

A CROSS-SECTION OF THE USA MANPOWER RESOURCES

20 September 1955

CONTENTS

	<u>Page</u>
INTRODUCTION--Colonel W. E. Murphy, Chief, Manpower Branch, ICAF.....	1
SPEAKER--Colonel C. W. Van Way, Jr., USA (Ret).....	1
GENERAL DISCUSSION.....	15

Publication No. L56-26

INDUSTRIAL COLLEGE OF THE ARMED FORCES

Washington, D. C.

Colonel Charles W. Van Way, Jr., USA (Ret), Research Associate in the Washington Branch of the Human Relations Files locally affiliated with American University, was born in Fort Sam Houston, Texas, on 29 January 1903. He is a graduate of the U. S. Military Academy, 1924, and has attended the following schools: Infantry School, 1930-31; Signal School, 1931-32; Command and General Staff College, 1941 and 1948; U. S. Naval War College 1942; Industrial College of the Armed Forces, 1948-49; George Washington University, 1949-50; National Training Laboratory in Group Development, Bethel, Maine, 1952; and Civil Defense Staff College, 1953. Colonel Van Way has served in the following assignments: Military Personnel Division, Army Service Forces, 1942-43; member of 12th Army Group in England, France, Luxembourg, and Germany, 1943-45; G-1, 15th Army, 1945-46; instructor, Command and General Staff College, 1946-48; faculty, Industrial College of the Armed Forces, 1949-50; and Chief of Manpower Branch (ICAF) from 1950 until his retirement on 29 July 1954. Since his retirement, Colonel Van Way has taught at George Washington and American Universities in the fields of Business Management, Mathematics, and Group Dynamics. Some of the groups of which Colonel Van Way is a member are: Area Committee of Citizens' Youth Council; 12th Army Group; American Society of Training Directors, and a life member of the National Defense Transportation Association. He has received the following awards: Legion of Merit, Commendation Ribbon with Oak Leaf Cluster; Order of British Empire; Croix de Guerre and Legion d'Honneur of France; and the Couronne de Chene of Luxembourg.

A CROSS-SECTION OF USA MANPOWER RESOURCES

20 September 1955

COLONEL MURPHY: General Calhoun and Gentlemen: Yesterday I abbreviated my remarks on the characteristics of USA manpower purposely so that an expert on the subject, covering the topic " A Cross-Section of USA Manpower Resources, " could really give you the dope.

The lecturer on this subject is no stranger at all to these hallowed walls. For five years prior to his retirement he made his headquarters right here. The first of those five years was as a student; the next year as a member of the faculty in the Manpower Branch; and for the three succeeding years, just prior to his retirement, he was Chief of the Manpower Branch. As such, we can expect that he knows the requirements of the Manpower Branch intimately. He is equipped this morning to give you a very, very careful and thorough run-down on the topic. I would just like to give Colonel Van Way credit for having been the individual responsible for establishing the Executive Development feature of our Orientation Unit.

At this time it gives me a great deal of pleasure to present to you my former boss, Colonel Charles W. Van Way, Jr.

COLONEL VAN WAY: General Calhoun and Gentlemen of the Industrial College: This is a very interesting reversal of my role. I have probably introduced a hundred people to this interesting group here and it is rather an odd thing for me to be coming in on a complete other way around. But it is also a very challenging experience for me because today this College is really one of the most significant educational institutions we have in this country.

I think the group that we get here as students and I think the philosophy of the course are things that each one of you can take great pride in. I know it is too early in the course to be congratulating you or telling you what is good about the course because at this stage you don't feel it is so good. Given another 10 months, you will feel that this is the best experience you have had.

Now, as I see my job this morning I am going to go back to the time when I was a student and try to help clear up--I know I can't really assume the prerogative of clearing these things up--but I am going to try to show you some mechanics or devices that you can use to help you sort out the weird mass of statistics that you are going to get about manpower and some of the other resources you are going to study about this year. It was terribly confusing to me and I never did get straightened out on some of the fascinating information available here that I knew was so important. There are some ways in which you can separate some of the wheat from the chaff, however, and if I succeed this morning in giving you some framework on which you can organize this information, I will feel that I have done my job.

In addition, I would like to bring you some facts that may be of interest about our manpower. I would like to give you some ideas that may provoke further thought, because unless you take these facts and this information and carry them forward, they are not going to be of much value to you.

Now yesterday, I understand, Colonel Murphy started out by giving you an outline of what our population was and explained how it was growing. Just to review his figures, he pointed out, I believe, that we have a birth every eight seconds; a death every 21 seconds. We have one immigrant every two minutes; an emigrant--which is a rather surprising thing, an emigrant who leaves our shores permanently--every 24 minutes. The net of all that is one gain every 12 seconds, a net gain of one.

Right now, carrying forward from the last census estimate of the population, we may figure it at about like this, 165,973,554, which is gaining at the rate of five a minute. That is a rather large group of people. It doesn't mean too much to us because we don't know what a million people look like, but it is the fourth population in size in the world, falling behind China, India, and Russia in that order, and, as I say, growing very rapidly, at a rate probably equal to any other country in the world.

We hear about the net rate of increase in Japan because Japan is crowded into a little country that doesn't have much room for agriculture. Actually, we are growing at a rate in excess of that of Japan. And we are growing so fast that our rate of increase is increasing.

I won't make any prediction on that except to say we are going to pass 166 million this week, according to our estimates.

I think we need to go a little further into the breakdown than Colonel Murphy had time for yesterday. You will recall he gave you a rough division of the people into labor force status as to whether they were in the labor force or in the labor pool but not in the labor force, and those who were consumers only, and he gave you some percentages for each of those three groups (chart 1, page 4). I can't remember those percentages. They change from time to time. The best I can do is to say that they run 40, 30, 30--40 percent labor force, 30 percent labor pool, not in the labor force, and another 30 percent for those who are consumers only. These percentages can be refined further but let us not worry about that. We will take them for what they are and break them down a little further.

How old are these people who actually belong to the working force? With the help of a slide, I am going to use a device that many of you are no doubt familiar with, the population pyramid (chart 2, page 5). This pyramid is actually two bar charts. It is called technically a paired bar chart. Actually, it is two bar charts with the bars as you see here, showing by their length, as measured against the numbers down here-- which are, in this particular chart, in millions--the number of people there are in that particular five-year age group. Here are the age groups on up with 80 plus at the top. This is a common device that demographers use, women on this side; men over here. Sometimes you will see this pyramid which looks the same but with percentages down here. We use millions for convenience and that is what I will use in several others I will show you.

Let us look at this slope up. We know the angle of slope is due to the relative scales used for the width of the bars and the width for each million division. But the important thing about this slope is, whether or not it is convex, as this is slightly, or whether or not it is deeply concave, as many of them are. If there is a population with a relatively high birthrate but also with a relatively high mortality rate, with a low life expectancy, we can expect to find the broad base like this one and then have it cut in deeply. Some of those people will live as long as our people do but most die off much quicker. People like those of India will have a different slope. Ours is slightly convex up here, but note these two rather deep indentations here.

CHART 1
U.S. POPULATION

SEPTEMBER 1955

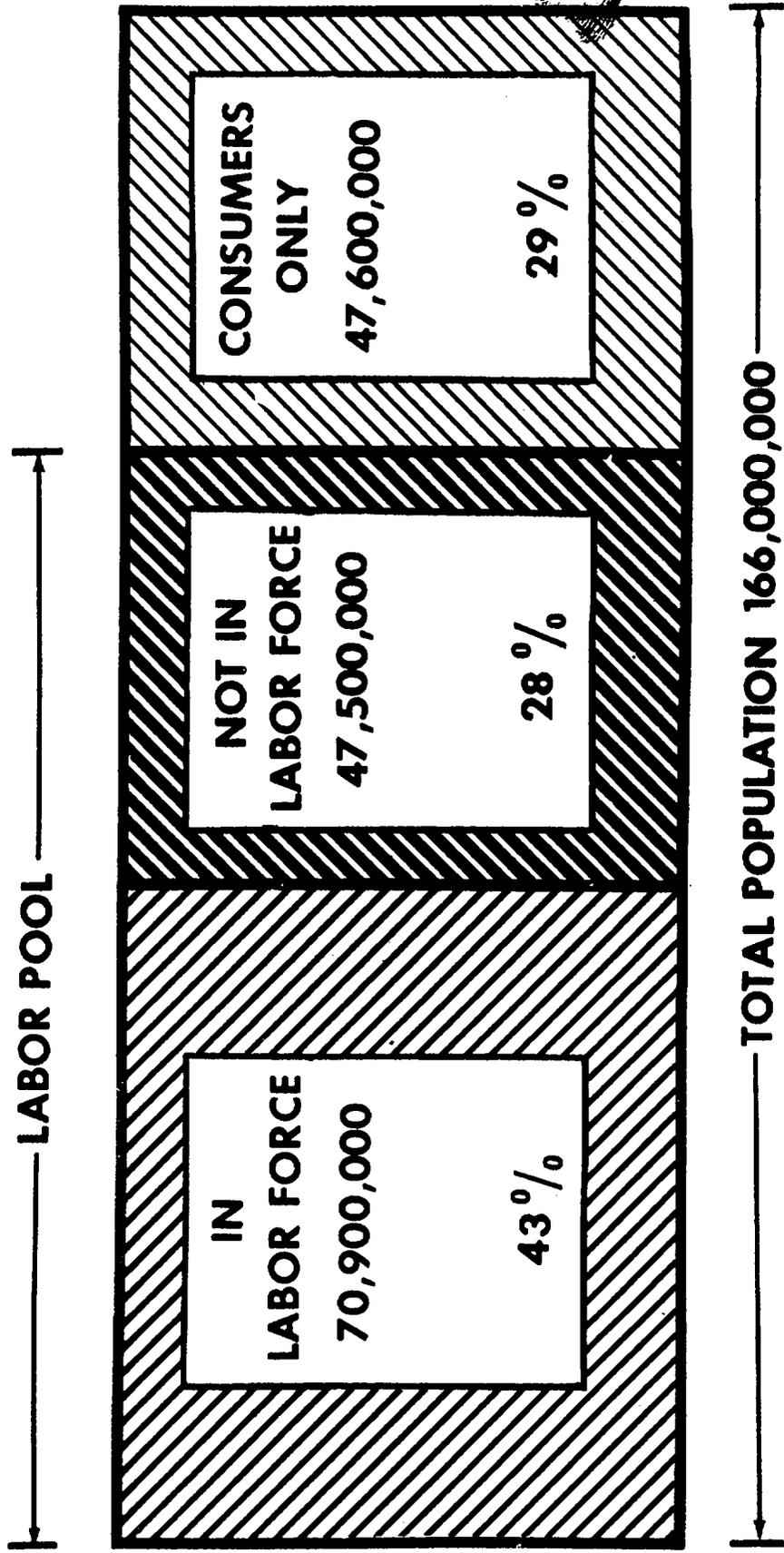
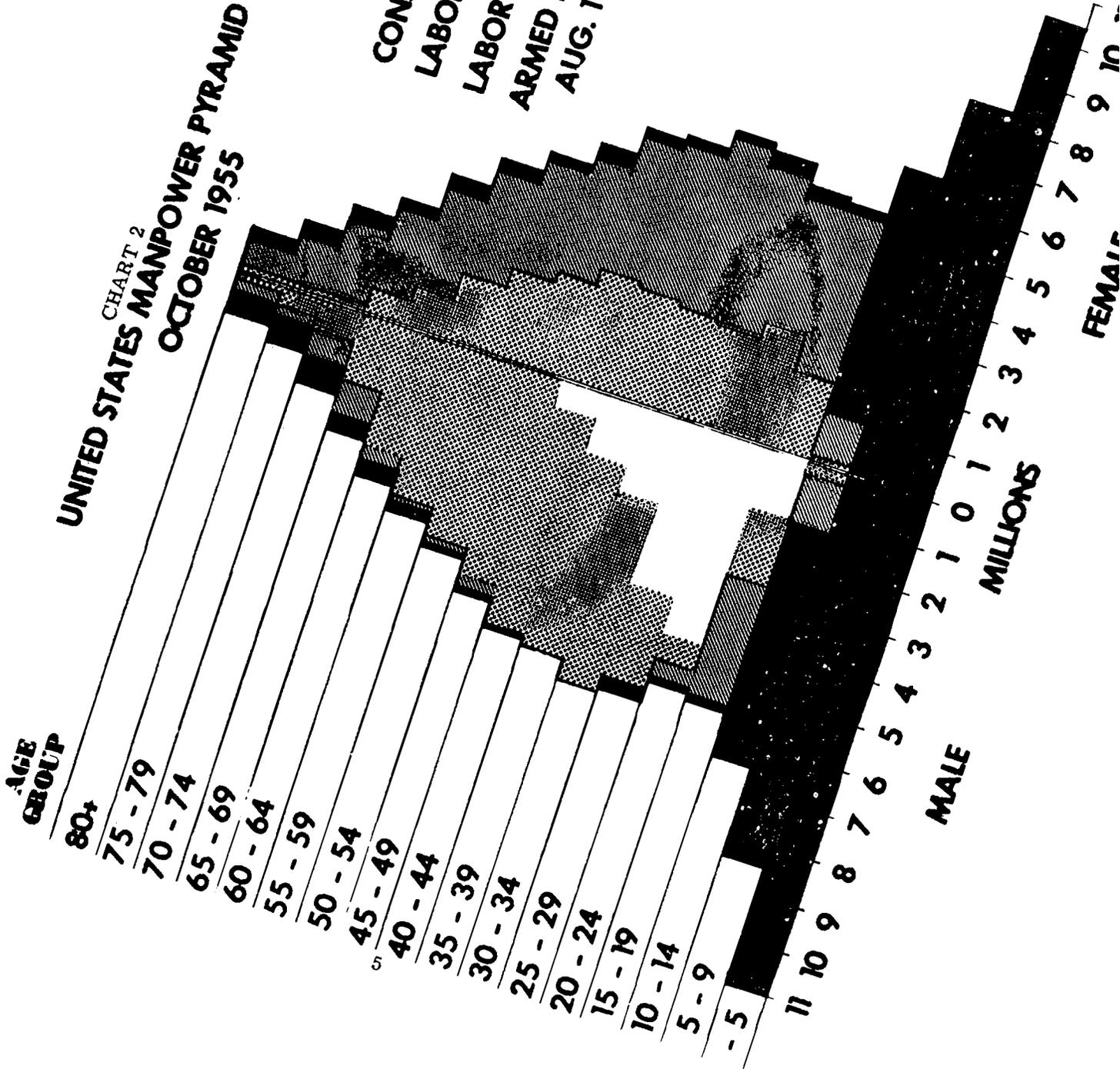


CHART 2
UNITED STATES MANPOWER PYRAMID
OCTOBER 1955

LEGEND

- CONSUMERS
- LABOR POOL
- LABOR FORCE
- ARMED FORCES
- AUG. 1945



Those are the most important age facts to learn about our population. Those are the result of the two lowest years we had in our birthrate. They both reached bottom in 1933 and 1936, with our birthrate reaching down as low as 18.4 for each of those years. The whole decade was one of relatively low birthrate, so we had this shortage of these age groups that will be with us from now on. Immigration won't help us because many of the countries from whom we got our people had the same situation. We checked the ages of those who came in and found the same sort of deficiency in those age groups. This has been particularly important recently because it cut down the number of men reaching draft age. This year it began to increase because we have passed the low point there, but even so, you can see we have fewer among this age group. For our men and women, this is about the same.

You have heard before, of course, that since the war, the birthrate has come up rapidly and has reached and is maintaining a level of about 25 per year per thousand, and that is the explanation of these broad long bars at the base. However, it is not too far out of what would have been expected had we not had this shortage here.

Now let us take a look at some different kinds of pyramids of other places. We will come back to this pyramid for some more information a little later. Let us take a look at these four little pyramids that I have here. You can't see the numbers, but it is not important that you do see them. I want to emphasize to you what sort of conclusions you can draw from the rough outline of such a pyramid prepared by the Bureau of the Census, which will illustrate to you some of the points I suggest you look for in analyzing populations of this type.

USSR. Now let us note what are the characteristics of this. You will note that there are many more women than there are males almost all the way except at the very bottom of the bar. By the way, this is 10 million and 15 million out to here and ages run about the same as the others, 30 and on up to the top.

You will notice the preponderance of women. You will notice also that they have two notches here whereas we had one. They had this one and then a later one. This later one corresponds to ours and for very much the same reason, a sort of worldwide depression which caused a lowering of the birthrate.

But this one up here is particularly interesting because it was during the period of collectivization, a time of economic distress in Europe and in Russia particularly. That was a more serious shortage that they had in that period. That is in the group 35 to 39, inclusive.

You will notice another thing. That group (35 to 39) took two beatings. The first was equally felt by both sexes. You will notice the women are short on that particular one, but the males are short much more. They took the first beating because of the low birthrate, but they also took another one because of World War II and we have a double penalty assessed against this particular age group, and the age group here, of course, has taken somewhat that same thing. You will notice the birthrate seemed to have remained somewhat stable during these recent three five-year periods with an increase now.

We are not too sure of the details of this. This is believed to be reasonably accurate, but we, of course, can't have it down to a gnat's eyelash, but we feel that comes to a total of about 216 million.

Let us go to Western Europe. We see quite a different picture here. Here is the same thing we had up here, that same shortage. This chart is for a period four years earlier, representing 1951 instead of 1955. We don't find the secondary shortage, but we have the same characteristic straight side of these age groups here with a widening of the base representing the five years after the war. This, of course, is flattened off more at the top than ours is because it only goes up to 74 and includes all older than that.

Now let us look over here. The top one here is India. You will notice that is slightly concave. I have an idea, although the Census Bureau claims they worked that out pretty much in detail and that they had information on it, it looks to me as if it had some rounding off. There is none of this straight up and down business that indicates Europe's declining birthrate. India has been more consistent through the years.

One of the things I would like to call your attention to here is that this is a different scale than that of Western Europe over there. The base over there is 15 million on a side; here 25 million on a side. When we go to China, we change the base once again to 50 million. Although this is the smallest pyramid, it represents much the largest population.

Now in China some rounding off was done down to here (20 to 25 year group), but they informed me that from here on down there was information that guided them. There is some indentation in three of these but not as much as in India.

This is the same shortage. This was in 1933. This shortage came a little bit later than ours. Again, see the widening of the base because of the birthrate staying up all over the world recently.

Let us go back to our own pyramid (page 5) and carry that forward a little bit more. You will recall we had divided this into three groups. This was the pyramid itself plus the individuals that we consider to be consumers only. Now the consumers only, I believe, have been defined for you by Colonel Murphy, but I will repeat. They are those individuals who are less than 14 years of age or are fully retired or who are in institutions. The biggest group in this group are the youngsters under 14.

Now in these bars from 10 to 14, we have to include those who are between their 14th and 15th birthdays who are counted in the labor pool and some in the labor force. That is the reason for this group in here. Those are 14 and 15 year-olds who are counted in the labor pool.

There is no maximum limit to the labor pool. Anyone working or looking for work is considered to be available for the labor pool although we have a rather firm dividing line at the 14-year age.

This picture separates the labor pool into the two components I spoke of, the labor force and those not in the labor force. We didn't use too much imagination on that. Some people like to call that "labor reserve," and I guess it is as good as saying "those not in labor force." Those in the labor force are in yellow; not in labor force, green. Again we have this business down here where these people are between their 14th and 15th birthdays, and some are actually in the labor force, perhaps on farms or otherwise working, where, for some reason, they are not required to go to school.

Now the thing to notice here is the composition of this green. These are students by and large, and these for the most part are housewives. Now also for the most part, these (the wives) have worked or have had some training in a skill.

I would like to read you some comments here about women making their mark. You will notice there that about a third of the women are in the labor force and they constitute a little bit more than one-fourth of the labor force. About two million are professionally or technically trained and are working in that sort of activity. The list of jobs that they have include practically everything. About 80 percent of the jobs listed by the Labor Department are filled to some degree, not in equal number but to some degree, by women.

There is another interesting thing that might bother some of you. It says here that there are about 86,000 men in the country who are described as not in the labor force because they are keeping house. Nothing is said about whether they are retired or not, but that may be part of the explanation.

Let us go on to the next, and it might be interesting to see where a military force fits into this picture. I have changed the color to orange. This figure here represents the age breakdown of the largest military force we had during World War II, which was in August of 1945 when we had 12 million men and women in uniform. The reason for taking that is not that we expect it to happen like that again but just to show you what that looks like in relationship to what we need in our labor force.

Our labor force is usefully occupied right now, nearly 69 million of them, but if we took 12 million out, this is where they would come from at a time when we expect to be hit, from the heart of the labor force which is needed to turn out greater production. So that is one of the points I would like to have you keep in mind when you think about where a military force is coming from.

Lest we be accused of being too fanciful in our size, let us cut it down to where it is now, a little less than three million. It doesn't look so imposing like that, but that is where it comes from. Obviously, to replace those people, we would have to turn to these people who have been trained to move into the labor force to make it possible to increase our effective force for industrial output.

In World War II, we recruited about 20 million additional workers. About 8 million came from the large pool of unemployed which was variously estimated at between 9 and 10 million. About 7 million came from students, young men who probably during the war years would

have been in the labor force anyway, and which we couldn't furnish right now, by the way. The other 5 million were women.

Now it is hoped and expected that, if the urgency were so severe as to require it, we could find more than that 5 or 6 million from among those 40 million-some-odd women. It is estimated that about 18 million of these women who are not in the labor force do not have a child under six, so presumably they would be available--if their other family responsibilities could be provided for--to shift over into the labor force.

I have suggested the composition of the labor force as to the status of the people in it and I have suggested also that our first reserve, our most immediate, readily available reserve, is among the women. Let us talk a little bit about some of the trends that will affect what this labor force of ours is doing.

I have gone into some length as to the birthrate. I will review that very briefly. Then I want to talk about some of the other trends that are of importance and of interest.

Our marriages had been declining since the beginning of the century rather steadily until the late 1930's. Then they started climbing again. One of the things that has happened during the period of the late thirties and subsequent to the war years has been a lowering of the age of marriage, the median age of women who have married, from about 24 to 21 or 22, an immense change. At the same time, the median age of men has dropped from 25 down to 22 or 23.

It is felt by many that for that reason the increase in marriages can't continue. In fact, they are no longer increasing. The backlog of age groups has been just about used up. In addition to that, the backlog that was caused by the depression and the subsequent war also has been used up. So it is felt there is no way in which the marriage increase can be continued.

But something else has happened. While the leveling off of the marriage rate of course, slows down the increase in first births, the third, fourth, and fifth births are increasing, possibly because since this marriage takes place earlier, there is a longer time for raising larger families. In addition, for some reason, the answer to which I can't find, the American people are accepting larger families. We don't know what the full significance of that is going to be.

We also know this: We have another delaying or another checking element on our marriages and first birthrates in the fact that this smaller group, this cohort that has smaller numbers, is coming up, men and women of marriageable age. We have fewer of marriageable age than we used to have, and fewer than in the last five years, which is a dampening influence on the increase of births. That will be ended in five to ten years, and in 20 years, when the results of the large increases that we have had in the past five years is apparent, we will again have an increasing number of marriages. So estimates indicate that we will continue to have a fairly healthy birthrate.

I might read you a little point. The actual net increase, as I told you, results for us in our death rate, which is only about 9.2 per thousand per year now as against our birthrate, which is about 25 per thousand per year--with a net gain of about 15, maybe a little more than 15 per thousand per year.

There is a group out in South Dakota that came from Russia about 80 years ago, known as the Hutterites. Let me tell you about their increase. They have increased since they came here by 19 times. They brought a few hundred people over here. Now they have several thousand. Their birthrate is 45.9 per thousand per year; their death rate is only 4.4 per thousand per year. I don't know how they do it. Maybe because they have so many kids. That makes a net increase of 41.5 for each thousand people per year in that little group, and they are growing very rapidly. However, I don't expect the United States will move into anything like that.

The increase that we have had is not due, of course, entirely to the birthrate, but to our mortality. Our mortality has been steadily dropping, as you all know, since the beginning of the century when it was 17.2 per thousand per year. The interesting thing is that it dropped down to 14 and in 1918--probably most of you don't remember much about that--the influenza epidemic here was tough enough on the population to raise the death rate back up to 18. It declined immediately the next year and has since declined until it became 10 in 1948 and has remained below 10 consistently ever since. So it is the lowering of the death rate that has accounted for much of this.

One thing that has happened is that the death rate has been lowered because of the reduction in infant mortality. The effect on younger ages has been much more pronounced than it has on older ages. Life

labor force, it isn't going to make any rapid change. Even if we took away all the restrictive laws, we couldn't make newly introduced aliens valuable to us right away.

There is a job of assimilation. There are many problems that retard us in trying to rapidly increase our labor force by bringing in aliens. We can do it in small numbers and certainly will. We did it in World War II. We had a reasonable immigration rate, not as great as it is now, and we put POW's to work, but it is small compared to our problems. It will not be much of a solution to our problems if we have a shortage in our industrial force.

Let us take a look at the world populations (chart 3, page 14). I would like to talk to you a little bit about how our team lines up, communists versus free world. A lot of these figures that I gave you from the Bureau of the Census are the result of their using figures and estimates, but I think they are fairly valid for our purpose.

The first one I will put on here is the 600 million for China. Before we go into that, I will try to explain to you one reason I wanted to use these terms, and when we write a figure that fairly approximates world population, it doesn't mean a thing to me and I don't know whether it does better for you people or not, but I can't do business with anything like that (writing out 2,700,000,000). So about all I can do is to cut these out and call this 2700 million, and I think we can do business with this, because we at least have been talking about our own population of 166 million and I think we can think in terms of millions or hundreds of millions for these other countries.

Let us start with China here as 600 million. That is rounded out. Maybe they have close to 500 million; maybe 650 million; but I think 600 million is a fairly close estimate for that. Now we will put up here 216 for the U. S. S. R.; the satellite nations in Europe, another 95, the portion under the control of Russia. Now we have a couple of low estimates over here. Here is 8 million up here in Korea, and, barely on the map here, 14 million in northern Viet-Nam. So much for the Reds, which total about 933 million.

Now, then, let us put some black figures on here so this won't look quite so bad. For the United States and Canada, 181 million. Let us take care of Africa right now, 210; South America--this runs up into Latin America and includes right up to the border here--182

CHART 3

WORLD POPULATION

AREA	IN MILLIONS OF PEOPLE	
	RED ORBIT	FREE WORLD
USSR	216	
EUROPEAN SATELLITES	95	
COMMUNIST CHINA	600	
NORTH KOREA	8	
NORTH VIET NAM	14	
WESTERN EUROPE		310
SOUTH AND SOUTHEAST ASIA		636
REMAINDER OF FAR EAST		152
MIDDLE EAST		70
AFRICA		210
U.S. AND CANADA		181
LATIN AMERICA		182
OCEANIA		14
WORLD TOTAL	933	1755
WORLD TOTAL	2,688	

14

Let's call it 2.7 Billion!

million; Western Europe, 310 million; Middle East, 70 million; Southeast Asia, 636 million. I don't have a breakdown for the remainder of the Far East. Then we have a small 14 million down here in what we call Oceania, which includes New Zealand, and these islands in here. That comes to a total of 1755. That makes just about our 2700 million, which I think is good enough for practical purposes. We can put our Nation in there at about between 6 and 7 percent of the whole.

There are some interesting figures in the material issued to you for your Manpower course which will further elaborate on those world statistics and I would like to refer you to those because they are important and very interesting reading for you.

There are one or two more things I want to say before we take a break. The question that is frequently brought up in connection with political and economic pressures has to do with densities. Now I have talked about trends and growing rates, and all that sort of thing, but actually it is densities that really create some of the effects that we have in connection with world population. Let me give you some examples.

Part of the problem that we have in densities is the fact that it varies so widely. There will be areas in the same country that vary by several hundred percent in their densities. The United States of course is no exception. We vary from Nevada which has less than one per square mile to, well, I guess one of the good examples is the District here which has about 13,000 per square mile. We have almost everything in between, but by states, the most thickly populated state is Rhode Island with a density of 748 per square mile. New York is only fifth in density because of its wide northern reaches, with about 300. The overall density of the United States, by the way, is about 55. The high in this hemisphere or in North America is Haiti, with 283.

In Europe they vary from Iceland with 3 up to the Netherlands, which didn't seem to be crowded when I was over there, but the most crowded in Europe, with 793. Japan is not as crowded as the Netherlands. Japan has 593, which is crowded with respect to what we have but not so much so as the Netherlands and some other areas.

Now, of course, the overall density of a nation doesn't have too much significance unless you consider how they are distributed. Vietnam, which I mentioned earlier, has a moderate density of 200 per

square mile, but the trouble is that Viet-Nam has only cultivated about 15 percent of its land. So it means this density, if you convert it into a nutritional density, would be much more serious, and it is. Their problem there is not only the relatively small amounts of land turned to agricultural uses, but the inefficiency with which they do handle it. So it is the nutritional thing that is the trouble in many countries. Viet-Nam is a good example of that.

We are concerned with densities and with migrations. I have told you that migration to this country is not very heavy at this time in terms of what it was in the first decade of this century and what it was in our earlier years, but there are areas where migration is having a real effect.

Migration in this country is generally westward. This is an internal migration so far as we are concerned, and it has significance to you from the point of view of planning our industrial labor forces. I think we all realize that there is a very strong movement west and slightly south. We know the center of population has been moving in the last several decades from where it was originally, near Baltimore. It has moved gradually westward until now it is over in Illinois, having passed out of Indiana not so long ago. It has also moved south slightly.

Now the trend is to the West Coast States. There is also a trend to the South, the Carolinas, Georgia, Florida. There are plenty of reasons for that which I won't go into, but which will make interesting study during your course.

It is an interesting fact that the West Coast States, the Mountain States, and a few other states have all gained more than the national average, a gain of 14.7 in the last decade, 14.7 of our population. But those states have gained up in the order of 20. There are many states which have not gained as much as the national average, and an interesting fact is that there are four states which have actually decreased in population. North Dakota, Oklahoma, Arkansas, and Mississippi have actually lost numbers. So migration is extremely important so far as planning labor force utilization is concerned.

There are other factors which I will only briefly mention that are of importance in considering the trends in our manpower, such as those having to do with health and education.

We are extremely interested, of course, in what occupations our people have, much more so than I was able to show when I broke down on our pyramid occupations and levels of skills needed. Of extreme importance in the matter of importance is to what extent is our population, or any population that you work on, urban or rural populations.

We are cutting farm population continually. We only have eight or ten million on the farm, a very small percentage of the total population, on the order of 5 to 6 percent. Russia, on the other hand, as far as we can determine, uses between 40 and 50 percent of their people on the farm. The implications of that are pretty important. They mean that before Russia is prepared to support its industry or Armed Forces, they have to use about half their people to feed themselves. You can look at that pessimistically, of course, and say they can get tens of millions of people off the farms if they learn how to do it. Those are all matters of importance in trying to assess the mobilization potential of a population.

Now summarizing briefly, we have a very large and rapidly growing population. It is just about getting ready to reach 166 million. I think we can change this a little now. (Changed population figures to 165,973,754.) This goes on all the time, and you will read in the papers next week that we have passed 166 million. That trend will probably continue, so far as any knowledge that we have, at the rate of about 3 million a year.

These people are divided in our labor force participation. We can consider them as being divided about 40 percent in the labor force and about 30 percent not in the labor force but in the labor pool, and another 30 percent as consumers only.

That will change from time to time, from year to year, and it changes seasonally during the year. During the summer, the labor force changes rapidly, getting larger; the consumer group gets a little smaller during the summer.

During a period of emergency, it can change quite a lot. During World War II, the labor force got up to about 50 percent of our population by the increase of some 12 million in our labor force, plus putting to work another 8 million unemployed. That reserve of 12 million which we got at that time consisted of 5 million women from the housekeeper group and about 7 million young men who had been students.

That sort of increase to our labor force can be counted on as being the quickest way to mobilize a labor reserve.

Other ways of increasing our numbers are by immigration, by rehabilitation of handicapped, and so on, and while they are important and should be considered, they are not very large in numbers and are not the direction in which we can really strike pay dirt.

I didn't mention this, but I will now that I am running over it, there is one other way when we mobilize our industrial potential that should be borne in mind in increasing our effectiveness. I mentioned only the numbers because that is really the main theme of our discussion this morning, but there are ways beyond the numbers that you can use to increase the effectiveness. The first, obviously, is by increasing the length of the work week, and other measures to increase effectiveness will be matters for your study.

Our world population, as we have indicated here, divides up into 933 million in the Red sector and about 1755 million in the Free World, making a total of 2700 million people, which you can take as being a fair estimate of the total numbers in this world of ours.

Let us take a break of ten minutes. We will come back and carry this on a little further.

COLONEL VAN WAY: I am going to have one additional reversion to form and monitor my own questions if I may. Before I do so, I would like to correct one impression I gave, that is that, certainly by having contrasting colors, I have indicated too sharp a line between those I have said we hope are in the free-country bloc as against those we feel are in the communist bloc. Actually, the line is very fuzzy and it might be very accurate actually to divide them in groups, one-third we know are Red; one-third we are pretty sure are not; and one-third we are not at all sure of. I am sure you are all just as aware as I am of the relative reliability of those divisions.

Are there any questions?

QUESTION: You mentioned several times now using the woman labor pool in case we have to mobilize again, including housewives and so forth. I am just wondering whether the resultant juvenile delinquency scare we have had in the last five years is because of it.

I am not saying it is, or whether we have any more juvenile delinquency than we had, or whether that idea would be shown. But would women leave their homes and leave their children behind? They might not go to work.

COLONEL VAN WAY: The question has very deep sociological implications which I don't feel competent to answer authoritatively. I can give you my idea as a parent, and all of you have the same sorts of ideas.

There undoubtedly is a loss when both heads of a household have to work. I feel that. But, of course, that is a debatable matter. Lots of people don't feel that way. I don't think we can draw any firm conclusion that that condition is there. Certainly there is more dual employment, I would say, in families than we have been used to. Now, whether that is the approximate and contributing cause of juvenile delinquency, which we seem to feel is more serious now, is a matter of debate.

Certainly if we were in an emergency, we would have to do many things that we might not feel suitable socially for the long pull. I think in planning for the use of this group the question of stability of the home is one that should be carefully considered. Certainly in any plans, the work schedule, the timing, and the provision for certain necessary services to the home that couldn't be done with the wife working, those conditions have to be met. I think you raised a real question that probably none of us has an answer for.

QUESTION: I notice that you have an even curve for India there. Why don't they have the same indentations as the other countries have?

COLONEL VAN WAY: The only thing I can say is they are not so sensitive to world conditions as Europe would be. They have their pestilences, their problems from year to year without too much reference to what the rest of the world is doing. You will notice that is a fairly stabilized set of factors there that have been going on for many years and they haven't the wide fluctuations apparent in Europe.

QUESTION: Referring to the manpower pyramids, can you depend on figures you are getting from, say, Russia or China?

COLONEL VAN WAY: Not those two very much. I have talked to the Bureau of the Census about that point. They tell me from 1925 on

down in China they feel they are quite reliable. They feel it is possible to get supporting evidence, not solely from birth registrations but also from school statistics and other statistics that tend, by their demographic statistical nature, to give them a feeling that they have some grasp of the population of China.

So far as Russia is concerned, we had good figures up to 1937. Since 1937 we have had to draw conclusions from voting lists, from propaganda, and from other material which, though each piece in itself may be unreliable, by putting enough of that together, we feel we have a fairly good breakdown.

As to the totals, we can't be positive whether they have 216, 210, or 225 million, but we think it is about there. It is reasonably accurate. I think it is accurate enough for most purposes we want to put it to. If you want to have it more refined, there are other ways you can do it to lead to the point that you really need.

QUESTION: Will you comment specifically on the correlation between population on any one of these pyramids and the industrial potential of the country?

COLONEL VAN WAY: Yes. Obviously there are many other factors that enter into industrial potential, as you all realize. India is primarily an agricultural state with a minimum level of subsistence and to all practical purposes no industry at all. Yet they have a very large population, and, as you see, a fairly regular age grouping. Now Russia probably has an industrial potential at present of about 25 percent of ours. That is a wild guess. It may vary by 50 percent either way, but probably not down. They may be up as high as 40 percent of our industrial potential. We think they have turned out about 25 million tons of steel per year. We have run well over 100 million tons. Now, we feel they are about 25 percent as efficient as we are in our industrial potential, man for man. I don't think that has any direct bearing on the numbers of men there are in those various age groups. I think more important would be the shortage of men in the lower age groupings from a military viewpoint, and Russia doesn't show a marked shortage.

I don't think there is any conclusion that can be drawn in Europe, except they are not increasing as fast as we are and probably as Russia is so far as future increases in their labor supply is concerned.

I don't know that that discusses your question too closely but I am not sure there are specific points in the pyramid that would apply directly to that.

QUESTION: Because of the dependence of the children upon themselves with parents working, the children have matured faster because of this dual employment in families now, haven't we been creating a potentially valuable work force in the group 12 to 14, especially in the changes in value in education, new methods of education, more practical rather than theoretical type of training, haven't we provided a very valuable work group?

COLONEL VAN WAY: The way you have framed your question you have answered it. I think the kids are better than they have ever been. I think they have more skill, more competence, although I don't deny that this juvenile delinquency is a matter of serious consequence for us. I think it gets played up so we don't miss any of the lurid details of it, but I think it also tends to obscure for us the real solid base we have for most of our kids. I think you are right on that, but I don't think we ought to take on ourselves the problems involved in juvenile delinquency.

QUESTION: It was perhaps an analogy on industrial potential, but I don't see how it could be 210 million for Africa and 181 million in our country. In the first place, they don't have the intellect or the equipment to do the job.

COLONEL VAN WAY: You certainly don't compare by numbers any more than you would the military force solely by numbers. I would be the first to agree with that. Certainly our industrial potential and our industrial performance are far out of balance with the relatively small population we have of between 6 and 7 percent of the world's population and I believe our production is in the order of 50 percent. So you are quite right. We don't want to draw any direct conclusions from that. I think we do need to have certain of the information at hand and also have some facility in using that information as part of the solution of the problems we will face, but certainly don't draw any conclusions that that is the most important or even a controlling figure. There are so many other things that go into industrial potential that have to be considered.

QUESTION: On both of those charts on the right over there, we have in the lower element rather vertical lines. On the previous chart

you showed of the United States, the base is very rapidly broadening. I am wondering if there is any reason to believe that the reason for our broadening and their narrowing is because of an unusually large immigration from those countries to our country?

COLONEL VAN WAY: Well, I would think not, because the numbers are not sufficient to be that significant. There are about 35 million, but spread over many years, and the largest decade was, as I say, 8.8 in 1900 to 1910. So I doubt very much if immigration would tell the complete story there. It undoubtedly had some effect.

I think more important would be the fact that they have been in a period, really almost all of this century, as least since 1910, of economic and political disturbance, and the opportunities of their people have not been big enough to support the kind of expansion that we have had and that is characteristic of our expansion in the last ten years.

If you stop to think, one of the major factors in our current prosperity is the willingness of our young people to take installment obligations and credit obligations in getting a home, which is unique in the world. No other country approaches the individual credit base that we have for installment buying, and home mortgaging. Cars can be purchased for practically nothing down and we build up a tremendous credit base that way, which encourages our young people to get married and raise families, which affects our market, which enlarges our population again.

That particular thing is not characteristic of Europe. Although they have long had a credit system over there, it is not to be compared with our level of family prosperity.

QUESTION: One of the significant measures of manpower between these various countries is literacy and you haven't gone into that subject here at all, and there is a pretty big toll. But there are different measures of literacy, whether you can read and write or go on into education.

COLONEL VAN WAY: I think you are quite right and the questions raised up here were largely devoted to numbers. I have tended to completely ignore quality here, and quality to my mind is much more important than numbers. It can't be handled, however, as I pointed out, in a short discussion like this. It is something that you will wish to take up during your course.

The literacy problem is a very real one, and again, as you imply in your question, it is a question of how to define literacy. Is literacy the ability to read and write something simple in their own language or must he be able to read the press in his own country, which is a little bit higher level. That is one of the elements of the communist infiltration that has been so very effective in any place where we have gone in. They have set up adult schools, adult training to teach people trades, to teach them to be receptive to propoganda that comes out. That is probably the reason the communists in Viet-Nam up in the north have made many requirements on their people to read and write, at least to the level of government information that is being put out. That is extremely important.

Now to carry literacy beyond that, which is also extremely important but which we are unable to analyze, training in skills, technical and professional skills, then you begin to separate the advanced countries from the very retarded. That is probably the case in South America. There we find relatively high illiteracy, and then when we get up to the higher level, we are in even more trouble of getting people even capable of understanding agricultural training. That makes a big difference as you imply.

There are other elements of quality which I only touched on. The matter of health on people on a bare level of existence; maybe malaria ridden, a high degree of disease; on the verge of malnutrition. That matter of quality is extremely important and you have mentioned a very important phase of it.

QUESTION: Can the high mortality among Soviet males be related to anything significant?

COLONEL VAN WAY: Only the fact that they were involved in a couple of wars here in the last 30 years, and there may have been more purges among the men. But I think it is the wars more than anything else. That group up there started with a small cohort when they were born as you can see from the fact that the female side also is short. That is the age group from 35 to 39, and they have been through two wars.

QUESTION: I refer to the bar there from zero to 4 on the three charts and also on the United States chart where there is a broad base of new infants. It is my understanding at least that this is economic

stability and high industrial potential, so to speak, stabilizing the people and causing higher birthrates. That would be certainly true in the United States and I could understand to a large degree in Western Europe because their industry has risen. Does that hold true to any way, shape, or form with respect to Russia? And, finally, what are the other reasons that would account for it?

COLONEL VAN WAY: Let me be sure I get what you mean. You want to know does the stable population relate to stability and industrial progress?

QUESTION: No. You notice in the three charts I referred to, the baby base which we had indicated a lot of babies were being born, at least from zero to four years old. That is accounted for in the United States by having a large level of prosperity, a sense of security. I think in Western Europe the same thing holds true. But what accounts for it in the other two countries?

COLONEL VAN WAY: The question of standards. We, say, have a high prosperity. But what is the standard of security and prosperity some place where they may be of such a low standard that we would say there was not any security or any prosperity? Many of those places feel that they are better off than we are here. At least that is their viewpoint, and if they feel that way, that is about as good as you need.

So it is perfectly true, as I said, that some of those areas don't have a credit base, they don't have the kind of objective that we think is necessary, but many of them feel they do. In any case families are formed and the birthrate is high. Again, to speak of Viet-Nam because I have done some recent studies on that, I have talked to some people over there. They feel they have a very wealthy and prosperous nation. They have an easy climate. Most of them are able to get plenty of rice. By our standards they are undernourished, but by their standards they feel they are doing pretty well. As a result, they do have their families and they do have this increase in population. Those people are not nearly as sorry for themselves, by and large, as we are for them.

It is just about the end of the period, so I want to thank you for your interesting questions and for your attention. It has been very pleasant to be back here.

COLONEL MURPHY: Colonel Van Way, on behalf of the Commandant and the student body, we thank you for a fine lecture.

(21 Nov 1955--250)K/ekh