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FACULTY ATTITUDES TOWARD STUDENT ACTIVISM AND ACADEMIC REFORM

A Thesis

Presented to

The Faculty of the Department of Sociology
The College of William and Mary in Virginia

In Partial Fulfillment

Of the Requirements for the Degree of

Master of Arts

by
Thomas Rupnow
1975

APPROVAL SHEET

This thesis is submitted in partial fulfillment of the requirements for the degree of

Master of Arts

Thomas Rupnow

Approved, May 1975

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ABSTRACT

The principal goal of this research was to determine those variables which significantly influenced the attitudes of professors toward their support or disapproval of radical student activism of the sixties. As a secondary research goal, our analysis pursued the determinants of support for academic reform. The theoretical interest in comparing the two dependent attitudes was to determine how closely they were related by antecedent independent variables during that intensely active period of campus history.

For both inquiries, a review of the literature was presented which organized the independent variables along the lines of five conceptual categories: 1) generational, 2) political, 3) professional status, 4) professional orientation, and 5) other ascribed and background variables.

The significant findings may be summarized along three research themes which were present throughout the paper. First, which variables appeared most prominently in the analysis? Among all variables considered, we found the political variable to consistently have the strongest impact on the dependent variables. The impact was such that a standard unit of change in political identification toward the left (when measured both by self-identification and by a cluster of political attitudes) produced a significant increase in both support for activism and support for reform. The political variable, likewise, repeatedly accounted for most of the explained variance in attitudes.

Secondly, how did the analysis of the two dependent variables compare? Although the political variable was an important one for support for academic reform, we were not nearly as successful in explaining the variance in the reform attitude as we were for support for activism. Yet the surprising finding is not that political identification had only a moderate impact on support for reform, but that at the conclusion of the research, still so much remained unknown about the variance of this attitude.

Finally, what may be said of the other independent variables used in the research? Except for age, which had a consistent negative impact on both support for student activism and support for academic reform, contrary to expectations the professional status and orientation, and the background variables, had little or no impact on our two dependent variables.

FACULTY ATTITUDES TOWARD STUDENT ACTIVISM AND ACADEMIC REFORM

INTRODUCTION

Considerable research has been conducted on student activists and on the "student movement". This research has focused variously upon particular institutions, upon colorful personalities, or upon aggregate characteristics of the student activists involved in that intensely vocal period between 1964 and 1972. Relatively little, however, has been reported on faculty activism or on the nature of faculty support of student activism during that same period. Yet certainly faculty have often played an integral role, if not an instigative one, in the development and history of the activist movement. This paper attempts to describe and analyze the attitudinal disposition of the American professoriate toward "radical student activism" of the sixties.

Purpose

As comprehensively as is possible, this research paper will work toward determining which professors were more likely to support activists and activist causes. A particular historical period and a well-defined population are studied, and the research conclusions are therefore made according to such boundaries. Only with a proper understanding of the limitations of research endeavor can one hope to make a significant contribution to the advancement of sociological knowledge. So, as more than a timely and interesting research question, and yet less than a macrosociological statement, what is the nature of the anticipated contribution of this research? There are at once a number of important and previously undertaken sociological questions which are implicit in this study on the

attitudes of professors toward activism and activist causes. To begin with, this study challenges a long-standing expectation that people think and act differently because of differences in background and current status. Political sociology, for example, has for a long time tried to assess the influence of one's family tradition and socio-economic status on voting behavior and other measures of political attitude and efficacy. Similarly, this research will assess the impact of background and status factors in our pursuit of the determinants of faculty support of activism. Especially, we will want to comment on the extent to which support of activism is itself a political variable. and furthermore, whether another issue of the sixties, academic reform, was largely seen from a political perspective. The question of status factors might also be viewed from a related area -- from a theory of social stratification -by which the research distinctions are made according to "class" characteristics alleged among the population. haps finally, there are implications to be extracted by the field of collective behavior. Though no follow-up behavioral data is a part of this study, the analysis presented should be an essential contribution in explicating the determinants of attitudinal variation among professors. It should be a reference, certainly, to forthcoming studies which might attempt to predict faculty attitudes on future issues, issues which may well evoke a collective response.

Scope

Radical student activism, though undeniably fueled by the ambitions of self-serving individuals, was not merely an instrument for their public exposure. It was a method -- arguing the merits of that method is another matter -- which varied in scope and in sense of purpose and effectiveness. On many campuses, for example, reform-minded activists crusaded for a curriculum which would allow for greater student choice in making critical decisions about the direction of the university and their own relationships to the

larger society. To place the topic of activism into a broader perspective, I will compare the picture of faculty support for student activism in general with the findings of a similar query into faculty support for academic reform.

Using this specific issue of the sixties, the conceptual interest in comparing the two attitudinal dispositions is this: during the intensity of the sixties, was there a substantial overlap between those faculty — call them "leftward leaning" — who supported the tactics of radical activism and those who supported the principles of academic reform? Stated somewhat differently, is there any evidence to support the notion that one effect of student activism was to politicize what would ordinarily have been the professional issue of academic reform?

From where does this idea originate? While true that the push for curricular reform is an on-going campus debate which might surface at any time, during the late sixties the reform issue emerged on many campuses simultanecusly and most vociferously. This was a time when it seemed like nearly all institutions and established programs had become controversial. In a number of activist writings, apologists openly defended the strategy of entangling issue with sympathy. 1 Under this rule of thumb, reform activists freely disrupted what they regarded as archaic, pedantic educational practices (even repressive and capitalistic!), while expecting to retain the defense and backing of the more liberal professors regardless of their antagonistic style. Thus, by flushing out the simpaticos among the faculty (because of or despite their tactics), they had a better idea of who were their spokesmen in the classrooms and in the Academic Senates, where reforms were likely to originate.

The above is only one plausible scenario. Just as likely, the activists' radical style did little to promote academic reforms. When called upon for support, faculty liberals may have balked, invoking the plea for

more time and rational consideration. If we look at the evidence, the latter is more likely, for some scholars of the reform process do not recognize a significant introduction of reforms coming out of the sixties. This would indicate that much of the "hurrah" of the sixties was without consequence, and that the issue of academic reform continued to be debated at a separate pace.

But much of this speculation goes beyond the scope of this research paper. It was intended to show how, specifically, the single issue of academic reform in the sixties was entangled in the broader milieu of radical student activism. The academic question posed by comparing the two is this: is support among faculty for academic reform an apparent consequent of the same variables that influence faculty support of student activism?

Method

In attempting to explicate factors which contribute to a professor's favorable disposition toward student activism, the research literature offers some predictive guidelines. Certain "pre-tested" hypotheses may be used, borrowed from research on student activists as well as from discussions in previous faculty studies. With respect to identifying factors which incline faculty favorably toward academic reform, the literature is elusive. Though there are accounts of specific reforms in particular institutions implemented in the sixties and early seventies, none deal with a generalized sentiment of faculty support for academic reform measures. Consequently, the analysis of data in this section will include the utilization of several variables in an exploratory manner.

The reader may wish to be informed at this point of the variables which will be used in the testing of hypotheses (developed fully in the review of the literature). The variables may be grouped into sets, yielding five categories. In the following, these five category names are listed, together with a brief description of the numerous

variables:

- 1. Generational -- age, year in which highest educational degree was attained;
- 2. Political -- political identification;
- 3. Professional status -- salary, quality of the institution with which the professor is associated, scholarly achievements;
- 4. Professional orientation teaching field, research inclination, professional group affiliation:
- 5. Other Ascribed and Background -- race and sex; father's political identification, father's educational level, father's occupational status, quality of undergraduate institution professor attended.

Not all of these will be considered simultaneously, and special analysis will be conducted on several of the variables, all of which will be discussed fully in the two chapters on findings of the research investigation.

Data Base

Beginning in 1967, the Carnegie Commission, under the direction of Clark Kerr and sponsored by the Carnegie Foundation for the Advancement of Teaching, prepared a comprehensive survey of the American professoriate. Its breadth has allowed multiple research goals to be met. One of the goals at the time, as it is now in this paper, was to learn of the faculty reaction to the rise of radical student activism. Of the approximately 300 items of information on the questionnaire, many dealt with attitudes toward activism on the college campus; some also pertained to academic reform propositions. The Survey sampled faculty from a roster of some 461,000 full-and part-time faculty members who were serving in the more than 2300 American colleges and universities in the 1968-69 academic year. The faculty survey was done in cooperation with the Office of Research of the American Council on Education, and the Carnegie Survey used, basically, the ACE method of selecting sample institutions -- a stratified probability procedure. 3 In all, 60,028 useable questionnaires were solicited in the Spring of 1969. I wish to comment briefly on the importance of this timing.

Were the Survey conducted at a much earlier or later date, it is possible that the responses would have been significantly different. As is, the questionnaire captured faculty sentiments at an opportune moment. For at that time, many events of national prominence had taken place, but the most foreboding incidents of the activist movement were yet to come, judged retrospectively — including the explosive situation in May, 1970, and the summer thereafter, highlighted by the tragedies at Kent and Jackson States and the sympathy protests and terror tactics which followed. But at the time the Survey was made, the movement was still on the upswing, approaching its zenith. In short, although it had already been given much scrutiny, its end could not be predicted with confidence; it was a time when debate and opinion flourished.

A History of Activism

During the academic year 1964-65 at the University of California at Berkeley, events precipitated the formation of the Free Speech Movement. Historically, this dates the emergence of a strategy in student politics dramatically different from that of previous college generations. This political style, particularly in the latter 60's, was characterized by an abrasive, threatening call for immediate action commensurate with student demands. What the American professoriate thought and felt about this strategy — radical student activism — is the essential inquiry of this paper.

Amidst the attention we must now give to our economic ailments and our precarious global situation, it is perhaps difficult to recall much from the 60's save a vague memory of its intensity and emotion. Nonetheless, it is possible for the purposes of this paper to speak of several important moments in that chain-like link of reactions labeled"the student movement of the 60's." The review

which follows is not intended to be a complete representation of all the significant events of the time nor of the institutions and characters involved. This discussion does, however, sketch campus incidents appropriate to understand fully the topic here researched and the presentation of hypotheses and subsequent findings. In some cases, additional material which more completely tells the story of key events may be found in the Appendix. The reader may wish to take this into consideration along with the remaining text of this Chapter, or, on the other hand, anyone well-versed on the literature of student activism may desire to move on to the next chapter which presents background research from which hypotheses are later designed. In both this Chapter and in Appendix I, I have included brief descriptions of reactions professors had to campus disturbances, as are within the scope of this research project.

Formative Years: Berkeley Free Speech Movement

The Free Speech Movement is widely recognized as giving form and precedence to subsequent eruptions on campuses in the mid 60's; as such, Berkeley activism gave birth to the possibility of a student movement. This student activism was not, of course, the first activist call heard in the past decade. The civil rights movement dates to the early days of 1960 at a sit-in in Greensboro, North Carolina. But student activist leaders borrowed — with no small success — the tactic of non-violent civil disobedience in the early years of campus demonstration; in this sense the two shared common traits. Furthermore, both the civil rights and student movements became volatile and undisciplined in their "mature" years.

At Berkeley in the fall of '64, the bond between the two movements went beyond that of tactical similarity, for a number of returning UCB students had spent the summer doing voter registration work in the deep South. Back at school, they expected to use the campus as a vantage point

for their continued support of the civil rights campaign. They were challenged, however, by a new administrative policy which banned the solicitation of funds or the recruitment of workers by students on campus for political activities or organizations, which included civil rights (see Appendix I-A).

Student civil rights workers protested conspicuously against the administrative edict, and local authorities were called upon to disperse the demonstration. This
confounded the legitimacy of the issue, because the controversy was then expanded into a debate over the University's proper role as disciplinarian. The Free Speech
Movement, essentially, was an organized vehicle for student
dissent aimed at settling the joint issue (as its leadership
saw it) of free speech and due process — relevant to the
events of that autumn.

At first adamant about their right to discipline students, the Administration was later persuaded to throw the affair into the hands of the Academic Senate. There, faculty voted overwhelmingly to resolve that "the content of on-campus speech or advocacy should not be restricted by the university" and that "off-campus student political activity shall not be subjected to university regulation" (Time, 12/18/64:68). With the passing of the faculty resolution, the immediacy of the issue faded into history, and so likewise did the attraction of the FSM. By spring '65, the Free Speech Movement, having turned toward politics of obscene language, had been dubbed the "filthy speech movement."

Berkeley activism not only brought public attention to the college scene, but also alerted historians, philosophers, and variegated researchers to the possibility of imminent social change. While most professors kept their distance — some collecting notes on student protesters — others did play a more active role in the process. As the Vietnam involvement catalyzed into action both undisciplined

critics and academic skeptics of the highest calibre, some took their debate before the communications media.

The Vietnam War as a Campus Issue

Though President Johnson had been elected on the assumption of limited and brief involvement in Southeast Asia, Americans by the spring of 1965 found unmistakable signs of an escalating war. Student radicals, abandoning the civil rights campaign, turned and focused their dissidence upon this contradiction. Sympathy was found among certain scholars at leading universities. For example, at the University of Michigan, birthplace of the SDS, a faculty protest in opposition to American troop involvement took the form of the country's first "teach-in". From there, events snowballed, as illustrated in the following summary (Obear, 1970:19):

On May 15 of that year, there was another teach-in lasting more than 15 hours in Washington which thrust scholars from all over the nation into the political arena to discuss the Vietnam issue. Televised in part by the three major networks and carried completely by one educational TV channel, the debate generated additional student support for involvement. On October 15 and 16, a march on Washington was joined by approximately 50,000 students protesting American intervention in Vietnam. Another march sponsored by SANE drew 40,000 people in December. Protests on such scale were unprecedented.

The media coined a name for the October protesters: the "Vietniks". It may have been easy at the time for most Americans to discredit the bearded, ragtag demonstrators, but their inchoate criticism of American foreign policy was later more eloquently developed by some of the nation's leading intellectuals. From this point in the sixties, the college campus became à home for all forms of radical activism, no matter how remotely associated with academics — or, at least, such was the logic of determined activists. A Blending of Issues

The 1966-67 academic year witnessed an organized

(SDS) push for greater student participation in formulating student regulatory policies. The demise of the <u>in loco</u> <u>parentis</u> administrative philosophy had begun. Protests against the Vietnam war had subsided somewhat in comparison with 1965; however, the year 67-68 was once again a very hostile one on many college campuses.

By the fall of 1967 a confrontationist style of protest had gained radical popularity. Nationally, confrontations were usually staged under SDS leadership and were against various recruiters who were depicted as symbols of the war machine. These confrontations were increasingly being brought to violent conclusions. While this attack, loosely organized yet national in scope and significance, continued on the campus, attempts were also made to stoke up support for mass rallies. Those meeting with success included the March on the Pentagon in October ('67) and Stop the Draft and End the War Week in December.

The multi-faceted protest movement had grown large emough to demand a re-evaluation by many, on many issues. Professors, perhaps more so than members of any other professional group, had complex considerations working to affect their judgments on the student protest movement. In addition to reacting in general terms, professors had to choose how to deal with activist students as well as the topic of activism in the classroom, and perhaps at other meeting places too. Some took to writing -- apologies, critiques, summaries -- about the years of student unrest. Clark Kerr, for example, forecast in the early spring of 1968 that the student movement might even go through a more violent stage before tensions began to subside. Kerr. the former Berkeley president, then out of the rigors of office and doing his own research on the topic, urged faculty members and university administrators to do "whatever is reasonably possible to break the cycle of frustration and escalation of tactics" (appearing in Foster and Long, 1970:10).

Columbia University: No End in Sight

Even as members of the liberal establishment began, to advocate that student grievances be taken more seriously, student radicals had begun to push more earnestly for tactical escalation. The forces which ultimately encouraged this possibility had gathered at Columbia University in the spring of 1968. The Columbia Revolt was unique in the student movement in that it combined the protests of SDS radicals with members of the black SAS (Students Afro-American Society), and linked with Harlem community spokesmen as well. Though this was a very tenuous and short-lived alliance, the ensuing turmoil made the issues inseparable on campus and, in the eyes of the public, fused issues and participants alike into one perplexing nightmare.

Essentially, three points needed clarification and resolution at Columbia — the relationship of corporate Columbia to its neighboring black community; the extent of Columbia's cooperation with the Institute for Defense Analyses; and the probity of the University's disciplinary procedures (see Appendix I-B for further details). Over these issues grew a week-long strike; one which was begun by the forcible occupation of classrooms and offices by students, and which was ended by the forcible expulsion of those students by New York City police. The brutality of that physical confrontation underscored the tragic failure of spokesmen from either side to resolve the conflict.

One assembly of minds which had hoped to have success as a mediating force between students and administrators was known as the Ad Hoc Faculty Group. The AHFG had intervened early in the strike in order to block the planned Administrative request for police action. They bargained for time to attempt a peaceful solution to the crisis. In the several days which followed, however, the AHFG failed to secure the necessary give from either side to effect a compromise solution. Near the end of the week-

long strike, the AHFG abandoned its private negotiations, and police action again became the alternative.

The police intervention on the night of April 29-30 cleared the buildings and brought a sort of peace to Columbia. It did not bring back a sense of routine. For the next month a student strike disrupted normal classes except at certain professional schools. There had been no swift clearing of the issues when the buildings were evacuated. The demands for amnesty simply became the dominant issue of the strike. In addition to this, another bloody skirmish between police and students occurred on May 22. Effectively, the educational process of Columbia University had been brought to a halt for the rest of the semester.

Over the summer, President Kirk and his probable successor, Dr. Truman, resigned from service to the University. In the larger community, the summer of '68 is also remembered for the tragic slayings of Dr. Martin Luther King and Sen. Robert Kennedy; it is remembered too for the events at the Democratic National Convention and the ensuing civil riots.

1968-69, Another Year of Expanded Protest

The pattern of "force and threat" in black protest which prompted the use of physical and police force in 1967-68 came to be almost standard in 1968-69, breeding escalation both in the tactics of protesters and the forces of repression (Iong, 1970: 468).

Painful as the attempts to integrate white society had been, the campus faced a philosophical turn equally painful, the principle of black separatism. Demonstrations in this year were typified by demands for ethnic studies programs, which were usually supposed to have full department status and to be run according to the wishes of the programs' advocates and hand-picked staffs. When the terms were not met, regardless of the sincerity of differences of opinion in educational evaluation, the black response was uncompromising militancy, typified by the stance of

"non-negotiable demands." Opposition to black demands was viewed as racist, and therefore not worthy of debate. A real consequence of this posture was the tendency for the established order to "counter force with force," exemplified by the use of "the Tac Squad at San Francisco State, the highway patrol at U.C. Berkeley, and the National Guard at the University of Wisconsin and at Duke" (Obear, 1970:24).

At San Francisco State, issues over the violent winter months were obfuscated by a new stage reached in faculty intervention and militancy; demands for faculty unionism were voiced and its support tested as the AFT local decided to saddle its own issues onto the student strike (Goldman, 1970). Violent protests were recorded at other prestigious colleges before the year 1968-69 was brought to a conclusion, notably at Harvard and Cornell Universities (see Appendix I-C for an elaboration).

Throughout the middle years of the student movement, professors were pulled into the limelight of debate. At times they were relied upon to legitimize administrative action against demonstrators when administrators turned to an Academic Senate or some other-named faculty organization to speak their will. Power conscious faculty members were frequently angered when such consultation or final authority was not the rule. Still, there were some professors for whom the neutralist, adjudicating position was not in question, since they had declared their agreement with the activist objectives and were perhaps working towards them as individuals. Whatever the case, it might be safely said that faculty opinions were being brought to the fore: what professors thought of radical student activism inevitably played some part in their resolutions over discipline and university governance and their review of academic pro-Even at the lesser-known colleges or at the lesspublicized confrontations, the feeling that "it could happen here, too", weighed heavily on the academic minds.

Marching Again

By 1970 a majority of students and faculty had become disaffected with the Nixon Administration's winding down of the war in Vietnam. Liberal faculty and college administrators worried how best to contain the wrath of dissidents whose position, philosophically, seemed so very close to their own. National Moratorium Days against the war in Vietnam yielded marches of great numbers in October and November, 1969. Leadership in the demonstrations had become less visible, and the protest more spontaneous — consequently more dangerous — with the enrollment of more moderate students who had had no previous affinity for or affiliation with radical groups like SDS.

In April '70, attention was focused on Berkeley, which was said to be experiencing the worst riots in its history, and on Yale, usually calm under the apt leader—ship of President Brewester, then showing obvious tension with the trial of Black Panther Bobby Seale in a New Haven, Connecticut courthouse across the street from campus. Them, suddenly, a new benchmark for activist violence and establishment retaliation was attained. If followed President Nixon's announcement on the eve of April 30 of an increased war effort in Southeast Asia.

Anti-war protest spiralled from that point on in 1970 and was fueled by sympathy protest over the Kent State tragedy on May fourth and, somewhat later, by the Jackson State shootings. Students on campuses throughout the nation, students who had previously remained silent, now joined with radicals in vocal outrage. As the ranks of the protesters were swelled with even some of the more traditionally-oriented students, the student movement entered a new phase. The temperament of the protesters as a whole was not nearly as radical as the identifiable spokesmen; it was more conservative and perhaps more realistic. A majority of the students who were "radicalized" by the events of May 1970, still looked hopefully to the political system for change;

they could not subscribe to revolutionary designs. As the radical tactics of some actually intensified in shock value, the schism between the old-line 60's radicals and the more recently liberalized students became even more pronounced.

Violent tactics were abhored by the liberal followers of the movement, and underground radicals found few apologists for their criminal activities. Such criminal action was demonstrated over the summer at the University of Wisconsin in the pre-dawn hours of an August day. A bomb exploded in a physics laboratory killing one graduate student and injuring three other persons. The "dynamite rebels," as they were called, were frequently affiliated with the Weatherman faction of the already-defunct SDS.

By the fall of 1970, the news media were projecting the picture of relative calm on college campuses. Of the politically active students who in spring had pledged to work for candidates in the fall congressional and statewide campaigns, many "copped-out," returning to their studies and private concerns. In the years 1971 and 1972, the student movement continued to lose vitality and visibility. Offshoot movements, however — the women's equality campaign and environmental awareness programs — took shape at this time and continue to be influential today. But by April of '71, even the more massive protest gatherings had taken on the appearance of a radicals' reunion rather than a movement of any consequence.

In May 1971, several thousand demonstrators turned up to attempt to shut down the Federal government for two days by blocking nine key bridges and intersections in D.C. It was said to have had about as much effect on the flow of traffic as a heavy spring rain (Time, 5/17/71:15). One year later there were only a few sporadic demonstrations held in commemoration of the Kent State and Jackson State tragedies. Time (5/8/72:63) asked the question, "why the low level of student action?" and came up with this response:

Administrators, faculty members and students them-

selves think it results from 7 years of fruitless demonstrations, which have left collegians emotionally exhausted -- and wary of jeopardizing grades and degrees at a time when jobs are hard to find. Moreover, the American fighting in Vietnam has decreased -- on the ground -- and the draft has receded as an issue.

There was, however, one last vocal cry of protest that erupted in response to the President's May 15 press conference, in which he announced the mining of Haiphong harbor and an escalation in air strikes over North Vietnam, But the rage seemed to have about as much impact as a muscular reflex of a decapitated body. Amherst College President Jon W. Ward summed it up: "What I protest is that there is no way to protest" (Time, 5/22/72:14).

Notes for Chapter I

- 1. Three articles of interest may be found in The University Crisis Reader (Vol. II), ed. by Immanuel Wallerstein and Paul Starr (New York: Random House, 1971). The first is Carl Davidson's "Toward a Student Syndicalist Movement, or University Reform Revisited" (pp 98-Written in 1966, Davidson advocates in the concluding pages that students should work toward the abolition of grades and demand greater participation in choosing course content. Two and one-half years later, as he writes in "The Critical University" (pp 211-212), Davidson envisions even grander opportunities for disruptive classroom tactics to advance the radical critique of "the entire capitalist content of students' university education." In another article entitled "A Dialogue on Classroom Disruption," (pp 57-61) Columbia students, members of the Radical Action Cooperative, defend their disruption of a professor's history lecture.
- 2. Paul L. Dressel and F.H. DeLisle, Undergraduate Curriculum Trends, American Council on Education, 1969. Cf. Warren B. Martin, Conformity: Standards and Change in Higher Education, San Francisco: Jossey-Bass, 1969.
- 3. The source for the following notes is the <u>Technical</u>
 Report: Carnegie Commission National Survey of Higher
 Education, Martin Trow, Director, UC at Berkeley, 1972.

The population studied included all people, other than graduate teaching assistants, actually carrying the burden of instruction in the 2300 institutions at the time the survey was administered (p 2). By February 1, 1969, all of the planning, determination of the basic sample design, the enumeration of faculty, and the development of questionnaires was completed (p 5); questionnaire pre-testing was done in the fall of 1968.

The ACE sample, utilized by the Carnegie Commission, drew upon the whole universe of American higher education, omitting only those institutions which had been created since the 1965-66 Education Directory, Part 3 was prepared, and those which had grown into "eligibility" (having a freshman class of at least 30) since that time. (p 6)

Three hundred and ten institutions were actually chosen in the sample for the faculty survey, and 303 consented to participate (p 9). The 303 participating institutions enumerated names of 116,115 faculty (according to the above definition). Later, costs reduced this number to 100,290; or 6/7 of the original size (p 18). Faculty questionnaires were mailed the second week of March, 1969, and a series of follow-up procedures were used, finally yielding 60,028 returned questionnaires (p 23).

- 4. Among those observers who took exception to the claim that a unique historical movement was underfoot in the sixties are Lewis Feuer and Bruno Bettelheim. In Feuer's The Conflict of Generations (New York: Basic Books, Inc., 1969), he explains how no matter the idealistic origins of certain issues, they were soon reduced to means whereby generational struggles were staged. In complementary fashion, psychologist Bettelheim writes about individual radicals in his article "The Anatomy of Academic Discontent," in Change (May/June, 1969) pp 18-26. He concludes that some of the radical left have been fixated at the age of the temper tantrum."
- 5. Berkeley Professor John Searle in a "Foolproof Scenario for Student Revolts," found in The University Crisis Reader (Vol.II), ed. by Imannuel Wallerstein and Paul Starr, (New York: Random House, 1971), pp 31-40, gives his formula of how creating an issue, a rhetorical climate, and a challenge to authority can play havoc with any university. Elsewhere in the Reader, several articles explore the "potentialities and limitations of the student movement" as judged by SDS members and other radical standard bearers. Chapter 6, From Protest to Resistance (pp 125-159), especially contains relevant appraisals.
- 6. It was during this turbulent time in the Spring of 1969 that professors were receiving their mailed question-naires from the Carnegie Commission. I especially wanted to cover some of the events prior to this date in order to review some of the national coverage which had been available to professors, undoubtedly helping to formulate opinions about student activism. The remaining pages of Chapter I describe the scope of the activity in the next three years.

THE RESEARCH LITERATURE ON ACTIVISM

The review of the literature pertinent to this topic draws from both the voluminous research on student activism and the more limited commentary on faculty support for activism. Literature on the second dependent variable, support for academic reform, will be discussed separately at the conclusion of the section below. The organizatiom to both sections of this chapter follows the earlier discussion of five categories of variables: 1) Generational; 2) Political; 3) Professional status; 4) Professional orientation; and 5) Ascribed, background.

Support for Radical Student Activism

Generational

some academicians have dealt almost exclusively with the impact of individual students' alleged psychological instability upon activism. Accordingly, only incidental attention is given to the nature of the issues and situations which surround protests. As a consequence, when students are brought together in confrontation with campus or civil authorities, the collective is viewed not in terms of common ideology or purpose, but in terms of a common expression of some post-adolescent crisis. Social psychologist Bruno Bettelheim (1969), for example, labels student activism as symptomatic of a rebellious syndrome which is produced by the young adults' frustrated entrance into meaningful and productive life. In other words, modern-day rites of passage have failed; protest tells us so.

Compatible with Bettelheim's essay is an elaborate argument developed by historian Lewis Feuer, who, in <u>The Conflict of Generations</u> (1969) reduces nearly all activism to the manifestation of latent generational resentment and struggle; the student reacts against any convenient
father figure in whatever has become the issue. Though insightful and provocative they may be, the Bettelheim and
Feuer positions are inadequate in many ways. But rather
than pursue the validity of those arguments, it is most
appropriate here to ask what relevance generational distinctions have in understanding faculty attitudes toward
student activism.

In doing so, one is cognizant of the difference between students and professors as groups. Seldom does one refer to a "generation of professors." On the other hand, most researchers during the 60's have treated the student population as a fairly age-homogeneous group. Exceptions to this trend have been made when the purpose of the research was to make a longitudinal investigation, say in measuring the change in social attitudes between freshman and senior years. Some justification exists for treating the undergraduate group as a constant variable with respect to age: consider the amount of peer identification typically found among this predominantly 17 to 22 year-old It is readily apparent, however, that the age consideration among professors is a more continuous phenomenom, stretching from perhaps 23 years of age to retirement years. The frequently heard comment that younger professors think and act more like students than older professors do exemplifies this double standard of treating the age differential among students as insignificant while highlighting the distinction among professors. In the following, some of the literature on faculty attitudes toward student activism which uses age as a distinguishing variable is reviewed.

The disruptions at Columbia University in April and in May of 1968, as discussed in Chapter One, have been used extensively by activist researchers. Cole and Adamsons have reported two studies (1969, 1970) conducted on the Columbia faculty at that time, utilizing data collected

by the Bureau of Applied Research. The first of these (Cole and Adamsons, 1969) dealt with the influence of "non-professional statuses" on support for the student demonstrations. They found that one's political orientation was a key to predicting faculty support of radical activism at Columbia. Age, moreover, and sex, were also important independent variables in that wide differences in the range of attitudes were maintained when the effects of political orientation were standardized (p 315). The effects of religion, party affiliation, and father's occupation, on the other hand, were substantially reduced when Cole and Adamsons controlled for general political orientation.

The researchers conclude that younger faculty, no matter what their political orientation (toward the right or toward the left), were more inclined than older faculty to support the demonstrations that spring. With respect to their finding that sex was an important variable -- females being more inclined to support the demonstrations -- Cole and Adamsons are not as confident in their conclusion. This is because the variable "sex" was somewhat misrepresented in the sampling procedure, in that junior faculty (of which females comprise a larger proportion than they do overall) responded disproportionately to the survey. The survey had only a slightly better than 50% response rate, another limiting factor in generalizing from this research on the Columbia demonstrations.

Versity after spring, 1970 -- Franklin and Li (1972) controlled the influence of academic discipline by age. They concluded that age was the stronger prédictor of attitudes toward student activism. Only 4% of the variance in faculty attitudes toward activism could be explained by the use of a discipline breakdown. On the other hand, year of birth (which by definition is associated negatively with the variable age) emerged as a crucial determinant of a supportive attitude, yielding a path coefficient of .552. This indicates that a one-unit change in age (towards the most

recent year of birth) would produce a significant change in faculty support of student activism. Two other variables were in the path equation but showed insignificant impact. They were faculty academic status — rank — and faculty political involvement while in college. (In this study, four items were used to determine a scale of student activism; 15% of the OSU faculty were interviewed at random; and 450 cases were obtained for a 95% response rate).

Finally, in interpreting the Carnegie survey data for the purpose of presenting a national profile of social science faculty, Lipset and Ladd (1970) found that support for activism was increased when age was decreased. From these studies, it is clear that age can be a significant independent variable which exerts a linear and negative effect upon support for activism. This may be summarized in the following hypothesis:

I. Support for radical student activism will decrease with an increase in age.

But a few more thoughts on the variable age remain which are not explicit in the above. For in addition to the operationalized use of age as a continuous variable, there is a possibility that age may indirectly influence professorial attitudes by its effect of structuring cohort In the case of researching student activists memberships. of the 60's. I have suggested that students are often treated as that homogeneous group, or cohort, "the college generation." Perhaps in the professoriate, considered not to be a single generation, distinct age-related cohorts might exist. An example of such might be all professors who went through graduate school during the cold war period of anti-intellectualism. This and other theoretical justifications could be suggested for specific cohort delimitations.

At the more general level, Lipset and Ladd (1972) report findings of interest on this topic. Using data from a 1947 TIME survey, from Gallop polls in 1948, 1956,

1966, and 1968, and from the Lazarsfeld-Thielens and Carnegie surveys, they conclude the following (p 82):

By all of the measures we have been able to locate, then, the variations in political orientation among college generations over the last half century follow an essentially linear and age-related progression. They do not reveal irregularly dispersed peaks and valleys associated with the academic climate prevailing at the time their undergraduate studies were pursued. There is simply no indication, for example, that exposure to the radical-liberal politics which prevailed on university campuses in the late 1930's left its mark on the rank and file of students, in the sense of inclining them to an orientation to liberal-left politics after they left school. The events of the Depression and post-Depression years certainly produced massive changes in the political thinking of Americans generally, but no college cohort emerged from the 1930's with a distinctive politics which was to persist.

These generalizations are meant to apply largely to the mass of a given cohort, not to the small core of committed activists who may emerge in periods of intense politicization such as occurred during the 1930's and again in the second half of the 1960's.

The study by Lipset and Ladd would strongly suggest that the cohort distinction among faculty is unlikely to be a fruitful one. This is, of course, assuming that the subset of the college generation under study here — those who went on to become college professors — will behave statistically as the parent set. An exploratory investigation of the cohort concept, as related to a generational theme, is therefore still an interesting possibility of this research.

Political

In research conducted on student activists by Alexander Astin (1970), the political dimension is suggested as a strong variable in predicting the activist disposition. Looking at students in 246 institutions in the year 1966-1967, he found the typical activist student to be politically liberal rather than conservative. This was not according finding them, nor is it expected to be any less true for faculty sympathizers. The real question is one of degree, and the extent of this variable's predictive ability.

As with age, the political variable lends itself to different levels of consideration. That is, whereas with the student group there is a high correlation between parental (usually father's) and student political identification, among faculty, perhaps due to the elongated age differential, the two stages of political identification may be less in agreement. Consequently, in this research, both current politics and father's politics will be considered as potentially predictive political variables.

With respect to current political orientation, I have already mentioned the Cole and Adamsons (1969) study which emphasized both the direct and indirect influences of the variable. In reviewing the findings of this research on the Columbia faculty, Lipset notes that "21 per cent of the self-identified conservatives, 49 per cent of the moderates, and 88 per cent of the strongly liberal and radicals were high [in their support of the activists] (brackets in original)" (1970:91). He concludes with this general observation (1970:100):

Perhaps the most impressive conclusion to be drawn from the studies of faculty opinion is the high congruence between the correlates of liberal-left points of view among faculty and among students. The studies indicate that liberal-left faculty come from social backgrounds conducive to intellectualism and liberalism, and are more concentrated among the more highly intellectually committed disciplines and institutions. Similarly, Flacks [1967] has pointed out that student activists are characteristically from well-educated, professional, affluent, and Jewish or irreligious homes, whose parents stress intellectual involvement, humanitarian interests, and creativity.

According to the position of Lipset, we would expect faculty sympathetic with radical student activism to come from a background of politically liberal parents who are also well-educated and more professionally achieved in their occupation status. The research in this paper will make such an inquiry, along with pursuing the following hypothesis:

II. Support for radical student activism will increase with a left-leaning political orientation.

The other Lipset assertion that "liberal-left faculty ... are more concentrated among the more highly intellectually committed disciplines and institutions" will be looked at in subsequent discussions of the literature.

Professional Status

It has been variously shown that age and status are highly related. As such, it is probable that when older, more conservative professors do not side with issues supported by the younger "left caucus," they may be reflecting differences in perceived vested interests, or, perhaps, in sentiment toward the institution. Two frequently used variables in the literature which measure professorial status are rank and tenure. As is often the case, however, rank and tenure co-vary with age so well, that it is of limited value to use them as distinguishing variables. Consequently, in this review and research other status variables will be considered.

To this end, there is some relevant material in the student activist research as reported by Richard Flacks. From an article appearing in Foster and Long!s Protest! (1970:135) the following is of special interest:

Movement participants tend to be recruited from the most selective universities and colleges; the highest incidence of off-campus and on-campus protest activity has been at major state and private universities and prestigious liberal arts colleges.

This observation lends itself to two comparisons which may be made with the faculty. First of all, in the analogous time situation, do faculty who support radical student activism hold undergraduate degrees from the most selective and prestigious institutions? And secondly, are such faculty currently affiliated with high quality institutions? A Lipset and Ladd (1971a) study answers the latter in the affirmative; faculty support for activism is greatest at the high quality institutions. A reconsideration of this finding using the Carnegie Survey data will be a part of this study.

A second variable in the category of Professional-status variables I want to consider is "scholarship", which can be measured by a number of ways but typically uses some criterion of publication. It has been suggested by Lipset (1969) that faculty who are low on the scholarship scale would be even more supportive of student activism than those well-published -- even after controlling for a professor's age. If so, Lipset would explain this as a way of venting resentment against a highly competitive system in which they have failed (or have never entered) in the struggle for scholarly eminence. Lipset contends that

. . . such sentiments reinforce faculty propensities to oppose the administrations of their schools, as well as the dominant values and institutions of the larger society. Hence, many professors find solace in student militancy directed against the forces they hold responsible for their felt sense of status inferiority or insecurity (pp 30,31).

A thorough evaluation of such a causal hypothesis would require a social psychological study going beyond the bounds of this research. To be alert to the possibility of a correlation which might indicate an inverse relation—ship between support for activism and scholastic productivity, on the other hand, is worthwhile and within the scope of this paper.

The above discussion is related to the concept of security. Income, like rank and tenure, is an age-related variable. As one measurement of security, perhaps income influences the professor's propensity to support radical student activism. In the Cole and Adamsons study (1970), which used data collected after the Columbia Revolt, the effects of age and political beliefs were standardized in order to determine the impact of income. With controls, a difference of 12 percentage points was maintained between the high category (greater than \$20,000) and the low category (less than \$10,000), with support for the activist demonstrations greatest among low-income professors. The interpretation of this finding suggests that to the extent

that income does influence support for activism, it does so among those professors who have less to lose — in absolute dollars. This adds credence to the idea that status insecurity may be a factor in supporting radical student activism. The hypothesis of the effect of professional status variables upon support for activism is summarized as follows:

III. Support for radical student activism will increase with a decrease in status.

Standing in partial contradiction to this prediction is the evidence that professors at high status institutions are more likely to support activism than they are at lower quality ones. Perhaps the findings will work toward the explication of this seeming contradiction. At the outset, it seems reasonable to assume that the stratification of professors by quality of institution would group together — into some observable pattern — the faculty members' professional orientations, if not their personal philosophies as well.

Professional Orientation

The social psychological perspective in the student literature comments on the relationship between academic discipline and protest. Bruno Bettelheim concludes that undergraduates studying the social sciences and the humanities are more militant than those in the pre-professional and natural sciences, where the time of the latter is more wisely occupied in the laboratory and with research projects. The former, not engaged in "active" work, are more likely to form the cadres of the student rebellion (1969:20).

Faculty members sympathetic to activism are also expected to be found disproportionately among the social sciences and the humanities. Of course one need not accept as an explanation that which identifies these areas as the least productive of academic environments! Alternatively, the faculty members of the fields mentioned by Bettelheim

are perhaps those most likely to be confronted in their daily routine by the problems and issues of society in a time of crisis. A response is demanded from them, and some choose to speak openly and defiantly against the established order's operation (Lipset and Ladd, 1971b:56).

The possibility should not be overlooked that there may be other variables at work which obfuscate the effects of discipline. The evidence shows that although discipline appears to influence attitudes as expected, the differences between disciplines are frequently diminished when certain controls are applied. Looking at the Cole and Adamsons study (1970) once again, when the effects of age and political beliefs were standardized, no difference in support for the '68 demonstrations was noted between the Political Science and the Pure Science Faculties. Philosophy Faculty, on the other hand, did score 10 percentage points higher than the other two. As corroborative material, it is interesting to recall that at Columbia that spring, the executive members of the Ad Hoc Faculty Group -spearhead of faculty resistance to the Administration's punitive handling of the demonstrations -- were mostly philosophy professors. Apparently attitudes and behavior with respect to the demonstrations were largely in agreement; nonetheless, the significance of the Philosophy Faculty being out in front is not clearly generalizable from this study.

The Franklin and Li Ohio State University study (1972) concludes that significant simple correlations disappear when controls for age are introduced. In yet another report, Lipset and Ladd (1970) have published data from the Carnegie Survey which purports a "left-liberal political ideology" dominant within the liberal-arts disciplines, while showing the applied fields generally more conservative (p 51). Though the researchers acknowledge some variation in strength of support within each discipline by age, the focus of the article is upon the

formation of attitudes according to the kind of intellectual activity concommitant with a particular discipline. They reach the conclusion

. . . that anti-Establishment views are linked to a discipline's emphasis on the commitment of a significant part of academic endeavor to the advancement of the state of knowledge or the arts through innovative activities. The person who chooses to work in an area that rewards exploratory activities seems to have a propensity to reject the conventional, not only in his own area but in society in general.

This argument emphasizes the research role more so than discipline as decisive in determining liberal ideology. In addition, therefore, to the professor's area of expertise, whether he is oriented primarily toward teaching or primarily toward research may be a significant factor in shaping attitudes. According to the Lipset and Ladd hypothesis, it is the researcher who is more likely to support student activism, perhaps even in its more radical form because the researcher is more likely to reject the status quo. There is evidence to suggest this is the case (Lipset and Ladd, 1971b).

To summarize the expectation of how professional orientation affects support for activism, the following is offered as the fourth general hypothesis:

IV. Support for radical student activism will show increase among professors of the social sciences and humanities, and among researchers generally.

Other Ascribed and Background Variables

Along with age, which has been given singular attention in the Generational section, two variables usually considered in attitudinal research are race and sex. But unlike the variable age, there is little to bring forth from the research literature, either on student activists or on the professoriate. The data available for this research project, on the other hand, collected at a time when demonstrations had taken on an expression of racial separatism, are likely to show differ-

ences along racial lines.

In the mid 60's the student activists were typically white, male and from affluent and liberal backgrounds. During 1968, especially at Columbia, this began to change as poorer black students were demanding more black oriented programs and special educational privileges. By 1969, at Harvard, Cornell, and San Francisco State, most blacks had come to resent, or at least treat with great skepticism, any help from white liberals, students or faculty. If black faculty were generally sympathetic to these student demands, the analysis of the Survey data should indicate disproportional support for radical student activism among black faculty. Thus one would reason given that the bulk of radical activism in 1968-69 was black inspired across most college campuses.

With respect to the variable sex, I have pointed to the Cole and Admasons study (1969) in which being female was a predictor of support for the student demonstrations at Columbia. Though the researchers partially disclaim this finding due to an oddity of the sampling method, the underdog position of being a discriminated-against female might conceivably produce a generalized sentiment, disposing women disproportionately in favor of activism. Therefore:

V. Radical student activism will be supported most by faculty who are black and who are female.

The variables which have been discussed thus far, in all five categories, share a common time orientation. They are all variables which refer to present (1969) faculty descriptions — of professional status and orientation, of political perspective, and of the ascribed variables age, race, and sex. In concluding this discussion of the literature on support for activism, a few more words are warranted, on background variables which pertain to the faculty members.

These variables, antecedent to all others discussed, may be shown to influence the dependent variable either by

direct impact, or by secondary impact, through the current "situational" variables of faculty members — their salaries, teaching fields, etc. Specifically, two kinds of probable background influences will be studied. The first is the family, for which the father's educational and occupational levels, along with his political orientation, will be treated as independent variables. The second, using only one variable as a measurement, is the influence of the professor's undergraduate institution, regarding the quality rating of its educational program. These four variables will pertain to the material presented in Chapter IV on path analysis. In preparation for the bulk of the research to be presented in the next chapter, let me proceed with a discussion of the second dependent variable, support for academic reform.

Support for Academic Reform

There is little in the literature which delineates, hypothetically, the nature or extent of faculty support for academic reform. But by way of comparison with the preceding section, a number of questions might be raised concerning the characteristics of reform advocates. For example, are differences clearly age related? Does political orientation help to identify faculty reformers? Do researchers view favorably liberal changes in the classroom? How does one's status, either achieved or ascribed, influence supportive attitudes? I will briefly discuss these possibilities and conclude each variable category with summary hypotheses.

<u>Generational</u>

For a number of reasons, it is likely that younger professors will be more supportive of reform measures than older faculty. To begin with, there is the common belief that teachers right out of graduate school should be more receptive to the complaints of students about the curriculum. Furthermore, in the late sixties, the concept of a

more "student-centered" teaching approach was gaining popularity with many of the newer faculty. Finally, perhaps younger and less successful professors viewed change as a possible means of narrowing the status gap between themselves and those more secure in their teaching or research positions.

I. Support for academic reform will increase with a decrease in age.

Political

The influence of one's political beliefs should not be as great with support for academic reform as is likely with support for radical student activism. sionals are expected to be able to separate their personal interest and involvement in national political issues from their responses to local concerns, in this case, the cam-If so, one would expect faculty to support protest which is national in scope -- the civil rights or anti-Vietnam war issues, for example -- where the "leftist", "conservative", and other labeled positions are more clearly defined, more so than protest surrounding a campus issue. However, part of the whole challenge that 60's activism entailed was to redefine the word "professional." pertains to academe, professors were increasingly called upon not only to profess their knowledge to the students. but to stand behind the "right" positions, both in and outside of the classroom. It is well within reason, therefore, to anticipate a strong correlation between political orientation and academic orientation, in the direction defined as the most liberal or radical.

II. Support for academic reform will increase with a leftward political orientation.

Professional Status and Orientation

Differences in attitudes according to professional status and professional orientation are likely to be found. In the debate on the primacy of the teaching role or the

research role, Lipset (1970) has predicted that although researchers might be more likely than teachers to support student activism generally, they would be less inclined to favor academic reform. Classroom reform might be viewed as a threat to research priorities; funds might be juggled in the process or their own time wasted in long-drawn committee meetings. Furthermore, they may be psychologically disposed in favor of a tight merit system, cognizant of the restrictions that are placed upon their own scholarship, and hesitant to adopt any open-ended evaluation procedure for students. From the other side of the coin, one might expect teachers to be in favor of reform compatible with their role as conveyors of knowledge rather than as producers.

Variation in support for academic reform by discipline might also be anticipated. Perhaps it will be greatest in the areas where the most social debate is routinely encouraged, with one consequence being that professors in those areas will be more reform-minded. Though speaking more broadly than to this topic alone, Nathan Glazer addresses that idea in the following remarks (1968:21):

Those parts of the university that prepare people for the more concrete and obviously meaningful tasks in the world remain relatively unaffected by student disorder — engineering, the sciences, the law and medical schools. Their students and faculty generally do not get involved, and do not see that the university needs reforming — or, if they do, they have rather positive and manageable proposals as to who and how to reform it. It is the social sciences and the humanities that supply the rebels, student and faculty The crisis of the university is a crisis of those areas. How should students in these fields be educated, for what functions, what resources should be devoted to education in these areas, to what ends? It is the traditional liberal arts areas of the curriculum that are the sources of discontent and unhappiness

This suggests that we look to both the social sciences and humanities for the seat of controversy. But what is the expected direction, for or against reform? If aca-

demic reform has become a political issue, then one would expect faculty of the liberal arts disciplines to support, disproportionally, whatever is designated the most liberal alternative. On the other hand, to the extent that other considerations enter in, such as research orientation and job security, support for academic reform from the liberal arts fields is still very problematic.

To illustrate the complexity of the reform issue, some of the discussion by Warren Martin (1969) on the values implicit behind educational practice is found below. He explains why students find the more serious barriers to reform manned by faculty, not administrators (p 6):

The more serious the academic challenge, the more faculty are threatened; what may appear at first to be student concerns disruptive only to the administrative organization are, in fact, concerns that threaten the present values of faculty. The point is not that the students are advocating the overthrow of those values that have traditionally marked the life of the academic but that they are insisting that those values are too important to be abandoned by faculty.

As Martin assessed the situation in 1969, the education reform movement was, at least in part, a defense of "oldline academic values and styles at a time when faculty [were] exposed as revisionists ... bringing heretical doctrines into institutions of higher learning." In other words, some of the protest was over a shift of emphasis in academe which began to place its highest regard on the publishing scholar while at the same time it diminished the prestige and clout of the classroom professor. of this is to say that the numerous countervailing interests of faculty are likely to increase the difficulty of explaining the variance in faculty support of academic reform; it furthermore illustrates the necessity of clarifying what is meant by academic reform. Nonetheless, the following two hypotheses are presented as research guidelines:

III. Support for academic reform will increase with a decrease in professional status

IV. Attitudes about academic reform will be most pronounced, either for or against, among the liberal arts faculty.

Other Ascribed and Background Variables

Finally, there are cross-pressures from such variables as sex and race that need to be observed. It is important to control for the effects of certain disciplines and statuses which might be overrepresented by males. Moreover, it is possible that race, especially in the late 60's, would influence attitudes toward reform. It was during those years that black militant students began to press for Afro-studies and special educational programs for blacks.

V. Support for academic reform will be greater among females and blacks than among their complements.

In addition to these two variables, other background variables will be considered in the chapter on path analysis. These are the same ones introduced in the previous section — father's educational and occupational levels, father's politics, and the professor's quality of undergraduate education.

III

METHODS AND FINDINGS

In the first two chapters I have defined the scope of this paper by presenting a general history of student activism, followed by a review of some research hypotheses on faculty attitudes toward activism. The findings of the research are contained in this chapter and the next. Before referring to the specific tests performed on the variables selected, however, a few notes on methodology need to be clarified.

The Research Sample

Regarding sample size, the entire Carnegie Survey sample of some 60,000 cases was not used. For our research purposes, an "N" of 6,058, or one-tenth the total number, sampled randomly, was deemed adequate. The important consideration in limiting the size was one of costs—of time and money spent on data evaluation. (For a description of how the parent sample was designed and obtained, the reader is advised to review research note #3 in the Introduction).

It will be observed in the analysis to follow that the actual "N" falls below the .10 random sample figure. This is due to the nature of statistical requirements placed upon the data while programming for computerized analysis. These necessary restrictions will be more clearly understood as each discussion of the data is presented.

Definition of the Dependent Variables

The purpose of this research is to present a profile of professors who are supportive of radical student activism and academic reform. To that end, five categories of variables have been outlined and explained in the review of the literature. These were the generational, political, professional status, professional orientation, and other ascribed and background variables. As for the attitudes themselves, which are expected to be significantly related to many of these variables, they have not yet been presented in the operationalized form, and now require further comment.

The technique of Guttman scaling was used to develop two dependent variables from a series of questionnaire itmes, the two clusters of questions being conceptually re-The dependent variable which indicates the degree of professorial support for radical student activism is derived from nine such related items; the support for academic reform variable brings together five questions from the survey. For a discussion of the manner in which the Guttman technique was applied, the reader is advised to consult Appendix II-A and II-B. When Guttman scaling is used, the itmes are coded according to a pass or fail notation. That is, the range of responses for each item is collapsed into two cells, whereby either the professor is said to support the attitude conveyed by the question -he passes -- or he is said to fail to support that attitude. A pass is assigned one point, a fail none. Therefore, a professor's score for the entire attitudinal cluster is the sum of the points. A middle range score for support of activism would be between 4.0 and 5.0, since the range for that dependent variable after Guttman scaling is from 0 to 9.0. Similarly, the statistical mean for the reform variable would be between 2.0 and 3.0. With this knowledge the reader may accurately interpret the mean scores for the dependent variables when they appear in the various tables of findings for each sample of the professoriate.

The fourteen questionnaire items which comprise the two variables are listed below; first, the items which

make up support for student activism:

1. What do you think of the emergence of radical student activism in recent years? 1) Unreservedly approve 2) Approve with reservations 3) Disapprove with reservations 4) Unreservedly disapprove.

The next four items were answered in the following fashion:

1) Strongly agree 2) Agree with reservations 3) Disagree with reservations 4) Strongly disagree.

- 2. Political activities by students have no place on a college campus.
- 3. Student demonstrations have no place on a college campus.
- 4. Students who disrupt the functioning of a college should be expelled or suspended.
- 5. Most campus demonstrations are created by far left groups trying to cause trouble.
- 6. With respect to the student revolt at Columbia last year, were you in sympathy with 1) the students aims and their methods 2) their aims but not their methods 3) neither their aims not their methods.

The last three items were answered in the following fashion: 1) Very favorable 2) Fairly favorable 3) Fairly harmful 4) Very harmful 5) No effect.

- 7. What effect have student demonstrations (on your campus or elsewhere) had on . . . your research?
- 8. What effect have student demonstrations had on your teaching?
- 9. What effect have student demonstrations had on your relations with students?

Variables which comprise support for academic reform are listed next. All of these following items were answered in the following fashion: 1) Strongly agree 2) Agree with reservations 3) Disagree with reservations 4) Strongly disagree.

1. Most undergraduates are mature enough to be given more responsibility for their own education

- 2. This institution should be actively engaged in solving social problems.
- 3. Undergraduate education in America would be improved if . . . all courses were elective.
- 4. Undergraduate education in America would be improved if grades were abolished.
- 5. Undergraduate education in America would be improved if course work were more relevant to contemporary life and problems.

The importance of the Guttman scaling technique for this research is that it enables one to perform a more sophisticated level of statistical measurement on both sets of answers than would ordinarily be possible if the items were taken separately. The original fourteen questions were all answered in ordinal fashion, but after Guttman scaling, the two derived variables are treated as interval level data. Consequently, a higher-powered analysis may be used, not otherwise recommended for ordinal data.

One such analytical tool is the technique of multiple regression and its application, path analysis. In regression, a number of variables are assessed simultaneously, with the relative independent effects of each upon the dependent variable determined. Therefore, when two or more independent variables co-vary, as is often the case, the controlling effect of multiple regression allows for the more significant of the variables to emerge, assessing more accurately their true independent effect on the dependent variable. In this research we are considering two dependent variables — support for radical student activism and support for academic reform. Frequently, the independent variables that play a significant role in predicting favorable attitudes toward one will be negligible in the other.

In the second part (Chapter IV) of the presentation of the research findings, I will discuss the success of setting up a path model. In path analysis, the conceptually derived, time-ordered placement of significant variables in a regression equation illustrates the direct and indirect impact of predictive variables. What is meant by "significant" is determined by a combined examination of the strengths of the beta weights and of the amount of variance that together they can account for; but these are details for a later discussion. Beginning with the following section is a description of the research as it progressed, giving emphasis, of course, to the areas which proved to be most productive.

Findings

Preliminary Analysis

The first step involved taking a number of items from the questionnaire that were to be used as independent variables, representative of the five categories of variables illustrated in the review of the literature. The overall objective at this point was to see how much of the variance could be explained in predicting professorial attitudes (as measured by the dependent variables). Also, knowledge of the strengths (beta weights) of the predictive variables was desired. The following itmes were used as variables in the first regression (see also Appendix III-A):

```
Generational --
age (year of birth)
year in which highest degree was received;

Political --
political orientation (self-identified);

Professional status --
salary
quality rating of institution professor is associated with
extent of scholarly achievement (publications);

Professional orientation --
teaching field
member or non-member of the AFT union;

Ascribed --
race (white, black or other)
sex.
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Using the independent variables listed above in multiple regression, about 40% of the variance of the variable support for activism (referred to in the future as "SA") was explained. Political identification, unquestionably the strongest of the independent variables, had a beta of .566. Therefore, in predictive language, a standard unit change in political identification would produce .566 of a change in SA in the direction defined as positive. In other words, support for radical student activism among professors does increase with an acknowledged political orientation to the left.

Similarly, the political variable had the strongest impact on support for reform (referred to as "SR"), although here the total amount of variance accounted for was only 17%, and the beta weight for political identification was only .338. The simple correlation observed between the two dependent variables was .398. A summary of the important statistics may be found in Table 1 (for the correlation matrix see Appendix IV-A).

Most of the other variables --- age being one exception -- had little influence on either of the two dependent variables. However, though effectively explaining only a fraction of the variance, several of the others revealed important distinctions and patterns. For example, if one looks at the variables representing quality of institution. 3 ascending the scale from low quality college to high quality university, the beta is increasingly positive for SA while increasingly negative for SR. It is at the high quality university with its attendant prestige and push for scholarship where professors appear to be both the most supportive of radical student activism and the least supportive of academic reform. In this sector of the professorial population the two dependent variables appear to be judged on merits which make them somewhat incompatible with each other. To a limited extent, the

FIRST REGRESSION OF SA AND SR WITH INDEPENDENT VARIABLES TABLE 1

				Beta W	Beta Welchts
Variable Name	Reference Group	Mean	Standard Deviation	SA	SR
SA	Scaled Variable	4.908	1.743		
SR	Scaled Variable	3.267	1.006		
Year of Highest Degree Received	Continuous Variable	3,557	2.090	-,041	040*-
Age	Continuous Variable	074-17	2.097	-109	019
Political Identification*	Continuous Variable	12.124	6.110	• 566	•338
Membership: AFT	Membership: Non-AFT**	.017	.128	ħ£0°	200.
Salary	Continuous Variable	4.012	1.901	- 003	₩08
High Quality University	Other Quality Institution	462.	424.	• 075	133

TABLE 1 -- Continued

			n : : : : : : : : : : : : : : : : : : :	Beta Weights	elghts
variable Name	kei erence Group	Mean	Standard Deviation	SA	SR
Medium Quality University	Other Quality Institution	.274	944*	.075	115
Low Quality University	Other Quality Institution	.240	.427	•059	086
High Quality College	Other Quality Institution	.081	.272	•022	920
Medium Quality College	Other Quality Institution	.077	.267	• 028	033
Low Quality College	Other Quality Institution	• 065	.246	040.	032
Scholarly Achievement***	Continuous Variable	· • 616	2.298	035	-•043
Teaching Field: Social Sciences	Other Teaching Field	•109	.312	•053	600
Humanities	Other Field	.178	.382	•026	* 160
Blo Sciences	Other Field	920.	.264	.013	-•019
Physical Sciences	Other Field	•154	.361	005	058
Psychology	Other Field	• 045	.201	.043	•034
Education	Other Field	•055	.228	•028	•109

TABLE 1--Continued

) [((. The state of the	Beta Weights	ghts
variante . Name	dno <i>1</i> 5	Nean	Deviation	SA	SR
Fine Arts	Other Field	.052	.222	460.	.022
Sex: Male	Sex: Female	.862	.345	***	070
Race: White	Race: Other	996*	.182	.018	013
Race: Black	Race: Other	.013	sir.	.045	018
N = 4132 R^2 for $SA = .403$ R^2 for $SR = .172$					

** In the case of a non-continuous variable, the figure corresponding to the mean is interpretted as that variable's percentage of the whole category.

*** Values were derived from the addition of two separate variables, the number of articles published and the number of books published by each professor.

**** Values were to small to compute in the regression procedure. * Values were squared to insure linearity of the political variable.

pattern corroborates a contradiction which was uncovered in the review of the literature. It was considered likely that while support for activism would be high at high quality institutions, support for reform would be more problematic at the same institutions because of the possible antagonism between professors' research priorities and proposed curricular reforms. The data hint that such antagonism did exist.

We have seen that the political identification of professors is a powerful variable for both SA and SR. Unfortunately — from the perspective of hypothetical prediction — after the statistical impact of the political variable is calculated, the influence of the other variables is largely reduced. Specifically, variables which represent professional statuses and orientations such as teaching field, salary, and scholarly achievement fall short of meeting reasonable requirements of significance, having neither a beta weight greater than ±.100 nor accounting for more than 1% of the variance. The variable age, on the other hand, contributes to the understanding of SA with a beta of —.109 (the greater the age the less the support).

The initial examination of the data indicated the rather surprising impact of a single political variable on the dependent variables. Pursuing that direction, the survey questionnaire was reconsidered for other items of political value — that is, for questions which could readily be assigned conservative—to—left continuums. To the roster of independent variables, four new political ones were added. Stated in the words of the extreme alternative, professors were asked if they:

- 1. Advocated immediate withdrawal from Vietnam?
- 2. Supported teacher militancy?
- 3. Supported collective bargaining for professors?
- 4. Supported teacher strikes?

The reader may note that the latter three are political issues which also debate the limitations on their own professional behavior.

While some new variables were added, others were

TABLE 2

SECOND REGRESSION OF SA AND SR, WITH ADDITIONAL POLITICAL VARIABLES INTRODUCED

					SA		SR
Variable Name	Reference Group	Mean	Standard Devlation	Beta Welght	Variance Explained	Beta Welght	Variance Explained
SA	Scaled Variable	4.895	1.747				
SR	Scaled Variable	3.263	1.007				
Age	Continuous Variable	4.765	2.108	123	.012	075	.011
Political Identifica- tion	Continuous Variable	12.090	6.130	.432	•370	.271	•109
Salary	Continuous Variable	4.014	1.896	• 008	000	1 90•-	700°
High Quality University	Other Quality Institution	.234	424.	720.	000•	065	•001

TABLE 2--Continued

					SA		SR
Variable Name	Reference Group	Mean	Standard Deviation	Beta Weight	Varianoe Explained	Beta Weight	Variance Explained
Medium Quality Other Quality University Institution	Other Quality Institution	.273	944*	.021	000•	-,042	• 001
Low Quality University	Other Quality Institution	.242	.428	.013	000	024	000
High Quality College	Other Quality Institution	.078	•268	-013	• 001	039	• 001
Teaching Field: Social Sciences	: Other Teaching Field	•108	311	.033	.001	022	000
Humanities	Other Field	.177	• 382	į	000	110	900*
Physical Sciences	Other Field	.154	.361	010	000•	053	• 005
Education	Other Field	.054	.227	910.	000	960.	.013
Militant Fac- ulty Defense	Continuous Variable	2.646	.926	490	• 003	•033	100.
Collective Bargaining	Continuous Variable	2,606	1.031	.087	200•	680•	•026
Teaching vs. Research	Continuous Variable	2.078	1.871	017	000	130	910.

TABLE 2--Continued

	. 0			
SR	Variance Explained	₩00°	.001	
	Beta Weight	190°	040.	
SA	Variance Explained	450.	400°	
	Beta Weight	.163	• 070	
	Standard Deviation	1,029	.412	
	Mean	2,496	.217	
	Reference Group	e Continuous Variable	Other Vietnam Option	453 196
	Variable Name	Faculty Strike Continuous Legitimacy Variable	Immediate Vietnam Withdrawal	N = 4094 R2 for SA = • R2 for SB = •

deleted from the active list. Those which had produced betas of less than ±.050 in the first regression were eliminated. One other variable was added: whether professors expressed a preferential orientation toward teaching or toward research.

Table 2 summarizes the impact of the new variables entered in the second regression procedure. The amount of variance explained was increased to 45% for SA and up to 20% for SR. In particular, the two variables representing attitudes toward collective bargaining and the right to strike contributed significant betas. In terms of the goal to explain as much of the variance in the two attitudes as is possible from the data, this regression analysis is the benchmark for the research study. Though moderately significant figures, they are nonetheless disappointing, especially in the case of explicating support for academic reform. The discussion of the findings which follow, including their limitations, essentially records the steps which were taken to more nearly exhaust the explanatory power of the variable relationships.

Professorial Dissent

In the analysis above, there emerged a strong relationship between attitudes of support for the dependent variables and the five political variables, treated as independent variables. This section introduces a composite variable, "dissent," which combines the five single variables into one. This was accomplished by the technique of Guttman scaling; the requirements of statistical validity were met, as indicated in Appendix II-C. Since such an exploration had not been anticipated earlier, no theoretical justification for doing so had been researched; consequently, the utility of treating these variables as independent and antecedent to the dependent variables remained problematic at the time.

Used in the regression analysis were the following variables: age, salary, quality of institution, teaching

TABLE 3

THIRD REGRESSION OF SA AND SR, WITH COMPOSITE POLITICAL VARIABLE INTRODUCED

				Beta W	Beta Weights
Variable Name	Ref erence Group	Mean	Standard Deviation	SA	SR
SA	Scaled Variable	4.895	1.747		
SB	Scaled Variable	3.263	1.007		
Dissent	Scaled Variable	2.153	1.283	.503	.313
Age	Continuous Variable	4.765	2,108	156	093
Salary	Continuous Variable	410.4	1.896	•032	050
High Quality University	Other Quality Institution	.234	424.	.061	7700
Medium Qualtly University	Other Quality Institution	.273	944*	• 038	460
Low Quality University	Other Quality Institution	.242	. 428	.01	027



TABLE 3--Continued

170 24 0 12 10	6		7 8 0 7 1	Beta W	Beta Weights
Name	nel erence Group	Mean	Standard Deviation	SA	SR
High Quality College	Other Quality Institution	*078	*268	003	033
Teaching Field: Social Sciences	Other Teaching Field	•108	.311	• 085	600•
Humanities	Other Field	.177	• 382	•056	079
Physical Sciences	Other Field	154	361	200	052
Education	Other Field	450.	.227	.031	.105
Teaching vs. Research	Continuous Variable	2.078	.871	900•	660*-
N = 4094 R ² for SA = .330 R ² for SR = .154					

field, teaching/research orientation, and dissent. Dissent was entered into the regression last, thus permitting the maximum amount of variance to be explained by other sources; this was a standard procedure for the political variables.

By all variables (see Table 3), .329 of the variance in SA was explained, and .153 for SR. This produced a substantial decrease in predictive power compared with the first regressions. Not only did the amount of explained variance decrease by the substitution of dissent for the five separate "dissenting" variables, but the percentage was even less than the figure attained when only the single political identification variable was used. The explanation for this is, in large part, a result of the Guttman scaling method. In the creation of the variable dissent, statistical requirements reduced the number of cases and the range of answers per case which limited the breadth of the original questionnaire items. There is perhaps a lesson of caution in this finding in that the conceptual advantages of using a more sophisticated measure need always be weighed against the possible restrictive disadvantage of the same.

Rather than to discard the variable dissent, it was believed instructive to regress dissent as if it were a dependent variable. This assumed, for the sake of exploration, that dissent could be defended as a cluster of attitudes antecedent to the two dependent variables, SA and SR. Only .112 of the variance, however, could be explained in the regression of dissent with all heretofore mentioned independent variables. The conclusion was reached, therefore, that dissent, as an intermediary variable, was of very limited value.

Age-Related Cohort Defined

Age and teaching field, after the measure of the political dimension, contributed to the early understanding of the probable antecedents of SA and/or SR. But they were modest contributions. An alternative to treating the age variable as a continuous one, is to divide the years into

larger spans. It is possible to bring into consideration an aspect of generational differences which is not solely based on chronological age. Appropriately, the question-naire item "degree year" was substituted for "year of birth." This meant that the subsequent cohorts were based on groups of years in which professors received their highest graduate degrees. When treated as continuous variables, age and degree co-vary by .807.

The degree year cohort idea is consistent with the theoretical development in the review of the literature which debated the effects of a collegiate reference group upon political outlook in years to come. The cohorts described in this section assume a reference to years spent in common in graduate studies. Operationally, degree year is that item on the questionnaire which groups into blocks of four years the year in which the professor received his highest degree. By regrouping the already-blocked years, three degree year cohorts were arranged: before 1944; from 1944 through 1958; and after 1958. The number of cases in each category in the sample were, respectively, 448, 1347, The dividing lines which separate the extremes of the middle category were determined on the basis of a belief that those years represented the most intensive years of intellectual and political conservatism in academe, tied to the American foreign policy of the post WW II era. Although there are limitations to the utility of these cutting points, it should be remembered that the data dealt with four-year periods and that any other combination did not appear as advantageous.

Results were anticipated which would indicate any divergence from an incremental increase in support for either of the two dependent variables. For example, possibly the oldest cohort — graduates of the Roosevelt era — might be more supportive of activism and reform than the middle—aged cohort of the late forties and fifties. Of interest too, would be the way the same independent variables did or did

TABLE 4

THE IMPACT OF INDEPENDENT VARIABLES ON SA AND SR AS A FUNCTION OF DEGREE YEAR COHORTS

			Beta Weights	eights
Variable Name	Mean	Standard Deviation	SA	SR
įΤį	Highest Degree	Obtained Before	1944	
SA	4.132	1.637		
SR	2.924	• 938		
Dissent	1,690	. 1.213	.386	.201
Teaching Field: Social Sciences	• 078	•269	128	017
Humanities	.181	• 385	010.	071
Physical Sciences	,154	.361	011	• 005
Education	.031	-174.	.114	480
Salary	5.281	2.072	••008	021
Teaching vs. Research	1.875	.876	.077	900•

TABLE 4--Continued

		# 1	Beta We	Weights
Variable Name	Mean	Standard Devlation	SA	SR
High Quality University	.281	.450	•035	₹60*-
Medium Quality University	.328	024.	420.	151
Low Quality University	194	•396	034	940
High Quality College	690•	.254	026	7700
HZ for SA = .200 RZ for SR = .068 Highest	Degree	Obtained in	1n 1944-1958	
SA	4.673	1.667		
SR	3.156	1.010		
Dissent	2.031	1.212	944.	.270
Teaching Field: Social Sciences	260.	•296	• 063	.035
Humanitles	.133	.340	•059	097
Physical Sciences	.140	.347	••029	075

TABLE 4--Continued

		•	Beta W	Beta Weights
Variable Name	Mean	Standard Devlation	SA	SR
Education	.052	.222	•026	• 088
Salary	488.4	1.944	•050	020
Teaching vs. Research	2.069	. 889	700*-	-:102
High Quality University	.261	•439	190.	• 080
Medium Quality University	482.	.451	.055	047
Low Quality University	.226	.418	016	039
High Quality College	.087	.282	002	028
N = 1347 R ² for SA = .258 R ² for SR = .110				
Highest	Degree O	Obtained in 1959-1969	6961-69	
SA	5,168	1.748		
SR	3.391	.993		
Dissent	2.314	1.304	945.	.350

TABLE 4--Continued

		7 1 1 1 1 E	Beta Weights	eights
Variable Name	Mean	Standard Deviation	SA	SR
Teaching Field: Social Sciences	.120	.324	.091	000*-
Humanities	.199	004*	.062	075
Physical Sciences	.162	•369	•015	043
Education	.063	242	.015	•109
Salary	3.239	1.470	016	060
Teaching vs. Research	2,102	698.	.015	108
High Quality University	.210	204.	160.	005
Medium Quality University	.257	.437	240.	.001
Low Quality University	.260	.439	170.	005
High Quality College	.075	.264	•003	041
N = 2333 R2 for SA = .338 R ² for SR = .165			:	

not consistently influence the supportive attitudes.

Table 4 compares the statistics. Among the three degree year cohorts chosen for this inquiry, a rather consistent, linear pattern emerged from the key variables. The dependent variables SA and SR, and the variable dissent, all attained higher scores of support the younger (more recent) the cohort. Similarly, the amount of variance explained increased in increments from, roughly, 20% to 26% to 34% for SA, and from 7% to 11% to 16% for SR. Though certainly not an exhaustive test of the possible cohorts which could represent the generational distinction, these findings seem to indicate that among professors, as among the general population of college graduates surveyed by Lipset and Ladd, there appears no distinguishing political cohort pattern related to specific periods of history except that already defined chronologically by age.

This is not to diminish from the importance of the variable age. Attitudes do vary by age, and perhaps in the loosest sense of the word "generation," every couple of years could represent a more recent and liberal generation. But the pattern born out by the data is that age, used as a continuous variable, accurately depicts this change in attitudes more than the concept of age-related cohorts, or generations.

A Comparison by Teaching Field

Between the two attitudinal investigations of this research, the teaching fields of the social sciences, humanities, education, and physical sciences have been the most discriminating variables. Treating each of these as a separate subsample, each can be analyzed more carefully. By isolating each discipline, we can examine the amount of variance accounted for on a comparative basis. One assertion subject to scrutiny is that the need to take a position on the issues of activism and reform was more salient for professors of the humanities and the social sciences. This follows from the hypothesis (of Lipset and Ladd) that they

were under more (public and) student pressure to speak out on social issues which supposedly fell under their respective areas of expertise. If so, then one would expect more of the variance to be explained by these disciplines than by others (though this alone can not justify the "more salient" hypothesis above).

Subsamples for the social sciences, humanities, education, and physical sciences were produced from the data yielding cases of 443, 722, 225, and 631; the complete statistics are presented in Table 5.

The four disciplines compared are those which were previously found to be the most discriminating among the teaching field variables. As anticipated, the social sciences and the humanities averaged SA scores which were somewhat higher than those of the education and physical science fields. On the other hand, the SR mean was highest among professors of education. This finding indicates that the items which comprised the support for reform variable touched upon a number of likely directions for change that many from this field could advocate. Perhaps education professors were more highly attuned than one might have thought to the popular themes of academic reform. Perhaps, too, their higher support score is a consequent of having more recent graduates among their ranks than is true for any of the other three. Of the four disciplines, professors of the physical sciences scored the lowest indicant of support, either for SA or for SR, and they, on the average, received their highest degrees earlier than any of the others.

From a certain perspective, the most intriguing figures are thosewhich compare the impact of the political variable — in this case, dissent — and the amount of variance accounted for in each discipline. Dissent appears most prominently in the social sciences and in the humanities. Although the mean scores for dissent are not much higher for these two than they are for education and the

TABLE 5

THE IMPACT OF INDEPENDENT VARIABLES ON SA AND SR AS A FUNCTION OF TEACHING FIELDS

		1 0 1 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Beta Weights	e1ghts
Variable Name	Mean	Deviation	SA	SR
	Social	Social Sciences		
SA	5.580	1,630		
SR	3.400	.925		
Dissent	2.537	1.237	.545	.323
Salary	4.097	1.816	043	660*-
Teaching vs. Research	2.244	.837	036	068
Year of Highest Degree Received	3.298	1.991	-,055	036
High Quality University	762.	.456	041	131
Medium Qual1ty University	.275	<i>ረ</i> ተተ	• 036	085

TABLE 5--Continued

		F : 0 1 5	Beta Weights	eights
Variable Name	Mean	Standard Devlation	SA	SR
Low Quality University	.230	.422	020	-,061
High Quality College	480°	.277	680	7400-
N = 443 R^2 for $SA = .329$ R^2 for $SR = .151$				
	Humar	Humanities		
SA	5.355	1,866		
SR	3.254	1,142		
Dissent	2,611	1,320	.545	604.
Salary	3.310	1,686	020	•020
Teaching vs. Research	1.929	.782	036	126
Year of Highest Degree Received	3.256	2.197	122	124
High Quality University	.210	80 7 °	.101	900*-
Medium Quality University	.216	.412	007	051

TABLE 5--Continued

		91 (4 (4 (4)	Beta W	Beta Weights
Variable Name	Mean	Standard Devlation	SA SA	SR
Low Quality University	422.	8 1 4*	.025	-•008
High Quality College	100	.305	••038	-050
$_{\rm R}^{2}$ for SA = .354 $_{\rm R}^{2}$ for SR = .203				
	Physical	Sciences		
SA	4,688	1.614		
SR	3.117	.992		
Dissent	2.014	1.246	464.	.252
Salary	3.967	1.827	•029	121
Teaching vs. Research	2.178	.921	.013	136
Year of Highest Degree Received	3.550	760*2	195	086
High Quality University	.211	.408	.126	• 065
Medium Quality University	.263	T44°	.121	.135

TABLE 5 -- Continued

			Beta Weights	eights
Variable Name	Mean	Standard Devlation	SA	SR
Low Quality University	•220	415	600*	.081
High Quality College	.116	.320	•039	012
$N_{\rm B}^{2} = 631$ R^{2} for $SA = .267$ R^{2} for $SR = .121$				
	Edu	Education		
SA	5.013	1.548		
SR	3.804	.859		
Dissent	2.200	1.138	\$445	•282
Salary	400°4	1.705	•003	•033
Teaching vs. Research	1.720	.748	.091	.021
Year of Highest Degree Received	3.129	1.787	980-	116
High Quality University	,124	.331	.082	172
Medium Quality University	.342	.477	.177	167

TABLE 5--Continued

		71 11 11 11 11 11	Beta Weights	eights
Variable Name	Mean	Deviation	SA	SR
Low Quality University	.307	.462	640.	170
High Quality College	•036	.186	021	790.
N = 225 R ² for SA = .268 R ² for SR = .116				

physical sciences, the beta weights for dissent among the social sciences and the humanities present a more significant picture.

First, for the SA variable, the dissent beta was .545 for both the social sciences and the humanities, a full .100 higher than it was for education and the physical sciences. The amount of variance explained descends from 35.4% for the humanities to 26.7% for the physical sciences. As for SR, the impact of the political variable was even more pronounced. While education professors answered the reform items in a manner which produced the highest mean score among the four disciplines in favor of academic change, the impact of dissent upon education professors ranked third after the impact upon humanities and social science professors. The beta for the humanities, at .409, was the highest ever recorded for SR by any of the independent variables used in this research. The other betas were .323 for the social sciences, .282 for education, and .252 for the physical sciences. Correspondingly, the humanities sample showed the greatest amount of variance explained -- 20.3% -- yet another peak statistic for SR. is, of course, the relatively small amounts of variance accounted for in each discipline that decreases the strength of any conclusions drawn from the teaching field samples.

An interpretation of the humanities sample which may explain the significance of the above statistics on SR requires first that one recalls a finding from earlier regression data. Analysis presented in Tables 1, 2 and 3 determined that among the various disciplines, the impact of the humanities upon SR was actually a negative one. That is, a professor identified as teaching in the humanities tended to reduce the likelihood of his supporting academic reform — as high as did the reference group, at least. So, on the one hand, humanities professors ranked low on SR (third among the four samples), and on the other, they scored high on dissent, and likewise, the dissent vari-

able had its greatest impact on the humanities sample. The evidence would seem to indicate, therefore, that some sense of political judgment did pervade the issue of academic reform among professors of the humanities.

But there are complications in dealing with a conclusion based on the following: among the four, for humanities, the mean score for dissent was the highest, the beta of dissent was also the highest, the amount of variance explained was the greatest, and yet the mean score for SR in the humanities was relatively low. This would suggest that although dissent -- the political measure -- was a strong indicator of how SR varied for the humanities, the level of dissent being high did not accurately predict a high SR score, as one might have thought. It follows that while professors of the humanities might have allowed political philosophy to influence academic prespective, those humanities professors, for unknown reasons, still registered a SR at a lower level than was the case for some other disciplines. Unfortunately, these other reasons are not suggested to us from the data.

This discussion of the humanities sample shows that humanities professors could have experienced political pressure along the lines described by Lipset and Ladd. But there is an important qualification to this hypothesis: the impact of the political reality did not necessarily produce the most liberal of attitudes.

A similar situation may have been true for the social science professors with respect to SR. Though the data is not nearly as neat as it was for the humanities sample, the social sciences scored lower than education on SR and yet felt the greater impact of dissent. This all seems to imply that if reform advocates of the sixties concentrated on the political identification of professors for their support — to the exclusion of other factors — then surely they overlooked a substantial number of professors who had the potential to support reform to an even

greater extent than did the professors of the humanities and the social sciences, who were more politically active.

Notes on Chapter III

- 1. The enumeration of all questionnaire items which were used as independent variables may be found in Appendix III.
- 2. All correlation matrices which correspond to data presented in tables contained in the text may be found in Appendix IV.
- 3. All 2300 institutions of higher education have been given a quality rating. For an explanation of this, I refer again to the <u>Technical Report: Carnegie Commission National Survey of Higher Education (1972).</u>

As institutional quality has proven to be an important control variable in research, the colleges and universities in this sample have been classified on the basis of quality into seven groups: three groups of universities, three groups of four-year colleges, and all junior colleges. The university, four-year college, and junior college classification is based on information supplied by the American Council on Education, which information is itself based on the classification scheme developed by the U.S. Office of Educa-The Office of Education defines universities as "institutions which give considerable stress to graduate instruction, which confer advanced degrees as well as bachelor's degrees in a variety of liberal arts fields, and which have at least two professional schools that are not exclusively technological." "Four-year colleges" is an "all other" residual category (p 91).

The basic source of information on quality is The Gourman Report which rates "the undergraduate programs of nearly all of the colleges and universities in the United States." Gourman provides three composite ratings for each institution: a rating of the academic departments in terms of such things as accreditation and the proportion of students receiving scholarships and fellowships; a rating of non-departmental aspects of the institution, such as the administration's commitment to excellence," the level of financial aid available to students, the board of trustees, and faculty morale (e.g., rank, tenure, salary scale, research facilities); and a total institutional rating, which is simply the arithmetic mean of the departmental and non-departmental ratings (p 92).

The institutional rating was used, which correlates .99 with the departmental rating. From each of the quality categories which are established by cut-off points on the Gourman scale, a certain proportion of sample institutions were drawn from the list (p 96). Two references cited by the <u>Technical Report</u> are the following:

Opening Fall Enrollment in Higher Education: Part A -- Summary Data, USGPO, 1969, p 3.

The Continuing Education Institute, Jack Gourman, Phoenix. 1967.

IV

PATH ANALYSIS

A general summary and conclusion for the findings of Chapter III and for this chapter may be found in Chapter V. Conclusions. The material in this chapter elaborates the analysis of the previous chapter, substantively and methodologically, according to two research ambitions. First, as we were somewhat disappointed with the moderate amount of variance explained, especially for SR, we introduced new items from the questionnaire which possibly had been overlooked in the previous analysis. Secondly, an opportunity remained to expand upon the fifth category of variables, the background variables, and bring them into the picture through path analysis.

Introduction of New Variables

In order to work toward either of these two goals, a new ten percent sample of faculty responses was prepared, because not all of the items that we needed to bring together had been recorded in the first sample. The new entries -- variables -- were the following questions (see also Appendix III):

General questions

- Has your campus experienced any student protests or demonstrations during the current academic year?
- How often, on the average, do you see under-2. graduates informally?
- 3. Do you consider yourself . . . religious?

Background questions

- What were your politics as a college senior? What were your father's politics while you were growing up?
- 6. What is the highest level of formal education reached by your father?

TABLE 6
THE IMPACT OF ALL INDEPENDENT VARIABLES ON SA AND SR

					SA		SR
Variable Name	Reference Group	Mean	Standard Devlation	Beta Weight	Variance Explained	Beta Weight	Variance Explained
SA	Scaled Variable	4.845	1.747				·
SR	Scaled Variable	3.251	• 993				
Dissent	Scaled Variable	2,118	1,310	. 423	462.	.270	660•
Demonstration On Campus	No Demonstra- tion on Campus	•698	•459	.013	000	• 022	.001
Year of High- est Degree Received	Continuous Variable	3.522	2.065	1509	• 001	058	900•
Teaching Field: Social Sciences	l: Other Teaching Field	• 098	.297	.072	£003	010	000•

TABLE 6--Continued

					SA		SR
Variable Name	Reference Group	Mean	Standard Deviation	Beta Welght	Variance Explained	Beta Weight	Variance Explained
Humanities	Other Field	461.	•379	790°	•003	085	†00°
Bio Sciences	Other Field	• 078	•268	• 005	000•	910	000*
Physical Sciences	Other Field	.158	.365	900•	000•	051	*000
Psychology	Other Field	040.	.196	640.	• 002	.032	• 001
Education	Other Field	.056	•230	.031	.001	960*	.013
Fine Arts	Other Field	450.	.227	900*	000.	005	000
Articles Published	Continuous Variable	3.023	1.825	017	000•	190-	.018
Books Published	Continuous Variable	1.568	948	900.	000•	011	000•
Teaching vs. Research	Continuous Variable	2.089	\$885	• 002	000•	043	.001
Membership: AFT	Membership: Non-AFT	.018	.134	.023	000	240.	• 005
Senior-in- College Politics	Continuous Variable	3.114	1,036	.140	•019	•063	• 003

TABLE 6--Continued

				SA	SA		SR
Variable Name	Reference Group	Mean	Standard Deviation	Beta Weight	Variance Explained	Beta Weight	Variance Explained
Father's Politics	Continuous Variable	2.481	1.056	-,029	•001	-,018	000*
Meet Students Informally	Continuous Variable	2.672	1.384	.033	. 100*	.082	200.
Secular Orientation	Continuous Variable	2.413	.842	080	• 005	.003	000•
Father's Education	Continuous Variable	3.491	2.083	•019	• 005	•022	.001
Father's Occupation: Teacher or Professor	Other Occupational Status	920.	492.	•029	000°	•	000•
Upper Middle Class	Other Status	.362	084*	.031	000•	.023	000
Lower Middle Class	Other Status	.350	477	•023	000	• 029	000
Salary	Continuous Variable	040*4	1.875	040.	.001	• 002	000•
Аве	Continuous Variable	4.722	2.096	104	• 050	056	.001

TABLE 6--Continued

					SA		SR
Variable Name	Reference Group	Mean	Standard Devlation	Beta Weight	Variance Explained	Beta Weight	Variance Explained
Sex: Male	Sex: Female	.854	456.	031	.001	890	₩00*
Race: White	Race: Other	476.	.158	.021	000	• 005	000•
Bace: Black	Race: Other	110.	901.	•010	000•	400°	000•
University Professor	Professor at Other Institution	.742	•438	184	100.	!	000•
College Professor	Professor at Other Institution	.227	614.	.156	700.	015	000•
B.A. Degree Institution: Large High Quality U.	Other Type Institution	.222	914.	.031	.001	900•	000•
Large Medium Quality U.	Other Type Institution	.130	.337	!	000•	Í	000•
Small Private	Other Type Institution	.200	004.	.051	• 005	.027	.001
Small Public	Other Type Institution	111.	•315	640	• 005	005	000

$$N = 3770$$

 R_2^2 for SA = .369
 R^2 for SR = .167

- 7. What is (was) your father's principal occupation?
- 8. Name the institution from which you received your bachelor's degree.

Unfortunately, this effort did not increase our ability to account for variation in attitudes (see Table 6). Of the additional variables, it was particularly surprising to find that the incidence of a reported protest or demonstration had no influence on either of the dependent variables. It had been anticipated that the presence of such would have an independent impact of helping to crystallize attitudes. Other than this, the secular vs. religious variable did have some impact on SA, and "frequently meeting informally with students" had a positive impact on SR.

Among all the independent variables, it was still the political one that overshadowed the impact of others as measured by beta weights. The reader will note that the composite variable dissent was again used as an indicator of political orientation. To finish up old business, one final test was run on dissent to measure the effect upon it of the new variables. That is, with all variables, dissent was regressed as a dependent variable. The regression produced an R² of .241, or about 100% improvement over the results of the earlier procedure (see Appendix IV-D and IV-H).

Further examination found the professor's political leaning while a senior in college to be the strongest variable in the group to explain the variance in dissent. Senior politics accounted for .121 of the variance and had a beta of .257. Of those that had any influence at all, this political variable was the only one that could be considered a background variable, and, as a political variable, offered little more than to indicate a consistency of attitudes since college graduation for our sample of professors. The conclusion was reached to discard the variable dissent from any place in the path analysis of support for activism or reform.

Left were two tiers of independent variables; they

were the background variables and the more recent variables most of which reflect professional statuses. In the overall regression procedure, the background variables had next to no direct impact on the dependent variables. The analysis which follows deals with that second goal of the research, to establish a viable path model illustrating the indirect influence of the background variables.

In so doing, it was again necessary to make a decision on the proper political variable to be used. Ruling out any composite variable, only the variable which related current political identification was used, and it was placed in the second level of antecedent variables. In the following table, the three groups of variables are listed, described only by a few key words for each variable, and the possibilities for direct and indirect influences should be apparent.

Ideally, for illustrative purposes, directed arrows and corresponding beta weights should be given for each line of influence considered significant. But with the number of variables regressed in this path model, such a visual presentation is not practical. Instead, all possible lines of direct and indirect impact will be summarized in table form.

Testing the Path Model

were consistent with the earlier research requirements. Neither simple correlations nor beta weights were used in the calculations unless they were at least ±.050. The statistical method of computing the path coefficients (beta weights) is incorporated in the regression procedure. The research did not conclude, however, with only the predicted coefficients being entered into the table. We proceeded to test the mathematical accuracy of the derived model. Therefore, the reader will find both the hypothetical and the produced correlations in Tables 8 and 9.

TABLE 7
VARIABLES USED IN PATH ANALYSIS

	Independ	ent V	ariables	D
	X*s		M's	Dependent Variables
1.	Father's Politics	1.	Field:	
2.	Father's		Social Sciences	Ÿ
	Education	2.	Field: Humanities	SA
3.	Father's Occupation	3.	Field:	(Support for
4.	Age*	4.	Education Books	Radical Stu- dent Activism
5.	Sex:		Published	\mathbf{z}
_	Male*	5•	Teaching vs. Research	SR
6.	Race: White*	6.	Current Politics	(Support for Academic
7•	Race: Black*	7.	High Quality University	Reform)
8.	B.A. from High Quality University		OHE VOIDE OF	

^{*} These variables will be recognized as formerly classified in the two categories, generational and ascribed variables. In ordering these variables for path analysis, they are properly placed in the background tier of independent variables.

The basis for testing the model is provided in the path theorem. Expressed symbolically, this theorem reads as follows (Spady and Greenwood, 1971:6):1

Note:

r = correlation coefficient

p = path coefficient
i = the number of the dependent variable
j = the number of the independent variable q = an index of all numbers between j and i, including j.

Essentially the linear zero-order relationship (or total effects) between any independent and dependent variable (r.) in this recursive model can be expressed as the sum of the direct effects of j on i (p; i) plus j's indirect effects on i which are transmitted via j's direct association with other independent variables (q's) in the model. This theorem can be used to test models in which paths have been deleted. In a fully identified model where all possible paths are included, the application of the formula will yield the exact correlation coefficient originally observed between the two variables. ever, when a path is deleted, its corresponding term in the equation becomes zero. If a deleted path were truly non-significant, this formula would yield a value for r; that closely approximates their original zero-order relationship.

The latter sentences in the above explanation are particularly relevant for this research in that all paths were deleted in which the coefficients were not greater than .050. This criterion was used rather than another frequently used guideline -- significant if the beta weight is greater than twice the standard error of the That beta test is not found to be very discriminating with a large sample such as we have used.

Table 8 presents the significant direct and indirect effects of key independent variables on SA; the comparable findings for SR are found in Table 9. Before discussing the individual correlations of certain variables, a general note of explanation about the two tables may be necessary.

There are a large number of empty cells in the

TABLE 8 RESULTS OF PATH ANALYSIS FOR SA

•		.	He H	a Wels	hts (U.	Beta Weights (Underlined) and Indirect Effects of Significant Variables	led) al	nd Ind:	rect E	ffects	s Jo s	ıgniri	cant v	[arlab]	es			
variable Name	kelerence Group	۲ҳ	x2	۲۶	₹ X	x ₅	x,	x ₂	x8	r L	ή2	МЗ	ħ	M5	9W	14.7	- calculated Simple	r
X1 Father's Politics	Continuous Variable	.123								\$00.					.143		.271	.126
X2 Pather's Education	Continuous Variable		:043															260•
X3 Fether's Occupation	Continuous Variable			• 026														.058
X4 ASe	Continuous Variable				235				•	700 - 700	₩00*•		029		092		196.	240
X5 Sex: Male	Sex: Female					- 038												033
X6 Race: White	Race: Other						018											013
X7 Pace: Black	Race: Other							6										
3.A. from X8 sign quality University	B.A. from Other Quality Institution							7	250						450.		.107	.055
My Field: Social Sciences	Other Teaching Field									• 070			900		960•		.162	.151
M2 Piold: Eumanities	Other Teaching Field										.066				860.		191.	2147
My Field: Education	Other Teaching Field											-032						002
My Books Published	Continuous Variable									•005			078				073	870*-
Ms Teaching vs. Research	Continuous Variable													920.				\$60.
Ms Current Folitios	Continuous Variable									.012	.011				.582		.612	.612
My Bigh quality University	Other Quality Institution															003		260.
For "X" variables,	1 - RA =	816.								For	Σ,	For M. variables,	iles,	1-R2	u.	613		

tables. Two reasons account for this; one is due to the standard of significance imposed upon the data. In other words, many of the calculations which could have been made by using the theorem formula were omitted because the path coefficients or associations were less than ±.050. The second reason is inherent in the nature of a path model. None of the cells of indirect influence are filled in the lower left quadrant because this would reverse our assumed ordering of the variables. More specifically, the "X" variables are antecedent to the "M" variables, and therefore, while X can have an indirect effect through M, M cannot influence the dependent variables through X.

The cells which form the diagonals of the tables are filled by the betas, the direct effects. At the right-hand sides of the tables are two columns which give the calculated r and the zero-order r of each independent variable. The calculated r is the sum of each of the entries, direct and indirect, for each row of cells. The zero-order r is that figure for each independent variable taken from the statistical summary in the regression procedure. While most of the r's in the two columns are in close agreement (once again defined as within -.050), a few of the discrepancies cannot be overlooked.

Results of Path Analysis: Support for Activism

The discrepancies form a perplexing pattern, and it is most evident with the SA variable, which appears in Table 8. On one hand, the calculated indirect effects of the "M" variables increases our understanding of the components of each zero-order r without distorting said observed values; on the other, the calculated r's in the upper right quadrant inflate the figures of the observed correlations, significantly so in two cases. The only available methodological explanation is one which would emphasize an error of omission; that is, due to the established cut off points of significance throughout this research, cer-

RESULTS OF PATH ANALYSIS FOR SR TABLE 9

.343	.356	014 .370 023 For "M" variables, 1-R2 . 846		096	Continuous Variable Other quality Institution 1es, I-R ² - 9
190*-	#90°-	450. <u>290.</u> - 110 010			
078	086	.009082013			
.119	.123	.121006 .008			
\$10.		070-			
.057		800			
027		Z10			
.039		<u> </u>	-1		
023			<u>20</u> 0.		
860*-	-122	007018	760		
164	232	850 110. 160 700.	-161		
• 005			011		
₩£0°					020*
††0°					340.
ed Simp	Calculated Simple r	2 x_3 x_4 x_5 x_6 x_7 x_8 x_1 x_2 x_3 x_4 x_5 x_6 x_7	X3 X4 X5 X6		xı xs

tain calculations which were not made would have produced countervailing values to more nearly balance the coefficients. As is, the beta weights of the background variables, without the indirect effects added, give the figures closest to the obtained zero-order r's.

Upon examining the variables further, one finds that among background variables, three -- father's politics, age, and high quality B.A. -- have a significant impact on SA, and, according to the path, the influence of all three is enhanced by the indirect effects mediated by current politics. Similarly, of three "M" variables -- social sciences, humanities, and scholarship -- current politics influences the first two, and does so by a magnitude greater than the betas of either of the two variables, the social sciences or the humanities. In all cases, the consequence of current politics is to augment the value of each variable in the same direction, i.e., more negative in the case of age, more positive in the example of all others.

Results of Path Analysis: Support for Reform

Among background variables, professors' age and sex (male) have direct impact on SR; both produce negative coefficients. In terms of contributing to the calculated r's of background variables, only current politics has any significant additive effect. Similarly, of the four "M" variables which have betas of at least ±.050 -- education teaching field, scholarship, teaching/research orientation, and current politics -- current politics is by far the strongest predictor of supportive attitudes and also influences one other variable indirectly, that of the teaching/research orientation of faculty.

By comparison, the components of the two path models are consistent in several ways. For both the SA and SR variables, age, a background factor, is the strongest negative correlate of a supportive attitudinal cluster. Likewise, current politics is the strongest positive correlate. In both models, only current politics is a variable

the most important difference is our inability to account for much of the variance in professorial attitudes on SR. Consequently, the betas of the leading indicators are moderately small, and moreover, there are more independent variables of lesser influence in the second model than in the path model for SA. Nonetheless, in considering the direction of said influences, the differences are clear, and perhaps encourage speculation about sources of conflict between the general issue of support for activism and the educational issue of academic reform.

Notes on Chapter IV

1. The reference to the original article from which Spady and Greenwood elaborate is as follows: "Path Analysis: Sociological Examples," Otis Dudley Duncan, The American Journal of Sociology, 72, 1 (July 1966): 1-16.

CONCLUSIONS

The research findings presented in the last two chapters were pursuant to understanding faculty attitudes in the late sixties with the twofold purpose of finding out 1) what variables influenced faculty support of student activism (SA), and 2) if faculty support of academic reform (SR) was an apparent consequent of the same variables that influenced support of activism. We can now make some concluding remarks about the likely answers to these questions, beginning with a comparison of the findings of Chapter III. How did the findings relate to our research hypotheses — the summary statements for each of the five variable categories?

Generational

The first category consisted of the age and yearof-highest degree variables, both coded to give the highest
value to the oldest grouping. Of the two, when treated as
linear variables, age was the most effective in accounting
for variance, and produced negative beta weights of at
least -.100, for SA. The beta, though still always negative, was somewhat less for SR. The impact of degree year
was also negative for SA and SR, though weak.

An attempt was made to examine the theoretical contribution of age-related cohorts by manipulating the degree year variable. In Table 4 incremental increases were noted in the means for SA and SR with each more recent degree-year cohort presented, as well as increases in the amounts of explained variance. No doubt a similar pattern would have been observed if the variable age had

so been displayed. Though no pattern emerged of the type which would have indicated a divergence from a linear effect of degree year upon SA or SR, the variable did have a note-worthy impact on some of the four teaching field samples (Table 5). While degree year had no significant impact on the social sciences, it had a double figure negative impact on the humanities for both SA and SR, had a relatively large impact (-,195) on the physical sciences for SA, and had a double figure negative impact on Education for SR. It should be added that the degree year mean for the physical sciences was the highest among the four fields. Assessing the impact of age, then, which covaries with degree year, it can be seen that age is largely responsible for the consistent lack of support for either activism or reform among professors of the physical sciences.

The conclusion reached for the category of variables which are age-related, is that age, while only moderately strong in absolute figures, is consistently a predictor of negative impact upon supportive attitudes.

Political

As expected, the more left the professor's political identification, the greater the impact — considerably so for SA and somewhat less so for SR. Strikingly, the political variable in whatever form used (e.g., dissent) was the most powerful contributor in explaining the variance in attitudinal support of either student activism or academic reform. In the case of the dependent variable SA, we were able to account for twice as much variance as we were for SR, which remained still largely inexplicable at the conclusion of this research. Only age succeeded in being as consistent a predictor, though of a lesser magnitude.

The political variable always had a positive impact on SA and SR, with betas peaking at .566 and .338, respectively, in the overall sample (Table 1), and at .545 and .409 in the humanities subsample (Table 5). As

was discussed in Chapter III, a leftist political identification was particularly salient as a causal factor for
humanities professors, even though their mean scores for
SA and SR were not the highest of the four teaching fields.
In this example, more than anywhere else, does the implication come across that SR was viewed in a political context. As corroborative evidence, moreover, the political
attitude had a far greater impact on SR than did being
identified with any teaching field, including education
itself.

The conclusions reached from this research, therefore, support and expand upon all studies reported in which political identification emerged as a strong barometer of attitudinal support.

Professional Status

Salary, used principally as an alternate variable to rank and tenure, had no significant independent impact on SA. This finding stands in contradiction to the Columbia study of Cole and Adamsons (1970) in which they reported an increase in support of the student demonstrations among the lower-salaried professors. Our finding must be supported on the basis of the larger, broader sample used and on a more encompassing definition of support for student activism. In our research, on the other hand, salary did have a small negative impact (with beta weights usually between -.050 and -.100) upon SR. The higher-salaried professors in the sample were less favorably disposed toward academic reform.

The measures of scholarly productivity had no significant impact on the dependent variables, although the direction was negative, indicating perhaps less of a propensity among the more highly published to support either activism or reform. In any case, the findings do not support the notion that professors with fewer publications were inclined to take out their "sense of status inferiority" against the establishment or college admini-

stration (Lipset, 1969). The statistics failed to provide the foundation for such an argument.

The quality of the institution with which the professor was affiliated did, at times, produce a significant impact on the dependent variables. Of the status variables, only this one suggested a consistent pattern: the higher the quality of the college and university, the greater the SA and the less the SR. This finding is also generalizable from the degree-year cohorts and from the teaching field samples, although there the increases and the decreases in the beta weights were not always incrementally in the same direction. In a few instances the beta for medium quality university, for example, was greater in value than the beta for high quality university.

Though establishing a pattern, the institutional variable, like the other status variables, failed to explain a significant amount of variance in the presence of other independent variables. In summary, we found no support for the hypothesis that SA should increase with a decrease in status, as measured by salary and publications. In partial contradiction, however, SA did increase with an increase in the institutional status of the college or university with which the professor was affiliated at the time the survey was conducted. We found some support for the hypothesis that SR would increase with a decrease in status in that a higher salary, a higher institutional quality, and a greater number of publications all had a negative impact on support of academic reform. Neither hypothesis could be accepted nor rejected conclusively, however.

Professional Orientation

After political identification and age, a professor's teaching field and his research orientation offered the best descriptive evidence of how attitudes varied. It is at first evident that teaching field has played a small role in explaining the attitudes of support in this research. The impact of each teaching field is not impressive; social

science professors scored high on SA and education professors scored high on SR, but the independent impact of field on either attitude is still nowhere in the range of the impact of the political variables, and falls well behind age.

This finding is consistent with the Franklin and Li Ohio State study (1972) and the Cole and Adamsons Columbia study (1970) in which the researchers minimized the impact of teaching field when controls for age and political identification were introduced. This seems to make somewhat irrelevant the lengthy arguments which purport an inherent antiestablishment intellectual activity in most liberal arts disciplines (Lipset and Ladd, 1970), or arguments of how the non-professional and soft science people protest because their work is less productive and meaningful than that of their counterparts (Bettelheim, 1969). Not that this research would deny any truth to these analyses, but the conclusion is presented that the data in this study do not give foundation to such generalizations.

The teaching vs. research variable had no impact on SA, but it did have a rather consistent negative impact That is, being primarily oriented toward research worked against a favorable attitude toward academic reform -of the nature of reform presented to the professors in the survey, at least. Incidentally, being a researcher in education showed a slight positive impact on SR. But in general, the researchers may have found the items which comprised the reform variable as too loosely constructed and . nonmeritocratic for their liking. Such speculation is not testable in this study, but one conclusion may be made: there appears no necessary conflict in attitudes among research professors which would have pictured most researchers in support of student activism, generally, but basically opposed to academic reform and other specific campus issues.

Sex and Race

These variables have had no impact on either SA or SR, although the direction of the beta weights indicated a possible positive impact of being black and supporting activism, and a negative impact of being a male and failing to support academic reform. One must conclude that any seeming influence had by race or sex is better explained through the impact of the other independent variables.

Conclusion Reached in Path Analysis

Much of the literature reviewed in this paper referred to studies on student activists. When researchers began studying the sixties' activists, many, if not most, wanted to find some relationship between protest and family background. In the early years they were generally successful in doing so (See Flacks, 1967, 1970). When other people, including professors, began to pay attention to the students, researchers naturally wanted to know if there was any relationship between their family background and their support of student activism. Similarly, our inquiry has asked: do background factors influence professors' support of student activism, and, furthermore, do they influence support of academic reform?

The answer has turned out to be that for professors, few of the background factors are significantly related to their current attitudinal dispositions. Father's educational level, father's occupational status, the professor's race and sex all failed to indicate impact on faculty SA. Yet father's political identifiaction was somewhat significant, and this parallels the general finding for studies on student activists, themselves. Likewise, but to a lesser degree, as students from the foremost universities have often made the most "noise", so does being a professor who graduated from a high quality university have a positive impact on SA.

With respect to SR, the findings on background

variables are clear: no family or college variable had a significant impact on support of academic reform. Only age and being a male had some negative impact.

Extended Conclusions

The research findings and conclusions presented in this paper are important historically but are not thereby restricted to the context of activism in the sixties. That historical framework has served to interpret the data in this research, and it may also provide a point of reference from which to analyze contemporary issues in the academic profession. This is not meant only in the very limited sense of asking "by what factors will professors' attitudes be explained in some future period of activism?" -- it's application is more extensive than that.

For whatever period we are now said to be in, the question posed should be "how typical are these findings?" -that nearly all of the variance in professorial attitudes that can be explained is explained by the knowledge of a professor's age and his political disposition. If future research indicates that these findings are not generalizable to contemporary issues, then the case is closed: the impact of age, and political identification especially, was relevant only for the years of pronounced activism in the sixties. But if our research findings and those of future studies are consistent, then surely a redefinition in our thinking on the formation of attitudes in the academic profession is warranted. In either case, one thought is imperative: ture studies must deal with the potential impact of a generalized political disposition among members of the professoriate.

The question of the applicability of these findings is relevant to a number of sociological considerations. Perhaps foremost among these is the significance of the lack of influence in this research of background and class factors. Theorists of political sociology may find — if our findings are any indication of a pattern — that attitudes

toward what are ostensibly political or even professional issues can no longer be essentially explained by the respondent's family background or by his current status. New directions need to be explored in pursuit of the variance in these attitudes.

Our sample was a homogeneous one in certain aspects, and perhaps insight can be gained from that awareness. Not only did we work with a single profession, but one which required its members to have spent a half dozen or so years in undergraduate and graduate colleges and universities. It might be a productive endeavor for future research in the area of attitudinal analysis to raise tentative hypotheses on the effects of peer and collegial influence during those years. In this sense, a social psychological approach more than one of social stratification might be beneficial.

Our research has indicated the impact of political disposition on the dependent attitudes, but we were not properly prepared to explain the variance in that variable as well. To the extent that we could account for political disposition, it was explained primarily by the professor's political identification while a senior in college, which merely put a better date on the same question. The research challenge is clear: either by direct impact or by way of political disposition, a number of significant factors which could not be found among traditional research hypotheses remain undetermined in the area of attitudinal analysis.

APPENDIX I

In the pages of this appendix are found elaborative material on four well-publicized campus disruptions which occurred at prominent universities — Berkeley, Columbia, Harvard, and Cornell. The details which follow not only describe further these key incidents, but serve primarily to illustrate the variety of faculty responses which had become newsworthy in their own right. Campus confrontations seldom involved only students and administrators, and it is reasonable to assume that faculty throughout the country, from time to time, considered the actions of their colleagues while their own attitudes crystallized.

A. Berkeley Free Speech Movement

The administrative policy in 1964 was a response, in large part, to outside criticism which charged that public facilities were being used improperly for partisan purposes, an issue particularly salient in a presidential election year. But unsympathetic activists retorted that the administration was restricting their lawful right to participate in the more significant events of the time — civil rights lobbying and election campaigning. With the right amount of rhetoric and a willing leadership (primarily that of Mario Savio), this response produced the Free Speech Movement. The FSM argued that the very principles of free speech were at stake.

There were actually multiple issues at work, one being student discipline. In autumn, a disruptive incident which brought in civil authorities concluded with the immediate suspension of key demonstrators by the administration. While faculty liberals were dismayed at what they called a breach of the usual standards of "due process," radical

students prepared a case against "double jeopardy." They claimed that any attempt by the administration to penalize a student by manipulating his status with the university while that student was also liable to civil jurisdiction would constitute a violation of the student's constitutional rights. The issue gained popular support with many of the moderate Berkeley students, and consequently, even after President Clark Kerr announced the lifting of the ban on "outside" activities, FSM leaders were able to retain a large vocal following.

Sympathizers staged an anti-"double jeopardy" sitin in Sproul Hall lasting 15 hours. Though finally cleared
by force, unlike later scenarios of student-police confrontations, 814 demonstrators were arrested without physical
harm to either side. Nonetheless, the campus was horrified
with the sight of 400 policeman on their grounds. Radical
students proposed a campus-wide "strike," and speech-making
and protest folk-singing pervaded the campus.

B. Columbia Revolt

The Cox Commission, which studied the turmoil at Columbia, isolated three principal issues that spring, as summarized in the following (1968:75):

- (1) The projected gymnasium in Morningside Park, which symbolized the shortcomings of Columbia's attitude toward her black neighbors.
- (2) The university's relationship to the Institute for Defense Analysis, which symbolized complicity in the war in Vietnam.
- (3) The imposition of discipline upon six SDS leaders, without a formal hearing, for breach of the rule against indoor demonstrations.

The first issue became one through the influence of black power philosophy, where first community leaders and then black students spoke up for more community control over the use of the proposed gymnasium on former Morning-side Park playground. The actual involvement of Columbia faculty with Institute for Defense Analyses projects, the second issue, was quite small. However, it was a national

SDS rallying issue, and the local Columbia chapter's breadand-butter issue for the year. The disciplinary issue grew from the SDS claim that the administration was acting discriminatorily with the intent of undermining the strength of their legitimate but radical organization. In time, the whole system of disciplinary prodeedings would be called into question and require extensive revamping.

On the 23rd of April, what started out as a rally at the campus sundial, Columbia's in spot for speech making, ended in the eventual occupation of five university guildings. Several hundred students were variously located, and a Strike Coordinating Committee (SCC) was set up to unify as best as possible all contingents of the strike. Eventually delegates participated from each of the buildings except Hamilton, which housed the black student and community representatives. The SCC accomplished little more than to reiterate its six demands (based upon the three principal issues descussed earlier), and to occasionally overrule pleas from within and without for compromise with the administration.

Enter: Ad Hoc Faculty Group

By Thursday evening April 25, the administration was prepared to call in the city police and would have done so were it not for the intervention of the Ad Hoc Faculty Group (AHFG). Desiring to act as a mediating force, the AHFG was born out of informal talks on Wednesday, the 24th, in Philosophy Hall. There they made the resolution to "stand before the occupied buildings to prevent forcible entry by police or others" until the crisis was settled (Cox, 1968:117), and offered suggestions as how to go about that process. Some 150 signatures were attached to their statement; the signers included senior and junior faculty and some teaching assistants. According to the Report (p 117):

AHFG decided that junior faculty members would be allowed to attend and vote at its meetings, although they did not enjoy these privileges at formal proceedings of the various Faculties. During the following

days, when the group was convened in more or less continuous session, there was sometimes only erratic checking of credentials to speak or vote. Whoever was present had a full voice in the debate.

When President Kirk announced at 1:30 am Friday that police had been summoned to clear the buildings, the AHFG members held to their resolve and moved out from Philosophy Hall to take their posts before the occupied buildings in order to block the police when they arrived. When advance officers appeared on the scene to prepare detailed plans for clearing the buildings, a scuffle broke out between some of the AHFG members and some of the officers. A severe gash suffered by one of the faculty dramatized the dangers of police action, and the administration was persuaded to postpone the request for police assistance. When Vice President Truman appeared to announce this decision, he also pointed out that suspension of construction of the gymnasium had been arranged informally with the This postponement of police intervention gave Trustees. the AHFG hopeful time to attempt a peaceful solution, though no such solution came.

The overriding issue had become discipline, since news reached the strikers that construction on the gym had been halted. The Trustees made it clear, however, that they were not about to allow the President -- even if he had wanted to -- to relinquish his ultimate authority as disciplinarian. The SCC, likewise, refused to open up discussions until their demands for amnesty were met. This stalemate was the calm before the storm.

"The Bust" came in the early hours of Tuesday morning, April 30. As has been widely reported, violence and misconduct was the rule. Of the five buildings that were cleared, only Hamilton Hall, holdout of the black students, was evacuated without violence; in all, 692 arrests were made.

Mindful of the ease of hindsight wisdom, the Cox Commission offered both words of praise and admonition for the AHFG's role in attempts to peacefully resolve the

crisis (p 149):

Their appraisal of the dangers of calling upon the police, although probably exaggerated in terms of the situation on Thursday, proved a good deal more realistic than the seeming estimate of the Administration. While miscast as mediators, they perceived that need for mediation. They understood as well as anyone — much better than most people — the extent of the revolt, the reason and justice of some student objectives, and the need for fundamental change.

In retrospect, we are quite clear that AHFG forced the postponement of police intervention without giving adequate weight to the consequences of delay and with very little chance of arranging the students' voluntary withdrawal from the occupied buildings.

The Commission went on to say that the AHFG was improperly constituted as a board of mediation because of its own political objectives; in short, it was not acting as a "disinterested" third party.

C. Harvard and Cornell, too.

At Harvard, police were called in by the president to clear student-seized University Hall. The faculty were clearly upset with the administrative action, though perhaps as much a matter of pragmatic concern as philosophy. The Harvard faculty resolved 395 to 13 that all criminal charges against the intruders be dropped (which the administration did) and that a committee be elected to study changes in the governing of the university. The question of who should rule the university was implicit in the faculty resolution: the faculty (Time, 4/18/69:48).

The faculty had actually done much to abate the issues that spring. For example, they had been attentive to black demands by approving an Afro-American Studies program. The dominant issue in the seizure of University Hall was complete abolition of ROTC. In February the faculty had stopped just short of that when it passed a resolution which "abolished academic credit for ROTC courses, terminated faculty appointments for ROTC instructors, and removed ROTC from the catalogue" (Wallerstein and Starr, 1971:263-264). Radicals, however, were not satisfied, and the SDS

leadership chose to dramatize this feeling by the occupation of University Hall.

While the publicity surrounding the Harvard community's struggle to put its house in order was beginning to fade, attention was turned to events at Cornell. The question at Cornell focused on a familiar theme: the proper administrative response to disruptive demonstrations, of late, stemming from black student demands. Wallerstein and Starr recreate the highlights of the situation in the following (1971:396-397):

The dispute came to a head one Sunday in late April when black students occupied Willard Straight Hall, the student union, and demanded that the university nullify disciplinary reprimands for earlier protests. That night, possibly in fear of an assault on the building by white groups, the blacks armed themselves. They agreed to vacate the building when the administration promised to ask the faculty to nullify the discipline at a meeting the next day. On Monday, however, the faculty decided not to act on the administration request. This decision produced an outpouring of support for the black students from the entire campus, and several thousand students began a round-the-clock sit-in in the Cornell gymnasium. The blacks threatened further actions as did the SDS, if the reprimands were not lifted. On Wednesday the faculty met and agreed to nullify the disciplinary measures. professors denounced the vote as a capitulation to force and resigned.

The vote in favor of nullification represented a recognition of pressures, not just from the armed blacks, but from practically an entire campus. It was a vote which recognized the need for order to be restored humanely, even if principle, for the moment, was sacrificed.

APPENDIX II

In the following pages are presented the Guttman scaling statistics for SA, SR, and dissent. In each case the two most important requirements of scaling were met: having a coefficient of reproducibility of .900 or greater and a coefficient of scalability of at least .600.

Care was taken to devise scaled variables which achieved statistical reliability and at the same time retained conceptual soundness. In scaling the SR variable, we had actually begun with twice as many attitudinal items as eventually proved productive. Fortunately, the five items which remained gave sufficient breadth to the concept of academic reform.

In scaling the items selected as indicators of SA, only one was eliminated before achieving a workable scale. But even so, the scale actually selected for use was one of 16 we had looked at, that number based on different combinations of cut-off points for each item. The "pass" and "fail" lines were not always drawn according to what might be interpretted as the middle response for each question. That was determined by the statistical pattern which had emerged through Guttman scaling.

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APPENDIX III

In the following pages are presented the questionnaire items used as variables in this research. Four pieces of information are conveyed by this listing: the numbers of the questions as they appeared in the Carnegie questionnaire, the more frequently used variable names in our presentation of the findings, the wordings of the questions and the corresponding responses, and the manner in which the items were coded (as indicated by the numbers enclosed by parentheses).

It should be remembered that is the cases of the variables SA. SR, and Dissent, Guttman scaling called for the responses to be coded either as passing (1) or as failing (0). As for the variables which were coded continuously, the higher numbers correspond to the higher values implied by the variable names. Salary, for example, was coded to give the highest score (9) to the highest salary level offered as an alternative. The variables which were Guttman-scaled are presented first, followed by the other independent variables.

- 19 What do you think of the emergence of radical student activism in recent years?
 - a) Unreservedly approve (1), b) Approve with reservations (1). c) Disapprove with reservations (0). d) Unreservedly disapprove (0).
- 20 With respect to the student revolt at Columbia last year, were you in sympathy with

a) the students' aims and their methods (1),

- b) their aims but not their methods (0), c) neither their aims nor their methods (0).
- 25a What effect have student demonstrations (on your campus or elsewhere) had on your research?

 a) Very favorable (1), b) Fairly favorable (1),

 c) Fairly harmful (0), d) Very harmful (0), e) No

- effect (0).
- 25b What effect have student demonstrations had on your teaching?

a) Very favorable (1), b) Fairly favorable (1),

- c) Fairly harmful (0), d) Very harmful (0), e) No effect (1).
- 25e What effect have student demonstrations had on your relations with students?

 - a) Very favorable (1), b) Fairly favorable (1), c) Fairly harmful (0), d) Very harmful (0), e) No effect (1).
- 27r Political activities by students have no place on a college campus.

a) Strongly agree (0), b) Agree with reservations (0),

- c) Disagree with reservations (1), d) Strongly disagree (1).
- 27s Student demonstrations have no place on a college cam-

a) Strongly agree (0), b) Agree with reservations (0).

- c) Disagree with reservations (1), d) Strongly disagree (1).
- 27t Students who disrupt the functioning of a college should be expelled or suspended.

- a) Strongly agree (0), b) Agree with reservations (0),
- c) Disagree with reservations (1), d) Strongly disagree (1).
- 27u Most campus demonstrations are created by far left groups trying to cause trouble.
 - a) Strongly agree (0), b) Agree with reservations (0),
 - c) Disagree with reservations (1), d) Strongly disagree (1).

SR

- 9a Most undergraduates are mature enough to be given more responsibility for their own education.
 - a) Strongly agree (1), b) Agree with reservations (1),
 - c) Disagree with reservations (1), d) Strongly disagree (0).
- 9q This institution should be actively engaged in solving social problems.
 - a) Strongly agree (1), b) Agree with reservations (1),
 - c) Disagree with reservations (1), d) Strongly disagree (0).
- 9u Undergraduate education in America would be improved \(\) if all courses were elective.
 - a) Strongly agree (1), b) Agree with reservations (1),
 - c) Disagree with reservations (0), d) Strongly disagree (0).
- 9v Undergraduate education in America would be improved if grades were abolished.
 - a) Strongly agree (1). b) Agree with reservations (1).
 - c) Disagree with reservations (0), d) Strongly disagree (0).
- 9w Undergraduate education in America would be improved if course work were more relevant to contemporary life and problems.
 - a) Strongly agree (1), b) Agree with reservations (1),
 - c) Disagree with reservations (1), d) Strongly disagree (0).

Dissent

- 27m "Militant Faculty Defense"
 - Faculty members should be more militant in defending their interests.
 - a) Strongly agree (1), b) Agree with reservations (1),

c) Disagree with reservations (0), d) Strongly disagree (0).

When used as a continuous variable, Militant Faculty Defense was coded as follows:
a) 4. b) 3. c) 2. d) 1.

27n "Collective Bargaining"

Collective bargaining by faculty members has no place in a college or university.

a) Strongly agree (0), b) Agree with reservations (1),

c) Disagree with reservations (1), d) Strongly disagree (1).

When used as a continuous variable, Collective Bargaining was coded as follows: a) 1. b) 2. c) 3. d) 4.

57a "Faculty Strike Legitimacy"

Do you feel that there are circumstances in which a strike would be a legitimate means of collective action for faculty members?

a) Definitely yes (1), b) Probably yes (1), c) Probably not (0), d) Definitely not (0).

When used as a continuous variable, Faculty Strike Legitimacy was coded as follows: a) 4, b) 3, c) 2, d) 1.

59 "Immediate Vietnam Withdrawal"
Which of these positions on Vietnam is closest to your own?

a) The U.S. should withdraw from Vietnam immediately (1), b) The U.S. should reduce its involvement, and encourage the emergence of a coalition government in South Vietnam (0), c) The U.S. should try to reduce its involvement, while being sure to prevent a Communist takeover in the South (0), d) The U.S. should commit whatever forces are necessary to defeat the Communists (0).

When used as a separate variable, only the "a" response was considered.

61a "Political Identification"

How would you characterize yourself politically at the present time?

a) Left (1), b) Liberal (0), c) Middle-of-the-road (0), d) Moderately conservative (0), e) Strongly conservative (0).

When used as a continuous variable, Political Identification was coded as follows:
a) 5, b) 4, c) 3, d) 2, e) 1.

Independent Variables

- "Demonstration on Campus"
 Has your campus experienced any student protests or demonstrations during the current academic year?

 a) Yes b) No
 Only the "a" response was considered.
- "Year of Highest Degree Received"
 In what year did you obtain your highest degree?

 a) 1928 or before (10), b) 1929-1933 (9), c) 1934-1938 (8), d) 1939-1943 (7), e) 1944-1948 (6), f)
 1949-1953 (5), g) 1954-1958 (4), h) 1959-1963 (3),
 1964-1966 (2), 1) 1967 or later (1).
- 73c "Teaching Field"
 Present principal teaching field.
 (Of approximately 70 choices which were listed on the questionnaire, the respondent was instructed to choose only one). The fields used in this research included the following:

Biological sciences--general biology, biochemistry, general botany, physiology, etc.;

Education--elementary and/or secondary, educational psychology, educational administration, etc.; Fine arts--art, dramatics and speech, music, etc.; Humanities--English language & literature, foreign languages & literature, history, philosophy, religion & theology, etc.;

Physical sciences--chemistry, earth sciences, physics, etc.;

Psychology--clinical, experimental, social, etc.; Social sciences--economics, political science, sociology, geography, etc.;

and others included in the reference group were architecture, business, engineering, health, industrial arts, and mathematics.

34 "B.A. Degree from High Quality University" Bachelor's degree.

(The respondent was instructed to check either one of the institutions which were named on the questionnaire, or to mark an appropriate residual category if his institution was not named). The quality rating had been determined by the Carnegie Commission (see Notes on Chapter III).

- "Articles Published"

 How many articles have you published in academic or professional journals?

 a) None (1), b) 1-2 (2), c) 3-4 (3), d) 5-10 (4),
 - e) 11-20 (5), f) More than 20 (6).

- "Books Published"

 How many books or monographs have you published or edited, alone or in collaboration?

 a) None (1), b) 1-2 (2), c) 3-4 (3), d) 5 or more (4).
- Do your interests lie primarily in teaching or in research?

 a) Very heavily in research (4), b) In both, but leaning toward research (3), c) In both, but leaning toward teaching (2), d) Very heavily in teaching (1).
- Membership: AFT"
 Are you a member of any of the following organizations?
 a) American Association of University Professors,
 b) American Federation of Teachers, c) through f)- included other choices.
 Only the "b" response was considered.
- 61b "Senior-in-College Politics"
 What were your politics as a college senior?
 a) Left (5), b) Liberal (4), c) Middle-of-theroad (3), d) Moderately conservative (2), e) Strongly
 conservative (1).
- 61c "Father's Politics"
 What were your father's politics while you were growing up?
 a) Left (5), b) Liberal (4), c) Middle-of-theroad (3), d) Moderately conservative (2), e) Strongly
 conservative (1).
- 76 "Meet Students Informally"
 How often, on average, do you see undergraduates informally (for meals, parties, informal gatherings)?

 a) Once or twice a week (5), b) Two or three times a month (4), c) About once a month (3), d) A few times a year (2), e) Once a year or less (1).
- 77 "Secular Orientation"
 Do you consider yourself
 a) Deeply religious (1), b) Moderately religious (2),
 c) Largely indifferent to religion (3), d) Basically opposed to religion (4).
- 79b "Father's Education"
 What is the highest level of formal education reached
 by your father?

 a) 8th grade or less (1), b) Some high school (2),
 c) Completed high school (3), d) Some college (4),
 e) Graduated from college (5), f) Attended graduate

or professional school (6), g) Attained advanced

degree (7).

What is (was) your father's principal occupation?

a) College or university teaching, research or administration; Elementary or secondary school teaching or administration; other professional (8), b) Managerial, administrative, semiprofessional (7), c) Owner, large business (6), d) Owner, small business (5), e) Farm owner or manager (4), f) Other white collar: clerical, retail sales (3), g) Skilled wage worker (2), h) Semi- and unskilled wage worker, farm laborer (1).

*Salary"

What is your basic institutional salary, before tax and deductions, for the current academic year?

a) Below \$7,000 (1), b) \$7,000-\$9,999 (2), c) \$10,000-\$11,999 (3), d) \$12,000-\$13,999 (4), e) \$14,000-\$16,999 (5), f) \$17,000-\$19,999 (6), g) \$20,000-\$24,999 (7), h) \$25,000-\$29,999 (8), i) \$30,000 and over (9).

87 "Age"
What is your date of birth?

a) 1903 or before; 1904-1908 (9), b) 1909-1913 (8),

c) 1914-1918 (7), d) 1919-1923 (6), e) 1924-1928 (5),

f) 1929-1933 (4), g) 1934-1938 (3), h) 1939-1943 (2),

i) 1944 or later (1).

88 "Sex"
Your sex:
a) Male b) Female.
Only the "a" response was considered.

Your race:
 a) White/Caucasian, b) Black/Negro/Afro-American,
 c) Oriental, d) Other.
 Both the "a" and "b" responses were considered, as separate variables.

-- "Quality of Institution"

High, medium, and low quality colleges and universities were determined by the Carnegie Commission.

APPENDIX IV

This appendix contains correlation matrices and other summary statistics which correspond to tables presented in the text.

A. CORRELATION MATRIX CORRESPONDING TO TABLE 1

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CORRELATION MATRIX CORRESPONDING TO TABLE 2

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	SUPACTIV	ÄCREFORM	DISSENT	AGE	SALARY	HIQUNIV	MODUNIV	רספטאניע	41950L	iosocs	HUMANS	PHYSCI	
SUPACT IV	1.00000	0.39823	0.54415	-0.23528 -0.15040	-0-11856	0.06362	-0.02387	-0.04627	377		3.5	-3.35362	
DISSENT	0.54415	0.32326	1,00000	1,00000	-0-16867		0.0258 0.0337	0.0454	0.000	10448	3,16497	-0.04607	
SALAGY	-0.11856	-0.16634	-0.15867	0.46866	1.00000	0.15641	0.13649	45750-0-	-3.33535	31519	63	-5. 51574	
OUN IV	-0.0C115	-0,02387	-0.02588	0,03075	0.13649	0,3387	1,0000	3.5	1782	3.332	0.05970	-0.00938	
LOGON V HISCOL	0.00444	-0.60716	0.04782	-0.00,869 -0.00,92	-0.06744 -0.00675		-0,34640	1-0030 3-1543	1543	8600. 2700.	3.02037 3.04439	-0.32194 0.35915	
SPCSCI	2.13563	0.04723	0.10446	-0.03619	. C	0.0487	0.0020	86(0.0	22.00	1.33333	0.151.5	-7,14869	
HUMANS	0.12130	-0.00665	C. 16497	10.05135	-0.17033	0520.0	-0.35970		0443	15145	1,0001	-0,19785	
FOUCAT	0.01566	0.12965	026.00.0		. C	-0.06159	0.03934	3.33538	376	0.0835	5.11125	-0.10245	
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į		1781					-2.52367	0.42408	1.3332	0.19015	3.351.32	-2-11266
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E. CORRELATION MATRICES OF DEGREE YEAR COHORTS, TABLE 4

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SUPACTIV	0.33257		0.25507	12312	395	-4.65123 -7.03128	0.51188	100	0.0554	-0.03723	. 3221	-3.39542	
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G. CORRELATION MATRIX CORRESPONDING TO TABLE 6

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A4.P686	5218		:	0.02041			-0.24458	0.11767	20.0	-0.13542	2217	
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COLLEGE	1825	E.	3695	3350	0730	-3.91687	1.30000	-0.05254	-0,07319	0.14739	3735	
XCHIO	1101		.0716	0425	22.73	0.07592	.0025	1.00000	2	-0.25775	0,1893	
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A.O.E.	, m	0.15659	0.03593	-0-19539	, ,		
SECULAR		0.17997	0.02298	447	1652	حـ:	1.16524
HUMANS	4438	0,19695	0,01699	0.16693	-	~	0.14073
SALARY	0.45539	0.20733	0.01042	-0.16588	212		9.121.0
SOCSET	0.46567	0.71685	0.00047	0.13573	1055	٠.,	0,10557
TCHVCARC	0.44.500	0247240	0,00735	0,12975	0.00	770	7.78222
FOCCAT	886	0.22425	0,00228	0.00008	3,3513	-	0.00043
PSYCH	303	0.23133	0,00238	0.05255	98+0		3.34867
מכטרסאום	831	628280	0,00206	-0.09021	351.3	FATHQ -	0.35106
ARTS	0.48472	559620	0,00156	0.01778	0,03551		0.03651
VEMU POTO	0.48536	0.23605	0.00111	0.06123	10+0		0.04017
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BLACK	0.48932	0.23944	0,00044	0.03422	0.03375		3,33376
DEGREEYS	61684.0	0.23355	0,00042	-0.19125	3352		3,03528
746 E	0.49017	0.24025	0.00041	-0,07400	8		3,32223
10 - 10 - 10 - 10 - 10 - 10 - 10 - 10 -	50.0	0.2.043	0,00021	-0.02891	9.5		1.113.15
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Supplies	806	66052.0	0.00000	0.00685	0,03395		0.00895
FAIRED	16067-0	0.24103	0.00009	0.04583	0135		3.11955
00000410	910	0.24112	0,00013	0.04629	0183	1	0.01830
<i><u>₽</u>GUXPUBL</i>	-3		0.00005	-0.03457	0,00255		3.33865
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CS17000	• •	~ :	20000.0	-0.02592	0.0271	í	3.32715
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CORRELATION MATRIX CORRESPONDING TO TABLES 8 AND 9

## A FUGE PFICERIT CANNUT SECRET. SUPACITY — CC SCURY SCALL — NUTAY— EDUCAT BOOKUNG. TCMYSES - POLITOG - HIGGINY - EATHOD - FATHOD				H19UNIV 0.03737 0.03279 0.035887 0.035887 0.12275 0.12275 0.12275 0.03296 0.02295 0.05548 0.05548 0.05548 0.05548 0.05548 0.05548 0.05548 0.05548 0.05548			900xFUBL -0.07774 -0.07774 -0.07343 0.01535 0.01535 0.01275 0.02050 0.03492 0.03492 0.03492 0.03492 0.03492 0.03493 0.03725 0.03725 0.03725 0.03725 0.03725 0.03725 0.03725	EDUCAT -0.00222 0.11885 0.11885 0.01385 1.00000 1.00000 0.01355 -0.01351 0.01341 0.01341 0.013413	0.14448 0.01432 0.1433 1.00000 0.01433 0.00000 0.04636 0.02675 0.02675 0.02674 0.02674 0.02674 0.00000	SDCSCI 0-15134 0-05692 0-05692 0-07933 0-07933 0-07933 0-07933 0-07936 0-07266 0-07266 0-07266 0-07266 0-07266	981 NTED	SUPACTIV 1.00000 IS SUPACTIV 1.00000 0.41458 0.41458 0.41458 0.41458 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.000000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.000000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.000000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.000000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.000000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.000000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.000000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.000000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.000000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.000000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.000000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.000000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.000000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.000000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.000000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.000000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.000000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.000000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.000000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.0000000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.000000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.000000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.000000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.000000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.000000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.000000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.000000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.0000000 0.000000 0.00000 0.000000 0.000000 0.00000 0.00000 0	
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BIBLIOGRAPHY

- Astin, Alexander
 1970 "Determinants of Student Activism," in Julian Foster and Durward Long (eds.), Protest! Activism in America. New York: William Morrow and Company. Inc.
- Bettelheim, Bruno
- 1969 "The Anatomy of Academic Discontent." Change, 1.3(May/June):18-26.
- Cole, Stephen and Hannelore Adamsons 1969 "Determinants of Faculty Support for Student Demonstrations." Sociology of Education, 42,4(Fall): 315-329.
- Cole, Stephen and Hannelore Adamsons 1970 "Professional Status and Faculty Support of Student Demonstrations," Public Opinion Quarterly. 34,3(Fall):389-394.
- Cox Commision 1968 Crisis at Columbia. New York: Random House, Inc.
- Feuer, Lewis S. 1969 The Conflict of Generations. New York: Basic Books, Inc.
- Flacks, Richard 1967 "The Liberated Generation: An Explanation of the Roots of Social Protest," Journal of Social Issues, 23,3(July):52-75.
- Flacks. Richard 1970 "Who Protests: The Social Basis of the Student Movement, in Julian Foster and Durward Long (eds.), Protest! Student Activism in America. New York: William Morrow and Company, Inc.
- Franklin, Clyde W., Jr. and Wen L. Li 1972 "Faculty Attitudes Toward Activism: A Causal Analysis, "Sociological and Social Research, 56,4 (July): 421-432.
- Glazer, Nathan 1968 "'Student Power' in Berkeley," The Public Interest, 13(Fall):3-21.

- Goldman, Ralph M.
 - 1970 "San Francisco State: The Technology of Confrontationism," in Julian Foster and Durward Long (eds.),

 Protest! Student Activism in America. New York:
 William Morrow and Company, Inc.
 - 1969 "Harvard and Beyond: The University Under Siege," Time, 93,16(April 18):48-50.
- Kerr, Clark
 - 1970 "Student Dissent and Confrontation Politics," in Julian Foster and Durward Long (eds.), Protest!

 Student Activism in America. New York: William Morrow and Company, Inc.
- Lipset, Seymour Martin
 - 1969 "American Student Activism," in Gary R. Weaver and James H. Weaver (eds.), The University and Revolution. Englewood Cliffs, N.J.: Prentice-Hall. Inc.
- Lipset, Seymour Martin
 1970 "The Politics of Academia," in David C. Nichols
 (ed.), Perspectives on Campus Tensions. Washington,
 D.C.: American Council on Education.
- Lipset, S.M., and Everett C. Ledd, Jr.
 1970 "And What Professors Think," <u>Psychology Today</u>,
 4,6(November):49-51+.
- Lipset, S.M. and Everett C. Iadd, Jr.
 1971a "American Social Scientists and the Growth of
 Campus Political Activism in the 60's," Social
 Sciences Information, 10,2(April):105-120.
- Lipset, S.M. and Everett C. Ladd. Jr. 1971b "The Divided Professoriate," Change, 3,3(May): 54-60.
- Lipset, S.M. and Everett C. Ladd, Jr.

 1972 "The Political Future of Activist Generations,"
 in Philip G. Altbach and Robert S. Laufer (eds.),
 The New Pilgrims: Youth Protest in Transition.
 New York: David McKay Company, Inc.
- Long, Durward
 1970 "Black Protest," <u>Protest! Student Activism in America</u>. New York: William Morrow and Company, Inc.
- Martin, Warren B.
 1969 Conformity: Standards and Change in Higher Education. San Francisco: Jossey-Bass.

- 1972 "Nixon at the Brink over Viet Nam," Time, 99.21 (May 22):11-15.
- Obear, Frederick W.

 1970 "Student Activism in the Sixties," in Julian Foster and Durward Long (eds.), Protest! Student Activism in America. New York: William Morrow and Company, Inc.
 - 1971 "Self-Defeat for the 'Army of Peace,'" Time, 97,20 (May 17):13-15.
- Spady, William G. and Donna Greenwood 1971 "Instant Path Analysis: An Elementary Cookbook," unpublished paper, The Ontario Institute for Studies in Education.
 - 1972 "The Crisis Managers," <u>Time</u>, 99,19(May 8):63.
- Wallerstein, Immanuel and Paul Starr (eds.) 1971 The University Crisis Reader (Vols. I&II). New York: Random House, Inc.
 - 1964 "When & Where to Speak," Time, 84,25 (December 18): 68-69.

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