

GENERAL SCIENCE

Profile of U. S. Scientist

► THE AMERICAN SCIENTIST is better educated, better employed and better paid today than at any time in his or the nation's history. This is evident in an employment profile of the American scientist made by the National Science Foundation.

More than 94,000 scientists, including 7,000 women, supplied information about their employment, income, education, age, scientific specialty, and other professional and personal characteristics for the National Register, for the period between 1954 and 1955.

Although these 94,000 scientists are not the nation's total scientific working force, (engineers, for instance, are not included in the report), their profile does show important trends in the economic picture of the American scientist.

One such trend is the continuing rise of the scientist's salary. From the report, the median annual salary for scientists holding a Ph.D. degree was \$7,000. This has already increased since the survey was made. By contrast, the average annual earning of a full-time worker in private industry in 1955 was \$3,856.

The report also shows that:

1. More than 41% of the scientists listed in the Register held a Ph.D. degree and another 25% held a master's degree.

2. The highest median annual wage was earned by physicists and meteorologists—\$7,850. The lowest was earned by psychologists—\$5,850.

3. One-half of the employed scientists held a job in industry, one-third in educational institutions and the rest in Federal, state and local government.

4. Research, development or field exploration was the primary function of 50% of the scientists.

5. The average age of the scientists was 38.

Since the report was compiled, 31,000 more scientists have reported to the Register, which is authorized under the National Science Foundation Act of 1950 and is set up as a "register of scientific and technical personnel and in other ways provide a central clearing house for information."

The Foundation is now at work preparing a much more definitive study of the American scientist based on the information gleaned from the survey.

Science News Letter, December 22, 1956

Do You Know?

Witchweed, an insidious weed parasite that destroys corn and other crops of the grass family by attacking their roots, has appeared for the first time in the United States at more than 40 scattered locations.

Successful experiments have been conducted with a new low-cost *synthetic fiber* of the polyvinyl-alcohol group to replace cotton in the manufacture of gill nets to catch herring.

Tranquilizing drugs make it possible for veterinarians to use chemical restraint in handling vicious or frightened *dogs*.

New plantings of *grapefruit* trees in both Texas and Florida tend toward the red and pink varieties.

World *coffee* production for 1955-56 rose to an all-time record of about 2,600,000 metric tons.

Color differences barely visible to the human eye can be readily computed by a new slide-rule calculator.

Hard *wheats* of the quality especially suited to making bread flours are grown throughout the Great Plains.

BIOLOGY

Can Create New Species

► THE POSSIBILITY of creating a new species of animal in the laboratory is voiced by Dr. Bentley Glass, professor of biology at the Johns Hopkins University.

Scientists are already creating new species of plants, Dr. Glass states in the Smithsonian Institution's annual report. By using the same methods, they could create a new species of animal.

Recent scientific developments, the biologist says, have broken down walls of nature considered impregnable only a few years ago. Mutations, both good and bad, can be produced by ionizing radiation and chemicals.

Dr. Glass warns these methods are too potent to be used on a human population.

As for man himself, Dr. Glass says, his planned breeding is still far off in the future, if it can ever be achieved.

"The basis for effective eugenics," Dr. Glass thinks, "must include not only an understanding of evolutionary processes and the power to control them; it must include also a far wider knowledge of human genetics than now exist, and the ultimate consideration by society of many questions of human values."

Dr. Glass, in his report, credits the Russian scientist G. D. Karpechenko, a geneticist, with having produced the first man-made species of plant. Karpechenko, Dr. Glass says, crossed the cabbage with the radish. The hybrid was completely sterile. He continued his experiments and produced a completely fertile form that he named *Raphanobrassica*, or "rabbage."

The new plant species, Dr. Glass states, was "worthless." It combined the prickly, inedible leaves of the radish with the miserable root system of the cabbage.

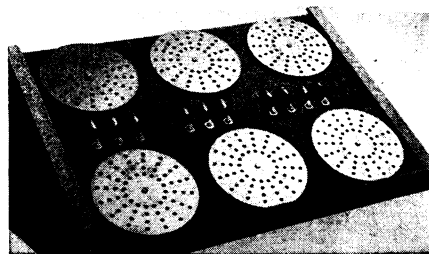
Science News Letter, December 22, 1956

In the United States, about 250,000,000 gallons of *water* are used each day.

Bright, clear and bulging eyes and also reddish-pink gills indicate a fresh *fish*.

Bituminous *coal* contributes 37.3% of the nation's fuel and power consumption.

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