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From Knowledge to Wisdom

# Journal of US-China Public Administration

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# **Journal of US-China Public Administration**

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# Fiscal Policy, Economic Performance, and Vote-Getting Efficiency: A DEA Ranking of Presidents, 1880-2008\*

William B. Tankersley, Alfred G. Cuzán  
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Extending a previous study, the authors use DEA methodology to estimate and rank the relative efficiency of presidents at converting fiscal, economic, and political variables at the end-of-term election into votes for themselves or their party's candidate. Thirty-two administrations spanning the period of 1880-2008 are compared. The analysis yields several efficient presidents from each party. Future presidents or their advisors would do well to study these examples for clues on how to extract the most votes out of comparable situations.

*Keywords:* presidential elections, fiscal model, data envelopment analysis, relative efficiency

The objective in this paper is to apply Data Envelopment Analysis (DEA) to estimate and rank the relative efficiency of more than 30 presidential incumbents at converting fiscal, economic, and political variables into votes for their party's candidate at the end-of-term election.<sup>1</sup> In the only other application of DEA to presidential elections the authors knew of, Berry and Chen (1999) ranked the efficiency of 30 incumbent party reelection campaigns between 1948 and 1996. They did so by comparing two election-year "inputs", presidential popularity and the growth in employment during the 12 months ending on June 30 of the election year, to their "output", the percent of the popular vote garnered by the party occupying the White House. In this paper, the authors take the percent of the two-party vote as the "output". This is the usual dependent variable in presidential elections forecasting (Jones, 2002, 2008). For the "inputs", the authors turn to the "fiscal model" of presidential elections. Estimated over more than 30 elections since 1880, this model has performed well in ex ante forecasting (Cuzán & Bundrick, 2005, 2008, 2009).

The paper proceeds as follows. First, the authors briefly review the "fiscal model" of presidential elections. Then, the authors discuss DEA and provide a justification for choosing inputs and outputs that are somewhat different from those used by Berry and Chen. Next, the authors apply a standard DEA calculus to the results obtained with the "fiscal model" in order to rank presidents on relative efficiency in vote-getting. As well as identifying the efficient presidents, the authors also show who among them serve as reference points for their inefficient counterparts. Then the authors compare the set of efficient presidents with those of Berry and Chen,

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<sup>1</sup> For earlier efforts, see Tankersley and Cuzán (2004, 2009).

showing that, differences in output and inputs notwithstanding, there is considerable agreement between the two rankings. In other words, the overlapping efficient set is “robust”. All data are displayed in the Appendix (see Table A1).

### The “Fiscal Model”: A Brief Summary

The “fiscal model” of presidential elections rests on the supposition that given the incumbents’ party and the number of consecutive terms that they have occupied the White House, their performance at the polls depends on the health of the economy and their spending policy. *Ceteris paribus*, the percent of the two-party vote going to the incumbents rises with a growing economy but falls when fiscal policy is expansive, the longer they have resided at 1600 Pennsylvania Avenue, and if they are Democrats (Cuzán & Bundrick, 2008). Table 1 displays definitions and measurement for all variables.

Table 1

#### *Variable Definitions and Measurement*

Variables	Definition and measurement
Vote2	Percent of the two-party vote won by the incumbent party candidate (Fair, 2006). Be it noted that in 1912 Fair combined the votes of Taft and Theodore Roosevelt, and in 1924 he assigned 23.5 percent of the Lafayette vote to President Coolidge and the rest to the Democratic candidate.
Growth	The “growth rate of real per capita GDP in the first three quarters of the election year (annual rate)” (Fair, 2006).
Allnews	This variable is adapted from Fair’s GOODNEWS, the “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” (Fair, 2006). Fair zeroed out the values of a variable he called GOODNEWS in 1920, 1944, and 1948, but in the “fiscal model” the actual values are entered in the model, hence the change of name in the variable (Cuzán & Bundrick, 2008).
Fprime	Fprime is expansive (Fprime = 1) if F1, the change in the ratio of federal outlays to gross domestic product between presidential election years, (F) is positive; Fprime is contractionary (Fprime = -1) if F1 is negative (Cuzán & Bundrick, 2008).
Duration	“Duration = 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” (Fair, 2006).
Party	Party = 1 if the Democrats occupy the White House, and Party = -1 if the Republicans are the incumbents.

In Table 2, the “fiscal model” is estimated over two time periods. The model accounts for almost three fourths of the variation in the vote over the last 33 elections, the “long period”, and over 90 percent over those since 1916, the “short period” (The latter is the same that Fair [2008] used for *ex ante* forecasting with his presidential equation, from which the economic variables included in the “fiscal model” are borrowed or adapted). The out-of-sample mean absolute error is 2.44 percent in the long period and 1.85 in the short one. Around 90 percent of all elections are correctly predicted in both time periods. This performance of the model over the short period is comparable to that of models that include at least one public opinion variable, either presidential approval rating (Abramowitz, 2008) or a trial heat of the major party candidates (Campbell, 2008).

In the next section, grounding the work in Berry and Chen’s (1999) assertion that DEA is an appropriate method for calculating relative efficiencies in presidential vote-getting, the authors offer a brief discussion of a very important issue related to the application of DEA. That is the choice of inputs and outputs to be used in the model. The authors conclude that the “fiscal model” estimated over the longer period so as to encompass as many presidents as possible provides appropriate inputs for the output in this application of DEA to presidential

vote-getting. Again, the objective is to assess and rank all presidencies but one<sup>2</sup> in terms of their relative efficiency at converting the conditions specified in the “fiscal model” into votes for themselves or their party’s candidate at the end-of-term election.

Table 2

*“Fiscal Model”, 1880-2008 and 1916-2008 (T-Values in Parentheses; Out-of-Sample Predictions)*

Variable	Time period	
	1880-2008 (N = 33)	1916-2008 (N = 24)
Fprime	-2.65 (-4.80)	-2.17 (-5.20)
Growth	0.53 (5.04)	0.68 (8.49)
Allnews	0.76 (3.62)	0.94 (6.04)
Duration	-4.13 (-4.88)	-4.21 (-5.92)
Party	-1.54 (-2.70)	-2.08 (-4.74)
Intercept	49.98 (34.30)	48.71 (44.82)
SEE	3.10	1.98
Adj. r <sup>2</sup>	0.74	0.92
D.W.	1.74	1.63
Mae	2.44	1.85
Elections missed	1892, 1976	1948, 1968, 1976
Hit rate	94%	88%

### Data Envelopment Analysis (DEA)

Data Envelopment Analysis (DEA) has grown in popularity in recent years as a methodology for measuring relative efficiency since the revival of earlier notions developed by Farrell (1957) and expanded by Charnes, Cooper and Rhodes (1978a). Presently, it is the method of choice employed in many social science applications for purposes of comparing relative efficiencies of operations (Reisman, 2003). For that purpose, DEA is favored over regression analysis and ratio analysis. Regression analysis estimates average efficiencies while DEA produces results using optimal performances as the benchmark; ratio analysis requires consideration of a complex multiplicity of individual ratios while DEA has the ability to produce one comprehensive measure based on multiple inputs and outputs (Tankersley, 2000). Berry and Chen (1999) adapted this methodology to presidential vote-getting efficiencies. Their appendix included an excellent explanation of the methodology. Hence, the discussion that follows is brief.

Utilizing a linear combination of inputs and/or outputs from actual historical operations of similar units called Decision Making Units (DMUs), DEA generates an ideal type, perfectly efficient, target model for generating the outputs that the organizations under study produce. Actual DMUs that match the ideal one in performance are deemed “perfectly efficient”, and all others are considered inefficient to a greater or lesser degree. Various combinations of the efficient units become the “efficient reference set” for their inefficient peers (Sexton, 1986; W. B. Tankersley & J. E. Tankersley, 1996). Thus, not only does DEA produce a measure of relative efficiency for the DMUs under investigation, the DEA analysis “leads naturally to highly specific

<sup>2</sup> The exception is William Taft’s presidency. That year the Republican Party split. Taft’s predecessor, Theodore Roosevelt, ran as a candidate of the Bull Moose Party. He placed second, behind the Democratic standard bearer, Woodrow Wilson. Fair adds Roosevelt’s share to Taft’s. In estimating the “fiscal model” over the long period, the authors follow Fair. But for the rest of the analysis the authors exclude this unique case.

managerial strategies for improving the efficiency of an inefficient DMU by indicating which inputs are being over-utilized, which outputs are being under-produced, and in each case by how much” (Sexton, 1986, p. 12).

In the application of DEA to presidential elections, the principal issue revolves around the choice of inputs for the analysis. In the most general sense, the choice of both inputs and outputs can be thought of as needing to meet a minimalist requirement. That is, the inputs and outputs chosen may not be the only important inputs and outputs in the transformation process, but they must, at the very least, be important.<sup>3</sup>

In most presidential election models, the percent of the major party (or “two-party”) vote going to the candidate of the incumbents, the party occupying the White House, serves as the dependent variable (Jones, 2008). So in this paper, the choice of output is an easy one. There is no consensus, however, on the set of “independent” or “predictor” variables on the right-hand side of the equation in presidential election models. Almost always, though, at least one measure of how well the economy has performed during the presidential term is included (although the growth in employment, the variable chosen by Berry and Chen [1999], is not normally one of them). Beyond that, agreement breaks down (Jones, 2008). As noted earlier, the inputs chosen for this application were taken from the “fiscal model” of presidential elections. Not only has this model performed well in ex ante presidential forecasting (Campbell, 2005; Jones, 2008), its principal attraction for the purposes lies in the fact that it can be estimated over a very long period, 1880-2008. This allows us to estimate the relative vote-getting efficiency of more than 30 presidents.

### **Evaluating Vote-Getting Efficiency**

Presidents have to persuade voters to grant them or their party another term in the White House. As well as courting the general public, they massage their “base”, appear at party fundraisers, cater to interest groups and the press, and keep the party machine well-oiled by soliciting contributions. In modern times, they and their advisers or consultants closely monitor approval ratings, survey voters, and study the responses of focus groups. In a sense, then, the incumbents are always more or less campaigning in all respects but in name. The “permanent campaign” was not invented by President Clinton.

A campaign is constrained by the political/economic environment. An efficient campaign is one that squeezes the most votes out of the inputs available to it. As noted previously, Berry and Chen picked the incumbent share of the total vote as the output of the campaign; for inputs, they selected “the incumbent president’s July approval rating” and “the state of the economy in July as indicated by the growth rate of employment in the preceding 12 months (July 1 of the preceding year to June 30 of the election year)” (Berry & Chen, 1999, p. 382). Of the 13 presidencies Berry and Chen studied, 6 proved to be relatively efficient at translating the July conditions into November votes: 1948 FDR/Truman, 1952 Truman II, 1964 Kennedy/Johnson, 1972 Nixon I, 1980 Carter, and 1984 Reagan I.<sup>4</sup> These administrations, located at the DEA “efficiency frontier”, serve as “reference” points for the others. By contrast, 7 administrations did not perform optimally: 1956 Eisenhower I, 1960 Eisenhower II, 1968 Johnson II, 1976 Nixon/Ford, 1988 Reagan II, 1992

<sup>3</sup> For very helpful theoretical discussions of the relevant factors involved in choice of inputs and outputs for DEA, see Adolphson, Cornia and Walters (1989), Charnes, Cooper and Rhodes (1981), Golany and Roll (1989), Lewin et al. (1981), and Sexton, Silkman and Hogan (1986).

<sup>4</sup> In Cuzán and Bundrick (2000), administrations were identified by the name of the president (or both if the vice-president succeeded to the office after the death or resignation of his predecessor), by order of terms (e.g., FDR I, FDR II, etc.), and year the end-of-term election was held. The authors follow that system here. Be it noted, though, that this is different from Berry and Chen’s. In their model, the focus is on the incumbent party candidate, who may or may not be the president.



GHW Bush, and 1996 Clinton I. These cases are located “behind the [DEA] frontier” (Berry & Chen, 1999, p. 384). What this means is a greater vote output could have been obtained had the incumbents been as efficient as others who are at persuading the electorate that they deserved another term in the White House, again given the July conditions. Thus, “The [DEA] frontier identifies those campaigns that were most effective in converting the July baseline into their popular vote shares in November, those that were less effective and by how much” (Berry & Chen, 1999, p. 385).

Note that being located on the efficiency frontier and winning the election are not synonymous. Incumbents may wage a relatively efficient effort to persuade the electorate to vote for them, yet still lose at the polls, and vice-versa. In fact, Berry and Chen found no relation between efficiency and victory (1999, p. 383). As seen here, however, the authors do.

The DEA efficiency scores calculated with the fiscal model are shown in Table 3.

All administrations with a DEA score of 1.0 (after rounding off to two decimal points) are considered efficient at vote-getting; all those below 1.0 are rated as relatively inefficient.<sup>5</sup> The efficient Republican administrations are those whose terms expired in 1884 (Garfield/Arthur), 1904 (McK/TDR), 1908 (T.D. Roosevelt II), 1924 (Harding/CC), 1932 (Hoover), 1972 (Nixon), and 2004 (G. W. Bush); their Democratic counterparts are those that faced the voters in 1888 (Cleveland I), 1936 (FDR I), 1948 (FDR/Truman), and 1964 (LBJ I). Three presidents with a reputation as vote-getters are included in this list: both Roosevelts (Theodore and Franklin) and Lyndon Johnson (in his first term, shared with John F. Kennedy). Less intuitive is the appearance of Herbert Hoover among the efficient presidents. Recall, though, that being efficient does not necessarily mean winning an election or doing well in absolute terms or by conventional standards (but see below). It means that, given the terribly negative conditions that Mr. Hoover faced going into the election, he did as well as anyone could have done under identical circumstances.

Also relatively efficient, the “near efficient”, are half a dozen presidencies whose score ranged from 0.95 to 0.99. Included in this group, among the Republican, are incumbents whose terms ended in 1880 (Hayes), 1928 (Coolidge II), 1956 (Eisenhower I), and 1984 (Reagan I); among the Democrats, those concluding in 1896 (Cleveland II) and 1944 (FDR III). Again, two presidents well known as vote-getters turn up: Franklin Roosevelt and Ronald Reagan. Perhaps the most intriguing member of this group, whose name also showed up in the efficient group, is Grover Cleveland, the only Democrat to occupy the White House between 1861 and 1913. At the opposite end of the continuum are found eight inefficient presidencies, all of which ended in defeat either in the popular vote or the Electoral College. In ascending order in terms of efficiency scores, they are those voted out in 1980 (Carter), 1920 (Wilson II), 1892 (Harrison), 1976 (Nixon/Ford), 1968 (LBJ II), 1960 (Eisenhower II), 2000 (Clinton II), 2008 (G. W. Bush II), and 1952 (Truman II).

The data in Table 3 suggest a relationship between DEA scores and success at the polls, measured by whether the voters granted them another term in the White House.

<sup>5</sup> As Berry and Chen (1999, p. 383) explained it, the DEA score “is an efficiency score that takes on a value of 1 when an IC [the incumbent party] lies on the efficiency frontier and a value exceeding 1 if the IC lies behind the frontier and could have utilized the available inputs to produce greater outputs”. Be it noted that in both their and the authors’ analyses an efficient “campaign” is scored 1.0. However, in Berry and Chen’s computation, the relatively inefficient cases obtained a score that was greater than 1.0, while in ours they receive a score that is less than 1.0. In our study, a “campaign” that scores 0.94 is interpreted as one that is 94% as efficient as it could be if it were operating at its ideal target based on the performance of others in the comparison set. The use of reciprocal reporting and interpretation is a function of the respective software packages utilized in the DEA computations by Berry and Chen and by the authors (see BCC-O, DEA Solver Professional version 4.1, retrieved from <http://www.saitech-inc.com/> for commercial availability).

Table 3

*Presidential Terms Ranked by Relative Vote-Getting Efficiency*

Presidential term <sup>^</sup>	Rank	DEA score	Elect
1884# Garfield/Arthur, R	1	1	0
1888*# Cleveland I, D	1	1	1
1904* McK/TDR, R	1	1	1
1908* T. D. Roosevelt II R	1	1	1
1924*Harding/CC, R	1	1	1
1932# Hoover, R	1	1	0
1936* F. D. Roosevelt I, D	1	1	1
1972* Nixon, R	1	1	1
2004* G. W. Bush, R	1	1	1
1948* FDR/Truman, D	1	0.999618	1
1964* JFK/LBJ	1	0.995566	1
1896#Cleveland II, D	12	0.990133	0
1880#* Hayes, R	13	0.9873	1
1928* Coolidge II, R	14	0.98017	1
1944* FDR III, D	15	0.978955	1
1956* Eisenhower I, R	16	0.959263	1
1984* Reagan I, R	17	0.959184	1
1916* Wilson I, D	18	0.940796	1
1988* Reagan II, R	19	0.936408	1
1940* F. D. Roosevelt II, D	20	0.916497	1
1992# G. H. W. Bush, R	21	0.915693	0
1996* Clinton I, D	22	0.913285	1
1900* McKinley I, R	23	0.882891	1
1952# Truman II	24	0.877373	0
2008# G. W. Bush, R	25	0.85164	0
2000*# Clinton II, D	26	0.83761	1
1960# Eisenhower II, R	27	0.831745	0
1968# LBJ II, D	28	0.826462	0
1976# Nixon/Ford	29	0.815664	0
1892# Harrison, R	30	0.789804	0
1920# Wilson II, D	31	0.78873	0
1980# Carter, D	32	0.768504	0

Notes. <sup>^</sup> 1912 Taft, R, excluded; \* Won the two-party vote; # Lost the two-party vote; \*# Won the two-party vote but lost in the Electoral College; ## Lost the two-party vote but won in the Electoral College.

The far-right column in Table 3 indicates whether this is the case with the variable *elect*, which is scored 1 if it results in a victory in the popular vote or the Electoral College, and 0 if in defeat. The impression is confirmed statistically.<sup>6</sup> This finding is contrary to Berry and Chen, who did not find any such relationship. The difference might lie either in the small number of cases that they examined, or in the fact that their dependent variable was the percent of the total vote rather than the percent of the two-party vote. Still, the relationship the

<sup>6</sup> Point-biserial correlation = 0.59.

authors find is not perfect. Nearly, 20 percent of the cases are not predicted correctly. The exceptions are found not in the bottom of the pile but in the middle. They are first-termers seeking re-election in 1900 (William McKinley), 1916 (Woodrow Wilson), and 1996 (Bill Clinton), and second-termers making a bid for a third term for themselves or their party 1940 (Franklin Roosevelt) and 1988 (Ronald Reagan).

Comparing the findings of efficient versus inefficient administrations with those of Berry and Chen (1999), four of the six administrations classified as efficient in their study earn the same rating in the authors': 1948 FDR/Truman, 1964 Kennedy/Johnson, 1972 Nixon I, and 1984 Reagan I. The exceptions are 1952 Truman II and 1980 Carter. There is complete agreement between the respective analyses when it comes to the inefficient administrations. All seven are so ranked in the study: 1956 Eisenhower (although the authors include this one among the "near efficient"), 1960 Eisenhower II, 1968 Johnson II, 1976 Nixon/Ford, 1988 Reagan II, 1992 G. H. W. Bush, and 1996 Clinton. In all, the agreement rate is 85% (11 out of 13). One of the exceptions, however, is particularly glaring: Carter is considered "efficient" by Berry and Chen but ranks dead last in this analysis.

### Accounting for Vote-Getting Efficiency

To attempt to account for differences in vote-getting efficiency across presidencies, the authors correlate the DEA scores shown in Table 3 with Alan Lichtman's 13 "keys" for predicting whether the incumbent party will retain the White House at the next election. Lichtman's model is "an index-based prediction system that retrospectively accounts for the popular vote winners of every American presidential election from 1860 to 1980, and prospectively forecast[s] the winners of every presidential election from 1984 to 2004 well ahead of time" (Lichtman, 2008, p. 301). The "keys" are binary variables, scored 1 or 0, yielding information on the state of the economy, the administration's record, candidate characteristics, etc.

Table 4

#### *Regressing Vote-Getting Efficiency on Five of Lichtman's "Keys" (T-Values in Parentheses)*

Key	DEA vote efficiency score	
Party contest	-0.07 (-2.51)	-0.09 (-3.17)
Third party	-0.03 (-1.16)	
Foreign or military failure	-0.02 (-0.895)	
Incumbent charisma/hero	-0.03 (-0.97)	
Challenger charisma/hero	(-0.05) (-1.44)	
Intercept	0.99 (42.94)	0.96 (66.06)
SEE	0.07	0.07
Adj. $r^2$	0.34	0.23
D.W.	2.00	1.98

*Notes.* "Party contest. The candidate is nominated on the first ballot and wins at least two-thirds of the delegate votes"; "Third party. A third-party candidate wins at least 5 percent of the popular vote"; "Foreign or military failure. There is no major failure during the term comparable to Pearl Harbor or the Iran hostage crisis that appears to significantly undermine America's national interests or threaten its standing in the world"; "Incumbent charisma/hero. The Incumbent party candidate is a national hero comparable to Ulysses Grant or Dwight Eisenhower or is an inspirational candidate comparable to Franklin Roosevelt or Ronald Reagan"; "Challenger charisma/hero. The challenger party candidate is not a national hero comparable to Ulysses Grant or Dwight Eisenhower or is not an inspirational candidate comparable to Franklin Roosevelt or Ronald Reagan"; Source: Lichtman (2008, p. 302).

Four of the keys (Lichtman, 2008, p. 302) correlate with the DEA efficiency scores Pearson's  $r \geq 0.30$ . Accordingly, in Table 4 the authors regress the DEA scores on all five keys. The model accounts for about one-third in the variation in incumbent vote-getting efficiency. With only Key #2, which indicates whether there was an in-party contest for the nomination, does the  $t$ -value of the regression coefficient exceed 2.0. Thus, in the far-right column of Table 4 the authors regress the DEA score on this variable only. Note that by itself it accounts for almost one-fourth of the variation in efficiency. This finding makes theoretical sense. A contest for the incumbent party nomination indicates deep divisions in their ranks. After the contest is over, difficulties are likely to arise in coordinating the former rivals' organizations into an efficient vote-getting machine.

### Conclusions

Applying DEA analysis to a "fiscal model" of presidential elections estimated over 32 elections held since 1880 allows the authors to separate the efficient from the inefficient vote-getting presidents. Interestingly, despite the fact that the authors used a different model, one estimated over a much longer time period than Berry and Chen's, when it came to the elections included in both studies, the findings correlate strongly. In both studies, incumbents winning reelection in 1948 (Truman), 1964 (Johnson), 1972 (Nixon), and 1984 (Reagan) were judged to have behaved relatively efficiently. Also in both studies, the inefficient campaigns included those of two presidents winning reelection, Eisenhower in 1956 and Clinton four decades later, one successful hand-off between a president and his vice-president (Reagan to Bush in 1988), two failed attempts at the same play (Eisenhower to Nixon in 1960 and Johnson to Humphrey in 1968) and two presidents rejected by the voters (Ford in 1976 and G. H. W. Bush in 1992). This coincidence in findings should make us confident in the classification of these campaigns. Also, it lends plausibility to the authors' rankings of elections not included in Berry and Chen's article. As well as ranking 32 incumbent campaigns on efficiency, the authors are able to account for part of the variation in their efficiency with a set of variables drawn from Alan Lichtman's set of "keys" for predicting incumbent victory in the popular vote for president. The single most important predictor was whether the incumbents faced a contest for the nomination. Taken as a proxy for difficulties in coordinating incumbent electioneering efforts, this variable makes theoretical sense.

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## Appendix

Table A1

*The Data*

Year	F	F1	Fprime	Growth	Allnews	Duration	Party	Vote2
1880	2.55	-1.8	-1	3.879	9	1.75	-1	50.22
1884	2.22	-0.33	-1	1.589	2	2	-1	49.85
1888	2.16	-0.06	-1	-5.553	3	0	1	50.41
1892	2.41	0.25	1	2.763	7	0	-1	48.27
1896	2.65	0.24	1	-10.024	6	0	1	47.76
1900	2.79	0.14	1	-1.425	7	0	-1	53.17
1904	2.55	-0.24	-1	-2.421	5	1	-1	60.01
1908	2.38	-0.17	-1	-6.281	8	1.25	-1	54.48
1916	1.48	-0.27	-1	2.229	3	0.00	1	51.68
1920	6.95	5.47	1	-11.463	0	1.00	1	36.12
1924	3.43	-3.52	-1	-3.872	10	0.00	-1	58.24
1928	3.05	-0.38	-1	4.623	7	1.00	-1	58.82
1932	7.96	4.91	1	-14.499	4	1.25	-1	40.84
1936	10.13	2.17	1	11.765	9	0.00	1	62.46
1940	9.02	-1.11	-1	3.902	8	1.00	1	55.00
1944	44.93	35.91	1	4.279	0	1.25	1	53.77
1948	12.61	-32.32	-1	3.579	0	1.50	1	52.37
1952	18.49	5.88	1	0.691	7	1.75	1	44.60
1956	16.35	-2.14	-1	-1.451	5	0.00	-1	57.76
1960	17.85	1.50	1	0.377	5	1.00	-1	49.91
1964	18.50	0.65	1	5.109	10	0.00	1	61.34
1968	20.50	2.0	1	5.043	7	1.00	1	49.60
1972	19.60	-0.90	-1	5.914	4	0.00	-1	61.79
1976	21.40	1.80	1	3.751	5	1.00	-1	48.95
1980	21.60	0.20	1	-3.597	5	0.00	1	44.70
1984	22.10	0.50	1	5.440	8	0.00	-1	59.17
1988	21.20	-0.90	-1	2.178	4	1.00	-1	53.90
1992	22.20	1.00	1	2.662	2	1.25	-1	46.55
1996	20.30	-1.90	-1	3.121	4	0.00	1	54.74
2000	18.20	-2.1	-1	1.219	8	1.00	1	50.27
2004	19.62	1.42	1	2.690	1	0.00	-1	51.23
2008	20.88	1.26	1	0.22	3	1	-1	46.3