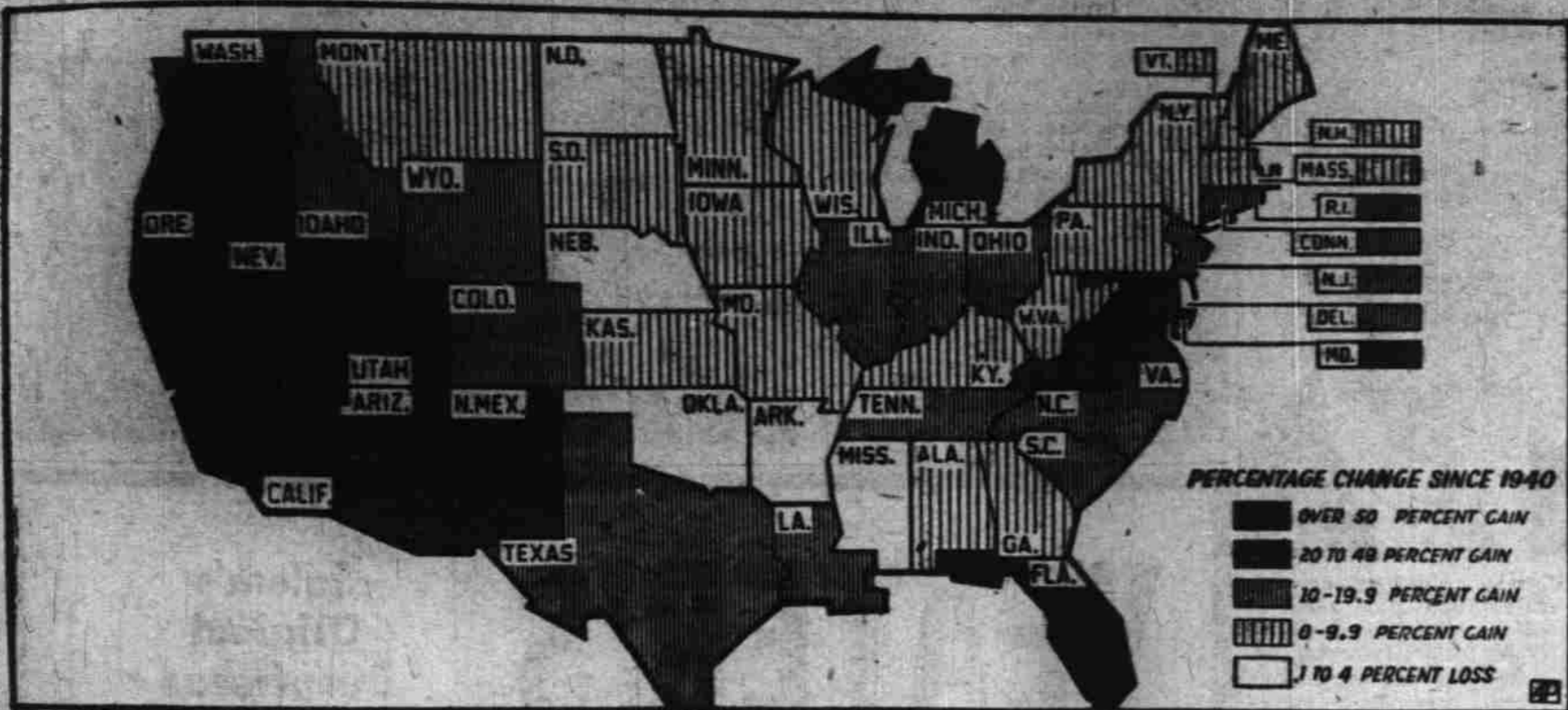


# 1940-50 United States Population Shifts by States Illustrated



## Noted Scientist Sees Dawning of Golden Age for Next Half Century

(Preceded—In the midst of war men of science are looking far ahead. They foresee a golden age within the next fifty years providing that advances in science are matched by the desire to use them for the betterment of mankind. Here is a conservative but nonetheless fantastic and fascinating picture of the future as predicted by one of America's foremost technical educators, on the basis of known facts and nearby discoveries. Dr. James H. Killian, Jr., the author, became president of the famed Massachusetts Institute of Technology at the age of 45 a year ago. A graduate of MIT in 1925, he has remained steadily with the institution and during World War II helped direct its vast program of research and training that reached to every active war front.—(AP))

By Dr. James H. Killian, Jr., President Massachusetts Institute of Technology (Written expressly for International News Service) Copyright 1950. Reproduction in whole or in part strictly prohibited.

CAMBRIDGE, Massachusetts—(INS)—In the half-century ahead we may expect from science a golden stream of new ideas, new products and new processes which will improve our health, prolong life, raise our standards of living and open new vistas to man's spirit.

A new age is within our reach, with this proviso: If we associate with advances in science a comparable advance in the techniques of using scientific results humanely. I recently polled a group of my colleagues to get their informed view of forthcoming developments in science and engineering. Let me describe some of their predictions, based on current developments.

### Three Dimensional

Obvious developments will include flicker-free three dimensional television, planes that can carry us from coast to coast in three hours, and new ways of storing or cataloging information that may revolutionize our libraries and our files.

Most encouraging is the promise that the next fifty years will see great advances in biology—the science of life. Each day is bringing us closer to unravelling one of the greatest mysteries of all—the difference between living and non-living matter.

New research tools are unlocking doors formerly closed.

Today tremendous magnifications of minute phenomena are possible. Further developments of electron microscopes and similar devices can be expected to enable us to see down to the dimensions of the smallest living organism. With a further improvement in ways of seeing the unseen, equal to that which microscopy has undergone in the past 20 years should help a great deal in solving the riddle of life.

### Defense Against Disease

Each step along this path helps us to be more effective in promoting good health and in combating disease. It is expected that research in the relatively near future may uncover some of the facts concerning the way in which the human body defends itself against disease.

With the information now at hand, science has made tremendous progress in developing disease-combating chemicals such as penicillin and the sulfa drugs. It is expected that the next few years will see these multiplied and may see the synthetic production of anti-biotics. The time is in sight when infectious diseases as we know them may be brought completely under control.

As the battle against infectious disease approaches the day of victory, attention is turning toward the study of old age and the degenerative diseases. Within the past two decades, life expectancy has been increased by about twenty years. Diseases of old age, therefore, provide the next big challenge.

The heavy artillery of medical research is being directed at such degenerative diseases as cancer, rheumatoid arthritis, and heart disease. That many forms of cancer will be controllable in the next half century seems within the realm of possibility due to the concentration of research on this disease.

### Hormone Study Vital

Finding out how hormones act in the body may represent a greater advance in the control of disease and the prolongation of life than the discovery that microbes cause disease. Already hormone therapy has brought almost miraculous results, especially in the treatment of arthritis. Use of hormones suggests that mental conditions may be sensitive to this treatment.

Research in brain chemistry and the effect of hormones on the nervous system is in its early infancy, but from what is now known it seems certain that further knowledge of the inter-relationships between the nervous system and the glandular system which supplies

the miracle-working hormones, will affect tremendously man's control over his physical and mental health.

Man's health and welfare are not solely dependent on advances in biology and medicine. They depend also on the supplies of food, water, materials and power which are available. Science is progressively developing ways of expanding our supplies of these necessities.

The world's food supply is being increased by the development of new fertilizers and new insecticides such as DDT and 666, which have increased agricultural yields. The developments of plant hormones promises further increase.

### Synthetic Foodstuffs

Then there is the possibility that we will be able to discover how plants through the green pigment chlorophyll succeed in storing energy from the sun in chemical form by synthesizing organic compounds such as starch and proteins. This knowledge might make it possible to produce synthetic foodstuffs. A development of this kind would carry us a long way in helping to solve the problem of feeding an ever-growing population.

To meet the power requirements of our scientific and technological progress new primary sources of energy are being explored—most notable at present, nuclear energy. Perhaps we might see nuclear powered ocean-going vessels before the end of the century.

Ways are also being developed for using solar energy, particularly for heating houses. Tapping the earth's internal heat as a source of energy provides another possibility which is also being explored. The first half of the century has seen a revolution, brought about by the development of synthetic products by the chemical industry. Textiles, pharmaceuticals, refrigerants—the flow seems to be endless of new products which can now be created in the test tube.

If synthetics provided the most revolutionary technological developments of the first half of the century, it is probably electronics which will provide the most revolutionary technological changes in the future.

Already automatic control equipment is making possible the mechanization of many business and industrial processes. Machines that can receive information and take action without human intervention are no longer a novelty. A sample is the thermostat which when it learns that the temperature of a room is too low, turns

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## 55 American Planes Lost to Enemy Action

WASHINGTON, Aug. 19—(AP)—The air force announced tonight that it had lost 55 planes to enemy action in the Korean war.

This figure does not necessarily cover all plane losses. The air force said it covered only losses known to the enemy. Any operational losses that may have occurred in American-held territory, where the enemy could not observe them, were not reported.

The announced figure included losses from fighter attacks, anti-aircraft or small arms fire from the ground and enemy strafing and bombing.

Two C-54 transports were lost by strafing and bombing. Other losses were six B-29 light bombers, one B-29 medium bomber, 24 F-51 piston-engined fighters, 17 F-80 jet fighters, four F-82 night fighters and one T-6 target spotter.

The air force said that crews of the far east air forces have claimed the destruction of 70 communist planes. In addition to these claims of planes definitely destroyed, the U. S. fliers have claimed 17 communist planes probably destroyed and 33 others damaged.

## Welfare Board To Distribute DP Orphans

The state public welfare commission will be the clearing house for all foreign-born orphans brought into Oregon under provision of the new displaced persons bill, Governor Douglas McKay's committee on displaced persons decided at a meeting here Friday.

Although 5000 displaced orphans will be permitted to enter the United States under terms of the new legislation it is not likely that more than 60 will come into Oregon, committee members said. Persons desiring to adopt one of the children must make application to the welfare commission in Portland. Following approval of such application by the commission the necessary papers will be sent to the displaced persons commission in Washington, D. C., for processing.

The department of agriculture says there are about 1,850 farmers' mutual fire insurance companies in the U.S.

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## Reds Regroup Power in Area North of Taegu

(Story also on page one.)

TOKYO, Sunday, Aug. 20—(AP)—The Korean reds north of Taegu appeared to be regrouping their power today for a smash. The main mass of their troops still was located between Waegwan, 12 miles northwest of Taegu, and Kunwi, 25 miles north of Taegu.

The fury of the fighting which broke the thrust from the north and crossed the Changnyong bridge was emphasized by a report from General MacArthur. He said that in a 24-hour period the reds suffered 5,684 casualties.

The red fourth division, routed at Changnyong, had been sent down from the Manchurian border. Associated Press Correspondent Jack Macbeth said a communist prisoner told U. S. 24th division officers that the division required 37 days to get to the Naktong line from Manchuria because of incessant air attacks.

The word of a new communist massing, apparently on the front before Taegu, main American forward base, came from an unconfirmed prisoner-of-war report via General MacArthur's headquarters.

The headquarters summary early today (Sunday) said the red first, third, 13th and 15th divisions were reported preparing for a new assault to breach United Nations defense lines.

### Area Not Located

The summary did not precisely locate the area, but said the enemy was probing in search of soft spots along the Naktong river. That is in the zone west of Taegu.

Contact with the enemy was broken off on the northern front a dozen or more miles north of Taegu, the summary related, and patrols penetrated four to six miles without finding red resistance.

### AP Correspondent Don Whithead

AP Correspondent Don Whithead had placed the red third, 13th and 15th divisions on that northern front in fighting Friday night (the implication was that they might have shifted farther southwest.)

### Building Reported

An enemy buildup also was reported on the U. S. 25th division front in the southernmost Korean war sector. The Tokyo summary said pilots spotted enemy troop concentrations in the vicinity 30 miles west and southwest of Masan. That is about 60 air miles southwest of Taegu.

In a Saturday dispatch shortly before the communications cutoff, AP Correspondent Stan Swinton reported from that southern front that the red sixth division was continuing to smash at the

Americans. He said the reports of a major buildup in the Chinsu area led to fears that the attack might develop into an offensive.

Elements of the U. S. marine first brigade and the 24th infantry division, who cracked the shell of the communist Changnyong bridgehead Friday, continued to smash at the retreating reds Saturday, with considerable help from the air.

### Strafed, Battered

Enemy troops fleeing from the marines and infantrymen were strafed, rocketed and bombed by marine and fifth air force planes as they swam or forded the Naktong in their effort to rejoin the main body of North Korean units on the west side of the river. Some reds escaped under cover of a smoke screen.

AP Correspondent Don Huth reported after a flight over the bridgehead in an observation plane that the U. S. troops appeared close to their goal of throwing the reds back across the river.

Huth said American artillery and planes had set fires in six villages on the west side of the river. Landing on Island

In the first allied action of its kind in the war, South Korean troops made a surprise landing Friday on Tokchok Island, 35 miles southwest of Inchon on the Korean west coast, after brief shelling of the island by British cruisers and destroyers.

Significance of the move was not explained by the spokesman at MacArthur's headquarters, who announced it. They did not disclose whether any Reds were found on the island.

In allied hands, the island could become an observation point covering enemy movements of troops and supplies by water from North Korea to ports on the southwestern coast of the Korean peninsula.

Sixty U. S. B-29s blasted rail yards, iron works, and port and dock facilities Saturday at Chingjin, 60 miles south of Russian territory on the northwest coast of Korea, with 550 tons of bombs. Thirty other B-29s hit Hamhung, 130 miles north of the 38th parallel. These blows by a total of 90 B-29s represented the second largest air strikes of the war on Korea. The largest was the blow by almost 100 B-29s earlier this week at red troops in the Waegwan area of the central front.

## Police Locate Stolen Auto

An auto reported stolen last Monday from Claire R. Elwood, 556 Cummings ln., was recovered by Salem police officers Saturday afternoon in the 600 block on Court street where it apparently had been abandoned. Police said the car was out of gas and the battery was low.



**TO MEET MIDDIES**—West Pointers leave to board a transport (background) in Hudson River for a joint amphibious operation with Naval Academy middies in Chesapeake Bay.



**OLD ORGAN**—A 400-year-old organ in Hamburg, Germany, played for first time in nine years at concert commemorating Johann Sebastian Bach, has carvings of heads on its stops.

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