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Radio Take

SEN. HUBERT HUMPHREY

SCIENTIST SHORTAGE

April 11, 1957

file

This is Senator Hubert H. Humphrey speaking to you from my office in Washington, D.C. I want to talk to you about education again, but this time emphasizing scientists, technicians and engineers.

If you really want to know how critically short we are of scientists and engineers, why just open up the daily newspaper and look at those great big help wanted ads in the classified section. Salaries for technicians are pressing upward, and the competition to enlist new college graduates in the sciences and engineering has reached the point where non-graduates are being signed up ahead of time by corporations for employment upon graduation.

These ads tell us of alarming shortages in American industry. They do not tell us of the even more critical shortages in government research and education. The Armed Services have been going through a searching evaluation of their own personnel problems, and are considering asking Congress to change the pay scales of the services, in order to permit higher salaries for technicians, engineers, scientists, the government is now rapidly losing to industry.

Research staffs and professional groups in all the government agencies are rapidly being depleted of their top brains and talent, despite the many public spirited men and women who continue to work for our government, and do so in spite of job offers of two and three times their government salaries.

I have been increasingly concerned about these shortages, and what they mean in the total competition with the Soviet world for many years yet to come. During the past two years I have personally been conducting two separate studies, one of which has just been completed, and the other one which is almost ready to come out of the library of Congress, which, by the way, has been preparing an

exhaustive study of the situation in the United States, at my request.

The study which I have already completed concerns itself with competition in technology between the Soviet Union and the free world. And the implications this competition has for the many uncommitted neutral nations of Asia and Africa.

This week I called upon the President to take the lead in calling for an international conference of scientists and educators, to consider ways and means by which the free nations may meet this new competition with the Soviet.

One of the most alarming developments in recent years, ever since we first clearly recognized in 1947 that the Soviet Union had not abandoned its effort towards world domination, has been the almost superhuman effort which the Soviet has been putting into the training of scientists, engineers and all kinds of technicians.

The results of this effort have been startling. We were surprised by the rate and quality of Soviet long-range bomber and fighter plane development. We were frankly astounded by the speed with which the Soviet Union developed both the atomic bombs and the terrible hydrogen weapons. And the rate of Soviet long range missile development, submarine and cruiser construction, all of its efforts in the field of what the military call hardware, has been extremely disconcerting.

We are apt to feel secure, you know, in the knowledge that our gross national production is something like three times over that ~~sex~~ of the Soviet Union. But we forget that the Soviet is concentrating almost its entire industrial and scientific effort on heavy industry; that is the armament industry, with heavy emphasis upon armaments.

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With its broad and deep program training young scientists and engineers, the soviet union may be able to branch out its efforts into other kinds of industry, and if the Communists can close the scientific and educational economic gap that now exists; if they can ever catch up with us and surpass us in industrial activity, we can suffer a disastrous defeat without ever firing a shot.

And not only the might of the Soviets economic growth can be stepped up beyond anything we've ever anticipated, but we may be faced, in fact are already seeing signs of this, with a tremendous flow of Soviet scientists and technicians into the uncommitted and have-not nations of Asia and Africa. They have scientists for export.

And this is what we are seeing in Egypt, Syria and Iran. Trained Soviet technicians, speaking the native languages, being sent out of the Soviet union, out of their growing stockpile of young technicians.

Now we must give serious consideration in the United States to an emergency program that would supply us within a few years with the scientists and engineers we need right now, and are going to need even more desperately in the near future.

Of course, it would be short-sighted indeed to seek to correct only the deficiencies in scientific and engineering personnel. Our failure to provide sufficient educational opportunities for all of our youth of intellect and intelligence and talent is a disastrous policy.

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We have a fundamental problem of teacher shortage, particularly in mathematics and sciences. In fact, all through the scientific and professional fields, we find critical shortages.

This is why I've introduced a comprehensive youth opportunity program which places emphasis upon new teachers, and broader educational opportunities to thousands of our young people.

It is this way that we can harness the great intelligence, and the great human resources of America and the free world to win this struggle with Soviet Communism.



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