	0.5155	0.6804	0.6869	0.2300	0.1400	0.6020	0.6020
1976	0.3980	0.5204	0.5306	0.1919	0.1400	0.4796	0.5102
1980	0.5269	0.3516	0.4286	0.8542	0.9072	0.4719	0.4457

	1984	0.4646	0.6768	0.6200	0.1237	0.0700	0.5300	0.5859
	1988	0.4242	0.6364	0.5657	0.1563	0.0909	0.5051	0.5253
	1992	0.3038	0.5195	0.5000	0.1429	0.0842	0.4268	0.4684
	1996	0.6629	0.4368	0.5275	0.8387	0.9175	0.6180	0.5393
	2000	0.6146	0.3750	0.4948	0.8763	0.9400	0.5895	0.4948
	2004	0.4040	0.6162	0.5556	0.1313	0.1000	0.4343	0.5152
obs		Incumbe nt vote share for SOUTH R	Incumbe nt vote share for WESTR	Incumbe nt vote share for WHITEE ASTR	Incumbe nt vote share for BLACK EASTR	Incumbe nt vote share for WHITE MIDR	Incumbe nt vote share for BLACK MIDR	Incumbe nt vote share for WHITES OUR
	1972	0.7071	0.5876	0.6566	0.1616	0.6701	0.1100	0.7677
	1976	0.4545	0.5258	0.5051	0.1717	0.5306	0.0909	0.5253
	1980	0.4583	0.3908	0.4222	0.8763	0.4022	0.8854	0.3646
	1984	0.6400	0.6162	0.5758	0.0707	0.6465	0.0612	0.7172
	1988	0.5393	0.5306	0.5455	0.1237	0.5758	0.0808	0.6768
	1992	0.5119	0.4416	0.4500	0.1429	0.4937	0.0833	0.5904
	1996	0.5000	0.5455	0.5795	0.8763	0.5114	0.8316	0.3913
	2000	0.4388	0.5106	0.5417	0.8990	0.4536	0.9082	0.3196
	2004	0.5800	0.4949	0.4949	0.1313	0.5657	0.1100	0.7071
obs		Incumbe nt vote share for BLACKS OUR	Incumbe nt vote share for WHITE WESTR	Incumbent vote share for BLACKWESTR				
	1972	0.2525	0.6250	0.2323				
	1976	0.1818	0.5510	0.1616				
	1980	0.9082	0.3678	0.7204				
	1984	0.1010	0.6667	0.2222				
	1988	0.1224	0.5859	0.1354				
	1992	0.1170	0.4868	0.0562				
	1996	0.8969	0.4943	0.8462				
	2000	0.9293	0.4574	0.8866				
	2004	0.1111	0.5455	0.0909				

The demographic groups are the following:

TOTR	= residual for total
MENR	= residual for men
WOMENR	= residual for women
WHITER	= residual for whites
BLACKR	= residual for blacks

HISPR	= residual for Hispanics
YR1829R	= residual for age 18 to 29 years
YR3044R	= residual for age 30 to 44 years
YR4559R	= residual for age 45 to 59 years
YR60PLUSR	= residual for 60 years and older
PROTR	= residual for Protestants
WHPROTR	= residual for white Protestants
CATHR	= residual for Catholics
JEWR	= residual for Jewish
UNIONR	= residual for union
WHITEMENR	= residual for white men
WHITEWOMR	= residual for white women
BLACKMENR	= residual for black men
BLACKWOMR	= residual for black women
EASTR	= residual for in the East
MIDWESTR	= residual for in the Midwest
SOUTHR	= residual for in the South
WESTR	= residual for in the West
WHITEEASTR	= residual for whites in the East
BLACKEASTR	= residual for blacks in the East
WHITEMIDR	= residual for whites in the Midwest
BLACKMIDR	= residual for blacks in the Midwest
WHITESOUR	= residual for whites in the South
BLACKSOUR	= residual for blacks in the South
WHITEWESTR	= residual for whites in the West
BLACKWESTR	= residual for blacks in the West

For Equation (1), we estimated a panel equation with the following results. The dependent variables are the incumbent margins for different demographic groups for 1972-2004.

Dependent Variable: (?INC)

Method: Pooled EGLS (Cross-section weights)

Sample: 24 32 (1972-2004)

Included observations: 9

Cross-sections included: 31

Total pool (balanced) observations: 279

Linear estimation after one-step weighting matrix

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.063414	0.056937	1.113768	0.2668
VF_BASE_100*DEM	0.063741	0.093130	0.684429	0.4946
TOTR--DEM	-0.017841	0.053879	-0.331136	0.7409
MENR--DEM	-0.054041	0.054549	-0.990678	0.3231
WOMENR--DEM	0.014191	0.054407	0.260838	0.7945
WHITER--DEM	-0.070244	0.054712	-1.283886	0.2008
BLACKR--DEM	0.342255	0.050981	6.713425	0.0000
HISPR--DEM	0.205240	0.051995	3.947301	0.0001
YR1829R--DEM	0.011982	0.055163	0.217217	0.8283
YR3044R--DEM	-0.025799	0.054786	-0.470906	0.6383
YR4559R--DEM	-0.038684	0.055555	-0.696331	0.4871
YR60PLUSR--DEM	-0.019511	0.060353	-0.323276	0.7469
PROTR--DEM	-0.099179	0.053742	-1.845459	0.0666
WHPROTR--DEM	-0.142475	0.055146	-2.583595	0.0105
CATHR--DEM	0.009901	0.052027	0.190295	0.8493
JEWR--DEM	0.206762	0.077622	2.663696	0.0084
UNIONR--DEM	0.094104	0.057980	1.623047	0.1063
WHITEMENR--DEM	-0.104242	0.055898	-1.864867	0.0638
WHITEWOMR--DEM	-0.040451	0.054881	-0.737069	0.4620
BLACKMENR--DEM	0.308350	0.051947	5.935860	0.0000
BLACKWOMR--DEM	0.372413	0.050067	7.438300	0.0000
EASTR--DEM	0.031328	0.057894	0.541128	0.5891
MIDWESTR--DEM	-0.023082	0.052188	-0.442273	0.6588
SOUTHR--DEM	-0.029690	0.056787	-0.522832	0.6017
WESTR--DEM	-0.024578	0.057489	-0.427525	0.6695

WHITEEASTR--DEM	-0.004461	0.058744	-0.075936	0.9396
BLACKEASTR--DEM	0.333528	0.050608	6.590380	0.0000
WHITEMIDR--DEM	-0.054427	0.054699	-0.995026	0.3210
BLACKMIDR--DEM	0.351909	0.050433	6.977770	0.0000
WHITESOUR--DEM	-0.137541	0.058943	-2.333452	0.0207
BLACKSOUR--DEM	0.349609	0.055631	6.284393	0.0000
WHITEWESTR--DEM	-0.069578	0.056374	-1.234234	0.2187
BLACKWESTR--DEM	0.327277	0.061348	5.334732	0.0000
TOTR--VF_BASE_100	1.071411	0.506166	2.116716	0.0356
MENR--VF_BASE_100	1.092996	0.535857	2.039716	0.0428
WOMENR--VF_BASE_100	1.005500	0.529667	1.898364	0.0592
WHITER--VF_BASE_100	1.146821	0.542872	2.112505	0.0360
BLACKR--VF_BASE_100	-0.180647	0.356030	-0.507394	0.6125
HISPR--VF_BASE_100	1.572632	0.413820	3.800278	0.0002
YR1829R--VF_BASE_100	0.771618	0.561971	1.373058	0.1714
YR3044R--VF_BASE_100	1.270301	0.546063	2.326292	0.0211
YR4559R--VF_BASE_100	0.980798	0.578181	1.696351	0.0915
YR60PLUSR--VF_BASE_100	1.234744	0.755772	1.633751	0.1040
PROTR--VF_BASE_100	1.111790	0.499916	2.223955	0.0274
WHPROTR--VF_BASE_100	1.298795	0.561273	2.314017	0.0218
CATHR--VF_BASE_100	1.073333	0.415535	2.583014	0.0106
JEWR--VF_BASE_100	0.662738	1.259365	0.526248	0.5993
UNIONR--VF_BASE_100	1.035580	0.671990	1.541065	0.1250
WHITEMENR--VF_BASE_100	1.134902	0.592093	1.916764	0.0568
WHITEWOMR--VF_BASE_100	1.133916	0.550083	2.061354	0.0407
BLACKMENR--VF_BASE_100	-0.144849	0.411240	-0.352225	0.7251
BLACKWOMR--VF_BASE_100	-0.080742	0.295689	-0.273063	0.7851
EASTR--VF_BASE_100	0.950241	0.668815	1.420782	0.1571
MIDWESTR--VF_BASE_100	0.891505	0.424058	2.102317	0.0369
SOUTHR--VF_BASE_100	1.638839	0.627121	2.613275	0.0097
WESTR--VF_BASE_100	0.981461	0.653783	1.501204	0.1350
WHITEEASTR--VF_BASE_100	1.172206	0.699678	1.675352	0.0956
BLACKEASTR--VF_BASE_100	-0.233191	0.332631	-0.701049	0.4842
WHITEMIDR--VF_BASE_100	1.189720	0.542315	2.193783	0.0295
BLACKMIDR--VF_BASE_100	-0.214811	0.321081	-0.669024	0.5043
WHITESOUR--VF_BASE_100	1.400892	0.706775	1.982090	0.0489
BLACKSOUR--VF_BASE_100	0.033416	0.581311	0.057484	0.9542
WHITEWESTR--VF_BASE_100	0.931134	0.611015	1.523913	0.1292

BLACKWESTR--VF_BASE_100	0.769547	0.789153	0.975156	0.3308
Fixed Effects (Cross)				
TOTR--C	-0.105461			
MENR--C	-0.132546			
WOMENR--C	-0.057610			
WHITER--C	-0.149434			
BLACKR--C	0.544585			
HISPR--C	-0.371269			
YR1829R--C	0.056843			
YR3044R--C	-0.215157			
YR4559R--C	-0.053889			
YR60PLUSR--C	-0.189344			
PROTR--C	-0.130289			
WHPROTR--C	-0.227419			
CATHR--C	-0.112246			
JEWR--C	0.097482			
UNIONR--C	-0.095072			
WHITEMENR--C	-0.159092			
WHITEWOMR--C	-0.126566			
BLACKMENR--C	0.524404			
BLACKWOMR--C	0.494075			
EASTR--C	-0.032119			
MIDWESTR--C	-0.015443			
SOUTHR--C	-0.402834			
WESTR--C	-0.069020			
WHITEEASTR--C	-0.150497			
BLACKEASTR--C	0.570009			
WHITEMIDR--C	-0.167852			
BLACKMIDR--C	0.533816			
WHITESOUR--C	-0.285514			
BLACKSOUR--C	0.450806			
WHITEWESTR--C	-0.041810			
BLACKWESTR--C	0.018464			
Effects Specification				
Cross-section fixed (dummy variables)				

Weighted Statistics

R-squared	0.977917	Mean dependent var	0.548964
Adjusted R-squared	0.966816	S.D. dependent var	0.310329
S.E. of regression	0.056531	Sum squared resid	0.591221
F-statistic	88.09104	Durbin-Watson stat	2.203930
Prob(F-statistic)	0.000000		

Unweighted Statistics

R-squared	0.948135	Mean dependent var	0.490796
Sum squared resid	0.594833	Durbin-Watson stat	2.418916

The residuals from equation (1) are listed in the next table.

obs	Residual for TOTR	Residual for MENR	Residual for WOMENR	Residual for WHITER	Residual for BLACKR	Residual for HISPR	Residual for YR1829R
1972	0.0889	0.0715	0.1035	0.0931	0.0511	0.0254	0.0260
1976	-0.0502	-0.0714	-0.0291	-0.0653	0.0327	-0.0917	-0.0250
1980	-0.0510	-0.0484	-0.0552	-0.0460	-0.0075	-0.0584	-0.0361
1984	0.0560	0.0651	0.0411	0.0559	-0.0380	0.0420	0.0914
1988	0.0008	0.0204	-0.0138	0.0054	-0.0065	-0.0287	0.0207
1992	-0.0709	-0.0802	-0.0677	-0.0843	-0.0214	-0.0410	-0.0630
1996	0.0477	0.0503	0.0427	0.0458	-0.0179	0.0745	0.0674
2000	0.0033	-0.0019	0.0124	0.0002	0.0255	-0.0160	-0.0312
2004	-0.0248	-0.0056	-0.0341	-0.0047	-0.0178	0.0940	-0.0501

obs	Residual for YR3044R	Residual for YR4559R	Residual for YR60PLUS R	Residual for PROTR	Residual for WHPROTR	Residual for CATHR	Residual for JEW R
1972	0.1102	0.0981	0.1377	0.0952	0.1056	0.0445	0.0574
1976	-0.0496	-0.0364	-0.0239	-0.0635	-0.0841	-0.0575	0.0574
1980	-0.0810	-0.0681	-0.0596	-0.0380	-0.0318	-0.0621	-0.1882
1984	0.0262	0.0383	0.0569	0.0577	0.0574	0.0390	0.0268
1988	-0.0041	0.0141	-0.0441	-0.0029	-0.0033	0.0188	0.0640
1992	-0.0686	-0.0679	-0.1174	-0.0635	-0.0825	-0.0635	-0.1686
1996	0.0627	0.0563	0.0305	0.0402	0.0429	0.0703	0.1059
2000	0.0182	0.0118	0.0292	-0.0021	-0.0111	-0.0082	0.0822

2004	-0.0142	-0.0465	-0.0092	-0.0231	0.0068	0.0188	-0.0370
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obs	Residual for UNIONR	Residual for WHITEMR	Residual for WHITEWO MR	Residual for BLACKMR	Residual for BLACKWO MR	Residual for EASTR	Residual for MIDWEST R
1972	0.0971	0.0721	0.1104	0.0673	0.0358	0.1057	0.0675
1976	-0.0204	-0.0879	-0.0459	0.0292	0.0358	-0.0167	-0.0243
1980	-0.0746	-0.0362	-0.0550	-0.0022	-0.0144	-0.0879	-0.0476
1984	0.0462	0.0685	0.0435	-0.0390	-0.0342	0.0337	0.0514
1988	0.0058	0.0281	-0.0108	-0.0064	-0.0133	0.0088	-0.0092
1992	-0.1146	-0.0888	-0.0765	-0.0198	-0.0200	-0.0695	-0.0661
1996	0.0614	0.0490	0.0439	-0.0177	-0.0041	0.0582	0.0460
2000	0.0131	-0.0128	0.0112	0.0199	0.0184	0.0297	0.0015
2004	-0.0144	0.0079	-0.0209	-0.0314	-0.0042	-0.0620	-0.0193

obs	Residual for SOUTHR	Residual for WESTR	Residual for WHITEEA STR	Residual for BLACKEA STR	Residual for WHITEMI DR	Residual for BLACKMI DR	Residual for WHITESO UR
1972	0.1350	0.0548	0.1186	0.0279	0.0897	0.0206	0.1036
1976	-0.1176	-0.0070	-0.0329	0.0380	-0.0498	0.0015	-0.1388
1980	-0.0074	-0.0915	-0.0923	-0.0076	-0.0535	0.0103	0.0061
1984	0.0679	0.0834	0.0378	-0.0630	0.0661	-0.0282	0.0531
1988	-0.0328	-0.0022	0.0075	-0.0100	-0.0046	-0.0086	0.0127
1992	-0.0602	-0.0912	-0.0880	0.0092	-0.0867	-0.0061	-0.0737
1996	0.0343	0.0632	0.0650	-0.0076	0.0557	-0.0435	0.0328
2000	-0.0269	0.0283	0.0272	0.0151	-0.0021	0.0331	-0.0389
2004	0.0079	-0.0379	-0.0431	-0.0024	-0.0147	0.0206	0.0430

obs	Residual for BLACKSO UR	Residual for WHITEWE STR	Residual for BLACKWESTR
1972	0.1049	0.0482	0.0825
1976	0.0342	-0.0258	0.0118
1980	-0.0033	-0.0720	-0.0973
1984	-0.0466	0.0899	0.0724
1988	-0.0252	0.0091	-0.0144
1992	-0.0306	-0.0900	-0.0936
1996	-0.0146	0.0545	0.0285
2000	0.0178	0.0176	0.0689

2004 -0.0365 -0.0313 -0.0589

We also show the coefficients on the fundamentals for the different demographic groups from equation (2). The coefficients are 1 if the group has a sensitivity to fundamentals equal to that of all voters for the 1916-2004 period.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
TOTR--VF_BASE_100	1.071411	0.506166	2.116716	0.0356
MENR--VF_BASE_100	1.092996	0.535857	2.039716	0.0428
WOMENR--VF_BASE_100	1.005500	0.529667	1.898364	0.0592
WHITER--VF_BASE_100	1.146821	0.542872	2.112505	0.0360
BLACKR--VF_BASE_100	-0.180647	0.356030	-0.507394	0.6125
HISPR--VF_BASE_100	1.572632	0.413820	3.800278	0.0002
YR1829R--VF_BASE_100	0.771618	0.561971	1.373058	0.1714
YR3044R--VF_BASE_100	1.270301	0.546063	2.326292	0.0211
YR4559R--VF_BASE_100	0.980798	0.578181	1.696351	0.0915
YR60PLUSR--VF_BASE_100	1.234744	0.755772	1.633751	0.1040
PROTR--VF_BASE_100	1.111790	0.499916	2.223955	0.0274
WHPROTR--VF_BASE_100	1.298795	0.561273	2.314017	0.0218
CATHR--VF_BASE_100	1.073333	0.415535	2.583014	0.0106
JEWR--VF_BASE_100	0.662738	1.259365	0.526248	0.5993
UNIONR--VF_BASE_100	1.035580	0.671990	1.541065	0.1250
WHITEMENR--VF_BASE_100	1.134902	0.592093	1.916764	0.0568
WHITEWOMR--VF_BASE_100	1.133916	0.550083	2.061354	0.0407
BLACKMENR--VF_BASE_100	-0.144849	0.411240	-0.352225	0.7251
BLACKWOMR--VF_BASE_100	-0.080742	0.295689	-0.273063	0.7851
EASTR--VF_BASE_100	0.950241	0.668815	1.420782	0.1571
MIDWESTR--VF_BASE_100	0.891505	0.424058	2.102317	0.0369
SOUTHR--VF_BASE_100	1.638839	0.627121	2.613275	0.0097
WESTR--VF_BASE_100	0.981461	0.653783	1.501204	0.1350
WHITEEASTR--VF_BASE_100	1.172206	0.699678	1.675352	0.0956
BLACKEASTR--VF_BASE_100	-0.233191	0.332631	-0.701049	0.4842
WHITEMIDR--VF_BASE_100	1.189720	0.542315	2.193783	0.0295
BLACKMIDR--VF_BASE_100	-0.214811	0.321081	-0.669024	0.5043
WHITESOUR--VF_BASE_100	1.400892	0.706775	1.982090	0.0489
BLACKSOUR--VF_BASE_100	0.033416	0.581311	0.057484	0.9542

WHITEWESTR--VF_BASE_100	0.931134	0.611015	1.523913	0.1292
BLACKWESTR--VF_BASE_100	0.769547	0.789153	0.975156	0.3308