Unfortunately we have no simple solution to the problem of economic growth. Our efforts to enhance the welfare of other less developed nations have met with only moderate success in most cases. In some instances we admit almost total failure despite the expensive programs organized. Nevertheless, we are reasonably sure of some factors which are associated with growth. These factors, which I believe contribute to growth, shall be pointed up in this discussion. Those which are very general and of little application to specific conditions in Missouri I shall briefly enumerate in order to provide more time for those that fall directly within the scope of your professional training and which are also not so well recognized by the general public.

Within the first category of general conditions for growth I would place such well-known factors as (1) the maintenance of law and order, (2) the assurance of property rights to entrepreneurs and prospective entrepreneurs, (3) the provision of incentive for enterprise, and (4) health and energy of the people. These factors appear so obvious that I will not comment further on them.
Of the less obvious factors contributing to growth, I would place at the top of the list education and training of the population. I do not mean exclusively formal education, but rather education in total. This includes formal education in our school systems, on-the-job and apprentice training, adult education programs, general education of the public through the news media, demonstrations of more efficient practices, and the dissemination of printed information. An excellent example of an educational demonstration is the Weldon Springs beef-fattening project. I note from January 1 data that cattle on feed in Missouri are up 15 per cent from year-ago levels, the largest increase of any corn-belt state. Although we cannot definitely attribute the gain to the demonstration, surely it was a favorable influence.

It is through the training or capitalization of the human agent of production that we can explain the rapid recovery of Germany and Japan following World War II. We had destroyed a large portion of the physical capital in each of the nations. In fact, they had little more than some of the so-called under-developed nations. Yet, within a decade of the close of the war, both nations were quite prosperous again. The factor which we failed to destroy during the war and which permitted the rapid recovery of these nations was the training and "know-how" of the people of Japan and Germany. With some aid toward replenishing their physical capital stock, both were shortly back in production and within a few years were exceeding pre-war levels of output.
Our own production revolution in agriculture can largely be explained by training of individuals rather than through new capital inputs. Farm employment in the nation declined from 10 million workers in 1930 to less than 4 million in 1967. The physical volume of farm production, however, increased sharply during this period. In fact, farm output almost doubled, rising from 60 per cent of the 1957-59 base in 1930 to 118 per cent last year. The physical volume of farm output per worker rose fivefold during the period. Some new capital was added to agriculture. Acres in farms rose 7 per cent. The number of livestock on farms rose about 75 per cent and the number of tractors tripled. The gains in new capital, however, were quite small in relation to the gains in farm output per worker. The difference can largely be attributed to technical training, which is the result of research both on and off the farm.

It is difficult to quantify the gains to national welfare resulting from education and training. While we have much data on the gains in agriculture, other segments of the economy have likewise moved forward. The gains per worker in the nonfarm sector, plus the output from new workers released from the farm sector, have greatly increased total output per worker for all sectors.
Because agriculture employs such a small portion of the labor force, the rate of total growth resulting from gains there will be less in future decades. The nation's farms currently employ only about 5 per cent of all workers. Further reductions in this area will thus account for relatively small gains in the other 95 per cent of the labor force. Thus we may be approaching the end of our major growth push resulting from the revolution in farming. On the other hand, we are probably beginning a stepped-up revolution in the nonfarm sector. We already have the "know-how" as we did in agriculture in the 1920's and early 1930's. Now our problem is to organize producers and firms so as to put the "know-how" into practice. Much of the hardware for transferring tedious office work to machines has already been perfected. Now the job lies with the motivators and the market. In other words, we need the same type of job in the nonfarm sector that was performed by the agricultural extension service and other specialists in the farm sector during the past three decades.

The vision and willingness to let the market forces work in the allocation of resources as it did in farm labor is a prerequisite for maximum growth. For example, agriculture would not have made its vast contribution had we not found employment in the nonfarm sector for the released workers. It is possible that we may have
similar releases in offices, in transportation, or in retailing during the next few decades. If we can send tons of explosives around the world in unmanned vehicles, I see no reason why we cannot find low-cost means of transporting consumer goods between domestic cities with greatly reduced human effort. If benefits are to be gained, however, we must let market forces adjust our labor force and other resources. This brings me to the next factor for growth, namely, willingness to permit change.

To obtain maximum gains from new technology, we should keep to a minimum all obstacles to resource adjustments. Some of the obstacles internationally are readily apparent. For example, the farm protectionist policies of Western Europe which limit imports of our farm products in order not to disturb their inefficient farming operations are readily observable. Our local and national obstacles, however, are less noticeable, yet no less real. Monopolistic practices of businesses and professions which limit entry can be just as brutal as international trade barriers. Trade union practices which discourage apprenticeship training through illegal racial practices or unduly difficult or lengthy training periods and thereby limit numbers below levels warranted by supply and demand conditions fall into this same category of obstacles to growth.
Some of our obstacles are even imbedded in the legal framework of state and national governments. Included in this category are obstacles to the free movement of goods and capital at market rates. Nonsensical health regulations often hamper the free movement of dairy products and other foods from low-cost to high-cost areas. Excessive interest rate restrictions have, in some instances, hindered normal flows of capital and even now limit the sale of certain government securities.

My last condition or route to maximum growth is stability of values. Although not more applicable to Missouri than to any other state, a stable price level is important to all. I don't have to dwell on the damage caused by recessions and depressions. Most of us know about the lost effort caused by unemployment and idle resources in the 1930's. Fortunately, we have had a relatively small amount of such loss since World War II. Nevertheless, the possibility of such loss should be constantly guarded against. It is to the danger and loss due to price inflation that I want to direct most of my remaining remarks. This is an area not well understood by the public and one in which the "experts" often disagree. Yet excesses here may be just as damaging to growth as recessions and depressions. As an approach to the problem, I might ask the question, "What would you do with your savings if you knew that we would have a price increase
of 15-20 per cent next year?" (about the rate in Brazil last year).
I think that you would search for some opportunity to maintain the
purchasing power of your savings. You would not necessarily be
interested in annual dividend payments or current interest returns.
You would be much more interested in maintaining the purchasing
power of your original stock of capital. You would thus tend to bypass
our savings institutions such as banks and savings and loan associations
and place your funds in areas where capital gains are more likely to
be achieved. This is one of the problems of inflation. The usual
sources of funds tend to dry up, and we move back to inefficient modes
of saving and investing. Yet savings and efficient savings institutions
are important determinants to growth. Thus, growth is hampered
when these institutions fail to function properly.

We all know the other damages to welfare from price inflation.
They include loss of real income to all fixed income participants such
as pensioners, those receiving social security benefits,
veterans and others. In addition, all creditors are damaged while
most debtors benefit. Studies at the Federal Reserve Bank of St. Louis,
which involved only moderate excesses in total demand, indicate that
in the long run increases in total demand for goods and services do not
lead to any predictable increase in real output as some have suggested.
However, in all cases, such excess demand is reflected in price increases.
Total demand is affected by both monetary and fiscal policies. In recent years both have tended to be excessively expansive. Thus, prices have trended upward. I believe that such price increases contribute to inefficiency, especially in the financial sector, and thereby retard growth. Thus, as educators and leaders in our community, I urge you to participate in an effort to achieve general price stability.

In summation, economic growth of the food and fiber industry in Missouri is closely allied to total economic growth in the nation, since we are all in one market. Yet growth and welfare within our own state are also related to education and training. Thus, to the extent that we can do a better job of training the people in our community, we can enhance its growth. It has been demonstrated that high wage industries move to areas where highly-trained workers are located.

We have been in an agricultural revolution for several decades. Other sectors of the economy have been growing, but at a somewhat slower pace than the farm sector. I suggest that we are now moving into a stepped-up revolution in the nonfarm sectors. Growth opportunities appear to be just as great in these areas as they have been in agriculture. To achieve the growth possibilities, however, the same type of educational job as has been done in agriculture will be necessary. Training
people to use modern machine methods and procedures is a necessity. Guarding against obstacles to the free movement of capital and labor is also essential. Finally, stability of prices is important, both for orderly growth and to avoid hardships in the distribution of income.

I believe that the University of Missouri Cooperative Extension Service can and will play a major part in achieving these objectives.