

THE CALTECH ALUMNI

II. Religion and Politics

TODAY, MORE THAN EVER BEFORE, the technically trained man is the fair-haired boy—of business, industry and government. Dr. Samuel A. Goudsmit, chairman of the Physics Department at Brookhaven and editor of the *Physical Review*, comments on this trend as follows:

“Some of us [physicists] are in industry, designing electronic equipment, and some of us are attached to the American embassy staffs in England, France and Germany. Colleagues of mine who never even bothered to vote before Hiroshima now sit at the elbows of our United Nations representatives when the subject of atomic energy is on the agenda, and others, who were ill at ease lecturing before a few seminar students, now address large audiences on the fate that threatens the world if atomic energy is not internationally controlled. From timid pedagogue to eloquent Jeremiah—all in the space of a few short years.”

Other scientists are equally active in non-scientific affairs. In a somewhat similar way, the same thing is true for engineers. Many engineers are now going into positions of management and administration, becoming executives, or members of the boards of directors of large companies. A recent Columbia University survey reports that “40 percent of industrial management is engineer-trained, replacing both the lawyer and the banker in top industrial posts.” As the foregoing implies, neither the scientist nor the engineer is sticking to his last. He is an active participant in non-scientific and non-technological activities.

It is not difficult to identify some of the important influences contributing to this heyday of the scientist and engineer. First of all, modern society, in its technological development, has become so complicated and elaborate that only those with highly developed skills and knowledge in science and engineering can make significant contributions to further progress. Furthermore, every well-trained scientist and engineer has had a long and arduous training in the logic of scientific method and experimental proof. The resultant ability to think vigorously and objectively is an invaluable asset in practically any situation in life, and both industry and business, as well as government, are rapidly becoming aware of this fact.

These remarks seem particularly applicable to the

Caltech alumni—scientists and engineers who have proved particularly adept at getting special citations, awards and honors for outstanding professional and technical accomplishment. It seems safe to assume that these same Caltech alumni will have an important influence in determining the future goals and policies of American industry and American government; as technically trained people, they will undoubtedly perform in an outstanding manner, but they will be functioning as people, not as machines.

What about their non-technical attributes? What about their personal opinions? their prejudices? What are their views on religion, politics, government? These aspects of a person's sophistication and wisdom are no less, if not more, important than his technical proficiency—especially when they concern a group potentially as influential in the life of America as are the Caltech alumni. These are the questions we will consider in this and the next article on the Caltech alumni survey.

The Caltech alumni are predominantly Protestant (84 percent) in their religious affiliations. However, times are changing as far as religious affiliations among U. S. college graduates are concerned, and this fact is reflected in the Caltech figures.

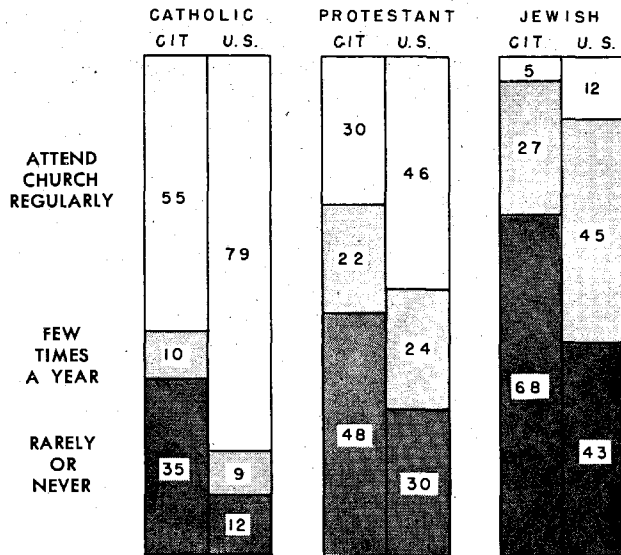
If we compare C. I. T. graduates over 50 with those under 30, we find the percentage of Protestants dropping from 96 to 81, while the percentage of Catholics increases from 3 to 10, and of Jews from 1 to 9.

If we compare these differences with the comparable figures for the U. S. graduate (from *They Went to College*, by Havemann and West), then it appears that there is a much larger percentage of Protestants and a much smaller percentage of Catholics among the Caltech alumni than among U. S. graduates in general.

	Under 30		Over 50	
	CIT	U.S.	CIT	U.S.
Protestants	84%	81%	69%	96%
Catholics	7	10	25	3
Jews	5	9	6	1
Other	4			2

This preponderance of affiliation with the Protestant church is of considerable importance for us, as we shall see in the next article in this series that the Protestants

GRADUATES AS CHURCHGOERS



are the most conservative of the three religious groups here under discussion. In the light of the youthfulness of our alumni, the relatively large percentages of Jews and Catholics in this younger group suggest that members of these two religious groups are entering the fields of science and engineering in increasing numbers.

While the religious affiliations of a group provide some indication of its religious views and preferences, we still need some indication of the degree to which it actively participates in religious affairs. In this context the figures on church attendance should be of considerable interest.

We find that only 29 percent of the Caltech alumni attend church regularly. Fifty percent attend rarely or not at all. If we break these figures down according to religious affiliation, and compare them with those for U. S. graduates, it appears that the Caltech alumni are much less active in their church attendance, regardless of religious affiliation.

The chart above shows this difference very clearly. Only among the Catholics do a majority attend church regularly, and even this majority is considerably less than the percentage of Catholics who attend church regularly among all U. S. graduates. Apparently the scientist and engineer are much less religious than the average college graduate. At least they are much less active in their church attendance.

Are they irreligious, or just too busy to attend church? This is a difficult question, and we don't presume to have the answer at the present time. However, our graduates were asked to agree or disagree with the statement, "Religion has little to offer intelligent, scientific people today." Two-thirds of the alumni disagreed; one-third either agreed or had no opinion.

If we look at how disagreement with this statement was distributed among the three religious groups, it appears that religion has little to offer two-thirds of the Jewish and one-third of the Protestant graduates. Even

a quarter of the Catholics seem to feel that religion has little to offer them.

When these percentages are compared with the percentages for the U. S. graduates, the Caltech alumni are consistently lower.

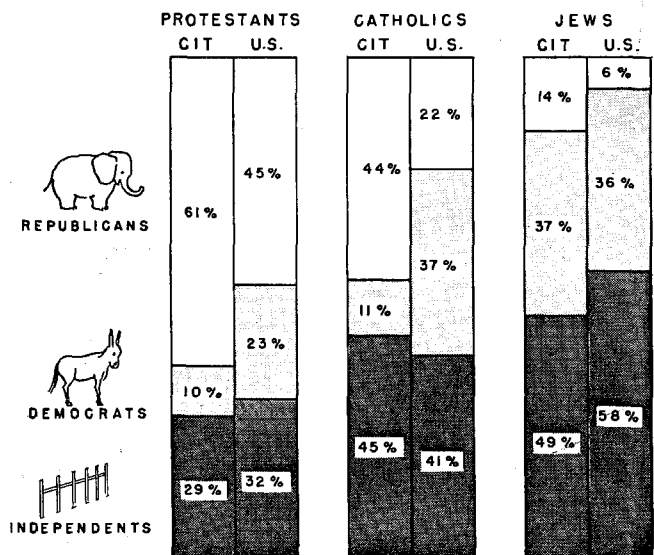
Disagreed with statement	CIT	U.S.
Protestants	66%	84%
Catholics	76	91
Jews	38	56

The chart below illustrates the interesting political differences among these three religious groups. The Protestants, who make up the vast majority of the Caltech alumni, are largely Republican. On the other hand, our Jewish graduates are predominantly Independent. The Catholics fall in between these two groups. These percentages are similar to those found among U. S. graduates, except that in all affiliations the C.I.T. graduates are more heavily Republican.

We also took a look at college grades, college finances, and post college civic activities for these three religious groups to see if there might be interesting differences. As the following figures show, there is relatively little difference among them. The Jewish alumni seem to be better at grade-getting, and the Protestants seem a bit more active in civic affairs, but the differences are not very startling.

Category	CIT	U.S.
Grades mostly A's		
Protestants	22%	15%
Catholics	20	14
Jews	35	15
Earned more than half of own way		
Protestants	36%	29%
Catholics	38	29
Jews	32	29
Five or more civic activities, in cities		
Protestants	36	
Catholics	23	
Jews	21	

POLITICAL PARTIES AND RELIGION



We might anticipate a future article at this point and add that there do not seem to be significant differences in income among C. I. T. graduates that can be attributed to religious affiliation. In fact, we might make the broad generalization that, in the fields of science and engineering, religious affiliation is of little significance, either while the student is getting his education or afterwards, when he is working in his professional field.

When Havemann and West reported on the U. S. college graduate, they stressed the very significant finding that although their survey had been preceded by 15 years of the New Deal and the supremacy of the Democratic party, they found there were still more Republicans than Democrats among their graduates—38 percent versus 23 percent. The authors stressed the point that, contrary to the accepted mythology, the college graduate is not a “radical” who would like to initiate new forms of government, but is in fact even less unconventional than the New Deal Democrat. Their results indicated that U. S. college graduates are essentially conservative Republicans.

It was good enough for father

The Caltech alumni are no exception to this observation; in fact, our alumni are even more Republican (56 percent) than are U. S. college graduates in general (38 percent). A partial explanation of this high percentage of Republican party affiliation probably lies in the often observed fact that sons tend to adopt the political party preferences of their fathers. This apparently is what has happened here, because while equal percentages of U. S. and C. I. T. graduates have the same political affiliation as their fathers, 67 percent of the fathers of C. I. T. alumni were Republican, while only 56 percent of the fathers of U. S. graduates belonged to this party.

<i>Fathers' political affiliation</i>	CIT	U.S.
Republican	67%	56%
Democratic	33	44
<i>Alumni political affiliation</i>		
Same as father's	58	58
Different party	14	10
Independents	28	32
<i>Alumni party affiliation</i>		
Republican	56	38
Democratic	12	23
Independent	32	38
Other party1	.4

A sizable portion of the Caltech alumni (32 percent) list themselves as Independent in their party affiliation. That is, one out of three will vote as he sees fit, regardless of party labels. This independence was revealed in several ways. The questionnaires were circulated in the fall of '52, immediately before the Republican landslide, yet even at that time 2 percent of the Caltech Republicans were planning to vote for the Democratic candidate, and 64 percent of the Democrats were plan-

ning to vote for the Republican candidate.

Also, in response to the opinion item, “When the public is really concerned about an issue, its judgment is usually correct and unassailable, no matter how complex the issue,” 77 percent of our alumni disagreed. They are seemingly not prepared to accept the truth of a majority opinion, lock, stock, and barrel, just because it is the opinion of the majority. However, this independence of thought is not carried to the point of social irresponsibility. In checking the statement, “What one does with his life is not very important, except to oneself,” 91 percent disagreed.

This matter of political independence seems to be connected with important personal traits and attitudes, rather than just representing a political and ideological vacuum. For instance, take the matter of grades. Now, any Caltech professor would agree that the high grades in courses should be given for independent thought and study, for analysis and synthesis of complex interrelationships, for the ability to take into account all important variables.

If this is how you get As, then this may be how you become an Independent in politics, because there is a steadily decreasing percentage of college graduates who are political Independents as you go from those who got mostly As to those who got mostly Cs.

	CIT	U.S.
<i>Independent political affiliation</i>		
Of those who got mostly As	38%	42%
Of those who got mostly Bs	30	35
Of those who got mostly Cs	27	31

Independents—and arteries

Political independence also decreases as the arteries harden. As one gains status and prestige, economic and professional security, and a strong stake in the status quo, the lure of change and innovation dims. As this process goes on, political independence decreases and party affiliation increases, particularly affiliation with the Republican party. The figures below clearly indicate these progressive changes.

<i>Years after graduation</i>	<i>Independents</i>		<i>Democrats</i>		<i>Republicans</i>	
	CIT	U.S.	CIT	CIT	CIT	CIT
1 to 10.....	36%	45%	15%		49%	
10 to 20.....	32	41	12		56	
20 to 30.....	24	37	8		67	
More than 30....	19	30	7		74	

There will be more on this matter of the independence of thought among Caltech alumni, as it appears to be an important characteristic and occurs in many diverse ways.

This is the second in a series of articles discussing various aspects of the questionnaire survey of alumni which was conducted last year. Next month Dr. Weir, Associate Professor of Psychology, and the man responsible for the survey, will discuss alumni opinions and attitudes.