Dear Mr. Hammill:

The enclosed is a cassette tape containing Bruce MacLaury's presentation for the Conference on Rural America on July 17, 1976. We apologize for the delay; all taping and editing was done as inkind contribution, so to rush the reprinting of tapes would have been indiscreet on our part.

We will be sending Mr. MacLaury a copy of the entire conference proceedings as soon as all tapes are transcribed, edited, and compiled. Thank you for your interest.

Sincerely,

Roz Whalen
Executive Secretary
... to come as sort of a wind-up speaker on a program that has now been going on not just three days but, in fact, over the whole of the past year with mini conferences along the way. I understand that this morning you have already listened to three speakers and if you are still sitting down, you have very long endurance -- I guess that's the way I'll get out of that one.

I think the concept of the conference itself, as I'll say toward the end of my remarks, is in itself an indication of why I have found this adopted home of mine, the state of Minnesota, such a great place to come and live and work and be. We are, as citizens of this state, obviously concerned about our life, our future, our children's future and all that goes on around us. And this conference, I think, is testimony to that fact.

Having heard just the tail-end of the remarks by the previous speaker upstairs, I do come with some qualms. As Gene mentioned, my professional training is in economics and, therefore, dealing with facts and figures. You heard the very previous speaker say that 10 years ago he would have dwelt upon facts and figures. Today, he has gotten beyond all that and we're dealing with grand principles. I hope that you will forgive me if I sink back a bit into the antediluvian times and mention a few facts and figures. That's, I'm afraid, how economists measure the world. And by way of introduction, likewise or perhaps warning, which I'm sure you don't need, I would say a few things about economics and facts and figures. The old statement is that "figures lie and liars figure." It is also said that if you put all the economists in the world end to end, they would never reach a conclusion and I'm afraid it is also said that the best kind of an economist is one with one arm because then he can't say, as they all do, "on the one hand and on the other." Well, with all those disabilities, I'm afraid, I nevertheless come before you to talk with you -- I like to think of it in that way -- talk with you about the Minnesota economy. And I'd like to summarize some of the information that has been presented to us in the Commission on Minnesota's Future about the state in which we live, the people, what they do, how they earn their livings and how well-off they are and how well-off they are likely to be. I would like to take this kind of a look in three bites if I could.
First, the kind of forces that are at work in the world that shape our future, our present, and our past for us -- those forces. Second, how have we been shaped as a state by those forces; what are we, how are we, what do we measure like and then, third, a brief look at what we might be like and some of the implications of that.

It doesn't take any expert to say that as one of the 50 states in this country and one part of a much larger world, a very large part of what we are is determined outside of our own ability to influence it -- that we are first and foremost a group within a nation, within a world, and that we cannot, in any way and probably would not want to even if we could, insulate ourselves, isolate ourselves from the broader geographical context of which we are citizens. One only has to cite, I think, the double-digit inflation through which we in this state passed as well as the country and the rest of the world in large measure back in 1974-75. We in this state, likewise, suffered some of the pressures of the recession and now are benefitting, to some extent, from the recovery that is under way in the United States. We were, by no means, immune from the energy crisis that fell upon us suddenly back in 1973 and we were the beneficiaries, particularly in this kind of a region of the country of the state, of the agricultural boom that set in back in 1974. I cite these, not because they aren't all well-known to you, but simply as evidence, if you will, for an obvious fact that the forces that determine what we are and what we can be are all around us and we have only some limited influence on how we can shape them. It's not surprising then in that kind of a context that the broad patterns of economic development in the state of Minnesota follow the patterns of the United States. If you take a look back over the last 15 years, for example, you find that income (personal income) in this state grew just a little bit faster than it did in the country as a whole - 7% as opposed to a 6-1/2% kind of a rate. If you look at the number of people at work year after year over that 15-year period, you'll see that our rate of increase in jobs was on the order of 2% per year -- the national average was something like 1.9%.
We still fit within that kind of a framework. And finally, although we are less closely linked in this respect, I think I should cite unemployment as well. As you know, the national figures are on the order of 7-1/2% unemployment at the moment, in the state of Minnesota as a whole, it's on the order of 6% to 6-1/2%. And so while we have been, to some extent, insulated from the national trends, still if you look at the broad patterns of unemployment in the nation, you see the towns and rural areas of Minnesota following that kind of a pattern as well.

If there is one characteristic that I would cite about economic growth, economic development in the state as well as in the country, it is the element of change, the characteristic of change. And again that sounds trite these days. We've all been conditioned by such books as Future Shock to know that we live in a world of change and we don't have to read it, we simply have to look around ourselves to see it -- the changes that have taken place. We see changes in production techniques and nowhere more traumatically than in agriculture itself. We see changes in the method of organization, the way we get jobs done. We see new products on the line that simply didn't exist a few years ago. In fact, I'm frequently impressed by some of the larger corporations who occasionally put out a statement to the effect that 40% of their product line didn't exist 10 years ago. That's the kind of rapid rate of change in products.

And I think that looking at Minnesota, we also have to recognize that the context in which influences us through the federal government has been changing likewise, rather rapidly -- in form of its regulations, in form of its transfer of payments, in form of the inducements which are provided to local communities to fit in with the national picture, the federal government and its programs have been changing around us as well and we are influenced by inevitably those forces.
And it seems to me that our state, the state of Minnesota, either prospers or is challenged by (falls behind) to the extent that we can benefit from or adapt to or maybe even profit from the kinds of changes that are going on around us. That's again not very remarkable but I think it's a fact that I'd like to specify a bit more. We have in this state entrepreneurs, people who can take an idea and make it work in a way that I think is very fortunate and really quite remarkable. This fact is brought home to me, not only in the sense of agriculture, where I don't think it's too much to describe what has happened in the last 20 to 30 years in agriculture as a revolution. The ability to adapt not only to the technological changes that have occurred in the agricultural sector but to the population shifts that have grown out of those technological changes, I think indicates an ability on the part of people here in this state to see both opportunities and adversity and to adapt to them. If there is a prototype in the world of an entrepreneur as I have described them, it seems to me it is the farmer. But John Borchert from the University of Minnesota has also spelled out to our Commission on Minnesota the idea of entrepreneurship in the corporate sector in this state as well in a way that I was certainly not aware of before. For example, he called to our attention that of the Fortune 500, largest industrial firms in the United States, in 1974, the latest figures that I have available, something like 13 of those 500 were based in Minnesota and that 12 of those 13 had been started by Minnesotans. Now that is a proportion that is way out of line with what one would expect, looking at the fact that we have 2% of the population that we have, I don't know what share of wealth but not that degree of wealth. And this is not just the large corporations -- the Honeywells, the 3Ms and so on. It's also been determined or found that looking around the state as a whole, if you take the new manufacturing jobs that have been established in Minnesota between 1947 (I think the base date was) and 1972, some 70% of those new manufacturing jobs around the state were ideas that were translated into actuality -- practicality by Minnesota. We have seen opportunities and we have taken them as a people. We have, in fact, adapted to change.
I don't think that all of that means that we are captains of our own fate. One again only has to look around outside him to know in rural areas of the state how dependent we are upon moisture, particularly now, on fate, if you will, that we can't control the rates of technological change, we can only adapt to them. And it is, I think, our genius that we can as a people take what is given to us and make better of it. Within the kind of framework in which we operate, this framework of national and indeed, international forces, I think that one can cite three characteristics that determine the shape of how we make our living in the state of Minnesota. First, what God gave us, in the sense, the natural resources of the state -- the farm land, the timber land and the raw materials, the minerals that exist within the state. These we had no control over, we found and, therefore, adapt ourselves to them. That's one major factor. The second, since we still operate in a profit-oriented economy, I think we can't ignore the pull of markets, where we can sell what we produce and likewise where we can get the labor that we need and the other inputs besides the raw materials, besides the land, besides the minerals to make a product, to make agricultural products as well. So, that's the second. The markets and the labor force determine in a sizable measure what is produced and where it is produced in this state. Third, I think we can't overlook the impact upon on economic geography, if you will, in this state -- the influence of government, federal government, state government, local government. And again, I would emphasize what is obvious that of these three force, if you will, the natural resources, the markets and labor, government, only one of these really do we have control over ourselves, what we at the state and local government level can do.
I suppose the most obvious things I'm talking about in that context is the transportation system and particularly the road system within the state of Minnesota. But we are all here today gathered in another kind of institution that makes a real difference in the way the state develops; namely, the state college system and the universities and the private colleges, as well, where those are located, over which we as as a people have some say. A combination, in other words, just as with the forces outside of us of things that we can influence and things that we can't but rather have to adapt to. So much then for the kind of forces that influence the economy of this state, both inside and outside. What then have those forces produced? I'd like to take a look briefly with you at some of the characteristics of us in Minnesota, as people, and how we make our income and what we make in the way of income. First of all, us as people ourselves, I'm sure that Hazel Rhinehart, when she was here earlier in this session, told you a good bit about the characteristics of people here in this part of the state. I am by no means the kind of expert that she is in demography, population and its shifts. But it's obvious that we have been a growing population, that back in 1940 we were less than 3 million people in the state and today we are very nearly, if not at 4 million people. We have been growing within the state at a slower rate than the nation as a whole, slightly slower and partly, in fact I guess I would say largely, because there has been as is well known, an out-migration from this state to other parts of the country and within the state too migration in substantial amounts. Looking ahead, (I don't know what Hazel may have laid out for you, so if it's in conflict, come back to me -- I hope to learn from these kinds of discussions as much as I hope to be able to convey) my own impression is that given what we know about birth rates at the moment, the prospect is that we are going to be growing in terms of people in the state at a slower rate over the next few years than we have over the last 30 years. So much for sort of growth in the broad sense.
What about our structure at the moment? Despite the radical movement from the rural areas into the urban areas within this state, about which you have heard all too much and of which you know from personal experience, despite that, we as the state of Minnesota are still less urbanized than the nation as a whole. That's not strange, I'm sure, as one looks around them again at the nature of our landscape. To put figures on it, back in 1970 the last census, something like 57% of the people in this state lived in counties which are described by the census as urbanized. That compared with something like 70% for the nation as a whole. We are less urbanized than the rest of the country.

What about the age of the population? Again, I don't want to reiterate something that you've already heard but I think this is important in the context of jobs, markets and so on. I'll come to that point in a minute. Over the last 30 years the median age, and I don't want to use these terms, but the median age, sort of the middle age of the population in this state, has been dropping. It doesn't sound like all that much, but back in 1950, 25 years ago, the middle age of people as citizens in this state, was 30 years. By 1970 that had dropped under the impetus of high birth rates back in 1959, the late 1950s early 1960s, to something like 26 years. That is reversing itself, is in the process of reversing itself. We are going to be seeing, with the decline in the birth rate, the movement of younger people into the labor force and less young people proportionately coming on. So, the median age in the state and probably in the country as well, certainly in the country as well, is going to be rising from here on out.
What does that mean so far as looking at the economy is concerned? Well, first of all, there are a lot of private consultants who make a living out of predicting what the impacts are going to be of changing age components in our population. We're going to be making fewer baby bottles and we're going to be producing more geriatric pills, to sort of take the extreme. But I think it means a lot more than that. It means a very substantial shift in housing. We have a boom -- as the baby boom of the late 1950s is now moving into the labor force, the family formation years, as you probably heard, the need for a place to live is going to be at a peak over the next few years. And yet, we face that against the fact that housing is increasingly expensive in relation to our income. Likewise, the impact of change in the age component of the labor force has a great deal to do with educational facilities. You may have seen in this morning's Minneapolis Tribune that the regents of the University are struggling with the question of whether or not to limit enrollment at the university. And the issue is whether or not to put a cap on now because what people see is a bulge of potential students moving into the university now which will taper off by the late 1980s. Does one in the policy sense make some allowance for that bulge by putting a cap on not building new buildings that will become less used in 1990? It's that kind of consideration -- a very practical consideration -- that this whole question of the median age of our population has implied. Likewise for the work force. In the past with the baby boom of the late 1950s, we had a very large proportion of our population in so-called dependence. They were dependent upon those of us who were working to provide for them. They will now be moving into the work force and will then be able to support more easily _______ is the key those who are coming after them to be educated because the proportions of those in the work force are going to be more and those dependent, not making incomes, are going to be proportionately less. And this had a great deal to do also with public services and their costs.
Let me take just a couple of characteristics of the labor force itself. Perhaps this was pointed out to you but I think just as dramatic as has been the change in population patterns in the rural areas based upon agricultural technology, there is just as dramatic a shift in the composition of the work force in this state and in the United States as a whole. I'm referring to the fact that women are working. You go back to 1940 and you find that of adult women, only 20% of them were working. If you look at 1970, you find that that proportion has doubled; 40% of the women 25 years of age and older are in the work force. That I think is a very dramatic shift. To put numbers on it, if you take the decade 1960/1970 in this state of Minnesota, you find of new entrants into the labor force, 180,000 of them were women and 76,000 were men. More than twice as many women came into the labor force than men; mainly because a higher proportion of women were working. That has tremendous implications for us in the state and us in the nation.
Lots of things that can be said about why. I suppose certainly the declining family size to some extent freed women to take the jobs. Technological advances in the home the dishwashers and all the rest help. Some of the barriers to working on the part of women have gradually, I'm sure too gradually for some of you, been falling. And I think it's also fair to say that we have wanted to, if not maintain, try to increase our standard of living and one way to do that is to have two incomes in the home. All of these factors, and I'm sure you could think of a good many more, that have brought about what I can only describe as a revolution in the nature of the work force over the past 20 years. Finally in this sense of characterization of we, the people, let me mention education. I was surprised in looking back over these figures at the changes that have taken place, again in what I think is one generation, let's say 20 years. In 1950, half of the people in this state had only an eighth grade education or less, half of them, in fact it was a majority of people who had only an eighth grade education. By 1970, only 30% didn't have more than an eighth grade education. And if you look at the other end of the spectrum, the number of people in this state, the proportion of people in this state with college degrees, meaning four years of college or more, had doubled from something like 5% of the total population to 11% of the population. That again is a very dramatic change and I think it has vast implications for the kinds of jobs that we can expect to have in the state and, perhaps more important since my emphasis on change and other people's emphasis on change, our ability to adapt to the changing environment around us.
On the occupational structure you've heard a good bit on other occasions, if not on this. Again these time periods vary a little bit but from 1958 to 1974, the proportion of the work force in the state that was involved directly in agriculture dropped from something like 17% back in 1958 to 7% in 1974, just one more way of measuring what you are all familiar with. The fast growing sectors in that same period of time were retail trade, wholesale trade, service sectors and government, state and local government in particular. And I think in looking back at that one has to see that it was partly the baby boom, again, which has so influenced so much of what we say and do and the educational requirements that came along with that baby boom and caused those involved in state and local government to increase in number.

In contrast to the United States over the past 15 years or so, manufacturing jobs in Minnesota have expanded. In the United States as a whole there has not been any growth in manufacturing jobs, as you've all heard about the idea that we are in a post-industrial society so-called that we have moved through the industrial revolution, we are now in an era where we are not working in factories as much as we are working in banks, working in professions and otherwise providing services to those who already have the physical requirements of what they need. But manufacturing jobs in this state increased, and more particularly, they increased in the outstate region. If you look at the value of manufacturing facilities built over the last ten years in Minnesota, you find that a larger proportion of the value was placed on sites outside of the Twin Cities or metropolitan area than was put in place inside. I think that's significant.
There are obviously great variations in occupations across the state. The physical geography of the state, in part, determines that, with agriculture so strong in the West and the South, with mining in the Northeast and with services in the metropolitan areas, that again I won't take your time to elaborate on it, but that again determines in large part income, to which I want to turn now and also rates of unemployment and variations in unemployment.

What about income? Are we well-off or are we not? You're all welcome to come on down to the Federal Reserve Bank in Minneapolis; we have tours that go through this is a free, unpaid announcement, and we'll show you what we're doing in the way of working with checks and working with money. And the inevitable question we have from the tours/tourists as they come through our building is, "Haven't you got any free samples?" We always have to say no, although we do have packaged in little plastic bags some currency that has been through the chopper. You can get, I think, $10,000 of currency in a tiny little bag but it's not really passable anymore, unfortunately. I cite that just to say that no matter how well-off we are, we are all looking for free samples, we all want a little bit more. The fact is, at least so far as we can measure, and there are problems in measuring income as you know, Minnesota has been below the national average on per capita income for many, many years until just the last couple of years. If you look at the averages, we, in this state as an average, earned about 90% of the national average, we were behind. So we have been, even before the agriculture boom conditions in the last couple of years, catching up. Within Minnesota, there are very substantial differences in income and again this is primarily determined by the proportion of people in agriculture and the proportion of people in either manufacturing or in service industry.
Oh say, ten years ago, even five years ago, it used to be the case that incomes
outside of the metropolitan counties were about $\frac{3}{4}$ of the average for the
state and that incomes in the metropolitan area were about $\frac{1}{1.4}$ times the average
for the state $\frac{1}{1.4}$ a very substantial discrepancy. What's happened? In the last several
years, 1975 in particular as I don't need to tell people from this part of the state, there
was a very, very dramatic increase in agricultural income, at again as best we can mea­
sure them. I say that with all the qualifications that it implies. Not only under the im­
petus of these higher agricultural incomes, particularly in 1974, did Minnesota catch
up with the national average; in 1974, we were making in this state, citizens in this state
were making as much on average as were people anywhere in the United States. But
also it leveled out that discrepancy between outstate and the metropolitan county. I
think the big question, a big questionmark on which I would value your views, is whether
or not this is a lasting phenomenon. Can we expect that farm incomes are likely to hold
anywhere close to the high levels of 1974/75? I'm well aware that the cost of input has
continued to go up and the prices of 1974 are no longer with us. So in some sense that's
a rhetorical question but nevertheless, I think it has a great deal to do with the economic
future of this state, income in particular. I have, I must say, some feelings that we are
vulnerable, or we, the agricultural areas of the state, are vulnerable. Land values, as
I don't need to tell you, have shot up dramatically. In effect, we have already capital­
ized into the land values a large part of those incomes that were with us a couple of
years ago. How sustainable are they? I'd have to put these in the form of questions.
Phil from the University has pointed out to the Commission on the Future a couple of things that concern him—a major shift in the nature of agriculture within this state over the last five years. There has been a very substantial expansion in the state, as you know, of harvested crops at the expense of livestock. In terms of millions of acres, the number was 17 million, as I recall, devoted to harvest of crops back in 1971; that has increased to something like 20½ million acres in harvest of crops last year, 1975. And another point that he makes, that I simply want to bring before you, is the very substantial shift in the nature of the crops. Taking a different base date, 1968, wheat, soy beans and sugar beets, three crops that are particularly sensitive, as again I don't need to tell you, to international markets jumped from something like 10% of cash receipts in this state to something like 25% of cash receipts back in 1974. I do not have labor figures, I'm sorry. But the implication is, at least the question is, have we built ourselves a vulnerability to fluctuations in world prices as a result of the shifts that have been made in response to world prices that can let us down maybe as bumpyly as it was pleasant to rise in the last couple of years?

On this question of income a last point. The 1970 census indicated that one out of ten people in Minnesota lives at below the poverty level, as it was then defined by the Social Security Administration. I don't have later figures on that. One other fact I would put before you, at least as far as I read it, I'm not an expert, I'm in some sense repeating what I have been told, that of the say 400,000 people that that implied within the state below the poverty level back in 1970, only one in 12, only about 8% of those people below the poverty line, were reported that they were drawing public assistance from the state. We are still, even if in poverty, a very self-reliant and proud kind of people that tells me.
There has been over the last 20 years or so an improvement in the distributions of income. If you draw a curve, I can't because I haven't got my charts here, it kind of traces out the people at the low income scale, the middle income scale, and the high income scale within the state. If you draw three successive curves for different years, 1950, 1960 and 1970, you can see that there is shift in those curves. The peak of the people who were at the low income level has now been spread out, if you will, so that there is more of a higher proportion of the population in the state in what can be described as the middle income area. Now that still even goes back to 1970; it does not take into account any of the changes that have taken place as a result of the agricultural boom, so let me just say that. Finally, I think I've said that a few times, I want to shift from first the forces that shape us and are still shaping us to the second I tried to cover something of the picture of what we are both as a people and in the income that we earn and how we earn it in the way of population. What about the best kind of guesses and I would emphaze the word guess about what we are likely to be over the next 25 years? That's something that all of us want to know and I must say those of us on the Commission on Minnesota's Future have been increasingly frustrated in our efforts to get a clear crystal ball, but nevertheless let me share with you some of the ideas that were put before us and which I think make sense to me. And here I would just cite some statements from a report to the Commission.
The best guess about life in Minnesota over the next quarter century, as I've already indicated, population growth will not be as rapid in the future as it has been in the past and that simply is a reflexion of the decline in the birth rates that we're all well aware of. That we will have a larger labor force, not really so much because of the population growth per se, although there will be some growth, but because a higher proportion of the total population is moving age-wise into the labor force, will be working and secondly, as I already indicated, there's the prospect that still a higher proportion of women will move into the labor force, although I would guess at a declining rate, that we won't see the kind of dramatic changes that we have seen jumping from 20% to 40% over the last few years. That the employment structure will have a number of shifts in it that in agriculture and mining the best guess is that the number of people employed there will be stable, will not be growing, probably not declining. That there will be some further increase in those employed in manufacturing jobs particularly in the outstate regions and that there will be an increase in what we call state and local government service. That our income prospect within the state, trying to abstract from the great variations in the agricultural sector, there's nobody that I know that can predict those, but we would expect that income in the state would continue to grow at about the same rate as the nation as a whole, reflecting what I said at the outset that we are after all primarily influenced by our position within the United States. That the rural economy will continue to diversify and that there will be more of a diversification of industry out to the rural areas and that within the rural areas it will locate in the larger towns. In citing the larger towns, that urbanization, said that we were less urbanized, as such will continue but one has to be very careful in what he means by that. We are well aware, I think, that the center city, whether we're talking about the Twin Cities or whether we're talking about Fargo-Moorhead or whether we're talking about a number of other cities outstate, the center city has not been gaining, in fact, they have been losing and there is some spreading of population around those urban areas and I think that's again, what we would expect to see continued.
And the scope of the public sector, what we call the scope of the public sector, will continue to increase. That is what is told to us on that last point in particular. I have personally some question as to whether we are going to see state and local government continue to grow as it has grown over the least ten years. Each of you, I think, is competent to make his own mind up on that score and in that connection, let me read to you just a quotation about similar projections in the past. "A Presidential commission appointed by Herbert Hoover in 1929 later reported to Frank Roosevelt on how to plot the course through 1952. The report had 13 volumes prepared by 500 researchers. The summary required 1,600 pages and yet there was not one word in it about atomic energy, jet propulsion, antibiotics, transistors or other significant developments. Similarly Herman ______ in his major work about the year 2000 really never mentioned pollution or the environment and there was no real emphasis on the energy shortage." Well, I think that's the cautionary tail that I put before you whenever we or anyone else tries to take a look ahead at what the future holds. Even those guesses, I think, make no allowance whatsoever; they are projections of past trends. They make no allowance for wars, for famines, for technological breakthroughs, they do not make any allowance for a resurgence of the birth rate, were that to occur and certainly it does not contemplate either a new energy crisis or the resolution of the energy crisis. It tries to say that we have adapted so far to the energy crisis and that's the way it's going to be.
Let me end up, if I may, saying that barring calamities that I can't see, I think that the future of this state is bright. It's bright primarily because of the nature of the people who live in it and the resources that God gave us to work with. That it's frustrating to me and perhaps to you to feel that we can't set out for ourselves some challenge, some new thing in a major way that we ought to be doing to improve the way we live, the environment in which we live. The fact of the matter is, that as an outsider as Gene mentioned to you at the outset, I came from, I come from New York, coming into this state now having lived here five years, having turned down "opportunities" to go back to New York, I think I can tell you that we, you are very fortunate people. And that if we can continue to build on the kind of heritage that we have, I think that the state is in a good way to being strong, resilient in the future as I think it has been in the past.

I noticed coming in a quote on the bulletin board outside this building, which I am sure many of you likewise noticed but it struck me. "Don't walk in front of me, because I may not follow. Don't walk behind me, because I may not lead. Walk beside me and be my friend." Well, in many parts of the United States that would be considered perhaps corny. I don't think it is. I think it is really the essence of the kind of strength to adapt, to capitalize on opportunities and to survive adversity, that really has been the hallmark of the people of Minnesota.