VITAL STATISTICS

Growth Pattern Changing

As the U.S. population growth rate continues to increase, it is developing a new pattern, with less difference among various segments of the population—By David F. Nolan

➤ "THE RICH GET RICHER and the poor get children," they used to say, but this generalization is no longer as accurate as it once was. The United States is becoming more and more a nation of breed-alikes.

This fact was brought out in a report entitled "Changing Patterns in U.S. Fertility" issued by the Population Reference Bureau Inc. in Washington, D. C. The report said our population is growing, as in the past, and will increase even more rapidly in the future—but in a different manner.

Differences in fertility between rich and poor, educated and ignorant, rural and urban, and working and nonworking women are no longer as pronounced as in the past. Birthrate differences between different occupational, religious and national-origin groups are also diminishing, with one notable exception.

In 1955 it was calculated that the average Roman Catholic family would have 3.4 children. That number has now risen to 3.7, while Protestants have remained the same. The birthrate among Jews, traditionally the lowest of the three, has increased slightly.

The difference in birthrate between whites and nonwhites has also increased, contrary to the overall trend of "sameness" in birthrate. The nonwhite lead has widened mostly in farm areas, which have always had the highest birthrate in the United States.

Among women in the United States there are presently about 108.9 pregnancies per year for every 1,000 women of childbearing age, most of these concentrated in the 20 to 30 age bracket.

The average 35 to 39-year-old woman who is, or has been, married has had about 2.7 children, and has not yet completed her family. Since only 2.2 would be enough to keep the population at its present size, the number of people in the United States is expected to continue to grow by about 20% per decade.

If fertility rates remain at the present level, another population explosion similar to those in the late 1940's and late 1950's is predicted for the late 1960's and the 1970's as the girls born in the two earlier "baby booms" reach childbearing age.

• Science News Letter, 86:166 Sept. 12, 1964

SOCIOLOGY

Society Seeks Change

➤ THE MAN WHO WANTS to upset the apple cart is usually the man at the bottom of the heap.

Prof. Lucy Mair, chairman of the sociology section of the British Association for the Advancement of Science, told members in Southampton, England, that status-seeking is a primary factor in social change.

In a report entitled "How Small-Scale Societies Change," Prof. Mair said that it is among "people whose ascribed status is low . . . that we first find men eager to try their luck in new worlds."

Prof. Mair said that in any society the low-status members will favor change while the high-status members will not.

This is the case even when all members stand to profit from the change, for it is relative status that is at stake. Those who are big frogs in a little pond often would rather stay that way than take the role of relatively small frogs in a big pond.

In small nations like many now emerging in Africa, the status-seeking factor is highly important, Prof. Mair said. Some leaders in these nations are eager to change what they sense is their low status in world affairs. Others bitterly oppose change, fearing they will lose what status and power they have if a "new order" comes.

Added to this is a feeling among many African leaders that African nations should not be mere carbon copies of European or American countries, but should have an "African personality." This "personality," Prof. Mair said, is based in many cases on a tradition of one-party tribalism and intolerance to opposition.

For these reasons, Prof. Mair concludes, Africa is likely to be the scene of harsh struggles for some time to come.

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OCEANOGRAPHY

Aluminum Sub Launched For Deep-Sea Exploration

➤ A NEW ERA in underwater operations was opened with the launching Sept. 2 of the three-man experimental submarine, expected to be the world's deepest diving submarine, in Groton, Conn.

The Aluminaut was built for $3 million by the Electric Boat Division of General Dynamics for Reynolds Metals Company.

The Aluminaut will "change the course of history" by opening up unprecedented opportunities for undersea exploration and development, predicted J. Louis Reynolds, chairman of Reynolds Metals Company.

In addition to aiding in deep-level scientific investigation and military intelligence work, the Aluminaut has many potential commercial uses, he said. For instance, working with an unmanned barge controlled by the Aluminaut's crew, the new submarine can be used in mining and salvage operations formerly impossible.

Aluminum was chosen for the vessel's construction because the metal's high strength in relation to its low weight makes it uniquely suited for use at great depths. The Aluminaut's body is made of 11 aluminum rings, bolted rather than welded together.

The Aluminaut is designed to operate at depths of 15,000 feet—6,600 feet deeper than the grave of the ill-fated Thresher which sank in the North Atlantic last year with 129 persons aboard.

It is powered by 308 silver-zinc storage batteries in four banks of 77, each of which can deliver 32,500 ampere-hours of electricity. These batteries run three five-horsepower motors, one used for vertical propulsion and two for horizontal maneuvers.

The Aluminaut carries a crew of three in its 50-foot length, has a cruising range of 80 to 100 miles, and a cruising speed of 4.3 miles an hour. It is equipped with exterior lights and four portholes in the front for viewing the ocean floor and the water ahead.

The submarine also has a pair of remote-control "robot hands" for the manipulation of outside objects. These "hands" are so finely controlled that they can be used to tighten nuts and bolts and pick up small specimens without damaging them, but are strong enough to lift heavy objects.

Preliminary testing of the Aluminaut will begin in about three weeks. About two months later it will be taken to an area off Bermuda for deep-level trials. No contracts for Aluminaut-type submarines have been signed, but several are being negotiated with organizations, including the U. S. Navy.

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Reynolds Aluminum Co.

'INNER-SPACE' SHIP — First all-aluminum submarine, the Reynolds Aluminaut, was built by General Dynamics Corporation for explorations as deep as 15,000 feet.