

for some part of its funds as a way to develop this quality. Do you have any judgment on that?

Mr. Glass can pitch in here anytime he wants.

Dr. MACARTHUR. We certainly agree on that point. Nothing beats competition. Within our laboratory structure we cover the entire spectrum from no competition for funds to almost totally competitive. There are those which really do not have to compete for customers to keep the laboratory going to those which have become "job shops" for their customers, with few, if any, longer range programs. The optimum is somewhere between these two extremes.

Mr. GLASS. We believe that a laboratory should have to compete for at least 25 percent of its funds in order to stay healthy. In the Navy, many laboratories have to compete for 80 to 90 percent of their funds from various sponsors. This is considered to be too high a percentage and we now have a program underway to provide most of their research and exploratory development funds on a less competitive basis. On the other hand, within the Air Force, we have a system of "block funding" of laboratories. The Air Force laboratories are not dependent at all upon customers for their support. We feel that if we can inject a greater element of competition here, it will probably create a healthier situation.

Mr. DADDARIO. Again, considering the objective being to upgrade the quality of laboratories and keep them there, this kind of makes up for the difference.

Mr. GLASS. It couples these laboratories more closely with their customers; the customer has a feeling of responsibility for them, a feeling of using them more effectively also when they have to pay for that service.

Mr. DADDARIO. Could you give us an example of why you believe that to be the case?

Mr. GLASS. The case of, let's take Dr. McLean's laboratory where a great deal of his money comes from the Navy Systems Command and he can work very closely with a Navy systems command because he is, in essence, their major performer. They will bring him into the planning stages, the discussion stages on new systems early in the game and thereby give the laboratory more direction as to what they should do and give the sponsoring agency a better interface with the laboratory during these initial stages. It also gives a laboratory an effective way of injecting new ideas into a new program.

I think that when a laboratory works for a customer such as a systems command in the Navy or a special project office in the Air Force, they have a tendency to work more effectively and much closer together toward a common goal.

Mr. DADDARIO. Are you in agreement with Dr. MacArthur regarding this discretionary authority?

Mr. GLASS. Absolutely.

Mr. DADDARIO. I think we had better move along.

SUPPORT ON NON-DEFENSE AGENCIES

Dr. MACARTHUR. The performance of work on a reimbursable basis has been rather significant within the DOD both among the services, as I indicated earlier, and particularly with the AEC and NASA.