

THE CALTECH ALUMNI

III. Opinions and Civic Activities

THE CALTECH ALUMNI were trained in science and scientific thinking: therefore their views on scientific matters should be of considerable interest to the rest of the world. A majority of them, 79 percent, feel that "There are many worth-while and important concepts which cannot be proved scientifically." We have already (*E&S*—December 1953) found two-thirds of them disagreeing with the statement, "Religion has little to offer intelligent, scientific people today." Apparently the great majority of our alumni do not believe that science and the scientific method can provide the answers to all the questions of life.

For several years now the papers and magazines have been filled with discussions and speculations about the many fundamental changes in our economic and social order which will be brought about by the harnessing of

atomic energy—with the expectation that there will be fundamental changes. Sixty-one percent of our alumni agree. However, a more startling result is that 30 percent, or almost one in three, do not agree with this view! This points to either a considerable difference of opinion or difference of information among the men who should be most aware of the ultimate effects of the harnessing of atomic energy.

The Caltech alumni are graduates of the physical or the biological sciences rather than the social sciences. However, many scientists in both of these fields seem to agree that our knowledge of the physical world has outstripped our knowledge of the social world. They also say that the social sciences have not developed rapidly enough to devise methods and techniques for the proper social and cultural utilization of the tremendous

ALUMNI OPINIONS ON INTERNATIONAL AFFAIRS

The United Nations should have the right to make conclusions which would bind members to a course of action.

It is not true that if we allow more immigrants to this country we will lower our standard of culture.

It is not true that if we lower our tariffs to permit more foreign goods in this country we will lower our standard of living.

Over the next decade we must try to make the standard of living in the rest of the world rise more rapidly than in our own country.

It is not true that deep ideological differences between countries are irreconcilable.

This statement is untrue: We are not likely to have lasting peace until the U. S. and its allies are stronger than all the other countries.

	AGREE	DISAGREE	HAVE NO OPINION
CIT	66 %	22 %	12 %
US	78 %	10 %	12 %
CIT	84 %	7 %	9 %
US	69 %	19 %	12 %
CIT	82 %	9 %	9 %
US	65 %	20 %	15 %
CIT	56 %	29 %	15 %
US	58 %	27 %	15 %
CIT	71 %	19 %	10 %
US	58 %	26 %	16 %
CIT	41 %	47 %	12 %
US	48 %	40 %	12 %

energies made available by the development of nuclear physics. So we asked the Caltech alumni their opinions on government promotion and subsidy of research in the fields of social and physical science.

Fifty percent of them agree that this support should be given in the physical sciences, but only 42 percent think it should be given in the social sciences. Thirty-nine percent think it should not be applied to the physical sciences, whereas 43 percent think it should not be applied to the social sciences. The difference is small, but it is rather surprising in the light of the constant pressure on Congress to appropriate additional funds for basic research in the sciences.

Our alumni, then, have not completely sold out to science and the scientific method, either as a way to explain all of the worth-while and important concepts in life, or as an activity that should have the complete and all-out support of the federal government.

So much for the Caltech alumni as scientists. Where do they stand on other matters of opinion? Are they isolationists or internationalists? Are they for or against the New Deal? Where do they stand on civil rights?

The Internationalist and the Isolationist

Several of the items in the opinion part of the questionnaire dealt with these questions. The chart on page 17 groups six statements which might be taken to indicate internationalist or isolationist sentiments. No one of these statements could be taken as an adequate criterion by itself, and a good argument might be made for answering several of the items in either direction. However, we do come closer to an adequate description if we first tabulate the original statements and then word them in such a way that agreement is always in the direction of Internationalist. The Caltech alumnus who agrees with five or all six of the statements can then be called an Internationalist; the graduate who agrees with none, one, or two is an Isolationist; and the remainder are In-between. By this standard, 39 percent are Internationalist and 17 percent are Isolationist. Compared with U. S. graduates, the Caltech alumni are more Internationalist and less Isolationist.

As might be expected, age has an important influence on the graduate's opinion of the United States' role in world affairs. The older one becomes, the more one swings toward isolationism; while only 12 percent of our alumni under 30 are isolationist, 31 percent of those over 50 are.

Isolationists	CIT	U.S.
Over 50	31%	31%
40 to 49	21	24
30 to 39	15	20
Under 30	12	18

The problem of race prejudice

Four of the opinion statements presented to the alumni for agreement or disagreement concerned the problem of race prejudice, or the place of minority groups in America. The chart below shows how our graduates replied to these statements. Obviously there is some question whether these figures actually represent the way our graduates feel and act, as there is bound to be a certain amount of lip service paid to the ideal of complete tolerance. However, the same considerations apply to the figures for the U. S. graduate, so we can still make the point that seems most significant here—namely, that the Caltech alumni when compared with college graduates in general are consistently more tolerant and less prejudiced on every statement.

The tolerant and the prejudiced

Here again we can combine the replies to these statements in the same manner that we did for Internationalists and Isolationists. In this case, let us say that agreement with all four indicates a tolerant attitude on these matters, agreement with three is in-between, and agreement with none, one, or two indicates prejudice. If we do this, it turns out that 53 percent of our alumni are tolerant and 19 percent are prejudiced. If we break these figures down by age and compare them, we find a steady progression from tolerant to prejudiced atti-

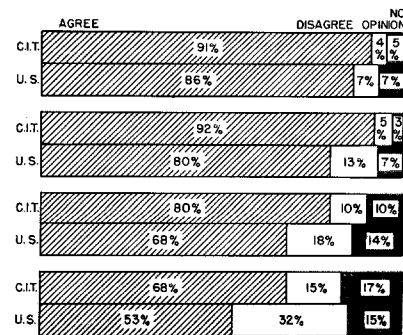
ALUMNI OPINIONS ON MINORITIES

Children of minority groups or other races should have equal opportunity in social, economic and political affairs.

All Americans—Negroes, Jews, the foreign born and others—should have equal opportunity in social, economic and political affairs.

It is not true that foreigners usually have peculiar and annoying habits.

It is not true that agitators and trouble makers are more likely to be foreign born citizens than native Americans.



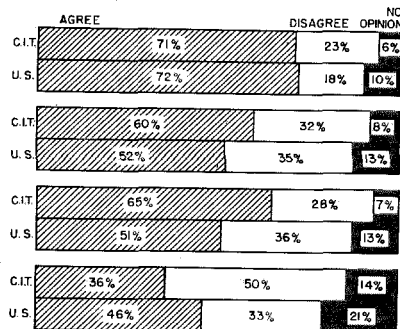
ALUMNI OPINIONS ON GOVERNMENT

Democracy depends fundamentally on the existence of free business enterprise.

The best government is one which governs least.

Government planning should be strictly limited for it almost invariably results in the loss of essential liberties and freedom.

Individual liberty and justice under law are not possible in Socialist countries.



tudes with increasing age. However, even at 50 our alumni are considerably less prejudiced than the U. S. graduates of the same age.

Prejudiced	CIT	U.S.
Over 50	37%	47%
40 to 49	22	34
30 to 39	15	29
Under 30	17	24

Every man for himself?

The final group of opinion items to be discussed is concerned with statements about government. They are listed in the chart above, together with the percentages of agreement and disagreement among the Caltech and the U. S. graduates. We have chosen to call agreement with these statements "anti-New Deal." Not that they are exact measures of pro- or anti-New Deal sentiments; such a series of statements would, in fact, be impossible to obtain. In general, though, a strong anti-New Dealer would be inclined to agree with all of these statements and a strong pro-New Dealer to disagree. So we have defined an individual who agrees with three or four of

these statements as an anti-New Dealer and a person who agrees with none, one, or two as pro-New Deal.

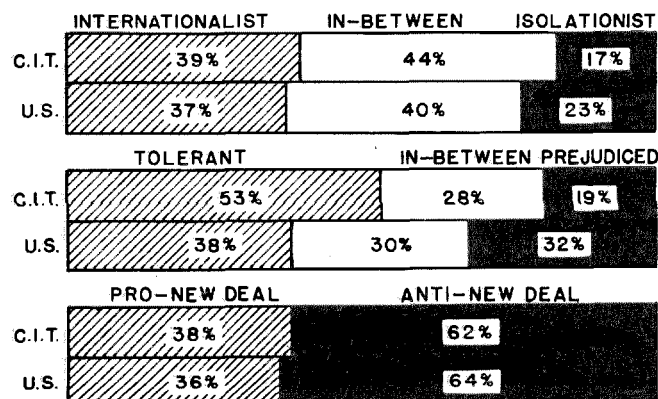
When this breakdown is made below it turns out that our alumni are markedly anti-New Deal (62 percent). Only 38 percent are classified as pro-New Deal. These are about the same percentages as Havemann and West found among U. S. graduates.

Neither the Caltech alumni nor the U. S. college graduates could be called radical—particularly when opinions like these are obtained in the face of 20 years of political emphasis in the opposite direction. On the other hand, preferences for individual initiative, freedom of academic and social mobility, and a sink-or-swim, every-man-for-himself philosophy are just what one would expect from college graduates. For they are the segment of the U. S. population most apt to have the background, the intelligence, the education, the resourcefulness and the resolution prerequisite to achieving maximum life satisfaction under such conditions.

As usual, age makes a difference. The older one becomes the more one's sentiments become anti-New Deal. Thirty-eight percent of our alumni under 30 are anti-New Deal, in contrast with 79 percent of those over 50.

Anti-New Deal	CIT	U.S.
Over 50	79%	80%
40 to 49	61	71
30 to 39	48	62
Under 30	38	49

ALUMNI OPINION IN THE U. S. AND AT CALTECH

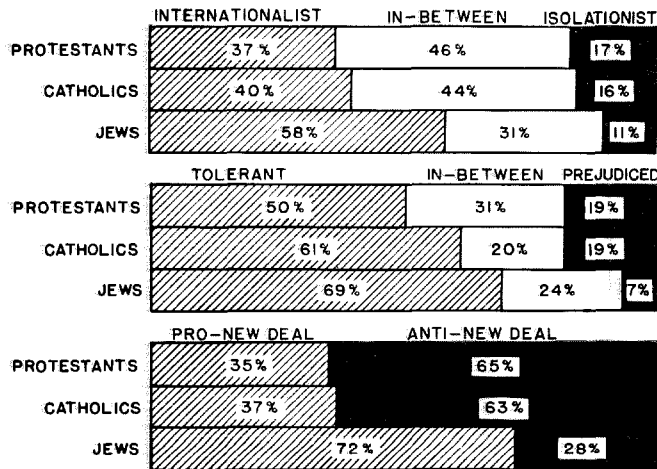


Minds of their own

The chart at the left summarizes all these figures. U. S. college graduates are internationalist, tolerant and anti-New Deal. Caltech graduates are similar—but different. They are a little more internationalist, much more tolerant, and a little less anti-New Deal. Can anything be made of these differences? We think so.

Our Caltech alumni are Protestant—even more so than college graduates in general. So our alumni opinions should differ from U. S. graduates' opinions in the direction of the opinions of Protestants. But Protestants

RELIGION AND OPINIONS OF CALTECH ALUMNI

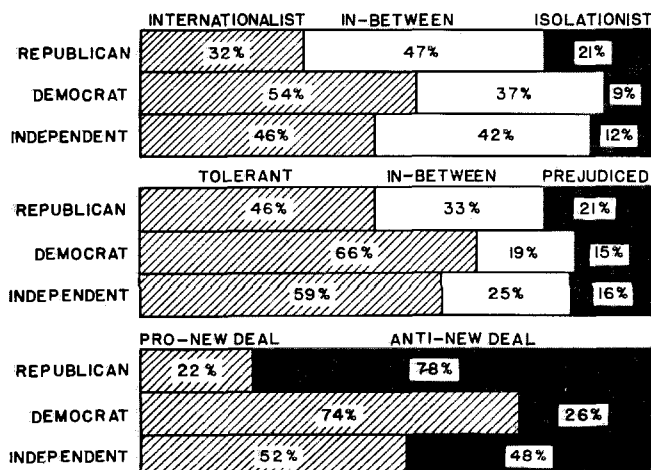


—of the three religious affiliations tabulated on the chart above—are the *least* internationalist and tolerant, the *most* anti-New Deal. The Caltech alumni are just the opposite, in every case. Apparently they are not “good” Protestants.

Similar considerations hold for political affiliations. The Caltech alumni are preponderantly Republican—again more so than the U. S. graduates. So our alumni opinions, when compared with the U. S. graduates’ opinions, should be more like the opinions of Republicans. But again they fail to be so! As the chart below shows, among the political affiliations we have tabulated, the Republicans are the *least* internationalist and tolerant, the *most* anti-New Deal. Again they are just the opposite of what we would expect. Apparently they are not “good” Republicans either.

Instead of our more Protestant, more Republican graduates being less internationalist, less tolerant and more anti-New Deal than U. S. grads, they are just the opposite. Is it a matter of the youth of our alumni? Undoubtedly this is a partial explanation—but only a partial one, for these differences hold at any age. The

POLITICS AND OPINIONS OF CALTECH ALUMNI



rest of the explanation may be attributed to the independence of thought already commented on (*E&S*—December 1953).

The Caltech alumni are just simply not intellectual sheep. They may identify themselves as Protestants or Republicans, but they have little hesitation in departing from the fold if in their opinion the facts so dictate. Which is as it should be. This is just the sort of independence from conformity and dogma that we think a Caltech education ought to produce.

Leaders who don't lead

So far, so good. Caltech alumni are young, active, self-reliant, well educated, tolerant and internationalist. They have prestige and status, independence of thought, and the scientific training helpful in devising new solutions for old problems.

Such blessings imply considerable responsibility. The scientists and engineers are the new leaders in America. Are the Caltech alumni assuming this leadership? Here is another important question for which we have no adequate answer. But we do have data which will throw some light on the question. Our alumni were asked to indicate the number of civic affairs in which they had participated. Havemann and West considered this matter from the standpoint of the specialists (doctors, lawyers, and dentists), who majored in their undergraduate studies in humanities and social sciences, versus those who majored in pre-professional courses. They tabulated the participation in community activities of these two groups, with the following results:

The Number of Doctors, Lawyers, and Dentists Reporting Seven or More Civic Activities

Those who majored in the humanities or social sciences	42%
Those who majored in pre-professional courses	30%

Among our Caltech alumni only 17 percent report seven or more civic activities. This is a rather meagre contribution to community affairs from a group that should be in the forefront of such activities. Of course, we must keep this matter of age in mind. Our alumni are young, and it takes time to accumulate sufficient economic and social security to have the time and opportunity to assume community leadership. Yet our older alumni do not seem to assume this leadership to any great extent. While 6 percent of our alumni in their 20's engage in 7 or more civic activities, and 17 percent of those in their 30's, only 31 percent of those in their 40's do so, and 32 percent of those in their 50's.

But the goal remains. And it seems to us it is the responsibility of the well-trained and clear-thinking Caltech alumni to make a contribution to the community commensurate with their training, capacity and influence.

This is the third of a series of articles on the alumni survey. Next month Dr. Weir, the man responsible for the survey, will discuss alumni incomes.