NEW FRONTIERS IN ADMINISTRATION FOR JUNIOR COLLEGE ADMINISTRATORS, PROCEEDINGS OF A CONFERENCE SPONSORED BY COORDINATING COMMITTEE CALIFORNIA LEADERSHIP PROGRAM, UNIVERSITY OF WASHINGTON, AND WASHINGTON STATE UNIVERSITY (SEATTLE, APRIL 2-4, 1962).

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PARTICIPANTS IN THIS CONFERENCE OF LEADERS IN THE JUNIOR COLLEGE MOVEMENT AND EXPERTS IN THE FIELDS OF LEADERSHIP, ORGANIZATION, AND RESEARCH EXAMINED BASIC CONCEPTS FROM WHICH TO DEVELOP TECHNIQUES FOR EVERYDAY MANAGEMENT OF SCHOOL PROBLEMS. WORKING PAPERS WERE GIVEN ON (1) LEADERSHIP, (2) ORGANIZATION, AND (3) INSTITUTIONAL RESEARCH. THE PRESENTATIONS ON LEADERSHIP COVERED (1) SOURCE MATERIALS, (2) INNATE AND DEVELOPED QUALITIES OF LEADERSHIP, (3) THE CREATION AND EXHIBITION OF LEADERSHIP BEHAVIOR BY THE GROUP SITUATION, BY THE GROUP STRUCTURE, AND BY ITS MEMBER PERSONALITIES, (4) THE CLASSIFICATION OF LEADERS AND LEADERSHIP CONCEPTS AS SYMBOLIC, DECISION-MAKING, ADVISORY, OR INITIATIVE, (5) CONCEPTS OF LEADERSHIP FUNCTION, (6) THE GROWTH OF THE NONTEACHING BUREAUCRACY AND ITS EFFECTS ON FACULTY PARTICIPATION IN UNIVERSITY POLICY MAKING, AND (7) THE NEED FOR FACULTY TO ACCEPT SOME ADMINISTRATIVE DUTIES ALONG WITH TEACHING AND RESEARCH. THE ADDRESS ON ORGANIZATION EXPLORED THE COMPLEX INTERACTION OF POWER, CHANGE, DECISION-MAKING, AND COMMUNICATION NETWORKS. THE PAPERS ON RESEARCH COVERED ITS SIGNIFICANCE IN INDUSTRIAL PROGRAM PLANNING AND DEVELOPMENT (AS EXEMPLIFIED AT THE BOEING COMPANY), AND IN COLLEGE ADMINISTRATION, PARTICULARLY AS APPLIED TO STUDENT ATTITUDES, INSTRUCTIONAL QUALITY, AND THE CREATION OF A FERTILE CLIMATE OF RESEARCH WITHIN THE ORGANIZATION. (HH)
NEW FRONTIERS
in
ADMINISTRATION

For Junior College Administrators

Conference Sponsored by
COORDINATING COMMITTEE CALIFORNIA LEADERSHIP PROGRAM
UNIVERSITY OF WASHINGTON
WASHINGTON STATE UNIVERSITY

April 2, 3, 4, 1962
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UNIVERSITY OF WASHINGTON
SEATTLE
FOREWORD

The public junior, or community, college is one of the most rapidly expanding units of post-high school education in the Western States. The need for more administrators to assume roles of leadership in this fast-developing movement is increasing at a corresponding rate.

New implications for educational leaders are presented by developments in the understanding of leadership, organization and research.

It seemed wise, therefore, to bring together those in administrative positions in junior colleges with those who are developing new understandings in the basic elements of leadership, organization and research, in order that the implications for both groups could be discussed and reviewed.

This report contains the results of such a conference. The presentations and papers are published herein.

Frederic T. Giles
Editor
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Authors</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORGANIZATION AND PURPOSES OF THE CONFERENCE</td>
<td>Frederic T. Giles</td>
<td>1</td>
</tr>
<tr>
<td>LEADERSHIP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Basic Elements of Leadership</td>
<td>Wendell Van Loan</td>
<td>2</td>
</tr>
<tr>
<td>Implications of Leadership for Administrators of Junior Colleges</td>
<td>William H. Crawford</td>
<td>8</td>
</tr>
<tr>
<td>The Professor and the Bureaucrat</td>
<td>Solomon Katz</td>
<td>9</td>
</tr>
<tr>
<td>BASIC ELEMENTS OF ORGANIZATION</td>
<td></td>
<td></td>
</tr>
<tr>
<td>New Concepts and Research in Organization:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ELEMENTS OF ORGANIZATIONAL RESEARCH</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Significance of Research in Program Planning and Development</td>
<td>B. F. Beckelman</td>
<td>23</td>
</tr>
<tr>
<td>Implications of Research for Administration of Junior Colleges</td>
<td>Frederick C. Kintzer</td>
<td>26</td>
</tr>
<tr>
<td>EVALUATION OF THE CONFERENCE</td>
<td>Frederick C. Kintzer</td>
<td>27</td>
</tr>
<tr>
<td>This is What I am Taking Home from the Conference</td>
<td>John W. Dunn</td>
<td>27</td>
</tr>
<tr>
<td></td>
<td>W. M. Douglass</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rodney K. Berg</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Alfred M. Philips</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Eugene Short</td>
<td></td>
</tr>
<tr>
<td>PROGRAM</td>
<td></td>
<td>33</td>
</tr>
<tr>
<td>LIST OF PARTICIPANTS</td>
<td></td>
<td>36</td>
</tr>
</tbody>
</table>
ORGANIZATION AND PURPOSES OF THE CONFERENCE

Frederic T. Giles
Professor of Higher Education
University of Washington

Once in a while an idea dropped in the right environment grows and becomes a reality. This conference is the result of such a phenomena. We in the Northwest are indebted to the Coordinating Committee of the California Junior College Leadership Program for its leadership, manpower and financial assistance. Their generous support combined with the enthusiasm of William Crawford and myself, and the personal interest of President Charles Odegaard and Dean Gordon Lee of the University of Washington, including added financial assistance, makes it possible for us to gather together for what may become the most significant conference for community college administrators ever held in the Northwest.

The specific purpose of the Conference is to provide stimulation and background material for administration as educational leadership. Our hope is that we can focus on the basic elements of educational leadership, in order to understand better the underlying philosophical components which affect our proficiency as education leaders.

To do this we are not focusing on techniques or "the nuts and bolts approach." Our goal and desire is that during these three days something will be said or done which will produce in each of us new insights into basic concept which will become a part of us and work for us as we develop techniques to meet our ever-evolving problems.

If you don't get this from the Conference, I can assure you that you can get it from trying to put a conference like this together.

Therefore, the Conference has been planned around the following assumptions:

1. That the group should be assembled by invitation and restricted to persons involved in administration.
2. That it should be of workable size.
3. That the meals should be a regular part of the Conference.
4. That maximum benefit should be obtained by participation in the entire Conference.

The program is organized around three topics: leadership, organization, and institutional research. We have obtained a person to present a background or working paper on the theory and basic elements of each topic to serve as a focal point for small group discussion.

These group discussions are led by three of the outstanding leaders in junior college administration in the United States.

Instead of a summary, the last session will be an old-time revival meeting where people will be asked to come forward and give their testimonial and commit themselves to being a better educational leader.

The entire proceedings will be published and furnished to each participant.

There is no more important contribution that each of us can make than that of being an educational leader in our college and community. We hope this conference will assist you in attaining this goal.
LEADERSHIP

BASIC ELEMENTS OF LEADERSHIP

President Wendell Van Loan
Southwestern Oregon College
North Bend, Oregon

The first task which I shall undertake in developing the assigned topic is the traditional one of reviewing some sources of materials which must be available to anyone assuming the role of leadership.

A first and major source is, of course, the U.S. Department of Health, Education and Welfare. The Division of Higher Education is working at the task of responding to the many requests from the field and although I do not have a specific reference from the Department or the Division in the field of leadership, it is obvious that such a reference as "The Two Year Community College" (1), an annotated list of studies and surveys and "Criteria for the Establishment of Two Year Colleges" (2) are invaluable to the leaders in our movement. Both of the above references were produced by Dr. D. G. Morrison and Dr. S. V. Martorana of the Department of Health, Education and Welfare.

The second major source of material comes from the National Education Association and was produced by the National Training Laboratories under the editorship of Bradford, Lippitt, and Dorothy and H. Curtis Mial. The four volumes of selected papers on "Group Development" (3), "Leadership in Action" (4), "Forces in Learning" (5), and "Community Development" (6) are the results of work done since the beginning of National Training Laboratories at Gould Academy, Bethel, Maine in 1947.

It must be noted that the work done by the National Training Laboratories and the National Education Association is resulting in many institutions establishing departments and doing research in the behavioral sciences. All of this endeavor is pointed toward developing human relationships between leaders and groups and between individuals within the groups and the leader of the group. Obviously a great deal of material has been produced which has been dispersed in many ways but if you were to examine the four small volumes mentioned here, you would know who was producing the material and where it could be found.

Before leaving this particular area of endeavor in the field of group dynamics, I will mention the "Tool Kit" published by "Adult Leadership" in September, November and December of 1952. There is also a manual prepared by Gibb, Platts and Miller (7) entitled Dynamics of Participative Groups that is an excellent handbook to help any group improve its operative procedures.

The third major source of material comes from the "Cooperative Program in Education Administration" with sponsorship by W. K. Kellog Foundation. All the centers established by the Foundation have produced material having some bearing on improving administrative technique and decision making in educational units. I have only two reports before me now. One is from the School of Education at the University of Oregon (8) and the other from Teachers College, Columbia University (9). Each of these has a list of published materials available.

Closely related to these materials of the Foundation is the volume by Griffiths, Administrative Theory (10) on current problems in education. This booklet does a forthright job of placing theory in proper relationship to administration and decision making.

The fourth major source is the Midwest Administration Center at the University of Chicago. Here under the directorship of Dr. Roald F. Campbell is being
published the Administrator's Notebook (11) (September through May) dealing with current problems facing the administrator.

Three booklets dealing with the role of the administration leader such as Administration Relationships by Guba and Bidwell (12), the Leadership Behavior of School Superintendents by Dalpin (13), and Executive Succession and Organizational Change by Carlson (14) are each involved in portraying the role of the leader. These materials, regardless of the fact that they are written for the benefit of administrators of some 40,000 school districts, can be readily translated by administrators of the 600 community and two year colleges in America.

The fifth and last source of material used was a few selected references in psychology. In these texts one finds the standard, most usable and well documented statements on leadership and its role in human relationships. The authors used were: Ernest R. Hilgard (15), Krech and Crutchfield (16), Martin and Stendler (17) and Fred McKinney (18).

The sources which I have listed may be well known to you and I hope you may agree with me that they are good enough to stand some review. In any event, I believe the first task in considering basic elements of leadership is to examine rather critically the best research and writing available.

The second task in considering basic elements of leadership should perhaps be that of determining whether leadership is innate or acquired. Those who think that teachers, doctors, lawyers, ministers are born and not made are correct at least two points. One, it is evident the individual was born and second, the psychologists have convinced us that there are innate tendencies which, when and if developed, will produce persons of varying abilities.

There are many factors within the environment that must be recognized as having a definite influence on the person, for example: being an only child, one of a family of six, the oldest, the youngest, the favorite of either or both parents, social and economic status, opportunity to develop to the fullest on a continuous and constant growth pattern. If one accepts the fact that there is innate ability, it then appears, according to Martin and Stendler (17) that leaders come from homes in which the parents have stressed having children assume responsibility at an early age. The parents themselves were assuming leadership roles in the community and they were teaching their children to assume such roles in the home, in the church, and at school on their level of activity.

Terman's (19) study showed that those with superior ability made unusual use of their talent. Those with the same intelligence who failed to become leaders apparently failed because of inability to become socially mature, and seemingly lacked perseverance, confidence in self, and in some there was a question of integrity.

No one claimed at the time of the birth of Confucius, Christ or Mohammed that they would be recognized as great religious leaders. No one claimed at the time of the birth of Washington, Lincoln, Theodore or Franklin D. Roosevelt that each would become President of the United States. We know that each did, that each man varied considerably in his personal traits, and that each man was accepted as a leader of men in spite of the variation in type.

Enough of this. You know that the first requisite is intelligence and that intelligence consists of three elements. The first is the ability to do difficult things. The second is to do a great many of them—continually and consistently. The third is to do a great many difficult things in a short period of time. You also know that the second requisite to basic leadership is an environmental situation which demands a leader who is able to do the impossible.
My third major task in analyzing the basic elements of leadership calls for consideration of the types of leaders needed. The world is divided into many major cultures and innumerable subcultures. Race, creed and religion are the three which are dividing the world into various camps. The control of men's minds, hearts and hands is earnestly and strategically sought by the leaders of the major groups. President Kennedy stated that he is "confident of the ultimate conquest of communism." Is Martin Luther King as confident that he is going to integrate the South? Is the head of any one of the great religions confident that sin is going to be banished from the earth? Apparently we do not need any more mountains or ideologies but rather we need men to climb and conquer the ones we have.

There are many classifications of leadership such as authoritarian, autocratic, dictatorial, executive, dynamic, expert, equitarian, democratic, laissez faire, humanitarian, and you may add your own. President Kennedy states that the world culture is demanding that we shift from the authoritarian to the humanitarian type of leadership. The material to which I referred, published by the National Training Laboratories, on developing democratic leadership and group activity, is not found in the libraries in the U.S.S.R. We on the other hand are beginning to study communism seriously. Perhaps we will learn more about democracy by studying communism.

In any event, Lippitt (4) tells of some experimental groups formed with ten-year old boys. Five boys made up each group under adult supervision and the tasks of carving, assembling and making things were performed. In the authoritarian adult-operated groups, the boys tended to be more aggressive and more apathetic than did the boys in the adult-supervised, democratically-operated groups. The democratically operated groups seemed to have more unity and cohesiveness. In the authoritarian group the boys seemed to be more demanding of the adult leader and when aggression was evidenced, it was toward a "scapegoat" in the group—not the leader. Each of you has seen this same type of performance carried out during faculty meetings which have been handled in a similar manner.

We can make a list of organizations and opposite each place a descriptive term applying to the type of leadership we think is running that organization. Try a few such as the U.S. Chamber of Commerce, the AFL-CIO, American Medical Association, National Education Association, American Federation of Teachers, N.A.A.C.P., K.K.K., United States Senate, United States Air Force, University of Washington and the religious group to which you belong. You may belong to a group that is known to be operated by leaders who are nationally and internationally known as democratic or authoritarian, or laissez faire. If you do belong to such a group and you approve of the type of leadership, you must accept the idea that the group has created and maintain the kind of leadership it likes—at least it is liked by a majority of the members most of the time.

Leadership behavior is created and exhibited by the group situation, by the structure of the group and by the personalities of the group members. In spite of the fact that there is a wide variety of types of leadership in evidence, the studies show that groups prefer leaders who are intelligent, dominant, self-confident, and who have a tremendous drive toward goal achievement and, finally, a strong sense of identity with the group. These traits are generally recognized and accepted as applying to those who hold important leadership positions.

It must be observed that leaders emerge from inside an organization unless it is one that has a leader appointed by someone removed from the organization. In the latter case, such as a presidential or gubernatorial appointee, the group is stuck with what it gets and must either accept him or send him back. The appointed leader must also decide whether to "lick 'em or join 'em," and if he is to emerge as the leader, he certainly will have to develop a strong sense of identity with the members of the group in a great hurry.
The group in most cases courts and woos, ignores and accepts the new leader, regardless of whether he comes from within or without, always keeping in mind that the group goals are the important things to be achieved and if the leader can’t achieve them, off goes his head.

With this brief presentation of types and traits of leaders, let us move into the next phase of my presentation.

The fourth task to be considered appears quite naturally to be that of the function of leadership. Most leaders play many roles and all of them are bound up in the desires of the group and his ability to symbolize their satisfactions. The problems requiring solution by the group cannot be separated from the processes used by the functioning leader.

Lippitt (4) has researched the field of leadership quite thoroughly and states that in his opinion the old "trait" approach is inadequate because successful leaders have different traits, come from different backgrounds and have personalities wholly different from each other. He also indicates that the "situation" approach has too many variables involving the personal drives of the leader and the forces outside of the group which may have created the leader with or without his or the group's consent. Lippitt states that in general the leader performs four functions:

1. "Leader may be symbolic."
2. "Leader may be a decision maker."
3. "Leader may be an information dispenser and advice giver."
4. "Leader may be an imitator of plans to achieve goals."

Obviously, all of these functions are probably performed in a degree by anyone who is the leader of any sizable important group. Lippitt points out that a monarch, a president, a teacher, a boss or a gang leader would to a degree be symbolic, make decisions, give advice and initiate programs.

The fourth approach to leadership described by Lippitt is that of the "styles" of leadership. We have indicated that there are autocratic, laissez faire, and democratic styles at least and Lippitt does not feel that any situation in the group will be so constant that a leader could maintain only one kind of leadership indefinitely. In fact, a good leader who continues to lead will express many traits, behaviors, and styles of leadership which of course brings Lippitt to his favorite explanation of leadership which is readily understood to be the "Functional Leadership Approach." This approach is naturally one which works from the premise that problems of the functioning group cannot be separated from functioning leadership. Functional democratic leadership takes much more time in the problem-solving and decision-reaching activities than does the autocratic, angle player, manipulation type. When you work on the theory that anyone who is to be affected by a policy to be established, should have something to say about it before it is enacted, you are necessarily slowing down the speed with which the group can work.

It must be observed here that even though more time is taken when more people are involved in making decisions, that there will be less time needed to implement the required action. A functional leader will delegate and distribute as much leadership activity throughout the group as possible. In a sense, a good leader is one who becomes so well integrated in the group that he can almost assume the role of follower. An organization can run smoothly only if the leader arranges for a division of labor, indicates channels that will work papers through to action, and becomes a sort of father figure. Conversely, when things go wrong, he becomes a scapegoat rather quickly.

At this point, suppose we review what we have said and see if we can pull things together. First, we reviewed material and sources of material that would
be useful in examining the field of leadership. Second, we explored the matter of innate and environmental influences on development of leadership. Third, we examined the literature on types and classifications of leaders and leadership. Fourth, we presented concepts of the function of leadership.

At this point I am tempted to use the negative approach and recite a list of behaviors which will guarantee loss of leadership position to anyone. If a person has no prestige, fails to recognize personal worth of individuals, can't remember names and faces, is not pleasant or good natured, is always bragging about his accomplishment, never compliments anyone, always criticizes destructively, has no sense of humor, resists all changes proposed, is rigid in thought and action, and always fails to attract attention while presenting his views—then that person is not a leader and if he or she is in a leadership position, then he or she should be fired! Now, hurry up and check yourselves on the "Leader Behavior Description Questionnaire" available from the Midwest Administration Center. In fact, you will find it very interesting to fill out the questionnaire in which you describe your leader; then fill out the next one which indicates how you feel your leader ought to behave; next fill out the questionnaire telling how you believe you behave as a leader, and finally fill out the sheet indicating how you believe you should behave. If you haven't done this honestly, you ought to and so should anyone else who is in a position of leadership. I truthfully believe that the quality of leadership would improve tremendously if everyone analyzed his leader from the standpoint of the "real" and the "ideal" and then analyzed himself from the "real" and "ideal" standpoint. The task of going through the 80 items four different times with a different motive each time would certainly make an indelible impression upon anyone interested in leadership analysis.

Possibly this would be a good place to mention two other references which have been used very thoroughly by the people of America. First, the Dale Carnegie "How to Win Friends and Influence People" (20) which sold over four million copies and the Stuart Chase book "Roads to Agreement" (21) which also was a best seller. After all, what we as leaders are trying to do is win friends and influence people by agreement.

Finally (this does have to close, you know) what is our objective—really? It seems to me that we are trying to improve the quality of leadership because the economic, political, social and educational problems of the world and of our nation are becoming more complex. A captain of industry stated the other day in a public address that today's automobile, costing $3500 would have cost $70,000 if it had to be made with the tools used in 1910. Constant retooling in industry is forcing us to retool our customs and our culture. You have probably heard it said recently that perhaps as many as one third of the unemployed would never be rehired to do what they were doing when they quit or were laid off.

What does this mean to us? It means that the sign "seventeen-year old men wanted" has been taken down and one saying that "twenty-one year old boys" need not apply. Call the Comprehensive Community College an extension upward of the high school or downward of the senior college or outward of the community's own needs as you will. The point is that we are faced with a tremendous challenge of what to do with about 40 per cent of our youth and about an equal per cent of our adults who are either unemployed, unemployable or are on too short a work day, week or year.

If the Latin grammar school was the answer to the educational needs of the seventeenth century, the academy of the eighteenth, the high school of the nineteenth, the comprehensive community college will be the answer for the twentieth century. I think we know what the basic elements of leadership are and we must accept the challenge of providing that leadership to our institutions. We as leaders cannot say, "Why don't they." We must say, "Why don't I," and go ahead and do it!


11. Campbell, Dr. Roald F., Administrator's Notebook, Midwest Administrative Center, University of Chicago, circa.


14. Carlson, Richard O., Executive Succession and Organizational Change, University of Chicago, circa.


IMPLICATION OF LEADERSHIP FOR ADMINISTRATORS OF JUNIOR COLLEGES

William H. Crawford
Professor of Higher Education
Washington State University

Three discussion groups, meeting separately, considered the problem of leadership in administration on Monday afternoon. The discussions followed presentation of the topic, "Basic Elements of Leadership," by President Wendell Van Loan.

Two major assumptions were considered:

Assumption 1: The most important purpose of leadership is the establishing and obtaining agreement on goals.

Assumption 2: The junior-community college serves its community.

These assumptions pose problems of complexity for the president as he defines and exercises his leadership function. How does the leader recognize the needs that his institution must serve? How does the leader bring his community to agreement on these needs? Because communities are different and possess different needs, the actual direction of leadership will vary from school to school. There are, however, universal principles which are applicable in all situations. Certain elements of leadership which have commonality are: (1) versatility (shifting from authoritarian to democratic, to laissez-faire as the need arises), (2) respect for principle and character in human relations, and (3) recognition of the worth of the individual.

The complex nature of administrative leadership was illustrated by the question, how does the leader respect his own principles as he finds it necessary to play a different role with the board member, the instructor, and the community? Such a question points up the need for defining the leadership role of the president. The role of the community-junior college president, traditionally has not been well defined and is, therefore, influenced and shaped by the rapidly changing role of the junior college.

We should be aware but not wary of the changing role of leadership. That role never casts the administrator in the position of "operator" as he deals with people. Principle and ethical conduct govern the leadership role. Leadership comes through effort of all members of an institution working toward goals which are agreed upon by all. Such leadership encourages group effort and is tolerant of honest mistakes and does not resort to authority resident in the status position of president.
THE PROFESSOR AND THE BUREAUCRAT

Dr. Solomon Katz
Dean, College of Arts and Sciences
University of Washington

During the so-called Spring vacation, as I was preparing "to take up arms against a sea" of such mounting troubles as new budgets and buildings, faculty salary increases - should they be based upon merit or longevity? Gerontological salary increases, as it were - I received more or less flattering invitations to speak on the campus. I say "more or less flattering," because the one invitation came from the program chairman of a staff organization who understood that I was soon to be retired and wanted me therefore to give my valedictory or swan-song to her group. When I told this charming young woman I was still reasonably far from entering upon the "sere and yellow leaf" of retirement, she apologized and said that perhaps she had misunderstood, perhaps that she had heard was not that I was soon to be retired, but rather fired. Now all of us know that the secretarial grapevine is as effective an intelligence network as the CIA. So overcome was I by anxiety at my putative fate that when the second telephone call came, the one from Professor Giles, inviting me to address this distinguished group, I acceded at once.

If, I said to myself, the young lady is right, that I should feel the intimations of mortality, I have here a captive audience, the last perhaps that will pay me heed. So I did not try any of my usual escapist tactics: too busy to accept a speaking engagement (to anyone who knows me, as Fred Giles does, the flimsiest of excuses), likely to be out of town (the answer would surely have been, "Are you ever in town?"); unlikely to have anything worth saying (the only irrefutable objection, but one I refused to use).

Here I am, then, privileged to be addressing this group, the vital nerve center of our western junior colleges, the people, to coin a cliche, who know how to meet a payroll. I am delighted to help welcome you to the campus of the University of Washington and to direct you return to those deliberations of a more professional and more arcane nature to which no outsider should be privy.

If I had been asked two years ago, before I was translated to a deanship - it happened appropriately enough on All Fools' Day - to speak to this group, I might have shared with you my mournful thoughts on the increasing extent to which the life of the mind is being eroded by the practical concerns of bureaucracy. I might then have defended the academic bastions against the assaults of forms and reports in serried quintuplicate, the heavy artillery of mimeograph machine, Verifax and Ozalid, and against the ultimate weapon, the IHM which shoots students, faculty and nonacademics alike full of holes and makes it impossible for anyone but an expert in Braille to determine that once these faceless forms (do not fold, spindle or mutilate) were palpitant and sentient humans.

But now in April, 1962, I would be a traitor to my own administrative class and churlish to boot if I, by now, a fairly house-broken bureaucrat, were to address to you any invidious remarks about bureaucracy. I should like instead to make a few hopefully objective comments about the relationship of faculty and administration, between those who frequent the groves of the Academe and those who toil mightily in the lush vineyards surrounding these groves. Let us entitle these remarks, "The Professor and the Bureaucrat," rather than "The Professor vs. the Bureaucrat." And if I refer to universities I hope that you will regard that as a generic term embracing four-year colleges and junior colleges as well.

Any professor, and I am still a part-time one, worthy of at least an across-the-board salary adjustment, ought to provide a bibliography for any subject on which he ventures to speak. Here then is a reading list for your supplementary reading on the Professor and the Bureaucrat.
The locus classicus is Caplow and McGee, *The Academic Marketplace*, an illuminating analysis of the personnel practices in American universities today and the effects of these practices on the structure, spirit, and goals of higher education. Here you may find explanations of the meaning and operation of such phenomena as "The Swivel Effect," "The Self-Aggrandizement Effect," and "The Game of Personnel Poker." Here in brief is a sociological description of the academic subspecies of the Organization Man, the man in a Robert Hall grey flannel suit. Another source, this time on the special problem of the campus and the state is the book by that title by Moos and Rourke. Both these studies reveal the extent to which professors, whether or not they like it, have had to assume some of the attributes of the bureaucrat. Those who are distressed by that involvement will find comfort in an article in the *New York Times Magazine* of October 12, 1956, "A.B. = Academic Bureaucracy," in which a university professor with the unlikely name of John Q. Academesis complains that a luxuriant undergrowth of nonteaching administrators is choking the groves of Academe. I could multiply the list of references, but a quarter of a century of teaching has finally taught me to be realistic about the extent to which reading lists are used by my audiences.

Now, it is perfectly obvious, even if you read none of these books for articles, that one of the most striking changes in American higher education during the past generation has been not the increase in the proportion of young people going to college nor the edifice complex which has given every campus an increasingly number of imposing buildings, nor the proliferation of courses, but the phenomenal growth of the academic bureaucracy, a largely nonteaching bureaucracy.

I am not going to argue, as some professors do, that universities were better off 25 years ago when the administrative work of a division of a university could be done by one person, aided perhaps by a secretary. Nor on the other hand am I going to argue that the operation in universities of Parkinson's Law is good - that continuous growth in administrative personnel occurs, regardless of its contribution to the main task or the need for such personnel. Increased enrollment, the increased complexity of the concerns of the modern university have drawn into the academic community a larger and larger number of administrative and service personnel whose immediate functions are neither educational nor academic. This has led to an increasingly complex organizational structure which may obscure the primary functions of the university and destroy its intellectual unity.

Bigness per se is not entirely unhealthy, of course. A large school has more resources at its disposal than a smaller one. But it also requires more organization, which in turn creates the danger of over-organization. And always there is the danger that the faculty lacking special administrative skills or shunning administrative tasks as somehow unclean will become increasingly divorced from day-to-day policy-making decisions and even, in some cases, from many fundamentally important decisions affecting the future of their community. Yet the faculty are coordinate elements of a university. As such, they, as well as administrators, must have the opportunity and the willingness to influence university policy. The accelerating growth of the universe and the consequent differentiation of its elements leads to an excessive specialization of function and outlook: administrators administrate and make decisions; professors teach and do research and such a split strikes at the essence of a university community: its unity. When the community is split into increasingly discrete groups, it can no longer flourish.

The plain fact, it seems to me, is that the complex American university needs a complex administrative organization to enable it to accomplish efficiently and well, its main purpose of teaching and research. But that same administrative machinery must work for the faculty rather than the reverse. There is always the danger that a large and powerful bureaucracy will place a premium
upon service to its ends and these ends do not always coincide with the primary functions of the professor. And, of course, there is always the further danger that the overhead for an administrative bureaucracy may be an excessive drain upon the resources of a university. Universities and professors, then, may as well recognize the need for a complex machinery of administration, but be insistent upon the role of administration as an aid and a resource, rather than as an end in itself.

It should be the function of university administrators to serve the faculty and students. They should with sensitive discrimination relieve the scholars of a mass of administrative details, while the scholars retain authority for determining the character of the university and the policies under which it functions. They should protect the faculty against the burden of administrative responsibilities, without weakening the initiative of faculty leadership through disuse.

This suggests a dichotomy between faculty and administrative responsibilities. I am not sure that the dichotomy is in the interests of the faculty or the university. The faculty must, pro bono publico, or out of enlightened self-interest accept some administrative responsibilities, whether it be in departments, colleges, committees or Senate. I shall confess my dismay when last February I received a memorandum from the chairman of the Senate Committee on Committees asking all members of the faculty to designate preferences for committee service on an enclosed IBM card and expressing his regret that because there are only (sic!) 200 committee memberships available, it is impossible to assure that appointment will be recommended for any particular committee. Perhaps what is needed is an ad hoc committee to study the feasibility of appointing an ad hoc committee to study the proliferation of committees. This may be the excess of a virtue of faculty participation in administration. However, more able men on faculties must be willing to devote attention to high academic policy as determined by attention to such central problems as educational policy, curriculum and counselling, faculty tenure, the so-called fringe benefits; all the matters which come into the purview of faculty committees. Otherwise, they run the inevitable risk that these matters will be decided for them not by professors working part-time as bureaucrats, but by bureaucrats working full-time as bureaucrats. If professors are to do what they like best to do, teach and do research in a congenial intellectual atmosphere, they must be willing to help decide what makes a congenial climate and how to achieve it.

I hope that no one here misunderstands me. I certainly do not mean that the professor has to devote himself exclusively or even largely to administrative chores, to academic bookkeeping; but I do believe that he has an obligation to himself and to the community of scholars to accept some responsibilities which he may now regard as administrative and hence none of his concern. Let him be willing to take a few steps down the primrose path of professorial perdition, but let him be careful not to go too far down that path, lest he fall completely from grace and become a dean! Let him recognize that he is playing an administrative role whenever he participates in decision-making that leads to the appointment of a professor or the grant of tenure or promotion. Let him face up frankly to the fact that he is not pure and unstained, free from administrative corruption, let him accept cheerfully the occasional role of the professor as bureaucrat.

In this regard, one changing aspect of academic life troubles me, namely the growing lack of identification of the younger men of the faculty with the university. In the past, professors were more committed to a particular university, took root there, felt institutional loyalties, were willing to play a part in setting the educational policy of the university, and its intellectual tone. Not only are the younger men more discipline-oriented, less committed to a particular institution than to their discipline, but as competition from outside increases, the younger men, the more mobile members of the faculty, especially those in fields where shortages exist, feel increasingly restless. They do not identify themselves strongly with the university and its life, and may even
regard the institution as essentially a way station. Who then is to have a sense of stake in the university? Is it to be only the older faculty? Who will take their place? However much the older men may have irritated by acting as gadflies, it was these gadflies who, in my opinion, helped to good the university into meaningful activity. We need more and younger gadflies. The alarming aspect of the present situation is that the younger faculty, the most vigorous ones, are not as likely to identify themselves with the university as their elders did in the thirties and forties. As mobility increases, the value of local prestige, the prestige that comes from playing a part in shaping university policy will decrease even further. The identification of the strong men of a faculty with the government of a university will become more tenuous and their opportunity to wield their power will be lessened. This will surely lead to a corresponding development of the professional administrator, who may not be an academic man at all. Many functions traditionally and appropriately performed by faculty men will be taken over by professional administrators and administrative offices.

There is no doubt that the performance of such administrative tasks as benefit the professor as bureaucrat will take time from scholarship and one would wish to spare them this precious time. Yet in the end if universities are to reflect the ideals and the aspirations of professors, professors must formulate these ideals and aspirations and present them effectively, and this inevitably means that they must be prepared to spend some time in administrative pursuits. Let them enter actively into the life of the university; challenging the traditions of education and proposing new approaches, providing creative and imaginative leadership in the educational and scholarly enterprises represented by the university. How can they do this? Mainly by their teaching and research, but surely also by being willing to work part-time as academic bureaucrats; by accepting those responsibilities which they, rather than full-time bureaucrats, are best fitted to perform. Here then is an almost full-time bureaucrat urging his colleagues on the faculty to join the sinners' bench at least some of the time.

I have used this occasion to remind my colleagues through you that they must be willing to assume some administrative responsibilities, lest because of faculty disinterest and default you assume those prerogatives which belong rightly to the faculty. Let me also remind you of your responsibilities: to collaborate with the faculty in the work that is necessary to make a university or college a good place for teaching and learning. You may be tempted on occasion to believe that faculty is impractical and improvident, that the university or college could be more efficiently administered if there were no faculty to clog the machinery. Remember that the faculty is the university or junior college, that without the faculty these institutions have no reason for being, indeed were it not for the faculty there would be no raison d'être for this conference. What is needed, in short, is a faculty which understands the role of the administration in the modern university and college and is willing to play bit parts in that administration and an administration which recognizes that they may have important roles to play in the drama of higher education, but that they remain nevertheless a supporting cast. Without either group of actors the play is certain to be a failure.
I have selected two areas of thought for presentation here in the hope that they would be of interest to administrators of such dynamic and growing enterprises as Junior Colleges. First, I would like to examine the concepts of power, authority, and influence and to show their impact on the introduction of change in organizations, using the decision process as a vehicle. Secondly, I would like to examine the effects of communication networks on the locus of power in organizations.

POWER, AUTHORITY, AND INFLUENCE: THEIR USE IN THE DECISION PROCESS TO INTRODUCE CHANGE

The Concept of Power

Power is the ability to limit alternatives for social action. Any person or group able to limit, reduce, restrict, or eliminate one or more alternatives that would otherwise be open to the decision-maker, has power. The ability to limit choice may emanate from a variety of sources; superior physical capabilities, superior knowledge, money, weapons, etc. Because power is the ability to limit choice, it is essentially coercive in nature; there always exists the threat or potential for choice limitation. An example of the use of power might be a gunman who brandishes a revolver and demands, "Your money or your life." He is limiting alternatives to two--giving up one's money or forfeiting one's life.

Nearly all persons who come in reasonably consistent contact with one another have power over one another. A subordinate can limit his superior's choices, if only in the sense of leaving the employ of the enterprise. Very few persons are completely without power. When we refer to a person as being powerful we are really saying that there is an imbalance of power in his favor--because the person upon whom he could impose his power in turn may be able to impose certain choice limitations upon him. What makes one person more powerful than another is the value of the excluded alternatives. The employee can limit the foreman's choice by working slower, by fulfilling only minimal output requirements, or by quitting. These are very real choice limitations for the foreman. However, the foreman in turn can limit the choices of the subordinate in a much more drastic way; he can discharge him. In discharging him he very severely limits the employee's choices and removes alternatives of much greater value to the employee than were the values of the alternatives denied to the foreman by the employee. That is, the loss of income and opportunity to work is of greater value to the employee than is the loss incurred by the foreman when the employee restricts output or quits. In a given situation, then, the value of the excluded alternatives is the critical determinant of which person or group will be the more powerful.

Power is sociological--it attaches to people. This is in contrast to authority which, as we will see below, attaches to positions.

Power may exist either within an organization or in the absence of any organization at all, as in the case of the gunman cited above. Power is always informal--if it becomes formalized it is referred to as authority, as discussed...
Power involves no responsibility in the same sense as does authority and it is relatively ephemeral when contrasted with authority. The person who possesses power usually has an ability to broaden choices as well as to restrict them. That is, he has the ability to reward as well as to limit choice.

The Concept of Authority

Authority is the institutionalized right to limit choice. In other words, it is institutionalized power to which has been attached certain rights. In a sense authority represents an artificial structuring of power. If a group of persons were to come together spontaneously there would develop certain power relationships between them. These power relationships would be based upon physical strength, knowledge, etc. These we might refer to as natural power relationships. When someone selects a leader and bestows upon that leader rights, say, to exclude members from the group and to reward persons for particularly meritorious contributions to the group, that person has been given authority—he has been given additional power—power which he did not possess as an individual. When a foreman, office manager, department head, or dean is given the right to hire and fire his subordinates he is given greater powers than he would possess as an individual. Thus authority represents an artificial structuring of power. It changes the power relationships that would have existed in the absence of the special assignment of rights that is embodied in authority. It is not our purpose here to go into the sources of such rights. Let it suffice to say that these rights may be granted by the subordinates who choose to subject themselves to the authority of their superiors and by society to government, and, through the right of private property, to individual owners.

We have been referring to the granting of authority to people. In reality, authority is assigned not to people but to positions. If the president of the college has the right to hire a comptroller and if the president resigns today, his successor immediately assumes the right to hire a comptroller. Thus the right to hire the subordinate was vested not in the person but in the position. This makes authority more stable and permanent than power. Power may be fleeting, whereas authority, because it is attached to positions, remains relatively constant through time.

Unlike power, authority cannot be assumed unilaterally; it must be granted. Authority always involves responsibility; that is, the person who occupies an authoritative position is always held accountable for the proper use of the extra power that has been granted to him.

Authority always exists within an organization—never outside. Like power, authority can broaden as well as restrict choices.

The Concept of Influence

Influence is the ability to cause others voluntarily to choose alternatives favored by the person who wishes to affect the behavior of others.

Unlike both power and authority, influence is persuasive, not coercive. In this instance the person whose behavior is being affected feels that he has an absolutely free choice between alternatives. Since he has a completely free choice he chooses those alternatives that he perceives to be the superior ones.

Influence may be ideological as well as sociological. That is, it may attach to ideas and doctrines as well as to people. It involves no special rights in the same sense that authority involves the assignment of special rights to organizational positions.

Influence is ephemeral. A person who is influential today may be completely without influence tomorrow. Also influence is topical. A person may be highly
influential in certain subject areas and completely lacking in the ability to affect the behavior of others in other subject areas. For example, a college English professor might be very influential with respect to the reading habits, career choices and some other aspects of his students' behavior. However, he might be completely impotent if he attempts to affect their political or religious choices.

Influence is positive only. That is, it may involve an increase in choices but cannot involve a reduction or limitation of alternatives. Influence may be used to increase or broaden choices in the sense that the influencer may point out additional alternatives previously unknown to the decision maker, and by pointing these out possibly cause the decision maker to choose the alternative favored by the influencer.

Influence involves no responsibility in the same sense as does authority. Of course, the influential person as well as the powerful person has a moral obligation to use his abilities for the benefit and not the detriment of mankind. But it is not this moral or ethical sense in which we are using the term responsibility.

Influence cannot be assumed unilaterally, as can power. One cannot take it upon himself to become influential because his ability to affect the behavior of others depends upon the voluntary choices of others.

Influence may exist within an organization or in the absence of any organization at all, and it is always informal.

Professor Herbert Simon of the Carnegie Institute of Technology has attempted to establish operational distinctions between authority and influence. He asserts that distinctions can be drawn by looking at the reaction of the communicatee who receives a communication from someone who might be his organizational superior. Professor Simon suggests that authority is manifest when the communicatee "holds in abeyance his own critical faculties for choosing between alternatives." Where influence is manifest the communicatee treats the communication as "one of the evidential bases for making his choice." In the first instance the subordinate suspends judgment about what the appropriate course of action ought to be and in effect does what he is told. Where influence is manifest he takes the communication and treats it as a suggestion--he tosses it into the hopper and considers it along with the other possible alternatives.

We have tried to define and describe three concepts which have to do with affecting the behavior of other persons or groups. Since the administrator's raison d'etre is to achieve the goals of the enterprise by means of affecting the behavior of other persons, it stands to reason that he would be vitally concerned with these three concepts. It is now our purpose to show that the administrator, if he is to affect the behavior of other persons, must do so by means of the decisions made by those persons. Thus the decision-making process becomes of concern to us.

THE DECISION PROCESS

The decision process can, of course, be broken into any number of steps. For our purposes five steps are critical. These steps are as follows:

1. Becoming aware of the problem.
2. The search for alternatives.
3. Determining consequences of each alternative.
4. Determining the desirability and undesirability of each consequence.
5. Selecting from among the alternatives.
Power, authority, and influence can be brought to bear in any or all of these five steps. We will now examine a few of the many ways in which these concepts may be used. Our point of view will be that of an administrator who wishes to affect the decision-making of another person so as to bring about certain actions and goals desired by the administrator.

Becoming Aware of the Problem

This step in the decision process is frequently overlooked. Awareness of a problem does not just happen. There are a variety of means by which a decision maker becomes aware that a problem exists and a decision is necessary. Some of the ways in which a decision maker becomes aware of a problem are as follows:

1. Through the use of continuing formal controls.
2. By means of systematic audits.
3. Through suggestions of other persons in the organizations.
4. Through suggestions from sources outside the organization (community leaders, parents, etc.).
5. An organizational unit itself may demonstrate need.
6. Continuing study.
7. Administrative contemplation.

Without going into detailed explanation of these means that are used to become aware of the existence of problems, let it suffice to say that the administrator can structure each of these means in a manner which will serve to bring about his ends. In general, the administrator can, within each of these methods, bring power, authority, and influence to bear:

1. In bringing the problem to the attention of the decision maker.
2. In emphasizing one problem, vis-a-vis other problems.
3. In keeping the decision maker unaware of the problem or problems.
4. In defining the problem in such a way as to make the alternative favored by the administrator an obviously preferential choice.

The Search for Alternatives

This is the process wherein the decision maker attempts to determine just what alternative courses of action are open to him. He is aware of some of these alternatives, unaware of others. Power, authority, and influence can be brought to bear in the following manner:

1. By pointing out additional alternatives, or
2. If the decision maker is already aware of the alternatives, focusing attention on favored alternatives.
3. Refraining from pointing out unfavored alternatives.
4. Introducing known-to-be unacceptable alternatives.
5. By limiting the time or resources available to the decision maker in his search for alternatives.

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Determining Consequences of Each Alternative

This step in the decision process involves the determination of what will happen if a given alternative course of action is followed. Each course of action may have any number of consequences. Power, influence, and authority can be used in the following ways:

1. Pointing out additional desired consequences of the favored alternative, or
2. Emphasizing already known desired consequences of alternatives by:
   a. Focusing attention on them.
   b. Emphasizing the value of such consequences.
3. Pointing out additional undesired consequences of unfavored alternatives, or
4. Emphasizing already known undesired consequences of unfavored alternatives by:
   a. Focusing attention on them.
   b. Pointing up the loss of value from such consequences.
5. Since consequences involve prediction, the administrator can help improve the decision maker's predictions of favored consequences by:
   a. Providing data.
   b. Testing for reliability of data.
6. Withholding knowledge of undesired consequences of favored alternatives, or
7. Withholding knowledge of desirable consequences of unfavored alternatives.

Determining the Desirability or Undesirability of Each Consequence

Many of the points in the preceding section dealt with emphasizing desirabilities and undesirabilities of consequences. We are concerned here with something more basic. Ultimately a consequence is either desired or undesired depending upon what it is the decision-maker holds to be of value. A given consequence may be desirable because it, say, contributes to organizational growth; or it may be undesirable because it, for example, detracts from the administrator's status. Ultimately, then, desirability of a given consequence is dependent upon the decision maker's scale of values. The administrator who wishes to affect the behavior of others and who wishes to do so by means of altering the desirability or undesirability (as viewed by the decision-maker) of a consequence must do so by means of changes, at least temporary, in the value structure of the decision maker. The complexity of this matter precludes our discussing it in any detail here. However, we might observe that it is possible to point up differences between the decision maker's value structure and those generally held in society; to suggest long-run consequences of holding to the present value structure; to show how undue stress on a given value detracts from the fulfillment of other values held by the decision maker. These and other courses of action are open to the administrator. But in general it can be said that an administrator who embarks upon this avenue of changing behavior (that is, upon changing behavior through changes in value structure) is launching upon a long-term project indeed. Values are very rarely changed abruptly--generally they are changed gradually as a result of accumulated experiences. Attacking the problem of
change through modification of value structures differs from the other methods of introducing change mentioned above in that the other methods are all feasible for short-run periods.

We have tried to show how the administrator might find it useful to distinguish between power, authority, and influence, to use these concepts in shaping the behavior of others within the organization, and to do this through an awareness of the decision process. Parenthetically, a study of these methods by which an administrator might bring about change shows quite vividly that power and authority can be used relatively infrequently, and that the administrator is critically dependent upon influence in his attempts to achieve the goals of the enterprise. The successful use of power and authority generally tends to be limited to situations where:

1. there is a great imbalance of power in favor of one party over another,

2. the change that is being brought about is one of modifying specific, short-run, overt action rather than generalized long-run behavior or attitudes.

3. there is an over-riding need for speed and uniformity in decision making.

THE IMPACT OF COMMUNICATION NETWORKS ON THE LOCUS OF POWER CENTERS IN THE ORGANIZATION

We have indicated that power emanates from knowledge which is of value to other persons. I would like to show now how information-flows in an organization can be structured so as to determine who in the organization will become powerful. Here we have some significant laboratory research to draw upon. This research has been conducted principally by Professors Alex Bavelas of Stanford University and Harold Leavitt of The Carnegie Institute of Technology.1 Their experiments have been replicated by others and the presentation here is an amalgamation of the results found by these several researchers. I would like to point out that their experiments were conducted under laboratory conditions, and that they applied specifically to small groups. However, I think the results of the research give us some valid insights into real-world organizations.

The researchers attempted to determine the efficiency of problem-solving with the use of several different communications networks—that is, with the flows of communications structured in different ways. Participants in the project were divided into groups of five. Each of the five was physically isolated from the other four members of his group and from all other persons by placing him in a compartment where he could not see any of his fellow team members. The participants were allowed to communicate with one another by means of written messages. However, in the first network arrangement, which we shall call the Star pattern, four of the participants could communicate directly with

only one other person. Figure I below, shows B, A, E, and D each able to communicate only with participant C. Thus, participant C is placed in a central position, all communications necessarily flowing through him.

The second information network which we call the Wheel pattern, is depicted in Figure II below. Here the same conditions prevail except that each participant is able to communicate with two other specified participants. Each man can communicate with the man on either side of him. Thus, participant E can communicate with A and D, and participant D can communicate with C and E, etc. Under this arrangement no central position exists.

The problem presented to these two groups was very simple. Each participant was given five solid-colored marbles. Only one color was held in common by all five participants. The problem confronting each team was to determine what color was held in common by all of the team members, and to communicate the

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2 This extreme structuring of communications flow is not as unrealistic as might be concluded at first glance. It can and does exist in situations such as that wherein a central sales manager supervises several salesmen at scattered locations. Their efforts must be coordinated but they communicate with one another only through the sales manager. Another less likely example is that of a college president who has several deans or department heads at diverse locations and who discourages direct communications among them.
solution to the problem to all the members of the group. The researchers were interested in comparisons between the two different information-flow patterns as they might affect answers to the following questions:

1. Which will solve the problem faster—that is, which will achieve the lesser elapsed times for finding the solution?

2. Which will reach its maximum efficiency sooner—that is, how many trials will be necessary before reaching the minimum elapsed time for finding the solution?

3. Which will minimize the number of communications?

4. Which will have higher participant morale?

5. Which will have greater adaptability to change?

6. Where will leadership develop within each group?

The results of the experimentation show that the Star formation was considerably faster than the Wheel. Leavitt found the fastest trial in his Star groups to average 0.53 minutes and the fastest trial in his Wheel groups to average 0.83 minutes. Not only did the Star network achieve the fastest times, it also took only 60 per cent of the time taken by the Wheel formation to reach its fastest run. The Star formation again took the honors when the number of communications was considered—averaging 166 messages in 15 trials as compared with 372 messages in a similar number of trials for the Wheel formation. Thus, we find the groups arranged according to the Star formation making decisions faster, reaching their maximum efficiency sooner, and requiring substantially fewer numbers of communications. However, participants in the Wheel formation showed a higher morale level than their Star formation counterparts. In the Star formation only the person at the information center, in this example participant C, indicated a substantial enjoyment in the tasks undertaken.

At this point the experiment was changed. The problem remained the same; finding the color of marble that was held in common by all members of a given team. However, under the new arrangement the solid-colored marbles were replaced by marbles of mottled, difficult-to-describe colors. A semantic problem was thus introduced. Participant A might refer to a given marble as aquamarine while participant B might refer to the same marble as a "blue-green." This difference in description then would have to be resolved.

The results under this new arrangement were dramatic. The Wheel handled the changed problem nicely, and after ten runs or so was back to high efficiency. The Star couldn't seem to cope with it, still making large numbers of errors after many trials. This result of the experimentation would seem to indicate that the flow of information in an organization can critically affect that organization's ability to adapt to change.

Which of these communication networks, then, is preferable? The answer is that either is to be preferred, depending upon what one is after. If one wants 1) speed in decision-making, 2) immediate high-level efficiency, 3) a minimum number of communications, 4) a close control over who will have access to information in the organization, and if a general high level of morale is not necessary or desired, if there exists little need for close teamwork, and if the problems confronting the group are relatively unchanging, a communications-flow similar to the Star network probably is to be preferred.

On the other hand, if one desires 1) creativity, 2) high morale among participants, 3) adaptability to change, and at the same time there is little need for great speed in problem-solving and for quickly obtaining maximum efficiency,
less-rigid structuring of communications as illustrated in the Wheel network probably is to be preferred.

The Emergence of Leadership

The question about the development of leadership within each of these network formations has been purposely left until last. Leadership in the Wheel formation may develop anywhere—any of the participants can become the effective leader of the group. As a matter of fact, the leadership may change from time to time in this formation. It is even possible that no definite leadership manifests itself. In the Star formation, however, there is a very strong probability that C will become the leader. The reasons are obvious: for anyone else to make the effective decision, it would require that C first receive the information, then pass this information on to the decision maker, subsequently again receiving a message indicating the decision and transmitting this to the other members of the group. It soon becomes evident to the members of the group that this method of operation is inordinately time-consuming. Participant C becomes the decision-maker because he gets information sooner, because he gets information more accurately, and because he gets more information than do the other participants.

It seems not unrealistic to conclude on the basis of observation, that ongoing organizations function in a manner similar to these small experimental groups. Other things being equal, decision-making rights and abilities gravitate toward those persons who get information soonest and most accurately and who get information not possessed by other persons. Thus power gravitates toward information centers for the simple reason that persons at those information centers are in a better position to make effective decisions than are other persons in the organization.

Figure III shows an organizational structure and communication network found very commonly. Here the superior, A, has appointed a subordinate, C, as an intermediary between himself and the remaining members of the group, B, D, and E. In this arrangement C is very likely to become the effective leader of the group. Again this is because he gets more information and more accurate information, and receives the information more quickly than does A.

![Figure III](image)

Of course, A might offset this by virtue of his superior experience, friendships, etc. But as we have said, other things being equal, the person at the information center will very likely become the effective leader of the group. Fortunately for most administrators, they are not limited to receipt of information from a subordinate in a position such as C in this figure. The superior ordinarily receives information from other subordinates as well, and in addition
receives informal communications from a variety of sources. Thus in all likeli-
hood he is in possession of information that is of a broader nature than that
held by Mr. C. This, in turn, enables him to make decisions that lie beyond the
confines of C's area of knowledgeable.

SUMMARY

In brief, this research shows that the structuring of information can
affect the speed with which problems are solved and the amount of time or ex-
perience necessary to achieve high levels of efficiency. It indicates as well
that an organization's ability to adapt to change can be affected by the manner
in which communications are structured.

Information centers tend to become decision centers because better decisions
can be made there than elsewhere. Power, authority, and influence gravitate to-
ward decision centers. Power develops there because knowledge is a source of
power when such knowledge is valued by other persons. Authority develops there
because those persons who show evidence of making better decisions (based on
better knowledge) are soon given legitimatized rights to make decisions which
limit the choices of others. Influence develops there because persons who
habitually prove themselves to be more knowledgeable and to be better decision
makers soon come to be looked up to and the alternatives favored by them tend to
be chosen voluntarily by others in the organization.
I am very happy to be here this morning. We at The Boeing Company feel that we have a very close relationship with people in education; and, as a matter of fact, we have a very great dependence on you. The management of The Boeing Company feels that the greatest asset which we have is not our many buildings nor the great test facilities which we have, but rather our people who are the life-blood of our organization; and we are dependent upon organizations such as those that you represent for giving us continuing blood transfusions to supply this life-blood so that we can carry on a healthy company as the years go on.

This morning I have been asked to speak on the subject of the significance of research in program planning and development. First, I will discuss some of the products of The Boeing Company and then, after giving you this bird's-eye view of our product activities, I will discuss some of the research which we conduct in The Boeing Company. We will then discuss where this research is done from an organizational standpoint, and I will give you a series of examples of the different types of research conducted. Next I will show how planning flows from the corporate headquarters of our Company down to the "doing" individuals and where we "close the loop" and go back up to management with the results. Finally, we will talk about the distribution of skill in our Company and the kind of educational background needed by our employees. The picture I am trying to represent is typical not only of The Boeing Company but of many of the companies in the Aero-Space industry.

We have five separate divisions in The Boeing Company. The Aero-Space Division, which I represent today, is involved in the research, development and manufacture of missiles, space vehicles, and conducts generalized space activities. The other divisions are: Industrial Products, Military Aircraft Systems, Vertol and Transport.

To indicate the changes that have taken place in our research programs over the years, I wish to point out that twenty years ago The Boeing Company was doing research on and putting out only two products, whereas today, there are many times that number. To do all this diversified work takes a considerable amount of technical and managerial know-how. The research activities are done in several places in our organization; primarily, however, by our technical staff and, secondly, in another branch of the total organization, The Boeing Scientific Research Laboratories.

We have essentially three types of research going on in the Company. In the technical staffs we conduct what we call applied research. This term means different things to different people. To us it means conducting research programs on a fairly broad base covering a wide range of technologies so that we accumulate technical knowledge which will some day be useful in making a product and earning money for our stockholders. When we get enough of this broad base research accumulated and we get a directive from our top management that tells us to start processing a particular area of business, we start focusing our research on a specific product. Then the research is narrowed down into our second main type, product research, and we initiate programs which are more closely

*Condensation of presentation made on April 4.
aligned with the specific product we are trying to sell to the customer. Then, finally, if we have been successful in actually convincing the potential customer that we do indeed have a product to sell him, we progress towards developing the item and satisfying the customer's requirements.

The pattern, then runs from the broad base research to the focusing on a product and, finally, to the development of the product. When technical difficulty occurs in the developmental state, we look back to the product research area or the applied research area to help solve these developmental problems and thus there exists sort of a "closed loop" in our research and development operations.

We also carry on basic research in The Boeing Scientific Research Laboratories. This operation is, to a large extent, separate from the divisional operations. The engineers and scientists working on these programs are really working "way out in the blue." The activities may not have any relationship to the types of research mentioned above, but even though there isn't a direct tie-in, there is a thread that runs through the whole activity.

We might next examine the manner in which we initiate our research programs. Many years ago the tone of research was set by asking the engineers what kind of research they thought should be done. We ended up with a research program which I classify as built from the bottom up. Management depended on engineers at the lower level to define the direction of research that should be taken. Today in our more mature environment, the situation is completely reversed. The research management starts from the top in the company. The corporate headquarters starts out by defining product areas. The divisions define the project objectives and initiate the action to procure business in these areas. This takes two forms: first, the divisional headquarters, which directs the customer relations, determines the requirements of the customer and, secondly, the divisional headquarters directs the engineering manager to initiate the appropriate research programs. The engineering manager then takes over and directs the technical staff to formulate the appropriate technical programs, and finally the technical staffs prepare these programs and initiate the research. The real closing of the loop takes place when the divisional manager comes to the corporate management and indicates that some new business has been acquired for the company. It may be in the form of small research contracts or very broad developmental contracts.

There are 17 or 18 basic engineering fields that do this research. Some examples of these are aeronautical engineering, civil engineering, mechanical engineering, electrical engineering, physics, etc. Each of these fields can be broken down into another 17 or 18 specialized areas. Engineers are divided among the five main divisions as follows: 21 per cent aeronautical; 9 per cent civil; 15 per cent mechanical; 24 per cent electrical, 31 per cent other. The electrical division predominates and will continue to grow in the future.

The educational training of our technical staff is as follows: 67 per cent bachelor's degrees; 28 per cent Masters; 5 per cent Ph.D.s. Many of our B.A.'s are taking courses with the help of the company, to obtain advanced degrees.

In summary, there are four items which we think are the real elements of research.

1. A requirement to do the research. This requirement can be of two types: (a) research for the purpose of research only--for the purpose of gaining knowledge, and (b) research required in gaining knowledge for new products.

2. The right kind of people to do the research. They have to have the proper educational training or the proper experience through working on the job.
3. Available money.

4. And, probably, the most important of all, is that we have to be research-minded. It is necessary to have a research environment in order to get the best out of the researchers assigned.
In describing research activities at The Boeing Company, Mr. Beckelman centered his discussion on four elements basic to the development of such a program: (1) determining what research should be done; (2) obtaining the right people to conduct the research; (3) securing sufficient financial support; and (4) establishing a research climate in the organization. Colored slides--illustrating not only the organization of research at Boeing, but also showing examples of activities--enhanced his presentation.

**General Session**

Group One (Dale Tillery, recorder)
Group Two (William H. Crawford, recorder)
Group Three (Frederick C. Kintzer, recorder)

Group discussions, as reported by recorders at the general session which followed, thoroughly reviewed the speaker's presentation. Recorders--expressing a consensus of opinion--agreed that junior colleges need to know more about students, particularly the effect of college on student attitudes and, in addition, agreed that research in the area of instruction was greatly needed. Administrators, it was also repeated, might have a basic policy which may frequently hold back research efforts. Major emphasis was in all of the three group meetings placed on the problem of "establishing a research climate in the organization." This it was felt, is a major difficulty in developing a program of research in a junior college.

Accordingly, one of the questions asked was: How does one build a research climate in a junior college? Mr. Beckelman suggested, in answering the question, that educational institutions--like industry--would probably have to "sell" the need for research to the organization membership. Expanding on this point, he described a "have-charts-will-travel" technique, and indicated that employees of The Boeing Company are encouraged to be "technical salesmen" of research-mindedness.

Other questions asked the speaker include the following: What is the ratio of technicians to engineering personnel at The Boeing Company? Mr. Beckelman indicated that about 15 per cent are classified as technicians. There are, he added, many classifications of technical workers in The Boeing Company.
EVALUATION OF THE CONFERENCE

Presiding: Frederick C. Kintzer
Assistant Director
Junior College Leadership Program
U.C.L.A.

Before introducing the five presidents who had been asked to present brief statements regarding their reactions to the Conference, Mr. Kintzer expressed a word of appreciation to Dr. Giles and Dr. Crawford for an excellently organized meeting. He, in addition, called attention to the purposes of the Conference: "To provide stimulation and background material in forming new insights and basic concepts on junior college administration," and indicated that maximum participation indeed characterized the sessions.

He then called on the following presidents for their impressions of the Conference:

THIS IS WHAT I AM TAKING HOME FROM THE CONFERENCE

John W. Dunn
President
Palomar College
San Marcos, California

An evaluation of a conference of this kind is difficult because I am sure it means something different to all of us. I can say that I was disappointed that no one mentioned the university student's complaint about counseling services when he indicated that the only time he had received any individual attention was when his IBM card got bent; or the professor who moved from the University of California to Stanford University, thereby, in the words of one observer, exchanging an academic robe for a foundation garment.

It has been my privilege to participate in similar conferences on the campus at U.C.L.A. Hence my reactions are more concerned with the effect that this conference may have on human behavior, namely, our own behavior. We cannot lock to the future with any degree of security as we contemplate the problems ahead. Not the least of these involves the number of students which we must serve, and the resulting expansion needs.

We have had evidence at this conference of the rapid technological change in our society and the implications for development of our programs in these areas are clear. It is therefore of concern to me that our talking and studying of administrative problems and procedures result in activity in this direction.

Many of us have inherited cumbersome systems of organization. The most cumbersome of these in California is the average daily attendance tradition, which results in many decisions being made in terms of the effect upon ADA rather than in terms of educational implications. I don't think we want to face the problems created by a 200 per cent increase in student body with procedures which call for recording attendance in every class, in every hour, daily. Too much equipment and too many man hours are involved. I believe that our studies of administrative structure must result in streamlined organizations in administration if we are to meet the expansion of the decade ahead.

As an aside, I would add that I don't believe this job can be done with a high school district organization. The problems of the junior college are unique and pressing, and we must be able to apply the action of governing boards and administrative personnel directly to those problems.
This conference, as have been all the others, is an inspiration and can only result in improved organization for administration and procedures of administration.

W. M. Douglass
Administrative Dean
Oregon Technical Institute

In the study of philosophy of education it is found that one of the objectives of education is concerned with teaching what has been learned in the past and the development of new frontiers through research. We have barely scratched the surface on the first part of this objective in this conference and should probably probe deeper into this by reviewing some of the outstanding writings in college and university administration for suggestions on solving some of the questions in administration that have been raised. We should be careful, however, that we do not follow too explicitly the patterns established by the four-year colleges and universities in administrative organizations, since the junior college has somewhat different problems. The major difference is in the handling of academic personnel and in financial control. In the four-year college the academician is involved in research and writing and the institution is privately or state controlled; in the junior college the instructor is concerned with the fundamental process of teaching and his institution is generally private or locally controlled.

The second objective concerning the development of new frontiers has been the subject of this conference, and our first hurdle was cleared when we recognized the need for the junior college and its administrators to find their place in the sun. In other words the "image" problem became evident as a problem of some magnitude and needs to be developed before the junior college or its officers can find their proper place in the spectrum of education. There is a need to finalize its place as an extension of the secondary school, as a college on a level of its own, or as a post high school institution as a member of the college and university team and system. We need to take the initiative to establish the place rather than to be continually apologetic or on the defensive in speaking of our institutions.

One of the impressions I am taking home from the conference is that the organizational pattern for supervision of the institution is a major problem and one that needs a considerable amount of attention. It is difficult to see how the "image" can be changed or developed until a consistent organization has been outlined and put into practice. Whether the administration of the institution should be as a part of the unified school district, a junior college district, or a university extension system must be settled. It is apparent that this is the root of the "image" problem.

Another problem that we have recognized was that of communication both within the institution and with the public in general. There was obviously a feeling that a misunderstanding existed between the several segments of education, the public and the institution on the program of the junior college and its place in the community. We recognized that if we were to meet adequately the needs of the community, better communication between the faculty and the community must take place.

It was readily agreed that a junior college should be adaptable to change in program as community and national needs dictated and that the organization of the institution be such that this can be accomplished without excessive effort. It was felt that communication was a primary requisite for this, and that a fully informed faculty, administration, and board could make this a reality by setting and maintaining the proper climate for change.
I am taking home a feeling that in addition to the "image" problem, one of the greatest problems to be solved is the development of goals by the junior college. The advance in science and technologies has required the four year colleges and universities to aspire to higher goals leaving a greater gap between the high school and the baccalaureate degree much larger. The junior college fits into this area within certain limits that have not been defined clearly. Dr. Leland Medsker, in his book, "The Junior College; Progress and Prospect," has outlined a research project indicating the trends that have been taken in junior college education. Dr. Thornton in, "The Community Junior College," has developed somewhat of an "image" of the junior college based upon the observations of Dr. Medsker. Times have changed rapidly, however, and the need for more clear-cut goals to meet national as well as local needs is upon us. If these goals can be developed it is my feeling that they can be accomplished through proper leadership of the administrative officers if they present the proper "image" to the public and their faculty and can influence others to take desired action.

Rodney Berg
President
Everett Junior College

I should like first to express my very great gratitude for this exciting conference. Here we have been challenged by men who have presented excellent papers, have been given an opportunity to share ideas with one another, and, most significantly, have had an opportunity to react to those things which have been presented. As I stand here following these other learned men, attempting to add my words to theirs, I am reminded of my father, who was a severe and religious man. Seldom, if ever, do I remember sitting down to a meal that grace was not a part of the procedure except once. On this occasion my mother had placed on the table a number of leftovers which she had taken from the refrigerator. My father took one look and immediately began to attack with vigor the meal that was spread before him. My mother, somewhat surprised at this, said, "Why, Will, aren't you going to say the blessing?" Without looking up he grimly said, "It seems to me that I have blessed all this before." I do not want to be in the position of repeating the blessings that have gone before but let me make these few comments.

Before I begin I should like to pay special tribute to the leadership of this conference and particularly to that of B. Lamar Johnson in our section. I am sure that those of you who were in the other discussion sections would want to make similar remarks but his amazing competence at keeping our discussion group well on the track and proceeding in a steady manner toward a meaningful discussion was a noteworthy part of this conference.

As a new president of a well established school, and one which I might say was under the leadership of a person with tremendous ability, I am taking home many things from this conference that will be of use to me. I would especially single out these three attitudes which have come to me as a part of the proceedings of this conference.

The first of these is the underscoring of the notion that leadership is developed and not necessarily born to an individual. It became increasingly clear to me as we involved ourselves with the discussions of this conference that part of my job is to provide a climate for leadership development. Surely as the junior colleges enlarge we will all be called upon to provide administrative leadership for other institutions. If I am doing the kind of job in my institution that I should be doing, I will be contributing to this leadership as schools open. My role, then, as president of an institution well established under wise direction for many years, is to continue in this pattern of providing means
whereby men may gain experience to the point where they may contribute their services to the development of other junior colleges.

Secondly, we discovered that administration is dynamic. Good administrative processes do not reduce themselves well to lines of a chart. Certainly human relationships have much to do with dynamic administration. As I consider the things that have been said here as we considered the "wheel," the "star," and "structural relationships" of the junior college, my own personal role emerges much more clearly. I have heard Fred Giles say that anyone can keep his desk clean, and to this I heartily concur that this is the easiest part of my job. We have frequently said at Everett that administration exists for the purpose of letting things happen. This concept of letting things happen is one which I feel is directly related to the pattern of dynamic administration. I have gained some new ideas; some of my pet theories were utterly demolished at this conference, but I must also confess that I have gained some support for other of my notions. This much I do know - I am going home with a more vivid understanding of the part I play in the total administrative structure of my institution.

Thirdly, I am taking home a revitalized concept of institutional research. The processes described by Mr. Beckelman in his presentation at first seemed to be far afield from a junior college discussion but as we considered those things he said we became aware that there was a great similarity and certainly many things that we could profitably apply to our research programs. As the Boeing presentation was made and later in our discussion groups I became aware that we were conducting a type of institutional research on our campus and I also became aware that this research was quite significant. It remains for us to develop a program into which these various small inquiries fit in order that we may gain additional meaning. Institutional research programs can aid and bring to us an understanding of how we can better serve the students, the faculty, and the community in which we exist.

I must say in closing that I am not going home with things all cleared up. I am thoroughly confused, but, at the same time I am greatly energized by what has taken place here. I think of my boy and an incident that happened with me at one time when I was busy preparing some materials. I suggested that perhaps he should answer the phone when it rang and say that I was not in. This is not exactly education to develop integrity, is it? He did a very fine job but I was concerned about what he might say. Apparently a Mr. Brown called and a conversation such as this developed, and I can only report one end of the conversation: the man at the other end of the line called and asked if I was in and the boy said that I was out and could he take a message. From the boy's remarks I inferred that Mr. Brown said he could. My boy quickly said, "Just a minute, I'll get a pencil." Presently he asked to caller to spell his name and then after a long pause he said, "How do you make a B?" I may not know at this moment how to make a good pattern of administration but believe me, after this conference, I am going home to make a start.

Dr. Alfred M. Philips
President
Big Bend Community College

I was very impressed with the total organization of the conference and particularly the structure which permitted an over-all presentation by an expert in a particular field, the opportunity following this to meet as a small discussion group with an expert leader and recorder to discuss the implication of the presentation and pose questions or problems which need clarification, and then the opportunity to pose these questions for answers to the person making the initial presentation. This may be commonly done, but I had not encountered it in recent
years at least, and I felt that it was a most desirable procedure for gaining a
great deal of worthwhile information both from the experts in the field and from
the general discussion based on individual experiences of the participants in a
wide variety of situations and areas.

I was impressed with the broad representation of individuals at the meeting
and especially appreciated the opportunity to confer on both a formal and in-
formal basis with these individuals and for the opportunity to share experiences. The
meeting was large enough to bring together a wide group of individuals with
diversified backgrounds, interests and experiences and yet small enough to permit
these individuals to get together in informal groups and become personally ac-
quainted.

I felt it especially valuable to gain insights from a man from the area of
business administration and business organization who discussed patterns of ad-
ministration and to develop the idea that administration can, and often needs
to be, both of autocratic and democratic nature. By this I mean that in any
organization there must be someone on whose shoulders rests the responsibility
of making final decisions and oft times decisions which must be made rapidly and
efficiently. At the same time in the over-all operation of a college there must
always be an opportunity for participation by other individuals in the institu-
tion in assisting the head administrator in developing patterns of operation and
in many decisions. "Star" and the "wheel" patterns of administrative communica-
tion were of special value to me.

Referring again to the basic organization of the conference, I was impressed
with the diversity of fields represented in the presentation varying from educa-
tion to industry. I feel that in the discussion of specific points one should
not lose sight of the over-all inspiration which is gained through attendance at
a conference such as this where mutual problems may be shared and oft times con-
siderable insight gained towards solution of these problems through informal
discussion with experts and colleagues in the field.

Eugene Short
Director
Anchorage Community College
Anchorage, Alaska

I will take home from the Conference:

1. Knowledge that we are no more confused about our role in higher
   education than others.

2. Hope - that I can become the type of educational leader needed
   by our Community College at this time - thereby better fulfill-
   ing my role in education.

3. Enthusiasm - to do the job as I see it and as our area needs are
   identified. Plus the courage to meet these needs regardless of
   being different.
To summarize the brief reports of participating presidents, Mr. Kintzer observed that the Conference had:

1. provided inspiration and information
2. given everyone maximum opportunity to participate; and
3. identified the need for
   a. dynamic leadership,
   b. improved communication within and between colleges,
   c. clear delineation of goals.

The Conference was officially closed by Dr. Giles.
PROGRAM

Monday, April 2

10-12 Registration
12:30 Luncheon

Welcome: Gordon C. Lee, Dean
College of Education
University of Washington

"Organization and Purposes of the Conference"
Frederic T. Giles
Professor of Higher Education
University of Washington

2:00 Leadership

Presiding: B. Lamar Johnson
Professor of Higher Education
U.C.L.A.

"Basic Elements of Leadership"
President Wendell Van Loan
Southwestern Oregon College
North Bend, Oregon

3:00 Group Discussion Sessions

"Implications of Leadership for Administrators of Junior Colleges"
William H. Crawford
Professor of Higher Education
Washington State University

Group 1 - B. Lamar Johnson
Group 2 - Walter Sindlinger
Group 3 - Leland Medsker

4:00 General Session

Presiding: Frederic T. Giles
"The Professor as Bureaucrat"
Solomon Katz, Dean
College of Arts and Sciences
University of Washington

Tuesday, April 3

9:00 Basic Elements of Organization

Presiding: Leland Medsker, Vice-Chairman
Center for Study of Higher Education
University of California
Dale A. Henning, Associate Professor of Business Policy and Personnel Relations
University of Washington

"Principles and Practices of Junior College Organization"
Walter Sindlinger, Director, Center for Community and Junior College Administration
Teachers College
Columbia University

11:00 **Group Discussion**

Group 1 - B. Lamar Johnson  
Group 2 - Walter Sindlinger  
Group 3 - Leland Medsker

12:30 **Luncheon**

1:00 **Continuation of Group Discussions**

2:45 **General Session**

3:30 **Meeting for New Presidents**

Presiding: William H. Crawford  
Professor of Higher Education  
Washington State University

4:15-5:30 **President's Reception for All Participants**

Residence of President Charles E. Odegaard  
University of Washington

**Wednesday, April 4**

9:00 **Elements of Organizational Research**

Presiding: William H. Crawford  
Professor of Higher Education  
Washington State University

"Significance of Research in Program Planning and Development"
B. F. Beckelman  
Chief of Flight Technology  
Aero-Space Division  
The Boeing Company  
Seattle, Washington

10:15 **Group Discussions**

Group 1 - Dale Tillery  
Group 2 - William Crawford  
Group 3 - Frederick C. Kintzer

11:30 **General Session**
12:30 Luncheon

Presiding: Frederick C. Kintzer
Assistant Director
Junior College Leadership Program
U.C.L.A.

"This is What I am Taking Home from the Conference"
(Reports from participants)

RESOURCE PERSONS

WILLIAM H. CRAWFORD, Washington State University
FREDERIC T. GILES, University of Washington
B. LAMAR JOHNSON, University of California, Los Angeles
FREDERICK C. KINTZER, University of California, Los Angeles
LELAND MEDSKER, University of California, Berkeley
WAITER SINDLINGER, Teachers College, Columbia University
DALE TILLERY, University of California, Berkeley
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