

we are not but most of us who work in the area feel we are very short on Ph. D. physicists, chemists, mathematicians.

There is no unemployment among them, shall we put it that way. I think the impact on this group is considerably greater.

Mr. TRYTTEN. I would like to comment just a bit on one of your questions or queries or statements with regard to the long-range effect of this sort of thing.

In the first place there is no Federal agency that I know of that has the responsibility of examining the national needs and relating them authoritatively to national manpower policy. There are bits and pieces of it in a variety of agencies. The Office of Education has some relevant statistics, BLS has some others. But nowhere is there a staff that I know of that is charged with the responsibility of bringing all these statistics together and relating them to national policy.

This, incidentally, is one of the contributions that Mrs. Vetter has made because she went to the extraordinary effort of getting this kind of information from the several places where it existed and putting it together and then getting reasonable agreement on the part of the people concerned that what she came up with was quite reasonable.

With respect to the impact here in the gross national product and productivity and so on, what you are really asking here is to measure something that doesn't happen. What happens if you don't have people of this kind. This is a very difficult thing to measure. I read recently, for example, an article in science written by Dr. Townes, formerly of Columbia, MIT, and now California.

He was a man responsible above other people for development of the laser and the maser and an extremely interesting study. This shows the kind of thing that grows out of the investigation of a person who is perfectly free to follow his own insights.

The problem we face here is that if we reduce the number we have here, we reduce the number of people who are free to follow their own investigating insights and tendencies and definite new applications of technology on which eventually industry is going to be based.

So that is about the only answer I think I can make.

Mr. BRADEMAS. General Hershey, I wonder if you could give us the benefit of any comment you may have on what kind of long-range manpower planning you and your colleagues get into in developing a policy of this sort and considering its impact on the Nation's supply of trained manpower?

General HERSHEY. We attempt to do a great deal of them individually and some collectively. I think perhaps the Office of Emergency Planning would be the one that would come nearer to having the overall responsibility.

Maybe the size of it and the width of their responsibility makes the water pretty thin in most places. They are one area we would go to to find out some of the things we would like to know.

One of the things we always would like to know is to find out what the Armed Forces anticipate but there again they have a very difficult problem, both in trying to figure out what the world is going to have and even as they figure it out there is not very much validity.

Probably if we find out 60 days ahead of when we are going to furnish individuals we are lucky. The only other comment I want to make and certainly I am not advising it for America but the last time I