## Opinion

In his concluding remarks at the 90th annual commencement, Caltech President Marvin L. Goldberger issued a timely, and serious, message for this election year.

THERE IS MUCH to be serious about, as you well know. Students used to be insulated from most of the problems in the world outside the campus, but that hasn't been the case for many years now. I shall spare you the list of problems that fill the popular journals and the radio and television news programs — an unending series that seems to be without any reasonable solutions. In this election year we get an added dose of unreality in the posturing and sloganeering that unconvincingly promise so much. Unlikely though it seems, November 6, 1984, is almost upon us. I can promise you that all the current problems will still be there for you to solve.

How can you contribute to the solutions that are so desperately needed? For some of you the answer will be to join industrial firms (or become entrepreneurs and start them yourselves) and bring your various specialties to bear on making new products, improving old ones, and increasing the efficiency of production - making vast amounts of money. all of which you'll give to Caltech. For others the answer is to continue in universities, generating knowledge and reproducing yourselves in your students. Those are the two paths that Caltech students have followed historically, and for good reason. Both these kinds of careers offer not only personal rewards but genuine opportunities to contribute to the solution of difficult and important problems. However, on this occasion I want to urge you to think about another course, one that departs from the traditional careers for women and men with scientific, technical training.

Think about becoming involved in politics — in one or another aspect of the political process. Not a single one of the problems we have been talking about is missing a strong technical component. Start with the local scene. There are the problems of smog. local and freeway traffic, fires and floods in the hills. At the regional level there are the problems of earthquakes, water resources and environmental pollution. At the state level we face the collection of problems associated with large-scale agriculture and industrial employment. And so on, right up to the problems of national defense and arms control. It is a tragedy that we do not have engineers and scientists making decisions at all levels from local neighborhoods, through city and state government, to the federal government and beyond, in international relations.

Caltech alumni, faculty, and administrators have taken important appointments in government — I'm thinking of people like Si Ramo, Dick DeLauer, Eb Rechtin, Lee DuBridge, Harold Brown. The advice of Caltech research specialists is often sought by government agencies, and some of you may have taken part in research that was carried out for that purpose. But we have never to my knowledge had a governor from Caltech and only a couple of congressmen. There has been one senator - Harrison H. Schmitt. who received a Caltech BS in geology in 1957 and, after a slight detour to the moon, became a United States Senator; still, one out of 16,000 plus Caltech graduates is not nearly enough. And they are needed, not only by us here but by the country and the world.

But why am I setting my sights so low? I'd like to see a Caltech graduate as president — one of you, say, in 2004. So go for it, and I promise to do everything in my power to be there for the inauguration. $\Box$