

MANPOWER UTILIZATION IN INDUSTRY

23 November 1959

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Dr. Eli Ginzberg, Professor of Economics, Graduate School of Business, Columbia University, was born in New York City. He received his A. B. degree in 1931, A. M. in 1932, and Ph. D. in 1933 at Columbia University and was Cutting Traveling Fellow, Columbia, 1933-34; Director of Research, Economics, and Group Behavior, 1939-42; research on occupational choice, 1948-49; and Director of the Conservation of Human Resources, 1950-to date. In 1941, he was Director of Research, United Jewish Appeal; Consultant, Executive Office of the President, 1942; Consultant on Group Advancement of Psychiatry, 1946; Director, State Hospital Study, N. Y., 1948-49. He was a member of the Committee of Wartime Requirements for Scientific and Specialized Personnel in 1942; medical consultant, Hoover Commission, 1946-48; Adviser, Committee on Chronic Illnesses, 1950-; Director of Staff Studies, National Manpower Council 1951-; U.S. delegate on reparations for nonrepatriable refugees, Five Power Conference, 1946. During the years 1942-44, he was special assistant to the chief statistician, U.S. War Department; to the Director of Hospital Division, Surgeon General's Office, 1944; Director of Resources Analysis Division, 1944-46; Department Consultant, U.S. Army, 1946-; member of the Medical Advisory Board, U.S. Secretary of War, 1946-48. Consultant, Department of State, 1953, 1956, and Department of Labor, 1953-to date. He is also a member of the American Economic Association; Academy of Political Science; American Friends of Hebrew Universities (Director); and American Association for the Advancement of Science (Fellow). He has published many books in the fields of economics and human resources, the most recent of which is a three-volume study entitled "The Ineffective Soldier: Lessons for Management and the Nation." This is his fifth lecture at the Industrial College.

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COLONEL SMITH: When he was president of Columbia, General Eisenhower wrote the following words: "It seems to me that the time has come when the wastage of American resources must be combatted along all fronts."

These words heralded the establishment at Columbia of a project called "The Conservation of Human Resources." Last June, President Eisenhower, writing of this project and its recently published monumental three volume work called "The Ineffective Soldier, Lessons for Management and the Nation," said this:

"Far and away the greatest resource our Nation possesses is its people. There is no finer work, nor one more conducive to our continued growth in strength and freedom, than those efforts we devote to helping people live more fully and more usefully in a society which needs them all."

The man most closely associated with this project, as its director and most prolific writer, is our speaker today. Based on this study of the ineffective soldier, he will examine the subject "Manpower Utilization in Industry." I am proud to present Dr. Eli Ginzberg.

DR. GINZBERG: General Mundy, Gentlemen: I always have to take a quick look to make sure I do not have to say "ladies." In my Heidelberg undergraduate days we used to be able to tell the political position of a professor by his salutation to the class. The conservatives would say "gentlemen" and ignore the ladies. The liberals would say "ladies and gentlemen." The impolite professors would say nothing.

There is a logic in my coming back to discuss this subject with you today. The large-scale study which I have had the privilege to direct over the last eight years was predicated on the assumption that the military had learned a lesson which it could teach industry; that the experience of World War II presented a unique laboratory for studying the performance of men. During that war approximately 18 million young men in the age groups 18 to 37 were screened for military service. The maximum strength of the Army, Navy, and Marine Corps was approximately 11.5 million, but during the course of the war over 14 million men were inducted.

We kept records on all of these people. Some of the records were poor, some were lost, but nevertheless, they represent the largest personnel inventory in the history of the world. It was the President's idea that such a rich repository of records should be the subject of study which should be able to illuminate important lessons on manpower and personnel for the country at large and for business in particular. The study was initiated before the Korean War, and our general concern was, What could World War II teach a society at peace? It was hoped that the study would have some value and meaning for the armed services. But the focus was very definitely on lessons for management and the Nation, which is the subtitle of the book.

I find myself, therefore, in a kind of a circuit--military materials were the original base from which we extracted general lessons for management and the Nation; and today I am here to talk with you not only about the implications of manpower utilization in the civilian sector of industry, but also about some of the problems of manpower utilization within the armed services. I will move back and forth and try to cover enough ground quickly to leave time for questions.

Let me give you a few important pieces of factual background. The magnitude of the World War II mobilization was truly impressive, particularly from the manpower point of view.

Between June of 1940 and December of 1942 the Army which included the Air Corps at the time, increased by 2,000 percent. In contrast, as we point out in volume I of "The Ineffective Soldier," a large-scale American company, such as General Electric, can seldom expand at 10 percent per annum. A second fact is that the Regular Officer Corps of the Army and the Air Corps combined at the beginning of the mobilization in 1940 numbered about 14,000. The total Officer Corps by the end of the war was 877,000. Those two figures tell me more than almost any other figures of what a professional career service means, and its strategic importance for mobilization.

A third fact is that of the 18 million men who were screened, a total of over 5 million, or almost 30 percent, were rejected for military service. Two-thirds of these men were rejected for physical and one-third for emotional or mental deficiencies. The President and the project were concerned primarily with this last. What does it mean when the richest country in the world had to screen and reject for military service several million young men for reasons of emotional and mental deficiency? This was the basic question which concerned the President.

But this was only part of the story. During the course of the war, prior to demobilization, another three-quarters of a million young men were discharged from the service on the ground that they could not perform effectively for emotional and mental defects. These were not battle casualties or ill men. Thus, we must add to the 1.7 million who were rejected on emotional and mental grounds another 750,000 who failed in the service. This is 2.5 million out of the 18 million who were screened. That is one out of every seven young men in the country. This is a figure of failure, a warning sign that shocks.

Here is another fact: the usual assumption was that the 750,000 men who were inducted and then discharged were broken by the war, but in point of fact, only 40 percent of them ever got overseas, and only 20 percent ever got into battle. Therefore, 60 percent of these men failed because of difficulties they confronted in just being mobilized. They were not, by and large, the shellshocked cases in World War I about whom General Pershing wrote.

The only other background figure that I shall give you is that in World War I we rejected 14 out of every 1,000 young men who appeared for military service on emotional and mental grounds. We discharged 9 per 1,000 people who were inducted and who failed in the service. The comparable figures for World War II were that 94 per 1,000 were rejected and 50 per 1,000 were separated on these grounds. I will try to explain these figures later.

Let me now shift from this very selective background of some of the more startling facts and findings to the framework in which we tried to study the problem of manpower utilization. This is a psychological generation, almost a psychological century. We are constantly talking in terms of the emotions. You pick up any newspaper and you find columns of advice to parents on how to take care of their children, to teachers on how to take care of juvenile delinquents, and so forth.

We are preoccupied with the emotions; and the emotions are undoubtedly very important. But we shifted the framework of our study from a concern with how people feel, or questions about the individual's emotions, to questions about performance. We took an organizational viewpoint and said, "What can we say about the performance of people rather than about the feelings of people?" From the point of view of an organization or a society, the important issue is performance rather than emotion.

We established four very simple criteria. We said that to live in a society such as the United States there are four minimum conditions of performance that are incumbent on every individual. One is that a man ought to be able to support himself. The second is that if he assumes responsibility for a wife and children, he should be able to take care of his dependents. The third is that he should stay out of trouble with the law. And, the fourth is that if he is physically fit in time of national emergency and of the proper age, he should be able to serve his country if called to service.

These are very minimum criteria. They do not say at what level a man must work. They do not say in what kind of circumstances he is supposed to keep his family. The important point about the figures that I gave you, the one failure out of seven, is that these people failed to meet these minimum criteria.

Now, what did we learn about performance? We learned that the strengths and weaknesses of individuals are important but by no means the total explanation of how they perform; we learned that there are two other major sets of determinants, organizational policy and leadership, and the pressures and supports in the general environment. It is only by seeing the individual within the organization, within the larger framework of what is demanded of him, that we can get a meaningful understanding of performance.

One way of illustrating this is to tell a story. When we were midway in the study, the President asked me, "How are you getting on? What is the explanation of this large number of psychoneurotics?" "Well," I said, "I don't know the answer yet, but I have a clue, I don't think it had much to do with the men. I think most of the explanation lies in the failures of the General Staff."

You can imagine that this was not an easy statement for the President to absorb. But I went on to explain that as policy fluctuated at the General Staff level, I could trace and did trace, the creation of failures. We were able to determine that to a very large extent the instability of policy, the failure of policy to be geared to what it was trying to accomplish, itself created many of these failures. This was an exaggerated formulation but I tried to make the point that you cannot take a reading of the men themselves in the abstract and without reference to the organization of which they are a part, and the environmental demands and supports that they encounter.

Now, as we moved to look at performance more specifically, we found that the most important single personal factor for each individual in performance was the level of his educational preparation. The rate of failure among the least educated was four times as great as among the better educated. That is, the group with less than grammar school graduation failed at a rate four times as great as did the high school graduates--and since these men were educated in the 1920's there were many more of them with limited schooling than we would find today.

But to say that education is the single most important determinant of performance does not say that the more education the better. It means that one must have enough education to qualify. How much is enough may vary, but it does not follow that the more the better. There was no significant change in the failure rate among groups who had more than a high school education, among groups with college or even Ph.D degrees. Men who had graduated from high school were at about the top of the curve. But as you moved down the educational scale, the rate of ineffectiveness increased rapidly with the highest rates at the bottom.

I believe that the armed services and industry both are making a mistake in generalizing this proposition; that because they have to have men with a basic or qualifying education, they feel that the more education a man has the better. What you need is a man with enough education to do the job, and maybe a little bit extra in reserve.

The President had asked us to find out whether there was any difference between the performance of farm boys and city boys. I regret to tell you that the farm boys were worse in every respect. More were rejected, more failed in the armed services, more failed to perform effectively after the war. It was not because they were farmers. It was because they were less well educated. By and large, the rural areas of the country, particularly the southeast, were more poverty-ridden, especially in the 1920's and the 1930's, and boys from these areas showed up at a much lower performance level.

Another factor we considered was racial. On the average, the Negroes were twice as ineffective in the military as the whites; that is, their rate of failure was twice as great. But when we considered Negroes and whites with equal educational background, there was no difference at all. This again is simply a hidden factor--education.

One of the most interesting and important findings about performance is the danger of assuming that there is a stability of performance throughout a man's life. One word here about the men whom we studied. They were a special sample in the sense that they were men who had to be discharged prematurely. But some of them were not ineffective except in a technical sense of the term. We defined as ineffective any man who had to be separated before demobilization for mental or emotional defects. Included in this group were a large number of Air Force men who had finished their overseas tour of duty and who had long and distinguished records. Many had three rows of medals. On their return to this country they became restless in their new assignments and the Air Force let them out as disturbed. These were men with lots of mettle but they fell within our study because technically they were separated before demobilization. In our study also, were Army combat soldiers with similar good records but similarly discharged prematurely. To return to the question of the stability of performance. We studied the premilitary record of performance of these men up to the point of their breakdown and their postwar record. We found that there does tend to be a considerable order of stability: 50 percent of the men seemed to be performing satisfactorily throughout all periods. Twenty percent of the group did well in civilian life before their military service, failed in the Army, and then did quite well again upon their return to civilian life. These men apparently just could not adjust to military life, for whatever reason.

Another 20 percent presented a poor record of performance throughout. Most of them should not have been taken in at all; their performance in the military was poor, and they failed to make an adjustment to civilian life after their discharge.

The saddest sector were the men who had a good or at least satisfactory record before induction and satisfactory performance up to the point of breakdown in the Army but who never recovered after their discharge. This group accounted for about 10 percent. We do not understand fully why this group did not recover. Some were undoubtedly severely psychotic. But why so many of the others were unable to assimilate their military experience and surmount it and encapsulate it is not clear, although we have some hunches about it.

So we have learned that in considering a man's performance, one must have some orders of modesty. As I recall it, there was a lieutenant general in World War II who had to be removed in the North African campaign because, while his record had been most distinguished

up to that point, apparently he found it too dangerous and difficult to be near fire. There had been no test in his career up to that point. Therefore, while a man's past performance may be the best clue to his future performance, since the future may be different than the past you only have a presumption and by no means a certainty.

Now, the obverse is equally important. One of the most striking findings was that of the people who were very severely disturbed emotionally, when they broke down, 25 percent of them recovered very quickly when they returned to civilian life and made a very good adjustment and another 25 percent recovered a little more slowly but eventually performed perfectly well. I saw some of those fellows during the war, and if you had asked me to guess, I would have said that they were hopelessly ill. I saw them literally tear down wings of smaller hospitals in a manic rage. Nevertheless, as the data show, 50 percent of them recovered and made a satisfactory adjustment to civilian life.

So it is another way of saying that you have got to be a little cautious about prognosticating when you come to people.

Now what are the big lessons for management with regard to the manpower utilization that come from this study, that are, let us say, precipitable from this study?

The first lesson is that any screening device, since it costs time and money, ought to be gross and not refined. There are no instruments known to science that will justify a refined screening, partly for the reason we have just discussed--that you cannot create the conditions of the future. You can do some gross screening. You can ask a man about his education and find out whether he has been able to hold down a job. You can find out if he has been in a lot of trouble with the police. But that is about all you can do. With adolescents you must be doubly careful, since you cannot project adolescent behavior. Some of the best people in the world were very wild adolescents.

The great screening failure in World War II was that the psychiatrists and the War Department formed an alliance to the mutual disadvantage of each. The War Department wanted to avoid a repetition of the World War I experience of a lot of shellshocked men, and the psychiatrists who were a little overambitious, said, "We'll prevent this from happening." Together they screened out a million men because some of them bit their fingernails and others had slight tics. In Grand Central Palace in New York they screened 3,000 men in a day.

The psychiatric examination took three minutes, sometimes one. You can imagine the quality of the examination. But the important point is that it could not have been done, no matter how many psychiatrists there were, no matter how many hours. It is just not feasible.

Since the military screening in World War II was for combat, and since not more than 30 percent of all the men who were taken in ever had anything to do with bullets or fighting, the screening operation was not geared to the job. Unless you can specify the assignment for which you are screening you cannot develop an effective screen. It is equally unrealistic to screen all applicants for the most difficult job.

Personnel officers in industry say, "We want only the young men who can rise to be president." That is a sure way to upset an organization--to hire only people capable of being president. There are a lot of slots short of the president's which have to be filled. Therefore, an effective personnel procedure would be to define levels of assignment and screen against the requirements of those assignments.

The third lesson we learned about selection is that it is very hard to establish screening criteria unless you know the characteristics of the manpower pool. At one point in World War II General Hershey had been trying to tell General Somervell, who was the procurement officer for the War Department, that we were discharging men of better quality than those who were left in the pool. In one month in 1943 we took in 105,000 people to make a 5,000 net gain in strength. We discharged 100,000 men and took in 105,000 at a time when we were trying to build up strength.

The reason was the War Department never understood that the population of the United States is made up of a lot of imperfect people. Some have imperfect eyesight, and others have imperfect feet and others have imperfect education. During the war they were screening against 40 factors; and if a man failed on any single factor he was out. That did not make any sense in a time of total mobilization.

When personnel officers from industry go around to colleges and say that they want only the most intelligent, well-rounded, socially acceptable young men, it is an unrealistic approach to the manpower pool. Where are all the perfect specimens? And why should such a young man go to work for a large soap or chemical, or any other mammoth company anyhow? The big trick is to learn how to make do as well as possible with the very imperfect manpower resources that exist.

I have already called your attention to the question of educational criteria. It is sensible to establish educational standards, but the emphasis ought to be on the minimum.

With regard to education, it is important to recognize its regional differences in the United States. The schools in the backwoods of Georgia or Tennessee are very different from those in the suburbs of New York. It is necessary to make allowance in screening for these differences in educational opportunity. The boys who graduate from superior high schools, private and public, will have more knowledge and are better educated than 50 percent of the college graduates in the United States. We have 1,800 colleges and many of them are inferior. Therefore, any boy who graduates from the Bronx High School of Science in New York will have more knowledge, more control over mathematics, science, English, history, than half of the college graduates in the United States. We see, then, that "high school graduate" or "college graduate" can mean many different things.

Our next consideration is of psychiatric evaluations. Psychiatry, in my opinion, is a discipline, a specialty of medicine; and, like many parts of medicine, it has shown up to today more promise than fulfillment. Just as we do not have the answer to cancer yet we do not have the answer to the serious mental illnesses.

There is a colossal gap between psychiatric theory and personnel management and the two should not be confused. Some people periodically need psychiatric help. Some people get seriously ill emotionally and need a lot of help. There is very little translatability from psychiatry as a medical discipline into personnel management. When large companies will not promote a man into a top position until he takes a Rorschach test or a T. A. T. they are following a foolish policy. The use of clinical categories within the realm of day-to-day performance is unrealistic. Clinical categories cannot help one to make judgments about performance.

The most extreme formulation is always to say as Freud said, that everybody is neurotic, or to say as people have known for thousands of years, that there is a very narrow line between genius and insanity which means that the best performers in the world are likely to have "very peculiar personality structures." Of course they will. But from the point of view of a society or an organization you want to know whether they can perform.

So the important general lesson to be learned out of this is to move with great care.

The next lesson especially for a fast expanding organization is the necessity to spend a lot of time and effort on indoctrinating the leadership. A good part of the failures of World War II were because of the officers; 14,000 regulars, 877,000 total officers. A lot of youngsters, the so-called 90-day wonders, were put in command of units of older men, wiser men, more mature men. I am only surprised that the rate of failure was not twice or three times as large as it was.

The remarkable fact about the men in the war was their resilience and their innate competence and the commonsense which helped them to survive this type of organization. Our Selective Service was forced to follow a foolish policy in World War II. Anybody who had any basis for being deferred in 1940 and 1941 was deferred. It was the youngsters, the unemployed men, and a few people who were interested in the military who had reserve status who came in. The most mature people, the better educated people, the people who had responsibilities, were all deferred. So the babies became the officers; and then in 1942 and 1943, when the more mature people came in, they became the privates.

Another unfortunate policy failure was that the armed services, partly for reasons of time did not make full use of the range of job opportunities in assigning people more effectively. We found that of the people who failed in their first year of service, only 1 out of 25 ever had a chance at a second job. For example, a 37-year-old man who was assigned to the combat engineers could not keep the pace and failed. If personnel had looked at his record and seen that he was an accountant, he could have been assigned to the Signal Corps. The next day a 20-year-old big, husky fellow, who had never gotten beyond the fourth grade in school, might be sent to the Signal Corps. The wide range of jobs is an important asset of large organizations but to use it the personnel system must involve forward planning.

The next point that I want to make is the importance of supporting services. I told you that I thought psychiatry could make a contribution to supporting men in times of stress, but so could other members of a leadership group. The chaplain could; the junior officer or the senior officer could make it. When people get pulled out of the pattern of lives such as they had been leading prior to World War II and put in the armed services--many of the youngsters had never been away from home for

a single night--they could and did get restive or disturbed, and many of them were mentally dull. If they received a little support over the first few weeks, many of them did all right.

The British have always used a system of special sergeants, a special cadre, for the reception of newcomers. This makes very good sense, because if you can spot the men who are having transitional problems and be a little help at the crucial point in time, you can avoid a lot of failures.

The next point that came quite clear, and the final one I want to mention before I begin to generalize some of this, is the importance of equity in an organization. In a small organization the individual feels that the boss is directly responsible for him. He knows the boss and talks with him and he has some assurance of getting a fair deal from him. In a large organization a man is often just a number on somebody's rolls. Therefore the question of fairness of policy in dealing with people is tremendously important because if the individual feels that there is nothing that he can rely upon, and that he cannot rely upon his immediate superior, he is quite reasonably insecure. His only sense of security, his only sense of assurance of a reasonable deal must come from equitable policies.

I think one of the most brilliant achievements of World War II was the point-score system of demobilization. The system was developed on the basis of a careful evaluation of what the men wanted. And, while it was not carried through with 100 percent effectiveness, it nevertheless, in conception and execution, was an outstanding accomplishment. This was because the question of equity was the determining factor.

What are some of the more general propositions about manpower utilization that derive from this study? I would say there are three: first, the necessity to plan; secondly, the importance of basic stability of policy; and thirdly, a more critical view of certain specific criteria. I want to talk to you very briefly in the remaining few minutes about each of these.

You need to plan. If you do not plan you have to improvise. If you have to improvise you will undoubtedly have to go too much in one direction then pull back and go too much in the other direction. Much of the trouble of World War II was just that--overshooting and undershooting the mark in an attempt to find the right policy.

One of the great weaknesses in American industry today is just this: a failure to do any kind of long-term planning. Standard Oil of New Jersey moved from 5 engineers in 1950 to 125 engineers, new recruits, in 1951. This was not a policy; they just followed the market. Suddenly companies started to recruit engineers and Standard Oil started to recruit. I use this example because this organization does more forward planning than most.

The next point about the planning is that any large organization--and the armed services are very large--cannot expect to find in the market all of the range of skills and qualities that it needs. It must prepare ahead of time to do a lot of training.

Next, and very important, is the necessity to have good people work at the planning. The armed services have always tended to put their weakest officers into personnel. The strongest officers are assigned to operation, the next strongest to supply, the next strongest to intelligence, and the weakest to personnel. That is inefficient because if the personnel operation is properly staffed all the others ought to fall in line. So the quality of the planners themselves is an important part of the planning.

Now what about stability of policy? I have already tried to make the point that a large organization cannot rely on personnel supervision. It can have as much supervision as possible through the lines of command, but finally it must rely on policy. That is the only way to keep some articulation of the parts.

That means that you are constantly dealing with men's expectations and their motivations. One of the things that is very disturbing to men in the armed services is that they are frequently made promises which are not fulfilled. I would, therefore, recommend always underpromising. A man is inevitably unhappy in an organization which makes promises which it cannot fulfill.

Now I know that the armed services are constantly buffeted by a lot of externals--budget and size and slots and so on. But just because it is so buffeted, it ought to lean over backward to be careful about what it promises, because it really cannot afford the constant changes in policy.

I have a wonderful illustration of this that I saw with my own eyes in World War II. One day early in 1944 I went down to Camp Lee on

inspection. The commanding general pulled out a company of men the like of which I have never seen--unshaven, with ill-fitting uniforms, in grotesque posture. If you saw it in the movies you would laugh and say, "That's Hollywood," but this was fact. I said "What are these fellows doing in the Army?" "Well," he said, "We got a directive from General Marshall which said that we were supposed to utilize manpower effectively and nobody was to be let out of the Army who could do a day's work." And that post interpreted this to mean one day's work a month!

This is the trouble with policy shifting. When the Army turned from an easy discharge policy to a tight one the interpretations which followed were ridiculous. Without stability in policy you cannot estimate the repercussions in a large organization.

Now just a few words about the specifics of personnel management and utilization. I have already called your attention to the danger of unnecessarily high selection standards, because they just cut off part of the market.

It is also obviously wasteful to have arbitrary standards if they are not necessary. I talk to men in a fair number of executive development programs in industry and I point out that I am always startled by the number of women in the audience, which is usually zero, since one-third of the labor force in the United States are women. But there is enough discrimination still under way that women are very seldom in executive positions.

Another unrealistic search is to look for people who are free of disabilities. The important point is to define the jobs that need doing and to reject only those people who do not have the "qualifying characteristics for the jobs." Admittedly, many organizations have a series of jobs that they hope a man is going to be able to fulfill. But you cannot screen everybody for the most difficult jobs, such as combat, because there just are not enough fully qualified people to go around.

The next point--and I think it is very important to say it to this class--is that training means very much more than formal, classroom training. Industry has taken a lead from the armed services and in part it may be sound. It has gone very heavily into formal training. But the most important training is to give a man a job. Industry forgot that this was always an integral part of military training--assignment and reassignments after the man learned the job. The heart of

the Armed Forces training was to give a man assignment, give him responsibility, see what he could do, and move him on.

I believe that in the so-called scientific management of 1959 and 1960 the armed services have gotten in their own way by moving power toward the top. The young man with an assignment really does not have enough responsibility so he can show what he can do, and be evaluated on his performance. If you cannot test your people while they are working, no classroom training can possibly do the job for you. Historically the armed services did a very good job in trying to give young people responsibility and watching them. But I am afraid that recently they have gone backward.

I belong to the school which believes that an individual is likely to know more about what is good for him than a personnel department. If within certain limits people are permitted to bid for the alternative openings that are available, they will show who wants to work and who wants to work hard and who does not want to work hard at all more than any personnel system will ever discover. Of course you have to consider ability but from the point of view of a large organization this is one of the most important facts to determine: who are the partly interested ones, who are the lazy ones, who the real go-getters.

The big lesson, therefore, is not to manage people so tightly that you never see this revealed. And I would argue that there is much more room than anybody believes for letting people volunteer, within certain limits, for the alternative openings that are available. I see no advantage in having the personnel division send people who want to go to France to Japan, or people who want to go to Japan to France. This does not seem to add to the morale of anybody or the effectiveness of anybody. But it goes on all the time.

Next we were impressed with a failure to watch discipline and promotion properly. That is always hard in a large organization but I think that the whole of the society has found it difficult to establish and stay with standards. In yesterday's "New York Times" magazine section, Hans Morgenthau of the University of Chicago wrote a piece on my ex-colleague Van Doren. He said that the most upsetting thing about that episode was that with the exception of one Congressman, practically nobody had pointed out that what Van Doren had done was a fundamental violation of all of the basic principles of teaching; that the essence of teaching is dealing with the truth honestly; and that this was the violation, above all others, that could not be tolerated academically. He wrote about the general corruptibility of a society. I would

say that part of this insensitivity comes from our failure to hold people to account properly.

I want to end by making these points: We spend about \$10 billion a year on research and development, almost all of which has to do with the physical universe and the improvement of weapon systems and so on. We know very little about the human being who either has to make the discoveries or use the discoveries. I do not believe that spending money necessarily gives you new knowledge, but I would argue our research and development is in a gross imbalance as between hardware and people.

Next, the money is only a sine qua non. We really need major research teams that continue to work together overtime.

I now sit on a U.S. Public Health National Institutes of Health board. We have \$70 million to give away a year for research and training. I am a new member of the board; so I shall hold my fire for a little bit longer. But on my first reading I have been impressed with the absence of what I would call adequate research capital. We have to build up the research capital before we can look forward to significant results.

I would argue, next, that no one human being, no matter how smart he is, can cope with the great complexities of studying individuals in large organizations within the larger social environment. That involves psychology, sociology, economics, management theory. This is a very complex area, which makes it all the more important to develop proper interdisciplinary teams. And, to make the story even more complicated, individuals change over time, organizations change over time, and the society changes over time; so what we learn in any one period is only usable in part in any other period.

So, I shall end by saying that the most important thing to do about manpower utilization is to develop a point of view that it is so important a subject that we must be concerned about it at all times.

QUESTION: When you were talking about one of those World War II war babies, my shoes were a little uncomfortable. I wonder if you would take advantage of the opportunity to complete my demoralization by commenting about whether your studies of World War II showed anything regarding the officers from World War I who could not quite make it during World War II.

DR. GINZBERG: We did not have very much material on that, but it was well known that the failure to have a decent reserve, and the problems in the National Guard structure in particular, resulted in a setback in mobilization of many months. The War Department had to clean out a tremendous number of people who had stayed with the National Guard units between World War I and World War II but who just could not make it at all. In any large group, obviously, there is a spread. Some of them were outstanding people; but on the whole, they left something to be desired.

QUESTION: Recently a distinguished speaker from this platform stated that the change in criteria for Selective Service in which they are allowed not to exempt category 4 personnel was instrumental in reducing the population in our disciplinary barracks, or at least the number of disciplinary barracks from four to one. Would you comment upon the effectiveness of this change?

DR. GINZBERG: I think it is true--and that is what my last comment was about--that the lessons you learn at any one period of time must never be projected indiscriminately to another period. I think it is true that as of the present time, when the armed services are taking in relatively small numbers a raise in the cutoff point for education ought to give you a short-run advantage.

The question that I want to return to is this: Since the armed services have a double function, a maintenance of active forces in strength, and also the preparation of a mobilization base, and since it will be impossible to ever mobilize with such high cutoff points, what price are you paying for having no experience with the lower cuts in the population?

QUESTION: During World War II a company commander--of a company of 200 men--had a great deal of authority in promotion, discipline, and so forth. He could tell a sergeant, "You're no longer a sergeant," or tell a private, "You're no longer a private; you're a sergeant." Today this is reserved to the Pentagon largely. He has lost that authority. You spoke once as though you believed that was a bad thing, that maybe we should return to the former situation. On the other hand, you spoke of the desirability of stability and consistency, which is the very basis of moving this authority from the company commander to the Pentagon. Where is the balance?

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DR. GINZBERG: I do not know whether I have to sing for my lunch, but I am going to have to work for it. This is a tough one. I will make two statements: leaving the question now of promotion and demotion for the moment, in general I think the Pentagon has moved to delimit and restrict the job of the junior officer too far. There are so many policies in effect that, while each of the policies of and by itself may be justified in order to conserve this resource or to maintain stability, eventually there will be no opportunity for a junior commander to learn anything about command. Since you are dependent upon training people, and since they must have the opportunity to learn how to command, I think this has gone too far. This is the first statement.

With respect to promotions and demotions, I think that it does make sense to establish certain Army-wide criteria for changes in rank; moreover, I do think it is wrong to leave sole determination to any one person.

It does not make much sense to me for a captain to have the power to make or break a sergeant. A narrow balance must be struck between complete determination by the Pentagon on formal examination and reasonable decentralization to the field; perhaps there can be two levels of personnel in the field to deal with promotions and demotions.

QUESTION: Doctor, in the Navy at the beginning of World War II all of our top commanders who had written the books and the doctrine and so on were immediately replaced by different people. We did not have one of them left in responsible jobs. Now, to me that indicates that we are training a different type of people for peacetime than we would want in wartime. Could you say whether or not we have two different standards for people that we want in peacetime and wartime?

DR. GINZBERG: I think that part of the problem is just an age problem. That is it is inevitable that the older people move toward the top of an organization, especially in peacetime. When an organization is not being pressed by external events too much, the tendency is to give very heavy weight to seniority. That is just normal. Then when you get very heavily pressed there is a question of actual physical and emotional endurance.

Look at what happened on the supply part of the War Department. For the G-4 structure they tried four people before they found Somervell. Now what was Somervell's advantage in addition to being very

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intelligent and tough as nails? He had had the job of running WPA in New York. That was a unique experience. He had had more training by virtue of that experience than most people.

It is not that the people who do well in peacetime are not competent. It is that when you get a quite radically stepped-up set of demands, you frequently need simply a younger age group. What impressed me was the age distribution of the people who moved to the top in World War II. I think on the whole it had to do with a physical and emotional resilience, which very few of the older people had.

QUESTION: I appreciate your lectures on the utilization of this manpower pool. My question has to do with the pool itself. Have you detected in your studies any reason to believe that the pool itself has deteriorated between the two wars on the basis of perhaps the predisposition to eliminate the survival of the fittest type of pressures on people?

DR. GINZBERG: No, I would say just the opposite. The only possible reading of the education and the skills of the people in the pool was an improvement. There was a big increase in the educational background of the American public. I am guessing now, but I would say there was an increase of about three years in the average level of educational achievement of soldiers between World Wars I and II.

However, that is only part of the story. The other part is, What's the nature of the change in demand: that is, the demands that are made on people? Therefore, you might say that while the educational system and the quality of the pool had improved, it had not improved enough to keep pace with the demands.

Now I do think that there were other questions than education involved. In the 1920's and 1930's we were a substantially pacifistic country. That was a time when we did not want to have anything more to do with war. The college youth were definitely convinced that war made no sense and was just a kind of exploitation of the munitions makers. The remarkable thing to me, frankly, is that with that background we did as well as we did do in World War II. There was apparently a kind of commonsense, a stability, of the American people that, when they got a new reading of the nature of the world, they did pretty well, everything considered.

I think one of the troubles had to do with the psychological approach. I think we defined shortcomings in character as mental illness--that went too far in my opinion. I would say that one of the consequences of this heavy psychiatric orientation in the advanced circles was that we were unable to believe that questions of motivation and character still played a role in performance.

My general sense is that they do; that all bad behavior is not illness; and from that point of view I think the armed services got caught in some troubles, troubles that were reflections of the country at large. But in general I am pretty well impressed with the fact that considering the kind of a world we lived in during the twenties and the thirties, we did quite well. Just think about the inability of so many youths in the thirties to get jobs, to gain any experience of discipline at work. That was a period of unemployment, very heavy unemployment among the young people. So that, everything considered, I think that we came out in pretty good shape.

QUESTION: Doctor, we have heard a lot about IQ's and to the effect that this doesn't change or maybe just slightly. Could you correlate the IQ's with the end results?

DR. GINZBERG: Let us put it this way: There was a heavy interrelation between IQ and levels of grade completed. The overlap is also considerable. That is, there were, as I recall it, at least 5,000 people out of the 18 million who were screened who had never graduated from elementary school, who were in the upper 1 percent on an IQ basis. This is the most extreme. When you moved to, let us say, the upper 10 percent, you had a tremendous number of poorly educated people.

So while it is true that in general there is a substantial intercorrelation between IQ and educational background, there is enough divergence to make it very important not to jump to any conclusions when a man says he's a college graduate or a high school graduate, and not to jump to any conclusions when he says he's not, because you always want to take at least another reading. As of the present moment we have a tremendous number of low IQ people in college--a tremendous number--at least 30 to 40 percent who in my opinion do not belong there.

QUESTION: Do you think you should screen those IQ's? I know in the State of Ohio a kid with an IQ below 50 can't go to public school. They screen him out. What education they get, they have to get on their

own somewhere. Their parents have to get it for them. Is there some point where you think you should screen them out?

DR. GINZBERG: No, I would say that as you get down toward the margins, your problems are always more complicated, because the tests become less and less relevant. You have mental retardation and emotional instability and sometimes physical weaknesses all mixed up together. And the big job that a society has is not how to screen them out, but how to screen them in. The question is how to get some support for people at the margin so that they don't become hopelessly dependent throughout their whole lives. From 5 to 70 is a long time, and the big trick is to make an investment from 5 to 15 so that they can at least do some modest jobs throughout the rest of their lives.

Screening out is no trick. There is no use taking all the fellows who are difficult students in the New York public school system and throwing them on the streets at 14. That is no answer to anything.

COLONEL SMITH: Doctor, it is not that we do not have any more questions--we have lots of them--but we have run out of time. I do realize that you've stirred up a veritable hornet's nest of questions, but I think we shall have to satisfy them on our own. You have helped to stimulate them. Thank you very much.

(6 July 1960--4,600)B/pc:de