

April 14, 1969

I am releasing the attached copy of the "Report of Stanford-SRI Study Committee," prepared by an ad hoc Study Committee of students and faculty under the chairmanship of Prof. Kenneth E. Scott.

The urgency of the situation on campus has caused me to make this report available in this form to the faculty, students, and university officers concerned.

Making it available in this manner has precluded study of the report by me and therefore I cannot say at this time whether or not I agree with any of its statements or conclusions.

Kenneth S. Pitzer,
President

CAMPUS REPORT SUPPLEMENT

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*(NOTE: This report is being distributed to the Academic Council
and some staff of Stanford University.)*

April 11, 1969

REPORT OF STANFORD-SRI STUDY COMMITTEE

I. INTRODUCTION

The Stanford-SRI Study Committee was appointed on October 31, 1968 by then Acting President Robert J. Glaser "to explore in detail the relationships between Stanford University and the Stanford Research Institute (SRI)." The Committee was composed of five faculty members nominated to the President by the Committee on Committees of the Academic Senate: Barton J. Bernstein (History), William K. Linvill (Engineering-Economic Systems), David S. Nivison (Philosophy), Kenneth E. Scott (Law) and Ezra Solomon (Business School); five student members nominated to the President by the President of ASSU: Anne C. Bauer (Political Science), Harry M. Cleaver (Economics), Nick P. Falk (Business School), G. Victor Hori (Philosophy) and J. Patrick McMahon (Communications); and two members selected by the President: Frank B. W. Hawkinshire (Education) and Richard W. Lyman (Provost).

The major question to which the Committee was charged to direct its attention was whether the present relationship between Stanford and SRI should be maintained. The Committee was also directed to consider whether, if the relationship were to be maintained, existing arrangements should be altered. It was suggested that, in considering these questions, the Committee might review (a) the general nature of the activities carried on by SRI and their impact, if any, on the University, (b) the reasons that led to the establishment of SRI in 1946 by the University and the reasons why the relationship was organized as it was, and (c) the financial implications of the present relationship and any implications of an alteration of the relationship for the University.

The Committee was requested to render its report by April 1, 1969, a date that because it coincided with an end-of-quarter examination period was subsequently extended to April 15, 1969 in order to permit a full participation by the student members in the final portion of the Committee's work and preparation of its report. It was pointed out at the outset that although the Committee's report would be rendered to President Kenneth S. Pitzer, action on the Committee's recommendations would be the responsibility of the University's Board of Trustees.

In carrying out its charge, the Committee sought a considerable amount of information from SRI, and wishes to express its appreciation for the time and effort devoted to our needs by President Charles A. Anderson, Vice-President Rudolph K. Brunsvold and other officers and staff of SRI. The questionnaire which the Committee directed to SRI on December 31, 1968 and the responses received from SRI on January 16 and January 31, 1969, together with documents cited in this report and other written material submitted to or collected by the Committee, have been deposited in Meyer Memorial Library and are available to any member of the University Community at the reserve desk. Part II of this report attempts to organize and present portions of this information which are of general value in understanding the nature of SRI's activities and the different dimensions of its relationship to the University.

In addition, the Committee held numerous discussions with various persons connected with both the University and SRI. A questionnaire was sent by the Committee to selected members of the Stanford faculty, to obtain outside informed opinion on some of the issues under consideration. A public hearing at the University was held on December 5, 1968 and a meeting with the senior administration and staff of SRI was held on March 24, 1969. The Stanford Chapter of the American Association of University Professors conducted a public forum on SRI and Stanford's relations to it on February 6, 1969, in Memorial Auditorium.

The Committee also undertook to draw on somewhat analogous experiences at other institutions, including the decision in 1968 by Cornell University to sell Cornell Aeronautical Laboratory and the decision in 1967 to merge the Mellon Institute into the Carnegie Institute of Technology.

Lacking any staff or resources, however, beyond the time that the persons composing it were able to devote, the Committee was not able to pursue a number of pertinent matters beyond the preliminary level of analysis set forth in this report. The Committee regards this as a regrettably narrow constraint in studying issues of substantial complexity and magnitude for both the University and SRI, and would urge that more attention be given to this need in the creation of future ad hoc committees charged with reporting on matters of major import.

Within its limited means, the Committee did attempt to evaluate the various aspects of the present relationship between the University and SRI, and this is set forth in Part III of this report. It had been consistently the plan and intention of the Committee to produce a single report, setting forth in a systematic way a variety of points of view and arguments and ending with a description of the positions favored by the different members. In the last week and day of the Committee's work, however, this proved impossible to attain. The various parts of the report and separate statements which follow, therefore, should be understood as not necessarily representing the views of anyone not indicated to be a signatory. In particular, the minority statement has not been seen by the other members of the Committee; those signing the minority statement did have access to and an influence upon drafts of the other parts of the report. On the final day of the Committee's work, the signatories of the minority statement indicated that they wished to withdraw association with the contents of all portions of the report save their own.

II. HISTORY AND DEVELOPMENT OF SRI

A. Formation

Stanford Research Institute (SRI) was formed in 1946 by the trustees of Stanford University in cooperation with a group of West Coast industrialists. The Institute grew out of what was perceived to be both a need and an opportunity for an organization to provide a wide range of research capabilities for growing Western business. There were already a number of such organizations in the East (e.g., Arthur D. Little, Inc., Battelle Memorial Institute, Armour Research Foundation) and the idea that useful results could accrue from an organized approach to industrial research had been spreading for over a decade. The end of the war and the economic boom which followed gave added impetus to the creation of such an organization in the West.

In 1945 two Stanford professors (Robert E. Swain and Philip A. Leighton) and a Stanford alumnus (H. Dudley Swim) were appointed as a University committee to study the possibility of creating a research institute under University auspices. The considerations that they weighed at the time are worth setting forth, not only for the light shed on the reasons that led to establishing SRI but also for assistance in evaluating that decision two decades later:

"Arguments for Stanford sponsorship:

- a. A research institute connected with a university has educational functions. It trains men through giving them an opportunity to work, under expert direction, on actual industrial problems. Its staff members may hold faculty status and give lectures or courses in the University. It improves the usefulness of faculty members as teachers, through improving their understanding of industrial problems and industrial needs.
- b. A research institute is a means of supporting basic research, both by its own staff and by grants and fellowships to the university.
- c. It is a source of income.
- d. It improves contacts and relations between the university and industry.
- e. It provides the organization and means for attracting and accepting large government contracts.
- f. It would give the University a leading part in the industrial and regional development of the Pacific Coast.
- g. Both the physical location of Stanford and its standing as a University are favorable factors.
- h. Research has come of age. Its social importance is now recognized, even by the man on the street. Large scale industrial and government support is not only in prospect, it is here. This support will be

chiefly for projects which are more highly organized and on a larger scale than the highly individualized manner in which most University research has been carried on in the past. While opportunity for complete individual freedom in research must be preserved at all costs, the new emphasis on research, particularly on organized interrelated projects, must be recognized and a mechanism developed to meet and take advantage of this emphasis. The University that does not do this will be left on the shelf.

Argument against Stanford sponsorship:

- a. The primary objective of an industrial research institute must be to serve industry. Its primary interest is the application of knowledge. The primary interest of a University is the advancement of knowledge, through basic research and education. These two primary interests cannot be mixed without loss to both. Can Stanford accept the commitments involved in sponsoring an Industrial Research Institute without reducing its level as a University? Is the gain worth the loss?
- b. Scores of second and third rate colleges and universities are planning research institutes. Many of these ventures will fail. Will this create a situation which is best avoided by remaining out of the field, or should the field be entered with such strength and aggressiveness as to insure leadership and success?"

These "three musketeers" submitted their report to University President Tresidder on December 21, 1945. That report called for the creation of "Stanford Research Institute," separately incorporated as a non-profit corporation but under complete control by the University, including an arrangement

"whereby the Institute would pay, say, 50% of its annual earnings, after the first three years of operation, to the University in consideration of the use of the name 'Stanford,' the sponsorship by the University, and the use of the University's facilities. This would also afford a settled policy whereby one-half of the earnings would go to the research and/or general funds of the University and the other half would be 'plowed back' into the development of the Institute."

About the same time a San Francisco industrialist, Atholl McBean, had asked Dr. Henry Heald, President of the Illinois Institute of Technology, to study the idea of establishing a research foundation in California to serve the Pacific Coast area. Heald presented his conclusions to a group of business executives on January 24, 1946, in San Francisco. His report was very positive: "I, therefore, suggest that the industrialists interested in the establishment of a research organization ask Stanford University to organize it, provide the University with moral support for the project, and arrange to provide an initial gift of \$500,000 to be used to finance operations, space and equipment . . ." About a month after the Heald report, the University trustees decided in principle that Stanford would found a research institute.

By October 24, 1946 the Articles of Incorporation, or charter, had been drawn up and it was filed on November 6th. Under the charter the University Trustees were designated the sole general members of the corporation and given the power to appoint the Board of Directors of SRI. They met for that purpose on December 13th and appointed the first eleven-man Board of Directors of SRI. When those eleven men met on the Stanford campus for the first time on January 8, 1947, Stanford Research Institute had become a reality.

B. Objectives

The objectives of the different groups involved in the founding of SRI were varied. One dominant theme was that of providing a valuable service to business and thereby assisting West Coast industrial development. In their report to Dr. Tresidder the "Three Musketeers" recommended against including the term "industrial" in the name as too limiting but did think it desirable to advertise its creation as "The Far West's first industrial research institute."

Heald in his report to McBean was very explicit:

"The need for a first-class research organization to serve Pacific Coast industry seems to be well established. The rapid growth of industrial development to its present substantial volume plus the prospect of a continued increase creates a substantial demand for such services. Such an organization can be of real value in assisting in the industrial development of the area."

The University press release of September 27, 1946, announcing the formation of SRI emphasized this role: "The institute plans to do the kind of research that industry itself might do if each company could set up its own comprehensive research organization, supported by the resources of a great university."

The Articles of Incorporation state that one purpose of SRI, among others, is "To promote and foster the application of science in the development of commerce, trade and industry, the discovery and development of methods for the beneficial utilization of natural resources, the industrialization of the western United States of America . . ."

The initial purpose stated in SRI's charter, however, is "To promote the educational purposes of the Leland Stanford Junior University by encouraging, fostering and conducting scientific investigations and pure and applied research in the physical, biological and social sciences, engineering and the mechanic arts . . ." This theme is carried out by further references to SRI as intended "to devote its resources . . . to the assistance of the Leland Stanford Junior University in the promotion and extension of learning and knowledge" and to "provide, equip and maintain laboratories . . . and to make such facilities available to the Leland Stanford Junior University [and others] for the conduct of research and investigation."

It seems to have been a general view at the time, that funds for research within the University would be sparse and difficult to obtain, and that an industrial research organization might afford some opportunities that would otherwise be totally lacking. This would be true only if the Institute could attract sufficient commercial business, and it began with a clear orientation to that end. Of the first eleven directors appointed, nine were prominent in industry (including three University trustees) and only two were full-time university people: the President and Vice-President of Stanford.

C. Legal Structure of SRI-University Affiliation

The essential structure of the Institute's relationship to the University is laid out in its Articles of Incorporation:

- 1) SRI is wholly controlled by the University: "... the members of the corporation shall be the members of the Board of Trustees of Leland Stanford Junior University as from time to time constituted." The Stanford trustees, as SRI's general members, have the sole voice in selecting SRI's board of directors.
- 2) SRI's board of directors in turn has full authority over its operations: "... the powers of the corporation shall be exercised, its property controlled and its affairs conducted by the directors."
- 3) Although "ownership" is a more tangled concept in the case of a non-profit corporation, in an ultimate sense it can be said that Stanford University owns SRI: "Upon the dissolution or winding up of the corporation, all funds and property remaining after paying or adequately providing for the debts and obligations of the corporation shall be distributed to the Board of Trustees of the Leland Stanford Junior University for the use and benefit of the Leland Stanford Junior University." It is, in short, reasonably accurate to express the Stanford-SRI affiliation as essentially a parent-subsidiary relationship.

The Bylaws spell out the procedural rules of operation for the members and directors as well as delineating the power of the board:

1) Concerning election of directors: "the president of the Leland Stanford Junior University and the president of the Board of Trustees of the Leland Stanford Junior University, by virtue of their offices, shall be members of the board of directors. Other directors shall be elected by the general members who may, at their discretion, elect not more than four (4) directors who are members of the administrative or teaching staff of the Leland Stanford Junior University." The number of directors has been increased over the years, from the original 11 to 42 today; in 1968, 9 of the 42 were trustees of Stanford, and one was a member of its administrative or teaching staff.

2) Concerning powers of directors: The directors are endowed with the usual power over finances, budgets and property accorded most corporate boards. This includes the power to "appoint and remove at pleasure the officers of the corporation . . ." The board also "shall appoint a president" who "shall have the power to employ and discharge all employees." The board is specifically empowered to review and determine "The amounts which from time to time shall be devoted to, given or turned over to the board of trustees of the Leland Stanford Junior University in furtherance of its general educational purposes . . ."

Despite the University's unquestioned power of legal control over the Institute, it has in practice largely allowed the Institute's management to chart its own course. This was not true in the early years, when SRI was losing money and the University had to make advances to it of over \$600,000 (repaid by 1965), nor was it entirely true in 1965 when the fund-raising activities of SRI came into conflict with those of the University. But apart from such episodes of concern over the financial losses SRI might cause the University, the Stanford Board of Trustees appears to have made no formal exercise of its power to establish the direction of SRI activities or implement the purposes that underlay SRI's formation by the University. The result, predictably enough, was to leave SRI's management and directors free to a considerable degree to pursue the Institute's own interests as an independent entity. How this has worked out is depicted in the next section.

D. Aspects of Growth and Development

1. Growth and Size of the Institute

The story of SRI in the over twenty years of its existence has been one of rapid expansion in staff and contracts and, more recently, in financial strength. The table below shows the growth of SRI's employment over the years:

<u>Year</u>	<u>SRI Staff</u>
1947	43
1952	535
1957	1,340
1962	1,980
1968	3,068

Located originally in a few buildings in the old Stanford Village in Menlo Park, permanent SRI personnel are now working in offices in five different states in the U.S. and in at least eleven foreign countries, occupying over a million square feet of building space.

As of December 1968 the breakdown of SRI staff by personnel classification was as follows:

Administrative	180
Professional	1,512
Technical	524
Non-technical	232
Clerical	620
Total	3,068

These persons are distributed throughout the organization in four major research divisions: Physical and Life Sciences, Engineering, Economics, and Management and Systems Sciences. The organization chart of SRI is set forth on the next page.

The growth of annual research volume achieved by the Institute has also been dramatic:

Annual Project Revenue

<u>Year</u>	<u>Dollars (in thousands)</u>
1947	81
1950	2,000
1955	9,900
1960	26,000
1968	64,210

Finally, the expansion in number of new projects undertaken is another index of the Institute's steady growth.

New Projects

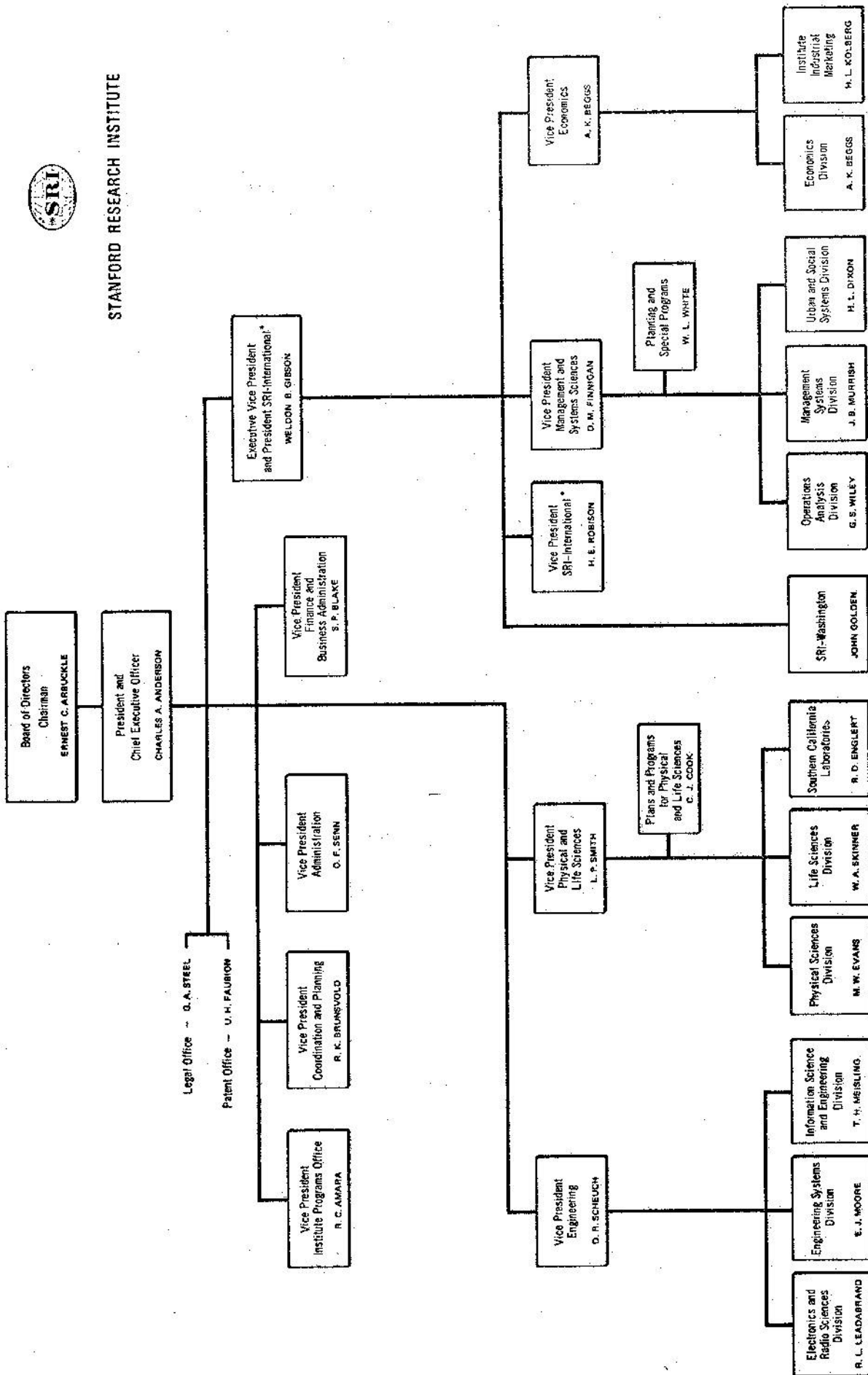
1950	124
1955	309
1960	397
1965	503
1968	681

2. Evolution in Sources of Support and Composition of Research

One of the most striking developments in the growth of SRI is the shift in its research from private industry to government sponsorship. Originally dedicated to "industrial research" yet leaving open the possibility of government contracts so as not to limit its scope, it soon found itself expanding rapidly in the area of government research.



STANFORD RESEARCH INSTITUTE



INSTITUTE COMMITTEES

Institute Policy Committee | C. A. Anderson, Chairman
Institute Research Committee | C. A. Anderson, Chairman
Institute International Committee | W. B. Gibson, Chairman
Institute Administrative Committee | O. F. Senn, Chairman

* Institute-wide Functions as per SRI-International Plan

In its 1948 Annual Report, the Institute reaffirmed its dedication to private industry:

"The Institute was established to make applied research available to industry, particularly industry of the eleven Western states. Although a major portion of its projects are carried on in the field of industrial research, it has undertaken a number of government contracts of importance to national prosperity and defense. . . . Its facilities are available to large and small enterprises alike."

By the 1949 Annual Report government work seemed to be a more integral part of SRI's purpose. "The Institute's major purpose -- the primary service it can perform -- is to apply fundamental scientific knowledge to the technologic and economic problems of industry and government."

A year later the importance of government sponsored research (in dollar terms) had grown to substantial proportions (40%) and by 1960 it had become dominant in the Institute (63%).

Sponsorship of SRI Research

	<u>Government</u>	<u>Commercial</u>
1950	40%	60%
1955	43	57
1960	63	37
1965	82	18
1968	71	29

The expansion of government sponsored research was stimulated in the period of the early fifties by the Korean war, and military research seems always to have constituted the major portion of government contracts.

Data available for recent years indicates a moderate reversal of this trend:

	<u>Government as % of Total</u>	<u>Military as % of Gov. (approx.)</u>
1965	82%	78%
1966	78%	73%
1967	78%	74%
1968	71%	73%

3. Military Research

In the beginning there was no perceived cause for concern over a growing incidence of military work. Indeed industrial research and military work were seen in the 1951 Annual Report as quite compatible:

"... military demands for research closely parallel industrial needs. The Institute therefore, found its skills and facilities immediately applicable to military programs, whether technical or logistic, and could actually participate in the national defense programs."

In recent years, however, concern has been evidenced at SRI about undue dependence on government work in general and military work in particular in the Institute's research contracts. 1965 was the peak year for both in percentage terms and the Institute has been engaged since in a conscious effort to expand other sectors and reduce its dependence on this kind of work. The figures in the previous table reflect the success achieved to date, but SRI military research activity is still large and diversified and constitutes about 50% of its total work. It is mostly classified, and a substantial part of the research results and knowledge thereby acquired is not generally available. The Committee could not undertake, therefore, any sort of project review procedure, since the necessary information could not have been made available to all its members.

Research on chemical and biological warfare (CBW) and counter-insurgency measures has been a source of particular controversy. In 1968, CBW research at SRI amounted to about \$400,000 or .6% of total research revenue; of a February 28, 1969, total contract backlog of approximately \$25 million, roughly \$50,000 or 2/10 of 1% was in the CBW field. Past activity of SRI in this area is greater than these current figures would suggest, and has involved substantial studies of aerosol behavior and dissemination of chemical agents. A statement to the Committee on this subject by SRI is as follows:

The Institute has conducted and is conducting research for agencies of the Government which have a preparedness mission in the field of chemical and biological warfare. The current level of work at the Institute in support of those agencies and their missions is minimal, the current backlog being approximately \$50,000, which is roughly equivalent to a one-man-year effort. The general thrust of the work in this program concerns the detection, dissemination and defensive aspects of such activity.

In connection with both CW and BW research, it has been the policy of the Institute not to have weapons or materials at our facilities which, through accident or inadvertence, could possibly create a danger or health hazard for the local community. Because of its special sensitivity, I think it is important to emphasize that there are no biological agents at Institute facilities.

"Counter-insurgency" research is less easily defined, since as the term is sometimes used it can range from military techniques especially adapted for use against armed guerrillas to any social or economic study or project which might strengthen the existing order in an Asian, African or Latin American country. Approaching this subject from a slightly different angle, the amount of military research directly related to Southeast Asia performed by SRI in 1968 amounted to \$6¼ million or about 10% of SRI's total work. Counter-insurgency projects have included research on such matters as "strategic hamlets" in Vietnam, jungle communications and intrusion sensors in Thailand, and the advisability of operational assistance to Government forces in Peru.

4. Development of SRI International Operations

The growth of SRI's international operations is one of the more important long term trends of Institute development.

In the early fifties the Institute considered its specific aims in international operations to be to "widen SRI's sphere of knowledge and capabilities so as to serve industry and government (at home and abroad) more effectively assist in solving some of the world's economic development problems, strengthen the security of the free world, enhance professional development of the staff, contribute to international exchange of scientific information, and increase prestige and influence of the Institute."¹

Already in 1949 the Institute had been urged by its directors to move abroad. One of its first projects in 1950 was an economic survey of Cuba, undertaken for the Cuban Government under the auspices of the World Bank. From 1950 to 1955 over one hundred members of the SRI staff travelled abroad to work on 67 projects, which ranged from assisting in planning the industrialization of Israel to an economic feasibility study on the reopening of Pacific purveyor service for Matson Navigation Co.

SRI also began to move into the two areas of the world which have been the center of its efforts ever since: the Pacific Basin and Western Europe. About this time an SRI director put the basis for Institute expansion in these terms: "the next decade will surely bring many opportunities for the advancement of free enterprise around the world . . . the move to further internationalization of business is unmistakable . . . in its own interests and in keeping with the times, SRI should extend its operations in a major way into the international field."²

The growth in SRI international activities culminated in 1966 in the formation of a new internal management entity "SRI-International," as part of a plan to increase the Institute's international operations from 15% to 30% of the total. At present, international activities account for about one fifth of SRI's total business, divided among private business (35%), public development (20%) and military projects (45%).

In a recent SRI-International publication, its director made clear his view of the Institute's international purposes:

"SRI is dedicated to these . . . two objectives: economic progress, and the strengthening of private business on an international scale. These are good and noble causes and we are proud to stand with international companies the world over in the pursuit of the fundamentals involved. Our objective is to do everything within our power to develop the private sector as the basic factor in economic strength and progress."³

5. Financial History

The foregoing story of SRI's growth and development is reflected in and summarized by the record of its financial statements.

As the following table shows, SRI achieved the transition from substantial operating losses to profitable operation in the early 1950's, and its rate of growth since then has been remarkable. Project revenues have climbed sharply, and so has accumulated capital. The balance sheets and operating statements for 1967 and 1968 (without accompanying notes) follow the table, and give the most current data.

¹SRI Journal, Dec. 1966, p. 32. This is a special issue, devoted to the history of SRI's first twenty years.

²Id. at 33.

³SRI-International, Number 11, 1969.

STANFORD RESEARCH INSTITUTE

Selected Financial data: 1950, 1955, 1960 and 1965

(Thousands of Dollars)*

<u>Assets (Year-end)</u>	<u>1950</u>	<u>1955</u>	<u>1960</u>	<u>1965</u>
Current Assets	613	2,694	6,114	13,642
Plant & Equipment (at cost, less accumulated depreciation)	388	1,920	9,046	13,889
Total Assets**	<u>1,020</u>	<u>4,773</u>	<u>15,544</u>	<u>27,531</u>
<u>Liabilities (Year-end)</u>				
Current Liabilities	344	1,093	3,999	8,211
Long-Term Liabilities***	950	1,100	2,485	2,023
Capital Contributions	177	1,825	2,603	3,066
Net Worth (retained earnings)	(451)	755	6,457	14,230
Total Liabilities and Equities	<u>1,020</u>	<u>4,773</u>	<u>15,544</u>	<u>27,531</u>
<u>Revenues, Expenses & Income</u>				
Project Revenues	1,990	10,029	25,953	52,030
Direct & Overhead Expenses	2,049	9,704	24,292	49,111
Operating Income	(58)	325	1,661	2,919
Other Income	—	—	(44)	4
Total Income before Taxes	(58)	325	1,617	2,923
Provisions for Federal Taxes	—	—	—	610
Total Income after Taxes	(58)	325	1,617	2,313
Depreciation & amortization allowance	94	372	1,034	1,320
Total Cash-Flow after Taxes	<u>36</u>	<u>697</u>	<u>2,651</u>	<u>3,633</u>

Notes: * Details may not add due to rounding.

** Includes other assets not shown separately.

*** Includes \$500,000 4% no-maturity loan from Stanford University prior to 1965.

STANFORD RESEARCH INSTITUTE (A Nonprofit California Corporation)

BALANCE SHEET, DECEMBER 28, 1968 AND DECEMBER 30, 1967

ASSETS	1968	1967
CURRENT ASSETS:		
Cash	\$ 1,572,300	\$ 890,400
Receivables:		
United States Government prime contracts (including contractual retentions and deferred billings of \$4,500,500, 1968)	11,081,500	10,563,600
Other contract and publication receivables (including contractual retentions and deferred billings of \$1,725,500, 1968)	4,295,000	3,316,400
Recoverable project costs	1,248,600	336,000
Current portion of long-term note	100,000	
Employees and others	29,600	75,000
	16,754,700	14,291,000
Less allowance for uncollectible accounts	545,400	400,000
	16,209,300	13,891,000
Inventories of consumable supplies and equipment, at cost	212,400	166,300
Prepaid expenses and other assets	744,400	792,000
Total current assets	18,738,400	15,739,700
PLANT AND EQUIPMENT, AT COST:		
Buildings	18,244,300	17,031,100
Machinery and equipment	9,261,600	9,317,800
	27,505,900	26,348,900
Less accumulated depreciation	9,354,900	8,356,300
	18,151,000	17,992,600
Leasehold improvements, net of amortization of \$214,301, 1968	187,500	172,700
Land (Note 2)	1,886,900	1,718,800
Plant and equipment, net	20,225,400	19,884,100
LONG-TERM NOTE RECEIVABLE (noncurrent portion)	100,000	
	<u>\$39,063,800</u>	<u>\$35,623,800</u>

STANFORD RESEARCH INSTITUTE (A Nonprofit California Corporation)

BALANCE SHEET, DECEMBER 28, 1968 AND DECEMBER 30, 1967

LIABILITIES AND CAPITAL	1968	1967
CURRENT LIABILITIES:		
Accounts payable	\$ 2,052,600	\$ 1,954,200
Employees' payroll deductions	413,400	286,500
Estimated liability for Federal income tax (Note 3)	684,100	754,000
Accrued expenses:		
Vacation	2,094,500	2,007,300
Property taxes	324,300	256,800
Other	225,800	66,000
Clients' advances and credits	4,044,000	3,206,100
Current portion of long-term liabilities (Note 4)	253,400	253,300
Total current liabilities	10,092,100	8,784,200
LONG-TERM LIABILITIES TO BANKS AND OTHER (less		
 current portion included above—Note 4)	4,599,500	4,836,300
Total liabilities	14,691,600	13,620,500
CAPITAL:		
Capital contributions, net of appropriations of \$217,400		
(Note 2)	5,469,100	4,461,500
Net excess of revenue over costs and expenses:		
Balance, beginning of year	17,541,800	15,646,800
Net excess for year	1,361,300	1,895,000
Balance, end of year	18,903,100	17,541,800
Total capital	24,372,200	22,003,300
	\$39,063,800	\$35,623,800

STANFORD RESEARCH INSTITUTE

STATEMENT OF REVENUE, COSTS AND EXPENSES FOR THE YEARS
(52 WEEKS) ENDED DECEMBER 28, 1968 AND DECEMBER 30, 1967

	1968	1967
PROJECT REVENUE (Note 1)	\$64,210,400	\$62,204,400
PROJECT DIRECT COSTS	37,229,400	36,495,200
EXCESS OF REVENUE OVER DIRECT COSTS	26,981,000	25,709,200
OVERHEAD EXPENSES:		
Salaries and wages	13,156,300	11,497,600
Employee benefits	2,784,300	2,315,900
Travel and transportation	882,000	885,000
Communications and shipping	1,283,900	1,204,700
Materials and services	4,869,300	4,267,600
Utilities	454,300	481,300
Insurance	75,200	70,600
Rental expense	749,700	763,600
Depreciation of plant and equipment	1,676,800	1,582,000
Amortization of leasehold improvements	38,600	38,000
Uncollectible revenue and project overruns	958,700	790,000
Property taxes	632,300	501,300
	27,561,400	24,397,600
Less internal service center credits	2,198,200	1,546,200
NET OVERHEAD EXPENSES	25,363,200	22,851,400
EXCESS OF REVENUE OVER DIRECT COSTS AND OVERHEAD EXPENSES	1,617,800	2,857,800
OTHER INCOME (EXPENSE), NET:		
Interest expense, net of interest earned of \$103,800, 1968 ...	(162,000)	(225,100)
Gain on sale of assets	189,800	9,300
Other income	30,700	3,000
	58,500	(212,800)
EXCESS OF REVENUE OVER COSTS AND EXPENSES	1,676,300	2,645,000
PROVISION FOR FEDERAL INCOME TAX (Note 3)	315,000	750,000
NET EXCESS OF REVENUE OVER COSTS AND EXPENSES AFTER PROVISION FOR FEDERAL INCOME TAX	\$ 1,361,300	\$ 1,895,000

STANFORD RESEARCH INSTITUTE

STATEMENT OF SOURCE AND APPLICATION OF FUNDS FOR THE YEARS
(52 WEEKS) ENDED DECEMBER 28, 1968 AND DECEMBER 30, 1967

	1968	1967
SOURCE OF FUNDS:		
Net excess of revenue over costs and expenses after provision for Federal income tax	\$1,361,300	\$1,895,000
Depreciation and amortization	1,715,400	1,620,000
Capital contributions (Note 2)	1,007,600	648,800
	<u>\$4,084,300</u>	<u>\$4,163,800</u>
APPLICATION OF FUNDS:		
Additions to plant and equipment:		
Land (Note 2)	\$ 168,100	\$ 57,500
Buildings (including construction in progress)	1,213,200	1,806,100
Equipment	622,000	1,069,200
Leasehold improvements	53,400	15,400
Long-term note receivable	100,000	
Reduction of (increase in) long-term debt	236,800	(295,900)
	<u>2,393,500</u>	<u>2,652,300</u>
Increase in working capital	1,690,800	1,511,500
	<u>\$4,084,300</u>	<u>\$4,163,800</u>

III. THE PRESENT RELATIONSHIP

In evaluating the present relationship between Stanford University and SRI, it is necessary to draw a clear distinction between two sets of identifiable data:

The first consists of the real or perceived benefits (advantages) and costs (disadvantages) flowing from the existence of SRI.

The second consists of that portion of the flow of benefits and costs specifically attributable to the present relationships and existing arrangements between SRI and the University.

A. The University's Point of View

1. Benefits.

The benefits which the University enjoys from SRI's existence fall into the following categories:

- a) The satisfaction and prestige which the University derives from having sponsored the creation and growth of one of the world's leading centers for applied research.
- b) The presence in the local community of a large mass of professional and technical talent over and above that in the University itself.
- c) The availability of a broad and well-organized outlet for applied research interests of faculty and graduate students.
- d) Consulting opportunities for individual faculty members who desire to engage in such work.
- e) Internship/Fellowship opportunities for graduate students.
- f) The availability of qualified SRI people for part-time and specialized teaching in the University itself.

These benefits do not depend specifically on the present set of relationships and arrangements between the University and SRI. Rather they flow from the existence of SRI as a large and viable institution and will continue so long as SRI continues to exist in the neighborhood.

2. Costs.

Unlike the flow of benefits, the real and perceived costs to the University from its affiliation with SRI flow primarily from the existing set of arrangements between SRI and the University. In particular, the major kinds of cost, or disadvantage, which are listed below, stem from three aspects of existing relationships. These are:

First, the fact that the University "owns" SRI and, in a legal sense, is responsible for all of its operations.

Second, the fact that as owner the University makes no attempt to derive regular revenues from SRI.

Third, a widespread confusion which exists in the mind of the public, both here and abroad, regarding the distinction between the Institute and the University proper. The present relationship is an ambiguous one, and for many people, SRI and the University represent one and the same institution and what is done by one is frequently attributed to the other.

The costs and disadvantages which flow from the situation are as follows:

- a) The University's association with SRI, through SRI's origin, name and proximity, places the University in the eyes of outsiders in a position of responsibility. Although the University has chosen not to exercise much control over the Institute's scope and growth, it is held accountable by the community and the public for what SRI does. This situation at times absorbs part of the University's scarce administrative and policy-making time and talent. Increased control would clearly absorb a far larger share of the University's scarce administrative and policy-making time and energy.
- b) Some of the war-related activities in which SRI is engaged—notably those dealing with chemical-biological warfare and counterinsurgency work—have exposed the University to serious questioning regarding its sense of mission, its leadership, and its overall ethical posture. Criticism on this score ranges from outright condemnation, at one extreme, of the University's implied approval of this form of research, to a more widely ranging but milder criticism of the University's apparent involvement in research which does not appear to be appropriate to its basic function or compatible with its own announced research policies. Opposition among students to the present policies of SRI has become more manifest. While SDS has been the group most active in attacking SRI, there are various other groups also concerned about the nature of some of SRI's research contracts. Any response made by the University that accommodates these concerns will be viewed in Congress and by still others as unwarranted yielding to emotional pressure. In short, the present situation is one that has the potential of imposing substantial political costs, from a variety of directions, on the University.

- c) The confusion between the identity of SRI and the identity of the University itself can and does lead to adverse publicity in and out of scholarly circles whenever SRI does work of questionable quality. This is not to suggest that SRI's performance as a research institute is not of high quality; there is considerable evidence that some of it has been excellent, and as far as these achievements are concerned, the University derives prestige from what SRI does. However, the quality of a significant part of SRI activities has been questioned and criticized. From faculty responses to a questionnaire, this appears to be more prevalent in the case of social science and applied management science work than of work in the physical and biological sciences. But whether the result to the University of outside attribution of SRI's work and activities to it is credit or discredit, it is unearned and mistaken credit or discredit and hard to justify.
- d) Another, perhaps minor, cost is the fact that SRI must inevitably compete under the Stanford name for support from the same institutions and people who might otherwise support education and research in the University proper. Workable arrangements have been sought between the Institute and the University to minimize conflict with respect to fund-raising. In the field of obtaining research grants from the federal government, however, the Dean of the School of Engineering pointed out to the Committee that the identification of the two institutions works to the detriment of both.
- e) A more serious disadvantage on the financial front, which flows from the existing set of arrangements, is the large "opportunity" cost of the funds which the University legally and technically owns, though it is not accustomed to looking at it that way, because of its ownership and control of SRI. Whatever the value of SRI is—and estimates developed later range between \$20 million and \$45 million—the University itself derives no direct financial return on it. SRI since its formation has made total payments to the University of about \$800,000, the bulk of it in connection with the 1962-65 PACE campaign. Such contributions ceased in 1967, and have not been resumed.

Changing the arrangement could bring the University large financial benefits. For example, if SRI were to be divested or sold, the University could enjoy the annual dividend and capital appreciation it could derive by reinvesting the proceeds from such investment. Assuming a "value" of \$30 million for SRI and an annual rate of return including capital gains of around 10% on University endowment investment, the present arrangements may be viewed as costing the University annual revenues of \$3 million. The University's present endowment income was \$9¼ million in 1968.

B. SRI'S Point of View

1. Benefits.

From SRI's point of view, University affiliation has clearly been of tremendous value. It is necessary to analyze the source and scope of benefits and in doing so to distinguish between past and present as well as between the legal and environmental ties from which these benefits, in fact, flow.

- a) The University name and tie were both clearly important during SRI's formative years; the Institute's ability to attract staff, customers, directors, grants and loans were all enhanced. However, today SRI generally stands in the eyes of clients on the quality of its own staff and what they produce and the University affiliation is now of only limited value.
- b) In spite of the Institute's growth—and it is now a large and mature organization—its association with the University is still cited as an important factor in attracting high quality staff. In this context, three separate elements are frequently mentioned:
 - i) The fact that SRI carries the Stanford name gives the Institute at least the appearance of being a semi-academic institution, and this appearance is presumably attractive as a working environment for some people.
 - ii) The fact that SRI is a not-for-profit institution is presumably a key factor for others, primarily because it is viewed as implying a considerable degree of freedom for staff members to pursue their own goals and to be objective.
 - iii) A third element is simple proximity to the University and the set of informal relationships to which proximity leads.

There is no easy way to measure the relative importance of these three subfactors. Of them, only the first depends on the existing legal relationship between the University and SRI. The second and third factors, which are probably of greater importance to potential staff members than is the first factor, are now both independent of whatever legal ties might exist between Stanford and the Institute.

2. Costs.

The present relationship with the University also imposes some costs or disadvantages on SRI.

- a) The Institute has been restricted in its efforts to obtain endowment income and thereby to support self-initiated research.
- b) The second disadvantage of the present relationship is that SRI attracts greater criticism for its activities because it is sometimes regarded as part of the University community proper.
- c) A third disadvantage is that the University and the University Board of Trustees are de jure owners of the Institute. While de facto control has been minimal, the existence of latent veto and control powers is a potentially inhibiting one.

C. The Original Expectations

Another way of assessing the Stanford-SRI relationship is to examine, in the light of two decades of operating history, the original pro-and-con arguments that led the University to sponsor a research institute. These were set forth in Part II in the quotation on pages 4-5 from the Swim-Swain-Leighton memorandum.

1. The contribution of a research institute to the University's educational functions.

In 1968, 53 (of the approximately 1,000) members of the Stanford faculty acted to some extent as consultants to SRI, and 14 SRI staff members taught part-time at the University. Some 67 Stanford students worked at SRI in the Honors Co-op Program.

2. The financial contribution that a successful institute could make to the University, by supporting basic research or as a source of income.

As noted, financial contributions by SRI to the University over a period of 22 years amount to a little over \$800,000. This includes payments to specific departments and programs.

So far as the indirect consequences for University fund raising are concerned, Vice President for Finance Kenneth Cuthbertson commented on this in a communication to the Committee as follows:

SRI on balance has been neither a positive nor negative factor in connection with significant specific gifts from others.

Whether or not SRI activities have enhanced or detracted from the climate for University fund raising must remain a matter of undocumented judgment. My own belief is that SRI has, on balance, detracted slightly. My main reason for this belief is that SRI has functioned in activities not usual to a university like Stanford and essentially not controlled by Stanford. When SRI functioned well, any positive reflection on the University was likely to be misplaced because the credit really belonged to the Institute. When SRI functioned poorly (or was believed to have functioned poorly), any negative reflection on the University could be sustained at least to the extent that the critic believed the University negligent in not doing one of two things: controlling the Institute or getting rid of it.

3. Improved contacts between the University and industry.

It seems reasonable to conclude that these have resulted. The benefits to the University would presumably fall mainly in either category 2 above or 4 below.

4. The Institute would provide a means for the University to attract and perform large scale research contracts from government and industry.

This has happened on occasion, the most notable example being the Center for Radar Astronomy. But the great bulk of research activity at both the University and the Institute is unrelated. The major factor which was unanticipated at the time has been the development of large support by the federal government for basic research activities at universities. In 1968 Stanford itself received about \$76 million for the conduct of sponsored projects.

5. The University would be given a leading part in the industrial development of the Pacific Coast.

The theme of regional economic development that was often stressed at the time of SRI's formation is of little relevance to the Institute as it has evolved today. To the extent project revenues can serve as a measure, they show that less than 5% of SRI's 1968 business was done with firms headquartered in California.

6. The divergence in primary interest between a university and a research institute serving its clients.

This problem was noted at the time, and it has continued to give difficulty in the relations between the two. It is commented on further at a number of places in this report.

7. The risk of financial failure of the institute.

This was a very real and constant concern to the University in SRI's early years, but that period is now long past. There can be no question that SRI has been an outstanding business success, and in this respect the judgment of its organizers has been fully vindicated.

D. An Overview of the Present Relationship

An analysis of the existing relationship between the University and SRI and the way in which it works in practice has led the Committee to the firm conclusion that the costs far outweigh the benefits, certainly so far as the University is concerned. De jure responsibility without de facto control seems to maximize all of the disadvantages without any corresponding increase in benefits.

This is not to suggest that the legal tie was not important or even crucial, during SRI's formative years. The relevant fact is that this is no longer true. SRI is now a mature institution in its own right, which can make its own way in a world in which research has clearly come of age. The history of the past twenty years indicates the Institute's overwhelming preference and apparent need for de facto independence.

For its part, the University has its own primary mission to further basic research and teaching. This is a large enough task, and requires a sense of purpose and mode of operation which is essentially different from the methods of a more action-oriented, problem-oriented, market-oriented institution engaged in applied contract research.

Given these facts the present relationship is an anomalous and ambiguous one. We are unanimous in recommending that it should not be continued in its present form.

There are two main lines of alteration to be considered—the Institute can be made completely independent of the University, or the ties between the two can be made closer. These alternatives are discussed by the members of the Committee in the statements which follow.

IV. MAJORITY STATEMENT

A. Issues and Arguments

Altering the existing relationship between the University and the Institute can take several forms. The principal ones we have considered are:

- a) Total assimilation of SRI into the University: This fundamental change would make SRI an internal component of the University, subject to a single centralized process of decision-making with respect to budget, staff and policies.
- b) Less sweeping measures aimed at making SRI more responsive to University needs and policies while preserving its present status as a separate and self-sufficient though wholly owned subsidiary.
- c) Divestment of SRI by the University under various assumptions regarding the status of the successor organization.

Altering legal structure is a means rather than an end in itself. The ends include the resolution of basic problems and considerations. In this light, the final selection of a revised set of formal arrangements is simply a conscious choice of the best or optimal route for resolving the major issues.

The University's present investigation of SRI's relation to the University has been occasioned in large part by the pressure exerted by students expressing their concern about the chemical-biological warfare work, counter-insurgency work, and the very direct involvement of SRI in Vietnam war activities. We feel that not only the more radical students, but in fact, a wide majority of the students and faculty at the University are extremely disturbed about the University and SRI's role with regard to this work. The Vietnam conflict has, to be sure, divided the country and the university community. But precisely because the country finds itself in a war about which it is in doubt, it is wholly inappropriate that an educational institution should be involved in it. In order to stop such objectionable research and prevent its future recurrence, there has been a demand that the University bring SRI under tighter institutional control.

Two issues need to be clearly distinguished—the moral issue and the organizational relationship issue. The moral issue deals with SRI's undertaking of chemical-biological warfare research, counter-insurgency research and research that directly supports the prosecution of the war in Vietnam. The organizational issue deals with the question of what ought to be the legal and working relationship between Stanford and SRI. In the eyes of the Committee, the University has only two options with regard to the question of the organizational relationship—either some form of sale or maintaining SRI as a University adjunct. These alternatives are described and explored below. The moral issue and the organizational relationship issue are distinct and separate. They deal with two different problems, and the decisions to be made on them are determined by two different sets of criteria. Both sets of criteria are relevant.

1. The Moral Issue

Approximately \$6½ million or 10% of SRI's total work is in research in chemical-biological warfare, counter-insurgency, or work that directly supports the war in Vietnam. It is our firm opinion that much of this research should not be carried on either at the University or at a University-affiliated research institute. All components of such morally objectionable research should be phased out as soon as possible; no new research projects should be sponsored that are clearly morally objectionable.

There must be a prohibition of research in chemical-biological warfare, of much work in counter-insurgency and of much work that supports the war in Vietnam. But it needs to be clearly stated that such a prohibition on morally objectionable research can be prescribed and maintained whether or not SRI is placed on sale or maintained under University control. The question of the organizational relationship does not depend in any way on the moral question about objectionable research.

If SRI is sold either to its employees or to an outside buyer, then explicitly stated restraints prohibiting morally objectionable research can be placed in the conditions of sale or mortgage. At the same time, an enforcement procedure can also be defined which will allow the University to take action should there be any recurrence of such research in the future.

If, on the other hand, SRI is maintained as a University adjunct, then again restraints prohibiting morally objectionable research can be prescribed. A procedure for monitoring the research and for enforcing the restraints can be established at the same time.

In either the case of sale of SRI or of retention of SRI as a University adjunct, we need the following:

- 1) clear restraints prohibiting chemical-biological warfare research, counter-insurgency research, and research that directly supports the war in Vietnam; and
- 2) an influential and open review committee or committees selected from concerned and competent individuals in society, leaders from SRI, and from faculty and students at the University to review and advise the President of the University on the research work that SRI is doing in these areas. Such a committee should be set up immediately and its hearings should be conducted in an open fashion so as to assure the whole community that morally objectionable re-

search will stop and not recur in the future.

We* arrive at these conclusions after taking into account the fact that there are arguments against them. Many thoughtful members of society find it difficult to make moral distinctions between different types of military weaponry or research—between chemical gases (which may be lethal or non-lethal) and nuclear missiles, for example, or between contingency studies for Thailand and contingency studies for Berlin. While agreeing that much of such research is inappropriate at a university, because it contains nothing of value for university functions, these members feel this is also true of much of SRI's ordinary commercial work to which no objection is raised. This becomes merely another way of saying that the University and the Institute carry out markedly different kinds of activities.

The important moral questions, as these individuals see it, lie not in the acquisition of knowledge, but in the uses to which it is put. Concern over the former is both misdirected and largely futile; concern over the latter is of the essence of both moral and political responsibility. It is, if anything, hindered by elevating SRI's conduct in Thailand of a research project on guerrilla detection to a central position; the critical questions relate to what U.S. policy in Thailand is to be, and why.

2. The Organizational Issues

The organizational issues can best be outlined by listing sets of questions for which reasonable answers must be found before reasonable institutional arrangements can be devised. The sequence, dictated by expositional convenience rather than their importance, is as follows:

a) The Form of SRI. If the present form of SRI is to be altered, what form should the "successor" organization have? Should it be essentially an independent and autonomous institution or should it be essentially a subsidiary of Stanford or of any other corporation? In either situation should it continue as a not-for-profit institution or should it be converted into a for-profit research company? Finally, whether it is drawn into or divested from the University should it retain the present Stanford name or should its name be changed to something less likely to be confused with the remainder of the University?

b) The Scope of SRI Research Work. How should the proper scope and thrust of SRI's future research efforts be guided? What should be the balance between ad hoc responses to short-run market demands for services from either government or industry and planned responses to potential and foreseeable but harder to fund "needs?" Does the present composition of capability and output satisfy the intent of the University, or should some components be excised and others deliberately expanded?

c) The Question of Primary Mission. To what extent do the primary missions of SRI and the University overlap? To what extent do they differ? Can the sectors of overlap be conjoined to produce significantly better results for both institutions and society under one form of relationship than another? Do these potential benefits outweigh the potential costs of uniting their disparate sectors under the same form of relationship?

d) The Division of Discretionary Funds. How should SRI and the University divide the flow of residual discretionary revenue which SRI now generates and might generate in the future? Through a common pool to be reinvested in developing and/or disseminating new knowledge? On the basis of a 50-50 sharing between two separate decision centers? On the present basis of a 100% share of discretion on reinvestment lodged solely with SRI? On some other basis?

Even if each of these questions had only two possible answers apiece the number of different responses to the entire set of questions is clearly very large, and certainly large enough to court individual minority positions for almost any committee of manageable size. Nonetheless the entire issue of the "optimal" legal form of relationship to be selected for the future presupposes that each of these questions has been answered correctly. This, neither we, nor anybody, has the insight and wisdom to guarantee. What we can assert is that the answers to these questions are relevant to any organizational solution—and hence that they must be examined.

Take for example the issue of excising some portion of SRI's present activity, on the grounds that it is morally inappropriate. Two reasonable people, both of whom believe that a given definable 10% of present activity should be excised might nonetheless arrive at different conclusions regarding the issue of divestment vs. a closer drawing-in of the Institute. On the other hand two people who hold radically different views about the fraction to be excised—for example 1% vs. 50%—may nonetheless agree that the appropriate form of organization is integration within the University. In this situation mere agreement on the preferred form of SRI's future organization does not necessarily imply underlying agreement on basic issues. Likewise, disagreement on organizational form may blur a deeper fundamental agreement on the issue itself.

3. Questions of "Form" and Scope

Many people in the University as well as staff members of SRI see its present non-profit status as being important, if not essential. In this view, the non-profit status can contribute importantly to the quality and objectivity of SRI's work and hence to its social value.

*Mr. Nivison, who joins the signers of this part of the report, is neutral on this issue. He believes that whatever is done should accord with the wishes of the academic community.

The same is true of SRI's autonomy (which it has largely possessed to date in spite of the machinery of legal control vested in the University Board of Trustees). The argument for independence runs along the same lines as the arguments for non-profit status. Many of the most highly qualified and valuable professional staff at SRI choose in effect to take part of their overall compensation in the form of a degree of self-selection in research projects and opportunities for unsponsored research. Conversion of SRI to a for-profit institution, especially as a subsidiary, may cause some such people to decide to leave.

But perceived staff preferences are not the only dimension of the for-profit vs. not-for-profit issue. At present SRI devotes about a fifth of its effort to what might be labeled "projective planning research" both in the field of technology and in socio-economic areas. This aspect of their work probably represents their most creative contribution to long-run technological and social problems. This type of research requires expenditure of funds with very risky outcomes. Because of this level of risk, this research is in large part back-stopped by the remainder of the activity, which necessarily tends to be both more short-term and more economically lucrative than the projective planning aspects. If SRI were to be converted to a profit making institution the result would inevitably be a sharp decrease in, if not the subsequent loss of, the projective planning aspects of their work—primarily because these aspects are hard to finance and also because there is no sector of the society including government itself which is at present ready to support such activity totally on its own. It is also clear that various government agencies actively seek non-profit organizations to do work that will facilitate social and economic innovations. A move to a profit status would eliminate an important emerging area of development.

On the scope of SRI's work, the previous section has already dealt directly with the question of the need to define and excise those segments of its present work which are immoral or inappropriate. But the scope also has a positive dimension: this is the need, in restructuring or reorganizing the Institute, to find that form of organization which will encourage and indeed press the Institute into the performance of longer-run research goals and tasks as opposed to more short-run consulting type solutions to narrower needs.

One issue which is clearly central to the question of optimal organizational relationship between the two institutions is the degree to which the two have common or complementary purposes and modes of operation. The traditional view is that the primary function of the University is education and basic research. In contrast the primary function of SRI is applied and exploratory-applied research. In this view the University's sense of purpose and mode of operation must be essentially different from the purpose and methods of the more action-oriented, problem-oriented and market-oriented institution which is engaged primarily in applied contract work. The relatively small areas of overlap and commonality between these two kinds of institutions can and should be fostered to the greatest possible advantage of both, but these common areas represent so small a part of either basic mission that their consideration should not dominate the selection of the overall organizational tie.

However it is possible to hold a different set of views about the nature of the two institutions. For example, if the University's primary function is redefined in ways that assign a much higher priority to its role as an active agent of direct social change with correspondingly smaller roles for its traditional functions of teaching and research, and if at the same time the primary mission of SRI is redefined as a necessary component of such a University, one can be led to very different conclusions regarding optimal interorganizational arrangements. This view assumes that an organization as complex as Stanford can in fact shift its function as radically as this view would demand.

The final issue at the organizational level concerns the appropriate distribution of discretionary funds generated by SRI's activities. If we assume that these activities or the bulk of them continue along present lines, the future flow of discretionary investable funds would be \$3 to \$4 million a year. When SRI was originally formed it was envisaged that 50% of net income would be turned over to the University for its own preferred uses. In fact, apart from a contribution to the Stanford PACE program, this has not occurred. Instead, SRI has used its discretionary fund flows internally. The future division of such funds is an issue, regardless of whether SRI is drawn closer into the University or whether it is divested. The major difference is that under divestment, the potential value of such funds is capitalized into an explicit number; specific arrangements are made for a specific transfer from the Institute to the University; and the University ceases to carry the responsibility for meeting future losses which SRI might suffer in any given period. In short, with divestment the University can expect some positive flow of revenues. In contrast, if SRI is drawn into the University, the expected flow of monies could be either positive or negative.

B. Closer Integration

1. Assimilation into University

There is obvious appeal inherent in the notion of uniting SRI and the University for the purpose of increasing the capacity of both to advance human welfare. What is less obvious, but formidably real, are the difficulties and disadvantages involved. It is eloquent testimony to the reality of these drawbacks that no member of the Committee is of the opinion that an integration of Stanford and SRI should be seriously considered. Given the Committee's unanimity on this point, the matter of complete integration need not be discussed at length; but since many members of the community have not had the opportunity of giving close consideration to the question, some brief attempt to outline the reasons for our conclusion is desirable.

First, the sheer size of SRI is a factor of some moment. To integrate the Institute with the University would expand the latter's payroll by more than 3,000 persons, or 35%. For example, SRI's present administration includes ten vice presidents. The administrative structure of the joint enterprise after integration might not include all these persons at the same rank, but it would certainly have to be greatly enlarged over the present University administration. This is the more true because SRI's activities require more administrative personnel in proportion to volume than do the University's. SRI is far closer to the business world in its needs and procedures than is the University; it must be ready to respond rapidly and effectively to a wide variety of requests for service originating outside the Institute. An industrial firm or a governmental unit often wants prompt action on a piece of applied research, without which it finds that some important commercial or governmental project cannot be carried out. Personnel and facilities must then be quickly mobilized to respond. University research, on the other hand, almost always originates with the individual faculty member, or a small group of faculty members. Typically, it does not involve an intricate or urgent set of deadlines; being for the most part "basic" rather than "applied" (or at least tending in that direction), it partakes far less of the character of a job done for a customer, even when it is sponsored by agencies outside the University, than does most SRI project research. University Research Administration is a correspondingly lean office, containing only 9 people, including secretaries.

It involves no denigration of SRI to assert that the Institute, in contrast to the University, has no significant educational mission. SRI is organized to provide contract research for clients, and this function simply does not blend smoothly with that of a university. The practical impact of that difference was made admirably clear to the Committee by the testimony of Professor Carl B. Spaeth, Chairman of the Committee on International Studies in the University. Describing how requests for "social service" research and training programs come to the University in numbers far exceeding Stanford's capacity to respond, he pointed to the necessary steps that must be taken, each time such a proposal is undertaken, in order to protect the University's educational function. If faculty are to be taken from the University campus for on-site research elsewhere, provision must be made so that the University's teaching can be carried on. The result is "overstaffing": the University employs two or more persons in the same specialty so that one can be away on applied research without leaving the field vacant on campus. But this is expensive, prohibitively so in most instances; the agency, whether a business, a foundation, or a branch of government, cannot afford to support incremental academic appointments in order to get accomplished a piece of research that may be expected to take but a limited number of months overall. SRI is not and could not be hampered by such constraints, without suffering a disastrous loss of research volume.

There is the further point that research projects in the University are generally not approved unless they involve Stanford students, and thereby contribute directly to the educational process. Most SRI projects would not be adaptable to this requirement; the research is often of the strongly applied kind, containing few areas of investigation susceptible to treatment by graduate students. SRI's response to a customer must be quick; he wishes to buy the services of the Institute, and will take his business elsewhere if he must wait while a survey is conducted to determine whether, by ingenuity, an educational component can be worked out satisfactorily from the University viewpoint.

Other practical difficulties abound. The situation regarding overhead costs at SRI is markedly different from that of the University. Universities seldom if ever obtain a full return of their costs in undertaking research. Were a non-profit research institute to operate this way it would soon go out of business. (The use of a commercial metaphor is all but unavoidable, which merely clarifies the contrast in the two situations.) Personnel policies are also markedly different, as are salary scales. Appointment procedures are quite unlike, as are provisions for dismissal.

Finally, integration would almost inevitably come to produce an increased competition for University resources. This is worth stressing, since the expectation is sometimes voiced that assimilation of SRI would bring an augmentation of resources to Stanford. As Mr. Kenneth Cuthbertson, Vice President for Finance, put it in a communication to the Committee:

"First, although I am not aware he has yet stated it, Professor Parkinson might add to his laws that 'In a high-quality university, each major activity can justify for its own expenditure at least that amount of income

attributable to it.' I firmly believe that if the SRI activity were to live in healthy interrelationship with other University activities it would soon require more than its own income. A university like Stanford is committed to improving the quality of all its undertakings and presumably this same commitment would apply to SRI-type functions; indeed, the professional staff of the Institute and the faculty of the University could not otherwise work together with the required mutual respect. I am not assuming that the quality weaknesses of SRI are any greater than those of the University; I am assuming that recognizable inadequacies exist in both. I don't believe we could perpetuate the inadequacies of one (SRI) in order to overcome those of the other (University)—particularly when the former could point to its 'own' income available for seeking improvement."

In the Committee's view, this analysis is if anything confirmed by the Carnegie-Mellon case, to the extent we have information on it. This is the one example of a merger at all analogous to a joining of Stanford with SRI. It involved the linking of Carnegie Institute of Technology with the Mellon Institute, to form the Carnegie-Mellon University. The differences between the Mellon Institute before the merger and SRI today are striking, however. The Mellon Institute had an educational mission from its inception; training of research workers was among its purposes from the start, and it had for years collaborated with nearby universities in the training of advanced degree candidates. Mellon was far smaller than SRI; the total professional staff at Mellon was about 200, compared to 1,512 at SRI (as of December, 1968). Mellon's industry-sponsored research had been decreasing for years before the merger; in 1957 the Mellon Board of Trustees "announced plans for Mellon Institute which called for a major expansion of fundamental research and set, as a matter of policy, the goal of essentially equal effort in independent (i.e., non-sponsored) fundamental (basic, as distinct from applied) research and in sponsored industrial research."¹ Industry-sponsored research projects at Mellon dropped from more than fifty in 1955 to twelve in 1967. The Report explains: "This decline in the number of fellowships (the Mellon Institute term for sponsored projects) may be due to a lessened demand for the Institute's services as more industries have established their own research centers, or to the growth of other institutes offering specific problem solving staff and facilities. Examples of the latter include Battelle Memorial Institute, Stanford Research Institute, Midwest Research Institute, and Illinois Institute of Technology Research Institute."² Also significant in the Mellon emphasis upon basic research was the fact of generous endowments, including \$12 million book value "original endowment fund" and \$19 million book value in the "Fundamental Research Trust."³ Possession of such endowments, wholly lacking at SRI, obviously made it possible for Mellon Institute to simulate far more closely than does SRI the purposes and functions of University research.

In short, the Mellon Institute before its merger with Carnegie Tech was already a much more university-like organization than is SRI; its research emphases, its funding, its size all made amalgamation relatively simple and effective. In contrast, so different are the purposes and functioning of most SRI research undertakings and most University research projects that, no matter what form of integration might be attempted on paper, the facts would have to belie the form. Two quite separate enterprises would continue to exist, or one would be changed to the point of destruction.

2. University Adjunct

Even if absorption of SRI into the University seems neither feasible nor rewarding, it is still necessary to consider whether an assortment of lesser changes might remove many of the present objections and enhance the utility to the University of continuing SRI's status as a separate subsidiary. One argument for maintaining SRI's present status is as follows: As a not-for-profit research institute, SRI is not subject to many of the constraints which a business corporation faces. Because of its status, a not-for-profit research institute can sponsor exploratory research, research which is not heavily tied to the constraints and values of the market-place. Included here, for example, is research for which there are few buyers, but which is nevertheless valuable, e.g., educational policy research, or research which is free of the bias induced by marketplace competition, e.g., a "neutral" feasibility study for government on a weapons system, which could not be obtained from one of the defense contractors. It is this kind of exploratory research in technical-applied fields which is not heavily sponsored by either universities or industry, but which is the special potential of the not-for-profit research institute.

¹Report of the Joint Trustee-Staff Committee on University Policy for Sponsored Research, Sept. 5, 1968, Carnegie-Mellon University, pp. 6-7.

²*Ibid.*, p. 7.

³Progress Report on Planning for the Merger of Mellon Institute and Carnegie Institute of Technology, Jan. 16, 1967, p. 8.

A second argument for maintaining SRI as a University adjunct (but with separate identity) stems from the fact that the University is now under pressure to apply the knowledge, understanding and judgment which many believe constitutes the University's special resource to social-urban problems. But to reshape the University as a social problem-solving institution would detract from its primary education and basic research function. Little evidence is available to suggest that this type of transformation is even possible. The University could perform both these functions while avoiding the kind of drastic reorganization suggested above, by maintaining SRI as a separate institution devoted to the solution of social-urban problems on the one hand, and by keeping the University purely for the educational and basic research function. A clear implication of this line of thought is that the University would exercise much closer guidance over the direction of SRI policy. And other implications flow from this one.

Just as the University attempts to protect the academic freedom of the individual scholar, so also the not-for-profit research institute needs to protect the freedom of the individual researcher or research team. In operational terms, this means that decision-making on what projects are to be accepted must be "bottom-up," that individual research teams must not be under heavy financial pressure to maintain a constant flow of new contracts, and that the individual researcher must be free to question the ideological assumptions implicit in the requests of clients. Without "bottom-up" decision-making, researchers would leave and go elsewhere. Without freedom from financial pressure, project managers are more likely to take on contracts that are undesirable, unethical or beyond capability. Without freedom to question ideological assumptions, the research product may be turned to nefarious uses.

On the other hand, just as there are limits to academic freedom in the University, there need to be limits on the freedom of research within its research adjunct. SRI's work would have to be open to scrutiny to ensure that it is competent, that it is within moral limits, and that it is of optimum social value. In general terms, this means that the University would exercise a greater degree of control over SRI affairs, without of course infringing upon the freedom of individual researchers and research teams, except when there is evidence to believe that certain research is either incompetent, beyond moral limits, or not of optimum social value.

Institutional means through which the University could influence SRI policy would have to be developed and manned. One possible means of doing this would be to establish a new office of Vice-President for SRI, an advisory committee to the Vice-President for SRI, and a set of guidelines for SRI.

The Vice-President for SRI would act as the President's representative to SRI, perhaps even assuming the chairmanship of the Board of Directors of SRI.

The advisory committee to the Vice-President for SRI would draw its membership from SRI, Stanford University, and competent persons from society at large. It would function as a liaison between these various communities.

This advisory committee together with the Board of Directors would generate guidelines for the conduct of SRI affairs. Specifically the function of these guidelines would be as follows:

- (a) to do projective planning for SRI as a whole, including the determination of the composition of research
- (b) to monitor the technical quality of the staff and of the research, and
- (c) to ensure that SRI research is within moral limits and is of optimum social value.

The technical quality of the staff could best be monitored through a good personnel hiring procedure. The technical quality of the research, its moral acceptability, and its social value may perhaps best be monitored through low-level review committees. Such review committees could be set up within the SRI administrative framework but should draw some of their members from outside SRI; some clarification would be required to determine when a piece of research should be brought forward for review.

One of the functions of the guidelines would be to prevent objectionable and undesirable research from being carried on at SRI. Three types of research could be identified as undesirable:

- (a) Work that could well lead to projects whose high cost would prevent the attainment of other goals regarded as socially more desirable in the eyes of the Institute (e.g., the ABM system);
- (b) Work that might lead to the construction of military weapons that offend basic moral principles set out in such forms as the Geneva conventions (e.g., chemical-biological weapons);
- (c) Work that interferes fundamentally with the natural political development of overseas countries (e.g., counter-insurgency in Thailand).

In the eyes of many people this kind of research should not be carried on at a research institute associated with a University; for some, this kind of research should not be done at all.

Over time, the composition of research at SRI would change in certain directions. Specifically, given the concerns of many of the Stanford community, there should be less research in chemical-biological warfare, counter-insurgency, Southeast Asia; more research in social-urban problems; and more exploratory research.

But changing the composition of research could not be accomplished immediately or without cost. Present contract obligations would have to be fulfilled. Personnel on projects being phased out would have to be transferred to other projects

or released. Personnel and funds would have to be found to build research divisions in new areas. All of this might well take several years before there is significant change in the overall character of research at SRI. If too large a switch were made at once (e.g., more than 10%) it is probable that the flow of discretionary funds which SRI now generates could vanish. Indeed, under those arrangements SRI may not "earn" enough to cover its own expenses. Such deficits would have to be met either indirectly from gifts or within the University's budget.

The case against SRI as a semi-integrated adjunct is that virtually all of its alleged benefits can be obtained at far lower risk and cost to the University under other arrangements. For example, most of the arguments made for the adjunct idea are really arguments in favor of the existence of non-profit research organizations and research organizations which are independent of manufacturing firms (characteristics which are not necessarily related).

The important issue here is the altogether separate question of why such an organization should be operated by Stanford University. In effect, it seems to be urged that technical-applied exploratory research is so valuable to society or some part thereof, though not to buyers of research (who are unwilling to pay for it), that the University as owner of SRI should be content with a minimal or zero return, and indeed expose itself to possible deficits, in order to permit (or require) SRI to provide more in-house sponsored projects. Whatever the merits of such an argument, it is certainly not drawn in terms of advancing the interests of the University or promoting basic research on contemporary social problems. It would amount to a University subsidization of applied research of all types, in the hope of getting as a fringe benefit some useful work in certain areas which compose a small fraction of SRI's total activities.

Even the intended alteration in the nature and composition of SRI research may be far easier to describe than achieve. SRI is today a large and complex enterprise which has taken form and acquired personnel and facilities in response to client rather than University needs and desires. To attempt to reorient more than ten percent or so of its activities and business and policies would require substantial investments of time and talent by University administration and faculty, as the apparatus of guidelines and advisory committees and review committees recognizes. Both the ultimate success and the net advantage of such efforts are far from clear.

In sum, the considerations discussed in Subsection 1 are to a large extent applicable here as well. SRI is engaged in a form of business of proven value and high technical skills, but one which has only limited overlap with University activities, as demonstrated by the slight extent of interaction that has spontaneously occurred. Attempts to involve the two more closely would probably work to the detriment of each.

Such are some of the arguments. Here we point out again that the choice for or against retention need not be a choice of ends. There could well be agreement that Stanford University, directly or through its agents, should be doing certain things and should not be doing others, and yet no agreement about the legal relationship of SRI to the University is realizing these ends.

C. Divestment

The other direction to which the Committee turned in its exploration of the alternatives available to the University was an assessment of different possibilities in effecting a divestiture of SRI from the University.

The history of the relationship between the University and SRI, and the problems to which it has given rise, indicate that the two institutions do not have enough by way of common purpose and program to warrant any form of joint operation. This is not to cast aspersions on the personnel of SRI or relegate the Institute to some form of inferior intellectual or moral status; it is simply to face squarely the differences in function that exist and their implications.

Integration of SRI into the University could eliminate the existing ambiguity, but only at the cost of radically altering the Institute's scope and mode of operation—a change which would impose serious financial and administrative burdens on Stanford. In contrast, divestiture would ensure an orderly continuation of the Institute's strength and most of its preferred activity. In addition, it could add substantially to the University's financial resources. But divestment is not a one-dimensional process. It encompasses several major variables. Two major variables which we have discussed at length in Sections A and B are (a) the moral issue of restraints and guidelines, and (b) the functional issues of organizational form. These are common to both forms of suggested future organization.

1. The Question of SRI's Value

Divestment raises a third issue. This is the question of the "value" which Stanford, as SRI's present owner, should realistically place on the Institute. At one extreme the University could simply sever existing legal ties and claim no financial recoupment in exchange. The issue of "free severance" is one of the rare proposals on which the committee voted unanimously. The vote was "No." The Institute came into existence through Stanford's initiative and assistance and it required considerable financial resources and exposure to financial and non-financial risks for a long period of time. It is now a material asset of the University and the University's need today is too great and too sobering to permit any

course of action that would not turn this asset to account.

This leaves the question of how much value the University should rightfully claim. An exact answer to this question is difficult, partly because of the nature of SRI's assets—which are not typical—but more importantly because the question of realizable value is not entirely a financial one. It depends on how the important variables relevant to divestment are interpreted and treated.

All of these variables associated with the mode of divestment are clearly interrelated in complex ways. For example, SRI's "value" depends in part on whether it is continued as an independent institute or becomes an operating subsidiary of another corporation. Its value also depends in part on whether it is continued on a not-for-profit basis or converted into a normal for-profit corporation. Finally, SRI's value depends in part on the extent to which the University, as divestor, imposes research restrictions on the purchaser or in the Institute's new charter as a condition of sale or divestment.

Some of the relationships are difficult to predict, even as to direction. For example, earnings after taxes would be affected by sale and conversion from a not-for-profit operation into a for-profit operation. On the one hand, the Institute would pay federal income taxes on all of its net income instead of as at present, only a portion. On the other hand, while the Institute already has to and does operate at a "profit," it is not now a profit-maximizing organization. If it were converted to a for-profit business enterprise there would presumably be added incentive for controlling costs and enhancing income. In addition, the Institute would be relieved of certain limitations that now pertain under its present non-profit status.

Similarly it is difficult to place any value equivalent on the preference which many SRI staff members place on the not-for-profit status.

Within these limitations, it is nonetheless useful to analyze the three major variables outlined above in order to arrive at an approximately optimal mix of divestment conditions.

2. Estimates of Realizable Proceeds

Given the complications listed above, it is not possible, without the help of professional financial opinion, to set a definite number on SRI's value for each set of divestment conditions. What can be done is to estimate a range of values for each subset of underlying assumptions.

A complicating issue is the question of the University's claim or lack of claim to the past capital contributions outsiders have made to the Institute. The only way to approach this factor is to distinguish between "gross" and "net" value—with the difference representing the aggregate amount of capital contributions SRI has received to date. Since the total of these contributions as of the end of December 1968 from a variety of sources (including the U.S. Government in some major HEW grants) amounts to approximately \$5.5 million, the difference between gross and net values as shown in the analysis below represents a hypothetical refund of these capital contributions either to those who provided the funds or to the Institute itself. No doubt such a refund is not likely to occur nor be legally required, but it affords an analytical method of taking such outside contributions into account.

a) Outside sale to another business corporation as a non-profit, dependent subsidiary.

Sale under these conditions is likely to yield the highest flow of dollars to the University, but there is no single formula for value even under these fairly straightforward assumptions. What we have are several "rules of thumb," with the exact figure being determined to a large extent by the availability and nature of interested buyers.

Among several ways of arriving at a first estimate of possible sale value, the following are commonly used:

i) A common yardstick for a maximum first estimate is "one dollar of market value per dollar of annual sales" for rapidly growing institutions engaged in the kind of technological activity which SRI performs. A more conservative basis for estimating market value in this way is to estimate the value as equal to approximately 70¢ per dollar of annual sales. Since SRI's sales are in the \$60-65 million range, this approach would give a value of \$40-45 million for the Institute on a gross basis.

ii) An alternative basis would use SRI's recent earnings performance and the price/earnings ratios of technically-based, fast-growing firms which are large contractors to the government. Applying such a price/earnings ratio of 20 to 1 to SRI's average after-tax earnings for the most recent two-year period gives a market value estimate of approximately \$33 million (again on a gross basis).

iii) A rock-bottom estimate for the value of SRI would simply take the book-value of its capital account. As of the end of 1968 this was in excess of \$24 million.

The gross market value of SRI, as far as outright unconditional sale is concerned, probably lies somewhere between a low of \$25 million at one extreme and a high of \$45 million at the other. Both these figures are on a gross basis. On a net basis, allowing for a refund of capital contributions received by SRI from non-University sources, the net proceeds from outright sale would be somewhere between \$20 and \$40 million.

b) Sale of SRI to its own employees and others and its continuation as an independent but for-profit corporation.

This represents a second major form which divestiture might take. The realizable value on this basis is likely to lie toward the lower end of the value ranges indicated above. In order for such a transaction to be feasible, it would probably be necessary to arrange for several classes of securities to be issued. For example, it is possible to envisage a special class of securities to be acquired by SRI's pension and annuity fund; a second class of interest-bearing debentures to be acquired by those employees who prefer this form of participation; and a third class of straight common stock issues which might be purchased by some employees and directors of SRI with an unsold residue being held temporarily in the University's own endowment fund or sold to the public.

c) A third major form of divestiture would be one which preserves not just the independence of the Institute but also its non-profit status.

In exchange for divestiture the University would accept mortgage or debenture bonds to be issued by SRI in an agreed upon amount, with the debentures being retired, with an appropriate rate of interest, over an agreed upon period such as 20-25 years. For purposes of illustration, assume that a rock-bottom net value of \$21 million is set on the value of the University's equity interest in SRI. The University would in effect make a long-term loan to the Institute in this amount. At an assumed interest rate of 7% per annum, this could be retired in twenty annual installments of approximately \$2 million each. For larger or smaller values, the corresponding annual payment on a 7%, 20-year basis would be proportionately larger or smaller.

Although the timing and aggregate amount recoverable under the third approach to divestiture would be the lowest, the approach would preserve virtually all of the benefits which it is claimed now accrue to SRI, the community, and to society from SRI's status as an independent not-for-profit corporation. The existence and value of such benefits would, of course, have to be carefully determined in reaching such a decision.

3. The Cornell-CAL Case

The Committee studied the recent precedent of a sale of a university-affiliated research institute. The Cornell Aeronautical Laboratory, like SRI, was a wholly-owned subsidiary of Cornell University, and over the years operated as a virtually autonomous unit independent of the university, despite the fact that the Board of Trustees of CAL with three exceptions was drawn from the faculty, administration, and Board of Trustees of Cornell. Following studies of the relationship of CAL and the university by separate committees of the faculty and administration, the university's Board of Trustees appointed its own committee which, by a large majority, recommended in December 1967 that the university and CAL should be separated. In January, the Board of Trustees approved the committee's report and the university employed a management-consulting firm, McKinsey and Company, to appraise the value of CAL, to explore the problems and possibilities of sale, and to discuss with interested parties the purchase of CAL. On September 17, 1968, the Board accepted a letter of intent from EDP Technology, Inc., to purchase CAL.

According to reports in financial journals and business magazines, the university received a number of offers for CAL, which was about half the size of SRI in terms of both number of employees (1500) and volume of annual business (\$32 million). The employees of CAL sought to purchase it for about \$13 million and expected to maintain it as a non-profit enterprise. The government of the State of New York, wanting to keep CAL from going to private industry and to assure it would continue operations in New York, offered a price equivalent to slightly more than \$12 million (\$9.6 million in cash, plus mortgage and tax considerations). EDP Technology, a privately-owned computer software company, offered \$25 million, one-quarter of which was in convertible debentures.

In explaining the decision of the university's trustees, a spokesman explained that they had been guided by two considerations: "to obtain as favorable a financial return as possible" and to continue the function of the laboratory. Partly because the state's offer was less than half the price offered by EDP, it was unacceptable. In addition, he explained, there was a feeling that the shift from a non-profit to a profit-making institution "may be superior in carrying out the lab's mission." A profit-making institution, for example, might be able to secure greater financial support.

The decision was not received without opposition, however. Considerable discontent amongst the staff about the change in status has been reported. The president of CAL was removed, the board of directors of the laboratory was reconstituted, and the state attorney general filed suit to prevent the sale, apparently on the grounds that it would violate the terms of a charitable trust under which the laboratory had originally been received or to which it had been dedicated. (Cornell acquired the laboratory in 1945 as a gift from an aircraft manufacturer, Curtiss-Wright Corporation.) At present, consummation of the sale is restrained pending trial of the action on the merits.

The CAL case is in important ways unlike the problem of SRI. But its history shows the need for prudence in choosing and executing the mode of sale.

D. Conclusion and Recommendation

We come now to the overall choice between the two major avenues of organizational change we have considered in depth—the choice between closer integration of SRI into the University on the one hand and divestment on the other.

There is powerful appeal, for many, in the idea of retaining the Institute and making of it the University's instrument for transforming society. They are angry—not unreasonably—with much of what they see in the world, and they see our universities as part of a total "system" producing the world's evil, conniving at it, and acquiescing in it. By entering the university with its knowledge-orientation they seem to themselves to be participating in a sinister evasion. Here, in the opportunity to strike off one of the tentacles of the "system" and turn it to right uses, could be a way to change the university they both need and condemn—a way, for themselves, out of guilt and back to action.

But to perform either an educational function or a social one the university must survive and remain strong. And it is just here that we see the decisive case against retaining and changing the Institute and in favor of selling it. Let us suppose that there is a "university community" sufficiently of one mind to run the Institute without bitter and continued dissension. Still, if retention and university control is to be significantly different from the present arrangement it must approach more and more closely to complete assimilation. As the Institute discontinues more and more lines of work that bring income, its profit margin will disappear. And as it moves more and more into socially significant research—of the kind that typically brings no income, and that must be funded by grants, if grants can be found—there will be a growing threat of deficits.

Obviously, the expectable deficit will be larger the more sweeping one's program of reform. Mere phasing-out of CBW and strictly defined "counter-insurgency" would probably not cut profit margins significantly. Elimination of all defense-related research might be accomplished without loss if undertaken very slowly—say over ten or fifteen years—while contract research for industry is pressed with increasing vigor. But a straight application of university research policy to the Institute—including the university's policies on classified research—would make this impossible. And more enthusiastic critics of the Institute openly demand that all of its work be shifted from defense and industry, to projects that are socially "relevant."

Such a switch in the content of SRI's activity would clearly entail a correspondingly large elimination of staff members now associated with these activities. Even the most callous approach to reducing expenses (mainly staff salaries) in line with the reduction in revenues, could not prevent the Institute from swinging into a heavy deficit position.

Stanford would have to shoulder these deficits, for it would be not just legal owner but the author of policies—and this must entail full responsibility. Stanford this year has a projected deficit approaching a million dollars, and its effects are felt painfully throughout the university. In a bad year, an SRI deficit could well multiply that figure many times. Anyone advocating retention and control must face this difficulty squarely. It is disturbing to us that advocates of retention typically ignore the difficulty altogether. We challenge these people to answer the simple question, who would pay for what they ask? We think the answer is obvious. Stanford would pay. And Stanford is not an abstraction: the university is its faculty and its students, their hopes and their achievements. Courageous programs for increasing minority enrollment would have to be scrapped and rolled back. The search for new and exciting and costly educational forms would have to be abandoned and replaced by mass education at its worst, with student-teacher ratios so unfavorable that the average student would never see any of his professors outside the lecture hall. Increasingly the best teachers would leave Stanford; students without means could not enter, and those able to choose would not.

To dream of a Stanford transformed into an agent of active social reform, without counting these costs, is sheer utopianism.

But education is itself a social enterprise. And Stanford, in ways appropriate to it, is involved in social change and must responsibly continue to be. We must continue to increase our enrollment of disadvantaged students. We must move yet farther from the old image of Stanford as the playground of the children of the rich, and make it an intellectual home for all who seek knowledge. We must add talented new administrative and counseling personnel who are of minority groups and also those who have abilities important to minority students and to the study of urban minority problems. We could well use a department or school of urban studies. All these desirable things cost money. And here we see the most attractive case for Stanford divesting SRI, seeking a fair and reasonable return on its past investment and risks. The next twenty years will be years of crisis in what has clearly emerged as the gravest social and moral problem in the history of the Republic. We ask to Stanford community to visualize what Stanford might now do to play its role in meeting this crisis, if over these next twenty years it had a steady, added annual income of at least \$2 million which it could devote wholly to these problems.

Any concrete proposal must deal with a number of concerns: The true interests of the University and the furthering of its special mission; the moral issues raised by certain kinds of research; and, without displacing these concerns, the future functioning of SRI.

We are agreed that the following group of proposals, taken as a set, provides the best acceptable solution to the exceedingly complex moral and institutional problems which Stanford faces in resolving its relationship with SRI.

1. Divestiture with preservation of the independence and non-profit status of SRI.
2. Accomplishment of divestiture via a long-term (20-25 year) mortgage loan which the University makes to the Institute which the Institute then immediately uses to "purchase" itself from the University—leaving Stanford as a major creditor. The Institute would then undertake to repay the loan with an appropriate amount of interest, based on current long-term rates, over a period of twenty or so years. A fair price would be at least equal to the net book value of the University's equity in SRI.
3. For the agreed upon period of the loan (20-25 years), whether or not the loan is retired at an earlier date, the University would impose restraints upon the Institute's activities. These would be:
 - a) A prohibition of chemical, biological, and radiological warfare research;
 - b) A prohibition of counter-insurgency research and of military research primarily and directly related to the war in Vietnam, or elsewhere in the world, which is found to be morally offensive or undesirable by a review committee.
4. A review committee discussed earlier would be set up to advise the President on the interpretation and enforcement of the restraints, and to disseminate information on SRI's activities. The Trustees of the University would accept an obligation to enforce the restraints, through the courts if necessary.
5. The name of the new Institute would be changed from Stanford Research Institute to "SRI Inc." or something even less suggestive of identity with the University.
6. The University would use the annual funds received from SRI each year for the purposes of furthering basic research and educational programs.

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V. SEPARATE STATEMENTS

I. Statement of Mr. Lyman and Mr. Scott, in Which Mr. Nivison Concurs

There is a great deal, indeed most, of the Majority Statement with which we agree, including very emphatically the recommendation for divestiture. It reviews many of the issues which have been raised before the Committee, and sets forth the relevant arguments. Its concluding set of recommendations is a not unreasonable attempt to strike a balance among the numerous competing considerations that enter into a final decision. But there are several points that seem to us to deserve greater recognition or emphasis.

A.

First and foremost, as the Majority Statement recognizes, the method of divestiture and sale which it recommends will probably produce a figure at the bottom end of the estimated range of value from \$25 to \$45 million, whereas other methods might well yield proceeds toward the top of that range. A difference of possibly \$20 million is no small matter, and even more is that true of the difference between selling SRI and retaining it.

Our fear is that this may seem abstract and of secondary importance, instead of the vital factor it is. Sums of this magnitude need to be translated into actual programs to be appreciated. For example:

- The entire University program of undergraduate and graduate student assistance (scholarships, fellowships and grants) could be funded at present levels for the next 10 years with \$41.3 million.
- The vast new research library addition is projected to cost \$20.2 million to construct and equip.
- It would require \$900,000 a year to expand the present freshman seminar program to include all freshmen.
- The current minority group enrollment and academic assistance program could be doubled at an additional annual cost of \$500,000.
- The planned Moore-Jacks dormitory complex, providing badly needed student housing of decent quality, would cost \$11.2 million.

The list could be multiplied, but the point is clear. It would be the height of folly to treat the amount of net cost or return, to be realized from retention and "alteration" of SRI or from a particular mode of divestment and sale, as just a minor element to be brushed aside without careful estimation in the course of venting moral outrage by making a "symbolic gesture." Perhaps part of the attraction of symbolic gestures is the notion that because they are not justified on the basis of having any immediate concrete results of significance, one is also excused from having to take into account their immediate concrete costs.

Many of those who press the University to retain SRI and turn it upside down, at never stated losses, claim a purpose of promoting the cause of more socially beneficial and needed research. It is worth examining, therefore, how much more effectively that cause could be promoted by a course of sale rather than retention.

We believe that Stanford would have a unique opportunity to show the ways in which a university can direct its strength to the solution of social problems, within the bounds of its proper specialization, by bringing to bear its resources in the fields of basic research and training.

We assume, here, that the sale of SRI would bring the University only about \$35 million. We assume further that one-third of that amount would be made part of the University's general endowment to help relieve pressures that have led, *inter alia*, to a steady increase in tuition charges. Suppose the remaining funds were used to fund a major, multi-focused program of Studies in Public Policy at Stanford. Such a venture would consist of directing those things which a university does best—undergraduate and graduate teaching and research—to this new area of study.

What follows is an indication of the kind of new directions we have in mind:

1. School Decentralization in the Major Cities: This is a topic on which political scientists, economists, sociologists and psychologists, as well as professional educators, have contributions to make.

For example, an economist in the School of Education is currently seeking funding for a line of study which would throw light on the economic aspects of decentralization and on control mechanisms that need to be altered if effective decentralization is to take place. Again as an example, more needs to be known about the ways in which local governmental bodies like school boards can handle crisis issues, before effective strategies leading to decentralization or any other solution can be devised.

2. A second area of high potential relevance to policy might be described as comparative urban studies. Each country, our own included, has approached its urban problems as if they were unique. There is growing reason to think that this is not the case, and comparative analyses of problems and solutions is now clearly called for. There is much we need to know, and we can learn from elsewhere in the world.

3. One of the striking developments in recent American life has been the way in which the university has been forcibly pulled into the arena of public policy. The examples are manifold: it is an object of pressure in manpower training, research, minority problems, and not least, just plain partisan politics. It is no exaggeration to say that the dimensions of the pressures are only barely understood by those responsible for the conduct of higher education (students, faculties, administrations, and trustees) and that strategies for using those pressures creatively are even more rudimentary than the understanding of them. Without trying to specify the content of a program, it seems likely that there is the opportunity here for relating research to policy in ways that will involve the entire community. Stanford could serve for this purpose as an archetype, a laboratory, and ultimately one would hope a model.

There is again no reason to proliferate illustrations to convey the point. But ideas and possibilities require investment of people and funds if they are to become reality, and this is the side too easy to ignore. What would it take to mount a challenging new effort along the foregoing lines? Budgets and costs are never exciting reading, but they are what determine whether ideas can be realized, and so we have sketched out what would be entailed. The sums attached to each item are not the result of careful calculation, but are intended orders of magnitude and relationships among the several parts.

1) Faculty Augmentation.

No major programs directed to the study of public policy can be contemplated without new faculty. In part this is because our present faculty is already stretched about as thinly as it can be, and in part it is because new competencies and combinations of competencies will be needed. We would think that one or more new appointments would be needed in at least the following fields or combinations of fields: political science, economics, sociology, anthropology, biology, law, medicine, business and engineering. This might involve the establishment of 10 new positions at the current going endowment cost of \$700,000 each.

2) Undergraduate Study.

There should be a new undergraduate major in Public Policy Analysis. It would begin under the direction of an inter-disciplinary committee, and its most important feature would be a linkage between student field experience and the development of analytical skills that give meaning to experience and that university study is uniquely able to provide.

The new faculty would make this program possible. The major expense would be the cost of arranging field experiences for students. We assume 50 students per year at an average cost of \$1000 each and an annual administrative cost on the order of \$20,000 per year. The program could be funded initially for five years at a total of \$350,000.

3) Graduate Study.

An essential obligation of the University is the education of future teachers, scholars, and practitioners to the highest level. That obligation applies fully here. One effective way to meet that obligation is to make it possible for graduate students whose interests lie in policy-relevant subjects to apply the tools of their disciplines to thesis topics on those subjects. We would propose, therefore, two-year dissertation fellowships for selected students whose topics require field observation (or better still, participant-observation). The first year would be spent in the field, the second in writing the dissertation. Such a program could be started for five years, with 10 new fellows appointed each year at stipends of \$5000 per year, for a total of \$500,000.

4) Center for the Study of Public Policy.

In addition to enriching its own education programs as described above, Stanford might make an even larger national contribution through the establishment of a Center for the Study of Public Policy. The Center could serve at least two major purposes. First, it would stimulate and finance research by members of our own faculty and student body; and second, through a program of visiting fellows, it would bring to campus for periods of a quarter to a year a group of persons in academic and public life whose experience and perspectives could be made more productive as a group than they are individually. We see a programmatic or thematic organization that is more directive than, for example, that of the Center for Advanced Study in the Behavioral Sciences, but would still provide the time for reflection and independent study and research that is so hard for most men to find.

We estimate, very roughly, that a Center of this kind would cost about \$600,000 per year to operate. It could be funded for five years at a total of \$3 million.

Such a major thrust into areas urgently demanding more research and understanding—and more resources—would consume less than half of the estimated proceeds remaining after a substantial increment to permanent endowment.

Further, it must be reiterated that none of those resources could be created by retaining SRI and discontinuing large fractions of its present work; what the latter course really means is either dismantling SRI or supporting it too out of present University funds.

It is for these reasons that we stress not only the desirability but also the obligation to follow a course designed to yield the greatest return to the University. The Stanford trustees do not operate the Institute and the University on some basis of parity; the University created SRI and supplied the capital to start it, and powers over its operation or winding up and receipt of the ultimate proceeds are vested in the Stanford trustees not as individuals but "for the use and benefit of the Leland Stanford Junior University." Either destructive retention or gratuitous severance from the University of a capital asset with a value of from \$25 million to \$45 million seems a course hardly deserving any serious consideration by responsible men.

This issue should not be confused with the sense of obligation some feel toward those individuals, corporations and government agencies who have made past gifts or grants to SRI, aggregating \$5.5 million by the end of 1968. To the extent charitable deductions were taken on tax returns, some partially offsetting direct benefits obtained. Nonetheless, if a sale of SRI were effected, it would certainly be incumbent on the University to explore with substantial donors the question of possible refund or of what their expectations had been in making the contribution and what application of proceeds from sale would most nearly continue to carry out their original purposes. It should remain clear, however, that the possibility of a reduction of net proceeds due to refund or earmarking can hardly justify a decision in favor of zero or minimal proceeds.

B.

Secondly, we believe there should be more recognition of a case against the imposition of prohibitions on research, particularly in the vague and over-broad terms employed by the majority, founded on moral principles that appear to require no statement or definition in order to understand their validity, content and application.

In so saying we do not deny—indeed we affirm with the utmost emphasis at our command—the urgent need for a redirection of national priorities in research and development. We believe that the influence of the military establishment in the United States, as in the Soviet Union, is far too great, and that the absorption of so large a proportion of our national resources in pursuit of weaponry is a major tragedy of our time. This is especially true and poignant given the unmet needs of urban America and of our disadvantaged minorities, and given the rapid deterioration of the human environment in this, the richest nation in the history of Man. The truth of these statements is not diminished by the fact that complete unilateral disarmament is in our view an untenable position, nor by the fact that much of the research sponsored by the defense agencies is basic research, with no direct or even foreseeable military applications, and crucial to the forward progress of science in general. But in research as in other areas of our national life, preoccupation with overkill has become a threat to the future of humanity.

We are among those who find it more difficult than apparently do some of the majority of the Committee to make clear moral distinctions among different types of military weaponry or research. This point is adverted to in the Majority Statement, and we shall not belabor it here. But there is an additional set of problems created by the form in which these distinctions are cast.

The "prohibition of counter-insurgency research" recommended by the majority is so broad a phrase in the minds of some as to include any research directed towards the economic betterment of peoples living under a government which faces any rebellious opponents, regardless of the latter's political complexion or the political complexion of the government. As for research "which is found to be morally offensive or undesirable by a review committee," the prospect is both limitless and hazy. It is tantamount to postponement of all decisions about research to some undesignated future date, at which time they will be taken without benefit of guidelines, for "morally offensive or undesirable" can scarcely be considered by itself a line which would guide the members of the committee to consider anything except their personal likes and dislikes at that moment in time.

Furthermore, making research prohibitions both very broad and imprecise also makes them harder to enforce, whether in the context of retention or sale of SRI—a point that needs to be more clearly realized.

In the context of retention, adoption of prohibitions that are at the same time sweeping and most unclear is, as already noted, not the making of a meaningful decision but confession of inability to make one. The question is "solved" by refusing to face the inherent complexity, and perhaps erroneousness, of what is being attempted.

In the context of sale, the problem is much the same. As a general rule, contracting parties may undertake any obligations as to their future conduct that they are willing to agree to and that are not illegal. If a covenant limiting research is made sufficiently incapable of application with reasonable certainty, then it becomes difficult or impossible for a court to enforce it. If it is also made very long-term or perpetual in duration, other limiting legal policies may come into play.

It is quite possible to design a research-limiting agreement clause about which it may then be said that doubt exists—or has been created. A legal opinion that is worth anything, therefore, would have to be rendered after extensive research and with reference to a specific draft clause, hopefully one that has been drawn as exactly and carefully as possible. But this should cause no one to lose sight of the fact that it is also possible to draw a limitation agreement as to which there would be no substantial legal doubt, if that is what is desired. The key factor would be precision of expression—and that depends upon precision of thought.

2. Statement of Mr. McMahon

My agreement to the set of proposals in the Majority Statement hinges on the requirement that an extensive legal review be undertaken before sale to ensure that in the opinion of counsel the restrictions on sale that are proposed are legally enforceable. If there is doubt my support goes to the Bauer and Cleaver minority recommendations, favoring closer ties.

In addition I feel strongly that the Trustees' decision-making process should be an open one, and that reports of the voting should be public.

VI. MINORITY STATEMENTS

1. Statement of Mr. Bernstein

Introduction

During the past six months, the Committee met almost weekly, and during that period much of our time and effort was spent gathering information and discussing matters that often seemed peripheral to my definition of the central issue—how to guarantee that SRI is transformed into a socially responsible institution that would be prohibited from such activities as research in chemical, biological and radiological warfare, counterinsurgency, projects related to the war in Southeast Asia, and projects designed to expand American corporate or political power abroad (primarily the Third World) in order to distort economic development or thwart political change.

Despite my belief that guaranteeing the transformation of SRI was the central issue, I found frequently that the processes of the committee, the camaraderie which flourished at times, and the overriding concern of some members with the details of institutional relationships, easily diverted efforts and energies. As a result, for a long period of time, I participated uncritically in meetings and even prepared a draft of a portion of a report that did not address directly and forcefully the urgent and dominant issue.

None of this is intended as a criticism of my colleagues, who labored honestly and vigorously on the problems that concerned them; but I am presenting this very brief sketch (and personal interpretation) of the history of the committee—as a warning and an explanation. This sketch is a warning to others who may serve on committees in the future and find that they are allowing their moral and political commitments to be diluted by the geniality of deliberations. There is a danger of subtle (and unintended) co-optation—of losing critical awareness, of concentrating upon matters that are least divisive, of emphasizing tactics and mechanical details at the sacrifice of ideology, and of developing an excessive loyalty to the group, which means placing a high value on the “progress” of deliberations and the effort to achieve consensus. This sketch also explains why I and some other members of the committee were compelled to begin preparing position papers just before the deadline for submitting reports. The process of false agreement, of avoiding ideological issues, continued until Wednesday, breaking down only three days before our deadline. (Obligations to students in my classes, as well as commitments to the students courageously sitting in at the Applied Electronics Laboratory and other obligations to the University, left me virtually without time until late Friday evening to begin writing this statement.)

By necessity, then, this statement cannot be the lengthy and sustained analysis that the community and the students at AEL deserve, and I can only hope to sketch my conclusions and reasoning, and anticipate some objections, while promising to present a more complete analysis in future discussions in the community.

Restrictions on Research at SRI and the University

It is unconscionable for a university to sanction, assist or sponsor research in 1) chemical, biological and radiological warfare, 2) counter-insurgency, 3) activities directly related to the continuation of the war, and 4) activities designed to extend American corporate or governmental power over the peoples of other nations. In opposing the first three activities, apparently a majority, if not all members, of the Committee concur—at least in reference to SRI. By the logic of their position (as well as mine), these prohibitions should be extended to the university. Such restrictions, though an infringement on the normal practice of academic freedom, can be justified by an overriding principle: the immorality of allowing or encouraging the creation of “knowledge” which, by design, contributes to weapons and techniques for killing, injuring or exploiting people. Such prohibitions will not generally infringe upon the justifiable and vital intellectual activity of a university—the investigation of problems and the creation and dissemination of ideas that may be evaluated, and accepted or rejected, by others; in such cases, in theory and often in practice, men may by an exercise of will oppose or resist these ideas. But proposals for weaponry, improvements in the modes of killing, techniques for extending economic power—these are not simply ideas, and they cannot be resisted by their victims. The will of the victim is inadequate, and the will of the oppressor dominates.

Objections to Sale—Even with Some Restrictions

For two reasons I disagree with the majority's recommendation to sell SRI with restrictions. First, there is some basis for doubting whether such restrictions could be effectively enforced.² Even assuming that a satisfactorily-constituted committee would vigorously monitor and report upon the activities of SRI, there would also have to be: a) a guarantee by the Trustees of Stanford University that they will bring legal suit to enforce the guidelines in any cases of reported violations by the committee; and b) strong evidence that such restrictions, imposed in the bill of sale (and even with the university as creditor), would be upheld and enforced by the court. There is some reason to doubt whether the court would enforce such restrictions on SRI, and so far as the Committee knows there is no precedent on the subject. In addition to this problem, there is another related consideration: during litigation, SRI might be able to continue violating the guidelines.

Second, sale of SRI would also destroy the University community's opportunity to extend guidelines³ at present and in the future: a) to restrain other forms of undesirable research (e.g., economic imperialism, classified research); and b) to channel resources into more socially responsible activities.⁴ There are at least two reasons for objecting to classified research⁵ (including restrictions on communication, publication, or access to data): one, it is inappropriate, certainly difficult, and maybe impossible to monitor research if only those with security clearances may examine all the activities of the Institute; two, classification is likely to be imposed by the Government primarily in the areas of research which should be prohibited by guidelines, and therefore rejection of classification may be an effective way of excluding much of the morally unacceptable work. (Ironically, in the course of our deliberations, members of the Committee pointed out that SRI might have contracts with security classifications that prohibit personnel at SRI from even informing the Committee or members of the University administration of the existence of such contracts.) In regard to economic imperialism, it is important to protect people elsewhere in the world from economic and political coercion, and it is certainly unacceptable to use facilities at a university-owned or university-connected institution to oppress or exploit people.⁶

Consideration of Some Objections to Retention and Control of SRI

Some members of the university community recommend the sale of SRI because they believe that it would be impossible or very difficult to redirect SRI's activities from war-related and imperialistic activities to more socially responsible enterprises, and that such revisions might well impair or destroy SRI. In a related argument, some contend that the contributions that the University might make (for example, the establishment of an institute for the study of social or urban problems) with the funds from sale would far outweigh the social costs of letting SRI, as an independent agency, continue its war-related and imperialistic activities. It is hard to assess the difficulty or impossibility of transforming SRI into a socially responsible institution, but such difficulty or impossibility does not constitute a persuasive reason for selling SRI and letting it operate freely or with only a few restraints. And in the second case

(where the funds might be expended elsewhere), there is a dubious moral calculation which seems to deny or minimize both the social costs of SRI's policies to people abroad and the University's responsibility for those social costs. Sale would not remove the University's moral responsibility for creating SRI or for allowing SRI to continue these activities. In substance, the University would be seeking to achieve institutional purity without acknowledging its larger responsibility. The University cannot simply create powerful institutions and then, by an act of sale, deny all moral and political responsibility for their predictable future actions.⁷

Moving beyond these issues, it is necessary to consider the argument raised especially by proponents of sale without restrictions on research—that the University, itself, should not try to alter the nature of research in the society, and that members of the university community should operate in the political system to change federal policy. This argument reveals an unwillingness or reluctance to acknowledge certain painful political realities: the American political system has not been particularly responsive in recent years to significant portions of the population who have demanded a revision of national policy. This is not the appropriate place to analyze this problem in depth, but it may be useful to remind members of this community that many citizens in 1964 went to the polls to register their opposition to the escalation of the Vietnam war and therefore voted for the candidate who opposed escalation—Lyndon B. Johnson, who soon escalated the war, as he had planned before the election. In addition, the argument against the university's restricting research at SRI often assumes that universities and their subsidiary institutions should simply respond to market demand or to the federal government's definition of the national interest, and that the university should eschew independent criticism and judgment. In effect, this would mean acquiescing in the transformation of the university into an elaborate service station prepared to provide what the market wants to buy or what the Government believes the nation needs.

The Political University

Some objections to the retention and control of SRI are based upon the unrealistic fear that the University will be transformed into a political institution. Of this there is little danger, for the University is already a profoundly political⁸ institution—by virtue of making its resources available to only one side in the Vietnam war, by virtue of the support for the continued presence of ROTC as part of the educational program. For the University to become non-political, it would have to make its resources available to all groups regardless of politics (including the NLF and North Vietnam), or to no one. It is true that some wish to move towards the establishment of a non-political institution and view the abolition of ROTC and the assertion of guidelines and control over SRI as necessary steps along that path. Whatever the merits of this vision, there seems to be little likelihood of this small group's rescuing the University from those who wish the University to continue its present politics.

Summary of Recommendations

In summary, the university must retain and control SRI by establishing and enforcing guidelines to direct SRI to follow socially responsible policies and to prohibit research in chemical, biological and radiological warfare, counterinsurgency, projects directly related to the continuation of the war in Southeast Asia, and projects designed to extend American corporate or governmental power over the peoples of other nations.

Notes

1. Obviously there is need to define these restrictions carefully, and I submitted to the Committee at various times tentative formulations that I assume will appear in the Committee's file at Meyer Library. (See in particular pp. 31-33 and revisions of the first draft of the Committee's report.) Committees to review research proposals might well be created in line with "Suggestions for Guidelines for Research at Stanford and SRI."
2. I have only received a copy of a draft of the majority's conclusions, and so I do not know much about the content of their final report. However, I would like to emphasize that the majority reached agreement only by compromising on a set of proposals, and that the majority would be reduced to a minority if the guidelines prove not to be legally enforceable upon sale.

3. For example, guidelines might be extended to bar research for the ABM, or all research sponsored by the Department of Defense.
4. Some have suggested the creation of an inter-disciplinary institute for research on peace and social problems. Presumably some exceptions to the prohibition might be made by a committee upon appeal.
5. Classified research significantly restricts the communication of scientific information, and the exclusion of all or most classification at Stanford would prod other universities to consider similar policies and the Government to relax some of its restrictions.
6. It is not the intent of this prohibition to suggest, necessarily, that all of SRI's economic work overseas is related to economic imperialism, and obviously the phrasing of a precise guideline on this subject requires more information about SRI's activities and policies than the Committee has received.
7. Admittedly, retention and control of SRI may divert allegedly scarce administrative talent at the University from other activities, but this will then be a part of the price the University will have to pay for responsibility.
8. "Political" is not to be confused with "partisan" (whether the university is Republican or Democratic).

2. Statement of Mr. Cleaver and Miss Bauer

INTRODUCTION

Prefacing a report on AID and the University, Stanford trustee John Gardner remarked: "There isn't one American in a hundred, perhaps a thousand, who has a clear grasp of the unique partnership that is evolving between public and private instrumentalities in this country." SRI, along with a handful of not-for-profit research institutes elsewhere, is best viewed as a new component in this evolving partnership and a key coordinator of the joint efforts of competing corporations, of corporations with government, of government and industry with the university.

First a simple research depot for West Coast businesses, then a pioneer in the partnership of a defense industry and the Pentagon, SRI has now moved into its own as a strategic center for the economic and military penetration of the underdeveloped world and America's own ghetto colonies.

Having come to this position, SRI would find covenants against particularly noxious research, even if workable, and severance of the formal relationship with Stanford little more than a tactical detour on an already chosen path. Only a wholesale reorientation of SRI—and of Stanford—can undo the harm we have helped create. That reorientation demands a strengthening of ties between Stanford and SRI, and between the concerned people in both institutions and the surrounding community.

On October 10, 1968, two days after SDS formally demanded that "Stanford Get out of Southeast Asia," Acting President Robert Glaser announced the formation of a twelve-member committee to report on present and possible future relationships between Stanford and SRI. For over six months the authors of this dissenting report tried to work within the framework of that committee. Although we recognized that the formation of the committee was just putting off the inevitable confrontation, we had hoped that the committee could help place new information before the community in the course of its deliberations and that its report could clarify some of the important issues. We had hoped that the committee could help illuminate the core of the Stanford-SRI relationship—the personal influences of the David Packards and Ernest Arbuckles; the market power of big business, big government, and the big foundations; the ideological impact of elite values and top-down methodologies widely shared in both institutions.

But we soon discovered a fixation of the majority of the committee members on legal and formal SRI-University connections. They preferred to dwell on the technical aspects of alternative future actions. Unwilling to cause radical division within the committee, which we feared would impede its data gathering function, we found ourselves avoiding frequent conflict when expressions of our own concerns met with no sympathetic response in the committee.

Inexorably the drive of the committee became one towards consensus on "feasible alternatives" and rigorously detailing them. Having expected the division of community opinion between divestment of SRI and closer ties, we thought ourselves ready to deal with this. But we slowly were taken in by the endless hours of haggling over fine details of imaginary formulations, until our objections to the overall direction of the committee were lost in a forest of words. We, too began to think that some "neutral," "objective" view of the alternatives could issue from the interplay in the committee.

To this end we thought we could amend our interpretation of the situation and therein draw our own conclusions as a minority statement. Indeed, only a week before termination of the report we had an eighteen-page draft of such a statement.

It was then that we began to understand dimly what had happened. For three days we struggled with the contradiction between our draft and the "objective" and "neutral" cost-benefit approach to which we were appending it. In this struggle we came to recognize the impact such an approach had upon the ideas and facts we emphasized. The very functioning of the committee had insured that the most vital issues be excluded. The cost-benefit approach was couched in a set of premises which assume away any basic conflict of interest between students and faculty and their business men trustees. Once we recognized this we were forced to disassociate from that which we had helped construct. We were faced with the necessity of expanding our draft sufficiently to create a new report which would speak to the issues we feel to be critical—one which would do so within the context of the very real political struggle swirling around us.

We had to do this in a very short time period. We regret the unpolished form of this report. We take responsibility for any of our research inaccuracies or factual errors. However, we hope that our efforts will be of use to the Stanford community in coming to grips with its present problems.

* * * * *

PART I. FROM LITTLE ACORNS

SRI'S origins, in retrospect, seem quite modest. The West Coast economy emerged from World War II greatly strengthened, but with today's aerospace and electronics riches still only a gleam in the eye of a few visionaries like Stanford's Frederick Terman. By and large the economy rested on the pre-war chemical, petroleum, and food industries. In a post-war world where knowledge would become power in new and profitable ways, Western universities had fallen well behind Harvard, Johns Hopkins, MIT, and the other Eastern schools then swimming in the spill-over from war-time research. Terman found Stanford "an under-privileged institution" largely left out of "the exciting engineering and scientific activity associated with the war." The pioneer not-for-profit research institutes—Mellon, Batelle, Armour—or even profit-making researchers like Boston's Arthur D. Little Company had no counterparts in the West. At the same time, regional leaders in the Midwest, South, and Southwest were busily laying plans for institutes of their own.

But Western businessmen and educators were quite responsive to the region's research gap. In fact present antagonists of SRI can lodge paternity suits against at least three different groups. The first centered around three Stanford men—Robert E. Swain, professor of chemistry and for a time acting president of Stanford; Stanford chemist Philip A. Leighton, decorated at the end of WW II for his part at Stanford in the creation of firebombs and later a researcher in the meteorological aspects of Chemical-Biological Warfare (CWB); and alumnus Dudley Swim, later board chairman of National Airlines. Self-christened "The Three Musketeers," the group had discussed the idea of a Stanford-based research institute as early as 1939, at an encampment of San Francisco's exclusive Bohemian Club. They revived the idea after the war, gaining the support of University President Donald B. Tresidder.

Also at the close of the war, three members of the wartime staff of Lockheed Aircraft Corporation actually set up a Pacific Research Foundation in Los Angeles. This group eventually joined in the formative talks about SRI, folding up their own shop when the Stanford-based institute became a reality.

But the most important of the founding fathers was Atholl McBean, a prominent San Francisco industrialist and director of Stanford Oil of California. With the cooperation of Stanford Vice President Alvin C. Eurich, McBean invited recommendations for a Pacific Coast research center from Clyde Williams, president of Batelle Memorial Institute, and Henry T. Heald, president of the Illinois Institute of Technology and the Armour Research Foundation, and later of the Ford Foundation. Heald presented his recommendations on January 24, 1946, to a gathering of San Francisco business executives. In his short three-page statement, he called for a high quality industrial research institute to serve individual companies, groups of companies in association, and agencies of government—federal, state and local.

Trustees Keep Power

All three of the founding groups favored a strong link between industry and education. Heald called for university affiliation, specifically with Stanford. A month later, responding to the enthusiasm generated by the McBean-Heald report and to McBean's pledge of \$100,000, the Stanford Board of Trustees agreed in principle on the creation of the Stanford Research Institute. Then, in December, sitting as the general members of SRI, the Stanford trustees approved a set of by-laws and elected a slate of directors to govern the new institute. They retained for themselves the power to elect directors annually and to dissolve the corporation at their discretion. They also assumed some measure of financial responsibility, which resulted in a \$600,000 loan in 1948 and 1951, offered access to some of the university's library and laboratory resources, provided consultants (53 by 1968) and teaching positions to SRI staff (14 in 1968), and lent the prestige of Stanford, which aided in attracting staff.

In the words of the university public relations office, SRI became a "wholly owned subsidiary of the university."

The real ties of power over SRI, however, were never as neat as the legal niceties. The first SRI Board of Directors, which met for the first time on January 8, 1947, was divided between members of the university board and West Coast leaders who were not Stanford trustees. From the Stanford Board came President Tresidder (Chairman), Vice President Eurich, investment banker Charles Blyth, John E. Cushing of Matson Navigation, and industrialist W. P. Fuller Jr., father of the present Stanford trustee. The other directors, not Stanford trustees, were McBean, Paul McKee (president of Pacific Power and Light), D. J. Russell (vice president of Southern Pacific), William L. Stewart, Jr. (executive vice president of Union Oil), and James D. Zellerbach (president of Crown-Zellerbach). This combination of industrial interests provided a group even more powerful and somewhat broader than the Stanford Board of Trustees.

These men dedicated SRI chiefly to the industrial development of the Western states. They sought financial support largely from industry rather than government, and they were themselves chief among the initial SRI Associates, corporations and individuals who paid \$15,000 each to help support the new venture.

Of the early SRI industrial research some 74 per cent went to petroleum and natural gas people, 11 per cent to food products firms, and 10 per cent to chemical firms. Among the early associates were Humble, Richfield, Shell, Stanford Oil of California, and Union Oil. "The institute plans to do the kind of research that industry itself might do if each company could set up its own comprehensive research organization, supported by the resources of a great university," SRI publicists wrote.

The new Institute also moved in 1949 and 1950 to provide some leadership as well as research capability to West Coast business, joining with the San Francisco Chamber of Commerce, the University of California, and Stanford to organize business conferences on the industrial importance of research.

During the same year that the "Applied Research Center for the West" was building its partnership with industry, it was also serving government (though to a far lesser degree). At its founding SRI postulated "an important obligation to the government of the United States to assist with scientific research needed for the national defense and welfare, and to keep our facilities open for a national emergency." By 1950 SRI had yielded even more of its basic emphasis on industrial research, possibly hoping that defense department dollars for electrical equipment studies and research on "explosion phenomena" might help fill the Institute's \$450,000 deficit. Still, about three-fourth of SRI's \$2 million research budget came from private clients.

Korean War

Then, in mid-1950, the Korean war erupted, and SRI's hot-and-cold war partnership with the Pentagon began in earnest. Doubling the portion of its government research from 23% in January to 45% in December, the Institute undertook work in advanced engineering design, strategy planning, projects for the Atomic Energy Commission, and studies of government research facilities. On the basis of such work, much of it classified, SRI continued to gain a larger and larger percentage of its revenue from government contracts through 1965.

But in this shift, SRI did more than simply produce for the new military demand. It also helped *produce* the demand itself.

SRI did this in several ways. Its earliest military studies for example, helped prepare a climate of opinion favorable to the expansion of armaments and, not incidentally, of the particular armaments firm growing to maturity in the West Coast economy. Studying the time it would take to build the giant fleet of aircraft in 1948, if war should break out, SRI scientists posed two alternatives: mobilization with a year (1949) and mobilization with three years (1951). This multi-disciplinary M-Day approach did in fact aid the eventual mobilization. But its self-fulfilling assumptions, later applied to electronic equipment and aircraft engine production, also heightened the likelihood that mobilization would come. Other studies over the years of how to maintain U.S. production in full scale air war, development of civil defense and preparedness programs, and the like helped shape the cold war climate of the fifties, in which Americans could all too easily think the unthinkable.

SRI executives also sponsored "the world struggle against Communism" and the garrison state partnership in less academic fashion. "Even now," wrote 1950 director Jesse Hobson "the united research endeavors of industry, government, private individuals, and research organizations present an imposing bulwark for the safety of this nation." "Research," he urged, "is a sword that is sharpened by use."

At meetings of SRI associates, speakers such as Donald D. Quarles, the Assistant Secretary of Defense for Research and Development in 1963, urged the associates "to help us create public confidence that we are in fact making wise disposition of our defense resources." And, in enlarging the Board, SRI leaders brought in leading aerospace industrialists like Donald W. Douglas, vice president of Douglas Aircraft in 1949, and in 1951, industrialist John A. McCone, the Deputy Secretary of Defense in 1948, Undersecretary of the Air Force in 1950, and later director of the Atomic Energy Commission and the Central Intelligence Agency. Then setting new policy in 1954, after Korea, the board moved to strengthen defense orientation.

ABM Recoups Losses

To be fair, SRI leadership in this process was really overshadowed by the work of the University itself. Where SRI's directions placed its initial faith in private industry, the real architect of the Peninsula defense economy, Stanford's Frederick E. Terman, then dean of engineering, looked much more hopefully to military financing of research-oriented industry.

Consequently, he built up a "steeple of excellence" with key university departments, opened university labs to industry, helped spin-off firms like Varian and Granger Associates, and led in the creation of the Stanford Industrial Park in 1951. These efforts, and of course the federal financing, actually made aerospace and electronics the big guns of California industry. During the first eighteen months of the Korean War, for example, California employment in the electronics industry rose 117 per cent.

Faced with an entirely new economy, SRI's course was clear. Merely to maintain its partnership with industry, it would have to integrate the new industrialists, both from the Peninsula and from Southern California, and further tie itself to the Pentagon.

The process of integration was dramatic. In 1955 Terman joined the SRI board as vice chairman of the newly formed executive committee. Then, in 1956 came Arnold Beckman of Beckman Instruments in the Industrial Park, followed by industrialist Edgar Kaiser in 1957, David Packard in 1958. Tom Jones, president of Northrup Aircraft joined in 1961, along with General William A. Draper and Thomas P. Pike, both of whom had occupied high administrative positions in the Department of Defense during the Eisenhower administration. The number of new defense industries among SRI Associates was equally impressive.

Under the leadership of these men and corporations, SRI established a Naval Warfare Research Center, a Strategic Studies Center, and a Tactical Operations Program to search for more effective weapons systems and the concepts for their use, along with millions of dollars of research in space and missile science.

But the real clincher is SRI's leadership in an increasingly unpopular field of missile defense. By 1963, research on the ABM had become important to SRI and to associated industries. Facing a downturn in the California defense economy, SRI executive vice president Weldon Gibson spoke publicly about "possible existence of agreements between the United States and the Soviet Union leading toward arms limitation" and "the fact that more and more leaders are supporting the judgment that the arsenal of missiles and warheads has reached a point of diminishing returns."

By 1964, however, at the bottom of the pre-Vietnam economic lull, he saw "indications that short-term losses over the next few years may be recouped later in the decade with new developments in anti-missile missiles or a new generation of strategic weapons."

Vietnam pulled Gibson and the California economy out of that particular crisis, but now that the very escalation in Vietnam has started to hurt economically, especially in those industries dependent on subsidized research, the ABM is once again with us . . . and with SRI.

According to the government's 1968 Technical Abstract Bulletin, among SRI reports are the following:

SRI-TR-5205-20

A Methodology For National Deployment of Local Ballistic Missile Defense Batteries.

AD-390 520L 68-15 FLD. 16/4

SED-RM-5205-46

National Effectiveness Evaluation Methods for BMD

AD-389 770L 68-13 FLD 15/3.1

In addition the Institute is studying a series of civil defense projects related to missile defense, as follows:

SRI-RM-5205-18

A Methodology for Estimating Fallout Casualties.

SRI-RM-5205-19

Light Attack Shelter Requirements and Defense Avoidance Fallout Tactics.

SRI-RM-5205-21

Civil Defense Interactions with BMD in a Direct Attack.

SRI-RM-5205-22

Computer Implementation of the Miller Fallout Model.

SRI-TR-5250-21

Civil Defense Interactions with Ballistic Missile Defense.

PART II. AROUND THE WORLD

Coordination

Though tempting, it would be misleading to focus too heavily on SRI's leadership in the "military-industrial-academic complex." The SRI board was interested in more than simple defense industries, and the Institute itself has appetites far beyond the fluctuating expenditures of the military. Expansionist, rather than merely defenders of what they already have, the SRI people have best expressed their particular genius by providing strategic leadership and technical manpower for the international expansion of West Coast corporations.

SRI's first big foreign push came in 1957, a natural internationalization of the earlier emphasis on regional development through private industry. Weldon Gibson, the man who has headed SRI's international program since its beginning in 1949, has stated that SRI is dedicated to two objectives: "economic progress, and the strengthening of private business on an international scale. These are good and noble causes and we are proud to stand with international companies the world over in pursuit of the fundamentals involved. Our objective is to do everything within our power to develop the private sector as the basic factor in economic strength and progress." (SRI-International, No. 11-1969, *The Lima Report*.)

The Institute also had a solid base of experience in piecemeal research and special projects. These experiences were as diverse as development studies on Cuba, Pakistan, India, Peru, Venezuela, Bolivia, Chile, Argentina, and Brazil, the establishment of a technical information service for American firms in Europe and an office in Zurich, liaison with research institutes abroad, and management trips abroad. But the main thrust, naturally enough, was in the Pacific Area. In 1949 Secretary of State George C. Marshall and Harold Stassen invited SRI staff-member Eugene Staley to Washington to "help revise the American policy on China" and to study the "problem of halting the advance of Communism in the rest of the Far East." SRI was at the time studying the decline of Oriental commerce along the West Coast, and later undertook a study for Matson Navigation Co. on the feasibility of re-establishing passenger service in the Pacific. (On Matson's board sat Stanford trustee and SRI director Charles R. Blyth, president of Blyth & Co., Inc.) SRI also cooperated with the Asia Foundation, which has been known as a CIA conduit, in an exploration of private investment possibilities and potentials in Pakistan, Ceylon, Burma, Thailand, Indonesia, Japan, and the Philippines.

The landmark in the development of SRI's internationalism and in the supra-national union of private enterprise it represented was the International Industrial Development Conference (IIDC) of 1957. Co-sponsored with Time-Life International, the conference brought 500 "key business executives" from 62 nations together—something of a first in the post-war period. Their common dedication was "to the role of private enterprise in stimulating economic and industrial development in the free world. The major objective of the meeting is to pool the experience of banking and industrial leaders in an examination of problems and proposals effecting industrial development throughout the world." (*Research for Industry*, Vol. 9, No. 7.) Among others addressing the conference, two names stand out: Henry Luce of Time-Life and Alfred Krupp von Bohlen, proprietor of a well-known German family business.

With the conference, SRI moved even farther from its origins as a department store for corporation research and closer to its present task of reducing international competition. Through inter-business communication and "a dynamic partnership and philosophy among those who guide much of the economic destiny of the free world," a movement toward the reduction of competition among individual firms seems to be at hand. By focusing on "relationships in newly developing areas between government development programs and private enterprise" and "techniques for investor-government collaboration under private management," it sought to reduce the anachronistic competition between private enterprise and public bodies.

Institutionally, the conference led to the formation of SRI's International Industrial Development Center, and a going concern with research problems such as "Private U.S. Venture Capital for Investment in Newly Developed Countries" and "Brazil: Factors Affecting Foreign Investment." (SRI Annual Report, 1957, SRI Press Release 10/3/58.)

SRI's premise was that corporate investment capital and Third World investment "opportunities" had to be more efficiently brought together and that SRI should do the job.

Since 1957, SRI's role as a coordinator of overseas corporate strategy has grown. The 1966 the international programs that had increased through the years, often under the supervision of Staley or Weldon "Hoot" Gibson, were brought together in a new managerial entity, SRI-International, with Gibson as head. The Institute announced

that this reflected "a basic policy decision by the . . . Board of Directors and management to expand research operations in the international field."

"Major emphasis will be placed on research projects for business and industry, economic development projects for government and international institutes, and projects involving major programs in the security of the United States," SRI announced. Corporate investment planning, government sponsored "development" programs in the Third World, and counterinsurgency research thus came solidly under one roof at SRI.

The one area where these activities have been thus merged more efficiently than in any other has been the Pacific. There international cooperation has reached an advanced stage in what American industrialists are calling the "Pacific Basin strategy," something SRI-International's Weldon Gibson denied innocently in a letter to the October 11 *Daily*: "We have no Pacific Basin strategy," he said, "other than a program of research and public service aimed at accelerating economic and industrial development in all the Pacific nations."

Bank of America president Rudolph Peterson, a member of the SRI-International advisory committee, has been somewhat more candid: "There is no more vast or rich area for resource development or trade growth in the world today," he said in a Chamber of Commerce publication. "Were we California businessmen to play a more dynamic role in helping trade developments in the Pacific Rim, we would have giant, hungry new markets for our products and vast new profit potentials for our firms."

The idea of a Pacific Basin strategy is total rationalization and control by business interests of the overall Pacific economy, using government funds, agencies and military might when necessary. "Pacific Trade," a SRI pamphlet that prepared the way for the SRI-sponsored Pacific Industrial Conference in April of 1967, outlined an idea for a Pacific Basin Organization for Economic Cooperation, through which the corporations of advanced industrial countries would cooperate rather than compete—seemingly a sort of giant price-fixing, resource-sharing, pie-slicing organization which would decide on "specialization between countries to take advantage of the potentially huge economies of scale in . . . production," develop a "systematic exchange of technical information," encourage "frequent consultation among business groups," and "joint assistance and cooperation in the further development of less-industrialized areas of the Pacific basin."

The organization would be "confined at the outset to the more industrialized nations" and would be "primarily under private auspices."

SRI's Pacific Industrial Conference in Sidney, Australia, in April of last year, attended by 125 "senior executives" from 22 nations, was opened with a speech from SRI chairman and Stanford dean of business Ernest Arbuckle, no stranger to Australia where Utah Construction has extensive iron and coal interests.

Arbuckle said that Stanford professor Eliot Mears' pre-WW II description of the Pacific Basin as "an economic community of the future" articulated a basic view "that remains today in principle and practice within both Stanford University and Stanford Research Institute."

Gibson told the businessmen that their meeting was noteworthy because "it is an act of leadership by private enterprise in the interests of free nations throughout the Pacific" and "it is organized entirely under private auspices with an emphasis on the growth of private enterprises." President Johnson sent a telegram hailing "a sense of common economic destiny . . . growing among peoples in the Pacific Basin."

The Sydney meeting was the first of a plethora of such gatherings under SRI auspices. It led to the SRI-led August invasion of Indonesia by about 200 "senior executives" who arrived to "acquaint" themselves with "current conditions" and stayed to arrange corporate investments. Indonesia "contains extensive natural resources," SRI explained. The meeting "created a new and highly effective relationship between business and the government in Indonesia," Gibson said later. (Manila Agenda, p. 2.)

The Djakarta meeting in turn led to an SRI-Singapore Meeting last summer at which 170 "leaders of private enterprise" were moved to "strongly endorse the concept of regional economic development in Southeast Asia."

Southeast Asia, in fact, has been the focus of much of SRI-International's recent attention. The SRI-Singapore meeting was followed by an SRI-Manila meeting "devoted to Business in Southeast Asia," in March of this year. Opening the meeting, Gibson explained: "This part of the globe will surely be at the center of world attention during the next decade or more," he said. "This will be especially so in the economic field once military strife in the region is abated." Unfazed by the agitation among students at Stanford, Gibson eulogized "private business" as "the greatest social invention of modern times" and pledged SRI's "continuing assistance" to the development of "private enterprise" in Southeast Asia, particularly Indonesia, Malaysia, the Philippines, Singapore, and Thailand.

Other SRI-International business conferences have included the North Atlantic Industrial Conference (October, 1967, in Seville, Spain), last November's Conference on East-West Trade (Vienna), and this January's

SRI-Lima Meeting in Peru, a country in which the entire Stanford complex is deeply involved. After the Peruvian meeting, Gibson wrote that all of the meetings in the series—Sydney, Djakarta, Singapore, Seville, Vienna, and Lima—“were dedicated to the advancement of economic development and to the growth of private enterprise—especially international business.”

COIN

For the underdeveloped nations, the bite in the SRI-style coordination and control of investment flows is the direct tie-in with counter-insurgency efforts. Coordination of investments which benefit many of the Stanford and SRI associated corporations create a natural interest in the economic and social “stability”—the maintenance of a proper “investment climate.”

In 1957, Henry Robison, SRI senior economist, began his speech to a Stanford Alumni Association Conference on “America’s Stake in World Economic Stability” with: “since World War II, the United States has been thrust upon the world’s stage in a position of power and influence probably undreamed of even by those statesmen of a past generation who were imbued with a spurt of manifest destiny.” Discussing “the economic factors which underly the political relationships” between American and the Third World, he asserted that the countries of Southeast Asia “are more important for their geographic position than for their economic potential.” Robison argued that “at last freed of the Western political domination of the past century,” it is essential for the Third World “that their progress be made under Western guidance and Western concepts of individual freedom rather than under the heavy hand of Communist slavery.” He concluded that “The free world must not lose Southeast Asia . . . as it has already lost China.

The fear of “losing” Southeast Asia is presumably just the reason that SRI did a study that same year titled “Environmental Conditions in Selected Areas of Potential Limited Warfare,” which was prepared for McDonnell Aircraft Corporation and which described in detail the application of “limited” warfare techniques to certain peripheral areas of Asia, including Vietnam.

By 1961 SRI senior economist Eugene Staley was in Vietnam performing what has become a second job for SRI “developmentalists”—advising the U.S. government of methods for bringing “stability” to its subordinate dictatorships. Staley headed President John Kennedy’s special financial group to the Diem government-in-trouble in Vietnam. The group’s purpose was to develop a plan of “coordinated financial action which would be in support of counter-guerrilla activities.” His recommendations to JFK were for an increase in aid for military measures and for “economic and social development,” including “resettlement” where it was necessary to “remove the population from Viet Cong pressures.” The program was expected to “restore security within 18 months.” It didn’t.

In 1966, SRI took a second stab at this special kind of social reform, this time sending senior economist William Bredo to the Saigon government on the formulation and implementation of a program of land tenure reform. “In view of the critical situation in South Vietnam,” began the unsolicited SRI project proposal to AID, “the proposal emphasis is on political objectives rather than economic goals.”

“It is considered most important at this time to stress a program of land tenure reform which emphasizes social justice, which produces a more favorable rearrangement of the rural power structure, and which will tend to produce political results that will contribute to winning the war,” the proposal said.

Maintaining a proper investment climate, land reform, financial counseling—none of these programs sound anything like as sinister as “counterinsurgency.” But this subtlety is in the very nature of COIN activities, especially as developed under the Kennedy government, and it’s the reason so many COIN programs pass for charity. For, according to the Dictionary of United States Military Terms for Joint Usage, issued February 1, 1964, by the Joint Chiefs of Staff, counterinsurgency is “those military, paramilitary, political, economic, psychological, and civic actions taken by a government to defeat the subversive insurgency.”

Faced with so coordinated and global a strategy, the question of encouraging or prohibiting counterinsurgency depends less on the niceties of particular programs than on one’s attitude toward outside intervention or on a choice between a given regime and its “subversive insurgents.” At the very least, intelligent men should come to expect that military intervention of one kind or another will often follow on the heels of SRI-style economic expansion.

As proof we need merely list those explicitly labeled counterinsurgency contracts which SRI coordinates with its programs of “economic development.” After all, approximately a third of SRI’s international project revenue last year was spent for South and Southeast Asian projects, mostly paid for by the Pentagon.

Some SRI Counter-insurgency Reports
for the years 1965-1968
(From *Technical Abstracts Bulletin*)

AD-380 782 Fld 15/7

STANFORD RESEARCH INST MENLO PARK CALIF

investigation of counter guerrilla surveillance processes

Annual rept. 1 Apr 64-31 Mar 65

by Russell F. Rhyne. Sep 65, 83p. Contract DA-31-124-ARO(D)-200, ARPA Order-538, Proj. SRI-4923

Confidential report

Descriptors: (*Combat surveillance, *Guerrilla warfare)

AD-380 555 Fld 17/2.1,15/7

COUNTERINSURGENCY COMMUNICATIONS REQUIREMENTS IN THAILAND.

Final Rept. on phase 1, by York Lucci. Dec 66. 70p. Contract DA-36-039-amc-0040(E), ARPA Order-371, Proj. SRI-4240

Confidential report

Descriptors: (*Radio communication system, Thailand), (*Voice communication systems, Thailand), Counterinsurgency, Military strategy, human engineering, military requirements, police logistics.

AD-635 615 Fld. 17/2,20/14,9/5

SFSTI Prices: HC \$3.00 MF \$0.65

STANFORD RESEARCH INST MENLO PARK CALIF RESEARCH-ENGINEERING AND SUPPORT FOR TROPICAL COMMUNICATIONS

Semiannual rept. no. 7, 1 Apr-30 Sep 66. by E. L. Younker, G. H. Hagn and H. W. Parker. Sep 66, 80p. Contract DA-36-039-AMC-00040(E), ARPA Order-371, Proj. SRI-4240

Unclassified report

See also AD-653 608

Descriptors: (*Radio communication systems, *Armed forces research), (*Radio equipment, Tropical regions), Environmental tests, Noise (Radio), Radio signals, Thailand, Performance (Engineering), Ionospheric propagation, Antenna radiation patterns, Jungles

Communications research in a tropical environment is needed to develop improved equipment and techniques for use by military forces in Southeast Asia and other areas of similar environment. This report covers the following research effort in Thailand during 1 April through 30 September 1966: (1) Radio noise study and measurements, (2) Ionospheric electron content studies using Faraday rotation techniques on signals from beacon satellite S66; studies on ionospheric stability through Doppler technique applied to signal frequency dispersion, a study of disturbances in the earth's field using magnetometers. (3) Investigation of ionospheric factors related to local frequency prediction using oblique-incidence sounders. (4) Investigation of the effects of the tropical environment on antenna performance using airborne and man-carried antenna-pattern measuring systems (Xeledops); measurement of earth and vegetation electrical constants; theoretical model studies related to them.

AD-382 044 Fld 15/7

COMMUNIST TERRORIST CAMPS IN SOUTHERN THAILAND

technical rept., by Russell F. Rhyne. 1 Jan 67. 133p. Rept. no. SRI-OAD-TR-4923-1. Contract DA-31-124-ARO(D)-200, ARPA Order-538, Proj. SRI-4923

Confidential report

Distribution: No foreign except Thailand without approval of ADVANCED RESEARCH PROJECTS AGENCY, Attn: TIO Wash, D.C., 20301.

Descriptors: (*Guerrilla Warfare, *Military facilities), (*insurgency, Thailand), Environment, Logistics, Operation, Identification, Civilian personnel, Military personnel, Communists.

AD-381 234 Fld 17/6,15/7

PRELIMINARY INVESTIGATIONS OF THE VARIAN RUBIDIUM VAPOR MAGNETOMETER IN COUNTER-INSURGENCY SURVEILLANCE. By Russell F. Rhyne. Apr 67. 24p. Contract DA-31-124-ARO(d)-200 ARPA Order-538. Proj. SRI-4923.

Confidential report

See also AD-807 495.

Distribution: No Foreign except Thailand without approval of Advanced Research Projects Agency, Attn: Technical Information Office, Washington, D.C. 20301.

Descriptors: (*Magnetometers, Magnetic detectors), (*Magnetic detectors, Weapons). Insurgency, Ranges (Distance), Guerrilla warfare, Counterinsurgency, Communists, Magnetic fields, Iron, Southeast Asia, Rubidium, Effectiveness, Metals.

Results of a preliminary investigation of the rubidium vapor magnetometer as a method of detecting quantities of iron of a size comparable to insurgent weapons over a range of three to five meters are presented, and it is concluded that this device is promising enough as to operational utility, instrument capability, and magnetic background to warrant further analysis and field testing in Bangkok, Thailand. (Author)

1968 SRI COIN Reports of the Regional Security Studies Center (Titles & Contract Nos.)
(From *Technical Abstracts Bulletin*)

RSSC-RM-5923-9

ELEMENTS OF CAPABILITY AND A SCENARIO FOR A POSSIBLE CONFLICT SITUATION IN SOUTHERN THAILAND. AD-392 036 68-20 Fld 15/7

RSSC-RM-4923-14

THE EVOLUTION OF SUCCESSFUL COUNTERINSURGENCY OPERATION IN MALAYA. AD-391 681 68-19 Fld 15/7

RSSC-TN-4923-9

HANDBOOK FOR INFRARED/PHOTOGRAPHIC SURVEILLANCE IN AN OPERATIONAL ENVIRONMENT. AD-385 150 68-1 Fld 17/5

RSSC-TN-5923-16

OPERATIONAL TESTING OF WIRELESS SEISMIC AMBUSH AIDS. AD-385 427 68-2 Fld 17/10

RSSC-TN-4923-25

INSURGENCY IN NORTHEASTERN THAILAND AND SMUGGLING AND ILLEGAL ENTRY ACROSS THE MEKONG RIVER BORDER. AD-392 564 68-21 Fld 15/7

RSSC-TN-4923-26

COMMUNIST TERRORIST TRAINING CAMP DISCOVERED 21 JANUARY 1967. AD-385 708 68-3 Fld 15/7

RSSC-TR-4923

COMMUNIST TERRORIST LOGISTICS IN SOUTHERN THAILAND—A QUANTITATIVE ANALYSIS. AD-841 011 68-23 Fld 15/7

RSSC-TR-4923-2

THE LOGISTICS SYSTEM OF THE COMMUNIST TERRORIST ORGANIZATION IN SOUTHERN THAILAND. AD-392 563 68-21 Fld 15/5

PART III. SRI'S GOODIES

Even SRI's enemies are quick to point out what appear to be its obviously constructive activities in the physical and social sciences. But, as with other SRI activities, they are not always what they seem.

No one needs be told air pollution is of serious concern in California, particularly in the Bay Area, which is cursed with the third most critical air pollution problem in the U.S. SRI began research on air pollution almost immediately after its inception, but SRI's smog research differs from its defense work only in degree: instead of conducting research aimed at protecting people from air pollution, SRI gathers information which helps polluting industries escape public condemnation and more stringent regulations.

In 1949 and 1952, SRI joined the California Institute of Technology, UCLA, and USC in sponsoring two symposiums on air pollution at which scientists, industrial representatives, and government leaders were treated to lectures dealing with smog analysis and detection methods. But SRI smog research at the time was primarily funded by business organizations from industries among the prime polluters, such as the Western Oil and Gas Association.

The November, 1948, issue of SRI's news bulletin, *Research for Industry*, cites a survey of people in Los Angeles, the greater number of whom attributed smog to industry. But an investigation at that time under the direction of SRI's supervisor of air pollution research dealt only with the impact of the Los Angeles climate on smog.

More recently, when pollution from the Pacific Gas and Electric (PG&E) plant at Moss Landing aroused a furor among citizens in Monterey County, PG&E brought in the head of SRI's Environmental Research Department, Elmer Robinson, as one expert witness. PG&E's president, Shermer Sibley, sits on the board of SRI, as do four other past or present directors of PG&E or its subsidiaries. Robinson is a member and past chairman of the Bay Area Air Pollution Control District (BAAPCD) advisory council, an agency which, by failing to enforce existing pollution regulations, often seems to be working more for the pollutor than the consumer. Much of Robinson's research at SRI is sponsored directly by the very industries the BAAPCD is expected to control.

Robinson's testimony concerning PG&E's Moss Landing plant exonerated the company and contradicted that of biologists from Stanford's Hopkins Marine Station in Pacific Grove and scientists from UC Santa Cruz and Monterey Peninsula College.

According to Ed Munson, Air Pollution Control Officer for Monterey County, the PG&E plant dumps more nitrogen dioxide into the air than all the power plants in Los Angeles county. He says PG&E is responsible for ninety per cent of the nitrogen dioxide pollution in the Monterey region, which harms crops and causes emphysema.

Smog and Gas

A research project Robinson carried out with Robert Robbins is reported in the December, 1968, issue of the *SRI Journal*. Sponsored by the American Petroleum Institute, it exonerates industrial polluters by emphasizing natural sources of pollution, such as swamp gas, decaying organic matter, and vegetation. Robinson overlooks the hydrocarbons and sulfur dioxide which are chief factors in air pollution and products of oil refineries.

At both the University and SRI, those who do smog research are often the same men who work on Chemical and Biological Warfare (CBW). Robinson worked with SRI's CBW-men, William C. Thuman and Richard D. Cadle, on building an important piece of equipment for their work, the SRI aerosol camera. In a 1954 article in the *Biological Photography Association Journal*, he described its importance: "The armed forces may use aerosols defensively as in smoke screens or offensively in chemical or biological warfare."

SRI's social science contributions are also often thought to be beneficial. These began with a 1952 conference bringing the SRI Associates together to discuss application of social science to industrial problems. Dean Ernest C. Arbuckle of the Stanford Graduate School of Business explained that "in the near future, it is possible that private business may take over from government the task of guarding the humane aspects of our industrial civilization."

What this turns out to be is guarding the boss from his employees. SRI publications document frequent calls for psychological research on worker morale, methods of screening job applicants, of increasing worker efficiency, perfecting on the job training, and the like. Social science at SRI does not generally provide models for effective labor organizing, police control boards, or self determination by students.

In fact, SRI's education research frequently appears to channel, rather than free, students. Dr. Howard Vollmer of the SRI research staff wrote in the *Daily* last fall that "the shift to social problems has taken place in the Institute in matters like educational, urban, and minority problems"—problems by the way, which industry and

government-funded researchers are most likely to see as counterinsurgency affairs. "Funds from the Defense Department," Vollmer said, "are concentrated around behavioral and social areas and primarily concerned with improving efficiency and job satisfaction."

BART Men

SRI development of designs for urban mass transit, too, seems more likely to serve the interests of the industrialists on the board than the people on trolleys. SRI did some of the feasibility surveys which preceded the creation of the Bay Area Rapid Transit system (BART). The push for BART began in the early fifties when a group of SF businessmen connected to the Blyth-Zellerbach Committee initiated the studies. The committee, a corporate group supporting urban renewal, was formed by Charles Blyth and J. D. Zellerbach, both founding directors of SRI. Blyth was also a Stanford trustee.

As a part of the development of a downtown San Francisco business center, BART was to enable suburbanites to commute to work; but beside providing inadequate service to city dwellers (it avoids Hunters Point and bypasses the Oakland ghettos), BART financing will be a burden to those least able to pay by increasing the tax burden and by raising property values along the route.

These studies, and others regarding plans for school desegregation, protection of business investments in the city, "reverse commuter" facilities, and the development of Oakland, raise much the same questions as other SRI research: do we approach the problems from the standpoint of business or from that of those the research ultimately effects?

What we mean by constructive research is not research framed by one self-seeking interest group, which happens to have the money to fund it. The inference can be drawn that all too frequently the SRI researcher, under pressure to sell a product, has approached a problem uncritically and unable to separate himself from the view of his contractor. Unfortunately this is characteristic of most SRI activities. The quality of work at the Institute, particularly in the social sciences, declines as it aims at preserving the status quo rather than meeting people's needs.

We have discussed some research touching upon the critical problems of cities but which has not been chosen by the people of those cities. Such work is at the least irrelevant and at the most, detrimental to the needs of people. Guiding Institute research policy both to encourage self-sponsored research rather than work responding to a fluctuating market and to increase the "relevance" of such work to all people is important in redirecting policy of the future Institute.

While redirecting policy is more difficult than restricting research, we must take steps in that direction. Obviously those people affected should be asked about the needs. To ensure that SRI meet the changing social needs, we must institute continuous review and reinterpretation of policy. Only this way can we guarantee the future "benefits" of research, and a critical approach to solutions.

PART IV. SOME GUIDELINES FOR THE FUTURE

Within this framework of critical interchange and closer control, it is clear that the university community must develop guidelines and mechanisms to insure a new evolution in SRI's development and in its research programs. There needs to be some institutional means by which the university community can monitor and direct this evolution. We recommend that the form which such an institutional mechanism takes be one which can more accurately reflect the desires of an evolving community. One example might be a review body made up of elected faculty and students with knowledgeable trustees, their appointed administrators and groups affected by potential research serving as advisors.

Such a body would not provide day-to-day administration for the institute but rather the following:

1. Do projective planning for SRI as a whole, including the general direction of research, and
2. Insure that SRI research is within "moral limits" and is of "optimum social value," and
3. Monitor the technical quality of the staff and of the research.

The technical quality of the staff can best be monitored through a good personnel hiring procedure. The technical quality of the research may perhaps best be monitored through low level review committees in conjunction with relevant university departments.

The function of the second activity is to begin weeding out the morally objectionable and undesirable research which is being carried on at SRI. At present there are at least three kinds of research which seem to fall into this category and have been the object of widespread community protest:

- 1) Chemical, biological or radiological warfare research.
- 2) Counterinsurgency research.
- 3) Research directly related to the war in Southeast Asia.

We reject the contention that any research the U.S. government desires to fund is acceptable and that questions of morality and political responsibility must be directed toward the government policy guiding the uses to which the research will be put. To accept counterinsurgency research in Thailand, as SRI has done, is to actively assist in the prosecution of government foreign policy in that area. To accept the work is to endorse the policy. If one rejects the policy one must reject the work. Neutrality is impossible.

Because many of these activities are classified or secret it is difficult to phrase with precision, rules which could be counted on to prohibit these activities. One can only suggest a tentative formulation:

1) SRI shall not embark upon any research which is designed or likely to lead to the development of information or theories useful to the conduct of chemical, biological or radiological warfare. Nor shall SRI engage in any basic chemical, biological or nuclear research supported by those military agencies responsible for the development of CBR weapons systems. Examples include: development of weapon delivery systems, techniques of utilization, basic research on carriers or strains of diseases, meteorological studies for use in dissemination techniques, "riot" control applications, etc.

2) SRI shall not take any contract which has as a purpose advising on counterinsurgency, participating in counterinsurgency, or developing the capability for counterinsurgency anywhere in the world both within the continental United States and beyond its borders. Examples include: estimation of social, economic or military requirements and methods in counter-guerrilla and "pacification" programs, development of specialized techniques such as electronics intrusion detection devices, studies of population control programs such as the "strategic hamlet" plan, and ethnographies of "unstable areas." The operations of the RSSC (Regional Security Study Center) located in Bangkok should be immediately ceased.

3) During the continuation of the war in Vietnam, Thailand, Laos, and Cambodia or in the event of hostilities involving the United States elsewhere in Southeast Asia, SRI shall not take contracts from any agency of the federal government or from any firm in contractual relationship with the federal government which requires any studies or efforts substantially related to the war. Examples include: any of the above related to the war, collection of data on village organization or political support in Southeast Asia, land reform for AID, logistical support studies.

Because of the difficulty in interpreting and applying such rules it is *imperative* that the system of review and monitoring include a constant exchange between the review body and the community at large. Regular publication of policy and contracts is one approach. It is quite conceivable that such a body might fall rapidly out of touch with the community it is supposed to represent. There must thus be the provision of mechanisms whereby not only the members of the review body could call the general direction or specific projects into question, but also that any member of the community can bring his views before the review body as a whole and before the community. It is unthinkable that views remain static and that what is acceptable today will be acceptable tomorrow and for this reason the possibility of change must be institutionalized.

One of the reasons why the University is going through a crisis today is that large parts of the community no longer support research that was once quite acceptable and that the only "legal" line of action open to them is through the Board of Trustees—less-than-candid Trustees who cling to the outdated view of University government as a hierarchical, top down, authoritarian structure and who refuse to recognize the need for community decision-making on vital University issues.

It seems clear to us that given the concerns of many of the Stanford community there should be no SRI research in the three areas outlined above and that community control over Institute policy and activities be established so that the Institute can function in a manner more harmonious with an evolving University.

There are two further problems related to selecting the best guidance for SRI research which have been ignored in the preceding discussion.

1) The first is the question of adequate representation in the review body. Aside from the question of whether any group can be represented by one or a few of its number there is the harder question of whether or not the right groups will be represented at all. For example, what of the monitoring of socio-economic or political research on urban areas—should not city dwellers as a class of those most affected by the research have some say in what kinds of work will be done? In particular, with respect to the biggest urban problem: that of slums, poverty and racial ghettos—should not the poor white and black slum and ghetto dweller have some part in reviewing the types of research done by an organization such as SRI, rather than just leaving the choice to corporations or city governments who will pay for what they want? How can one hope to insure that research is not performed which is detrimental to the urban poor? How can they be represented? Do "informed intellectuals" have the right to speak for them? Or should members of their number be sought out?

Another, more difficult example is that of SRI international research affecting peoples in other countries. In the past SRI has been guided by the "foreign policy of the United States government." This has meant that SRI has unquestioningly assumed that the best interests of the Vietnamese people are represented by the Saigon government since it is an ally of the U.S. and is thus an adequate judge of the value of contracts affecting those people. Is this an acceptable method of determining the social desirability of their research? We think not.

Even when SRI has sought counsel from non-governmental foreign nationals about the desirability of their work from the local viewpoint they have turned to corporate leaders, "key business executives," as the most authoritative representatives of the interests of the local population. Is this a satisfactory choice? Why not peasants rather than industrialists? As much as SRI claims to be politically neutral and objective in its non-military research, we hope that our arguments make strikingly clear that here too it consistently makes political choices and that its entire world view is politically oriented by its close identification with "free enterprise."

It is obviously a complex and difficult problem to find a method of representation which best represents the interests of a majority of the people of an area to be studied. Yet it is also just as obvious that such an effort must be made and that the present method be rejected as unacceptable.

2) The second problem relates the question of control to the dynamics of a productive research organization. In theory a not-for-profit research institute can allow its personnel to generate exploratory research because it is not heavily tied down to the constraints and values of the marketplace. Thus one can, by picking professional personnel with capabilities in certain areas expect to expand imaginatively in those areas with little guidance or control. In fact, SRI has not used its potential to sponsor exploratory research to the best advantage. Rather SRI has followed a policy of rapid growth and hence has not freed enough funds for much in-house sponsored research. Furthermore, SRI has very much "followed the market" in this effort to expand (witness the evolution described in part II). Finally while the SRI management has encouraged expansion into new areas "where the money is," such as the Naval Warfare Research Center in response to the availability of funds from the Defense Department, or the Agricultural Research Center in Pasadena backed by California agri-business, it has not encouraged self-directed exploratory expansion into areas such as urban problems or natural resource preservation until very recently.

But not only should a not-for-profit organization realize its potential of self-directed research, but to do so it needs to allow considerable freedom to the individual researcher in order for him to contribute most creatively within the context of a research team.

Without freedom from undue "bring the money in" pressure researchers can't be creative or critical. Without freedom from financial pressure, project managers may take on contracts that are undesirable,

unethical or beyond capability. Without freedom to question ideological assumptions, the research product may be morally objectionable or turned to nefarious uses. SRI policies often seem to be directly detrimental to the functioning of such freedom and, while unusual, cases of coercion and pressure being applied on low-ranking personnel to get them to work on projects for which they have no interest have been brought to our attention.

Such freedom, of course, in no way inhibits the setting of overall research policy and the determination of the criteria under which research will be accepted or rejected.

There is another area of concern over the present relationship between SRI and the University: a financial one. SRI has an annual discretionary cash flow estimated somewhere between \$1.5 million and \$4 million. As owner of SRI, Stanford could appropriate these funds for use elsewhere. However, considering that the University to date has refused even to allow SRI to engage in endowment fund raising for fear of conflict with the University's fund raising efforts, and considering that the lack of free endowment has been one of the principal reasons why SRI has not been able to expand self-directed exploratory research, it would be hard to justify such expropriation if the expansion of such types of research is desired.

A View of the Future

Central to the forgoing discussion is our feeling that closer ties between the University and SRI can be of considerable advantage to the University. Closer ties can also be seen as beneficial to SRI, if one refuses to visualize the SRI of the future as a market-following and profit-seeking, "not-for-profit" institution.

If we accept the types of controls suggested on some SRI research and the idea of University guidance to overall institute policy, we feel that we can look forward to the institute becoming less and less dependent on the market, on private enterprise and on defense contracts, and more and more responsive to the desires of the University community to move in the direction of more exploratory applied research on critical social and economic problems. One could expect less study of helping corporations expand abroad and more study of economic development. One could expect less work for the timber industries and agri-business and more work on natural resource preservation and environmental studies. One could expect less work for those corporations which have proved incapable or undesirous of solving the urban problems of unemployment and housing and more research on programs to eliminate poverty and misery through new approaches, such as governmental decentralization and cooperative enterprise.

There can be little doubt that if through new administrative connection and cooperative efforts, University departments became more influential in the formulating and execution of SRI research programs, new directions would result. Such cooperation would not only provide greater resources and research opportunities for University faculty but also give the staff of SRI the possibility of being more closely associated with the University. As stated much earlier there is no suggestion being made either that SRI personnel be assimilated into the University, or that faculty drop their teaching functions. Rather, new and closer ties such as those mentioned provide the opportunity for members of each institution to benefit from the skills and knowledge of members of the other. One might expect joint appointments to increase and one would certainly expect the educational and professional opportunities for students, faculty, and research workers to expand considerably.

Thus far we have only addressed ourselves to the questions of the need for some kind of University community control over SRI and to three probable areas of immediate concern. We have tried to define a structure, however, which institutionalizes the means of change and feel compelled to suggest that in the future there may be other, broader areas of concern to the University community which may strike more to the heart of the institute than the limited concerns expressed until now. For example, the question has already been raised in the community-at-large whether applications of technology for military and industrial clients, of restricted access and having no educational function should be part of a University's activities in any way, even if they now benefit a small part of the University. It is the very real probability of changing concerns and shifts in emphasis which have led us to suggest the structural changes that we have. For us, it is within the framework of a climate of continually evolving criticism and active community participation in decision-making, that the future of the University must lie.

The time is rapidly passing where students are content to leave the direction of their lives to others, where faculty close their eyes to the real social and economic roles of the University and where captains of industry are allowed to define those roles and to guide the course and development of the University.

A new direction is being demanded of the University. Its present role is under study and new roles are being defined and sought. If a mechanism is created which allows, indeed encourages, criticism and change of SRI's policies and programs, that institute, in an altered form, can be a valuable asset to a University seeking a new, creative role in society.

APPENDIX

A Short History of Community Conflict over SRI

The Stanford-SRI Study Committee and this report—as well as the student occupation of the Applied Electronics Laboratory and the trustee's moratorium on new CBW contracts at SRI—are results of some years of research, education, and agitation by students on the left at Stanford.

Concern about SRI's war work began in 1965 with the discovery by members of the Stanford Committee for Peace in Vietnam of two CBW contracts being performed by the Institute. The contracts were revealed in the newsletter of the Graduate Coordinating Committee, a political group first organized in late 1964 and the grandfather of the Stanford left.

More detailed studies of Stanford/SRI's war research were published in the spring of 1967 in *Resistance*, the journal of Stanford's short-lived, student-run experimental college, The Experiment. These articles were the first to argue that the university—and particularly SRI—was in fact deeply involved in the policy and performance of the Southeast Asian War, and the point brought hot debate, particularly after Experiment members covered the campus with posters of the trustees which read "We Accuse."

As a part of a nationwide Spring Mobilization against the War, about 150 students from Stanford and the local high schools marched on SRI's Menlo Park facilities on April 14, 1967.

In late January, 1968, SRI was revealed to be doing extensive counterinsurgency research in Thailand by the *Peninsula Observer*, a newspaper edited by recent alumni of Stanford and The Experiment. The *Observer* later revealed SRI's counterinsurgency research in Peru and Honduras, too.

Most of the campus, of course, was introduced to SRI counterinsurgency and CBW by *Through the Looking Glass*, SDS's fall quarter "radical guide to Stanford," which was essentially the outcome of a summertime research group of students and townspeople meeting as a class of the Midpeninsula Free University.

Demands Tacked on Door

On October 8, soon after the quarter began, SDS tacked its demands to the trustee's door, calling for an end to "all military and economic projects and operations with Southeast Asia." On October 9, SRI President Charles Anderson rejected the demands, explaining that government sponsored research "is in the public interest."

On October 10, SDS made an October 14 deadline for its demands, and Acting President Glaser announced the formation of the Stanford-SRI Study Committee. The 14th came and went; so did SDS to SRI.

The SRI committee first met on November 14, but by December campus opinion—informed by the *Daily*, SDS, and the *Resistance*—was at least one factor in bringing Student Body President Denis Hayes to request of SRI directors that they not commit the Institute to "any further long-term research" in CBW or research "in support of the American military effort in S.E. Asia." SRI President Anderson refused him December 12. A similar proposal that, during the committee's deliberations, SRI not enter into nor renew contracts for the S.E. Asian War, CBW, or counterinsurgency, was brought up by Committee member Barton Bernstein and discussed for a month. But it never made it to the vote, after Anderson told the committee SRI expected to take on no new major contracts.

When the January 28 *San Jose Mercury* revealed that SRI had just accepted a "top secret \$1.8 million contract to help Thailand improve government operations and fight Communist guerrillas," SDS celebrated SRI veracity by running up the flag of the National Liberation Front. It had previously called for the resignation of three trustees from war industry, demanded that military electronics research be discontinued in the University and SRI, and reiterated its other demands.

On January 14 some 50 students had carried their demands personally to an on-campus trustee meeting, only to be met with adjournment and later tried for "disruption," found guilty, and fined. Most, refusing to pay the fines, were barred from registering.

On January 29, a hundred students occupied the Applied Electronics Laboratory briefly and then moved on to an SRI annex in the Industrial Park, where they were barred from entering.

At an AAUP sponsored forum on SRI in February, an SRI employee announced that he had been "coerced" into contract work to which he objected.

And on March 11, in a student-trustee forum first called by the January 14 defendants but finally sponsored by the University Advisory Committee, some 1400 members of the university community heard Trustee William Hewlett again maintain that having SRI perform services "for the United States of America" is not a political decision. They also heard the five trustees unanimously refuse to lobby with their colleagues for an open meeting at which they would discuss the SRI committee report and recommendations. When the trustees asked the audience whose request it was for such a meeting, they were met by a roar "OURS!"

Coalition Demands

Subsequent to the March 11 meeting the "SRI-Coalition" was formed by community members concerned with the future of the SRI-Stanford relationship. On April 3, the Coalition together with a dozen other community groups including SDS and the UCM called a town meeting to discuss the growing conflict between community concern and trustee intransigence.

Out of that meeting of some 800 people came the following demands:

1) We demand that the trustees discontinue all plans for severance of SRI from the University (with or without a restrictive convenance), and that instead SRI be brought under tighter control by the University, and that guidelines be established for socially acceptable research to be directly applied to SRI and the rest of the Stanford Community.

2) We demand that all research in the following areas be stopped as of April 9 and that no new contracts in these areas be accepted:

1) All classified research at Stanford and SRI,

2) All research classified and not, at Stanford and SRI in the following areas:

a. Chemical and biological warfare (CBW),

b. Counterinsurgency at home and abroad,

c. All research in support of the war against the peoples of Vietnam, Laos, Thailand;

3) We demand a special meeting of the Stanford Trustees during the week of April 21, that this be an open meeting in which anyone from the Stanford-Palo Alto community may participate in the discussion and observe the discussion.

The decision of the Trustees to not react to most of the demands, moving only to put a moratorium on *new* CBW contracts and to promise closed hearings with "selected" witnesses, led to a new community meeting April 9. There, after several hours of discussion, the people voted to sit in at the Applied Electronics Laboratory in order to halt the war research ignored by the trustees.

* * * *

Our statement is dedicated to the courageous students and faculty who, deeply concerned with Stanford's involvement in Southeast Asia, occupied the Stanford Electronics Laboratories in order to put a stop to a significant part of that involvement.

We wish to thank the innumerable people who have contributed research and articles on the operations of the SRI-Stanford complex. The on-going work done by David Ransom and the people of the Peninsula Observer, and last summer's Free University research seminar provided much of the background data for this report.

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