

In summary, resident instruction provided the educational opportunity to develop qualified research workers in the agricultural sciences.

Then, through the activities of agricultural experiment stations established at the land-grant institutions, many of these research workers addressed themselves to the complex questions of improving both the quality and the yield of agricultural products.

Finally, the cooperative agricultural extension program provided the workers, supported by local, State, and Federal funds, who undertook the help the farmer to apply in his daily activities, the advances in knowledge the techniques resulting from the research done at the experiment stations.

In the light of the fact that the original Morrill Act of 1862 specifically identified "the mechanic arts" as an area of concern parallel to that of agriculture, it is not surprising that there has been a long history of interest and activity at land-grant institutions in today's "mechanic arts," that is, engineering and technology.

Until the enactment of the State Technical Services Act, this activity provided only limited opportunity to small business and manufacturing concerns for communication and participation in new developments along the lines that the cooperative extension services had provided and had proved to be so effective in agriculture.

Most of our institutions have gone to strong public service programs which usually take the form of continuing education courses and problem solving units.

All of our institutions have programs with business and industry; but because of limited institutional funds in many institutions, extension work with businessmen and industrialists usually has had to be largely self-supporting, with the cost being paid by fees for the service.

While the participants in these programs have undeniably benefited, they also have tended to come from those organizations which are large, progressive, and prosperous.

From the standpoint of society, this group of individuals needs continuing education less than a very large number of smaller business and manufacturing firms who generally have not participated because of a lack of money to do so.

The existing programs are based on willingness and ability to pay for continuing education and have tended to curtail the contribution to greater productivity which the many smaller concerns might have made if they had had access to technical knowledge relevant to their needs and problems.

While a few universities have received substantial support from State government for such extension work, this has almost invariably resulted from vigorous efforts by enlightened and influential businessmen at the State level.

These instances were used as illustrations of what could be done in testimony which was presented when the act was first being considered by the Congress.

The State Technical Services Act, new and funded at a low level, has already begun to help business and industry in many other States to achieve the same sort of results.

A number of studies have been made on encouraging innovation and the utilization of new technological ideas, all of which show that