Resource Allocation In a Presidential Campaign

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Organizational and strategic considerations are used to predict differences in the instrumental rationality of allocation patterns for various campaign resources. An analysis of resource allocation in the 1976 Carter campaign indicates that actual behavior conformed to the predicted pattern: instrumental resources (advertising funds and candidate appearances) were heavily concentrated in populous states, while ornamental resources (state-level organizational funds and personnel) were more widely dispersed.

Resource allocation is a major strategic activity in election campaigns; indeed, one observer has defined a campaign, from the standpoint of the candidates, as "the process of acquiring and using the political resources that can secure votes" (Leuthold, 1968, p. 1). Nevertheless, little is known about the organizational and strategic factors that determine resource allocations in actual campaigns. Part of the problem is that, despite the sophistication of modern campaign technology, uncertainty about the electoral efficacy of alternative activities and strategies is so pervasive that it is often impossible to specify what a rational allocation strategy would look like, much less to determine how closely this ideal is approximated by actual campaign behavior.

The allocation of resources among states in presidential campaigns provides an interesting partial exception to this analytical difficulty. The strategic importance of populous states in presidential elections has long

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been recognized by politicians and campaign observers (see Polsby and Wildavsky, 1964, p. 29). More recently, formal mathematical analyses of the electoral college system have reinforced this conventional wisdom by demonstrating more rigorously the disproportional power of populous states under the unit rule (Mann and Shapley, 1964; Banzhaf, 1968; Owen, 1975). In an analysis directed specifically toward the strategic problem of resource allocation, Brams and Davis (1974) concluded that "rational" campaigners would allocate their resources to states in proportion to the size of the states' electoral vote blocs raised to the 3/2's power—an allocation that would concentrate resources markedly in the most populous states (Brams and Davis, 1974).

While these mathematical analyses differ somewhat in their assumptions and techniques, the general convergence of their results with each other and with the conventional wisdom of practitioners and observers points to an unusually clear criterion of rational campaign behavior. In an effort to measure the correspondence of actual campaign allocations to this criterion of rationality, Colantoni et al. (1975) devised an exponential model relating resource allocation levels to electoral votes:

$$R_i = \alpha EV_i^{\beta} u_i,$$

where R_i is a measure of the resources allocated to state i, EV_i is the size of state i's electoral vote bloc, α and β are unknown parameters, and u_i is a stochastic disturbance factor. This exponential model is especially suitable for testing the Brams-Davis "3/2's rule," since that rule generates the simple prediction that the exponential parameter β equals 1.5. Predictions generated from other mathematical analyses can be formulated approximately in terms of the exponential model. For example, the Banzhaf model corresponds extremely closely to an exponential model with β equal to 1.72.[1] The exponential model may thus be treated more generally as a useful way to test the proposition, derived from a priori analysis of the electoral college system, that rational campaigners will concentrate their resources in populous states. If β equals 1, resources are allocated in proportion to electoral votes; if β is greater than 1, resources are concentrated disproportionately in populous states; and if β is less than 1, resources are concentrated disproportionately in the least populous states.

Colantoni et al. (1975) applied their exponential model to campaign appearance data originally gathered by Brams and Davis. For the Republican and Democratic candidates in the competitive elections of 1960 and

[1] The Banzhaf index has special significance in this context because Lake (1979) has derived optimal allocations proportional to Banzhaf weights from an analysis similar to that of Brams & Davis (1974), but with probability of winning substituted for share of the popular vote as the value which candidates are presumed to maximize.

TABLE 1

RESOURCE ALLOCATION DATA FOR 1976 CARTER CAMPAIGN

(1) Campaign trips (scheduling points)
(2) Television and radio advertising ($1000s)
(3) State-level organizational funds ($1000s)
(4) State-level campaign personnel (number)

	(1)	(2)	(3)	(4)
Alabama	7	141	32	10
Alaska	0	6	20	2
Arizona	7	39	17	5
Arkansas	0	61	25	7
California	127	1121	460	56
Colorado	17	71	48	9
Connecticut	24	118	71	12
Delaware	0	29	18	3
D.C.	0	29	26	4
Florida	43	504	131	23
Georgia	82*	75	17	10
Hawaii	0	24	18	3
Idaho	0	14	18	4
Illinois	99	485	283	42
Indiana	53	200	110	17
Iowa	20	93	38	7
Kansas	5	64	32	5
Kentucky	0	127	27	9
Louisiana	7	139	66	7
Maine	12	31	27	5
Maryland	12	173	83	12
Massachusetts	7	180	72	16
Michigan	53	209	187	32
Minnesota	34*	63	29	6
Mississippi	7	76	29	8
Missouri	41	179	106	14
Montana	12	18	21	4
Nebraska	5	27	20	3
Nevada	10	10	27	4
New Hampshire	5	25	16	5
New Jersey	27	345	107	27
New Mexico	12	42	26	4
New York	135	873	365	48
North Carolina	12	195	32	11
North Dakota	7	11	27	3
Ohio	143	573	309	39
Oklahoma	14	86	64	9
Oregon	17	75	37	6
Pennsylvania	96	579	304	40
Rhode Island	0	28	22	4

TABLE 1

RESOURCE ALLOCATION DATA FOR 1976 CARTER CAMPAIGN (CONTINUED)

(1) Campaign trips (scheduling points)
(2) Television and radio advertising ($1000s)
(3) State-level organizational funds ($1000s)
(4) State-level campaign personnel (number)

	(1)	(2)	(3)	(4)
South Carolina	14	108	28	8
South Dakota	7	16	38	5
Tennessee	7	162	34	8
Texas	59	634	240	31
Utah	7	18	15	3
Vermont	0	18	9	3
Virginia	26	197	119	16
Washington	10	87	69	6
West Virginia	0	57	19	5
Wisconsin	61	192	81	14
Wyoming	0	7	15	3

*Data on campaign trips appear to be misleading for candidates' home states. These states are deleted from the analysis for campaign trips only.

Sources

(1). *Direct popular election of the President and Vice President of the United States*, Report of the Committee on the Judiciary, U.S. Senate, 95th Congress, 1st Session (6 Dec. 1977), Report No. 95-609, p. 15. In accordance with the formula devised by Hamilton Jordan (Shram, 1977, p. 431), seven scheduling points are assigned for each Carter visit and five scheduling points are assigned for each Mondale visit. These data were previously analyzed by Brams (1978).

(2). Gerald Rafshoon advertising agency, Atlanta.

(3),(4). Carter campaign records. I am indebted to Richard Harden and Robert Lipschutz for their permission to use these data, and to Joanna Lambert for her assistance in gathering and interpreting them.

TABLE 2

CONCENTRATION OF RESOURCES IN POPULOUS STATES, 1976 CARTER CAMPAIGN

Entries are estimates of β based on the multiplicative model $R_i = \alpha EV_i^{\beta} u_i$

RESOURCE	ESTIMATE	(STD ERR)	R^2
Campaign trips	1.64	(.18)	.63
Television and radio advertising	1.70	(.07)	.92
State-level organizational funds	1.20	(.09)	.79
State-level campaign personnel	1.13	(.05)	.92

1968, they found an average estimated index of concentration of 1.56, with an average estimated standard error of .17 (1975, table 2).

These results provide strong evidence that campaign appearances were allocated among states in accordance with the posited criterion of strategic rationality. However, there are good reasons to expect that the same pattern would not hold for other kinds of campaign resources. In particular, the allocation pattern predicted by mathematical models of campaign rationality cannot be expected to hold when the underlying assumption, that resources are allocated in order to win votes in the states in which they are expended, is untenable.

Detailed studies from the inside of how campaign organizations work repeatedly emphasize the fact that much of what goes on is intended not to win votes in any direct way, but to improve general public relations, preserve political traditions, or gratify individuals within the campaign organization.[2] To the extent that such considerations actually motivate campaign effort, it is necessary to distinguish between instrumental effort intended directly to win votes and ornamental effort intended to satisfy the internal and public relations needs of the campaign organization. Each of these types of effort is (or at least may be) rational, in the sense that it contributes to the overall campaign goal of electoral victory; but any model of rationality based solely on the expected direct effect within states of instrumental allocations is bound to be misleading when applied to effort that is actually ornamental in nature.

Once we broaden our definition of rationality to include both instrumental and ornamental uses of campaign resources, we are naturally led to distinguish among resources with respect to their relative usefulness in these two distinct roles. If campaigners are rational, their allocations will be most consistent with the predictions of the mathematical models for resources that are primarily instrumental in character, and least consistent for resources that are primarily ornamental in character.

The most obvious determinant of instrumental utility is the perceived effectiveness of a campaign activity as a means of winning over potential voters. In this respect, campaigners seem to have greater confidence in media-oriented activities than in other forms of campaign effort; as one of them put it, "media is effective—if anything is" (Bailey, 1978). This perception suggests that media-related resources—advertising dollars and candidate appearances—should more closely approximate the instrumental allocation patterns derived from mathematical models of campaign strat-

[2] The most extensive academic treatment of this point is Kayden's (1978). Other pertinent examples are provided by Hershey (1974), Kingdon (1968), Lamb & Smith (1968), and many of the published memoirs of campaign participants.

egy than do non-media resources such as organizational funds and personnel.

The fact that politicians place slight strategic reliance on organizational activities, as opposed to media-related activities, was emphasized by the effect of new financial limitations on presidential campaign spending in 1976. With money in short supply, both Jimmy Carter and Gerald Ford maintained the levels of media spending established by their predecessors while cutting back sharply on expenditures for local headquarters, bumper stickers, leaflets, and the other trappings of grass-roots campaigning.[3] To the extent that state-level campaign activities were financed, they seem to have been intended mostly to placate supporters (and powerful potential critics in the journalistic fraternity) who missed the traditional hoopla and participatory bustle of presidential campaigning.

If we approach the differences among resources from the opposite perspective of ornamental utility, the most obvious distinction has to do with the organizational centralization of various campaign activities. In particular, ornamental allocations should be most useful when resources are distributed to lower levels of the campaign organization, where campaign effort is most visible and personal goals are most likely to diverge from the overall strategic goal of winning votes. Conversely, the ornamental value of campaign resources should be less for those resources allocated and expended directly by the national campaign headquarters, where top-level strategists are relatively insulated from the special pleadings of lower-downs who feel that they need or deserve more resources, even if their states are not particularly crucial from a national perspective.

In presidential campaigns, candidate appearances and advertising funds are centralized resources, typically controlled directly by a handful of strategists at the national campaign headquarters. By contrast, state-level campaign funds and personnel are, by their very nature, more widely dispersed throughout the campaign organization. In the 1976 Carter campaign, for example, money for state organizations was allocated by Hamilton Jordan and Phil Wise in Atlanta, but the state coordinators around the country who received and spent the money were members of the Carter organization and had ongoing contact with Jordan and Wise during the course of the campaign. It would not be surprising to find that

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[3] In 1972, George McGovern spent about $12 million on advertising for television and radio, while Richard Nixon allocated about $10 million for the same purpose (Alexander, 1976, pp. 198, 201). In 1976, Carter and Ford spent about the same absolute amounts ($10.3 million and $12.4 million, respectively, according to documents supplied by the campaign organizations), even though they had about one-half and one-third, respectively, of the total funds available to their predecessors. In effect, the perceived needs of the media campaign dominated budget-making decisions, with other activities dividing up the leftovers.

this organizational structure heightened the perceived utility of ornamental expenditures. At the other extreme, advertising funds went directly from Atlanta through the Gerald Rafshoon advertising agency to media outlets; local campaign officials in the areas where the money was actually spent had little information about or influence on allocation decisions. In this case, it seems likely that ornamental considerations would be less pressing, since the allocation of resources was closely controlled by those whose personal goals were most closely related to the instumental goal of winning votes.[4]

These organizational considerations reinforce the differences among resources based on their relative instrumental effectiveness. Advertising funds and campaign appearances, the resources most relied upon directly to win votes, are also least useful for ornamental purposes, because they are directly controlled by the national campaign staff.[5] State-level organizational funds and personnel are perceived as being less effective in an instrumental sense, but are well suited for ornamental use because they are, by their nature, widely dispersed and highly visible measures of internal organizational prestige. Thus, we should expect advertising funds and campaign appearances to be allocated in close accordance with the dictates of instrumental rationality, while state-level organizational funds and personnel should be allocated to states more on the basis of organizational needs than of strategic importance.

In order to test these hypotheses, it is necessary to observe actual allocation patterns for a variety of different campaign resources. Previous empirical studies of resource allocation have measured campaign effort by focusing solely on candidates' campaign appearances.[6] The 1976 Carter campaign is the first for which more extensive resource allocation data are available. These data, shown in table 1, include records of actual allocations for the four separate resources discussed above: campaign appearan-

[4] This description of the allocation process is based on the published accounts of Schram (1977) and Witcover (1977) and on dicussions with participants in the Carter campaign.

[5] Of course even advertising, the clearest form of instrumental effort, is sometimes based on broader considerations. However, these are more likely to involve public relations than internal organizational needs. The Ford advertising campaign's creative director admitted after the election that Ford's strategists "had given up on the black vote even before Mr. Butz's remarks. [But] we'd bought a few spots on black radio so the media couldn't report that we'd given up. Lionel Hampton singing 'Call Ford Mr. Sunshine.' The only black vote we got out of that was Lionel Hampton's" (MacDougall, 1977, p. 233).

[6] See, for example, Brams and Davis (1974), Colantoni et al. (1975), Brams (1978), and West (1983). The only relevant data not based on campaign appearances are those summarized by Young (1978), which indicate that broadcast expenditures in the 1968 election were concentrated in populous states, although not to as great an extent as campaign appearances. However, these data combine presidential spending with spending in other campaigns, and thus are difficult to interpret in terms of presidential campaign strategy.

ces, television and radio advertising, state-level organizational funds, and campaign personnel. Thus, they make it possible to examine the differential importance of instrumental and ornamental considerations for various categories of allocations.

Table 2 shows coefficients of concentration calculated for each of these four separate campaign resources. The pattern of results is very much in keeping with the expectations derived from strategic and organizational considerations. Campaign appearances and advertising funds were heavily concentrated in populous states, as predicted by the mathematical analyses of rational campaign strategy. In fact, concentration of each of these resources was almost exactly as predicted by the Banzhaf model (1.64 and 1.70 versus a predicted value of 1.72), and thus somewhat greater than could be expected on the basis of either the Brams-Davis "3/2's rule" or the previous empirical evidence reported by Colantoni et al. A strikingly different picture is provided by the other coefficients in table 2. State-level organizational funds and personnel were concentrated in populous states, but to a degree considerably less than that predicted by the mathematical criteria for rational campaign behavior.[7]

The distinction between instrumental and ornamental effort provides a useful key to the pattern of resource allocations in table 2. Advertising expenditures and campaign appearances were allocated in close accordance with the mathematical criteria of rationality because they were instrumental resources intended primarily to serve the function envisioned in the construction of those mathematical criteria. State-level organizational expenditures and personnel allocations did not match the predictions of the mathematical models because they served primarily an ornamental function not captured by those models in their current form.

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[7] The bivariate relationships between electoral votes and resource allocations shown in table 2 obviously ignore a variety of other factors influencing resource allocations in the Carter campaign. However, the differences among resources noted in the text persist even after controlling for competitiveness, urban density, southern regionalism, and Carter's primary experience in each state. With these controls, the parameter estimates are 1.30 for campaign trips and 1.45 for advertising funds versus .99 for both state-level organizational funds and personnel. For a debate over the appropriateness of controlling for competitiveness when estimating the effect of the electoral college on campaign allocations, see Colantoni et al. (1975, particularly p. 141) and Brams & Davis (1975, p. 156).

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