Portrait of a C.I.T. Graduate

MAGAZINE editors are eternally consumed with a curiosity about their readers, and rightly so; for the success of any publication rests on its ability to adequately service the particular group to which the magazine is directed. The editors of **Engineering and Science,** for instance, need to know a great deal more about its readers than the fact that you are all C.I.T. graduates (important as that is, in itself). We are interested in your home life, your hobbies, your professional interests and activities, your sphere of influence, and of course the level of your income, which, let us say, will some day have a relative influence on your preference for butter or margarine.

Motivated by this curiosity, we seized the opportunity afforded by the recent Alumni Seminar at the Institute to bombard you with a simple and somewhat unscientific questionnaire — unscientific because we can't be sure that our small sample represented by the attendance at the Seminar was typical of the entire alumni group.

In spite of the inadequacy of the questionnaire, we did secure information which provides a basis for some idle speculation. We aren't sure that our summary of your replies proves anything — it probably doesn't. For what the portrait is worth, here is the composite Caltech alumnus as reflected by our **Engineering and Science** questionnaires.

THE COMPOSITE ALUMNUS

Our typical alumnus, Joe, for short, has an income—estimated from our study of the figures—of a bit over $5,000 annually. However, after Joe has been out of C.I.T. for over 10 years, his chances of being above the $5,000-$7,500 per year bracket are 62 in 100. His chances of hitting above the $7,500 level after 10 years are 16 in 100. Not all of those who turned in questionnaires answered this one on income. The tabulation on the 92 per cent who did, looks like this:

ANNUAL INCOME OF C.I.T. ALUMNI ATTENDING 1946 SEMINAR

Annual Income	All Classes	Out of C. I. T. 5 Years or Less	Out of C. I. T. 5 to 10 Years	Out of C. I. T. Over 10 Years
Under $2,500	1.0%	5.6%	.....	.....
$2,500–$5,000	46.5%	72.2%	48.3%	38.7%
5,000– 7,500	40.5%	22.2%	44.8%	43.6%
7,500–10,000	10.0%	.....	3.45%	16.1%
Over $10,000	2.0%	.....	3.45%	1.6%

INFLUENCE ON SPECIFICATION AND USE

To our gratification, our notion that Joe is a very influential citizen received rather substantial documentation. Individually, he influences product purchase, specification, and use to the extent of an impressive $101,933 per year. Collectively (if our individual figure is correct) this influence for the graduate body is a staggering $437,292,570 annually. This figure is practically pure speculation, but it's fun to speculate, and here's how we arrived at a conclusion. We asked, "Do you make decisions which influence the use, specification, or purchase, of engineering, scientific, or office equipment or components?" of the 95 per cent who answered this question, 78 per cent replied in the affirmative, and of this number 27 per cent hazarded an estimate in dollars annually. The total amount estimated was $3,058,000, or $101,933 per alumnus estimating. Since C.I.T. has a graduate body of approximately 5,500, of which our sample indicated that 78 per cent influence product, use, etc., and since our average influence was $101,933, we arrive at a total of $437,292,570 annually.

SUPERVISORY STATUS

In addition to exerting influence on product purchase, specification, and use, Joe apparently directs the activities of a substantial number of subordinates. Average per alumnus reporting was 5.3 engineering and scientific personnel, and 80.3 non-technical personnel. Again allowing the free play of arithmetic and imagination, we find that C.I.T. graduates probably supervise the activities of 331,237 workers. Of this number, 21,862 are engineering and scientific personnel, and the remainder clerical, shop, and non-technical workers. As is to be expected, length of time after graduation and number of people supervised has a direct relationship.

This is the summary:

SUPERVISORY STATUS

C. I. T. Graduates	Supervision of Scientific Personnel, Each	Supervision of Other Workers, Each
16 per cent (less than 5 Years)	1.7	1.4
30 per cent (5-10 Years)	4.3	7.5
54 per cent (10 Years and Over)	6.9	144.1

OVER-THE-SHOUDER READER OF E & S

Some of our esteemed contemporaries in the publication field (like **Life** and **Fortune**) quote imposing figures on circulation. Not satisfied with the impressive totals on actual paid circulation, they go on to quote even more stupendous figures on "over-the-shoulder" readership. This makes us wonder about our typical C.I.T. alumnus who receives Engineering and Science. Does he leave his copy on the table in his reception room or on the end table at home? Apparently he does both, for our Engineering and Science survey supplies us with the following answer. Replies indicated that at least five persons other than

the subscriber read each copy of the magazine and that of these, one-third are in the homes of alumni and two-thirds are in the offices of alumni.

PREFERENCE ON FREQUENCY OF ISSUE

Of course we wondered how many months out of the year you like to receive your alumni magazine, so we asked, "Would you prefer publication on a twelve-time basis, a nine-time basis, on some other basis, or not at all?" To our surprise, none of you checked the "not at all". There should have been at least one dissenter!

The tabulation of your replies showed:

Favoring	12-	time	publication	annually—	79	per	cent
"	9-	"	"	"	18	"	"
"	6-	"	"	"	2	"	"
"	4-	"	"	"	1	"	"

Since E & S is currently published on a monthly basis, this may be regarded as a vote of confidence. To a degree, we believe that it may be thus regarded. However, we are inclined to think that there is always a substantial vote for the status quo and it may be that the votes of the 21 per cent who favor publication at a less frequent interval have greater significance that the 79 per cent favoring the state of things as they are. We would like to hear more on this point and are curious to know how you would have answered had the question been rephrased to read: "Would you feel a serious loss if you received your copy of E & S only nine times, instead of twelve times, annually?"

MISCELLANEOUS INFORMATION

For no particular reason, we asked what oil company credit cards you had in your possession, and tried to check your mental reflexes on western railroads. We are at a complete loss to know what your replies indicated—maybe you can tell. But one fact is clear, oil companies regard C.I.T. graduates as good credit risks.

You said that you had the following credit cards (percentage basis):

Associated	6
General Petroleum	12
Richfield	7
Shell	14
Standard	28
Texaco	10
Union	23

The name of the first railroad entering your mind was (percentage basis):

Southern Pacific	41
Santa Fe	36
Union Pacific	20
Other	3

Unfortunately, we believe the score of "The Harvey Girls" had an undue influence on your replies to this question.

SUGGESTIONS ON IMPROVING ENGINEERING AND SCIENCE

In a moment of humility we asked for suggestions on improving the magazine. Suggestions and percentage commenting are listed below:

Less technical articles	10
More technical articles	10
Larger magazine with more articles	14
More alumni news	18
More Wallace Sterling	8
More about C. I. T.	15
* All-out confidence	25

We shall do our best on all of these points. When you feel that we are publishing too many technical articles you can figure that we are attempting to satisfy those who yearn for knowledge. When we publish too few technical articles, it will be because we hope to please those of you whose interests are more general.

Thanks to all of you for answering our somewhat impertinent questions. We enjoyed reading your replies and we believe we succeeded in securing some information which will be helpful to the editors in preparing future issues of **Engineering and Science.** However, our editorial curiosity is never completely assuaged, and on another day we hope you will permit us to delve still deeper into the facts surrounding your existence.

* To the faithful, our most sincere gratitude.