

# *Organizational Control Structure*

## *A Comparative Analysis<sup>1</sup>*

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DESPITE the plethora of recent research, little is systematically known about organizational control processes and their implications, and particularly how they may differ among organizations.<sup>2</sup> Several writers have recently attempted conceptual categorizations of organizations based partly on differences in control which suggest the fruitfulness of comparative analytic approaches in understanding this phenomenon (Blau, 1956; Blau & Scott, 1962; Etzioni, 1961; Gouldner, 1954; and Likert, 1961). The present paper undertakes a comparative analysis of aspects of control and some of its implications in a number of organizations.

### APPROACH

This study presents comparisons among a number of organizations, including a voluntary association, unions, and business and industrial organizations, in terms of a conceptual-methodological tool called the 'control graph'. This technique has been discussed and illustrated in a number of earlier publications (Tannenbaum, 1956, 1961; Tannenbaum & Georgopoulos, 1957; Tannenbaum & Kahn, 1957). The control graph is designed to characterize the pattern of control in formal organizations. The horizontal axis of the graph represents the hierarchical levels of an organization from the top to the bottom. The vertical axis represents the amount of control which is exercised by each level in the organization. Two aspects of organizational control can be described by a curve drawn on this graph: (1) the hierarchical distribution of control, represented by the shape or slope of the curve; and (2) the total amount of control exercised by all levels in the organization, represented by the average height of the curve. It is important to distinguish between these aspects of control, since they may vary independently.

A control curve which rises with hierarchical ascent might be said to fit the 'autocratic' prototype, while one declining with hierarchical ascent describes the 'democratic' model. If the uppermost level of the hierarchy is placed at the left end

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2. 'Control' is defined in the broad sense of the term to refer to any process in which a person (or group of persons or organization of persons) determines or intentionally affects what another person (or group or organization) will do.

of the horizontal axis, the autocratic model would be characterized by a negative, and the democratic model by a positive slope. A low flat curve, indicating relatively little control by any level, would illustrate a *laissez-faire* situation, while a high curve, indicating a high level of control by all levels, fits the 'polyarchic' model.

While many authors have been concerned with the distribution of control, the concept of total control has not been given a great deal of attention in the literature. However, this concept refers to an important aspect of organization, and several authors have illustrated it in different ways. March & Simon's discussion of 'participative management' is instructive in this regard: 'Where there is participation [by organizational members in decision-making], alternatives are suggested in a setting that permits the organizational hierarchy to control [at least in part] what is evoked. "Participative management" can be viewed as a device for permitting managements to participate more fully in the making of decisions as well as a means for expanding the influence of lower echelons in the organization' (1958, p. 54). Selznick's co-optation principle (1953, pp. 13-16 and 259-61) would seem to imply, at least in some circumstances, a degree of influence exercised within the organization by the co-opted element (which it did not exercise before co-optation), as well as an increased control by the 'hierarchy' over the co-opted element. French, Israel & As (1960), in discussing 'psychological participation' within an organizational setting, point out that: 'This definition . . . as the amount of influence on jointly made decisions does not logically imply an asymmetrical relation among participants. If one participant has high influence, it does not mean that the others have low influence. All might have either high or low influence.' This implies possible variations among organizations in the total amount of control exercised within them.<sup>3</sup> Likert (1961) refers to the 'interaction-influence system' of organizations. Organizations differ in the extent of interaction among members and the influence which they are able to exercise over each other. These differences can be understood as differences in the total amount of control in organizations.

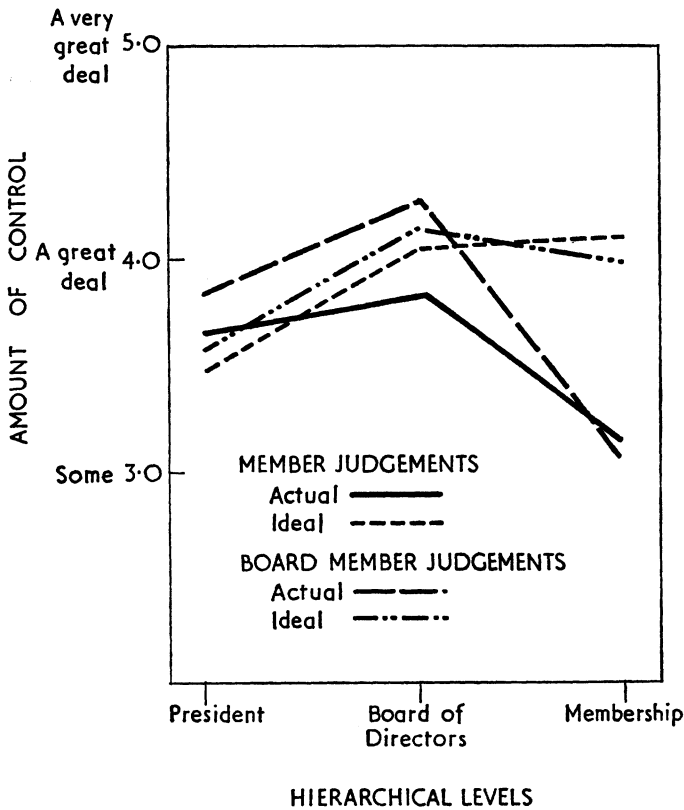
Control curves have been drawn in a number of studies on the basis of responses to questions asked of members regarding the amount of control which various echelons exercise. In addition to providing a description of the situation as members see it, the graph has also been used to characterize the pattern of control which members desire. In order to distinguish between these, we refer to the former as 'actual' and the latter as 'ideal' control. To illustrate the application of the control graph technique, *Figures 1* and *2* present averages of the 'actual' and 'ideal' control curves for 112 leagues of the League of Women Voters and for 32 organizational units of a nationally organized delivery company respectively. In both organizations the actual curves are negatively sloped as reported both by leaders (or supervisors) and by rank-and-file members. The ideal patterns in all cases imply a higher level of total control than the actual patterns. Differences are also apparent between the control curves drawn from data provided by persons at different levels in the organization and by persons in different organizations.

This approach to the description of control patterns in organizations entails some oversimplification. It nevertheless represents some important facts about control patterns and provides the basis for comparisons among a variety of organization types. Specifically, the analysis is intended to explore the following

3. For further discussions of the concept of total control within the framework of the control graph technique, see Tannenbaum & Kahn (1958), Likert (1960), and Tannenbaum (1961, 1962).

general questions: First, what are the similarities and differences among the voluntary association, unions, and business-industrial organizations with respect to their actual and ideal patterns of control, as these are inferred from members' responses? Second, what are the similarities and differences between members and officers in the actual and ideal control curves which are derived from their responses and how do these differences vary in the three types of organization examined? The third general question is concerned with the relationships between aspects of

FIGURE 1 AVERAGED CONTROL CURVES FOR 112 LOCAL LEAGUES OF THE LEAGUE OF WOMEN VOTERS: ACTUAL AND DESIRED CONTROL—MEMBERS AND BOARD MEMBERS



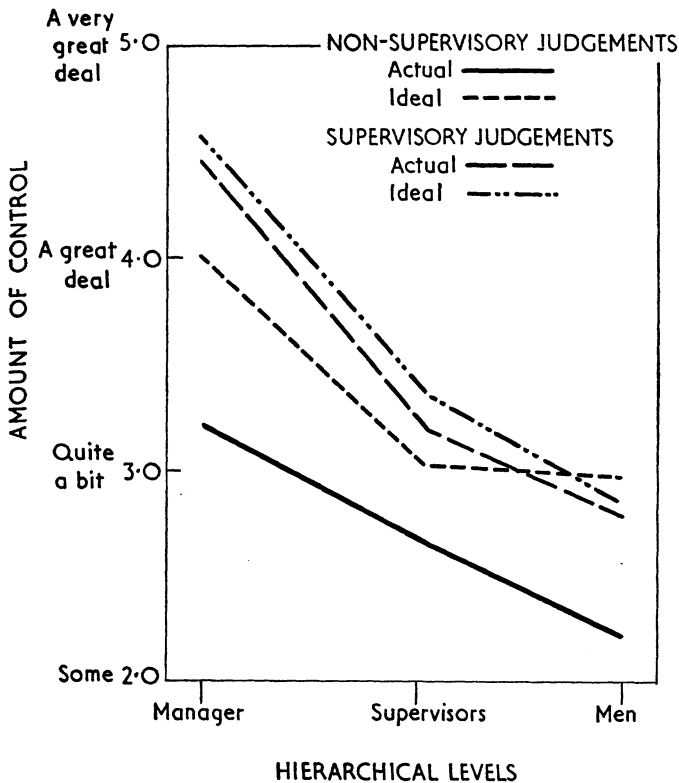
control, measures of organizational effectiveness, and member attitudes toward the organization.

Relationships between control, organizational effectiveness, and member attitudes have been suggested in a number of studies.<sup>4</sup> Morse & Reimer (1956), for example, offer the hypothesis that an increased role in the decision-making processes for the rank-and-file groups (relative to supervisory and managerial groups) increases their satisfaction and productivity. While much attention has been focused on the distribution of control, the relevance of total control for

4. March & Simon (1958) provide a review of some of these studies.

organizational effectiveness has only recently been investigated. Discussions of control in organizations often assume a reciprocal relationship between the control exercised by upper and that exercised by lower levels of the hierarchy. Increasing the influence of one group implies decreasing the influence of others. This assumption has led to the development of opposing arguments: rank-and-file involvement in decision-making (especially within the context of a 'democratic society') is helpful in fostering conditions of identification, motivation, and loyalty. On the

FIGURE 2 AVERAGED CONTROL CURVES FOR 32 STATIONS OF A DELIVERY COMPANY: ACTUAL AND DESIRED CONTROL—NON-SUPERVISORS AND SUPERVISORS



other hand, a high degree of control by leaders is said to be necessary for the efficient administration of organizations.

The control graph leads to a questioning of the assumption underlying this controversy and has raised the question of why substantial control exercised by both leaders and members would not create conditions for more effective organizational performance (Tannenbaum, 1961). In the first study in which the control graph was employed, Tannenbaum & Kahn (1958, Chapter 7) provide a rationale for the relationships which they note between measures of total control, effectiveness, and member loyalty in four local unions. Likert (1960) has suggested the importance of high mutual influence, or control by all levels within an organization, as the basis for the effective co-ordination of organizational activity as well as

for the integration of the goals of individual members and of the organization—this co-ordination and integration being conducive to high organizational effectiveness. The exercise of control may also be a *result* of organizational effectiveness in certain circumstances. An effective organization as compared to an ineffective one is likely to have a greater stock of disposable rewards relevant to the interests of all members. Consequently, the exercise of control in the effective organization may be relatively more attractive to both leaders and members, because it is instrumental to the achievement of important satisfactions, and the amount of control which all groups try to exercise will be greater in this type of organization (Tannenbaum, 1961).

French, Israel & As (1960) present experimental data to show that discrepancies between the influence which members perceive to exist in an organization and that which they feel should exist (i.e. which they consider 'legitimate') are related to aspects of worker-management relations and to member satisfaction. Finally, March & Simon (1958) argue that disagreements between members and leaders regarding organizational facts and ideals (including facts and ideals about control) are among the conditions contributing to intergroup conflict within organizations, and one might also expect these discrepancies to have some bearing on member satisfaction and productivity.

Specifically, then, one phase of the analysis will investigate the relationships between organizational effectiveness and member attitudes on the one hand, and variations in patterns of actual control, correspondences between actual and ideal patterns, and agreement between members and officers regarding different aspects of control on the other.

## PROCEDURE

### *A. Organizations*

The following analysis concerns approximately 200 geographically separate organizational units from a number of larger organizations. They include 32 geographically separate stations within a nationally organized delivery company (Georgopoulos, 1957; Georgopoulos & Tannenbaum, 1957; Likert, 1961; and Indik, Georgopoulos & Seashore, 1961); 36 geographically separate dealerships of an automotive sales organization (Patchen, Seashore & Eckerman, 1961); a department within a large clerical organization (Morse & Reimer, 1956; Morse, Reimer & Tannenbaum, 1951); a manufacturing plant (Seashore & Bowers, 1962); the line organizations of two power plants varying in extent of automation (Mann & Hoffman, 1960); and the staff organization of a power plant (Williams, Hoffman & Mann, 1959). In addition to these business-industrial organizations, a weighted sample of 112 local leagues of the League of Women Voters of the United States (Tannenbaum, 1961) and five union locals (Tannenbaum & Kahn, 1958; Greenstone, 1960) are included. The interested reader is referred to the reports cited for a more detailed description of each organizational setting.

The organizations selected for inclusion in the present analysis are those in which reasonably comparable measures of control are available. They do not, however, comprise a sample, and we cannot know how representative they are of organizations on a nation-wide level. Nevertheless, in summarizing results, we shall perform some elementary statistical operations, such as the computations of

means and percentages, and we shall apply several non-parametric tests. We hope, by summarizing in this way, to provide a basis for the development of hypotheses which can be tested among other groups of organizations and, ultimately, in representative samples.

### B. Measurement of Variables

1. *Control.* Employing the survey method, similar questions were asked of members in each of the organizations studied. Respondents were asked to rate on a five-point scale the amount of influence that each of several hierarchical groups (or persons) within the organization has upon what goes on within the organization. For example, in the delivery organization, respondents were asked the following question:

'In general, how much say or influence do you feel each of the following groups has on what goes on in your station?'

	<i>Little or no influence</i>	<i>Some influence</i>	<i>Quite a bit of influence</i>	<i>A great deal of influence</i>	<i>A very great deal of influence</i>
Your station manager	—	—	—	—	—
The other supervisors in your station	—	—	—	—	—
The men in your station	—	—	—	—	—

Respondents in most of the organizations studied were also asked a parallel set of questions concerning control as they desire it to be. For example, in the ideal question, parallel to the one illustrated above, respondents were asked:

'In general, how much say or influence do you think each of the following groups *should have* on what goes on in your station?'

In the majority of organizations studied, officers, as well as rank-and-file members, were asked these pairs of questions.

The amounts of actual and ideal control exercised by each of the hierarchical levels in a given organizational unit were computed by averaging the judgements of respondents (members and officers separately) regarding each of the levels. Indices obtained include the degree of actual and ideal slope, and the level of actual and ideal total control. Measures of the slope of the control curve were derived by computing, for each organizational unit, the average of the algebraic differences between the amounts of influence reported to be exercised by successive hierarchical levels. This requires the admittedly crude but workable assumption of equal scale intervals along both the horizontal and the vertical axes. The same operation was employed in deriving measures of the ideal as was employed for the actual slope of the control curve. Actual and ideal total control were computed for each organizational unit simply by summing the amount of control reported to be exercised by or 'desired' for the various hierarchical levels. The magnitude of these scores is, of course, a function of the amount of influence attributed to each level and the number of organizational levels in the unit considered.

2. *Effectiveness.* Organizational effectiveness is generally defined as the extent to which an organization achieves its goals or objectives. Scores of effectiveness are

available in only four of the organizations studied, and these were obtained differently in each of them. Measures of effectiveness in the 112 units of the voluntary association are based on ratings of 29 experts who were familiar, as a group, with all of the local leagues studied. They were not, however, members of the local leagues in question. Raters were asked to consider, in making their judgements, several criteria of effective functioning based on the formal objectives established for local leagues by the national organization, such as high quality and quantity of publications and impact in the community (Tannenbaum, 1961). Organizational effectiveness in each of the 32 units of the delivery company is operationalized in terms of objective productivity measures provided by the company (Likert, 1960; Georgopoulos & Tannenbaum, 1957). These are based on the total time required to accomplish standard units of work. Measures of effectiveness in the sales organization represent the extent to which the actual sales volume met assigned sales quotas in each of the 36 dealerships (Patchen, Seashore & Eckerman, 1961). Measures of the effectiveness of the four union locals are based on judgements by the original researchers of the unions' power *vis-à-vis* their managements (Tannenbaum & Kahn, 1957). These judgements are based partly on the researchers' observations of the unions and on the statements of international and company officials.

3. *Member attitudes toward the organization.* Data regarding members' attitudes toward their organizations are based on responses to different questions in each of the four organizations. In the voluntary association, member attitudes are measured in terms of two questions asked of members concerning their willingness to expend effort to prevent their local leagues from ceasing to function as a result of community opposition or member apathy. An index derived from these two questions is referred to as 'member loyalty'. The measure of member attitudes in the delivery company is based on members' ratings of the level of morale which they judge to exist in their respective stations. In the sales organization, member attitudes are measured in terms of their preference for remaining in their particular dealership given the possibility of moving to another. We refer to this as a measure of 'attraction to the dealership'. The measure of member attitudes in the union locals is similar to that in the voluntary association, viz. an index of member loyalty. This is measured in terms of members' ratings of willingness to expend effort on behalf of their union in the event that its existence were threatened owing to a serious strike or intra-union conflict.

The question of strict comparability of the indices of control, effectiveness, and member attitudes for different organizations must be considered. A problem may exist in the control measures owing to some differences of wording and response sets which might affect the indices of control differently in different organizations. Consequently, organizational comparisons are made cautiously with these possible sources of error in mind. Furthermore, our measures of control are subject to several interpretations, since they are based on judgements of members and officers. One might argue, for example, that we are dealing essentially with perceptions of control and that these do not correspond to the realities of control. Or one might interpret the measures as providing reasonably valid data of existing control patterns, although it is clear that the measures are subject to error.<sup>5</sup> The

5. A recent analysis by Tannenbaum & Smith (1962) supports the tenability of this interpretation.

measures of organizational effectiveness and attitudes are perhaps more variable than those dealing with control. Organizational effectiveness is measured differently in each of the organizations studied, but each of the measures is reasonably consistent with the conceptual definition of effectiveness.<sup>6</sup> The measures of member attitudes do not, strictly speaking, represent the same attitudinal reactions in each of the organizations studied, but they are probably closely related. We nevertheless offer the following results as suggestive of important hypotheses which can be tested through further research employing more refined and standardized measures.

## RESULTS

To illustrate the similarities and differences obtained, the control curves for the 32 organizational units of the delivery company may be considered in juxtaposition to the averages of the curves for the 112 units of the voluntary association (see *Figures 1* and *2*). The actual curves for the stations of the delivery company are negatively sloped as reported by both supervisory and non-supervisory personnel (*Figure 2*). Members and supervisors are in fairly close agreement regarding the *relative amounts* of control which the three hierarchical levels exercise. However, the supervisors report a higher amount of total control than do the men; supervisors ascribe a greater degree of control to each hierarchical level. Furthermore, the ideal and actual curves correspond relatively closely as reported by the supervisors but differ sharply for the men. The latter desire a considerably higher degree of control than they perceive to exist for themselves as a group, although they do not view this ideal as lowering the control to be exercised by the manager and supervisors. In the case of both supervisors and men, the ideal pattern implies a higher degree of total control than the actual.

In the voluntary units, both members and board members report, on the average, negatively sloped control curves (*Figure 1*). However, these curves diverge sharply from those which members and board members consider ideal. Both ideal curves are positively sloped and, furthermore, they are practically identical. It is interesting to see that the degree of ideological consensus among leaders and members in the voluntary organization does not exist in the industrial organization represented in *Figure 2*.

*Table 1* summarizes the findings concerning similarities and differences among organizations in their patterns of control, as well as the results of member-officer comparisons.

### *Organizational Type Comparisons*

Certain similarities among organizations are indicated from an examination of *Table 1* (comparisons I(a)–(d)). A negatively sloped distribution of control occurs in a large majority of the organizational units studied. It is also apparent that the ideals which members have concerning the pattern of control differ from the actual pattern in almost all cases. The ideal distribution of control is more positively sloped than the actual, and the ideal level of total control is higher than the actual level in a large percentage of the organizational units. While members desire a more positively sloped distribution of control than they perceive exists, they do not

6. See Georgopoulos & Tannenbaum (1957) for a discussion of the concept of organizational effectiveness.



wish to achieve this by reducing the control exercised by other levels. They are more inclined to increase the control exercised by most groups, especially their own. (Members desire an increase in the control exercised by the rank-and-file group in 99 per cent of the organizational units examined.) This results in a higher level of ideal than actual total control in most organizations. It also results in the

TABLE 1 ORGANIZATIONAL AND MEMBER-OFFICER COMPARISONS OF ACTUAL AND IDEAL PATTERNS OF CONTROL

	<i>Type of Organization</i>		
	<i>Voluntary Association</i>	<i>Business-Industrial</i>	<i>Unions<sup>2</sup></i>
I. <i>Organizational Type Comparisons<sup>1</sup></i>	% N 112	% 73	% 5
(a) % of organization units having actual negative slope	88	100	20
(b) % of organization units having ideal negative slope	10	99	—
(c) % of organization units in which ideal slope is more positive than actual slope	100	83	—
(d) % of organization units in which ideal total control is greater than actual total control	89	94	—
II. <i>Member-Officer Comparisons<sup>3</sup></i>	N 112	70	4
(a) % of organization units in which actual slope members is more positive than actual slope officers	68***	47	0
(b) % of organization units in which ideal slope members is more positive than ideal slope officers	55	72***	—
(c) % of organization units in which actual total control officers is greater than actual total control members	62**	72***	50
(d) % of organization units in which ideal total control officers is greater than ideal total control members	44	61	—
(e) % of organization units in which members more often than officers indicate a more positive ideal than actual slope	41	77***	—
(f) % of organization units in which members more often than officers indicate a higher level of ideal than actual total control	58	70***	—

1. Analysis based on member responses.

2. Measures of ideal control not obtained in the union studies.

3. The null hypothesis in the member-officer comparisons is that  $p=50\%$ .

\* Significant at .05 level, 2-tailed test; \*\* Significant at .01 level, 2-tailed test; \*\*\* Significant at .001 level, 2-tailed test.

actual curve approaching most closely that of the ideal near the upper levels of the organization. It is at the level of the rank-and-file member that the greatest discrepancy between actual and ideal control, as reported by members, occurs.

Differences in patterns of control as a function of organizational type are also suggested (see also I (a)-(d)). All of the business-industrial organizations are characterized by negatively sloped curves. The units of the voluntary association represented here are less negatively sloped than the business-industrial organizations,

although 88 per cent of the voluntary units studied have negative slopes. Four of the five unions studied are positively sloped.

Organizational differences are also seen with regard to the ideal distribution of control. Members of the voluntary units desire, in general, a positively sloped distribution, whereas participants in business-industrial organizations desire, perhaps with some sense of 'realism', a negatively sloped distribution of control (although less negatively sloped than the situation they judge to exist). The distribution which industrial members propose, unlike that proposed by voluntary members, does not deviate radically from the distribution which is seen to exist. Their response is probably determined, in part, by what seems possible under existing conditions of American industrial life. Furthermore, the somewhat greater degree of 'democratization' which members propose as ideal does not imply a lowering of the control to be exercised by levels in the hierarchy above their own. On the contrary, the increased control proposed for the rank and file is often accompanied by an increase in the control proposed for upper levels too (see, for example, *Figure 2*). In the great majority of organizational units in both the voluntary and the business-industrial organizations, the ideal total control exceeds the actual.

#### *Member-Officer Comparisons*

*Table 1* also compares members and officers in their judgements and ideals concerning different aspects of control (II (a)-(f)). In all the unions studied, officers judge the actual distribution of control to be more positively sloped than do members. This suggests some systematic bias in the judgements of the union respondents. This may be due to the special sense of pressure officers feel, as external representatives of the union *vis-à-vis* management and the community, to portray the union in a socially favorable way. However, in none of the unions observed is the sign of the slope different between members and officers. A positively sloped curve is, of course, consistent with a formal organization structure which is representational in nature. But in the voluntary organization a different result is apparent. Officers here are less inclined than members to represent their local leagues as democratic. Officers report on the average a more *negative* slope than members in 68 per cent of the branches. A systematic bias may be operating here, too, but in a different direction than that in the local unions. While officers and members share common ideals regarding control in the League, officers may be more sensitive to aspects of League functioning which fall short of these ideals and may therefore be inclined to represent their leagues as having a less democratic distribution of control than do the members. Still another pattern of findings exists in the business-industrial organizations. Members and supervisors, on the average, do not differ consistently in the slope of the control curve which they portray. In about half of the organizational units studied the supervisors represent their organizations as more negatively sloped than do rank-and-file members, whereas in the other half supervisors represent their organizations as more positively sloped.

When it comes to the ideal pattern of control, supervisors and members in the business organizations differ markedly, while, in the voluntary organization, members and officers do not, on the average, differ very much, if at all. In 72 per cent of the units of the business organizations studied, members desire a more positively sloped distribution of control than do supervisors. The proportion of voluntary units in which members desire a more positively sloped curve than do

officers is close to 50 per cent, and very much what is to be expected by chance under the null hypothesis. This ideological consensus regarding how their leagues should be controlled probably reflects the common values of the population from which the league draws its membership, and the shared interests between members and officers which participation in the league promotes. That members report more democratic ideals than do supervisors in the units of the business-industrial organizations perhaps indicates a conflict or difference of interests between rank-and-file and leadership groups in these organizations.

In both the voluntary units and the business organizations, officers are likely to see more control in general in their organizations than do members. Officers may be more inclined than members to err on the side of over-stating the control exercised by various groups in their organizations, or they may, through greater familiarity with the details of control at all levels, see and report manifestations of control which are not apparent to rank-and-file members.

The last two comparisons in *Table 1* (II(e) and II(f)) make explicit several comparisons already implicitly made (comparisons II (a)-(d)). In the business organizations studied, members more often than officers desire a more positively sloped distribution of control than they judge to exist. This difference does not occur in the voluntary groups, i.e. officers here want, as much as do the members, a more positively sloped distribution of control than they judge to exist. Furthermore, in the business organizations, members more often than officers desire a greater amount of total control than they judge to exist, i.e. ideal total control is greater than actual total control more often for members than for officers. This difference does not occur in the units of the voluntary association, i.e. officers as often as members indicate a higher level of ideal total control than actual total control.

#### RELATIONSHIPS OF ASPECTS OF CONTROL WITH ORGANIZATIONAL EFFECTIVENESS AND MEMBER ATTITUDES

*Table 2* presents correlations between measures of control and organizational effectiveness and member attitudes in four organizations. The correlations summarize, in part, results that are presented elsewhere. They are based on analyses done separately among the 112 leagues of the voluntary association, the 32 stations of the delivery company, the 36 dealerships of the automobile sales organization, and four local unions.<sup>7</sup>

The general significance of total control for organizational effectiveness and member attitudes is noteworthy. A relationship between amount of total control and organizational effectiveness is indicated by the data in the voluntary association, the unions, and the delivery company. Total control is also related to positive member attitudes in these organizations. On the other hand, degree of positive slope is related to effectiveness only in the sample of local leagues. It is also related to member loyalty in the voluntary association and to member morale in the delivery company. Relationships between the discrepancy between the actual and the ideal patterns of control and effectiveness and member attitudes are also indicated in the voluntary association and the delivery organization. The discrepancy between ideal and actual slope is negatively related to member attitudes

7. The studies referred to include Tannenbaum (1961), Likert (1960), Patchen, Seashore & Eckerman (1961), and Tannenbaum & Kahn (1957), respectively.

TABLE 2 CORRELATIONS OF ASPECTS OF CONTROL WITH ORGANIZATIONAL EFFECTIVENESS AND MEMBER ATTITUDES<sup>1</sup>

Independent Variables	Voluntary Association <sup>2</sup> N=112		Delivery <sup>3</sup> N=32		Sales N=33		Unions <sup>4</sup> N=4	
	Effectiveness (Expert rater judgements)	Member Loyalty	Effectiveness (Company time standard records)	Member Morale	Effectiveness (Company sales records)	Member Attraction	Effectiveness (Researcher judgements)	Member Loyalty
Degree of Actual+Slope (Members)	.31***	.26***	.14	.55***	-.18	-.03	R= .40	R= .40
Degree of Actual Total Control (Members)	.29***	.23**	.43***	.72***	.00	.21	R=1.00†	R=1.00†
Ideal minus Actual Slope (Members)	-.13	-.21**	-.24	-.35**	-.08	-.05	—	—
Ideal minus Actual Total Control (Members)	-.26***	-.25***	-.31**	-.26	.05	-.22	—	—
Member-Officer Agreement Actual Slope	-.03	-.16	.00	-.09	-.09	.19	R= .20	R= .20
Member-Officer Agreement Slope	.01	-.02	.49***	.06	.03	.13	—	—
Member-Officer Agreement Actual Total Control	.15*	.05	.34**	.11	.27*	.03	R=1.00**	R=1.00**
Member-Officer Agreement Ideal Total Control	.08	-.05	.38**	-.12	-.14	.12	—	—

1. Hypotheses relating total control and slope to effectiveness and member loyalty were first suggested in the union study, and two-tailed tests are employed to assess the significance of these relationships. Directional predictions were made in the subsequent studies and one-tailed tests are employed here.  
 2. Since log size is highly related to the measures of control and of effectiveness and member loyalty in the League, but not in the other organizations studied, the relationships in question were computed with log size partialled out.  
 3. Total control and degree of positive slope are highly related among the stations in the delivery organization, but not in the other organizations studied. To assess the independent effects of total control and of degree of positive slope on the dependent variables, the correlations with slope are partial correlations holding total control constant, while the correlations with total control hold slope constant.  
 4. Measures of ideal total control were not obtained.  
 \* Significant at .10 level, 1-tailed test; \*\* Significant at .05 level, 1-tailed test; \*\*\* Significant at .01 level, 1-tailed test;  
 † Significant at .10 level, 2-tailed test.

but not to organizational effectiveness in these organizations. The discrepancy between ideal and actual total control is negatively related to organizational effectiveness in both organizations and to member loyalty in the voluntary association. The extent of member-officer agreement (with the exception of agreement regarding actual slope) seems relevant to organizational effectiveness only in the delivery company. Member-officer agreement with respect to the amount of actual total control is related to effectiveness and to member loyalty in the unions.

## DISCUSSION

### *Similarities and Differences in Organizational Control*

Some interesting similarities in patterns of control are found among most of the organizations studied. The great majority of organizational units are characterized by negatively sloped control curves. All of these organizations require concerted member effort in performing tasks. The usual response to such a requirement is the employment of hierarchical control, and the finding of a preponderance of negatively sloped control curves is not surprising. However, the pattern of control reported by members in these organizations does not, for one reason or another, conform to what members consider ideal. It is perhaps to be expected that members will express a desire for the exercise of greater control of their organizations in a society where democratic values are extolled. And, of course, the exercise of control may bring certain pragmatic rewards and satisfactions.

It is interesting to consider why organizations are not reported to conform more closely to the ideal patterns of control as expressed by members in response to our questions. In some cases members are not able to increase the control which they exercise even though they may want to do so. They do not have the 'bases of power' (legitimate or other), or they do not have the knowledge necessary for the effective exercise of control. Or the organization may not be formally structured in ways to expedite control by rank-and-file groups. The League, for example, provides a structure permitting high membership control, but most industrial organizations do not. On the other hand, members may not be prepared to expend the effort that the exercise of control implies, even though they express the wish for greater control. The discrepancy between actual and ideal control within organizations nevertheless represents, we believe, an important fact of life for large numbers of persons.

It is notable that rank-and-file members do not very often wish to increase the control of their own groups at the expense of other groups in the organization. They are more inclined in many organizations to increase the control exercised by some other groups as well as their own. The ideal pattern proposed by most members does not often imply radical or dysfunctional aspirations regarding control. On the contrary, it implies a higher degree of total control, and, as we have seen, this is related to organizational effectiveness as well as to member attitudes in three of four organizations examined. Most members in the business-industrial organizations studied appear to accept the legitimacy of an effectively functioning system of control, rather than want a less highly controlled organization or any radical change in the pattern itself.

The differences obtained among the types of organization in actual and ideal patterns of control are of equal interest and are probably related to important

differences in structure, functions, objectives, and member expectations. The more negatively sloped distributions of control in the business-industrial organizations, as compared to the voluntary association and the labor unions, probably reflect the greater emphasis upon productive efficiency than on member welfare, and the traditional reliance upon a centralized system of authority for achieving this objective. In addition, the upper levels in these organizations have more extensive bases of power than the rank and file, including coercive, expert, and reward bases as well as legitimate bases. Furthermore, most members in business-industrial organizations expect and accept a hierarchical system of authority. This does not seem to be so much the case in the voluntary association or the labor unions.

The finding that members of the units of the voluntary association desire a positively sloped distribution of control, while participants in business-industrial organizations desire a negatively sloped distribution of control (although more positive than the situation they perceive to exist) may also be interpreted in terms of major differences between these organizations. The ideal pattern proposed by League members reflects League objectives and member expectations concerning 'democratic process' and is consistent with the representational system of authority and formal decision-making. The pattern desired by members of the business-industrial units is relatively consistent with the hierarchical organizational means ordinarily used for realizing the objectives of these organizations.

#### *Member-Officer Differences*

The effect which rank has on the perceptions of control and the ideals one holds regarding control would seem to depend on the nature of the organization as well as on the population from which it draws its members. Business and industrial organizations have relatively well-defined formal patterns of authority, and the actual distribution of control is not likely to vary very much from this pattern. The relative amounts of control exercised by different echelons are therefore fairly clear to workers and supervisors, and are likely to be a fairly well-accepted fact of life. Voluntary agencies and labor unions have less clearly defined patterns of authority, and the actual distribution of control is more fluid and hence more ambiguous. In addition, a democratic pattern of control is an important (if sometimes unrealized) value to both members and leaders. One might therefore expect greater differences between officers and members in their perceptions of slope in the voluntary agencies and labor unions than in industrial organizations.

Supervisors and workers in industrial organizations, however, do differ significantly in their perceptions of total control as do officers and members of the voluntary association. Total control is not formally defined in organizations as slope implicitly is and therefore may be subject to more variation than slope. It may vary with the nature of leadership and other factors (Likert, 1961). Consequently, perceptions of total control may be more subject to variation, particularly between members and officers, in part owing to their differential familiarity with the control exercised by the various echelons.

The differences between members and officers regarding the ideal pattern of control in the business-industrial organizations may reflect conflicts created by objectives which are not primarily oriented toward furthering the interests of most members, by different positions with respect to a hierarchically distributed control structure, and by a relatively unequal share of the rewards of these organiza-

tions. The ideological consensus between members and officers in the voluntary association not only reflects their shared values concerning democratic process, but may also be a function of the formal structure of the local league, including the committee and membership meetings, the election of officers, and the broad decision-making rights of the membership.

#### THE IMPLICATIONS OF ORGANIZATIONAL CONTROL

The relevance of total control for organizational effectiveness and positive member attitudes seems especially noteworthy. Substantial control exercised by both leaders and members appears to be a correlate of high organizational performance in the majority of organizations examined. This apparently occurs because the motivations and contributions of the rank-and-file members are utilized, as well as those of the leaders. This conclusion is substantiated by the positive relationships obtained between amount of total control and member loyalty or morale. However, this pattern of control may be conducive to high organizational performance through different processes such as participative management as described by March & Simon (1958, page 54) or co-optation as discussed by Selznick (1953), or as a system of high interaction and mutual influence as suggested by Likert (1961). This pattern of influence provides one of the major bases for concerted, integrated activity underlying effective organizational performance.

It is interesting to find that the League is the only organization among the four in which slope relates to effectiveness. The ideals of League members, as well as the formal structure of the local league, including its system of authority and decision-making, are potentially consistent with a positively sloped distribution of control. Those leagues which come closest to fulfilling this potential, i.e. which have less negatively sloped curves, tend to be relatively high in effectiveness and member loyalty. However, while slope is significantly related to effectiveness in the League, total control is not unrelated to effectiveness. Each of these variables independently is related to effectiveness, the most effective leagues being those high both in degree of positive slope and in total control (Tannenbaum, 1961).

Many of the formal characteristics of the League apply to unions, too, but there are differences. Perhaps the most significant concern the conflict in which unions engage with their managements, and the pragmatic or 'bread-and-butter' orientation which most members have toward their unions. Members are not unconcerned with how their unions are controlled, but they are probably more interested in the material benefits with which their unions may be able to provide them (Lipset, Trow & Coleman, 1956). We thus find that while four of the five unions are indicated by their members and officers to have positively sloped curves, slope, *per se*, is not related to effectiveness or member loyalty. Both of these dependent variables are connected with what the union is doing for its members, and the hypothesis has been proposed that this is a function of total control (Tannenbaum, 1956).

In the units of the delivery organization, amount of total control is highly related to member morale, as well as to organizational effectiveness. A high amount of total control may reflect, as Likert (1961) suggests, a high degree of mutual influence and involvement among organizational members at all levels, facilitating the integration and realization of their interests. Slope is also related to member morale in the delivery organization. This is consistent with the hypothesis that

some conflict of interest is felt by rank-and-file members between themselves and the manager, and that under this condition workers are likely to be happier if the discrepancy between their power and that of the manager is not so great. Having control relative to the manager then seems to boost morale in the delivery organization, as reported by members, even though it does not lead to greater productivity.

Moreover, member-officer agreement regarding several aspects of control is related to effectiveness only in the delivery organization. This may be attributable, in part, to the greater degree of disagreement concerning control in this organization than exists in the League or the sales organization (see, for example, *Figures 1 and 2*). It may be that disagreements must reach a certain magnitude before they contribute to conflict and impede organizational performance. Member-officer agreement concerning control may also be more important in the delivery organization than in the League, since the latter organization is set up to resolve disagreements through meetings and discussion, while the former is not. Disagreements in the delivery organization remain disagreements. We thus find larger disagreements in this organization than in the League, and a possible negative effect of these upon the performance of the delivery units.

The sales organization does not show the relationships which are found in the other organizations. This may be attributable to the inappropriateness of the dependent variable measures here. For example, sales volume may fluctuate widely owing to conditions external to the organization, and these fluctuations may not have been adequately taken into account in the ratio of actual to expected sales volumes employed as our measure of effectiveness. A second interpretation suggests that the nature and importance of control depend upon the integration and coordination required in an organization. Dealerships are characterized in large measure by independent, individual performance of salesmen; little coordination and interdependent activity are required. Furthermore, the rewards which salesmen achieve depend upon the success of individual, if not competitive, performance.

## CONCLUSION

This paper has attempted to provide some information concerning aspects of organizational control through a comparative analysis of a number of organizations. The need for comparative approaches is great, but comparative studies are beset with serious conceptual as well as methodological problems. There is especially the difficulty of defining and measuring dimensions of organizational structure which are general and conceptually meaningful, and which are, at the same time, amenable to standardization and replication.<sup>8</sup> The control graph method has been offered as one approach to the comparative study of organizations. It has been claimed to have the advantages of being a general, quantitative technique with conceptual as well as operational potentialities (Tannenbaum & Kahn, 1957). The data of the present article help to illustrate the potential of this method in comparative analyses of organizations. They also suggest some of its limitations as it has been applied so far. Perhaps the most serious of these is the reliance placed on the judgements of organization members for the measures of

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8. For a summary of measurements of organizational structure, see the extensive review by Barton (1961).



control. Yet, some of the meaningful differences between organizational types, and some of the significant and meaningful correlations between indices of control and independent criteria of organizational functioning (e.g. productivity) suggest that the data are reasonably reliable and that they may even have some validity as objective measures. In any event, this is an area in which methodological refinement is called for and we would hope to make some progress here through further research. In the meantime, we offer the data of the present study as illustrative of the potential of the method and as suggestive of a number of hypotheses about organizational control ('perceived', 'real', or 'ideal') which are amenable to empirical tests.

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