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**Round Table on the Interrelations of
Demographic, Economic, and Social Problems
in Selected Underdeveloped Areas**

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The New York Academy of Medicine
New York City**

c o n t e n t s

WEDNESDAY, NOVEMBER 18, 1953	P a g e
Wednesday Morning Session	
"Demographic Transition in Japan: Omens for the Future of Asian Populations" By Irene E. Taeuber	2
"Population and the Future in Taiwan" By George W. Barclay	17
"Cultural Checks on Birth Control Use in Puerto Rico" by J. Mayone Stycoos	22
Wednesday Afternoon Session	
"Fertility Control and Social Change in India" By Kingsley Davis	40
"Hinayana Buddhism and Family Planning in Ceylon" By Bryce Ryan	52
"Demographic Glimpses into Burma" By Philip M. Hauser and Evelyn M. Kitagawa	56
"Notes on Human Fertility in Central Africa" By Frank Lorimer	88

C o n t e n t s

NOVEMBER 19, 1953

P a g e

Thursday Morning Session

"Research Needs and Suggested Projects"

Opening Statement

by

P.K. Whelpton	109
Allan R. Holmberg	116
William J. Gibbons	124
Joseph J. Spengler	134
Robert B. Vance	142
Frank W. Notestein	143
Discussion	165
Adjournment	207

**Round Table on the Interrelations of Demographic, Economic,
and Social Problems in Selected Underdeveloped Areas.**

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WEDNESDAY MORNING SESSION

November 18, 1953

The Wednesday Morning Session of the Round Table on the Interrelations of Demographic, Economic and Social Problems in Selected Underdeveloped Areas Conference of the Milbank Memorial Fund's Thirtieth Annual Conference convened at 9:30 o'clock a.m., Lowell J. Reed, President The Johns Hopkins University, Chairman.

CHAIRMAN REED: I might open this session on Demographic, Economic, and Social Problems in Selected Underdeveloped Areas. I hesitated because I could not tell which number this is.

DR. KISER: This is the Thirtieth Annual Conference.

CHAIRMAN REED: How many of those have we had meetings of this sort devoted to the Demographic Problems?

DR. KISER: At least 25.

CHAIRMAN REED: I would think so. I sat here thinking these conferences go back a good ways and I know a number of us who have been present at them have found them very valuable in our thinking around this problem.

The program that we have before us is pretty clear in its design and intent. I thought that in the meeting it would be well throughout the day to have these papers as they are listed and have discussion after each paper rather than leaving the discussion to the end of the morning as we

have at times because the papers are sufficiently different that it might be well to discuss them as they come. Then in the morning session tomorrow we have a series of brief statements by the group of people that you see listed and I thought we would have all those brief statements and then open the meeting up for general discussion at that time rather than try to have discussion after each.

I mention that to give you an idea of the way in which the meeting may proceed.

I think perhaps we might start as usual by announcing our names and positions.

(The Conference Membership was introduced.)

CHAIRMAN REED: The first paper is titled "Demographic Transition in Japan: Omens for the Future of Asian Populations." Irene Taeuber is out of the country and Dr. Frank Notestein will read her paper for us.

(Miss Taeuber's paper titled "Demographic Transition in Japan: Omens for the Future of Asian Populations" was read by Dr. Notestein and was filed with the Conference.)

CHAIRMAN REED: Thank you. The paper is now before the meeting for discussion. I suggest that we follow our usual practice of free and open discussion. I am sure Frank will answer any questions and will have comments of his own.

DR. NOTESTEIN: I assure you I do not know too

much about Japan.

PROFESSOR WHELPTON: It seems to me that Irene has been quite optimistic in taking Tachi's low forecast and discussing the magnitude of the problem. It does not seem to me as though the decline in fertility is likely to go as far as indicated.

First, she made clear those were minimum assumptions that could not be less and was likely to be more. It seems to me I agree with that and almost wonder if you do not get too optimistic a picture of the problem unduly minimizing its magnitude by taking those fertility assumptions. In other words, they are coming back to the Cohort of

I cannot help but feel that the recent decline is, in important degree, a matter of timing and it is dangerous to extrapolate trends in annual rate.

DR. NOTESTEIN: I believe her technique was to take a thing lower than she, herself, believed, and show that even on that statement of the case it was a very serious problem.

MR. VINNEY: I am not sure whether I missed something in the paper or whether there is another gap that adds to this over-optimism in the discussion. It seemed to me in the paper she pointed to the various factors that might have been pointed to hopefully for reducing fertility rates

families continued in the rural areas and yet in spite of this fact she appears to accept the assumption that there is going to be a continuing decline in fertility rates within Japan as a whole to the point that erases natural increase. Is there any discussion to point to the justification for that assumption, the reduction in fertility rates and reduction in family size?

DR. NOTESTEIN: Virtually all of the decline in fertility in the rural prefectures has come about through raising age of marriage, that is her point, particularly up to the outbreak of the war. It remains true that birth rates were declining in every prefecture of Japan, including the Northeastern prefectures before the war. There was no part in Japan in which there had not been a secular drop in the birth rate though it was achieved mainly by the delay in marriage. I would not want to go further. I take it the gist of her argument is that the form of modernization in Japan left intact many of the fundamental social institutions that support high fertility in rural areas and that she expresses considerable skepticism as to just whether a little education and radio and the like, electrification, and so forth, is going to be sufficient to overcome a pretty sticky institutional situation.

DR. DAVIS: Isn't it another point that you have

had this tremendous rural-urban migration which has, in a

sense enabled the rural areas to maintain the fertility without the consequences. The reverse of the situation is fairly new as yet.

DR. NOTESTEIN: I was not trying to put in anything but the factual situation. Conrad could probably speak better than I.

DR. TAEUBER: You are in a better position than I am.

CHAIRMAN REED: I wish Irene were here. However, these were not the estimates she was making. She was making these deliberately as the minimum estimate she could make and then showing how serious the case was.

DR. SPENGLER: I wish to raise a question and I am not sure I should raise it at this time. I wondered if there were any projections as to how many jobs would be needed in foreign trade to accommodate this 70 per cent increase in the labor force or the persons 20 to 64 because that would throw quite a bit of light on the extent to which the economy would be under pressure to make certain kinds of expansion. Perhaps that point had better be delayed since I think Mr. Houser's question is on the other. There were no data in the paper.

DR. NOTESTEIN: Not in this paper. A certain and abiding food deficit in Japan would have to be taken into consideration.

DR. SPENGLER: You would have to get some measure of the magnitude.

DR. NOTESTEIN: I would be surprised if almost all the increase did not have to come in those terms especially if you look for any alleviating in the level of living, any lifting of the levels of living.

DR. HAUSER: Mr. Chairman, I would like to make this observation: I am inclined to pay a lot less attention, I think our experience would let us do this, to any of the projections except to carry through along the lines of their economical implications in response to the kind of question Mr. Spengler raised. I think implementing any suggestions in terms of its economic implications gets to be the \$64 question from the standpoint of those administering economic developmental programs. But the basic observation I want to make is that I think the important point in Irene's paper does refer to the fact that we still have no knowledge of what some of these causal sequences she refers to actually are. That would apply particularly to the agricultural areas and to some extent the urban areas. We have here the kind of thing we have been accumulating in terms of external indexes of trends without being able to get at the heart of the specific questions such as what kind of timing is involved in a lag between fertility and mortality and the others because we have not even at the social and psychological facts that

give us insight into the causal sequences.

I think, with all these papers we collectively have on the subject, that still remains and I think her reference to that is the most important single point. I doubt that we can answer the kind of questions that have been raised about the projection or how we might estimate timing without getting down to that problem which is yet to be explored.

DR. LORIMER: It seems to me Hauser, in his remarks about the projections, has neglected a very constructive contribution of Mr. Joseph Davis to this problem which points out that there are a great many projections that have a high degree of utility that can be made.

The emphasis on this labor force group of which a large portion are already born is removing these projections from the degree of hypothetical character that projections of total populations have. It therefore seems to me that this is the kind of projection, the emphasis on this labor force group, where you can't be very far wrong and that the projection has value in rather clarifying the economic point.

It seems to me this is leaning over backward to not recognize that there are certain things within the projection area that can have quite a little validity.

I just go on to express my personal opinion that

granted that no one knows what fertility will do, I think there is no reason for assuming that this estimate is over-optimistic necessarily as regards decline.

The Japanese people, it is true, outside of Japan have shown very dramatic declines such as in Hawaii and in the United States. I think that the Japanese culture because it is such a firm culture is a culture that is unusually capable of control and the recent declines have been, as I understand it in recent years, very largely affected through abortions and those are then it seems to me less vulnerable to the difficulties inherent in a non-cohort analysis that the very recent declines have indicated something that may be rather significant.

I do not think one knows but I do not think there is any reason for assuming that this is, necessarily speaking, a more rapid decline. These are two entirely different remarks.

DR. NOTESTEIN: To the same point Lorimer makes not only is this restricted to people over age 20 in 1980 which does not leave very much in the birth to conjecture about, not only that, even if the projections are wrong based on too favorable a trend of mortality, the problems of economic policy are almost identical. That is to say the need for making jobs can be put not in terms of anything but saving

lives from the point of view of the present policy maker it seems to me.

MR. OSBORN: Frank Notestein can defend himself but in defense of Irene I point out that the abstract makes the point in relation to the effect "maturing youth already born will create increase of 70 per cent in the number of men age 20 to 64 in the three decades from 1950 to 1980."

It was evidently left out of the full text.

PROFESSOR WHELPTON: I assume that since, in view of the remark Irene made about the need for analysis of attitudes, she did not have any information along those lines available but has not the Japanese Institute for Research begun studies along those lines?

DR. NOTESTEIN: Begun?

PROFESSOR WHELPTON: Not even tentative results available yet.

DR. NOTESTEIN: I am in no position to really say about that. Yes, I think there have been published results about attitudes of this, that and the other but so far as I know them which means really so far as Irene has told me about them, rather unimpressively.

DR. TAEUBER: It is very sketchy material that has come along so far.

DR. HAUSER: I do not think I intended to attack

Irene and I have signed a long with some of the rest of us in certain types of projections. I think the major point of my remark was that I think the next step to which we must devote our attention is in the other direction. What is there is a contribution for what it is worth but I think the heart of our problem is getting at these factors that will enable us to put into the picture the external indexes we have.

DR. NOTESTEIN: I am sure she could not agree with you more.

DR. DAVIS: To carry the discussion one step further, if it is social and psychological field research, that is badly needed to increase our understanding of the situation and if what we are getting now is not quite up to scratch, it raises a question that some of us here might want to think about a little as to how some improvement in this field research might be gotten to.

DR. LINDER: It seems to me, Mr. Chairman, that the problem Irene has raised is not one that involves psychological or social attitudes. She has limited her whole paper to projection of this group already born and, while the projection may be conservative or a little one way or the other, the fact that they are already born is the problem she has presented for discussion.

in the past generation Japan has absorbed within this age group an increase of this general order of magnitude and the problem is under what conditions did they absorb that increase of this magnitude and is there any reason to think that a similar absorption could not be made in the next decade or next generation?

PROFESSOR WHELPTON: I did not hear anything in Irene's paper about the effect that the changes in rates of growth might bring about in age composition and hence in the ratio of dependents to producers. It may be that people who are in the labor force will not have to produce for quite as many people on a per-worker basis outside of the labor force and that to some degree might lessen the problem a little, make it look not quite as bad as it does in her presentation.

DR. NOTESTEIN: I am sure that would be true. I am sure Linder's point is well taken.

I take it what Irene was really addressing herself here to is does Japan, an oriental country, the only oriental country that has really reduced its birth rate seriously, furnish a useful model for what might happen in the larger mainland populations? She is pointing out that a very large order of absorption of the labor force was made possible from 1920 to 1940 by international trade, by

expansion into Manchuria, Formosa, Korea, by sopping up a lot of manpower in the armies, so it was a combination of economic and political-military move. She points out Japan faces in the next couple of decades a manpower growth of even larger proportions, raises problems about the political and economic pressures that will bring and then, by implication, transfers this model to the mainland and says, can countries that already have undergone multiplication of a larger order than Japan without cracking their birth rates, can they start this cycle out and see that urbanization processes are not sufficient and that we better hope that something more than basic education for men and women and good roads to a certain extent and radios, and so forth, will turn the trick, suggesting therefore that the experience of Japan will not follow on the Asian mainland and there had better be serious attention to dropping fertility in the rural framework.

DR. LINDER: I was wondering whether it is proper to attribute this absorption of the 50 per cent increase in the last generation to the expansion, material territorial expansion, and military activities in the war. What is being compared are the two end points, 1920 and 1950, and in reference to the two end points at neither time were these factors of Asian expansion, at least not in 1950, factors which were using any appreciable part of the Japanese

labor force.

DR. NOTESTEIN: In 1950 it certainly was not. She has traced another publication the Settlement of Hokaido and within Japan an interchange of population from Japan to Korea and the possibilities for industrialization and trade that the Colonial Empire did make possible.

Of course, now she is pointing out there is a lot of pressure in the boiler and the cities are not draining over and for the first time since 1880 you have a heavy pile-up on the land.

MR. OSBORN: Didn't the Korean war have a temporary effect like that of Asian expansion? A lot of manufactured goods were shipped to Korea.

DR. NOTESTEIN: Yes, in the current situation.

MR. FREDERICK OSBORN: Temporarily.

DR. NOTESTEIN: Even in spite of that there was a pileup on the lot. How Japan would have been kept afloat without a billion dollars a year of United States money approximately, I do not know. Our military planning was originally to keep the proportion of agriculture and industry at its pre-war levels which mean proportional growth in an agricultural part of the country where there was no expansion possible.

DR. TAEUBER: You can meet part of the problem for ease by raising the age of retirement, and retirement

You can meet it partly by under-employment of various kinds which simply does not show up in the statistics we have.

You met it partly by deferring the age at which people enter the labor force, in addition to the things that attention has been called to.

Japan has used all of those.

DR. NOTESTEIN: Is using all of those now. I think we can see plenty here for the drive with some trade with China.

MR. SPENGLER: I do not like to disagree with him on this. I understand he is meaning these are responses of the Japanese economy, that is retirement at age 55 and various kinds of disguised unemployment and retardation of entering the labor force, and so forth, due to reasons other than extension of education.

These are not happy responses. I think these are imposed responses and as you increase the number of these imposed responses you, I think, build more in your furnace, more fire under the boiler which Mr. Notestein is speaking of and I think therefore we should, in no sense, use these or look upon these responses as having very sustained salutary effect beyond the present point and there is very great complaint about retirement at age 55 because

it means a large proportion of the Japanese potential productive power is simply not being made use of and people will be asking for another kind of economic organization if that should persist.

So that is very much an imposed response that I think is considered unpalatable. I believe it was in that sense that it was intended.

MR. EVANS: Mr. Notestein said this quickly but it is important. That is that Japan has, so far as I know, never raised more than 80 or 85 per cent of her food and that, therefore, in the situation posed even any increase of the standard natural increase in the levels of living would only increase her problem without the kind of export Dr. Spengler is talking about and therefore again creates more pressure under the boiler.

PROFESSOR WHELPTON: Joe, if the load of dependents per hundred producers is lessened as I think it will be through shift in age composition, can't you have some of these changes going on without their being so unacceptable?

I grant that they may be unacceptable from the standpoint of preventing further rise in the level of living but can't you have some of them without having a decrease in the levels of living?

DR. SPENGLER: Yes, we would put other conditions equal, but even if we introduce this compensatory effect

you mention it will only partially offset this and this is a temporary phenomenon and will be spent.

I mean it will be spent before your growth is stopped. I do not think it will offer adequate compensation. I would accept it only as a palliative but not much beyond that.

DR. MAULDIN: There are two discussions I believe and I want to return to the one Mr. Hauser raised and that is the extent to which Japan can be used for a laboratory for study that will be useful in looking at the Asiatic problems. I may have misunderstood the paper but I have the impression that in spite of the industrialization which has led to decrease in the birth rate that in the rural society institutions have been preserved to a considerable extent and there the birth rate has not fallen as rapidly as in the other parts though it has declined somewhat.

If this interpretation is correct Irene's point that you could study here the time that it takes in order to change institutions the social situation in rural areas which will be the major problem in the other parts of Asia I wonder if I understood correctly the point about the rural situation.

CHAIRMAN REED: I would like to have your question answered but I would also like to suggest that following

for tomorrow morning.

We are going to have the morning to devote to what may be done in that and I do not want to go too intensively into that just as part of the discussion of this Japanese paper.

Frank, do you want to reply to his question within that framework?

DR. NOTESTEIN: If I understood his question, I think that is one thing she was pointing to, that is, that the sort of changes taken was the change that protected the ancient institutions and therefore many of them were intact and Japan would present to some extent a laboratory or a chance to study the possibility of change in a rather favorable total setting.

DR. DUBLIN: I have a question for clarification of a sentence in the abstract and in the paper. Page 2, "The experience of Japan suggests that the great peasant societies of the East can not achieve the low death rates of the industrial society."

I wonder if that possibly means birth rate.

DR. KISER: She says "In the long run."

I think she means they cannot have low death rates of the West in the long run unless she further reduces the birth rate.

Is that correct?

DR. NOBLESTEIN: That would be my interpretation. She's saying that here is a demographic transition that occurred almost with maximum speed up to now. It is presenting huge problems within this contention. This contention is much simpler than the one you find in the Asian mainland. If you relied on urbanization and its consequent drop of the birth rates exclusively.

She says unless you can drop rural birth rates you will reach a generalization or a general situation where death rates can not be maintained at a low level for reasons sometimes called Malthusian.

CHAIRMAN REED: We have devoted about as much time to this paper as we should allow. I do not want to cut off any questions that anyone is burning to ask or comment or discuss. Is there anything else?

If not, we might turn to the next paper, "Population and the Future in Taiwan."

(Dr. George W. Barclay read his prepared paper titled "Population and the Future in Taiwan.")

CHAIRMAN REED: The paper is now before the group for discussion.

DR. DUNN: I would like to ask Dr. Barclay his views as to the possible influence of two factors in this situation that might have contributed to the sustained high fertility of Formosa.

The first of these factors is the removal of the Japanese commercial and governing class which, as I understand it, did have considerably lower fertility than the neighboring lower class rural Taiwanese.

I am characterizing these in a very broad way. First, I would like to raise the question as to a possible lag that may exist because of what might have been thought of as the most responsive groups to the small family pattern which were removed in a very dramatic way. They were replaced from the mainland to a certain extent but I notice he mentioned only 600,000 of the 2 million or so from the mainland come under the registration system and hence, there is some limitation of knowledge as to what the fertility pattern of the immigrants was.

The second influence was land reform that has been so highly publicized with reference to Formosa, a sort of share-the-poverty approach.

Is it possible that this sharing of poverty has at least temporarily put some supports under the family system

that gives rise to the high fertility patterns that we observe?

DR. BARCLAY: I should think that without a doubt the second one of these has been and will continue to be of considerable importance not only in its direct effect on sharing the poverty but also indirectly in preventing or holding back any future economic expansion that is not financed from the outside simply because the sources of capital are--

DR. DUNN: Buried in the villages.

DR. BARCLAY: I would guess as to the first that the Japanese residents in Taiwan had lower fertility though we cannot say because many of their births are registered back in Japan.

However, whether or not that is the case the effect of their presence was somewhat minimized in that they did not keep very close contact with the Taiwanese except a few groups that used to mix in Japanese circles.

The big loss as far as the type of influence we have been discussing I would imagine would be simply in the removal of the activities of these people rather than the personal effect of their being there.

DR. NOTESTEIN: The birth rates you were discussing were Taiwanese rather than Taiwanese plus Japanese, were they not?

DR. BARCLAY: Perhaps I did not specify. All of the birth rates mentioned were for the Taiwanese only.

DR. DUNN: I do not think you understood the full implication of my question. The thought was here was an alien group which was at the top of the social pyramid and I gather fairly far down in many respects, a fairly large group who were monopolizing the social positions where you would first expect the small family pattern to take hold in a country. This was removed. But it takes time, of course, to replace these people.

If, by contrast, there had been a large group of Taiwanese in the professional and commercial classes of long standing, it is conceivable at that time diffusion of the small family pattern might have proceeded more rapidly.

DR. BARCLAY: These positions no longer exist because they were unique to the type of people that held them.

Effectively speaking, the positions themselves no longer exist as far as the influence in the direction which we have talked about is concerned.

So that I should think there would definitely be a loss but a loss which might not make itself felt with any great strength in the Taiwanese population itself.

It is hard to judge that.

DR. DUNN: But the absence of such groups among the Taiwanese, such groups of longstanding, might be a factor in the continuation of high fertility. There has not been a native Taiwanese upper class in this sense of long standing.

DR. BARCLAY: I think I would agree.

CHAIRMAN REED: Are there any further questions or discussion of the paper?

MR. OSBORN: How representative a group was the group for which you gave the distribution of births?

DR. BARCLAY: It was a sample of rural women taken from one of the subdivisions of a total of 16 subdivisions.

It is a bad sort of sample to draw but the limitations were fairly severe.

DR. VANCE: I know you cannot answer this question but would you think the differential was largely related to sterility or social and psychological attitudes? You could not go into that, could you?

DR. BARCLAY: I do not know.

DR. VANCE: There were no questions about sterility or could not be.

DR. BARCLAY: There were childless women who were married.

DR. VANCE: Who wanted children, you knew?

DR. BARCLAY: Yes, but as to the incidence of this we have no information nor as to the motives of people who occupy different reaction of family size because it just is not a very easy thing to research.

DR. VANCE: Not a nice thing to talk about in an oriental society.

DR. BARCLAY: No, and it is not easy to research from the political standpoint.

CHAIRMAN REED: Our time is runnin' en and I think we should turn to the next paper which is a paper entitled "Cultural Checks on Birth Control Use in Puerto Rico."

That is by J. Mayone Stycoos.

... Dr. Mayone Stycoos read his prepared paper entitled "Cultural Checks on Birth Control Use in Puerto Rico"...

CHAIRMAN REED: The paper is now open for discussion.

DR. LORIMER: Could you tell us about the forces that led to the development of this sterilization movement?

One of the advantages of being senile is that one can look back over issues that have been raised in the past and I think this circle holds that the beloved Dr. Dickinson and myself were the only ones that felt sterility was not something that would be hooted at by any people that were not college graduates.

We had some thought that possibly it was a real possibility as a mechanism for the control of fertility. The conservative scientists and experts always felt that was impossible. Well, while indicating my senility, I refer to this. But I would like to be interested such as most of the professional colleges were never interested in this, the birth control movement has always believed in the diaphragm or some other excellent means--now, how did this thing get started? How did these Puerto Rican women and Puerto Rican physicians come to work out this particular solution which is a very unorthodox solution from the standpoint of the medical profession, the birth controllers and the demographers?

DR. STYCOS: I really do not know but I think Clarence Senior, who was on the scene when this thing was

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just beginning, might be able to tell you something about

that.

DR. SENIOR: I have some guesses, though they are not much more than guesses. I think they would add one more factor to the reasons for which women are sterilized. So far as I can trace back, I never was able to get into it as deeply as Joe Stycos has. This started with upper class women in San Juan 35 or 40 years ago and at that time it was largely for religious purposes.

Now if that sounds strange the reasoning is as follows: If you use mechanical means you have to confess " X " number of sins a week.

If you are sterilized you confess once and then as they say the rest of your life you do not have to worry. So this seems to have started out among upper-class women in San Juan which, at the operation at cost, over \$200, so it was confined to upper class women, but in 1937 the legislature authorized sterilization for health purposes and from that time on it began to spread somewhat.

The first major wave of this spread to my knowledge took place after a church attack upon one particular clinic which had been fairly widespread in the South Central mountains, one clinic of civilian public service people, CO's from the U.S., during the early years of World War II had sterilized two dozen women in a community of about 2,000

families and the Bishop made an attack that this was a

Protestant effort to wipe out Catholicism and Catholic people in Puerto Rica and charging also that every man and woman in the community had been sterilized.

This resulted in a tremendous demand to know what it was that the priest had been denouncing on Sunday morning and how it could be done.

I think that actually is roughly the way the situation began to spread.

DR. STYCOS: I would like to add a couple of points to those comments. In terms of the motivation about sinning once, I looked for this particularly with the lower class and did not find this motivation at all present with them.

They were not particularly concerned about the sinning aspect of it. If it did start that way in the upper class as it moved down to the lower that particular motivation at present knowledge appears to have dropped out.

DR. SENIOR: I would think that would be true.

DR. STYCOS: On the second point about the statement of the Bishop denouncing sterilization, that may have started the ball rolling but since that time there has been a simply tremendous amount of publicity given to sterilization in the newspapers. I did a content analysis on that and do not have the figures here but for the past, about four years, an inordinate amount of space in the newspapers has been devoted to attacks on sterilization and to rebuttals by

people in favor of sterilization.

This is true both of the upper-class newspaper and particularly of the lower-class newspaper, which is an anti-popular newspaper and circulates among the lower class and if it is just in terms of telling people such a method exists it has certainly been there in the newspapers.

DR. SENIOR: I used to hear all the time, I do not know whether Joe found it at all, the reason why women did not go to the clinics, in many of the small towns the VD clinic and birth control clinic are in the same place. If the women went into that particular door they would be accused of having gone in for the purpose of curing V.D. and that this was one of the reasons for the non-use of the clinics.

DR. STYCOS: I have seen reference to that in Margaret King's work. Actually it did not come up in in my small sample. They did not like to be seen at the birth control clinic itself per se.

DR. WESTOFF: I HAVE A QUESTION ABOUT CHILDREN AS AN INDEX OF virility. Two questions: One, how much is this part of the general cultural folklore rather than a self-effective motivation and, secondly, assuming it is the latter, as you suggest here, at what point in family size is sterility approved?

DR. STYCOS: That is the reason I said it is

probably less so in Puerto Rico than in some cultures though I am not sure it is true in some other cultures. I went into this with the idea that it would be a strong factor, a drive to have an unlimited number of children as an index of virility.

That seemed to be the case only in a couple of exceptional cases who wanted to continue having children so as to show what men they were. In most cases it was merely a case of disproving sterility.

DR. WESTOFF: We just discriminate the childless from those who have one child at least?

DR. STYCOS: Yes, if they have one child that is at least enough to show they are capable of producing children. There is, however, a minor point in there. Men do feel very strongly about producing girl children. If a man has, let us say, two or three female children in a row he begins to become the butt of jokes by his friends and so on. And in our sample of a couple of cases they left their wives, blaming it on them, of course, for their inability to produce male children. There is some drive in there to show virility by the evidence in the male child.

DR. WESTOFF: Generally speaking the whole thing you would estimate is probably quite insignificant?

DR. STYCOS: Beyond the sterility factor, yes.

DR. VANCE: You did not mention it but I gather from your silence that there is no, or very little resort to induced abortion in the population.

DR. STYCOS: Well, as far as I can tell, there is relatively little resort to it. In this year's sample we are taking particular pains to find out whether that is true or not, and in last year's sample, if it came out we took it.

It did not come out at all. We did not really work very hard at getting that thing. As far as I know, it is not too great.

DR. VANCE: We certainly regard sterilization as fairly drastic but I suppose you could not develop any doctrine of substitution there since, unlike the Japanese and other groups, there has been no pattern of abortion going back in Puerto Rican history?

DR. STYCOS: So far as I know, there has not.

DR. LINDER: I wanted to ask a question. Where you say these studies are based on lower class families, what proportion of the population do you include in that? Is it very low or is it the lower ten per cent, or are you talking about 90 per cent?

DR. STYCOS: In last year's work where we had the 72 families I chose them from tax evaluation lists. All houses valued less than \$250. That represented about the lower half of the population. In this year's work we are

picking it on the basis of education, those with less than six years' education.

DR. LINDER: Why do you limit the study to that segment of the population?

DR. STYCOS: Well, simply because, in terms of analysis we want enough homogeneity to be able to work more intensively with breaking them up in other types of groups. We are primarily not concerned with incidence of birth control but psychological motivations and we want a fairly homogenous group so we can bring them down.

DR. TAEUBER: Is this a sample of the islands or of a city?

DR. STYCOS: When I mentioned that I had the results on fifteen hundred cases what we did was, that is, half of a sample of 3,000 short interviews, which we did in these outpatient clinics in ten different spots on the island, a couple in mountain areas, a couple in northern sugar areas, and so on. In that sense it is geographically distributed and we have found that these centers pull mainly from the country districts. It is not a heavily urban sample.

But it is not representative in the strict sense.

DR. TAEUBER: This sterilization figure you quoted that seemed rather startling to some of us is due to the

fact that your sample is selected from people who have come to the clinic?

DR. STYCOS: Not to birth control clinics. These are general outpatient clinics. They can come for breaking a leg, they can bring their child in for a bottle of aspirin.

DR. NOTESTEIN: Do any accept birth control?

DR. STYCOS: This is just a medical care clinic. It is not a specific clinic like a TB or VD clinic. They come in for general medical care in this clinic.

DR. MAULDIN: Do you have the number of births born to women who were in the clinics?

DR. STYCOS: Of the group of 325 women who were sterilized 39 per cent had from zero to three children, 39 per cent had from four to seven children, and 22 per cent had more than eight which is not very different from the rest of the people in the sample.

DR. HAUSER: This may be again the kind of thing we may want to discuss more fully tomorrow but, as I read and follow your discussion of attempts to get at motivations, I am impressed by the more or less negative approach, some of which may reflect perhaps our own cultural bias, the presence of institutionalized releases, for example, from excessive fertility, that kind of heading.

The point of my question is this: To what extent are you getting at what you might think of as positive values

in the culture at those points which may be associated with actual family control? I think most of these attempts to account for large practices in terms of institutional practices may be to a large extent rationalization. I see no need for explanation other than that part Malthus gave some time ago, the urge to marriage is permanent and persistent but on a positive side where you have had family limitation practices the question really is do we have to reconstruct a value system that breaks these kinds of barriers which seem to me are relatively superficial external in the probing that may be necessary.

More explicitly is there anything in your study that gets that positive value where you have had family limitation? It may be the indirect kind of thing to mention an extreme example. In some cultures the desire for a jeep may be much more important than any of these negative factors I think we have been talking about.

DR. STYCOS: In this year's sample from the 3,000 short interviews we are selecting a thousand, roughly a thousand families who will be divided more or less equally by whether they have never used birth control, but whether they have used birth control in the past but then quit, but whether they are present users of birth control, and then a small sample of sterilized individuals.

One way we would get at this sort of thing is

by comparing those three or four groups in terms of a number of psychological variables. On the specific unanticipated kind of thing you mention like the jeep we would have room for in the way of open-ended questions such as when you decided you had had enough children--this works chronologically--when did you first decide you had enough children? What made you make the decision? To whom did you talk? What did they say? Finally, when you started to use a method, what made you use it at this point. Again did you talk to anybody? Which I would hope would pick up some of these positive factors you mentioned.

DR. HAUSER: I just raised the general question. It seems to me that is a very difficult thing of how we can really get a picture of a total value system so to speak, and in that context really get at the problem of motivation as it affects any form of behavior let alone this difficult one of fertility and I feel until we see it in that kind of context that the specific questions we ask about why you do or do not have children may be far missing the point in terms of the motivation that leads to action.

DR. STYCOS: Where would you get these kinds of leads?

DR. HAUSER: I think that is the thing we should thresh through and I think it is involved in this but I feel in addition to these more direct controls we need a

value system. You get this with practice, without practice, with various forms of practice and to see whether attempt to get at significant things in the value systems we get leads as to the kind of motivation that really trips it. We have to look for an answer that will be fundamental in the long run.

DR. STYCOS: That is why I say you need this picture of initial fumbling around to find those unanticipated things. My answer last year was the qualitative interview where the respondent can talk ad nauseam to you on these problems but that may be not sufficient or the only method.

DR. HAUSER: I have in a sense picked up this element in terms of kinds of acquaintance with experience you are talking about as I saw it in Burma to some extent. The question of fertility alone so far as getting motivation for family limitation may also be a question of mortality.

Six children born, for example, would have one kind of meaning in which all six survive and quite a different kind of meaning where only a third or a fifth of them survive. I think in actually dealing with the effect of dealing with the effect of fertility, the fertility that is there as pressure, that that may be an effective form of control in all kinds of studies.

DR. STYCOS: That particular kind of datum does come out on your open-ended questions. Hatt found something

like 30 per cent of the people reasons for wanting a large family was in terms of if some die others will remain.

DR. VANCE: I am interested in the comment you had about the informal unions and how that encourages fertility. Is there any way you can draw comparisons between the number of children in informal and formal unions or birth control practices between the two? That is there must be more sense of responsibility in the formal unions of course.

DR. STYCOS: Hatt's study was better equipped to handle that. He did find fertility was somewhat lower in the consensual union but--

DR. VANCE: They are much shorter I suppose?

DR. STYCOS: That would be my suspicion that there are periods in between these multiple unions which reduce exposure plus the fact that there are quite a few periods of separation within the Union itself while breaking up.

DR. VANCE: If I wanted to take a shot in the dark at social change I would have the feeling that any legislation that would formalize those unions or outlaw them would operate to reduce fertility, too, but of course legislation would mean nothing unless it had a good deal of popular support so possibly the change would come before legislation.

DR. STYCOS: The Catholic Church has not had too bad an experience in that regard. Every once in a while they have

a drive on marriages and send someone around to towns or

country areas to try to get them married. There is a response to this kind of thing. Not everybody gets married but there is enough of a response to indicate if there were some pressure put on there would be an answer to it.

CHAIRMAN REED: Mr. Freedman, did you have a question?

DR. FREEDMAN: I wanted to ask Mr. Stycos if he could comment on the extent to which the rather broad social and economic changes he mentioned at the beginning have been reflected in changes in the kind of activity that is carried on collectively in the family as compared with other institutions and particularly the extent to which women are becoming active outside the home.

As a background for this the material in Irene Taeuber's paper seems to indicate you can have broad changes in urbanization and occupational structure while retaining certain traditional functioning in the family that have some indications for fertility. I wonder if you have any information on that for Puerto Rico.

MR. STYCOS: The family structure in Puerto Rico is not nearly as tight I would say as the Japanese family, not nearly as much emphasis on several generations, the general racial emphasis, at least in the lower classes. You get very little doubling up of families, for example, parents living with children in the lower class, probably because of

economic reasons but at least it is not there very much. So that to start with you do not have quite the same tough situation in breaking traditional family patterns. There is, however, the attitude that women should not work outside the home but since factories have been moving into Puerto Rico they have found very little difficulty in finding female help whenever they want it so my answer to that would be that what industrialization has been going on in Puerto Rico has dipped into the female market quite extensively and I would assume that this will have considerable change on fertility patterns within time.

DR. FREEDMAN: Do you have any data on those women who are now employed? Are there any differentials appearing?

DR. STYCOS: We will have that. I do not--do you remember if Hatt had this?

DR. NOTESTEIN: Osborn may remember.

DR. STYCOS: The question is is there a differential in fertility by occupation of women? I do not remember that Hatt broke it down that way.

MR. ROBERT OSBORN: I know, I do not remember that, either, but I remember that if it was tabulated it did not show up as anything very powerful.

DR. HAUSER: The occupation of the husbands or

DR. STYCOS: Occupation of the wife.

DR. HOLMBERG: Regarding this question of consensual unions, in your sample are you referring in your statistics here again to the lower class families? I mean the figures you have relate to the whole of Puerto Rico or just to--

DR. STYCOS: You mean the 25 per cent?

DR. HOLMBERG: Yes.

DR. STYCOS: That relates to the whole of Puerto Rico.

DR. HOLMBERG: I have some comparative data from just some village studies in Peru where we have been carrying out some industrial age studies and in one of the coastal villages where we have very accurate data we find something like 60 per cent, these are rural areas, about 60 per cent of the total population are living in this kind of a state. In the highland areas the situation is somewhat different because you have a period of trial marriage among most of the Indian population before you get a settling down to regular family. But our data also showed in the village so far as we could tell that these unions were almost as stable as, or every bit as stable as those which were married in so far as we could tell, either by church or by state.

DR. HOLMBERG: The problem of inheritance arises here but this is one of the legal problems that arise in this kind of situation but usually the eldest son is in charge of the property before the father dies any way and gets it one way or another.

DR. DAVIS: My impression is dating from 'way back in Puerto Rico, my experience was in 1940 there that these consensual unions are pretty unstable. I would think they would be somewhat different from the Peruvian situation.

MR. STYCOS: There have been several anthropological community studies that have been done in Puerto Rico and they have found rates comparable to yours so it may be merely a reflection of the rural community kind of thing.

As far as the stability of the union is concerned I would say this. My reaction would be that in comparison to a place like Jamaica the unions are very stable but it is a common contention in Puerto Rico that the unions are very stable. The anthropologists have usually said they are very stable. But when Hatt analyzed his data he found in fact there was a much higher turnover of people in consensual unions than was commonly supposed and his conclusion is they are quite brittle unions.

DR. CONRAD TAEUBER: Is one element here that the stable ones become legalized?

DR. STYCOS: There is a tendency toward legalization.

We do not know yet whether it means when people get older they switch union and marry in the fourth union or whether they are marrying the woman they have lived with for twenty years but in the upper age groups there is a higher proportion of legal unions.

DR. HOLMBERG: I think that is what he also found, too.

CHAIRMAN REED: Any further questions, discussion, or comment?

DR. R. OSBORN: Joe, could the male get a sterilization at the local clinics in Puerto Rico?

DR. STYCOS: First are they so set up that he could, and second, does he?

DR. STYCOS: In very few clinics are they equipped to give male sterilization. There are a couple of urban clinics which will do male sterilizations. They have had very little success with them although they tell me that once a male is sterilized he is very pleased with it but the problem of getting him to come in and ask for it is tremendous, practically insignificant.

DR. FREDERICK OSBORN: Most of the sterilizations are post delivery, is that right?

MR. STYCOS: That is right.

CHAIRMAN REED: If there are no further questions

WEDNESDAY AFTERNOON SESSION

November 18, 1953.

The Wednesday afternoon session of the Round Table on The Interrelations of Demographic, Economic, and Social Problems in Selected Underdeveloped Areas of the Thirtieth Annual Conference of the Milbank Memorial Fund, convened at two o'clock p.m., Lowell J. Reed, President The Johns Hopkins University, Chairman.

CHAIRMAN REED: I am going to call the afternoon meeting to order. We have four papers on the program and I think we will proceed as we did this morning, taking the papers in turn followed by discussion.

In fairness to the last speakers in the program I shall try and guide the program so that we put roughly three quarters of an hour into each one. The speaker who uses three-quarters of an hour in his time will probably have less time for discussion. The first paper is "Fertility Control and Social Change in India" by Kingsley Davis. I was not talking at you, Kingsley, when I made that remark.

DR. DAVIS: It has usually been my fate to be the last speaker on these programs and when I was put first I thought I would have two hours. I wrote the summary of this paper which you received before the paper and then I did not see the summary when I wrote the paper.

Phil Hauser asked me if I changed my mind since I wrote the summary, that I was pretty much of an optimist in my summary. I have always been an optimist.

(Dr. Phil Hauser read his prepared paper, titled "Fertility Control and Social Change in India.")

CHAIRMAN REED: Mr. Davis' paper is open for discussion nos.

DR. KIRK: I wonder if you are not being too hard on the theory of demographic transition.

DR. DAVIS: I did not mean to be.

DR. KIRK: You had a part in establishing it, a creditable part. It strikes me firstly that after all as you pointed out India is already in the first stage. You have given some indications of belief that India has entered the second stage in which you have both birth and death rates declining.

I am sure you have some reservations about the validity of even the trend as illustrated by these official data.

DR. DAVIS: I might say one or two later years after 1950 I think I have data on 1952 that indicate there is a real trend there, it is continuing. At least it is still lower.

DR. KIRK: If this is true you have got India at least going through the or at least in to the second stage of the demographic transition.

The third stage seems to be a sort of open-end thing we have not been able to define for European cultures much less for Northern European cultures.

It seems to me that perhaps the missing ingredient

in the theory of the demographic transition that has not been emphasized enough is the fact that empirically the transition has proceeded more rapidly as it has gone into new areas. That is to say, the transition proceeded more rapidly in Eastern Europe than it did in Western Europe. It proceeded more rapidly apparently in Japan than at least in main or major parts of Western Parts of Europe.

With some wide fluctuations it seems to have proceeded even faster in the Soviet Union than in Eastern Europe or Japan and somewhat more recently.

The birth rates and death rates of the present level of India have occurred in Eastern Europe within the lifetime of quite a number of people present here. Saxony in Germany which is now in the Soviet Zone of Occupation and is under some difficulties at the present time, but prior to the war was one of the most developed areas of Germany and of Europe, but two generations ago it had an infant mortality rate of 250 per thousand which is, I think, somewhat higher than India has today. It had a death rate comparable and birth rates comparable.

What I am saying is that I think if we include as part of the theory of the demographic transition that the two initial stages tend to move faster as you come into new areas, don't you think it would be fair to say that with that modification it has some use as a predictive device, that you could

say that even in India a lesser degree of public education, literacy, and industrialization might produce more demographic transition than you got in Europe in a comparable period of time? This, quite aside from an induced more rapid social change.

DR. DAVIS: I think I would agree with your general point there, Dudley, but I do believe that our knowledge is very weak on this score, also, that we do not know the timing of demographic events historically speaking in different types of economies and connected with indices of economic development. We have very few studies that really systematically relate demographic trends on one hand and economic and social indices on the other. I am sure when we did have them, the usefulness of our general theory of the demographic transition would be much superior.

All I am arguing is against any rough and ready deduction from our general statement of the demographic transition that such-and-such an event is impossible.

I just do not think it ought to be used in India in that sense.

DR. KIRK: I might illustrate your point to support your point. I think you called attention to the significance of introducing the demographic transition into a rural peasant society and saying this would be a matter of tremendous significance in the world.

Of course, in a much lesser way, this has happened in Europe. There are almost wholly peasant countries of Europe that have gone through this transition. Bulgaria is a case in point, a country of very modest urbanization, almost wholly composed of peasants who own their own land, operate their own family sized farms, who, nevertheless, now have quite a low birth rate.

DR. DAVIS: That is true and I was careful to state Asian peasant people at one point. I probably did not do it at the second point. I wish we knew more about the actual mechanisms in Bulgaria.

DR. NOTESTEIN: I suppose the same point is made that French fertility came almost with the mortality drop, there was hardly any lag at all and it apparently started with the rural areas.

DR. DAVIS: France had a pretty early economic development.

DR. NOTESTEIN: Birth rate went down at the beginning of the eighteenth century.

DR. HAUSER: I feel so good about Kingsley's optimism that I am very suspicious of it and would like to raise one question with him which has made me suspicious particularly about prospects not only in India but in this kind of world and that is the very fact that you have emphasized that these cultures can now draw from the top, so to

speak, the developments of the Western world.

As I have tried to analyze the situation I quite agree with your major premise that we are confronted with ignorance and I think what I am about to say is about as speculative as you have said and I object to both of them in the absence of better knowledge.

What you are getting exported into India right now is not only elementary forms of transportation and sanitation but modern medicine including the antibiotics which can be transmitted in one big lump and which greatly affect mortality without any decision-making or change in value or very little personal motivation being involved whereas what you can put on the other side of the fence. About all you can say is we have the radio and a lot of modern means of communication and a lot of highfalutin stuff about education, none of which we have seen operate in a way to change culture in a way that is desired. My question would be this: That by drawing off the top if anything, there is a tendency for the lag if there be one to be augmented rather than decreased because drawing off the top is in favor of decreasing mortality more rapidly than in decreasing fertility more rapidly.

DR. DAVIS: My optimism is based on my theory of human beings and that is that I have a great respect for their cussedness. It was mentioned this morning that the

people of Formosa having gotten used to one standard of living are not going to be inclined to go back to a lower one. Borrowing from the top tends to accelerate the decline in mortality but this very fact tends to force the demographic gap to be shorter in duration. It may intensify it as of a given period but these people at the same time they are getting better health are also getting ideas about a lot of other better things so that especially where you have already got as you have in India a very tough demographic situation in terms of agricultural density then the net effect of rapid increase is to force on them some knowledge of what more children, more living children will mean to them.

I just do not think that if things are left to their automatic working out that you are going to get this emerging desire expressed in sufficient behavior to cut down the fertility sharply.

My sole point is I think the situation in India is sufficiently favorable that the right kind of government program with enough resources put behind it might be enough to give it the extra stimulus to do a lot in terms of keeping I do not know how many, maybe several tens of millions, maybe a hundred million people from being added to that population eventually.

DR. HAUSER: Do you agree with this? What I am a

little afraid of is the implications of a tone of optimism here in terms of the implications of research by the Government.

I would go along when you say the right kind of program but we still have to determine what that is. I am not sure we know what the right kind of program is.

DR. DAVIS: I agree. I get tired of finding out whether people favor birth control or not. This is fine to know but we need to know how a given program to teach them something about limiting their own fertility. What do you do?

I think around the table this morning we got some indications of what not to do. This Spicer book which gives case studies of particular attempts to make social changes and what went wrong seems to be very indicative because what went wrong was so simple that you would think any normal human being could have figured it out in advance. It would not need a highfalutin social scientist but it needs somebody on the test with the knowledge that things can go wrong and testing not the entire programs because any program that fails may have some good features but setting your research program so you can test particular features of what you do.

DR. STYCOS: I would like to ask a question about

another area of optimism. You state a good bit of evidence there for the Indians being concerned about having smaller families.

One point is some of those statements are in strangely sophisticated terminology but aside from that I wonder--

DR. DAVIS: They went through at least one translation.

DR. STYCOS: It was a well educated translator.

But I would ask this. Do we have any evidence to suppose that that degree of interest in the small family is any different in India than in other agrarian cultures. Are you assuming that because conditions are different in India therefore the sentiments are more favorable toward the small family?

DR. DAVIS: I think that is a good question and I would say the statement made this morning is entirely correct that around the world women just do not want all the births they can have. Oscar Lewis' study in Mexico indicated the same thing, in fact much resistance on the part of the women and much suspicion on the part of the men. I would say that it is not there so much that lies the uniqueness of India. It is a point that has to constantly be made for the simple reason that we always run into assumptions by arm-chair anthropologists and sociologists that these people have no conception of anything different and just go along, that they love

made up very heavily of the sentence "They love children and they have all the children they can have."

It is not adequate and probably is not true.

DR. STYCOS: I was wondering if you concluded that the situation is more favorable from that.

DR. DAVIS: The uniqueness of India in this respect lies in part, in the whole culture, in the rather surprising lack of specific resistance and partly in the conditions which result from a long-demographic evolution there and a considerable degree of economic stagnation.

DR. RYAN: I am very much intrigued by those reports showing greater interest in limitation among men than among women. Do you have any ideas?

Reasonably I would think it would be the other way.

DR. DAVIS: I would have guessed it. All I can say is what these field interviews discovered.

DR. WHELPTON: Isn't it true that even though good rapport was established between interviewers and respondents that there may have been less tendency on the part of the wives to report honestly what they thought and felt than there was on the part of the husbands and the wives not being sure that the husbands would approve of this may not have admitted it was in their thinking.

That type of reaction I thought turned up a number of times in the contacts that I had in India.

DR. DAVIS: I think that is likely and I think it is also likely that many people give the answers as they think the interviewer wants unless the interviewer is very careful to get around that difficulty in some way. These things suggest to me that they illustrate at least the difficulty you are up against in making these surveys in these areas and that you want to be mighty careful to get a rationalization for having a very free depth interview type of study in which one purpose is to observe the conditions of good interviewing before you launch a set schedule on a large sample.

DR. McGEANAHAN: In connection with your suggestion of introducing modern techniques I was wondering whether you had considered the possibility that some of the techniques, modern techniques being introduced may actually favor higher birth rates or may not favor a lowering of birth rates.

Let us for example consider the idea of the welfare state which is being introduced in India. That may have a different effect from the kind of economic situation that Europe went through when they had the demographic transition where the large family was broken up and you were thrown entirely upon your own resources. Do you see that as a possibility?

DR. DAVIS: I think it is a definite possibility

and there is a definite possibility sometimes called motherism and fatherism in India. I think it is worth noting that the Indian Government is trying to combat it now and I will say further since it is utterly impossible to have a welfare state in India this is not likely to be a prevalent notion for long. It is an utterly impossible idea for demographic reasons as well as economic.

CHAIRMAN REED: Are there other questions or comments?

DR. SENIOR: In regard to the movie that tells a story of two families and the contrast of one who controlled its birth and the other, is that horrible. I wonder if there has been a test of audience reaction to that movie.

DR. DAVIS: If I had had the test administered to me when I saw it I would have given an instantaneous reaction which would agree with yours. It simply illustrates the role of research on programmatic things. I have talked to some of the Communist people in India and found them as yet very unaware that audience research techniques, it has not come to their attention yet.

CHAIRMAN REED: Any further questions? If not, we will turn to the next paper by Bryce Ryan.

(Dr. Bryce Ryan read his prepared paper titled "Hinayana Buddhism and Family Planning in Ceylon.")

CHAIRMAN REED: The paper is open for discussion. It is an interesting slant.

DR. VANCE: I was going to say of all the papers I have heard on fertility this is the first one that took it from that angle and it is a much needed angle.

DR. HAUSER: In selecting the sample of priests were these the ones permanently in the priesthood or including the transients?

DR. RYAN: In Ceylon all priests are theoretically permanently in the priesthood. It is not like Thailand and Burma. They are able to leave the robes but there is not the system of having a period of priestliness and going back to secular life. I would like to say something about the way this was done. These interviews were done by a Buddhist priest and, unfortunately, I left the Island shortly before he did them and apparently he has gone into seclusion and will not answer my letters right now. So there are many questions that I am not able to answer regarding the way in which this was conducted.

DR. DAVIS: I hope he has not been liquidated.

MR. SAMARASEKARA: That is a comparable situation in the case of the Buddhist clergy comparable to that of other religious groups like Christians, and so forth, which might not. That is a wrong premise.

The relationship between the Buddhist laity and that of the Buddhist priests is quite different and distinct. None of these problems of this nature are taken to them at all and it is not the custom to discuss any of this problem, marital and others, with the Buddhist priests. Then there is the question of the attitudes of the clergy toward the subject of contraception. My only experience with some related studies shows that because there is evidence of abortion, it shows that even in spite of this apparent attitude promoted by the basic non-violence principle or tenet of Buddhism, but in fact there is evidence of it.

Then again I come back to the question of what the Buddhist clergy itself could do in a situation like this other than writing an article or something like that to a paper. In a sermon they would not be able to take a stand on this situation comparable to what could be done in a sermon here or somewhere else.

DR. PARRAN: I do not know what factors give Mr. Ryan his optimistic point of view. There is nothing in the report he presented this afternoon which would be on the positive side. An earlier article he wrote gave a pessimistic view about the possibility of birth control in Ceylon, particularly the familism and male dominance in that culture.

DR. RYAN: I would consider this optimistic in that

there is no ideological religious opposition to a family planning program as far as one can make out and it is a folk attitude rather than a religious attitude in opposition.

Frankly, I did not feel that that male dominance familism business was so strongly negative. I think it is important but I think that could be beat. This is neither optimistic nor pessimistic fundamentally. It at least does not play up religion as a strong factor in preventing any family planning program.

DR. PARRAN: It is a very interesting report.

CHAIRMAN REED: Any other questions?

We turn now to the next paper which is on Burma,
by Dr. Hauser.

"DEMOGRAPHIC GLIMPSES INTO BURMA"

by

Philip M. Hauser and Evelyn M. Kitagawa

DR. HAUSER: Mr. Chairman, I believe mine is the only paper that is listed as being authored by two persons. My colleague and research associate Evelyn Kitagawa. The first I have to say is between the two of us we were not able to write a paper.

What I have to say, however, I believe can center around the table which I appended to my abstract to this talk, copies of which I think are available to all of you and it may be that if you look at this table with me the things I have to say are all the better for being in numbers instead of a lot of verbiage.

I might also say there are some general background materials which provide some context from which these data were derived.

The current issue of "Population Index" which I am sure Frank Notestein will be glad to sell to you, has an item on research potentialities in Burma which fairly well sets up the background out of which these data emerged. I have entitled this paper "Demographic Insights into Burma" because it affords very little other than that.

John Durand called my attention to the fact that this is Kiser's copy. The cover page has a chart with some interesting data.

The story I have to present differs from other speakers largely in the fact that my own interest is now in its initial stages and what I have to report is very little beyond some glimpses into Burma with an eye to the future rather than to the past.

For one thing this report is not based on a long-time study of previous trends such as those indicated, for example, in Kingsley's material on India.

For data relating to previous trends I suspect what Kingsley had in his book is about as good as anything available anywhere although they are subject to considerable error as he would be the first to admit.

What is intriguing to me about Burma is that it, being one of the new post-war nations in Southeastern Asia, embodying in practically every sense much of what characterizes the general esprit in Southeastern Asia of Independence, determination of self-government, determination to free itself from influences of the West as previously exerted through colonialism, and perhaps most important of all, a definite determination to induce economic and social development.

This latter determination is spearheaded by a relatively young, active, and western educated government. The young men who, among other things, came back from England were the very seeds of dissolution of that part of the British Empire. Ideas of democracy and self-determination, a very strong

dose of change in economics, tintured to a considerable extent, with socialist economics as well and since it relates to the subject at hand I must also say with westernized notions of birth control and family limitation.

I think this younger group is spearheading a number of movements in Burma as is true throughout the Southeastern Asian section and represents the elite vanguard which are probably the nucleus for family limitation practices.

This is incidental to the major theme at the moment.

What makes Burma as other parts of Southeastern Asia extremely fascinating to the demographer looking ahead is that in these attempts to induce economic and social development the young men in the Government are, I think, just beginning to get an awareness which, for the most part, does not exist of population as a factor in any equation which carries with it attempts to increase levels of living through increased productivity.

Burma, I think, represents an unusual, unique laboratory for the kinds of studies that we talked about and applied in the course of the day and shall probably discuss in greater detail tomorrow in that, unlike her Asiatic neighbors who have been discussed, India and Ceylon, Burma is resource

rich and, by any standards, has no problem of population pressure.

It is about the size of Texas, most recent estimates place her population at about 18.6 million. For an economic background, at the beginning of the century, when she used to be part of the census included in the census of India, the census of 1901 she had a population of something over ten million. The first census of India in 1872 she had a population of something over 8 million. In the course of a half century Burma increased her population by about 90 per cent or at a rate of about 1.6 average annual rate of increase, average percentage increase.

This has been accomplished with, so far as we can tell from such data as are available, a relatively high birth rate and relatively high death rate which, even in urban Burma, has shown very little evidence of western influence. I thought that during my first two weeks in Burma I would have something startling to discuss and present to the demographic fraternity because of my first review of statistics being published weekly in the Burma Gazette on Fertility and Mortality for some 25 larger cities.

I discovered crude death rates that went up to over a hundred and crude birth rates that went up to over a 150.

This to me, I thought, would perhaps represent one

of the most dramatic pieces of information to bring back to the Milbank Memorial Fund.

It turned out, however, upon closer examination that these rates being published weekly were the result of a combination of very large under-registration of both births and deaths in the villages and towns and the utilization of a population base coming from the census of 1931 on the other.

Despite the offsets of under-registration, the rates were as I reported them. Things were set in motion to undo the implications of that kind of statistics.

I am in agreement with the Burmese Government not to publish statistics without their consent but I can say in my report to you and to the U.N. I can say I accomplished much more in the first two weeks in Burma than the medical programs did in several years because I reduced the mortality and fertility both by more than 80 per cent.

Now, the Government, among other things, is definitely pursuing a program of planning in respect to both its economic and social development and in connection with the planning the government is very statistically-minded and is attempting to install a general statistical system as well as to take bench mark censuses to find out where she stands at the present time.

from the relatively limited censuses of the type we have in this part of the world are not available for Burma. The last regular census which gives anything in the way of characteristics is the census of 1931. Burma did take a census in 1941 after separation from India and as a separate part of the British Empire but the Japanese invaded shortly thereafter, there was nothing ever available from that census except preliminary total population figures for the country and for some of its provinces and about 40 or 50 cities.

Everything else, including schedules and tabulation sheets and every other vestige of the census were destroyed by the Japanese.

What you have attached on page 3 of the abstract which is before you represent data based on a sample tabulation of a pre-test and test census operation which I oversaw in Burma in 1952. I should add that the purpose of the tabulation was not so much substantive as it was procedural to see what happened to the schedules in the way of response and to make a determination for a final design of the various census schedules including the population schedule. As a by-product these sample data are available in the size of samples as indicated in the footnotes. It represents in brief--and I can answer questions about it if there is interest later--a probability sample of population in four towns in

Burma, the towns specified.

Now if we take a quick look at these data, the interesting thing to me is to see to what extent they establish a benchmark against which to measure change in the coming periods out of these directed efforts on the part of the Government to induce change and during which time, sooner or later, the problem about population as a factor in their equation of economic development, is bound to arise.

Despite the fact that these data refer to what you might think of as an urban part of Burma they exclude Rangoon. Urban Burma is not much different from rural Burma. Most of the villages and towns represent an agglutination of huts with greater density and over a larger geographic area.

That generalization can be tested to a limited extent now and can be tested better when the new census data are available but I should be very much surprised if, outside of Rangoon there were much difference between urban and rural Burma. The data before you indicates to some extent that would be the case. If you look at some of the statistics I have presented, first of all, median age, we have a typical structure as represented by this one statistic of the pre-industrial society, median age of something under 23 years in these towns as contrasted with the United States of 1930

and 29 in 1940.

You will notice the median age in Burma for females is less than that in males whereas the reverse is true in the United States for 1950. Wherever you get a contrast in these statistics for the sexes, the usual sex relationship we find in Western culture is inverted.

If you look at the composition of the population as represented by some broad groups, percentage of population 65 years of age and over for example, 2.8 for Burma, 8.2 for the United States, in 1950.

Male and female respectively 2.8, 7.7 for the male, 2.8, 8.5 for the female. If you look at the dependency ratios to which Whelpton was referring this morning--and I think the ratio is worth watching throughout a course of transition for a variety of reasons--if we take the dependency groups at both extremes of the age structure and defining them as persons under 15 on the one hand and those over 65 on the other establishing a ratio per hundred persons of 15 to 64, there are some rather interesting things here evident that reveal things about the United States as well.

In Burma 14.5 such persons dependent were present for each 100 persons of this intermediate working age.

In the United States in 1940 that was 46.8. We had somewhat fewer dependents. By 1950 we had more dependents than Burma, 53.9, indicating what this ten-year or relatively

short wave of high fertility of war and post-war has done.

If you analyze these dependents into the two component groups you find the same type of thing evident, that is persons under 15, 45.4 per cent for Burma--per hundred that is, as compared with 41.3 in the United States in 1950, only 36.8 in 1940.

In the older age brackets that is the big contrast in the dependents, we have many more dependents in the older age groups as evidenced by the ratio of 4.1 for Burma, 12.5 for the United States in 1950, 10.1 in 1940.

If we look into the problem of marital composition and marriage might well be suspected, aged marriage, as an important factor in fertility in this part of the world, particularly since Burma has often been identified with India but it turns out with respect to religion what we just heard in the paper by Ryan is more applicable to Burma which is part of the Buddhist culture and not the Hindu and aged marriage in Burma is not subject to the same kind of cultural interpretation as in India. If we use these data for per cent of persons 14 and older married it is 59.1 per cent for Burma, a lesser percentage than in the United States in 1950 and a little smaller even than in the United States in 1940.

Incidentally, that percentage for the United States in 1950 represents, of course, an all-time high, the post-war

boom in marriage and a decrease in aged marriage with the larger population in the United States married now than ever before in our history. These are crude percentages. If you standardize those rates for age you find there is a drop in the proportions for the United States, although the proportion married in Burma is still less than that in the United States in 1950 although greater than that in the United States in 1940.

It would seem that a change in proportion married or that any great excess in proportion married would not be a particularly important factor in the accounting for of the high fertility in Burma. You can see the sex differences in the table.

Now I was particularly interested in testing in the census in Burma the sources of fertility questions for measurement of fertility in an area where vital registration can not be trusted at least under conditions of war and post-war and internal disorder. This may be incidental to our purpose but it turned out the kind of questions we carry in western census schedules are, certainly in the Burmese situation, entirely possible, result from every situation we could get hold of, including intensive check, a response at least as good as we get in the census in the United States.

Now for women ever married median age married in

Burma was 18.2 years, 21.2 in the United States in 1950.

21.7 in 1940.

Median age at birth of first child in Burma was 20.2 years. The comparable figure for 1940 was 22 years-- I do not know what it will be in 1950.

The average duration of marriage crude is indicated there for Burma as 16 years, in the U.S. 17.5 years in 1940.

The difference is largely one of longevity. If you standardize for age then duration of marriage is somewhat longer in Burma in keeping with the lower median age at marriage.

If you take as an index here of fertility--and there are several morals perhaps in some of these various fertility indices which are presented--children born per 1,000 women ever married 3,347 for Burma, 2,381 for the United States in 1950, and 1,961 in 1940.

DR. KISER: All ages?

DR. HAUSER: All ages. If you take the children ever born for 1,000 mothers--that is, women who had ever borne children--then your ratios are 4,143 to 3,006 to 2,610. If you use the indirect measurement of children under five for one thousand, it would be five to forty-four, women of reproductive age. You get a rather interesting indication of the great danger of the use of this effective fertility ratio cross-culturally because the children under 5 for women of reproductive age in Burma is 424 per thousand and

in the United States in 1940 it was 329 and in 1950, 473.

I should hasten to add that it does not immediately occur to you what that index mostly measures difference of mortality of children under five at this point rather than the difference in fertility.

Now it was possible to get some limited data on fertility for completed fertility as well as represented by item 26.

These are fertility indexes. Children ever born to women 50 years of age and older ever married--and there if you take the ratio of children ever born to a thousand women completed fertilities, the contrast between the two cultures is evident, 5,493 to 3,274 per 1,000 women.

I should add, and this is a rather interesting item, that among women with completed fertilities the percentage of those who had never borne any children was exactly 10 percent, a percentage which seems to be not too different from some of the others reported. What was it, 8 per cent for Taiwan? It is 10 per cent as I remember among the couples in the Indianapolis sample where no children ever born may be sterility plus possible control.

And the same for some studies in Chicago and New York. I think at that point we may be close to discovering a constant. We may be standing in the presence of a law.

If an age control is introduced into the analysis of fertility here for completed fertilities you notice that for women completed fertility, women who married under the age of 20 the fertility index is appreciably higher than for those who married at age 20 or over, 5,930 to 4,111 for Burma and that both indexes are considerably greater than that for the United States.

In the United States, as well as in Burma the fertility is greater for those who marry younger. If you turn from the fertility indexes for all women ever married to women who have children only, mothers, then you see that the ratio is 6,113 children per 1,000 mothers contrasted with 3,875 for the United States and again you get the contrast between as evidenced by age at marriage, those with marriage under age 20, 6,354 as contrasted with 5,286 in Burma and in the United States 5,053 in 1940 as contrasted with 3,411.

Notice that if you convert that rate to an average in effect that means for mothers with--these are completed fertility mothers--the average number of children ever born is 6.1, a ratio again that seems to be something indicating we are in the presence of a law in demography where you get to the highest fertility. The median actually is in that same vicinity.

DR. DAVIS: I think the Palestinian Arabs consider-

ably beat that figure.

DR. HAUSER: Yes, I think it is possible.

DR. DAVIS: Around 8 or 9 as I remember it from one field study.

DR. HAUSER: There have been very few that reported much higher than six. I would want to be shown.

DR. DAVIS: It is a question of how much laxity there is to be in the law.

DR. HAUSER: That is good enough. On a percent chart it is 10.1 as contrasted with 15.7 for the United States as a whole for completed fertilities. 15.7 includes--

DR. SPENGLER: You were enunciating that as a law? I think on the paper on the Hutterites, it works out at four per cent.

DR. HAUSER: I have stated a hypothesis. Let me put it that way.

Another interesting table out of these preliminary tables that I regard as a bench mark is item 33. I am not aware of other tabulations of this kind. I should very much like to see for other cultures. That is of all children ever born to women ever married 58.7 per cent were alive at the time of the census. The sample was too small to run that for completed fertilities but the actual range which is shown on the cover of the population index, women with one child ever born, for example, had 81 per cent of them living at the

time of the census.

Women with ten or more children born had only about 52 per cent of them living at the time of the census. You get quite a frequency distribution represented by the black bars on this chart here, percentage of children surviving by number of children ever born. I have a feeling that although this represents again the same kind of an external measurement that in the contrast between the children ever born and children alive at any given time, a sum total of economic and cultural influences, that you may have an important element in the whole problem of motivation and family limitation and control.

The last few items in the table simply indicate the fact that we have, despite the area of measurement involved here, validly no level of economy with a median income in rupees that gets close, even the per capita in the income is in the direction of \$70 a year if you want to use that as a measure.

The point to the presentation of the data shows that in Burma at the present time we have every evidence of a culture that on the whole has not yet felt the impact of the demographic revolution.

I am inclined in contrast to the two papers which preceded me and partly because it may just be characteristic to take this kind of a pessimistic slant. If anything, opti-

mism is warranted in the Burmese situation because she is relatively resource rich especially in respect to food. Her rich Irrawaddy Delta, the unfailing monsoon rains made her the largest exporter of rice before the war. She is not in that position now due to the destruction of the war but still she has probably the highest productivity or production of rice per person in the world with probably the lowest productivity per acre, a very extensive cultivation--

DR. NOBLESTEIN: Per person but not per worker.

DR. HAUSER: That is right, with one of the lowest productivities per acre. An extensive cultivation, no fertilizer is used, with tremendous potentialities for doubling even the present acreage in rice. She is timber rich, she is oil rich, in many other resources she is rich. Yet much of the present programs in Burma as in other parts of the world with induced economic and social development going on consist in large part of health programs on the one hand or of programs the net effect of which is to greatly decrease mortality.

Should Burma experience something she is not experiencing yet, the kind of declines in mortality that, for example, we have seen evidenced in Ceylon, then I think it would be a relatively short time before the efforts of the Burmese Government would have to take on a different focus from the standpoint of this equation of increased productivity

in relation to an increased level of living. I think that in the case of a place like Burma if we had the information available in the western world or elsewhere as to what at the outset of a process here in an effort to both induce economic development, to do it deliberately, and through a national planning instrumentality, I think in my own conversations with officials of the Government when I raised questions about the population problem, I must confess some embarrassment about the questions they would then raise about what would you recommend as a program that we build this to the economic development program automatically to take care of the population problem along with the other problems?

I was able to give the same kind of obvious answers that all of us here could give but I think it is in the kind of questions that our discussion so far indicates we are not able to answer that the real meat lies for a government like Burma or other areas faced with similar problems.

There is evidence of family limitation, as I have said very briefly in the abstract. It is mostly among the westernized Burmese, those who have been in England or others. Almost any of us who have had the experience of being there probably can report that we ourselves become centers for the dissemination of contraceptive information because people

request such information and it was possible in the course of the year I spent there to refer a number of them to a physician who was dispensing contraceptive information and contraceptives.

It is clear there is, even among the westernized or urban groups, an appalling lack, among other things, of knowledge as well as the availability to techniques.

With respect to possible barriers I would certainly confirm all the materials presented by Mr. Ryan, that there is every evidence that Buddhism as practiced in Burma as well as in Ceylon as a religion poses no serious barriers of any kind to the dissemination or utilization of contraception.

The culture, as such, has no indication of anything that would negate the introduction of contraception, unless it be the large family cultural pattern. A tabulation, for example, which I ran on relations of head of household shows some rather interesting differences between the U.S. and Burma in the larger proportion of grand children that appear in every household and other relatives.

It's a three-generation household more than a two generation household as in our culture. To the extent to which the large family system may embody cultural values and premiums placed on large families, this, it seems to me, might constitute a barrier but it certainly has not been put to any test.

I would like to close with this specific thought: That Burma represents one, but by no means the only one, of the areas in Asia in general and Southeastern Asia in particular that I think is among those that are receptive to whatever advice and counsel demographers or anyone else can give that is relevant to the problem of raising the economic and social level of their people. I think you have got a young, eager, responsive government at this particular frontier. I think the problem with respect to the population problem is not at all the problem of either religious or cultural or other barriers. I think in a real sense the problem is one that perhaps dramatizes the fact that the demographer has not yet got to contribute what some parts of the world really need.

CHAIRMAN REED: Dr. Hauser's paper is open for discussion now.

DR. STOLNITZ: I wonder if Mr. Hauser would comment on the sample and second, what are your estimates about the sampling areas?

DR. HAUSER: Let me answer the question this way: First of all I had a more or less ideal sampling situation because in designing a plan for the censuses of Burma, which is now being conducted, this same plan has been followed for some 300 towns and cities beginning this year and results will be forthcoming in the coming months and I am

afraid perhaps years.

They have two electronic statistical machines to expedite tabulation. They have a modern tabulation unit. As a preliminary to the canvass of the census or complete census canvass what we did was to get flock maps, a complete listing of all structures keyed to block maps in all these towns and cities and selected a systematic sample from block maps after stratifying blocks by size to get the actual households which were interviewed, all households in the structure were then interviewed; with respect to the sampling error I have not calculated any of the variances of these rates.

With respect to the kind of patterns they show at many points, it is easy to demonstrate the error is small. I did calculate some variances and this I think is as close as may be necessary to answer your question. The primary purpose of the sample was to test the schedules on the one hand, but also to obtain some population estimates of each of these towns on the other. The sample was designed to produce a standard error or co-efficient of variation of not exceeding three per cent for the total population estimate. I have actually compared the results of the sample with the preliminary census returns where complete canvass is now being made in Burma and they stood the test pretty well.

DR. DURAN: I have two questions to ask. The first one is I got intrigued by the table showing the ratio of so-called dependents to productive age groups in the population of these towns in Burma is lower than it is at present in the United States and I have tried to figure out why that was because it seemed to me to be a little queer, not quite what we have normally been led to expect.

By my pencil figuring and arithmetic, if it is correct, I discovered the cause of it--namely, that the proportion of the population under 15 years of age would seem to be about 29 per cent and that compares with what you find in most of the underdeveloped countries of relatively high fertility which I think is of the order of about 40 per cent and I would like to ask Mr. Hauser whether he would have any explanation about this difference?

DR. HAUSER: Yes. Short of the possibility which in the rush of several events these past few months of having just pulled a statistical booboo which I think is unlikely, all I can say is that the age structure in Burma, these urban towns in Burma are probably as you got them reported to you.

Let me put it this way and I can go to detail later. I had two independent samples of the population both selected in the same way that I have described, systematic sampling of a complete listing done for complete census enumeration

purposes.

The other sample was a sample from a universe of 28 towns and neither included Rangoon. The age distribution was the same and resulted in the kind of situation that you have just described. The honest answer to your question is I do not know why it is different because I have not been able to get into it but my guess would be from observation that it is probably a function of very high mortality both infant and child mortality that may possibly be more severe in this particular area than in some other areas we think are comparable. Burma is a place that is particularly hard hit by the dysenteries, by typhoid, by not so much cholera but occasionally plague, by practically the worst manifestations of mortality that can be attributed to contaminated food and water if you want to put it that way. It may be that the explanation would lie there.

DR. LORIMER: Are you sure this is representative of the population of Burma?

DR. HAUSER: That is a very good question. I forgot to comment on something here. My thought is migration may well be an explanation that is important in this connection because in all of these towns as a result--in fact, you may have put your finger on the main explanation. As a result of post-war unrest and series of insurrections, five going on simultaneously, the data we collected in the census on length of residence in

the city indicated that anywhere from 25 to 50 per cent of residents in the cities and towns were in-migrants from the unsettled countryside.

Now, just what effect it had in terms of characteristics of migrants I do not know, but the fact is that you had all these towns and cities and the population tended to be inflated with migrants from the countryside of internal disorder.

DR. FREEDMAN: Apart from the migration, do you think the population of the towns was sufficiently homogenous so a sample of four or twelve will not introduce any selective problems in the towns you picked?

DR. HAUSER: That depends on your object, of course, sir. To begin with, let me add this note to the picture on migration. My hypothesis would be from what I observed that there would be relatively small difference between any part of urban Burma outside of Rangoon and rural Burma which would mean even the problem of migration would not be selective as we know it. It was not a question of male or female going to the city, it was entire families.

My hypothesis would be that the population that came to the village was actually in composition and other characteristics be not much different from the population already resident in the villages.

DR. NOTESTEIN: It is hard to see how mortality

would do that.

You kill them off at the young end and seem to be inflated at the middle ages according to dependency ratios.

DR. DURAND: If migration were important I should think it would have a bearing on other figures in the table that might be interpreted with reference to the situation in all Burma, these ratios of children.

DR. HAUSER: I think that is quite true. And to that I can say nothing further at this time except that similar data are being collected for what amounts to practically all of your urban Burma now, some 300 towns and villages, and we hope they will be tabulated in the same manner and available within the year, that the problem of censusing rural Burma is a formidable one because of the insurrections and Chinese Nationalist problems in one end of Burma.

I think the kind of question you are raising is one of the reasons that I called this demographic glimpse, I regard them as glimpses and I have not yet discovered the various divisions.

DR. DURAND: My section question, Mr. Hauser started off by saying nature is very abundant with the supply of food in Burma. I wonder whether he views the question of growth of population there as something which threatens every economic advancement of the people of Burma, whether

he thinks the limitation of the growth on population in the situation in which Burma is found is an important thing for the welfare of the people.

DR. WHELPTON: Before you answer that, may I throw this remark in? That a couple of years ago we had at the U.N. a visit from a high official in the Thailand government, he may have been director of the census, and in talking about population questions with him we got his feeling very clearly that what Thailand needed was a larger population, more rapidly growing population and how could they get it? Is Thailand different from Burma or was this man just wrong in his ideas and beliefs?

DR. DAVIS: Could I help out in asking that question, too?

DR. HAUSER: I can deal with three as easily as one.

DR. DAVIS: Burma is about the size of Texas. You said it had three times the population of Texas. Texas is oil rich, etc., as Burma is, but still the per-capita income is quite different.

DR. HAUSER: I did not count the cattle in Texas or you did not. Now you are getting into several kinds of dimensions, several dimensional questions. Let me deal with the one John raised first, that I think probably carries with it the reason for the frame that I set.

her capital investment or capital goods destroyed.

A recent engineering survey conducted by an American firm and including an economic survey by Robert Nathan and Associates, has set up a proposal for economic development which assumes an outlay over the course of ten years, less than ten years, of about 900 million rupees. This capital outlay would represent something several times as great as any investment in a similar period in the history of Burma.

If it were successful, this kind of capital program would result in bringing Burma's national income, total national income up to about the same per capital level--this is in constant rupees or I should say kyat in the course of ten years it would be possible to restore the same national income per capita as they had before the war. When you talk about Burma being resource rich I think I perhaps should have emphasized more it is resource rich potentially.

In the efforts of the Government to raise levels of living at the moment it will actually take tremendous capital outlays in terms of savings within Burma itself, plus some foreign investment estimated from perhaps 25 per cent to about a third over a ten-year period to get Burma back to where she was before the Japanese invaded in 1941.

Now, if the first effects of technical assistance of the United Nations or Point IV or the Colombo plan take the

collection as they did in, let us say, dramatic fashion, in Ceylon of reducing mortality then Isay even in the short run Burma then gets confronted with the real problem of increasing productivity fast enough to raise levels of living in terms of population increase. What I am saying is I think you have a long run and short run consideration involved and I think in the short run as I would see it, Burma also has a population problem in terms of say the ten-year goal that lies ahead.

From the standpoint of is Burma over-populated with 18 million because she is of the same area as Texas is, if you study densities throughout the world you find countries on either side of the density and a lot of factors go into that equation.

I suppose it was a mistake and I would be the first to challenge someone else who used the term "over-populated" or "under-populated." Relative certainly to anything else in Asia Burma is under-populated and in that respect she is not too much different from Thailand to get around to you.

There are some important differences between the Thai and Burmese cultures. I do not pretend to know the Thai as well as I do the Burmese. My guess would be that whoever this fellow was you spoke to in Thailand, he was dead wrong

for very much the same kind of reason that I indicated in response to John's question, that Thailand is relatively resource rich but the problem within any short run of raising the level of living is I think, even in these countries, essentially a problem of raising productivity more rapidly than population increases and the first effect of all the programs as I have observed them in these countries, whether it is U.N. technical assistance, or Point IV or Colombo plan, the first thing we do as a tremendous part of that program is health aimed at reduction of mortality and most other things would actually reduce mortality indirectly and that what we are doing there is, in a sense, gambling with the success of our whole Point IV Program or the U.N. Technical Assistance program as I understand the objectives.

That is, we are gambling in the sense that our efforts to raise the levels of living may not do that and may have a reverse effect, at least in the short run.

DR. WHELPTON: Was the point of view of our Thailand visitor common among Burmese officials?

DR. HAUSER: I would say the best way to characterize the attitude of the Burmese on the population question would be to say it is largely non-existent. When you talk about it there is an interest but I do not think they see that they have any population problem. The only aspect of the population problem that is seen in Burma is two-fold. One is

that the death rate is high and they want to do something about that. I do not think they have thought through on any policy level of the implications of what that would mean from the standpoint of growth. The other is a more or less local problem of international migration. With the changed relations between Burma and India, it used to be Rangoon was second only to New York City as a port for population migration before the war and the reason was the great migration in and out of something like 250 to 300,000 Indian laborers who followed the rice crop needs for labor.

That is largely shut down so that in some places in Burma you find complaints about a labor shortage. Out of such a local complaint you might get somebody saying what we need is more hands but this problem before the war was solved by several hundred thousand Indians coming in for the harvest season and going back.

What the long-run solution would be is something else. Actually, in the long run they are trying to get on some of this land double-cropping. Most of it could be double cropped.

They are trying to put in cottage industry in to fill in what is largely a 7-month year. That takes you far afield into some of the other economic developments. I should add a very important dimension of this story, and I raised a question about it this morning, wherever we go in

to this problem of the applicability of our concept of a demographic revolution in a less-developed area or the implications for induced economic development of the population problem I think in terms of dealing with this whether it be the scholars or officials in these areas that by simply raising the question someone--and I think it is among us--interested in the field assumes also the burden of following it through in terms of its economic relationship. I think the question Joe Spengler raised this morning as soon as we talked about population projections I think we have to look increasingly to carry with it some projection of its economic implications, whether they be foreign trade, productivity, capital investment, all the elements that go into it, because that is the only thing that makes it realistic to the people confronted with the problem.

DR. TAEUBER: I would like to ask Phil to discuss for a moment the situation here. You have Burma, you have Thailand, to some extent Indochina, as, to use your term, relatively under-populated. How come? They have neighbors that are in somewhat different situations. You mentioned there was migration in but it went out.

Why didn't it stay in? How did these islands come to exist in that part of the world?

DR. HAUSER: Well, again I cannot say that I can give you a really good answer but I can tell you one that is

generally adduced at this point.

The Southeastern Asiatic Peninsula, which runs off here, has, as you know, some pretty definite mountain barriers, the Himalayas take a turn there, and as far as you can trace the history of a good part of this area it was originally populated or got considerable population impetus back a thousand years ago under considerable pressure from Mongolian hordes and that the population actually came under considerable hardship to a large extent from Tibet, Western Tibet, across the mountains into Burma and also into Thailand and to some extent, Indochina, that actually for something like a thousand years after that original in-migration under great pressure from invading hordes the Peninsula has been relatively isolated from the rest of the world but, if I may oversimplify it, for about a thousand years nobody was chased hard enough or had enough of a threat of an invading horde or sheriff behind him to bother crossing the mountains.

Southeastern Asia comes into Western history only because of the expansion of the commercial revolution and Maritime Activity. What made Southeastern Asia accessible to the West was shipping and that is how the western powers got in. It was easier for the United Kingdom to cross the Bay of Bengal or for French ships to come into China and for Thailand to be an artificial political barrier to prevent French and British from getting at each other's throats, it

was easier for Western countries to get into these places by sea than for their neighbors to get in by land. So that after a kind of forced pressure which poured population over the Himalayas they lived under a so-called pre-industrial type of situation.

One of the things that fascinates me about Burma as a laboratory--I have discussed the towns of Burma--actually there is a diverse people. As you get to a "U" shaped thing around Burma you have a diversity of tribal groups. You can study these things because the Government can get you in and out. From head-hunting, which you still have there, head-hunting up in the northern frontier, to metropolitan urban existence in Rangoon, and there is practically every level of economic or social organization that you can think of in between those extremes that are in Burma, contemporary Burma today. You have there a laboratory by which you can study every stage of the demographic revolution if you want.

CHAIRMAN REED: I am going to suggest that we leave that phase of it, Phil, until tomorrow morning. Otherwise, I am afraid I will not give Frank Lorimer a fair show.

DR. LORIMER: I have had a good explanation of how I happened to be talking about Africa, that a good many other parts of the world are now getting enough data available for them so that I cannot talk any more, but there are too many

data and what I would say would be wrong.

CHAIRMAN REED: Go ahead, Frank.

"NOTES ON HUMAN FERTILITY IN CENTRAL AFRICA"
by Frank Lorimer

DR. LORIMER: Africa is very rich and perhaps richer than Burma or perhaps any other area in unknown truth, and some of this unknown truth gives me ample scope.

You have before you two pages, just so there will be a little data, one has at the top page 30 and at the top of the other it is page 8.

Page 30 comes first. First a very brief remark. This is part of a study in which I have been engaged on a broad theoretical study of the relation of culture to fertility. I want to make one point. Again I refer this to a point of Dr. Hauser's.

I want to make the point that I think fertility can be quite as high in a society with no culture or cultural motivation for high fertility through this simple biological operation to which Hauser referred, if there are not definite impediments to the exercise of natural procreative activity. There are, however, I think in many non-industrial societies, very strong motivations for high fertility and I think in general that is true of Africa and its societies.

Now I want to say I feel there is a great deal of knowledge developing rather rapidly though very spottily about

Africa and that includes demography. With a number of censuses having been taken in recent years in various areas, and with a number of field studies being made, there is coming to be some information and that information varies in character.

This study to which I have referred on culture and fertility in non-industrial society has two parts, the first part a general theoretical review I am doing and then Part II which includes four other contributions and three of those are field studies in Africa.

One of them is a study, two of them were on the Gold Coast. The Gold Coast, as you know, is politically the most advanced and socially one of the most advanced areas south of the Sahara.

There was a census taken in 1948 which included a question on number of children ever born. Then there was a very intensive field study with material from about a thousand women in one very restricted area of the Ashanti. The Ashanti people, about a thousand people, are in the middle Gold Coast.

Farther inland are tribes that have had less contact with Europe. Along the Coast the so-called colony is an area of greater contact. Now Professor Fortes is an anthropologist who made extensive studies in Africa and among the Ashanti

and it is for these people we have the combination of very fine analysis of their culture and demographic data which come chiefly from the census and from the study of one township by Professor Fortes.

The Ashanti people have preserved, to a high degree, their primitive social organization. At the same time they were already an agricultural people through the development of the cocoa farming and they have very much improved their economy and are therefore, in some ways, like a peasant people except they have preserved the tribal structure to a rather surprising degree. A very small proportion are Christian, they are mostly pagan and they have the traditional social structure. Their social structure is one that was focused in matri-lineal lineages. There are eight major clans and then there are these lineages and within the lineages and sub-lineages there come the households. The households then to be matrilineally organized households. I think about two-thirds of the women live in their mother's home or in their own home of which they are the head, about one-third move to their husband's house.

You have something like the Pueblo Society in that respect, a very strong matrilineal society. There is very strong ancestor worship, religion is a vital part of their culture and religion is tied up with their political structure.

The chief of each of these branches inherits the sacred ancestral stole of the lineages and there are group buying grounds and there are group services. They were quite a strong military group. They held off the British for a long time until about 1900. It is a very strong society with the matrilineal unit. This society has a very high motivation for fertility. The children enlarge the lineage and they are greatly wanted. There are no contraceptive measures apparently that have been used there. The woman who has ten children is given a special ceremony of honor symbolizing the fact that she has become a distinguished mother of ten children. There is no particular stigma on illegitimacy after the nuptial ceremony which takes place about age 16. Thereafter, it is preferable that the girl have at least a husband or that a man acknowledges the father of the child but there is no very serious stigma even for illegitimacy and there is no economic problem because in any case, the child is brought into the household and into the lineage and is supported by the maternal home. The child is not dependent on his mother or certainly on his father wholly for support. The lineage supports the children.

It is quite possible that the census material is a little inflated. In the Ashanti you get values around seven children and then eight children in the sixty-and over. That

rise for sixty and over is suspicious and that is probably due to a bias resulting from the fondness for adopting children, a sister's children. So the older women have adopted children and they refuse to distinguish to a stranger between the children they bore and those they adopted.

The field workers working with Professor Fortes were able to control that they think quite effectively. They paid attention to it and they knew the families and they had interviews and they think they have eliminated the adopted children from the picture. So that perhaps figures given by Fortes of about six children per woman--this is all women, regardless of marital status--six children per woman is about right.

We know that biological capacity is somewhat above that, perhaps toward seven or eight children. The question then arises why this figure should be as low as six. I think a possible interpretation may be the instability of marriage. Marriage is quite unstable. You see, since the children are brought up by the woman and join the woman's lineage, a husband is not terribly important and certainly it is not important to have the same husband very long. There is a considerable amount of instability in this society in marriage. The families are very stable, that is the families of the daughters and their mothers, but the marital relations are somewhat unstable. There may be periods of non-marital

status and I doubt that they achieve their total biological capacity.

But the whole thing, it certainly seems to me, motivates toward high fertility and that there are no measures taken to restrict fertility.

At least, that is Fortes material and he knows the culture pretty intimately.

This is a matrilineal society. You get a similar pattern but without the statistics for some patrilineal societies. There is one interior group, Tilentsi, that Fortes had studied also but the material is not so good and the Coastal groups have undergone more transformation. The whole Gold Coast is an area of high fertility with around six children on the average for the woman living through the child-bearing period.

Many of the tribes had a patrilineal structure. It has been modified but is still rather strong. You do have anthropological material on attitudes toward fertility and there you pick up the same very strong attitudes toward fertility.

Getting a little further south there is material on the Zulu which I used from this standpoint particularly. You see again the strong drive for having children. In an African marriage in order to have children cattle are paid to the family of the bride who comes as a child producer.

The child is only legitimate when the cattle have been paid. As the Zulus say, cattle beget children. If a woman is barren it is the responsibility of her family to supply a sister or some other young girl of the family to fulfill the function that originally the bride was paid for, to bear children. Or, if they fail to do that they must return the bride.

That, of course, is the sororate. You also have the Levirate in its true form. That is the man who dies without children, it is the responsibility of his brother to impregnate the widow whose children will be counted as her husband's children, her dead husband's children.

So, a man may conceive children after he dies in order to preserve this lineage. In all of these customs the woman is not allowed to drink the milk of the cattle of her husband's family until she has born a child. The whole culture is structured to an emphasis on fertility and a marriage is thought of in terms of producing children. That is true of many of these other societies where you still have preserved this very strong corporate kinship group, a kinship structure of the society, many of them very strong warrior nations. It is true of the Masai and the Nuer.

Very interestingly each of the societies I mentioned, the Zulu, Masai and Nuer have a highly effective system of birth control for a specific objective. That is to disassociate

warriors from family responsibility up to a certain age class. When it acquires a certain status, it has the right to marry.

Prior to that it is much like boys in our society being inducted into the armed forces if we had a regulation that they could not marry while in the service. However, in each of these societies they make provision for sexual satisfaction for the boy through incomplete sexual intercourse, without entrance of the penis into the vagina but an emotionally partially satisfactory experience of sexual relations is taken under such circumstances and with very rare errors in the process so that they keep their men, if you like to say, virgins in the sense of being non-fathers until they have completed their military service.

It seems to me that should not, in any sense, be interpreted as a device for controlling population. It is a device for maintaining the efficacy of the military forces. A number of these societies have the pattern of a taboo on the woman becoming pregnant, frequently a taboo against intercourse, and if not, a reliance on coitus interruptus to prevent pregnancy until the child is weaned. It has been common observation that many babies died in the weaning process and as I appraised it, the theory is that a baby at the breast is worth more than two, one in the womb and one neglected on the ground.

Here again you have what, if you wanted to, you could treat as a contraceptive device, but it is not so conceived. It seems to me in these societies the force of the culture is toward high fertility and it would be quite a misinterpretation to treat these practices as in any sense designed to control population.

I have a theory in which I may be going too far in the ecology of this that these societies all had inherently expansible resources. Most of these societies-this is true certainly of the Zulu, it is true of the Buganda whom I am going to speak about, it is true of the Masai and I think it is true of the Nuer. None were in the areas where they are now 300 years ago. Their resources are equal to their military power. The problem of over-population is a problem to be met in the first place by keeping your land from being taken by somebody else and in the second place by taking somebody else's land.

The surviving societies are those with a tight social organization and great military power. These tight social organizations with great competition between these corporate kinship groups that continue indefinitely and have ancestor worship, they are interested in increasing their lineage. This is all part of the culture pattern of the great social solidarity and which presented no problem of

adjusting population to resources.

This seems to me to be characteristic of many of the dominant societies of Africa. Apart from these devices which serve limited purposes although contraception is quite widely practiced in some primitive societies it is not practiced in any of the dominant societies in Africa in the sense of a means for controlling growth of population or relation of population to resources except some poor refugee populations around the desert, the bushmen or Hottentots where you have culturally recognized means of limiting population growth to some extent, but now, however, it is by no means true that all African society has high fertility today.

My first table was the Gold Coast Material. I do not need to examine it in detail.

The second one does not come in on what I am going to say to you now, either.

The Buganda are people north of Lake Victoria and they were a large tribal nation. As you know, they are a British protectorate, but their social order has undergone considerable modification, considerably more than the Ashanti.

They were earlier engaged in the slave trade with the Arabs and then the British came in and yet it is a rather stable peasant society.

Here is the kind of society where one would expect extremely high fertility. Actually you do not have it. Women of completed fertility, according to the census for all Buganda, had 3.7 children and that is not doing very well for people of this sort and 24 per cent of them were childless. One of the field studies that comes in Part II of this report is an intensive study in one little area around the capital, the Mungo District.

The census showed only 3.2 children instead of 3.7. The field study in that same area got almost the same result, namely, 3.1 children. This is women of completed fertility, 32 per cent childless.

I think it is pretty clear that fertility is low among the Buganda for some reason of low fecundity. There is a great deal of anxiety about sterility among the population. There is apparently no practice of contraception of any sort. Yes, that would be wrong. There is very little, very little practice of any contraception, none of the modern type. Although there is the university there, probably almost none of the students of it have the idea of family limitation. I talked to an exceptional young man with this idea. He was on the faculty of the institute. This identification should not be published. He was evidently something of a radical. He told me he wanted to give his children

higher education and it was his idea to limit himself to four children. I asked him if any of his other friends had this idea, and he said "No, not so far as I know."

I have never heard anybody else express such an idea. Of course, there is some abortion and a good deal of illegitimacy but I am quite convinced that the major problem, certainly they all want to have children and yet from a fourth to a third of them do not. I think there is some physiological factor here. Maybe it is diet, maybe it is venereal disease of which there is a good deal in the area apparently or perhaps it is something else.

Another area of low fertility was the one which is based on these Belgian Congo statistics. They are pretty poor statistics. They are based on tribal registrations in the villages but Kingsley may have more ideas about these than I do. He was more around the Congo than I was but the district seemed to make a pattern, which the Belgians call a progressive type, a high fertility type, and a regressive type, a low type.

All those districts except one are rather adjacent areas and they are in the central Congo Basin. The Uali is different. That is a northern savanna group.

I am going to center attention on the Shuaha and these others are neighboring districts of the Shuaha. There

seems to be a pattern of relatively low fertility in some of the central Congo tribes in the Congo forest regions above the Divide, inland from the Escarp.

Now we do have again a very beautiful monograph by Father Hoolsted describing the marriage and family customs of the Congo.

His monograph gives you the picture of disorganization of what was formerly a very strong society. It was a master race which moved in and conquered the area.

They used a slave as the seal of marriage as the Zulu used cattle. It was a slave transferred as a marriage payment. They were a slave-owning, wealthy people, a patrilineal society. In the late slave trade days and in later years a good many of them developed a good deal of wealth. This also developed opportunity, they are attractive people and they had a good opportunity to move out and take part of the river traffic. They have engaged in the Congo River traffic and a good many of them moved into cities. In Coquilhatville, the town by the bend of the river, about a third of the women are free women living outside of marriage. There has developed a good deal of prostitution and there has developed now among this group quite a little practice of abortion, quite a little sterility and quite a little drive to avoid the responsibilities of marriage.

This is what would seem to be a group of people who suffered severe social disorganization. One does find in Africa an area where, as the result of either disease or social disorganization, or physiological factors, some large populations are populations of low fertility.

To come back to the Gold Coast for a moment, I had particularly encouraged Professor Busea to make a sample and to include some of the more educated members of the community and he got his students in Christmas vacation to conduct a sample.

It was not well controlled. It was conducted by African college students who interviewed people. They were supposed to follow a sampling design. I don't know how carefully they did that or how carefully they conducted their interviews. These were undergraduate students.

However, it was interesting to find when they came back and tabulated their results, they seemed to find very little difference between the fertility pattern for the rural areas, the small towns, and the city. Also, they found very little difference in relation to education. Also the students reported they had a question of attitude toward family limitation, and they reported from all classes a complete negative on it with two or three exceptions.

At least they could not discover people who said

and they asked the question as to whether maybe ideal size of family --I am not sure of the question--but it did not produce any positive indication.

Professor Euses wrote me after sending in the copy of the report, that he had heard a group of the students got together, a group of women students got together and all decided they wanted to limit their families in some college hall session.

A Gold Coast physician whose apparent trends of mind, and with whom I stayed when I was in the Gold Coast, told me he had occasional inquiries and he himself felt he wanted a family limitation. I think in the most advanced area in Africa which I think would be the Gold Coast and the circle of Ashimoti University there is just dawning on the horizon the possibility of rational family limitation.

Otherwise, I think it does not exist in Africa. What you have is the alternatives between high fertility supported by a culture which makes for very high fertility and low fertility in some urban areas due to disorganization and disease.

Just one last comment of another variant pattern. I would like to make this point which comes back to the thing I said first that I think you can get about as high fertility without any strong cultural motivation for it. The only

thing that might illustrate this and I may be forced to say this does illustrate this problem in Africa are the Bahuti Batutsi in Uranda-Urundi.

It is a conquered people, a people conquered and in a tenant status to the Batutsi. They are the tall, handsome dancers in King Solomon's They are the aristocratic warriors and they moved into the area, conquered the local population, established a feudal economy in which the Batutsi owned the cattle and the Bahuti tended the cattle and the Bahuti have many babies, perhaps they do almost the best of anybody in Africa in having babies. I suspect they may have babies for the same reason that I suspect a good many people in Puerto Rico have babies and perhaps some people in India have babies and that is because they feel sexual attraction to one another and as a result of the sexual attraction the babies are born.

DR. TAEUBER: Do you exclude the United States?

DR. LORIMER: The only study where you get it is in Margaret Haygood's "Mothers of the South." After they have the babies, they say they are proud of them. They hope their daughters do not have to go through so much.

I mean, it is not a strong cultural drive for high fertility in Margaret Haygood's "Mothers of the South" and I think that it is in the areas of strong cultural disorganization to break up the strong leadership control but where you

have enough regularity to make fairly steady marriages more or less stable communal unions, that seems to me to present a very favorable complement for high uncontrolled fertility, no strong motivations for doing anything about it.

DR. HAUSER: Where do you find children as per cent of total population? What is the definition of children?

DR. LORIMER: On page eight. Well, that is children. Don't you know what a child is? It comes right from the Belgian statistics. They are children.

DR. HAUSER: Is this by any chance kids under 20? This is the same percentage John Durand was talking about before.

Under your regressive types they run 29 per cent as in Burma but I am not sure what age they are after Mr. Lorimer's explanation.

DR. LORIMER: They do not know their age and if they wanted to be statistical they would have put them down as 15 but they were just honest and they said children. I think there is--but your type is more like the progressive type in Burma. Your population, you had an average growth of 1.6 per year and I had the same feeling and the thing bothered me as Mr. Durand's material that I would expect about 40 per cent under 15 and I imagine these are roughly

children before puberty.

DR. DAVIS: I am certainly glad that Professor Lorimer is working on this subject because it seems to me there is enough evidence to indicate ~~the~~ point at least that is extremely interesting from the point of view of sociology of demographic behavior and that is there are primitive groups, non-industrial to the "nth" degree who apparently do have a low fertility and this in the theory of the demographic transition is quite significant.

What we do not know is much about why the low fertility in these cases. I think both from a sociological and a biological point of view it would be worth considerable investigation if there are cases where there is something physiologically involved. This might be something that would give us hints on the physiology of new techniques of birth control. On the sociological side it would be interesting to see what are the institutional mechanisms in a pre-industrial setup to give you motivation not to have a high number of children.

DR. LORIMER: I do not think they have any motivation not to have a high number of children. I do not think they have any motivation. At least I do not see any evidence of motivation, certainly motivation not to have children. The fertility in both cases is brought down by

high frequency of childlessness and there was great anxiety, as I say, on this subject. There are a number of taboos of things that must not be done because it might make you sterile.

DR. DAVIS: I take it this is among the Buganda.

DR. LORIMER: That's right. In the case of the Mingo there was an avoidance and the motivations I think Father Hoolstedt gives a rather good picture of. Partly young men are avoiding marriage and young women are avoiding marriage, they make more money. There is also an interest in continuing prostitution but it is not that they do not love children, they do. On the other hand, young men and women who find an opportunity to have an urban life without the responsibilities of marriage and children, do not want to take on these responsibilities.

I would say in an area which I am not talking about here I think some of the material indicates strong cultures in some of the Pacific Islands toward the limitations of fertility in primitive society.

Ticopea is a classic example where there is a whole set of devices for keeping down the population. I think some primitive societies not found in Africa but they develop a strong motivation for reduction of fertility. I quite agree with your major point that, perhaps this is the major point of the whole thing, that we should not look on

this non-industrial world as a uniform sea of common behavior. I think there are very great differences in motivation, some have been suggested in India, and I personally have a certain optimism and think it is possible leadership and group control may be directed in such an area in India toward control of fertility and that we must not expect everything to happen with the same motivation as in Western society, that the non-industrial world is by no means a uniform population.

FATHER BROWN: May I ask a question? In regard to urbanization except this university community, it is possible if you got into material on South Africa which, of course is the most industrialized part of Africa, it has already experienced an industrial revolution where 25 per cent of your population is in town, you might get a different picture. Have you in your material anything on that, or in the copper belt where the absence of the male in the rural areas is a factor?

mail?

DR. LORIMER: There is a study being made in the copper belt and I hope they may pick up some demographic material but in general the material from the census data indicates rather high fertility for the African population but it must be, it might easily be that you might get something quite different though I would rather suspect and it seems

a distinction between fertility lowered by social disorganization, the disruption of families, which is a rather different type of motivation and I think is likely if you cure the social disorganization, it may go into a movement toward high fertility, this social chaos and disease.

What is that island off from Kenya, Zanzibar?

Apparently from the census it has a very low fertility but that is a rather disorganized community.

PATRICIA BROWN: It is also a community where you have an Arab population and Asian population and a rather queer sex ratio.

The only thing I was suggesting is that this urban and industrialization phenomenon is important in many parts of Africa creating the situation of disruption referred to and while it is not by any means typical it is an emerging situation which I think in any demographic investigation should get a great deal of attention. It is more complicated and more difficult to handle.

Maybe it is not but at least it is quite complex.

CHAIRMAN REED: Are there any further questions or comments? If not, I think I will adjourn this afternoon's meeting and we meet tomorrow morning at 9:30 and we have brief comments by the people listed and then go into a general discussion which I hope will be directed to a considerable extent, at least, to new opportunities ahead.

THURSDAY MORNING SESSION

November 19, 1953

The Thursday morning session of the Round Table of Demographic, Economic, and Social Problems in Selected Under-developed areas of the Thirtieth Annual Conference of the Milbank Memorial Fund, convened at 9:30 o'clock a.m., Lowell J. Reed, presiding.

CHAIRMAN REED: I do not want to lose any of your valuable time so I will call the meeting to order. As you will see by the program, there are six brief opening statements.

The general agreement is they will be about ten minutes long. I am going to suggest that we have those statements without discussion at the time of the statements because I am afraid if we have a statement by one man and get into discussion that will take us off into the full question and I would like to give each of these people opportunity to present their point of view. I would suggest for this morning that you note and reserve the questions that you may have until after all six have spoken. I think it would be well to go through these in the order they are listed.

Professor Whelpton is first.

"RESEARCH NEEDS AND SUGGESTED PROJECTS"

PROFESSOR WHELPTON: Mr. Chairman, I thought that it might be well, since I am the first one to talk this morning, if I took a little time for the first part of our topic and did not just confine myself to discussion of specific particular projects.

It seems to me that there probably is agreement in this group that the studies which we are considering here are not studies that have, as their major purpose, the additions to scientific knowledge, but rather, that their main purpose is to provide information and results that will be of use in the underdeveloped country or countries that we are considering, and that the main use of these studies, the results which may be obtained, will be in connection with programs of social and economical development which have, as their main goal the raising of the levels of living of the bulk of the population, that we are not talking or not thinking just about demographic research but about demographic research that will be integrated with research and related activities in the field of economics, social development, organization, and certainly as far as research is concerned that should be carried on in the psychological field, studies of attitudes, and so on.

I imagine that we are thinking that the program should be planned in part to develop the thinking of the leaders

in the under-developed areas that we are considering, that one of the goals should be to meet the felt needs of these leaders but another and perhaps more important goal of the research and related activities would be to stimulate the thinking of these leaders and get them to realize that there are important needs in addition to those of which they are aware at the present time.

In that connection it seems to me that if the Thailand visitor I mentioned yesterday at the U.N. who did think that the main need of this country demographically speaking was for a larger population, more rapid growth of population, if there were many like him in that country, that if demographic research was conducted there, it certainly should be directed in part at least to give answers to the questions that those leaders or that the leaders in the country are important, that would try to provide some answers as to how population growth could be stimulated, accelerated.

But I would also think that a very definite and strong effort should be made to get into that program some activities which would point out the consequences of that accelerated growth so that there would be a better basis for these people to re-examine their position, at least there would be information collected that would lead them to question their thinking and possibly to revise their attitudes.

Maybe they are right, and maybe they are not.

It seems to me that an important general principle in connection with the research and needs and activities is-- maybe they are so generally accepted I should not mention it--that it should be requested from the country, the area, if possible, it should not be certainly forced on them-- I do not suppose any one wants to do that, but if requests are not forthcoming under the initiative of the people in the country, that efforts should be made to stimulate those requests before the research program is developed.

As a related matter I feel very strongly that the foreign experts who may be brought into a country in connection with such a program and research should stay in the background as much as possible, try to get local people to take the lead as much as they are in position to do in view of their training, experience, and so on, and that an important side line of the research program should be the use and training of younger people in the areas.

It seems to me that in deciding on the type of work to be done there should be less thought or emphasis put on what you might call new studies, trying to study things in these areas that have not been studied previously anywhere else in the world, and more attention put on or given to the type of study that may show mainly the local application of things that have been found out through research that has already been conducted in other countries. In other words,

to demonstrate the local application of what is already known by the scientists and leaders in the more developed countries in other parts of the world.

It seems to me that the situation here is a little bit like that related to agricultural research in the spreading of the results of that research, putting it into practice, in the United States some 40 years ago, where the experiment stations had accumulated a lot of very worth while information that had not gotten across to the farmers of our country and it took the Agricultural Extension Service and the demonstration activities in the various counties of the country to really convince the farmers that these practices which the experiment stations had established as worth while through their research were applicable to the conditions of that area.

Now to get at some more detailed or specific projects and some principles connected with them, it seems to me quite a bit more can be done in connection with certain types of research and studies that are already going on to bring out their demographic aspects, the things that are worth while in connection with a demographic program. I am thinking of some of the work, fine work, that W.H.O. is carrying on in various parts of the world.

But the people connected with them are so interested in lowering mortality that they are not paying too much atten-

tion to just how successful their programs are. They are not trying to evaluate them statistically. Probably if I were in their position, I would do the same thing. I would be convinced that the activities were producing mortality and I would be primarily interested in saving lives and less interested in trying to find out just how many lives I was saving. But from the standpoint of the demographer and the goals I was suggesting earlier as important in this connection, I think it is well worth while to try to get more and better information on the success of these various health experiments.

A similar situation held true in connection with the W.H.O. technical assistance in India in connection with the safe-period method. The original plan did not call for such in the way of statistical evaluation of the results. That was added after the earlier and simpler proposal had been agreed to largely because of the interest of some demographic people in getting that type of information along with the other things that they would learn through simply trying to give information about the safe period or rhythm method to people in some of these areas.

Incidentally, it is very interesting to me to see that the expert, Sven Wallen, who was sent to India to help on this evaluation has, in some respects, come to take the position of Will Ogburn some years ago. As I understand

it, Ogburn thought it was worth while in this country to try to give some, what you might call, shot-gun dissemination of information about contraceptive methods in some of the areas of the South. Two years ago he felt very strongly that some experiments along that line should be tried in India. A preliminary report from Wallen that I have seen indicates his feeling that the intensive studies, pilot studies they call them, that have been made with respect to the safe period in India are far too expensive and involve far too much in the way of personnel to make it possible to reach more than a quite small proportion of the Indian population in a limited length of time. So he is thinking about the possibility of a much less intensive type of approach that could reach a much larger proportion of the Indian population in a short time, would not give the individual couples as high a degree of protection of course, but might give them a sufficiently high degree of protection to make it worth while for them to use the method and would have an important effect on the birth rate and rate of population of the country as a whole.

I see I have done what I was afraid I might do. I have talked so much on these general things that my ten minutes are up. As you all know, I would like to stress the importance of getting some basic information in countries

which do not have census information. I think two fundamental programs of this type is the need of getting some information on a sample basis, that we must have studies of social and psychological factors, that we must have studies on how you get people to accept these new ideas.

I will not try to cut in to the list of the rest of the people.

Thank you very much.

CHAIRMAN REEL: Thank you.

I will call next on Professor Holmberg.

PROFESSOR HOLMBERG: I think as a result of the talks of yesterday several points were very clear but one of the one I would like to address myself to very briefly is this necessity for a kind of integrated attack on the demographic problems of the under-developed areas which I think was very nicely illustrated by many of the talks of yesterday, for example, that of Dr. Hauser, where he mentioned the emphasis in Burma, for instance on health programs, which dramatically reduced mortality without probably corresponding dramatic antibiotics for the economic and social system probably or any way some kind of a shot in the arm that would keep it in balance with the dramatic results from health programs.

Now underdeveloped areas are underdeveloped seemingly in two more or less important senses. Economically by their present inability to fully utilize their material and human resources, on the one hand, and on the other, in their lack of development of a social organization and institutions which are compatible with maximum economic development within the possibilities determined again by available resources.

Now many studies have been inaugurated on the complexity of economic problems in under-developed areas as there have been also many studies of the social problems

but there have been few studies that I am acquainted with that have been related, dealing with studies of the close inter-relations between economic developments, social change, and the necessary functional changes in social and cultural norms that have to take place, all of which, of course, relate to demographic problems.

In this sense I would like to mention--and this is the emphasis on which I would like to rest my few remarks--that particularly lacking seem to be what would be called semi-controlled experiments in limited types of development by social scientists who observe inter-actions where they have large programs, the interactions between new economic problems and necessarily changed social relations or social relationships.

I would just like in passing to mention that one study of this type has been continuing for a couple of years in an area where Cornell has been sponsoring some research in Peru which has been concerned primarily with improving the agricultural and subsistence base of an Indian community and observing, so far as possible, the changed social norms associated with this economic change.

I mention this particular case because it emphasizes the kind of research of which I think more is needed in the future.

What we have actually done in this Andean region is

this: One of the knottiest problems of the whole Andean area is the problem, what you would call the feudal hacienda Indian in the Andean region. We started up a program a couple of years ago to see if it were possible to modernize an abnormal Indian group in the mountains and see if we could bring it into the modern Peruvian life.

What we did here was make some attempt to make an integrated attack on the problem and not simply an attack from the health angle or economic side.

What we did was select a feudal community in collaboration with the government. We were able to actually rent a feudal hacienda in the mountains of Peru and for a period of five years, which had been operating pretty much under the old feudal system where the Indians were required to give labor to the patron in this case for three days a week.

This is quite a phenomenon in the Andes and there are lots of public haciendas. The idea intrigued us very much because not only did we feel it was a vital problem for the future development of Peru itself but we were intrigued on the possibility of getting a semi-closed system in which we could be the main advocates of change and therefore study the whole change controlled somewhat more than has been possible in other projects.

In developing this program we have used a method

which I could term a method--and this is the kind of study I would like to see more of being done--a kind of method which we might term at best the kind of method of participant experimentation. I will not have time to go into results of what we have been able to do here but the kind of work we have done has raised a number of problems. As a result of our experience on this Andean hacienda our method of participant experimentation seemed to have a number of advantages as an approach to the theoretical and practical problems involved in programs of modern social-economic development.

In the first place by having control of this particular situation and by being directly involved in its development ourselves we have been able to carry out of course a great many basic scientific studies which would have been impossible to carry out under previously existing conditions.

During the last year and a half we have been operating an action program here ourselves, for example, we have been able to get rather complete census material, collect ourselves, in collaboration with specialists from several technical fields, we have completed a number of basic studies in health, agriculture, nutrition, education, which were necessary for a kind of integrated and soundly integrated attack on the whole problem that exists in this one micro-cosmic unit.

At the same time from the very beginning we have been able to carry out more or less semi-controlled experiments on

both the acceptance and rejection of invasions and we have been able to follow these up in quite controlled observations.

Another aspect is that by being ourselves the most active agents of change in the situation we have to some extent been able to control likewise the rates at which it takes place and the areas it is most likely to affect.

I think it is interesting in terms of the approach which Mr. Hauser was mentioning yesterday afternoon, the points he was mentioning, in that here we have begun to tackle the economic side of the whole question before we actually begin the action program on the health side, that there was more demand on the part of the Indians themselves for some aspect of the economic development and we have on the economic side, we have been able in the year and a half, you can do some quite dramatic things with modern techniques in economics or economic development, and we have been able to raise the production of native crops in many respects, we have more than doubled them and more efficient techniques have been put out and have been accepted by a high percentage of the population.

Actually the returns, this is a feudal system, the returns of the hacienda lands themselves, which is our only means of capital, has risen sharply so that at the end of the second year the experiment is almost self-supporting except for the maintenance of strictly scientific personnel.

considerable number of steps in the development of local leadership and self-government which is all involved in the whole complexity of problems here and we have been able in collaboration with the Indians to build a school where we hope to be able to bring in the aspect of education at the same time. In a single year, for instance, we have been able to increase school attendance from about 20 to over 100 in a single year and at the same time we have initiated programs of adult education and so on. It is much too early to say what the impact of these changes will be but certain trends are already advisable.

I see I will not have much time to talk about these, but one of the things--at the time we started this program we had expected that industry would likewise develop in this area since the Peruvian Government had a program of industrial development of a value which we thought would affect this general area and that is why we selected it but as a result of a series of natural catastrophes and lack of capital so characteristic, it has not taken place. We had regarded this experiment originally, it was a plan not to go much beyond the stage of modern agricultural development which possibly the Indians themselves could ultimately operate.

Consequently, as a result of the fact that industry

agricultural development is now taking place, we may soon find ourselves with the problem of surplus labor on our hands which we had originally thought would go into industrial activity.

Since at present there are very few industrial opportunities in this area we are faced immediately or soon will be faced with this problem of possible increased labor supply.

Now in closing I just want to suggest that the solution to this problem in many of the under-developed areas has been--the solution to this increasing population has been industrialization.

In most cases, in many cases the problem of industrialization of the area has been viewed by governments and individuals, the solution has appeared to them to be fairly large-scale develops, dramatic in their contrast to previously small handicraft type of industries and too often this has been without regard to the sociological realities and resistances against change, to stereotyped ideals envisioned by such enterprises, and there are, I think, many things that could be said in criticism of this kind of large industrial pyramid building for some of these under-developed areas.

What I want to suggest in closing, and suggest this

possibly for discussion, that a possible alternative

development may be a series of rather small localized possible manufacturing plants more or less with the following characteristics.

That is a flexible operation in the first place which is capable of adjusting to local social conditions and second the utilization of local raw materials to distribute as broadly as possible the returns of the final product and also maximize the local sociological effects, third, a kind of selection of a final product which would allow maximum utilization of local labor, and fourth, looking not for large export markets but rather for local markets primarily.

This is the kind it seems to me, actually something along the line of participant experimentation in the development of this kind of local thing might, it seems to me, give us quite a lot of valuable information as to the shift which is very important in many underdeveloped areas, the shift from this kind of subsistence farming community to a more commercial and industrialized type of life.

I see my time is up, too.

CHAIRMAN REED: Thank you.

CHAIRMAN REED: Father Gibbons.

FATHER GIBBONS: One of the things that has interested me intensely this past few years has been what might be called something of a modification of anything in Catholic circles over this whole question of what might be called relative over-population.

I do not wish to discuss that question at any great length for I know we all recognize the difference between the relative and absolute over-population in addition to the question of local versus global and the like.

What I would like to say is that the evidence that has been coming in from the number of authors, some of which I put in a bibliography out of Gregorian University and Louvain University and writers in Paris Action Populaire as well as other places indicate greater awareness of the social implications of population growth than I think was heretofore the case. I should have brought copies of a short bibliography I got up and that I distributed to those who participated in a small seminar here last April in New York.

The thing that has struck me about this is the fact that the emphasis heretofore and to a considerable degree right into the present in the less informed circles has been related to what might be called the negative defense of

certain values.

I think the implications of that should be clear, namely, a resistance to what might be called forced change that would in any way violate the individual's autonomy as a person and his particular values that he esteems and has accepted in conscience.

It would seem to me we would have to be extremely cautious therefore as we discuss further and further the details of fertility trends in drawing the distinction between ends and means.

In other words, as in Catholic educational and professional circles including some of the higher clerical circles, there is an awareness of the social problem.

We must, on the other hand, not put them in an impossible position by saying that, identifying the end with the means.

In other words, as they see it we have to perhaps modify and perhaps bring about through various kinds of cultural change, education and otherwise, a modification in fertility and marriage patterns, plus a tightening up in some areas to the extent possible in consensual unions, and so forth, as they see that we can not go the further way and say unless you accept every means that some of us at least would advocate you can not discuss the problem.

You cannot, in other words, make any intellectual or cultural advance. Such a position obviously will result in frustration on both sides and I think it might be well to realize that, as I think some of our other contemporary and not so contemporary social change leaders have found out, that religious and ethical forces have an abiding value and that usually if we try to ignore them we end up by being 'waylaid or at least displaced. The problem that seems to me to be developing is the fusing of more accurate understanding of reproduction and all related sex activities as a reasonable and responsible action. The difficulty heretofore as I see it in circles, Catholic and related circles that place emphasis on the ethical means, the difficulty is that they are concerned primarily with individual ethical values. That is quite understandable. A high regard for the individual person and for conscience and perhaps a failure to explain the social responsibility and the social implications of the individual agents with regard to reproductive activity.

The corrective therefore has to be on the level of the individual conscience and through the development of individual responsibility. In other words, we can not impose by ignoring the conscience values and the autonomy of the person, as I said at the outset.

We can not impose upon them solutions that they find unacceptable or that their recognized religious leadership does not find acceptable. The church it might be said, speaking broadly, has no difficulty about the discussion of population problems. In fact, there has been an increasing recognition. In 1951 in an address he gave on October 29, I think, Pius the 12th listed among the reasons for holding back on the fertility rate as far as the individual family was concerned, the social and economic necessity that might exist for the family or for the country at large.

As far as I know that is about the first time a statement on that level was quite so frank in admitting reasons other than the usual ones that have been heretofore recognized in medical and ethical circles regarding personal and family problems.

In other words, that there is a social responsibility.

Now in certain countries of predominantly Catholic culture one finds--and I have no hesitancy in saying this-- a lack of such social understanding.

In fact, there is a positive objection almost to bring out the social implications of sexual activity. That is not the result of anything in Catholic belief and I could not emphasize that too much.

It is rather part of a whole culture pattern that re-

and some parts of Latin America, in fact, a good bit of it, and yet we can contrast it with what we have seen develop in our own and some other areas of traditional Catholic culture.

The awakening of social conscience therefore, and of a better understanding is much more important as far as these areas of our population are concerned than is the actual effort to induce them to adopt means which would be contrary to their beliefs.

Therefore, in any programs that are developed for education there has to be recognition of these legitimate attitudes and not a sense of complete frustration because I think if we develop our research which I wish to say something about now in directions whereby we can see how means, legitimate means, whatever they may be, legitimate from the viewpoint of religious belief, delayed marriage and continence in one absolute or limited, it can result in an effect upon the birth rates, then we will have sufficient regard for the fact that the people themselves will adopt methods and have adopted them within the framework of their religious beliefs.

I think it is highly important therefore thinking in terms of projects and study and research which would point up rather than hinder this development.

Therefore, I suggest, as one very important item

of research the historical development of western thought on sex, marriage and reproduction with special attention to official Catholic pronouncements and professional analysis by competent theologian officiants. I say competent because a considerable amount one sees in the daily press or Catholic press or statements made by lesser leaders are not to be taken any more seriously than are some of the casual observations one might see in the press generally or in some of the areas where research is being carried on into fertility trends.

In other words, it is basic attitudes and basic philosophical and social attitudes that we are concerned with and not merely with the reflections of some individual who may not be adequately informed.

Another area that I find that needs some development is research--and that is something that is extremely important from a Catholic viewpoint because I think the present Catholic leadership at the top has indicated the desirability of it itself in several statements made to smaller groups--research into easier and more accurate methods of detecting fertile periods and of recognizing the conscientious objections of those who would not accept other methods of contraception.

In the process of carrying on this research a very important factor would be systematic and continuing

consultation with more or less recognized leadership in the stature whose judgments can be taken with safety as representing the very best in Catholic thought.

Another area that I see that should be looked into is the effect upon the culture patterns including marriage and reproductive patterns say in Latin America of limited immigration from areas of European, more directly European culture.

I think that some of us who are interested in immigration into Latin America have in mind just what economic and social changes will result from the immigration more than trying to solve population problems. In the post war period the interest in refugee resettlement and displaced persons which is a concern of so many, both government and private organizations, has led to a considerable and perhaps exaggerated emphasis upon migration. I do not think many of those interested in this subject are under the illusion that you will solve population pressures in that way. They are concerned in meeting ad hoc social problems, case-work sort of things, rather than an over-all solution of the population problem that only can be met by modification in fertility trends if necessary and certainly by economic and political adjustments.

In that latter connection I think it is highly

important that we face up to some of the political implications

of what we might call restrictive, narrow, national boundaries to movement of people.

I am thinking of such areas as Central America, certain areas of South America, but more especially Central America and the Caribbean, Western Europe and other places where fragmentation of political sovereignties have resulted in artificial boundaries to movement of goods and people with the result that an area next door might be able to take a number of people with their not necessary barriers present.

In other words, we can not expect to resolve all problems merely by reducing the birth rate in the area of high population pressure upon existing resources but we have to also think in terms of the political change that may be desirable. As far as Catholic leadership is concerned there is no hesitancy in thinking about those changes. We recognize that we can not precipitate ourselves into an international community where there is no differentiation or recognition for local people and culture patterns and national responsibilities and aspirations but on the other hand there is definitely a need for thinking in terms of higher integration without which our own country could not have become so economically prosperous as it has actually become nor could it have absorbed the population it has absorbed.

research that would be useful in creating better understanding in some of the Catholic circles would be fertility trends in areas of definitely Catholic population and I say "definitely" Catholic population as distinguished from those who accepted such, when the people have become conscious of the pressures that existed upon the developed resources.

This would include research into the attitudes toward sex and family life and reproductive patterns, always recognizing the religious beliefs and moral principles underlying some of them even if the individuals making the research might not fully accept those patterns and values.

In conclusion, what I would like to stress is the need therefor of recognizing a value system that is not opposed to a rational use of sex or of reproductive responsibility, in fact, by nature is directed toward promoting respect for the individual and therefore has strengthened the underlying values that lead us to have the concern we have for people and for human life and therefore wishing to see it not squandered by wastage and by irresponsibility.

In recognizing that it is one therefore of education and of better analysis into what has produced some of the unsatisfactory patterns that we may see in some areas. Inasmuch as there are considerable differences in reproductive patterns among areas of practicing Catholic populations and groups it should be clear that there is not any dogmatic position that leads people to take a

position that leads people to take a highly pro-natalis pattern, it may be political reasons or local situations that are not of the making of the church in any way. I do not think one could blame some of the church leadership for some of the political attitudes that have developed in certain countries, the local leadership perhaps question, but in the over-all scale no one could blame say, all the people in Russia or Germany for some of the behavior of some of their political and ideological leaders.

In concluding then, as I see my time as run out, I would like to stress the need for cooperation between the people who have particular study fields in ethics and morals and those who have a field in reproduction and fertility trends as such, not over-emphasizing fertility in relation to methods of preventing reproduction that might be unacceptable but rather seeing how the values themselves affect the actual patterns that result.

CHAIRMAN REED: I would like to say before we turn to the next paper that speaking for myself, and I am sure I speak for the group, it is a great pleasure to us to have this problem approached frankly and to go into this work in cooperation with the church.

I think that is one of the striking things of this meeting in contrast to the others, the emphasis on at least two occasions of religion as a potential force and the need

for working with that in the population problem.

I should not have given myself the right to comment
in the midst of these papers when I denied it to others.

The next speaker will be Mr. Spengler.

MR. SPENGLER: I wish to comment not so much on particular areas indicated for research but rather, upon the need for a bit more theorizing with respect to what we have done up to this time. My concern here is entirely with the problem in the under-developed countries. In dealing with this we fall back on some form of the so-called transition theory, but as I read over the summaries that we were presented with and as I listened to the papers and as I tried to recall however imperfectly what various of us said about this transition, it seemed to me it was pretty much of a blunderbuss sort of approach we were using as we do not have clearly in mind often what are the variables, what we are treating as parameters, whether the parameters are susceptible to change periodically or not, what is the milieu, geographically and otherwise, within which the population is undergoing transit and so on.

I think our difficulty about dealing with the next research problems may issue in part from that. What I should like to propose, therefore, is this: That we take the transition theory as it has been developed by various of those who have employed it, who have formulated it to the extent they have, take this transition theory and reduce it to terms of all the propositions that are explicit or implicit in it.

Usually when you start doing that you find some

of the propositions must be broken up once again into sub-propositions.

Next what is the interrelationship that obtains between anyone of these propositions and any other proposition? Well, we will have sort of a propositionalized model of the transition theory but the propositions themselves will be more or less empty. We will presumably know the direction of the relationship between the several things we are supposing to be related but we will not know what particular formula the relationship follows nor will we know what particular path the population might pursue in moving through transit.

So our problem then would become after we had broken this thing up into a series of propositions and sub-propositions which would have been based on the empirical research and thought that had been given to it up to now, our problem then would become one of re-introducing content from what we had already done into these propositions.

Just exactly how much sense does this proposition mean or this one, how particularly time and place bounds it? And so on. I feel that if we subject the transition theory to a detailed decomposition and reconstitution of that sort, we shall be able to put our fingers on the particular pieces of research that need to be done and I think there will be a very large number, small pieces, of research that will then

need to be done that will fall in place nicely. In a sense I have in mind doing something of the sort here that I presume the Conference had in mind when it re-examined the Indianapolis study which I always thought was a better study than many of the participants in it thought.

We have too much of the apologetic sense in us as demographers. We should recognize errors and should not cry just when something is not perfect. We need to Indianapolisize, if I might put it that way, this transition theory and if we do that I think we can find out much more what needs to be done.

I think, also, in so doing we will be able to see connections between the relationship that obtains in the more advanced cultures and these that we supposedly are finding in the less advanced cultures.

We had neglected--that is in the transition theory we have neglected the role of resources and the role of income, and so on, more or less. That is we have not asked ourselves what particular constraint is imposed by the resources available.

Of course you cannot say flatly there is or is not because that depends on trade relations and so on, but at least we should be able to say if this, then such and such restraint, or if this, then such and such restraint, because

it would seem to me that the transit of a population through time will always of necessity be a function of what this resource picture is and we have to there spell it out in some way.

For instance, yesterday when we were talking about form of satisfaction, it was supposed that somehow or other there would not be a reduction in the standard of living even though population continued to grow as it has been growing.

I do not know whether it will or not but I see nothing in the historical passage of man to make me accept that. I do not know, maybe yes, maybe no.

What is the functional relation between a rate of change in per capita income and the transit? If we think of that expression we must of course ask ourselves what underlines the path of the rate of change in per capita income? That once again forces us back to the resource picture. Again we come to the role of the state. We have usually assigned a low order to the role of the state. That is what Malthus did although his critics I think quite properly showed what the economists called the marginal benefit, the marginal social benefit and marginal private benefit is much more likely to be kept in balance of equalized where you have a considerable amount of state intervention than where you do not or at least where you have a substitute for state intervention.

Now it would seem to me that becoming aware of that discrepancy will give the state--and this is recognized in a discussion of India and Japan--a role in fixing the transit from one level to another, gives the state a role which it never has had in the past. That would be reinforced by the fact, I suppose it would be such, that we do not have any more cultural obstacles to the rationalization of reproduction than seemingly we have discovered in a good many of the societies whose economies are described as under-developed.

My time is about out. I should like to mention this matter of value systems. Mr. Hauser brought it up yesterday. It has been discussed somewhat. I should like to see this whole notion of value systems as it relates to the fertility problem particularly in under-developed areas subject to a good deal more critical analysis than we were presented with yesterday. I do not like to make distinctions between positive and negative but I had the feeling as I listened to the discussion yesterday that we talked much about positive pressures toward fertility.

I do not know whether they exist or not. Maybe they do. It sounded as if they did from what Mr. Lorimer and others said but frankly I was not convinced even so. It needs to be examined. All these basic elements. You see, we hear them repeated a number of times and a good deal of the things are accepted pretty much not because they are true but because they

are familiar and after you hear a thing four or five times like the transition theory you begin to believe it is true because you have heard it.

You become anesthetized and we need here some de-anesthetization with respect to both value systems and this transition theory and so on.

There was a point made for instance in Mrs. Taeuber's paper yesterday. She was discussing dualism in the Japanese picture, this is dualism within a period of time. I am interested in knowing the functional connection between these things.

The sociologists have not given much thought to it. Parsons has in some degree but the rest just talk about urbanization and a lot of other nonsense of that sort but do not have any theory about it. There must be limits to the connections and what we want to do is find out what these things are. Again when we speak of the transit theory do we mean modernization or industrialization or what? If we mean industrialization then we are up against the fact that a good many of the so-called under-developed areas are bound never to be industrialized unless there is a remarkably complete, unless there is a mutation of change almost in the way men do things.

Many of these areas are doomed to be hinterlands

but a hinterland can be modernized and so the question arises

as to whether it is modernization, is it industrial modernization, or what? Because if it is industrialization then you are denying yourself an outlet.

If you really find in terms of modernization you can say then how do we modernize a hinterland economy? That is, I think, a problem of a quite different sort.

Just to illustrate, this is a poor illustration, but the first point I made, a book was done on human groups several years ago by George Holman and Herbert Seinsman worked out a model of that a year or two later, a mathematical modernization of it. I should like to see us do that to our transit theory and I believe if we do that we can pinpoint a great many things that have been giving us trouble and add up to something and I think we can make our research fit in better than it does him.

CHAIRMAN REED: The next speaker is Professor Vance.

PROFESSOR VANCE: We were told yesterday or left to inference that sexual attraction plus optimism equals high fertility. I have something of the feeling that Mr. Hauser had about one of his statements. We stand here in the presence of a law maybe. I do not think I will be so optimistic and yet I want to look for leads for research.

(Professor continued to read his prepared statement.)

CHAIRMAN REED: We have one more talk. Professor Notestein.

PROFESSOR NOTESTEIN: Mr. Spengler has said much better than I what I wanted to say. I think instead I will give a slightly different angle to the reason I think it is important. There are so many things that one could talk about under these circumstances. What I would like to talk about is the importance of better knowledge as an instrument of policy. It seems to me it flows a little bit from the sort of thing Davis said yesterday. He put it that people are sufficiently cussed to solve their problems, if I recall, most people want some pretty common things around the world and most people are however, uneducated and so forth, not terribly stupid it seems to me.

One of the great failings in our present position is that we do not have the materials to permit people to see the full consequences and all the inter-related by plays that arise in the matter of coordinated economic, social and population change, and that a great service could be performed if without preaching these things could be illustrated and illustrated unambiguously.

The difficulty at present is that we tend each to make speeches to ourselves and to people that agree with us and they are wonderful speeches and people that do not agree with that view make speeches with themselves and they are

wonderful speeches and there is not much cross communication. I suppose we had it illustrated yesterday and today in the talk about demographic transition--it seems much of the criticism was on the order of the Indianapolis thing and in the sense that the theory has been asked to do or treated as if it undertook to do things that I do not believe in general it was ever intended to do--but the fact is that it is the most general sort of proposition that is not useful in some particulars because it lacks time scales and because it lacks dimensions. We get the same sort of argument over the resources and population side when each side can hold forth very vociferously and to itself convincingly, one, that the forms in which materials and energies take form in the world are limited and the other the spectacular advances in technique.

Each being quite true, the whole nub of the issues come down on how the two interplay.

I suppose that is the reason why some of us can be pessimistic and some of us can be optimistic and when we use those words what we are really saying is we do not know. It is for that reason it seems to me there is a great deal to be said, I would not have called it a theory because that is a different formative reaction to the world, I would call it modelism.

model building and type situation.

I hoped we can learn a great deal in the process. At the office in Princeton we have one very, very poor model in a sense a very, very limited model and we are by way of launching a considerable other project that will start mainly from the process of starting with age, sex distribution and projecting forms of fertility, mortality, and then try to carry that back to economic cause. I think our biggest lack of information is many of the inter-relations of parameters. You do not know what it will yield in terms of enhanced fertility. We know something about what various educational programs cost. We know extraordinarily little about their impact on the economic and still less in present system skills and magnitudes about their precise effects on the population.

I think one can only start and pick up weak points as you move a long, start with simple models and endeavor to progress as one can. Put in actual empirical data wherever one can get it, put in the best simple approximate information wherever you cannot get actual empirical information and then let the model lay loose for those things about which we simply know nothing.

It seems to me this form of work is very likely to be a fruitful lead. I believe if we could enrich such

of the various aspects--I think if we could enrich such models to a considerable extent there would be a lot less diversity of opinion as to what a plausible course of events would be because I venture to guess that though many people will not get excited about the population problem per se, there will be many other aspects of the situation that will interest very much current leadership throughout the world. It seems to me this is the most fruitful way of reducing the area of controversy and one that we have not begun really to exploit. In that connection we hope to work with the model of the densely settled poor country with bad health conditions and high fertility but we also hope to work with the more sparsely settled country in the same area. I agree with part of what was said yesterday that we present these problems as if they are probably too different. I rather suspect it will fall out rather strongly that the problems of a country with a good deal of undeveloped resources and a rapid rate of growth are not necessarily widely different from those where resources are even greater.

There is a great common core of problem there. I believe the exploration of that type of model would eliminate much of the practical situations that face many parts of the world.

There are just two supplementary matters. I think that it is important from the strategy of being persuasive that

not all of this demographic research be focused simply on fertility.

There are enormous numbers of problems of the practical problems of change, urban-rural migration, needs of school systems, road systems and the like, there are an enormous number of places where the practical demographer can give much needed information to the people that are designing programs.

I think if we could do a considerable job in training people to give such practical information naturally that will be appropriate for people forming policies for the next ten or fifteen years, not trying to solve just the population problem, we will quickly get groups around the world finding this thing is interesting and their imagination will run to the bigger problem in ways which seem to me likely to be fruitful.

Then on the matter of attitude studies I think we have to be frightfully careful. One thousand has a pretty rich experience with various people, peoples in a good many different cultures who have been asked would they like to limit their fertility and it is pretty such a universal question. We have seen that happen so much in our own country in connection with the birth control clinic studies.

The difficulty is these questions are pretty much

a universal question. We have seen that happen so much in our own country in connection with the birth control clinic studies. The difficulty is these questions are pretty much asked in a vacuum of reality. If there were no penalties, if it took no trouble, if it did not suppose one to communicate gossip or make difficult relations with the husband and all other "ifs" they would like to limit fertility. The Puerto Rican experience Hatt and certainly earlier experiences in this country, we had worlds of that sort of thing that meant almost nothing. I think it is interesting to know such attitudes are held in a vacuum but I think it is a great mistake to imagine they mean anything.

That they mean very much. This leads me to suggest that probably the best information we will get on this line comes from the constructive experiment, the endeavor to see what changes specific programs can induce in behavior in so far as the under-developed countries are concerned. I hope very much these opportunities will come before too long so that we do not hang ourselves just completely on the very first attitude natural type of thing.

Finally, one of the great needs of the world with respect to under-developed countries is the development of teaching and training materials. I do not think I need to emphasize that any more but certainly the sort of materials and sort of training and sort of interdiscipline area teams needed are not the sort

that have necessarily functioned best in our own society. The countries are extraordinarily poor, they face immediate and urgent problems, they needed the efficiencies that would come from tailoring their own instructional material and their own research design to their own needs and not to the crassest imitation of the intellectual efforts of a terribly rich society. It seems to me in all these senses we have been talking about from the sort of thing Spengler was talking about to the other things I have listed these are properly research but they may be rather more important in the formation of policies than explicit endeavors to do so. If we can tighten our stuff, say that the facts we are convinced of stand out unambiguously to the leadership of the countries involved then I think it will take a great deal less auditory effort than we are sometimes inclined to think.

CHAIRMAN REED: I think these statements give us a good base to start our discussion on and I would like to say that it is characteristic of these meetings that everyone has taken part. There are some of the oldtimers in the group that have had a good deal to say but there are some of the new members who have not taken active part in the discussion up to this time and I hope they will enter freely.

I may say when we approach the end of the morning and I feel someone has not done that I shall take the liberty of calling on them for remarks. I am going to throw the

meeting open then without calling on anyone and we can enter into discussion focusing our attention primarily on where do we go from here? What are the next things to do?

MR. KIRK: If no one else wants to take the first plunge I will be happy to do so.

I would like to make an appeal for more systematic and international projections. I know this is a rather unpopular line just at the moment. We have been in the midst of a great swing away from systematic projections and have had some bitter experiences with systematic projections both with reference to the United States and with reference to the other areas of the world. It looked as though we had not paid enough attention to the social and cultural aspects, motivations, conditions existing in different countries, so we have been tending to go off and look at country A and country B, and Country C and keep emphasizing the unique qualities and unique problem that exists in this country or that country which is after all all very useful and important.

But I think that we are selling ourselves short. We have gone a little astray in some of our systematic projections. We have gone astray because I think I would warmly agree with Mr Spengler's remarks, because we had not thought through clearly enough the theory of the transition but we know more about this both empirically and I think on the

theoretical side than we did several years ago. We have learned through empirical studies a lot more about the inter-relationships of the various factors involved. While I felt very strongly that we ought to look at our theoretical foundations, we ought to attempt to create a much more thought-out theory of the demographic transition. I think we ought to keep clearly in mind as an intermediate focus of such a theory the specific problem of making systematic projections of population and I think we ought to do this for two very practical reasons: One, the great importance that has been stressed in our conversations, the great importance of the realization of the population problems faced in under-developed countries by the countries themselves, by the peoples themselves.

The population projection is a way of dramatizing this, is a way of bringing home to these peoples the nature of the problem that they may be facing in the not too distant future in some cases.

A second very practical reason for this, as a focus of demographic work in under-developed areas is the great need for population projections in connection with planning--that is, having realized that there is a problem, there also is, of course--well, what are the dimensions of this problem? How big a problem are we going to have to cope with?

Of course, there are many, many very specific needs for population figures in connection with planning, in connection with schools, school facilities, in connection with the number of jobs you are going to have to have, how much of a surplus are you going to have to take out of the rural areas?

Some that we have not considered here because of our broad interest in human welfare but things that are important to government, such things as military manpower, old age dependency, and so forth, but these are real needs for planning and real needs in this planning for best guesses at least as to what the future will bring.

It seems to me that--I spoke of population projections as an intermediate focus of this enterprise--it seems to me that carrying beyond the population projections themselves is of course the very great need for relating these what you derive from these projections to economic development, to the specific economic and social problems that may be created not only by changes in the total population but by age changes and by other changes that may occur.

To wind up it seems to me that in some respects what we need is much better knowledge of the economics of a rapidly growing population and with subheads relating to very important factor of resources.

MR. DEVINNEY: I have been a bit unhappy about what seemed to be some of the indications floating around that cause badly burned people to back away from this problem. After all, this is a Council of fertility. I have been unhappy about some of the implications in Joe Davis' remarks that we ought to know better than to try to do this that it cannot be done. If we are going to advance knowledge in this area we have to find out why things went wrong and how to do it better. For this reason as well as for the general utility of it, I think it is very important that we not abandon this field as something we cannot deal with because we made a bad mistake.

I also would like to make a comment about the point Frank Notestein made concerning the attitude studies. I very much agree about the risks and the unfortunate consequences because it is fairly easy to do and fairly interesting to do to just carry on a considerable number of inquiries that are pretty well isolated from getting at reality and simply get rather meaningless responses to questionnaire inquiries about whether under ideal conditions people might like, if matters were very different than they are to have smaller families.

At the same time I think it would be too bad if we would let this sort of danger turn us a way from continued persistent attention to what I do this is a very important

area of inquiry here and that is getting more adequate understanding of what are the really operating underlying motivational factors that determine what individual families do and what decisions they make and in response to what factors.

These can, I think, be found out by studies that do use these techniques if well designed. I think this is another field that would be too bad if it were hacked away from.

DR. MAUDLIN: To carry that further it seems to me the attitudinal questions that have been asked for the most part have been in terms of what is the ideal family, not in terms of what do you expect to do, what are your plans, how strongly do you feel about this? The motivation aspect is missed a great deal. In our culture, as one of the speakers said earlier, I believe Dr. Vance, certainly the factor of social mobility, feeling the persons could move upwards has been an extremely strong factor in lowering fertility.

I do not know whether this operates in other countries or not. As a matter of fact, the question I would like to ask Dr. Davis is: Why is he optimistic with regard to the Indian fertility? I do not see the motivation that the individual there would have for reducing fertility unless some really sweeping social changes are brought about.

Unless the leaders are able to affect the attitudes

of the people, I do not see what it is that would cause the Indians to reduce their fertility sharply in the near future.

CHAIRMAN REED: I am going to suggest, Davis, that you reserve answer to that until later and let a few other people open up.

DR. RYAN: It seems to me these remarks and criticisms of the attitude studies and favor of attitude studies and the skepticism of evidence of drive in cultures for high fertility point very directly to a necessary research we had incorporated between either no logic studies and attitude survey studies in the same societies, in the same areas, because the attitude study obviously is valuable but only within a context where you know the institutional structure of marriage, family economic motivation, and you are not going to find those things out by attitude surveys.

DR. LORIMER: I want to defend myself against Spengler's criticism of me.

Actually I might point out, my point of view is rather to minimize the universality of positive cultural motives for high fertility and that is in the general study that I bring out. Notestein, who read the study, has criticized my underplay of the value studies. So it is simply that I think the actual reading of the detailed ~~is~~ on the people I was talking about yesterday particularly the Ashanti and the Masi that I emphasized particularly it is clear and

it is there.

The general theory that it is not there is irrelevant. The concrete material is that it is there. Such values are not universal at all. I think they play a very small role in the sustaining of fertility in many other societies. There can be no universal answer to these questions of attitude and values. They exist in some places and in other places they do not. I was not making a general implication they did but in this concrete situation they do and I think the evidence supports it. That is just a detailed defense of what Spengler was criticizing, what he thought to be a general statement I was making, I would agree with his criticism. The important thing it seems to me in large theoretical terms is there are a movement toward the emphasis on the thing that Spengler pointed out of the necessity for what he calls transition theory. It was very nicely illustrated with reference to this chap in Thailand, we have a low density and we need more population.

He is perfectly correct but his country does not fit the cry of the high man-land ratio that has been referred to, I know red herrings stink nowadays, but I would say the man-land ratio, the population and resources theory, has been the red herring theory on population research and what we need is to draw the attention of the world--that is, the demographers of course have accepted the old Malthus

statement of their problem and set to work to find whether Malthus was right or wrong. As long as we do that we are licked because it is a false problem. The important thing is not the question of the absolute level of population to resources. That is of some importance. Into the model of the transition theory the resources have to be one of the factors that come in as Joe Spengler says. But they are only one of the variables and perhaps not the most important variable in many situations as regards the next 20 or 30 years in a complex equational relation. We need to shift the attention of the world. This has been done in our own thinking but much of the rest of the world is still thinking in terms of over or under-population.

That is a false problem. The vital problem is the question of how the interrelation between demographic changes and economic and social changes in the transition processes, and for many countries with a low ratio of population to resources such as Thailand and Burma or Brazil rapidly increase maybe a very serious handicap on economic development.

We need to study the relations of the numbers of children that are coming on to the resources of the society for providing education, the relations of age structure and rates of change in population to economic structure and

changes in economic life.

It is the development of this analysis of the transition processes that we need to shift the focus of research on population from this old dead Malthusian issue to this type of dynamic analysis that Joe Spengler and Notestein and others here have been thinking about.

Now there is a third development which is emphasized in this conference today more than in any other conference of this sort that I have ever attended. There has not been a major lapse in research.

We have had a number of fine contributions, Holmberg and Vance and others who have been calling attention to the social aspects of the population transition theory and we need to focus research on the transition process and I think Notestein should get over being timid about the word theory because I think that some of the social aspects will not neatly fit into this models. I do not think you can put into his model the relationship of leadership roles in different societies, the social mobility processes, and so forth.

Some of the more formal demographic relations you can put into models, that should be done, but in addition you need research and you need research on the basis of an adequate social theory and this means that you do not

how many children they want to have and get silly answers. It means as was suggested by Bryce Ryan, you study your attitudes in relation to your ethnology. With such studies I think that is very crucial and it is only such studies that will both give the answers and the possible leverages. I have become quite convinced that the demographic transition may move quite differently in Asia than in Europe. It moved in Europe as an individual spontaneous movement in individual families. I think in Asia with a much greater group structure that the movement may be of quite different character and that it would be quite fallacious to generalize from European to Asiatic experience.

We need to draw on sister sciences, into the study of leadership roles, processes of communication, value formation, as they relate to these transition processes. That is a very important lead for research which needs to be developed and integrated.

Finally one other thing I wish to take this opportunity to bring out, a thing that has been very much on my mind.

I feel there is a certain tendency in our circle today to rather neglect Latin America. Somehow Asia seems much more interesting to us.

It is on our doorstep and the United States has a very real concern with what happens in Latin America. Here is an area in the world which, according to U.N. estimates, has the highest rate of natural increase of anywhere in the world--all over the area of Latin America as a whole. Durand and his associates give them a 2 per cent increase per year.

With economic developmental hampering, moving along very slowly--Latin America is intellectually in this relation the most backward area in the world much more backward than Africa.

There are a number of people in Africa intelligently thinking about these problems. There are very few in Latin America. It seems to me that the opening lead is the development in Latin America of the thing Notestein talking about of practical demography. I do not think they are going to head right into getting excited about total population but I think if they get working on problems of distribution and economic relationships and do also get some high grade demography, they have been collecting a lot of material in Latin America, you have had this beautiful program of the census of the Americas, they have a lot of data but, in fact, nobody south of the Rio Grande knows what to do with the data with the exception of a very few people. They are trained in an old-fashioned American church, European sociology and law. They love legal

There is no good economist and no good demographer with one exception and he was an importation. You have one of the world's great demographers in Latin America. I think as a practical thing, although this is no money to me and I will never be involved in it, there is a great need to develop an institute of demographic and social research in Latin America. I think we should make utilization for this purpose and I am going to be very frank and specific, we should draw into this program the great demographer who still has ten years of life. I think there is a great need to develop and I think one of the large foundations will examine this possibility and may really set the thing up, to set up an institute of demographic and social research somewhere in Latin America--I am sure some of my specific things will get deleted out of the record--but train some people with real capacity for demographic analysis and then if we could bring in people who have some of the social angles of development in it along the lines the Cornell people have been working in Peru that would be vital and let them work on some of the practical problems that have interest to the government and people there but let's try to do something about bringing Latin America out of the stage of demographic morons which is what they are at the present time and getting a lot more data and a lot more sentences will not do it.

Thank you.

CHAIRMAN REED: Dr. Durand, I was hoping you were going to comment. Since you have been mentioned, do you want to take advantage of this lead?

DR. DURAND: I have been thinking about what was said about model building and also about the remarks about population projections which, of course, are part of the necessary assets of the kind of model building Mr. Notestein was talking about. It seems to me we have to consider the question of what happens to the projections of population and models constructed on them after they are made.

I think this is very relevant to Mr. Lorimer's remarks. For example, here at the U.N. we have just finished making a set of projections of population, systematic projections, for the countries of Central America. Pretty soon I guess we will publish them. The Government of Guatemala will receive a copy and no doubt these projections have some potential value to the Government of Guatemala in setting up its policies and determining its specific programs of action for economic and social development. As things stand now I doubt very much that the further calculations based on those projections which would bring them to focus upon the policies and programs of action of the Government of Guatemala will ever be made, unless they are made by somebody else for the Government and those also put in their hands.

at this meeting we have had the benefit of the presence and thinking of Father Gibbons.

As you know, I have right along regretted the fact that we did not have in this group a representative of the Catholic Church who could participate in our meetings and fertilize our thinking and bring about a mutual understanding of the attitudes of scholars on the one hand and of those in great religious authority, on the other.

He very properly emphasized the importance of religious and ethical concepts as determining in thinking through this population problem that we are concerned with. That is of course perfectly obvious and our thinking and discussions of the past have, it seemed to me, right along seemed to me, to leave almost untouched the religious and ethical considerations that are involved in this question.

At that an atmosphere of religious and ethical principles should guide these discussions, it is of tremendous and paramount importance because what are we dealing with? We are dealing with--I think we would all agree--with the maintenance of our civilization, with the preservation of man in a state of peace and good will. We all in our discussions in the past have emphasized the tremendous dangers that are involved in the maladjustments of population. To be perfectly specific--and one could go back to anyone of our meetings to pick a specific situation--Irene Tseuber yesterday

pointed up the picture in Japan.

The other day on the front page of all of our newspapers was the statement of the Chief of the Census of India as to what the picture in India actually was. In both those statements there is the implication that unless a good solution were found for the conditions prevailing in those two countries, the world would be confronted with a situation full of dynamite. Those problems have to be solved. Now if religion and ethics are not involved in a situation of that sort I do not know what religion and ethics are. We are concerned here with the greatest good of the world. So obviously our thinking must be on the highest level and religion and ethics must be in the very background, the very atmosphere, in which our studies are made.

Now I know and you all know that there is a variety of religious and ethical systems, a great variety, one religious system has, I think it is fair to say, in the past in its pronouncements and in its activities served as a brake on tendencies which were developing in various parts of the world toward a control of population maladjustment.

It would seem to me, therefore, that the time had come for another type of research and a research at the highest level of our skills, a research which would analyze the various religious and ethical systems and see what their implications are in terms of the requirements of the

population.

Does this system or that system lead to an impasse, to the creation of unrest and tension to world destruction? Or, does it lead rather to a world condition where decent people can live? It seems to me there is a tremendous need for an analysis of that sort. There is need for further research at the grass roots level. There is need for research of the most intensive sort as to the kind of people in terms of their religious and ethical standards, of their relations to their families, of their place in society, as to whether they are good, bad, or indifferent people, in terms of their family structure.

Are those who practice--let us be frank and above-board in our statement--are those who practice birth control, who limit their families by artificial means--what kind of people are they? Do they suffer in their personal life? Is it a degradation there? Are they fast and loose with their families? Do they have social responsibility?

It would seem to me that we must know what the effects of various activities are on people. Then we shall know the validity of some of the recommendations we make. There is need for a first class approach to this problem and to bring out into the open the facts with regard to the effect of various attitudes and procedures in family life

of information of that sort it would seem to me we would then be in a position to guide our recommendations, to think through policy and programs on a much safer basis.

DR. STYCOS: I would like to make a comment and ask a question of Father Gibbons that has some bearing on Mr. Dublin's comments.

Father Gibbons has pointed out that our research should be directed toward those lines of limitation of population which are most conducive to the ethical values or the individual consciences of the population with which we are dealing.

He stresses the importance of not forcing on a population methods which, means which are against their individual consciences.

Of course this brings up the question of determining what, precisely the attitudes or the consciences of these people, what they are. This is particularly interesting in Puerto Rico where when we do ask a Catholic population about their attitude toward birth control and ask them specifically about the church, they are in opposition to church dogma on this point.

Now in this case what do we do? Is that the individual conscience of a population? Should we follow that up? Or what are quite the implications that Father Gibbons would

give this?

FATHER GIBBONS: If I may comment on that, Mr. Chairman: I would say first of all I regret the division of the world into categories of religious allegiance following particular political delineation.

We have seen over the past century or so, certainly within recent years, modification of what might be called religious attitudes both with regard to actual adherence and also with regard to practice.

I am always somewhat amused knowing the actual church statistics, people insisting on calling Latin America a Catholic region.

It is only short of about a hundred thousand clergy in order to bring it up to the standards of service that exists in this country and in England which is rather amusing, to say the least.

Now in referring to that I am perhaps touching on an extremely delicate cultural question, namely, are the so-called areas of so-called Catholic culture genuinely such?

Therefore, one has to take a two-fold approach. First, what are the actual attitudes of the people? Some of the attitudinal research done in this field is very helpful but in order to complete the picture--and this is where my remarks which were perhaps a little away from the point were directed--how does this correlate with the values that these

people genuinely accept in the depths of their conscience or at least should accept, according to the norms to which they claim to be adhering?

In other words, I donot think it is a legitimate methodology to assume that because one is questioning someone in, say, Italy, that they are, therefore questioning someone who fully understands or has accepted in practice or even in theory the Catholic value system.

There is a whole social philosophy that follows from certain ethical and doctrinal convictions. If that is properly understood, it can just as well work out as it has say among the Irish and some other groups, as it would work out, say, in Puerto Rico.

In other words, there is nothing intrinsic to anything that is basic in Catholic values that would lead to the situation one has in Puerto Rico. In fact, the situation there with regard to religious practice and knowledge of religion would rather indicate that it is a deviation. The same thing could be said of a considerable amount of Latin America for historical reasons that are not always easy to explain or even to analyze. Therefore, it seems to me what we have to get at is even the more fundamental attitudes and this is where I agree on the weakness of some of our attitudinal studies done so far and would indicate the need for a more comprehensive type which would tie it in

With the whole social system and with ethnographic research that gets a real picture of the culture pattern plus a clear indication of where you stand with regard to ethnographic research that gets a real picture of the culture pattern plus a clear indication of where you stand with regard to actual religious belief and practice.

I would make a distinction because one of the phenomena with which some of us are very well aware is that everybody who says that they are Catholic do not really understand the full implications of what that means, just as I think we are discovering in Korea that some of our young men do not quite understand what the basic ideas of being an American are.

It does not mean that they are not devoted to their country, at least we can assume that, but it may mean that they need a little bit more enlightenment.

I think it is those factors that we have to supplement, with which we have to supplement some of the attitudinal work done so far in order to avoid coming to erroneous or inadequate conclusions.

I am in no way deprecating some of the attitudinal studies so far conducted. I think properly understood one would find among Catholic populations in general, the ones who might be said to be practicing, there would be the same

interest in rational family planning and properly understood

that there might be elsewhere, but also one goes beyond that and sees what other values might occasionally be in conflict or which would modify these desires, one has not really got to the depths of what is motivating those people.

I think that is particularly true in the case of the Latin America and as far as we are concerned, Puerto Rico also.

DR. DUNN: I have several remarks somewhat scattered but I would like to say them even though they are somewhat discontinuous.

No. 1. Several places throughout the discussion the last two days we have referred to health as being the major producer of the problem as it were because of the science of health being introduced and lowering the death ratio drastically in places where the birth rate is high and fertility does not follow the death drop.

Now I think many of us have done a great deal of soul searching the last few years and realize very definitely that this is so, have asked ourselves the question: Is it really right that we have a healthy world and keep that as a basic creed of public health because of its implications on the population?

I think the answers have been from everybody, you do not solve the problem by not continuing to try to do something with death and disability and disease.

You have got to have a healthy world. What it does is to focus on this problem the fact that the science which has been produced around public health primarily, around the prevention of disease, which is behind most of these declines in death rate, has no parallel in terms of the science around the control of birth or fertility.

We simply do not have anything that is equivalent to many of the things in public health where you introduce scientific measures to prevent disease before it occurs.

Now all the elements of birth control are sort of taking care of the situation pro tem or something. It is not preventing fertility as an act which is a study act, not at the time of sexual intercourse, and it seems to me definitely that our basic problem in this whole thing is to get a science that controls fertility which is not dependent on doing something during the course of the sex act.

Now I thought the most dramatic thing that has come out in this two days' discussion as far as I am concerned was the remarks by Mr. Stycos about the Puerto Rican experience in connection with sterilization because you are asking about motivation.

Isn't that a very clear indication that when people are left to themselves, they are trying to solve the problem, and they want to solve it and they are going to solve it in

a way which is as permanent as they can get, which gets them in the least trouble, which takes this thing out of a day-by-day control proposition which all of the birth control measures are involved with.

I think that we talk about motivation, I think that our biggest problem is studying our own motivation in this country.

Instead of just studying the motivation of foreign countries we ought to ask ourselves why can't we get some research money into this basic problem and know something better about the science that would be a positive science toward control of fertility? Here we have fertility sort of like an open spigot with the water running and the solution in Puerto Rico is closing the spigot and welding it shut. We ought to be able to turn it on and off at will if we want to face this problem right.

I think Father Gibbons' speech was extremely interesting and fruitful but I would like to ask this. There is not anything that would make as much progress in this subject as to have the church speak out and recognize that there is a basic problem of population and culture and religion and perhaps give "X" millions of dollars for research along the lines of solution of problems within the church dogma.

Why can't we recognize our chief problem in this country is not being able to face all aspects of the problem

because of the blocks we run into? We could not think of facing up to going for funds on research for instance in this problem as a field of health because it would run into too much prejudice and bias. We could not hope to ask ourselves seriously how can we back the research underlying fertility in the same way we back the research underlying death and sickness. I think it is a real problem that we ought to face up to and it is primarily a problem of asking what our own motivation is rather than that of some other country.

I did have another comment but it is not germane to this so I will not go further.

CHAIRMAN REED: Father Gibbons, I would like to say I think the group would like to hear from you later in the morning with any ideas you might have as to what we might do in a church sense with regard to religious and social values.

I am going to suggest that instead of attempting to answer Dr. Dunn's question at the moment, that you discuss the thing more generally at the latter part of the hour.

FATHER GIBBONS: That is satisfactory.

DR. McGRANAHAN: I would like to take up the point of health brought up by Hauser in connection with the U.N. yesterday and suggest that we are reducing mortality rates without giving thought to the problem of production and equating the resources to the population.

We have actually pointed out in some of our publica-

tions that the problem is difficult because you have on the one hand a connection with health, possibility of introducing measures without any kind of economic and social transition at all.

You can get a demographic transition reducing mortality without an economic or social transition by simply having, for example, Point 4 or Technical Assistance people spray DDT, whereas in the case of reducing birth rates or increasing food production you must have active participation of the population.

That motivational hurdle or that dive there is a very serious matter to which we have given quite a bit of thought, realizing of course that fundamentally we do not stop saving lives simply because it creates this kind of problem. But it is true, for example, that there is more money spent in the food and agricultural organizational assistance, considerably more than there is in the world health organization. It is simply that the world health organization techniques are much more effective. And the world health organization does point out that under certain circumstances the reduction of sickness, reduction of morbidity, will increase production by reducing sickness and people who can not work and also it may open up new areas for production by reducing malarial conditions.

Now, I would like to comment just briefly on this problem of transition from the point of view of what is going

on economically and socially in the less developed countries as we see it in the UN with some possible considerations of research possibility in demography.

I am not going to go into the broad aspects, for example, the fact that much of the transition is being carried out by governments in place of the middle classes which carried out various transitions in Europe and that there is this problem of introducing a kind of welfare state idea today. I would like to point out certain types of transition which appear to be important in the rural areas. There is growing emphasis on the need for handling the rural problem, the social aspects of the rural problem. That is reflected in a growing intensity of interest in the U.N. upon programs of economic and social development for rural populations. There is, for example, you can see in the newspapers every day an increasing tendency toward land reform. I was interested to hear Professor Vance indicate that land systems and their reforms may have important demographic implications. We have sent out a questionnaire to all member countries asking what they are doing in regard to land reforms.

The report is just to be issues within the next few months on governmental programs and land reform and I think you will be surprised at the number of them actually being carried out to some extent though the effectiveness of

them is not as well indicated as the legalistic aspects.

The second kind of program which, from the point of view of the purely social if you consider land reform as economic, it has that role, but the second kind of program which is considered very important now, in fact I would say is the major program of interest in the UN among the underdeveloped countries in the social field, is what we call community development program or the multi-purpose development.

It is the use of self-help for progress at the local level. India has a tremendous program going on now assisted by the Ford Foundation, Egypt has had one for sometime, there is a program in Mexico and the Caribbean, Yugoslavia has a program.

We are not fortunate in having Cornell anthropologists take over feudal estates in many areas but it is the same general direction and I think that this is something which is going to increase and it may have demographic implications. I do not know whether it will or not.

Let me mention briefly this question of local industry or using local raw materials for production of goods that are of importance for local consumption, Mr. Holmberg mentioned that. That actually has been very seriously considered at the UN, there was a paper presented on it as a possibility for a new direction of emphasis.

The fact that there have been great difficulties getting capital for heavy industrial development in the less developed countries is now creating a shift in emphasis toward

this possibility of local and decentralized industry will cost less.

But it may have quite different implications for demography from the industrialization of heavy industry that took place in Europe. I notice Mrs. Taeuber said in her paper the decentralized industry in Japan appeared to have no effect on birth rates. There may be other problems involved.

Thank you.

CHAIRMAN REED: I would like to at this point ask you, Dr. Gordon, if you have a few remarks.

DR. GORDON: I am afraid my comments will not fall very well into the general pattern of discussion but I am interested in public health and what I have to say will naturally have to be from that attitude.

Public health people for years have centered most of their attention on reducing death rates. In recent years they have come to the conclusion that they also have an obligation to take into account birth rates in the public health program.

It is a simple ethnologic problem to my mind. You disturb one factor in a system and you likely bring up a new one. I should say that a consideration of birth rates in public health is that situation.

As the public health man begins to look at birth rates and demographic problems he very naturally tends to follow

his own methods.

Those are primarily biologic.

But also I should say that a characteristic of modern public health is that we are increasingly coming to appreciate that sociologic factors are decidedly important in our efforts to produce better health conditions. It is a changing attitude. It was too largely biological for many years. Therefore I would like to bring out that perhaps this problem of demography and population control has its biologic considerations as well as sociologic. These last two days as I have sat here listening to statements about demographic transition and population projections it just occurred to me in a way that it was somewhat like the situation if somebody came to me with a problem about an epidemic of cholera. When I listened to likely conditions in 1980 and 2000, and so with the problem of cholera I figured out the number of susceptibles and number of immunes and took into consideration mode and rate of spread and came to the conclusion that if you are just calm, the epidemic would burn itself out in about three years and you probably would not have any more trouble for seventeen.

The point I would like to make is that I believe the essential thing is to identify if possible undesirable situations in respect to numbers of peoples in particular areas and to search for some influence to favorably influence that

situation.

Now, in our public health approach, I should say we take seriously into consideration the question of motivation. I doubt that there is any public health measure which is successful without participation by the population concerned.

We have important recognition of acceptance and availability, factors which have been mentioned in the discussion here. But we also have a further consideration upon which we put a great deal of influence and that is of a number of measures possible of application what of a given one is to be expected in relation to accomplishment?

What can you expect it will do?

Secondly, what are undesirable possible side effects?

That is exactly what we do when we introduce a new vaccine. We want to know what its efficiency is, what its deleterious effects are. We, in public health, have not always made this careful assay of possibilities. I think particularly of typhoid vaccine introduced in 1911 where just in 1952 we are coming to realize that perhaps we need a careful assay of just what this long-used procedure actually will do.

Now in trying to evaluate any measure in public health I think there are three general steps. The first is research and development of the procedure, secondly a careful

test of what it will do under controlled conditions, usually in clinic and hospitals and third, the transfer of that measure to the field and its application to populations.

I hardly need to bring out that what a given method will do under carefully managed conditions with expert personnel is quite another matter from the results that may be expected under field conditions with a variety of skills and a much more divergent population concerned.

I would point out that it would seem to me in problems of population control that our approach has been somewhat limited to earlier types of endeavor in public health. We came many years ago to realize that no single disease had ever been controlled by attempts to treat all sick individuals. It was only when a given measure was transferred to a population, become generally available, was made applicable to groups of people, that we made progress. I think the best illustration I could give was tuberculosis. Where tuberculosis combatted on a clinic and medical-care basis made progress, its great accomplishments, the control program in tuberculosis, came when it was introduced as a public health measure, with case finding, transfer of method to a total population, It would seem to me that same principle must rest in this field.

The two are, I think, quite different.

The Point next, or fourth point I would make is that

much attention in population studies, as I have gathered from the discussion here, has been in relation to city populations, with lesser attention to the much more difficult studies of rural populations which almost has emphasized as being the core of this particular problem.

The same thing is true in public health in attempts to attack death rates, that it is far easier to study city populations than it is rural populations, to get information about the city population.

I would think that whatever measure might be attempted, sociologically or biologically, in an attempt to control a population would have to take into account an evaluation based on something more than the number of people existing under conditions before and after introduction of a measure.

There is much word spoken of a lesser population as bringing a better health to people. I do not know facts. It is reasonable to assume that that is true but I ask the question quantitatively, how true? I think there is need for evaluation of economic and social retrogression or improvement also as a result of an induced attempt to alter population.

I have been impressed for a long time with the next point I would make, that in population studies the emphasis is commonly on questions of fertility and I would suggest too little on questions of sterility.

There was brought out in the discussion yesterday an instance or instances of the appreciable fraction of population, somewhere around ten per cent, which falls into this category.

That is a part of the population probably I think needs equal attention.

The last point that I would make is a plea to distinguish fact-finding from operational procedure. There is much the same situation as in medicine where we have so clearly come to the belief that diagnosis, reasonable diagnosis, must precede treatment.

I think it is necessary to define situations by actual field study in greater detail than is many times done before a broad general program is introduced.

I believe that requires something more than statistical demographic study in the narrow sense. It would seem to me it is also an ethnologic problem with information to be gained by actual field study.

So I think I would end on exactly the same note on which Dr. Notestein began, a need and a plea for better knowledge as an instrument of policy.

Thank you, sir.

CHAIRMAN REED: Dr. Hauser, do you have some comments?

DR. HAUSER: Mr. Chairman, I would like to introduce one or two notes of perspective that perhaps may help at least in my own thinking to bring some of these things together from the standpoint of the major objective of our meeting.

The first is--and I speak at this moment because I want to make an observation that flows right from what Dr. Gordon said about the distinction between fact-finding and operations.

I think whenever we deal with the population problem the demographer becomes a schizophrenic animal. That part of him which is essentially that of the scientist becomes completely confused with that part of him which cries for social engineering.

I feel myself it is of great importance both as to the integrity of our discipline and from the standpoint of our utility to those areas which may need us to keep these roles reasonably distinct.

I think that there is a great danger that we can over-sell what the demographer can do in terms of what he now knows to help meet the problems of some of these less developed areas and that a good confession of ignorance at some point may actually contribute more than a profession of knowledge that does not exist particularly when we are in a role of the social engineer in such areas.

There is some danger we can over-sell what we know for purposes of administration.

And yet in the same breath this is a note of perspective that I feel most of us might well agree upon, that in the bi-polar world in which we live and in which as it happens population of the world is reasonably equally distributed among the so-called free countries and the Communist countries and the uncommitted part of the world, approximately 800 million in each of those categories, that the weapon the free world is actually using of technical assistance designed to raise levels of living on the theory that we can get through that mechanism a world that will at least be neutral and if not pro-free world at least not become part of the pro-Communist world.

That the kind of thing we have been talking about ever since Malthus and the population problem is a rather serious element in this whole possible success of the free world's technical assistance programs because of the basic relationship between population growth and a rate of productivity and a level of living to be set in the equation.

It is with that perspective in mind and one other horrible perspective that is perhaps best left unmentioned, our concern, for example, about the population problem in Japan as Irene Taeuber set it forth so succinctly yesterday, perhaps from one perspective what we were getting was the picture of the manpower that we may have to use in the next three decades if

this cold war becomes hotter than it has gotten so far.

The military perspective is one that again gets into a social and engineering implication of which I am sure we are the least mindful of, have got to be mindful of from the social-engineering aspect.

The specific problem which I want to close on, and it seems to me that what we do come out of, after this particular meeting on this problem, special emphasis on the question of what might we do to further our knowledge that would contribute particularly to the less developed areas of the world in their problems around a population problem?

I would try to formulate something like this partly in terms of what we have heard at this session, partly in terms of what struck me as more in my own relatively short exposure in one of the less developed areas of the world, in Burma and other parts of the southeastern area. Getting back now not as a social engineer, but as the academic person I think most of us essentially are and I still think our contribution to social engineering is through becoming better academic people and better research and training people and I would intend to place a very high priority on what has received just casual mention so far in our deliberations and that is the training of people in these areas to do the kind of things that we as demographers do.

I would emphasize that and maybe make a very brief reference to the South American situation. I think Frank, in his righteous indignation at some thing that Frank-- Lorimer this is--I should distinguish between the Franks--pointed out that now you have all the data you need for Latin America but the poor souls do not know what to do with it. I agree with his predicate but I disagree with his subject. I am still waiting to see those data. I think that it would be a great pity for any of us in this fraternity to feel we have all the data we need anywhere.

In fact, even in the United States what I see is a great series of important gaps that make it impossible to answer some of these questions we all want to answer including the parameters in Joe Spengler's model or these missing time scales and dimensions in Frank Notestein's theory. I have transposed them now because one equals the other no matter what you call it.

I would like to place emphasis on skilled personnel which does not exist there for the simplest kind of either data gathering or analytical thing.

I would agree with Frank Lorimer on the importance of getting this analytical thing developed. It would be a great mistake to assume we have the other problem licked.

It is a long way from being licked in Latin America or in these other less developed parts of the world. I

do not think we, in this country or the western world in general, have given any real evidence of taking that task too seriously in terms of kinds of implementation that we now, in practicing the art of demography or the profession of university education, might do.

I think there is a place for progress. If there be loose money around, that is the kind of use to make of it somewhere.

As part of this without wanting to take undue time I would say a good part of that training program is not just importing some body's leaders and exposing them to our clever techniques and data. A certain amount of it may be necessary but I stress particularly the importance of the kind of training that can be given on sight in the locus by people or teams or whatever--and this could be elaborated but this is not the place to elaborate it--that give these people an opportunity to learn through doing in their own environment and with their own people and with their own data.

That is an aside that seems to me a very important thing in terms of next steps.

The other part of that might get back to our own social engineering that we have a responsibility for, those of us on the academic and related fronts and that is basic research.

I think to me this conference plays up once more

that clever as we are and beautiful and elegant as many of our papers can be, we still are woefully ignorant about a lot of fundamental things.

That basic research could go in two directions from the basis of our discussions. One is on this attitudinal side which is a way of getting at the mechanisms which would give meaning and significance to these external indexes we have when we analyze and report on population data from census and other sources.

I would certainly express again the kind of thing I said yesterday and I think Bryce Ryan stated very well this morning that any of those attitudinal studies must be placed in the context of value system or culture contexts.

It may be at this point we need not only demographic work but we need the work of the anthropologists and sociologists who, themselves, have not yet done enough to give us what we as demographers need to get at, the essential ingredients of a value system when we talk about the relation within an attitude and value system.

Here is another place for the integrated study Helmberg talked about that we have not done enough of the time-- of anthropologists, social scientists and demographers trying to hit this kind of problem together.

If you could capture one of each of these animals, put them in their hacienda, something would happen. I do not

know.

It seems that is a highly significant kind of gap, that there is no particular evidence we have frontally attacked. The other on the model building, which I unwittingly seemed to disparage yesterday and I would not, I would disagree essentially with the kind of observations that have been played around here by some of the people associated with these models that we went wrong.

As I see it, nobody went wrong in these model constructions not even Pat Whelpton. What went wrong is that Joe Davis and others did not understand and perhaps do not yet understand what these peoples did and they have been so eloquent about it I think they have some of the people that made these models confused and these people now begin to believe they did not do it right. To me that is an utter set of nonsense from the standpoint of our basic responsibilities in science.

What you have with a set of projections placed on explicitly stated assumptions and, as far as I know never did I see anywhere an outside statement that these were predictions of what would come to pass because one thing we have not learned how to predict in any social science or to make specific statements about is that our assumptions would come to pass.

We can be sure our assumptions will not come to

That is another subject on which I would express greater heat at greater length.

I would like to add to that not only the importance of constructing models but what is needed that I would lay great stress on again when we raise the question of what is the next step to put with these models there, and that is I think that the next time Frank Notestein sets up a series of projections for Europe something ought to be done and he is the bird that ought to see to it it gets done, to implement those in terms of what are the economic implications from the standpoint of productivity, capital investment, foreign trade, and so forth and so on.

Sure, we are going to make a lot of blunders in process of trying to do that. That is another place for perhaps integration with the economists and that is another place where until we lick the problems in terms of our own disciplinary responsibilities on a research front that we are just as ignorant and naive as babes in the woods when we go to Burma to tell governments what to do.

The answer is we do not know what to do and we have got no business pretending that we can tell anybody else what to do.

I would like to see these models extended in terms of adding to them equivalent models on the economic and social front.

I do not want to elaborate that. I have taken more time than I wanted to take and there are a lot of other things I am sure all of us could say.

I would like to stress this again and simply reiterate it that perhaps our greatest contributions to the social-engineering kind of problems that are evident throughout the world and particularly in the less developed parts of the world will come, not by working and wondering directly about what we feel these governments today, but by perhaps turning our attention and focusing our efforts on a specific problem which is our own business of doing basic, more research, better research, cumulative research, adding to the knowledge we now have on the one hand and training people in these areas themselves with the techniques and knowledge we already have on the other and I think those two things are prime objectives we could do more about than we are now doing.

That is the gist of my emotional outburst for which I apologize.

CHAIRMAN REED: I would like to say at this stage that our time is beginning to draw to a close. There are several people who have remarks on paper that I can see that they are burning to give and several people whom we want to hear from.

I think perhaps I can begin to call time on the

speakers.

In order to give a number of people a chance to speak I will have to call time. I want Fred Osborn to say something first.

DR. TAEUBER: There is one matter of strategy that I think is quite important. A number of the people in this room had the opportunity during the last several years to persuade or help persuade governments to collect a vast amount of real information about the population of their countries.

Frank Lorimer talked about it in Latin America, and to some extent this is true in other parts of the world for which nothing even approaching adequate data had been available.

While we are waiting for this Institute Frank was talking about for Latin America to develop and while we are waiting for the Prophets to get the trainees properly polished off it seems to me we have an obligation to assist the technicians that do exist in these fields, imperfect though their techniques may be, to demonstrate to the Governments concerned that these expenditures, and they are large expenditures, that these expenditures really are worth while in terms of helping these governments attain their own objectives.

I think we owe them that in any event, we owe

that to ourselves because unless these governments can see that these large expenditures were worth while in terms of their own objectives that source is likely to become far less prolific than it has been in recent years.

I am convinced that many of these censuses were put over by a combination of factors without real conviction on the part of the Governments of the importance of this, a combination of factors that is not likely to be repeated in the light of the experience they have had unless there is a very real demonstration of utility.

MR. FRED OSBORN: In regard to the need of research on physiology of reproduction, the question of the pill--the pill has been talked about so much you might be interested in a brief statement as to the present state of research in this field.

Paul Henshaw, who is here, was put in position to make a considerable study and has rendered a very real service by publishing in I think the May issue of "Science" a report on some 29 so-called "leads" or "clues" which might each be the subject of research.

I have had occasion recently to confer at great length with what might be called the most conservative of the medical profession and most highly experienced in this field and it is their opinion--which I thought you would be

interested in hearing and it is the opinion on these 29 or so clues, 20 rather. They all are clues and all are leads but in the great majority of them the scientific basis of the lead has not been established.

Even in those in which the scientific basis has been established, some five or six out of the twenty or so, more basic work is needed before we know how to follow up the leads. That is, they are not ready for clinical or testing experimental approach until more basic work is done.

These leads have been divided into, have been looked at from different points of view. A number of them deal with substances which are known to be toxic to other parts of the body and therefore the work on them would have to be done with great care and over really a long period of time to find out that something that was effective, a poison that was effective in preventing fertility would not be a poison to the spleen or kidneys or some other function of the body.

That means a long time in the research. They have been analyzed from the point of view of their being acceptable to the people using them. That rules out some. Some are acceptable and some not. They are analyzed from the point of probable cost.

Some, it is almost certain the cost would be very high and that would rule them out even if they should pass the

other tests.

They have been analyzed from the point of view of whether they require individual judgment as, for instance, the rhythm method and other methods relating to the period of ovulation which would make them less valuable.

Now the net result is that in the most conservative medical opinion there is nothing on the horizon to justify the hope that ad hoc research would give us an answer within the next few years. This does not mean in their opinion that work should not be done in this field. It means that they believe that probably the vast amount of basic research which is going on now, basic research on the cell and on the whole human physiology, will eventually give us new leads and better leads and more knowledge with which to work.

It does not mean that they do not believe it is not worth while to follow up all these leads to find out whether there are any possibilities in them or to write them off which may be four or five years in each case. They feel there should be risk money put into this field, but in general they feel we had better say to ourselves that for quite a long time to come we are more likely to get effects through present methods than we are through these new leads.

I might say that some considerable money is available and will be spent in looking at these leads and going as far as we can on them.

CHAIRMAN REED: Dr. Henshaw, do you want to say a word or two? I do not want to spend too much time on this but I know of your interest.

DR. HENSHAW: I think what Dr. Osborn said about prospects of a good oral contraceptive I could not add a thing to. There must be steps taken before we can have any confidence in any of them.

May I return to some of the known methods though somewhat less suitable as being prospects for development at the present time.

For some reason or another in this country the attention has been focused on methods which are not as suitable for less privileged people yet there are methods which are not so expensive and which might be developed.

Our group is spending a good deal of time at the present time investigating those with the idea that they may be useful.

I am not quite as pessimistic perhaps about the prospects of physiological control of fertility. We have a number of projects under way some of which are giving us some interesting results but before they can be accepted and used in this country they will have to go through these steps of careful clinical investigation and development of public confidence in them before they can be thought of as being useful.

There are opportunities in some areas where people are not doing anything about fertility control where tests might be carried out without having to resort to all of these preliminary tests.

The essentials in that case would be a matter of assurance that there would be no damage done and that they would be acceptable to the people.

Whether we will find those opportunities and can make use of them remains yet to be seen.

CHAIRMAN REED: I would like at this stage to ask you, Father Gibbons, if you have been stimulated to further remarks. I would say that I, in particular, and I am sure others in the group would appreciate from you any thoughts that you may have as to research approach to this problem.

Of course the more specific you can make them, the better though I realize, as of course everyone does, it is difficult to make specific suggestions.

FATHER GIBBONS: I will try to be as specific as possible. Let us start with the practical situation. We realize the limitation on demographic training and materials and there is no need to stress that.

However, it does have application to some of the Catholic institutions of learning just as to others. I made a survey in the past year at the request of a rather high official.

I hope I will have a chance to do editing on some of this because some of the remarks I have made and make now, I would like to check up on before they get too far.

We did make a survey on the actual status of personnel in this country, also those who were Catholics and who had some training or special interest and inclination in this direction. It was discouraging but I should think if we made it in a general college or university clique we would be discouraged.

A fraternity is a rather closed circle. That being the case a survey should be done on the actual status of teaching and study in this field of a branch of social science in the Catholic Institutions in colleges and universities in the United States. It could be extended to some other countries.

I think that would bring out some interesting facts. One is there are a number of courses being given with the usual quite elementary adjunct to a general sociology major or what have you.

Another thing that should be done in that connection is an accurate analysis of the content in curriculum and the seminary training of those who might go on into the clergy prior to having completed regulation undergraduate studies where they might get a larger dose of social science including possibly some development of demography than is now the

case.

The problem there is rather significant for what further remarks I will make namely unless a sufficient number of its clergy have been made aware of some of the problems in the deeper level than you get from the newspapers or magazines you are not going to get the kind of reflection required even though they are capable of doing it and even though the possibility of integration of moral and ethical values and actual social science research would be a practical possibility.

It does not get anywhere because of this lack of information and training and understanding. Now, proceeding from that, I would say further that there are some serious discussions at rather high levels that should be carried on with regard to implications of the deficiencies in social science training and the vast majority of seminaries.

I am not going to venture to speak outside of the Catholic field in that regard but I think some interesting developments might be also discovered in other institutions but in the Catholic institutions with which I am more intimately acquainted I would say it is highly necessary that we think in terms of the time lag in the application of traditional ethical values and religious doctrinal principles to concrete situations that the time lag is not due to any inherent deficiencies in the doctrine or value system.

It is rather due to the lack of knowledge in the lacuna of information in the minds of the people who are recognized or supposed leaders.

That would be also true in the case of laymen as well as clergy.

Moving on from there it would seem to me that a thorough analysis of the literature that has come out over the centuries, the more recent centuries especially, in connection with marriage and the family would bring up interesting results.

One is that there is not anywhere near the opposition to the basic assumptions here with regard to the rationality and responsibility that should be tied in with the reproduction, that the opposition that has developed in fact in the practical level whatever you want to call it, in the social engineering or whatever similar ways of putting it you may have, has been with regard to means, it has been with regard to specific historical developments in the United States.

Furthermore, we have allowed ourselves I think everybody around has allowed themselves to have a good bit of their discussion forced whether they like it or not into Malthusian and neo-Malthusian, and anti-Malthusian terms to the loss of genuine academic advance.

In other words, whether we liked it or not, as soon

as we talked about population we had to talk about man-land ratio, potential agricultural production, and so on and so forth, instead of getting to some of the more basic facts as to economic possibilities in the concrete situation for human reproduction patterns and the motives behind them.

Now that being the case, we are not going to straighten out, if I may use that term, the confusion that exists in some of the Catholic circles and I emphasize "some" because I assure you it is not general, I think some of you have seen concrete and tangible evidence of cooperation and understanding or at least a desire to understand on rather high levels, that we are not going to straighten out that confusion until and unless we find out where the deviation is in the actual recognized system of values and moral principles.

In other words, a job has to be done right within some Catholic circles in re-thinking some of the background for the rather popular and ill-thought out statements that get made in the press, and so forth.

Therefore, some research should be promoted among some competent individuals--I could think of three or four in this country who could do a good job on it if given the opportunity--to get them to do some research into the value system and the traditional statements in the literature that would come to some conclusions that would be valid and

would be acceptable to their fellow professional people in the clerical state.

In connection with that also some of that research could prudently and gradually be made public in order to counter some of the rather ill-advised propaganda we sometimes hear engaged in.

Now moving on from that to another further point I would say we have to be very careful in projecting a controversy into the level of birth control in a quarrel between particular organizations.

I think that may confuse rather than enlighten and of course the effect upon the popular mind, this is something that could be made the subject of research, the effect upon the popular mind in Catholic circles of these controversies should be looked into.

It is a sort of how has their opinion been manipulated by this diffusion of information? In pretty much the same way as what has been the attitude on public attitude and thought as a result of knowledge of modern means of warfare, atomic bomb. They have begun to think but what is the direction of the thinking and where are the deficiencies in the information they have available to them?

With regard to a practical question of research I will say again there should be definite action taken to systematically and understandingly pursue the question of

methods of detecting the fertility and sterility period to a much greater extent than is at present the case.

I would think in some circles at least one would find cooperation and understanding on that matter.

With regard to some of the particular problems that were posed this morning, the questions that I left unanswered, I am not in a position to say just where things are going any more than where projections behind assumptions of populations are going to lead us.

Assumptions may actually cease to be the case. I think some of the assumptions with regard to Catholic positions are also ceasing to be the case or perhaps some of them never were the case.

They were merely assumptions that were made perhaps without a complete view of the situation and the value situation as it should be evolved.

I am thinking, for example, of the type of research that has been or is being completed by the National Council of Churches originally on economic values and moral values.

It is the sort of studies a church group needs to have done periodically in order to pull together all their literature and ideas and to correct the extremes and to put it in readable form for others who have not got the time for that sort of study.

There has not been done any similar type of work in Catholic circles at this date with the development to the same extent. However, the groundwork has already been prepared because there have been in past years several volumes and several studies of rather serious size and background and competence although not necessarily the last word, providing documentation in literature and references which would now make it possible for someone or a group of people, rather, to carry on research in the relation of the moral principles to concrete social realities one of which I would certainly think would be the problems of under-developed countries, economic problems we are facing, the fertility trends and the like and I think, if it were integrated into a larger piece of research of that type or made one section of it and carried on under proper auspices it would find considerable acceptance in some Catholic circles and lead to a clarification of the confusions that are now hampering the work.

I know I have not been as specific as I should be but there are the general heads and I can spell them out more at my leisure.

CHAIRMAN REED: That is very interesting and very good.

I am a little disturbed because we are within a minute or two of the closing hour and Frank Notestein is

almost stealing my position as listener.

I wonder whether you have anything you want to say at this stage?

MR. NOTESTEIN: I do not think so. I guess the only tiny thing would be to say I have probably stumbled over my tongue on this attitudinal business. I think I agree with all the things the people who were amending my remarks were saying.

About all I was really after was the suggestion that we not draw large inferences from superficial attitudinal studies.

As to model making I wish Phil would decide which side of the fence he is on. He gives me hell on both sides. I keep silent on the subject as far as I am aware, he first apologizes for me, and then gives me hell for being apologetic, in both cases quite extraneously to any issue before the house.

I do not see-it seems to me a lot of our minds are going in the same direction, the sort of model making you were suggesting tying in with the economy and to social changes is exactly the sort of thing we are proposing to try to get started on.

The field is big and if lots of people would get into it, it would be good. It can carry through many ramifications.

I think we will get further with our analysis if we

try to put numbers in to the extent that we can and taper off to just directionals and just directions where we have to and then admit our ignorance and try to fill in the gaps but I think this is the way the gaps become available.

CHAIRMAN REED: I know that there are many people here in the room in the same position I am in, that of a good many things they would like to say and have not had an opportunity to say them but we are limited by time and I shall be forced to call this meeting to an end.

I would like to say the thing that interested me perhaps most goes back to the remark I made at the opening when I asked Clyde what is the number of this meeting? He said it was 25. The thought in my mind at that time was I can remember some of those early days when we were playing round with this primitive thing such as the age and specific death rate curve, moving on to primitive knowledge of fertility.

The great encouragement that comes is in the breadth of the approach that we have now and the fact that we have drawn a much wider array of trained people around this problem.

Certainly it is never going to be solved until we do that. We are getting closer to the technique, it seems to me, that is being put under the pet name of operation research at the moment.

We are trying to draw the various sciences and scientific knowledge we have in society to bear on this problem.

I am also encouraged by the fact that this field is going to give to many young people in the future very entertaining lives as it has given to some of us who have been pursuing it for twenty-five years.

I will call the meeting adjourned.

... At 12:30 p.m. the meeting adjourned ...

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