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METHODS USED IN DETERMINING CIVILIAN REQUIREMENTS

2 December 1947

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METHODS USED IN DETERMINING CIVILIAN REQUIREMENTS

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COLONEL MICKELSEN: Gentlemen, in our course on requirements you have heard from the various departments about military requirements. This morning we are going to hear about civilian requirements in wartime, from a man who, due to his experience and his former position as Director of Civilian Supply for the War Production Board, knows a great deal about the subject. I welcome to our rostrum Mr. Joseph L. Weiner.

MR. WEINER: That was a very kind and very flattering introduction. I think perhaps I know a little more about the subject than the ordinary layman, but I doubt if there is anyone who knows a great deal about it.

The problem of civilian requirements in a future war is likely to differ materially from the problem as we have known it in the past in either World War I or World War II. In World War I the problem was hardly touched. The records tell us that in July of 1918 there was a conference with the automobile industry at which they discussed curtailment. By contrast with that, in World War II we had curtailed prior to Pearl Harbor to 50 percent of the base period. Three days after Pearl Harbor we cut that 50 percent in half, and the last civilian automobile actually rolled off the assembly line on 10 February, 1942. The pace, in other words, was entirely different. In World War I the only civilian problem of any magnitude was coal. In World War II we had a great many problems. But in a future war I would expect a far more acute situation, for these reasons: First, there would be presumably less time to prepare; second, shortages would be more or less universal in scope and much greater in intensity; third, we must anticipate that we would not be spared from havoc and destruction within our own continental borders.

In the review that I attempted to make in preparation for this talk on requirements, I concluded that there were really three periods involved, each with its own set of problems. The first is the period of the preparatory stage, that is, the stage while the war machine is being built, when new war plants are being created and orders are being given and conversion is taking place. During that period the only real problem of civilian requirements is to see that there is no capacity that is standing idle that could be operated. That is, it is quite important to keep your full production machine going during that time on civilian goods in so far as it is not required for military production, looking on the product, if you will, to the extent that it is not

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currently expended, as a civilian stock pile. That civilian stock pile will be useful, indeed, may be indispensable; and it does not matter whether the stock pile is in warehouses or in the individual home. In other words, a quantity of clothing, an automobile, even the rubber tires on the car, even though the car is in a private owner's garage, is nevertheless a national asset in wartime. It may be necessary to deprive that particular civilian of that article and transfer it to someone who may require it more. The important thing is that it is available. The huge automobile production of 1940 and 1941 enabled us, with appropriate conservation measures, to get through the war without resuming civilian production.

The second stage is the stage where the preparation has been completed. It is what might be called the all-out-effort stage, where your civilian requirements really have to be measured, because then it is presumably a national policy to insist upon limiting those requirements to what might be called the bedrock requirements. Here we are thinking of nothing but supplying those essentials that will enable the civilian population to keep going. This is, of course, the most difficult and most controversial period. I shall return to it later.

Then the third stage is the tapering-off stage, the stage where the end is definitely in sight, where there is not very much conjecture as to the outcome, but solely as to the time of the outcome, when the procurement forces are pulling in, cutting back, where the problem of reconversion has to be faced. Briefly on that point I would offer only this observation. I wonder if it is not reasonable to say that on the whole, while World War II was still on we did very little reconverting, but we talked about it a great deal. In my opinion this should have been reversed; that is, more could have been done by way of production of nonmilitary items, but without needless fanfare. I have the impression that the top military leaders felt that they could not afford to have all the headlines talking about the war being over, while the shooting was in fact still going on. It was the publicity that I believe they protested more than the actual production.

I return now to the subject of bedrock civilian requirements. And first I must caution you that the term "civilian" is ambiguous. I recall that the first study we had to make, which was the demand for steel as contrasted with the supply, was one where we were undertaking to make of what we called "civilian." But when we found what everybody else was doing, we saw that there was an enormous gap; so that we finally had to label our study "nonmilitary" rather than "civilian." No one had attempted to cover such obvious things as the operation of the transportation system. No one had included the requirements for maintenance of plants, even those whose products were entirely military. In other words, in the development stages of the war effort we found that the Military

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Services thought of their requirements in terms of the end products which they required, and not in terms of all the preceding steps that would be necessary to assure that flow of end products. So there is always a risk in this kind of planning operation that some requirements will be lost by the wayside because no one regards them as his obligation. I speak of that wholly without regard to who should do it. It is simply a fact that it must be provided for in any scheme of planning for the meeting of requirements.

As to the measurement of the civilian requirements, it is apparent from what I have already said that the meeting of these requirements is only to a very slight degree the meeting of what might be called the humanitarian claim of people to survive. From a purely military standpoint, the essential requirements of the population are part of the war requirements. The civilians are not only civilians; they are also the producers of the military goods with which the war is being waged.

Perhaps I might illustrate that by an incident which gives some color to the bare concept. We were told that in aircraft factories, absenteeism was one of the great problems. It seemed to be concentrated on Monday, and we had assumed, along with many others, that that probably was too much week end. We discovered that there were other explanations. We found from conversations with plant workers and managers that one reason for the high absenteeism rate on Monday was that laundry facilities were hopelessly inadequate, and with a very high percentage of female employees, Monday was wash day. So there was a great deal of difference between wash day and hang-over day. There was also poor economy in satisfying the requirements of the population by a lot of hand laundresses who should have been at work at an aircraft plant, as against professional laundresses with adequate equipment. An excess of manpower was devoted to the laundering job in an inefficient way simply because it was regarded as a civilian frill.

Now, we did not, in my judgment, in the last war actually reach, except in a very spotty fashion, anything like a bedrock stage of living. The only thing bedrock about our economy, speaking as a whole, was the fact that we used that word. There was a great deal more room, I would say, if the necessity had arisen, I doubt that there was more room unless driven by necessity, because we have not as yet established the correlation between that kind of civilian scale of living and the actual production that accompanies it.

I have in mind all the time that I am dealing purely with mathematical equations, namely, the civilians as so many people producing munitions, producing the necessary instruments of war, and that what you wish to allot in the most unemotional calculation is that quantity of

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civilian goods which will produce the maximum quantity of military goods. You are quite justified in giving more to civilians if the total effect is to produce more military goods. So there is room not only for laundries, but also for entertainment, for nurseries. The objective is the greatest total production, the civilian expenditure which will give you the maximum amount of military goods.

We don't know what that is. We have had no occasion to test it in practice in this country, except as to some items and for relatively short periods. It is questionable to what extent the experience of other countries is an accurate guide. The British were, of course, very close to it, perhaps more so than the Germans, since our reports tell us that the population of Germany, as we found it on VE-day, looked better fed and better clothed than the population of the British Isles.

Our approach to it was this: We started with such units of measurement as were readily available. For example, we took a budget prepared by the Department of Agriculture. We took budgets available from the various health services representing a minimum consumer standard of living. They were all in dollars. We also got the items on which the budget was calculated, which would be items in terms of rent, that is, shelter; in terms of clothing; in terms of food; and in terms of minimum schooling--the various units comprise the national standard of living.

We then attempted to translate those in terms of the entire population on the one hand and in terms of product units on the other hand, and finally in terms of dollars so as to give some indication of what proportion of the gross national product, what proportion of that which the country was capable of producing in a year's time, might have to be allocated for the purpose of meeting the needs of the domestic economy.

As you can see from that approach, the result was not built up of individual or community requirements, which in fact is how these requirements would have to be met in practice. We did not attempt to say, "This is what would be needed for the population of San Francisco, this for the population of Dallas, and this for the population of New York City"; and, taking in all the other communities, do it by a process of summation. That process would have been too laborious for the time we had and would have passed beyond the degree of accuracy which we required for the study. We did it rather by the process of generalization, taking the unit family and multiplying it by the number of family units in the country, with some variation for the type of community, location, and so on. That was a much quicker study and perhaps as accurate in results as any summation study would be, because

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of the innumerable imponderables. We recognized, of course, the limitations of such a study, but it was helpful in considering the maximum military program that might be feasible under the conditions which then existed.

Under any future war conditions a great deal more attention would have to be paid to regional requirements, because we cannot indulge ourselves in the assumption, which we did last time, that there would be no disaster areas, no special strains, so that the requirements of a family at one end of the country would be roughly the same as those at the other end of the country, and there would be no special needs to meet of people who had lost everything. That is, we were assuming a continuity of the base that we had. Your floating requirements over a period of time depend a great deal on whether you start out naked or start out with the stock pile that all of us have in our homes. We started, you see, with more or less of a continuing asset. It fitted the facts as we had them, but it may not fit the facts that we would presumably have to confront on a next large-scale military occasion.

Even so, the historical material studies that we had for this purpose were in a large measure rather poorly adapted for the end that we had in view, because they failed to take into account the problems created by the war itself. As you all know, the meeting of the production schedules in the late war required a substantial shift in population. We had whole new communities created, not as enclosed typically as Oak Ridge, but as new and as widespread as Richmond, California, where from practically a blank oceanfront we built up a large shipbuilding center. A requirements study must reflect these conditions. We did not, however, have to do a thorough job in this respect because most of these communities had been substantially created before the more drastic controls were applied. Because the process was gradual, the major part of the effort was unplanned. The labor force was attracted by the wage schedules, business establishments were introduced by enterprisers, and community facilities provided in part by local officials and in part by the managements of the plants.

I doubt whether in the early stages any plan could have been set up to meet these requirements as well as we did in practical terms simply by the wage schedules.

In other words, we allowed the wage rates to go up to an amount sufficient to uproot a lot of people and bring them out there, and we allowed their requirements to be met largely through enterprise attracted by the money to be spent. We found in the later stages, however, that money alone was not sufficient. In 1943, let us say, it was no longer possible to make every adjustment in terms of so much more per hour. At that point we had to make specific adjustments in terms of housing,

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sometimes in terms of services, that were needed to meet the requirements of the population working in those plants. We had to do that in terms of specific services because the worker no longer could count on being able to purchase those services with the pay check.

In planning for a possible future conflict, and a greatly accelerated mobilization, we would have to plan initially in terms of specific services to new communities, all the requirements of utility services, all the requirements for shelter, the church, the school, without which a population will not be efficient producers, whatever else may occur. A good deal of this kind of planning may be undertaken if the suggestion is taken seriously that we disperse our population as a precaution against future atomic warfare.

In view of the time available, I will comment only briefly on distribution. This is a very serious problem from the standpoint of the civilians. There are, of course, no centralized purchasing agencies, such as the Armed Forces have. Rationing is difficult in itself, and can be applied only to a limited number of items. Our only experience with queues was postwar and involved nylon stockings. But they will be an inevitable accompaniment of scarcities greater than we experienced in the late war.

I might just as a pure illustration take up one or two items of requirements and indicate how we went about looking at them. For a long time we planned, for instance, the requirements of the railroads. In attempting to ascertain what those were we had statistics collected to show such things as the relationship between maintenance and accidents; to what degree, in other words, a deterioration of the standards of maintenance of a railroad resulted in a higher incidence of accidents. Even again assuming you have no regard for human life, that it is a price you have to pay, but purely in terms of efficiency, there are, of course, losses involved in every accident, material losses and delay, and they bear substantially upon the general effort. The relation of maintenance to traffic accidents was a very real question.

We found as a matter of fact that so far as any conclusions could be drawn from these statistics, maintenance could be permitted to lag materially for a considerable period of time without resulting in any noticeable increase in accidents or noticeable decrease of efficiency. We were able to conclude that because during the period of low revenue that had been the practice of the railroads. So we had an actual history of the experience of the railroads permitting their maintenance to lag because their revenue could not encourage them to maintain those at a higher rate; yet at the same time finding that the immediate results were not at all serious. We consequently were able to set a rate of maintenance in terms of steel rails and other requirements which was

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drastically lower than what the railroads contended for. And, while eventually we found that we overdid that to some degree, I would say that the impress of that series of studies operated right through the war in making more steel available for munitions as against the very large claims of the railroads and interstate commerce.

Similarly in other fields we took the position, let us say, in relation to alcoholic beverages that it was not part of our duty to attempt to set a moral code; that we were dealing with the subject purely in terms of requirements of the population as we knew it and under the circumstances in which we would have to live. So we had an allowance for alcoholic beverages which on the one hand was the object of great abuse from the beverage industry and on the other hand was productive of equally severe abuse from people who thought alcoholic beverages should be banned both in war and in peace.

And so I could go on through various items indicating the elements which we took into consideration and how we tried by a process of judgment, as we called it outwardly, but which was, as we all know, just dignified guesswork, to attempt to arrive at some figure which we hoped would prove reasonably accurate if applied, knowing that at best there would be variations on many specific occasions and that a number of items would turn out to have been foolishly recommended.

There is available in the files of the Government today a vast quantity of such studies, including a number of sharp criticisms of the bedrock studies which we made. These should be assembled and analyzed for the use of those who are concerned with the problems of civilian requirements. They would show, for example, not only the bases for calculation of requirements, but also the extent to which these requirements are interrelated, the conservation possibilities, and the like. The debate over form equipment requirements is especially illuminating and illustrates both the problems of making estimates and the pressures to which the estimators will be subjected. I assume that, at this time, the task should be undertaken by the Security Resources Board, which is given under the National Security Act a status which is very high indeed, in that it is placed technically on a level parallel to the National Security Council, reporting directly to the President. As part of its duties it is presumably planning both requirements as such and the organization that would appear to be best suited for handling these requirements. As to the latter, if you study the records of the late war, you will find that many changes took place and that toward the end, different portions of those requirements were handled by different parts of the war agencies, with not too much coordination. To discuss this question in the abstract is pretty futile. Mobilization planners will have to consider this problem in the light of the over-all structure which they conclude is best adapted to carrying out the Nation's objectives.

Thank you

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COLONEL MICKELSEN: Gentlemen, Mr. Weiner has very kindly consented to place himself at your disposal for a question period.

QUESTION: I was very much interested when you said in that period the British had come closer to reaching that limit than the Germans, because somewhere I had read that the German economy had gotten to 55 percent as compared to 60 percent for war purposes, leaving 45 percent roughly for the civilian economy, and that the British were about half-way, whereas we had gotten to only about 44 percent at the maximum for the military out of the total.

MR. WEINER: I think your figures, as nearly as I can recall, are likely to be correct. That would be a measurement of the current production and the uses for which it was tagged. Germany had a large stock pile, which the British lacked, and was able to augment its stock pile by taking in all the resources of the territories which it had conquered. So that actually the Germans maintained for their civilian population, as nearly as we could judge from such records as are available and from the actual appearance of the civilian population shortly after the conquest, a standard of living which was superior to the standard of living of the average Briton.

QUESTION: I was just wondering what happened to this bedrock report that you talked about.

MR. WEINER: The original report was sent to Mr. Byrnes, who was then still the economic stabilizer. It was before the creation of the Office of War Mobilization, as I recall it. Also it was sent to some other departments for comment. In the meantime portions of it began to leak, a process well known to all Washingtonians, with the result that it was finally printed, that is, the text of it, by the New York Times in a huge Sunday spread. I think there are probably more copies available in that form than in any other.

QUESTION: Was any consideration given during the war to standardizing civilian consumer items, such as handkerchiefs, can openers, and things of that kind, a process similar to the British rationing?

MR. WEINER: There was in fact a great deal of standardization of civilian requirements, but nothing approaching the British system. We got standardization in some measure through government pressure. We got a great deal without government pressure, simply through the desire of the producers to get the maximum number of units out, and therefore a desire for the elimination of varieties.

For instance, we all recall the varieties of colored towels with various borders. As the war progressed, those tended to disappear and you got no more than two sizes, let us say, and the color range was gone.

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It takes time to reset the looms in order to change a thread on a border or any other adornment, time which is no longer required because there is no longer competition for consumer favor. I mean, the whole element of consumer attractiveness can be disregarded when the total volume can be sold and prices are controlled. We got a great deal of standardization that way.

We never got anything equivalent to the British utility program, for instance, where you would channel goods for a minimum number of low-cost garments all practically standardized. The British were way ahead of us in that respect, again, I would say, by reason of necessity. We never were pushed that far.

QUESTION: I would like to ask a corollary to that question. Were there any studies made of the respective percentages of savings that could be made by standardization programs?

MR. WEINER: I am not sure that I could tell you whether we did have such studies. I know that the British did go into that, but it was only in part in terms of saving material. A very important part of it was in terms of wage stabilization. In other words, what they wanted to do was to be sure that enough materials were channeled into clothing of a price character which would be consistent with the wage of the ordinary worker. The same number of yards could be made into a fine hand-stitched garment, but it would be entirely out of that range. So the object was not entirely, I doubt that it was primarily, in terms of the actual yardage saving. That is what we did. We eliminated cuffs on pants and vests with double-breasted suits. We tried some degree of curtailment of yardage in women's clothing and the like. Those old limitation orders must be a memory to most of you. But the British program, I think, had a wage stabilization element in it at least as important as the material-saving element.

MR. MASSELMAN: You mentioned that we tried to determine the requirements of the civilian economy based on a percentage of the gross national product. Are you prepared to say whether that was the gross national product before the war or the gross national product during the war?

MR. WEINER: What we did was this: We took items in the requirements and tried to translate those into dollars so as to get an approximation of the amount of the current product that might be required from the civilian standpoint. One of the reasons for making that study was to get an estimate that would indicate how much of the national product could be spared for military and export, in other words, how big a military program you could have.

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One way to find that as to see how much of your total product must be assigned for civilian needs. In fact, at the top of an all-out effort you could say paradoxically but with a lot of truth that you might as well put the civilian requirements first, give them a double A priority, and say, "Here is what they need. This is the minimum. Once you supply that, anything else goes to the Armed Forces." From that standpoint we are not interested in what that percentage in the past represented. It is what percentage of the current productive capacity this bedrock civilian requirement represents.

QUESTION: When was that study made?

MR. WEINER: My recollection is that it was done around the end of 1942.

QUESTION: Did you have any way of determining how much your gross national product would be in 1943 and 1944, which was much higher than in 1942?

MR. WEINER: Yes. We had current forecasts on what it would be.

QUESTION: Is there any report on that basis?

MR. WEINER: Oh, yes. Look at the Planning Committee's reports of the War Production Board. We had a good many reasonably accurate forecasts of what the gross national product would be. It was on that basis that, in fact, the size of the military program was debated. In other words, some of you who are familiar with the history of it may recall that right around that period there was a very vigorous debate--in fact, "debate" is a polite term--as to the size of the maximum feasible military program. There was a number of economists who were insisting that 90 billion dollars for the current program was the maximum, as against a projected program of over a hundred. That naturally was an attempt to forecast the total productive capacity of the country.

The chief criticism of the excessive, as it was considered, military program was not so much in terms of its effect on the civilians, but rather in terms of an excessive program tending to schedule a lot of things that would never be made, but only parts of which would be made; in other words, that it was an inefficient program. The Army, it was claimed, was going to get all parts of the economy balled up by over-scheduling, and we were not going to be able to match up our production.

QUESTION: Did you do any zoning of the country, that is, allow goods to be distributed only in the area near where made and therefore save transportation?

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MR. WEINER: The only zoning that was done was in the transportation of products. No attempt was made to actually limit the product as such to consumption within an area. But there was some transport zoning in terms of product. We tried to avoid having California oranges sent to New York City. But there is a limit to what you can do even there.

QUESTION: I noticed that your efforts in this bedrock report or study were definitely based on national product. Did you consider any other method of determining that before you hit on national product, such as materials or any other system which was discarded in favor of using the national product?

MR. WEINER: My recollection as a matter of fact is that the national product percentage was more the end result than actually the method. We had by then proceeded to make a number of studies of the demand and requirements for many materials. I think you will find, if you go over the records of the Requirements Committee of the War Production Board, where all these requirements were cleared for a good many years, that we made the first detailed study of steel, for example. We started with steel as perhaps the most basic single material in a war economy and all our early curtailment programs were directed to that.

I might say the paradox is that we wanted to curtail it although we were representing the civilian economy. We tried to explain that away by saying that, of course, if we cut the civilian economy now, we would be better off later, having gotten more war goods now, and then when we got really tight, there would not be such pressure on the economy. But actually our motive was not quite that pure. The position of the civilian representatives was extremely difficult, because every other representative came in with a clear conscience to get the most for whatever he represented. Of course, if a civilian representative went in and battled for that and was successful, then the measure of his success was that he stopped the war. Obviously to the extent that he was very successful we thought he should be taken to the nearest lamp post and strung up. So you have a really difficult position to maintain and you have problems to settle with your own conscience.

But we had a number of studies in terms of materials as allocated to the separate requirements. We had those for steel. We had those later for copper. I think you will find a good many studies in terms of materials. We have also had studies in terms of certain types of end products. We had one in clothing, for instance, in national units. I think you will find that the national product procedure was more of an end result in trying to measure it as against the total capacity of the country, working on that basis as a means of measurement in comparison with what the country's productive capacity could be, because those were

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the only units we had for measuring productive capacity--170 or 190 billion dollars as the estimated gross national product.

QUESTION: Since the war ended has anybody in the Department of Commerce made any study of the British and German experience in the late war?

MR. WEINER: Most of my information is oral in regard to that, I regret to say. People have come back and discussed what has happened because they know I am interested, including many former members of my staff who have been with AMG and in other positions. I am sure a great deal of this material is being gathered, but where it is being lodged and to what extent it will find general publication I just could not tell you.

QUESTION: You have spoken about the organization for figuring requirements and suggested that the National Security Resources Board perhaps would be doing that. I am interested in knowing whether you would elaborate on that a little, particularly in view of what appears to be a possible trend of events in which the military would first figure their requirements for end-items and then possibly the Resources Board would figure the accessory requirements and finally the civilian requirements. Would you comment on that?

MR. WEINER: All I can tell you about it is this: I know solely what the statutes and the committee reports say about the Security Resources Board and the scope of its operation. As I see it, they are at present the recognized and authorized agency for channeling whatever mobilization plans are to be produced now, over-all mobilization plans. In other words, if we are to have industrial mobilization plans, as we undoubtedly will have, of a character far beyond what we got in 1939, they will originate with the Security Resources Board, and those will be the only authoritative ones.

Whether that Board will also operate on requirements and pass on requirements in the event of a war is another matter. I don't see anything in the statute which delegates that authority to them. It makes it possible that they will have it, but it does not assure that they will have it. The chances are that there will be a period of experimenting in a new war regardless of how much preparation there will be. That is so far as I can answer your question. I just don't know how it is going to be done, because I don't know of any mobilization plan that has been gotten out which actually attempts to assign these responsibilities.

COLONEL MICKELSEN: Assuming that someone is going to have the responsibility of performing that task of determining the civilian

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requirements for the next emergency, should there be one, we are interested in knowing on what basis that can be done. Would you care to comment on how reliable and how feasible it would be to attempt to get the various segments of industry to give information by which we could plan as to what their requirements would be?

MR. WEINER: Of the industries themselves?

COLONEL MICKELSEN: For instance, the railroad industry to make up plans as to what their requirements would be, to be given to this responsible body as the basis for their planning.

MR. WEINER: I don't know to what extent the last experience may have had a chastening influence, but I would consider it highly improbable that in the first instance any industry would submit requirements anywhere within a range of essentiality. I don't mean by that to be really critical. The first thing that industry would be confronted with would be this: "How do we know that everybody is going to submit requirements on a basis of essentiality? How do we know that all the requirements won't just be subjected to a general 30-percent cut, as they were in the late war? Can we afford to gamble on that?" Considerations of that kind are bound to operate, with the result that the figures which I would anticipate would be quite unreliable. I would say, without attempting in any way to be critical, that I don't think it is a job which they can really do until there has been some development of standards which they can rely on with some confidence.

COLONEL MICKELSEN: I am sure that I can express for the student body and our guests our appreciation for Mr. Weiner's talk. Thank you very much, Mr. Weiner.

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