

THE CALTECH ALUMNI SURVEY

HERE, AND ON THE FOLLOWING pages, are the initial results of the questionnaire survey mailed out to all Caltech alumni in the summer of 1952.

The questionnaire is based on one sent out in 1947 by *Time Magazine* to college graduates from the class of 1884 to 1947. The replies to that questionnaire, from 9,064 graduates of 1,000 colleges, resulted in a study published in 1952, *They Went to College*.

By using this questionnaire, it has been possible to compare Caltech graduates with the random cross-section of American college graduates studied in *They Went to College*. The column headed "Percent U. S." in the tabulation below gives the percentages for these 9,064 college graduates.

Out of a total of 5,647 questionnaires sent out, 3,800

were completed and returned. Because 130 of these were from members of the Alumni Association who had not received degrees from Caltech, they were discarded—leaving a net total of 3,670 for tabulation.

Since such a large number of questionnaires were returned, a difference of *one percent* in the survey figures is statistically significant—either in a Caltech-U. S. comparison, or between two different Caltech percentages.

The figures below are just the bare bones of the Caltech alumni survey. In future issues of *Engineering and Science*, Dr. John R. Weir, Associate in Psychology at the Institute, and the man responsible for this survey, will clarify, interpret and explain various aspects of these tabulated percentages.

	Percent Caltech	Percent U. S.
From what high school did you graduate?		
Southern California	53	
Rest of California	7	
Rest of West	10	
East	8	
South	6	
Foreign	4	
Please give us your college record (highest degree earned)		
Bachelor's from Caltech	45	
Master's—Caltech (2/5 Caltech B.S.)	26	
Master's—non-Caltech (all Caltech B.S.)	6	
Engineer's—Caltech (1/4 Caltech B.S.)	3	
Engineer's—non-Caltech (5/6 Caltech B.S.)	3	
Doctorate—Caltech (1/4 Caltech B.S.)	14	
Doctorate—non-Caltech (3/4 Caltech B.S.)	6	
Undergraduate major		
Biology	2	
Chem. & Biochemistry	9	
Geology & Geophys.	5	
Math. & Astronomy	3	
Physics & App. Phys.	11	
Chem. Eng. & Applied Chem.	8	
Civil Engineering	12	
Electrical Engineering	19	
Mechanical Engineering	29	
Engineering	68	47
Science	30	53
Military	2	

	Percent Caltech	Percent U. S.
Graduate major		
Aeronautics	18	
Astronomy & Astrophysics	.3	
Biology	2	
Chemistry	10	
Chemical Engineering & Applied Chemistry	5	
Civil Engineering	7	
Electrical Engineering	14	
Geology	6	
Geophysics	1	
Mathematics	2	
Mechanical Engineering	10	
Meteorology	5	
Physics & Applied Physics	12	
Business Administration	2	
Law	2	
Medicine	1	
Humanities	.2	
Other, such as social sciences	3	
Year of bachelor's degree		
'96 to '19	1.6	14.4
'20 to '29	14.1	20.0
'30 to '39	27	34.4
'40 to '47	35.6	31.2
'48 to '52	21.7	—
Year of highest degree		
'96 to '24	5	
'25 to '29	6.4	
'30 to '34	10.4	
'35 to '39	12.8	
'40 to '44	15.6	
'45 to '49	26.5	
'50 to '52	23.3	

	Percent Caltech	Percent U. S.
In the light of your post-college experience, and if you had it to do over again, would you attend the same college?		
Yes	88	81
No	12	19
Do you now feel satisfied with your selection of a major subject when in college?		
Yes	85	75
Wish you had chosen another major?	15	25
Did you have a job while attending college?		
No	4	29
Yes, both summers and school term	59	
Yes, summers only	28	
Yes, school term only	5	
In military service at time of college	4	
What proportion of your total expenses did you earn yourself?		
Less than 25%	39	42
25 to 50%	26	20
50 to 75%	14	14
75 to 100%	4	
In military service at time of college	4	
Did you have a scholarship at any time while in college?		
No	58	
Under \$100	2	
\$100 to \$300	15	
\$300 to \$500	8	
Over \$500	11	
In military service at time of college, or G. I. bill	6	
Number of extra-curricular activities		
None	13	
One	26	
Two	27	
Three	18	
Four or more	16	
Were these activities of value after college?		
Of those who participated,		
Yes	68	
No	32	
Of those who did not participate,		
Would, if went again	50	
Would not, if went again	50	
What specific occupation did you when in college plan to follow; have followed during most of adult life; might follow in future?		
All same field	84	80
Adult life same as college, future different	3	
Adult life different, future same	1	
Adult life and future different from college	12	
In your present job, do you consider yourself		
More successful than the average	69	
As successful as the average	29	
Less successful than the average	2	

	Percent Caltech	Percent U. S.
Did your parents attend college?		
Both yes	25	11
Both no	49	68
Father yes, mother no	18	15
Mother yes, father no	8	6
Does (or did) your father vote mostly		
Republican	56	56
Democratic	27	44
Don't know	17	
Do you consider yourself		
Republican	56	37
Democrat	12	23
Other party	.1	.4
Independent	32	38
As you feel now, how will you most likely vote in the 1952 election?		
Democratic	13	
Republican	76	
Other party	.2	
Depends	11	
Number of civic activities		
None	2	
One	6	
Two	17	
Three	22	
Four	16	
Five	11	
Six	8	
Seven or more	18	30
What one does with his life is not very important, except to oneself.		
Agree	7	
Disagree	91	
No opinion	2	
Religion has little to offer intelligent, scientific people today.		
Agree	21	
Disagree	65	
No opinion	14	
When the public is really concerned about an issue, its judgment is usually correct and unassailable, no matter how complex the issue.		
Agree	17	
Disagree	77	
No opinion	6	
The best government is one which governs least.		
Agree	60	52
Disagree	32	35
No opinion	8	13
Democracy depends fundamentally on the existence of free business enterprise.		
Agree	71	72
Disagree	23	18
No opinion	6	10
Government planning should be strictly limited, for it almost inevitably results in the loss of essential liberties and freedom.		
Agree	65	51
Disagree	28	36
No opinion	7	13

	Percent Caltech	Percent U. S.
Individual liberty and justice under law are not possible in Socialist countries.		
Agree	36	46
Disagree	50	33
No opinion	14	21
We are not likely to have lasting peace until the U. S. and its allies are stronger than all the other countries.		
Agree	47	40
Disagree	41	48
No opinion	12	12
If we lower our tariffs to permit more foreign goods in this country, we will lower our standard of living.		
Agree	9	20
Disagree	82	65
No opinion	9	15
Deep ideological differences between countries are irreconcilable.		
Agree	19	26
Disagree	71	58
No opinion	10	16
If we allow more immigrants into this country, we will lower our standard of culture.		
Agree	7	19
Disagree	84	69
No opinion	9	12
The United Nations should have the right to make conclusions which would bind members to a course of action.		
Agree	66	78
Disagree	22	10
No opinion	12	12
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.		
Agree	56	58
Disagree	29	27
No opinion	15	15
All Americans—Negroes, Jews, the foreign born, and others—should have equal opportunity in social, economic and political affairs.		
Agree	92	80
Disagree	5	13
No opinion	3	7
Foreigners usually have peculiar and annoying habits.		
Agree	10	18
Disagree	80	68
No opinion	10	14
Children of minority groups or other races should play among themselves.		
Agree	4	7
Disagree	91	86
No opinion	5	7
Agitators and trouble-makers are more likely to be foreign born citizens than native Americans.		
Agree	15	32
Disagree	68	53
No opinion	17	15

	Percent Caltech	Percent U. S.
There are many worthwhile and important concepts which cannot be proved scientifically.		
Agree		79
Disagree		11
No opinion		10
The harnessing of atomic energy will bring about fundamental changes in our economic and social order.		
Agree		61
Disagree		30
No opinion		9
The government should promote and subsidize research in the social sciences.		
Agree		42
Disagree		43
No opinion		15
There will be as many or more scientific discoveries, inventions and technological changes in the world during the next fifty years as there were during the past fifty years.		
Agree		91
Disagree		4
No opinion		5
We now have enough scientific and technical knowledge to substantially eliminate poverty, disease and ignorance in the world, if we would apply our knowledge.		
Agree		62
Disagree		29
No opinion		9
The government should promote and subsidize research in the physical and biological sciences.		
Agree		50
Disagree		39
No opinion		11
Do you now go to church		
Every week		13
Pretty regularly, but not every week		16
A few times a year		21
Rarely		26
Not at all		24
Were you brought up as a		
Protestant		84
Catholic		7
Jew		5
Other		4
Is your age		
Under 30 years		32)
30 to 39 years		40)
40 to 49 years		20
50 and over		8
		19
Is the place where you were born		
A farm		9
A small town (2,500 pop.)		15
A small city (25,000 pop.)		19
A medium city (100,000 pop.)		19
A big city (500,000 pop.)		14
A metropolis (over 500,000 pop.)		24

	Percent Caltech	Percent U. S.
Is the place where you spent most of your pre-college years		
A farm	6	10
A small town	11	20
A small city	22	24
A medium city	22	17
A big city	14	12
A metropolis	25	17

Is the place where you spent most of your post-college years		
A farm	.5	
A small town	3	
A small city	15	
A medium city	24	
A big city	18	
A metropolis	39	

Is the place where you are living now		
A farm	1	3
A small town	4	14
A small city	18	22
A medium city	21	18
A big city	18	16
A metropolis	38	27

Is the place where you were born		
In California	35	
In the West	13	
In the Midwest	23	
In the East	13	
In the South	8	
Foreign	7	
Possessions	1	

Is the place where you spent most of your pre-college years		
In California	56)	
In the West	10)	10
In the Midwest	14	34
In the East	9	36
In the South	6	20
Foreign	4	
Possessions	1	

Is the place where you have spent most of your post-college years		
In California	70	
In the West	4	
In the Midwest	6	
In the East	11	
In the South	6	
Foreign	2	
Possessions	.4	

Is the place where you are living now		
In California	64	
In the West	6	
In the Midwest	7	
In the East	11	
In the South	9	
Foreign	2	
Possessions	1	

Were your college undergraduate grades

Mostly As	22
Mostly Bs	50
Mostly Cs	28
Mostly Ds (1 individual)	0

Income from occupation

Less than \$1,000	4.2
\$1,000 to \$5,000	13.6
\$5,000 to \$7,000	27.7
\$7,000 to \$9,000	25.4
\$9,000 to \$19,000	26.2
\$19,000 and over	2.9

Income from consulting fees

None	88.7
\$100 to \$500	.6
\$500 to \$900	1.8
\$1,000 to \$5,000	5.0
\$5,000 to \$100,000	1.9

Income from other sources

Under \$1,000	87.1
\$1,000 to \$2,000	9.3
\$2,000 to \$6,000	9.4
\$6,000 to \$50,000	3.2

Total income

Under \$5,000	12.4
\$5,000 to \$8,000	37.2
\$8,000 to \$11,000	29.1
\$11,000 to over \$100,000	21.3

Occupational fields

	Percent Caltech	Percent '37 Survey*
Research & development	29.6	15
Administration	14.8	2
Design	10.9	14
Teaching	8.8	6
Production & operation	5.1	6
Military	5.1	**
Construction & maintenance	4.9	6
Student	3.3	**
Selling & advertising	3.0	3.5
Field Work	2.2	13
Consulting	2.0	**
Laboratory	1.7	14
Law	.7	.5
Insurance	.6	1
Medicine	.4	**
Statistics	.4	1
Accounting	.3	1
Finance	.1	1
Other	6.1	16

How many people directly or indirectly are responsible to you

None	20
1 through 5	28
6 through 19	22
20 through 199	23
200 and over	7

* 1937 survey of Caltech alumni

** Not tabulated