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## IMPLICATIONS OF FUTURE TRENDS IN RETIREMENT

Moderator:	RICHARD S. FOSTER
Panelists:	ROBERT J. MYERS
	GORDON R. TRAPNELL
	CHARLES BARRY H. WATSON
Recorder:	STEVEN F. MCKAY

- o What are the financial implications on social insurance, pensions and postretirement health care of:
  - -- Early and late retirements
  - -- Second careers (after retirement from the first one)
  - -- Improvements in retirees' standard of living
  - -- Increase in life expectancy

MR. RICHARD S. FOSTER: We are blessed with a well-known and capable panel. Robert J. Myers will address the implications of future retirement trends as they affect social insurance, and in particular the U.S. Old Age, Survivors, and Disability Insurance (OASDI) program. Bob is so well known that he doesn't really need an introduction, so I will just tell you what Bob has been up to lately. Bob was recently appointed by the House of Representatives to the new commission that is to study reform of the Railroad Retirement program. He is also one of the founding directors of the new National Academy of Social Insurance and, to date, he has testified before Congress five times this year on a variety of subjects.

Our next speaker will be Charles Barry H. Watson. Barry will talk about the implications of future retirement trends for private pensions. Barry is an actuary with the Wyatt Company in Washington, D.C. He is President of the Middle Atlantic Actuarial Club and a member of a number of Society committees. Barry is also at this time the editor of the Academy's newsletter *The Actuarial Update*.

Following Barry will be Gordon R. Trapnell, who will talk about the implications for health insurance. Gordon is the President of the Actuarial Research Corporation, Inc., in Annandale, Virginia. He has become increasingly involved with modeling expenditures for post-retirement medical benefits. I also understand that he is getting back into the social insurance area through an analysis of mandated health plans and other proposed forms of national health insurance. Gordon is also active in both Society and Academy affairs.

Steven F. McKay is serving as our recorder. Steve is a supervisory actuary in the Office of the Actuary at Social Security. Many of you already know Steve because he is the author of the Primary Insurance Amount (PIA) computation program developed for IBM PCs. This program is available free; we have

distributed about 8,000 copies nationwide. I would like Steve to let you know how to get a copy of this program if you are interested.

MR. STEVEN F. MCKAY: The program is still available through our office. If you send us a 5 1/4-inch floppy disk, we can return it with the program and the guide book on how to use the program. You can send it to: PIA Program, Room 4-N-29 Link, 6401 Security Boulevard, Baltimore, Maryland 21235.

MR. FOSTER: The program allows you to enter wage information, date of birth, date of retirement, etc., and it will then calculate a Social Security PIA for this individual. As many of you know, that is quite a complex calculation. There are any number of different methods by which a benefit might be calculated, depending on various factors. The result is generally accurate within one dime of the PIA as calculated by Social Security. It is not designed to do 10,000 of these cases at once, as in a pension valuation, but you could extract the code if you were so inclined and put it to work that way. It is quite easy to use and very accurate and helpful. You can also tailor the assumptions as much as you would care to for future retirements or future disabilities.

MR. ROBERT J. MYERS: In discussing the implications of future trends in retirement, I will deal primarily with the implications as to the OASDI system in the United States, although I will also consider Medicare somewhat as to its financing aspects. Our neighbor Canada has similar problems and some attention is being paid to those problems in that country. And perhaps I should say that Canada has even greater problems in prospect because the Canadian plan has a fixed normal retirement age of 65 and it takes a very long time to budge that upward if it is necessary.

First let's consider what we mean by normal retirement age under OASDI. The way it is usually defined is the age at which full-rate, or unreduced, benefits are first payable. To some extent it could be like looking at a glass of water and deciding whether it is half full or half empty: You could say that age 62 is the first age of eligibility; for retirement at any age beyond that, the benefit is just increased. However, by usage in the U.S. over many years (and particularly because we started out with a minimum age of 65 for retirement benefits), age 65 has been called the normal retirement age. It remained at that figure of 65 until the 1983 Amendments. As part of the fix of the long-term financial crisis, the normal retirement age was scheduled to increase gradually beginning in the year 2003 until it reaches age 67 in 2027. The increase was phased in very gradually, as is necessary when a change as drastic as this has been made.

One widespread fallacy about the normal retirement age is that it begins to increase in the year 2000. The normal retirement age is actually first higher than 65 in 2003, which means that people who reach age 62 in 2000 are the first group so affected.

How did we get a normal retirement age of 65 in the mid-1930s when the Social Security Act was enacted? I would hope that nobody in this room believes the common misconception that because Bismark chose age 65 when Germany developed the first national pension system 99 years ago, we also chose the same age. Perhaps all of you may have heard me say that Bismark did not select 65; he selected 70. Age 70 back almost a century ago was a pretty high age considering the mortality rates then prevalent. Nevertheless, that was the very conservative, low-cost system that Bismark established. The age 70 stayed in the German system until the middle of World War I when, for some reason that I have never been able to ascertain, the age was lowered to 65.

If it wasn't Bismark's fault, whose was it? Age 65 was selected merely because of the tendency of human beings to like nice round ages. At the time, age 70 was considered as a possible retirement age, but that seemed far too high given the life expectancy in those days and the fact that not many people were working up to age 70. Age 60 was also considered because Dr. Townsend was proposing a national pension plan which would begin at \$200 a month at age 60. That was a high monthly amount at a relatively low age. Congress and the Administration in their wisdom said that 60 was too low an age from a cost standpoint. By process of elimination, the only other round figure available was 65. I suppose you might say that a number of private pension plans at that time used age 65, although there were others that used 70 and there were some that used lower ages such as 60.

As I see it, the normal retirement age is a very important safety valve in the financing of OASDI. We can do pretty well at predicting future mortality trends, far better than the economists can do in predicting the future of economic factors such as wages and prices and so forth. Nonetheless, as we all know, an exact prediction of longevity cannot be made. The OASDI system could have financing problems due to actual life expectancies greater than the actuaries at the Social Security Administration (SSA) assume will occur in their estimates of the future cost of the program. Therefore I believe it is fair to say that we should consider the normal retirement age as a safety valve. Now that the normal retirement age is already scheduled to increase from age 65, it is possible, I think, to adjust the normal retirement age in the future as needed. Any such adjustments for mortality improvements, particularly if the improvements became very great, would be able to relieve the pressure that society would otherwise have to bear as far as very high pension plan costs and Social Security costs for people retiring early.

The minimum age for nondisabled persons to receive Medicare benefits was set at 65 initially, just like the OASDI normal retirement age. But when the National Commission on Social Security Reform recommended the increased normal retirement age for OASDI, it had the assignment of only looking at OASDI and did not believe that it had the authority to recommend that the Medicare age should stay in step with the increasing OASDI age. I believe that the Medicare and OASDI ages should stay in step.

One should look at the normal retirement age not in absolute terms but in relative terms. This is how we look at the benefit level, which has automatic adjustments to keep up to date with the cost of living. Just as I do not view automatic increases in the benefit level as benefit liberalizations, I would not view increases in the normal retirement age in accordance with changes in retirement life expectancy as a deliberalization; this would simply be keeping up to date with the demography involved.

Under OASDI, and throughout the economy, actual retirement ages have generally been decreasing over the years. In other words fewer people are working beyond 65, and likewise higher proportions are retiring at 62 or at least at ages below 65. Whether this is desirable, it has been occurring, although I think the trend has leveled out.

A complicating factor in this discussion is that it is very difficult to measure what the average retirement age is under the OASDI program because of the flexibility of the system. People can claim benefits and then go back to work, or they can do a certain amount of work and still get full benefits. So it is not as simple as it might be with a single employer plan, where a person's retirement is a discrete event. Because OASDI is a national program, people move in and out of retirement. In particular, many low-earnings people can claim benefits at 62 and still continue working as they always have. They really have not retired, yet the data will show them as being retired. Likewise, many people who will reach the normal retirement age during the year may plan to retire on their birthday and yet claim OASDI benefits at the beginning of the year, because they will not earn over the annual exempt amount during the year. Thus they will be able to get full benefits for the year, though on an actuarially reduced basis.

Many people criticize the retirement earnings test, saying that it is a work disincentive. This is true, of course, particularly for people in the average earnings range of \$15,000-\$20,000 a year. If you look at the figures, they have great disincentives for going beyond the annual exempt amount, which is \$8,400 this year (1988). For highly paid people, however, with annual earnings in the \$50,000-\$100,000 range, there is no disincentive because there is so much difference between the benefits they could potentially receive and the earnings they would have to forego to get those benefits. For people in the average earnings range, there is a great financial disincentive, particularly when the people involved do not realize that there is a delayed retirement credit (DRC). The DRC is currently an increase of 3% for each year that people delay working.

There has been great discontent with the earnings test over the years. Many people want to eliminate it because it discourages people from working, whereas we should be encouraging people to work. Actually there is already a provision in the law to phase in -- in effect -- the elimination of the earnings test. Beginning in 1990 and reaching completion in 2009, the DRC will gradually increase from the present 3% to 8% per year. That 8% is very close to the actuarial equivalent, so that choosing the age of retirement under OASDI will be just like purchasing an annuity from an insurance company: you get your money's worth if you delay your retirement to the same extent as if you took the benefit at the earliest possible time. If you look at the OASDI system from the standpoint of age 62 being the minimum age for retirement, you can get a 25% increase in your benefit by waiting until 65. That increase over 3 years is again very close to this 8% annual factor.

The justification of the retirement test in theory is just perfect: you should not pay retirement pensions to people who are not retired. That is how the test originated, but over the years it has been made more flexible so that people could do some work and still get some benefits. The added flexibility has probably been desirable, but the net result has been that people in the average earnings range get so little more for working (forgetting the value of the DRC that they will eventually get) that there is very little incentive to go out and work. I think that, in part, this is responsible for people retiring early.

I think that some changes are desirable in the earnings test to correct this work disincentive. I propose that the 8% DRC that is scheduled to occur eventually should be made available immediately. If we can afford it eventually we can afford it now! At the same time there would have to be great educational efforts to get people to realize that, by delaying retirement, they are still getting their

money's worth. They should also realize that having full earnings for a while and then receiving an OASDI benefit with a DRC addition creates a more rational income stream than taking the OASDI benefit at the earliest possible age, having both earnings and OASDI benefit until earnings stop, and then having total income fall off to the regular OASDI benefit level without the DRC.

One objection to my proposal is that if you have full actuarial equivalence, high-income people will be able to get both their OASDI benefits and their full earnings. Proponents of the earnings test say that the OASDI system should not spend money this way. In response, I point out that within 20 years those high-income people are going to get their money's worth anyway. The solution is to educate people not to take benefits until they actually need them; at that point they will get larger benefits. Furthermore, it is probably advantageous from an income tax standpoint to not lump all of your benefits and earnings at one time, but rather to have your higher benefit later when there are no earnings.

I believe very strongly that the retirement trends of recent years must be reversed in the interest of keeping this country going at a high economic level and a high level of achievement. We have all heard about the rather glum prospects for the U.S. economy unless something is done about it and unless people get back to the work ethic and apply more prudence in their financial matters. I think that one very strong element in this is the revision of the retirement test plus a very strong educational campaign about the significance of deferring receipt of Social Security benefits, even though they may be available.

One other argument that has some validity is that it is quite costly for the SSA to administer the earnings test. Also, there is a great deal of manipulation of the retirement test. This is true particularly among high-paid people who can move compensation back and forth and often legally avoid the retirement test.

I think that this country cannot afford to have the low retirement ages that it currently has under OASDI. I strongly suspect the normal retirement age will have to go higher than 67 in the long run, but at least a start has been made. We can see similar low retirement ages in other plans, particularly government employee plans at the Federal, State, and local levels. I believe that these low retirement ages are a very undesirable thing for the country as a whole.

Of course I should say that private pension plans are not entirely immune from criticism, because many of them have put in early retirement buy-outs for executives and top-level management, as well as having golden parachutes and so forth. I think that there should be better management and personnel policies to enable the country to use the talents of people who are in good health and active condition. Those people should help to contribute in one way or another to national production, not to a national spree of long vacations just because they have reached their early sixties.

MR. CHARLES BARRY H. WATSON: We are going to look at the future of retirement patterns and what will happen to certain types of financial security mechanisms for retired persons under the impact of existing trends. It is important to recognize that actuaries are not always the best people, despite what we like to believe about ourselves, in considering the impact of trends. We too often tend to have a straight-line extrapolation view of the world around us. Those of you who have been carefully reading the Bulletin Board will have noticed that the meeting of the SOA is being followed by a meeting of the Phobia

Society. I thought it was rather interesting; perhaps this is symbolic in that actuaries have a somewhat general phobia about considering real changes in the world around them and what sort of impact such changes may have upon their work and upon the financial security mechanisms they have been designing.

We all know something about some of the trends in retirement, but let's consider what the factors are that underly these trends. You can divide them into four categories: demographic, social, technological, and economic. There are undoubtedly other factors but these are the ones that I think are of most significance to us.

As for the demographic factors, we see that there is a longer potential working lifetime for each individual in the work force. Improvements in the expectation of life are obvious. There is always the danger of some dread diseases when you are dealing with this area, and we may have one with us right now. But in the long run it seems likely that the working lifetime of the average individual will increase. We also see that there has been an enormous increase in the involvement of females in the work force; women are now a significant and, in some areas, even a majority presence in the work force.

Yet despite these tendencies for increase, it seems likely that there is going to be a decrease in the total effective work force, for a number of reasons. First, there will be fewer new entrants. Birth rates are down significantly and although they may go up slightly, it seems plausible that, given all other factors affecting our society, birth rates will not reach the levels experienced some decades ago. Second, although there has been an enormous increase in female involvement, we perhaps have gone about as far as we can go in that regard. Certainly the increase in the number of females will not be as great in the future as it has been in the past. Third, we are facing a situation where many of the people coming into the work force have inadequate skills for the jobs they would be called upon to do. We see evidences of a mismatch between the new entrants and the jobs that are available to them and it is not clear whether this can be solved easily, if at all.

Considering social factors, there are increasing pressures on parents to devote more time to the home life, for the betterment of the children or perhaps for improvement of the marriage structure. In any event, these pressures exist and are going to give rise to an increase in the number of part-time employees and a great increase in the number of employees, both male and female, who are out on parental leave at one time or another. We see a continued desire for greater leisure. We see a desire for diversity in terms of not only work experience but also leisure time experience. And despite the problems of maintaining our standard of living (which I will also discuss), we do have continued high expectations. Certainly television and Hollywood would make you believe that any person in the work force is leading a life of almost sybaritic luxury.

Looking at the technological factors, it seems clear that we are going to need ever higher skill levels among the persons who will be rendering productive service in the economy. Not only will proficiency in existing skills need improvement, but new and different skills will have to be developed also. We have to improve, therefore, the entry skills of the people who are coming into the work force. There will be a need to retrain employees to an absolutely unprecedented degree.

The state of the economy and other factors give rise to uncertainty and stress in the work force. Workers need to consider the likelihood that they will continue to have their job, or at least some satisfactory job. Also in this regard, the growth in mergers and acquisitions contributes to uncertainty. Some of these mergers and acquisitions are devoted to the principle of improving productivity by applying high-level skills in other areas. Some, and unfortunately an increasing number, seem to be carried out only to satisfy the egos and the financial desires of the partners who are playing this little game. But in any event they continue.

Finally, as to economic factors, the most striking factor is that there is going to be a general decline in living standards comparatively in this country. We will not be able to maintain the same differential in living standards with the rest of the world that we have had. We clearly are not developing productivity, we are not producing, we are not innovating, we are not doing any of the things that are necessary to maintain the blessed position we have had in the past! Maybe this can be solved, but it seems unlikely that it will be, at least within the foreseeable future.

This factor will affect the living standards of retired employees as well as those of all others. It is highly unlikely that the next generation of employees will pay higher taxes for increased entitlement benefits for the older generation, when the result is to maintain a high living standard for the retired generation which the workers will not view as achievable for themselves.

Combined with this we see an ever-increasing fear of inadequate retirement income, particularly inadequate Social Security benefits. There is little doubt that the average American, just like the average citizen in any developed country around the world, doesn't believe that the governmental pension system is going to deliver on its promises.

What does this all mean in terms of trends in retirement benefits, particularly in the private sphere? In the private sphere we are going to see more part-timers, more career interruptions, more job changes. Because of the decline in the effective work force, we are going to see pressures to work to the full retirement age; this is what Bob was talking about. And yet, on the other hand, there is going to be a desire to advance retirement. We still have the fact that people want to retire early. They do not want to spend their entire physically effective lifetime working. They would like a little bit of time to enjoy themselves. This means that there will need to be flexibility in retirement policies within private, and also within governmental, systems. There is going to be an increasing concern for the living standards in retirement. And finally, there is going to be a much greater emphasis on private arrangements because the government arrangements are not going to be trusted.

This means that retirement benefits will have to be considered as adequate, and they must be considered as adequate at two times. First, at the time of retirement, the ratio of the benefit you can obtain when you retire must represent a reasonable percentage of the income you had before so you can maintain a certain standard of living. Second, you have to maintain the adequacy after retirement. These are two separate things. Before retirement, benefit adequacy is eroded by increases in the cost of living and can be eroded by increases in salary for reasons other than cost of living which are not protected by the benefit plan. After retirement, of course, it is mainly the cost of living that is significant. But these are two totally separate items.

Let's look at the pre-retirement situation. I must at this point say (as if you haven't guessed already) these represent my views and certainly are not necessarily anyone else's views, and perhaps no one else's views. But it is my conclusion that the conventional single-employer defined benefit pension plan can no longer hack it. It just can't deliver. Why? First of all, the one-job career is dead. Whenever you move from one job to another, and you are dealing with a conventional defined benefit plan that is specific to a single employer, the benefits you have accrued at the time you leave that employer will not increase properly after you leave. At the time of retirement, the benefits will not amount to what you need no matter what type of adjustment you want to put on them.

There are a lot of attempts to adjust these defined benefit pension plans. First of all we see vesting. I think there is little doubt that before long we are going to have 100% immediate vesting. Fundamentally, that helps to solve one thing: it preserves the benefit you've got, but it doesn't handle any question about how that benefit must be adjusted for cost of living and salary increases thereafter.

Second, there is portability, i.e., the employee can take his benefit and go to another employer or he can even take it and invest it himself. That probably doesn't handle either of the salary/benefit increase problems, but if the employce is allowed to invest the money himself he could obtain some protection against the pre-retirement cost of living, provided he invests carefully enough. In some countries there are transfer systems, where the employee can take amounts of money out of his plan and transfer them into another plan, where the money is used to purchase years of service. These years of service are then treated exactly the same as service years with the new employer. That may appear to solve the problem except for one thing: Unless the amount of money he takes out of the first plan is sufficient to allow for future salary increases, he is still going to get an inadequate number of years of service purchased under the new plan which will necessarily reflect the cost of indexing those benefits in one way or another.

A third adjustment is the requirement of indexing deferred vested benefits. This now exists in the United Kingdom, but it is designed to cover the cost of living only, and is capped. That seems to be all you can do. Even if you index fully, you can't do much more than cover the cost of living, unless you do something like the Netherlands is considering. The proposal there is that when an employee changes jobs, the new employer has to pick up the cost of fair indexing of the man's prior benefits earned from former employers. That is all very nice, but who is going to hire one of these guys at age 50 who's got 25 years of past service credits when you are supposed to cover inflation and also salary increases? It doesn't seem to be a practical solution.

What can handle the problem? Remember that we are talking about preretirement. There are two general approaches that seem plausible. One is used in countries such as Sweden, Finland, France, and a few others where they have established industry-wide or country-wide pension plans that are mandatory even though they are private, or perhaps quasi-governmental. As an employee changes from employer to employer, he stays within the same retirement system. All of the benefits are indexed so that his benefit is based upon all the years of service within that system and is fully indexed for cost of living and for other forms of salary increase. In addition, there is an equalization fund, which is designed to cover the additional costs for older employees; in other words, all the employers are taxed to provide for benefits for the older employees, or at least the excess benefits, so that somebody will hire them. That is how Sweden

and Finland do it. France does it slightly differently, but I won't go into it. Some countries are also considering mandatory single-employer plans much along this same line, and in fact they have this in Switzerland. But when the plan is mandatory, there is indeed government intervention or government control, obviously.

The second approach which seems plausible is the defined contribution approach. With full portability, the employee can take his money and put it into a new plan, he can leave his money in an old plan, or he can take the money and invest in his own savings account. This is being widely tested in the United Kingdom at the present time. The idea is that an employee in the United Kingdom can elect not to participate in his employer's plan if he doesn't want to, and he can contract out part of the social security system. In Chile, a country which in most other areas cannot be considered to be much of a model, the social security system has been completely replaced by individual employee accounts which are funded by employee contributions. Of course a salary increase is granted to cover the employee contributions, but it remains to be seen whether this will be successful.

The point is that if the employee can make his own investments, he can cover his cost of living, if he is lucky. He may need to have indexed investments available for purchase. Investments with a guaranteed rate of return, plus coverage of cost of living, are available in the United Kingdom. They are available in some Latin American countries, such as Brazil, for more obvious reasons. For this to work, you must believe that a defined contribution plan can produce at retirement a benefit that is reasonable in relationship to final pay. This could be done by setting the contribution rate at an appropriate level. Then by having this sort of full portability, or transferability, it is exactly the same as if you were working for a single employer throughout your lifetime.

After retirement under a single-employer plan, it is always possible to have mandatory indexing of the retirement benefit, paid for by the employer. This exists in Germany. Before long, it will very likely exist in Canada, where they are just finishing the details of the formula. The Canadian plan may have a creative feature: The employee can have an option to elect a smaller amount of pension which increases at the cost of living, with perhaps a cap attached to it. The question is then who covers the excess of the cost of living. We will come back to that.

Under the defined contribution plan, if the money is in an employer's plan, either of the previous methods would be possible. But if it is self-invested, you have to be able to purchase an annuity and insurers must offer a form of benefit which has cost-of-living indexing with a cap. That would have to be an available form of benefit; this is being developed in the United Kingdom and other countries. A defined contribution separate account approach does a better job of handling part-time and second career employees and flexible retirements because the money is there and you can do with it as you wish. You can have the money while you continue to work part-time. You can invest the money regardless of your work status or anything else.

As for retirement standards, I mentioned earlier that retirees must realize that they will have to bear their fair share of changes in the general standard of living. Therefore they will have to bear some part of the cost of living. When you put a cap on the amount of increase in the cost of living that is covered in the indexed investment, then the retiree will have to cover the excess, and I believe that that is fair.

What I have given you is a prognosis. It is obviously not a guaranteed solution. Many parts will be unattractive and unlikely in our society, but we are going to have to consider a number of these possibilities if we are going to have any possibility of providing suitable retirement benefits in the years to come.

MR. GORDON R. TRAPNELL: I will address my remarks to the techniques we are using to analyze the impact on social insurance of the increase in life expectancy. The hypothesis is that as people live longer, their needs increase. A similar question is whether the increased longevity also means better health.

Sometimes research into one issue, for practical reasons, will lead to insights into completely unrelated matters. Our long-term care rating model projects mortality declines and changes in demand for various areas of long-term care service for 60 or 75 years into the future. As an example, we run into things like having to expand the mortality spectrum from the usual ending age of 110 to about 125 because we still have too many people alive at age 110; ending the model at 110 abruptly slaughters them all. In looking at this type of projection, you are faced with the problem of what happens to frailty or disability as the mortality spectrum increases. We formulated alternative hypotheses to address this situation.

The application of the frailty concept to the problems of retirement systems and social insurance defines an interrelationship between normal retirement and disability retirement. We can also differentiate between "first retirement" and "career retirement": the first is retirement from a career job, which establishes an individual's rights to a pension from an employer; the second is final retirement, to account for the possibilities of subsequent careers. Final retirement would not include the kind of part-time work that Bob referred to in the applications of the retirement test. Both of these dates depend not only on the physical condition of the person but also on his/her job opportunities, his/her attitudes, the availability of work, and a number of other social and economic factors.

I am going to confine my interests to strict physical condition, by which I mean physical condition as determined by medical or scientific tests. I do not mean the product of a set of procedures that are followed by a particular program to determine who is disabled. That type of evaluation is impacted by many other factors, including the tendency of our court system to expand over time whatever definitions of disability we want to put into an insurance product.

We set up alternative hypotheses of both the nature of the aging process and how the improvements in mortality are obtained. Let me illustrate with two extreme formulations. One view is that as people live longer, they are simply kept alive to be subject to the greater probabilities of frailty or disability at the higher ages that they obtained. You could call this a constant age-sex-frailty rate hypothesis. An alternative formulation would view the aging process as not leading to greater total disability in an individual's lifetime, but just prolonging when it would occur.

The analogy might be that if a field of grain were to grow taller, did the stalk and the grain grow in proportion or did just the stalk grow and the grain remain the same? In the perspective of an individual's lifetime, does the

expected number of disability days or frail days increase as the lifetime increases? Can you assume they do or they don't, as stated in the two simple hypotheses above?

Another way of looking at it is to view separately the causes of death and causes of disability. Do they have common determinants, or are they completely independent? For example, suppose we could take all of the diseases and health problems that humans are heir to and put them into two classes: killer viruses and deteriorating organs. If you view the body as an incredibly complex system with thousands of parts, each of which has its own probability distribution of its lifetime, and that the lifetime of the body and the health of the body are determined by the joint product of all these distributions of individual parts, then the human being wears out and eventually dies because the component parts eventually wear out and die in some combination that is eventually critical. Then we can view medical interventions that prolong mortality as being either (1) methods to stop the killers, that is, vaccines and cures, or (2) analogies to better motor oils -- things that enable specific organs to have a longer distribution of lifetimes.

The two frailty/lifetime hypotheses that I presented roughly correspond to these two hypothesized types of mortality. One hypothesis says that there are very important co-factors of mortality and morbidity that are being eliminated, thereby enabling humans to live longer. The other one says that we are just eliminating the outside interventions from killers; by eliminating the killers you merely allow more of the people to live to higher ages, where the normal deterioration of the body takes over. You can also conceptualize a third hypothesis, which I might call the Darwinian hypothesis: the killers are currently taking the weakest people; by eliminating the killers, people in worse shape would get to the higher ages because you've now allowed some people in worse physical condition to continue living.

Based on existing knowledge, we don't have the ability to test which of these hypotheses is the correct one. However, you can look at what is going on in medical science and what has happened in the past to assess where we might go in the future. For example, the bulk of research dollars has been going into eliminating the large spectacular killers. Public health doesn't have much sex appeal, so we have these huge amounts going to heart research, cancer research, and of course now the elimination of AIDS, without any systematic consideration of what the payoff is.

Are these the things people are afraid of? There is a popular conception that a killer is unfair, whereas the normal deterioration of the body is what God gave us and what one should expect. But if the same principle applies here that applies to research efforts in most other areas of technology, then the law of diminishing returns is taking effect. You can roughly picture a generalized curve of marginal efficiency of extra dollars going into any project: the curve will gradually flatten out. This means that you get the biggest gains when you put in the early dollars. You have to keep putting in more and more resources to get smaller and smaller gains and eventually get to the point where even huge amounts of money do not accomplish much more. You have reached the point of diminishing returns.

Observing that most of the medical research dollars have gone to eliminating the killers leads you to think that we must be far along the curve of diminishing returns (assuming it applies to this situation). Yet we have not put as much

effort into some other areas, such as finding the cause of arthritis and what can reduce its impact. Similarly, medical technology is still in the very early stages of analyzing mental diseases, whether they have organic foundations.

A second observation is that the general level of resources being devoted to research on the aging process has been rising. It used to be that the U.S. expenditure for medical research dwarfed that of the rest of the world. But that is no longer the case. We are one player among many. The Japanese are putting almost as much into medical research as we are. The Europeans have always spent significant amounts, and continue to do so. Some of the eastern European countries, like Hungary, are becoming important sources of funding. At the same time, the world research community has become more closely tied. A discovery in one part of the world is no longer isolated; it is immediately shared across the world regardless of language -- even behind the Iron Curtain. Consequently the collective effort is getting to a level which should be producing results comparable to those we have seen in eliminating killer diseases.

My final observation is that what matters in analyzing this type of problem is what happens in the future. We know, based on current practices and living standards, what the relationship is among disability, frailty, and mortality today. Projecting what has happened in the past into the future may not be appropriate; mortality gains may need to come much more from eliminating the kinds of conditions that cause not only mortality but also frailty.

The implication of all of this is that, in our long-term care projections, we no longer assume that people are just kept alive to be more frail. We are not assuming the Darwinian hypothesis either. But we have started looking at different mixes of explanations between the constant age-sex-frailty rates and the other one we call the constant frail-days hypothesis.

In social insurance terms, it would be constant disability-years: years in which a person would not have the health to be able and willing to work. During that time, the person would be effectively removed from the work force and therefore removed from the calculations regarding the retirement part of social insurance or of private retirement programs, regardless of where you set the retirement age. You recognize this as being one of the controversies behind whether you could postpone the retirement age or whether people would be so disabled at those ages that you would be shifting them from the retirement system to the disability system.

Interestingly enough, research has been carried out by gerontologists who have looked at the conditions that have been attacked and tried to attribute mortality gains to the elimination of specific causes of mortality. This research also shows the opportunities for further mortality gains. One way of looking at it, when doing mortality projections, is to say that there is nothing more definite and established in actuarial science than mortality decreases. We can document that they have been going on for 100 years. There have been fluctuations only in the length of time it takes to find the decreases, but they have continued to appear. Therefore, we could project these mortality gains into the future with great confidence.

But the improvements in mortality cannot come from the same sources that they have come from in the past. First, we had the broad sweeping gains that came from improvements in nutrition, public health, standards of living, and many aspects of the environment. Then, the second wave has come from spectacular

advances in medicine. I am speculating that the third wave has to come from improvements in things that improve the life spectrum of individual parts of the body, the whole of which determines human health and mortality. This area underlies a lot of the public policy discussion of what is feasible and what is necessary in medical research, but it has not received that much direct attention. This is where progress needs to be made in order to be able to assess where social insurance programs can and ought to go.

MR. FOSTER: It seems to me that there is a fairly likely scenario. Imagine for the moment that life expectancy continues to improve, as it almost certainly will and as all of our panelists have testified. Consider, too, that health and the ability to function will also improve. (Gordon has warned us that this may or may not be the case, but assume that it happens.) Consider also the likely demographic developments, that is, growth in the working-age population slows but growth in the aged population continues and, in fact, accelerates after the turn of the century. Under these conditions, it is easy to imagine that full employment in the economy would become fairly typical, as opposed to merely occasional as it is these days. The demand in the economy for goods and services is not going to slow down; it is going to continue to grow with the growth in the total population and growth in the standards of living.

This scenario implies that competition for workers should increase substantially. There would be more demand for workers (from a relatively smaller supply) to meet the demand for goods and services. These factors working together might provide quite an inducement for older workers to continue working. After all, if there is greater demand for workers, there should be higher salaries. If the salaries are sufficiently high, perhaps that would be enough to tempt workers into continuing to work rather than retiring when first possible.

In other words, I think it is not unrealistic to think that we will have a condition where older workers have the ability, the opportunity, and the economic incentive to remain in the work force longer. I think even today we are seeing a small preview of this situation. It is hard to walk into a fast food restaurant without seeing a very prominent sign posted that says "Now Hiring" or "Help Wanted." The reason is that we are seeing the very early edge of the slower growth in the work force, due to the low number of births that have been occurring in the past 10 or 20 years. It is getting hard to find younger people to take these entry-level jobs. Earlier today, I noticed that one of the stores had a sign saying "Now Hiring -- Wages start at \$6.00 an hour." The supply and demand relationship is alive and well in our economy.

I think we are going to see changes after the turn of the century in terms of the demand for workers, the salaries paid, and whether older workers are ready to forego some leisure in exchange for a much greater level of income. Currently, there are a number of policies that tend to encourage early retirement. If these policies continue, there is going to be a collision between incentives for early retirement and the economic realities of tomorrow. In particular, it is not hard to imagine that workers in the future might retire under generous early retirement provisions and turn around and go back to work for another company. In fact, their new employer might well be one of the former employer's competitors.

The strong possibility of this kind of situation suggests that steps ought to be taken today, not 20 or 30 years from now, to begin moving away from our current inducements for early retirement. The challenge would be to get anyone

to be sufficiently farsighted to take such steps this early. We have seen some early steps, such as the mandated increase in the normal retirement age under Social Security. I suspect we will see more, not only for the Social Security program but in private pensions and other income-security arrangements. The challenge will be to recognize the likely reality of tomorrow and start making these changes today while there is time, instead of waiting until the reality has hit us and it is too late.

At this point I would like to invite the audience to come forward and ask questions or present your point of view on the implications of future trends in retirement.

MR. WILLIAM E. NEAL: I do not believe that increasing the factor for delayed retirement under the Social Security program from 3-8% will have a significant effect. This assumes that workers have challenging and exciting jobs. You and I may have, but the average worker does not and does not really enjoy what he is doing. He would rather go fishing. Telling him that he can delay his retirement by 2, 3, or 4 years and get an extra 8% is not going to be sufficient to change his thinking, in my opinion.

Also, I think you will find it very difficult for politicians to defy the American Association of Retired Persons (AARP) on this subject. The AARP has very formidable lobbyists and I think they will be effective in that area. As long as Claude Pepper is in Congress, there will be difficulty in delaying retirements. Also, I think there will be substantial union pressure to retain early retirement benefits at a very high level.

I agree that we should do everything we can to encourage people to work as long as they can. But in my observation of friends and acquaintances, they say that they are going to get their 30 years in and get out. They are going to go out and build a ship and sail around the ocean or something. I just don't think we are going to see this happen without a great educational effort. Economic hardship may force it to happen, but I don't see how we can have much effect. I think there is an awful lot of pressure to keep things as they are.

MR. MYERS: I agree with you that this is going to be very hard to do, because people don't want to go on working. I just think the state of the nation's economic health over the long range is such that we must do this, both by the carrot and the stick. We must educate people and, if necessary, compel them to work longer when they are fully capable of doing so. The point you make, that people don't like their jobs if they are not interesting jobs, is a very good point. But that same argument would hold for having a minimum retirement age of 30!

MR. WATSON: One of the major forms of inducement for early retirement in recent years has been the retirement window. This has been used by companies to remove what they hope would be the more nonproductive older workers so there would be opportunities for younger ones. This made sense some years ago but no longer makes sense, except in special circumstances where the company is having economic trouble. I think it is very likely that this will terminate as a generally available benefit. This will solve a considerable portion of the problem.

By the way, Bob, those were not just golden parachutes for the older people; they were really designed to take care of middle and lower management, and

employees all the way down the line. If, however, you have built in, say, a 30-and-out type provision, you have a more difficult problem. To remove that provision from the plan you would either have to terminate the plan, where you would still have to provide some sort of protection to the affected employees, or you would have to retire the people who had the provision available to them.

I am doubtful that one can talk very nicely about having to compel workers to work longer. But I fail to see how this can be achieved without introducing this sort of Fascist approach to retirement: "You shall continue to work!" I don't think that is a practical approach within our society. You have to provide inducements. You are going to have to do the carrot rather than the stick. You can do some things like raise the retirement age in the Social Security program; other steps would be much more difficult.

MR. DANIEL M. ARNOLD: I've observed in my working years this movement toward early retirement. We have seen it notwithstanding increased life expectancy and the belief that people would continue working. But that is not the way it seems to be working out. Even when I make adjustments to the data to remove the effects of changes such as the closing of plants that become less efficient, the conclusion is still that more people are retiring early.

I think in many cases the result is desirable. These early retirement programs, as supplemented by retirement window programs, are really personnel tools to allow companies to rethink the way they do things and provide humane ways to enable job change for the individual. Rather than retirement programs, they are really job change programs, but generally not with the same employer. Many times I have seen key older individuals, who are moved out through window programs, rehired within a relatively short period of time. Sometimes they are rehired within a year, at huge bonuses, because they are the only ones who know how do a particular project. For instance, a company gets a big order in a line of business they thought would be discontinued, so they have to get these retirees back.

A story about the SSA: When benefits first went over \$1,000 a month, they had to rehire a lot of people who understood the old programs, so the programs could be changed correctly. People whose skills had been retired (when they retired) for a variety of reasons were brought back in temporarily to help out.

These so-called retirement programs, at least in the private sector, are really job-change situations. What we need is to give different incentives and opportunities to people to work. People will work if it is more advantageous to them than the alternative.

MR. FOSTER: Just to comment briefly on the Social Security computer software. A major improvement and restructuring of the programs used to do the main determination of benefits has been underway for some time. The old system was a patchwork and was not well documented. In fact, when the modernization effort began, they had to look up a number of former programmers because nobody else knew how these programs worked and there was no documentation. They were not all retired; many of them had just gone on to other programming jobs. But your point is well made about older workers. I think we all have anecdotal evidence of exactly that point.

MR. DONALD S. GRUBBS, JR.: Our moderator and all three panelists have indicated that mortality is going to improve. Perhaps we should start all such

discussions with an "if." "If" we can avoid nuclear war! None of us can preclude that possibility. It is something we can't establish a probability for. I cannot say it is X%. But with the proliferation of nuclear weapons, and with the abilities that people like Mr. Kadafi will have to get weapons in the future, I don't think any one of us can say it could not happen. We have to put that aside merely because we cannot deal with it. It makes all of our discussions meaningless. So let's assume that we can avoid that problem.

We have other changes which are going on in the world. We have measurable increases of carbon dioxide and methane in the atmosphere. We have the rise of various kinds of pollutants. They are not only increasing, but the rate of increase is escalating and all indications are that they will continue to rise at an escalating rate. We have the problems of the thinning of the ozone layer. In the long run, what do these things say about mortality? Do we have any indication if there are potential long-term effects on mortality?

MR. TRAPNELL: I think the Society needs a new research group!

MR. FOSTER: Why is it that whenever I come to a Society session about retirement or the long-term future or the outlook past the turn of the century, I get depressed?

MR. WATSON: In regard to the pollution called acid rain, there does seem to be some interesting implications that it can have an AIDS-type effect upon other parts of the natural world. Trees, for example, seem to be having their immune systems weakened by pollutants, which makes them susceptible to attacks of insects. The deaths of the harbor seals, and perhaps the dolphins up and down the coast, all seem to point towards a destruction or deterioration of the immune system, which exposes these animals to other types of infection. There is no reason why this could not happen to human beings.

You are quite right. What needs to be done is that those people who can affect it, in particular the U.S. government, need to stop pretending that they can study this problem to infinity. We should start doing something about trying to control acid rain and these other problems. Just because it is going to cost money and may offend some private industry is no valid reason for putting the health of the entire country and the world at risk!

MR. RALPH J. BRASKETT: I have a question for Gordon and a couple of comments on what Mr. Watson said. Your model does not indicate that the frailty or disability days will rise with age when you get past 80?

MR. TRAPNELL: No. Our model actually sets a parameter for the proportion of each hypothesis that you want to assume. We have done many exercises trying to figure out what people really feel about this. One popular number is a 50/50 split between the constant frail-days and constant age-sex-frailty rates hypotheses. A more conservative 1/3 constant frail-days, 2/3 constant age-sex-frailty rates split is also sometimes used.

MR. BRASKETT: No increasing rates between, say, 80 and 90? And then maybe stable thereafter?

MR. TRAPNELL: No, we have not been varying it by age. The interaction is between the factors that decrease mortality rates at each specific age in the future, and the factors that decrease disability rates. For example, if you are

age 100, your mortality rate is projected to decline about 1% per year. If you went to a 50/50 hypothesis, you would also project your rates of disability at age 100 to decline by .50% per year. Whatever rate you had at age 100 would be dropping .50% per year. Some people who reached age 100 would be less likely to be in that physical condition. That is basically the way things work. When applied to social insurance, it would apply at much earlier ages, and you would apply the physical condition needed to be able to work.

MR. BRASKETT: That is true. If we go to older and older retirement ages, we are going to have to live with the fact that we are going to see higher disability retirements under Social Security.

MR. TRAPNELL: We need to study the issue from a different perspective and in far more detail. It is not enough to project decreases in mortality just because we have had them; rather, we need to look at the specific ways in which they are going to come about. The kind of issues that Mr. Grubbs raised are completely valid. The mortality trend could very easily turn around in 10 or 15 years because of some of those factors. They are difficult to quantify, but that does not mean they are not real.

MR. BRASKETT: First, I agree with the panelists that the living standards will decline in this country, yet Mr. Watson advocates dedicating more resources to the aged population. Most of the data I see in the newspapers indicates that we have poverty problems, not so much with the older people but with younger people. There has been expansion of the underclass primarily in the big cities, along with the historical pockets of rural poverty. Yet you advocate that more money go to the aged population. We should say that retirement benefits other than Social Security will not be indexed; in that way, retirees will participate in the gradual decline in the living standards in the country.

Second, I question the advocacy of defined contribution schemes. The last insurance company I worked for was a large defined contribution insurer for the college professors of the country. I was amazed that people who were in those plans for 30 or 40 years frequently had insufficient retirement funds because of too-low contribution rates. We should be aware of this kind of problem.

MR. WATSON: First of all, I was not advocating devoting that many more resources to taking care of the retired. What I was saying was that the money that is now going into the defined benefit type programs is not going to solve the problem and that monies need to be put in a different place and used in a different way to achieve a better result.

I also would advocate that the retirees bear some of the impact of increases in the cost of living. But if you are going to make them bear the entire impact of the cost of living when they have no opportunity to invest their money to try to earn a better rate of return (as in the case of the Social Security system), I think you are being a bit unfair to them. It would be similar to increasing salaries for active employees only for promotion, forgetting about cost of living.

Concerning defined contribution plans, the key question is what you do with the money that is invested under the plan. One of the problems about the system you described was that in the early years it was devoted to fixed interest type securities and was only gradually broadened to include equities. It is fair to say that the equities were not as widely used as they might have been. All of my comments were based upon the hypothesis that defined contribution plans

can, with proper investment, provide a reasonable retirement income. Calculations show that, if you assume that there is a reasonable relationship between the rate of return and the total increase in compensation (cost of living plus promotional increases, etc.), then you end up with reasonable benefits at the time of retirement. If, however, you invest your money in companies that fail or what have you, you are going to have a problem.

MR. MYERS: I see it a little differently than Barry concerning the weakness of defined benefit plans. We have the problems that deferred vested benefits are not indexed and there is no indexing after retirement. The real answer is to use what is commonly known as the "excess interest" method. In other words, figure the cost of a pension plan, not at 8% interest as is commonly done, but at 2 or 2.50%; use the excess interest to index both the deferred vested and the retirement benefits in force. This won't exactly meet the cost of living but it will go a long way. The argument against this method is that valuing a pension plan at 2 or 2.50% interest means a much higher cost. The answer to that is that your benefits have been too liberal to start with. It is much better to have lower benefits that won't wither on the vine than to have benefits that appear to be very large and yet amount to much less when people actually get to retirement age because of the long period of non-indexing.

MR. WATSON: I agree with that. And that is the potential significance of allowing a retiree to elect an optional form of benefit payment which is reduced at retirement but which will increase in accordance with some measure of inflation.

MR. BRASKETT: Allowing the retirees to elect the alternative annuity which is based on, say, a 4% invested return and which would then increase up to a cap is an excellent idea. I understand that this option is currently available in some plans and people are electing it, so it is a workable idea. Indexing vested benefits would not be as costly as most people indicate.

Unfortunately, there are other problems with Bob's solution. If we can lower benefit formulas, sure we can then fund pension plans with 6% salary scales and 3% interest. But if we did not lower benefit formulas sharply we would have a substantial increase in pension plan contributions.

My main concern is giving employees the right to invest on their own. I am very skeptical of the number of people who would do so in today's environment in this country. I have asked some of my clients what their terminated vested employees do with their money. The percentages that indicate that they want to roll over to an IRA are depressingly small. All we are doing is adding to the crunch that we are going to have after the turn of the century, when people will not have saved enough for retirement. Hopefully the 10% tax, or maybe a 15% or 20% tax, on reversions (which will also be applied to distributions from pension plans that are not rolled over) will provide some more incentive.

MR. TRAPNELL: Ralph, would you advocate a minimum participation age in a pension plan of age 40?

MR. BRASKETT: No.

MR. TRAPNELL: Because nobody under 40 is going to retire?

MR. BRASKETT: No. I think that 21 is about right -- the current requirements are about right.

MR. TRAPNELL: If you look at terminations over and under age 40, it seems to be the magic age at which people suddenly realize that they may live to retirement.

MR. BRASKETT: I understand what you are saying and the answer is no. We made a public policy decision in this country, which I do not want to reverse, to in effect mandate early participation. I think it is probably a good idea. I am very concerned about the number of people who will not have enough money at retirement because they spent their pension monies (as small as they are for the younger people). The assets will not be there to support them at retirement.

MR. WILLIAM D. NUESSLEIN: Barry Watson, if the population has such little confidence in the Social Security system and in private pension systems, why is the savings rate so dismally low?

MR. WATSON: People are basically living for today. I did not say that they lost confidence necessarily in the private system. They are losing confidence in the Social Security system. This is an evolving idea which has only just begun to take hold within the last few years.

MR. MYERS: It is true that confidence in the Social Security system dropped for many years, but a periodic survey by the ACLI shows that a trough has been reached and confidence is now on an upward trend. This is occurring as the trust fund balances are building up. They can build up too high, but with the balances building up and the talk now about how we have too much money in Social Security, some of this lack of confidence will disappear.

MR. NUESSLEIN: My opinion on that, Bob, is that it was just a fad to say that the system was going to fly out the window.

MR. ARNOLD: I remember my father telling a story from World War II. Early in the war, the Japanese took over Indonesia, which was a prime source of rubber which was used for automobile tires. There were many debates in the U.S. Congress about suing for peace with the Japanese because statisticians had done projections on how long the United States would be able to last without rubber because of the tremendous commitment we had in this country to automobiles and trucks. Without the automobile tire, the economy was going to come to a halt, and we had to sue for peace with the Japanese. While these debates were going on, synthetic tires were developed and that concern disappeared.

I wonder if, in some of the projections about the funds needed to maintain the same standard of living after retirement as before retirement, those projections are based on some false assumptions as to what people need in terms of income for food, clothing, shelter, and so on. Do we have some basic assumptions that aren't going to turn out to be true in terms of what is needed? I don't like the idea of defined contribution plans, other than as supplements. One employer I am aware of has a lump-sum provision in his pension plan, and they have done a study of their retirees, as to what do they do with the lump-sum benefit from the plan. The lump-sum provisions are atrocious in terms of how they are used by the average worker.

MR. WATSON: I was not trying to imply that the defined contribution proceeds were going to be available to be spent on beer and spirits. There will be the same sort of constraints that we have today in IRAs and things like that. They will have to be kept in the form of a pension plan. By the way, I don't like defined contribution plans either. I make my living valuing defined benefit plans, but I think it's a mistake to ignore the problems that defined benefit plans present. Note that defined contribution plans coincide neatly, perhaps too neatly, with the idea that a pension is merely deferred compensation. The employees will continue to want to have the retirement plan expressed as a compensation item that they eventually will be able to get their hands on. They will not want to forfeit the benefit because of vesting provisions, or find that little is being paid into the plan to provide benefits when the employees are young.

MR. ARNOLD: I am concerned, after reading about hearings in the Congress, about who "owns" the money in the defined benefit plan. It's clear who owns the money in the defined contribution plan, but there is this major issue now about surplus assets in defined benefit plans: Who does that belong to? In the defined benefit plan, the idea is going to be that you are going to get this stream of income for as long as you live. The employer, or the plan sponsor, is viewed as an ongoing institution; it is going to come up with the monies necessary to take care of you as long as you live. As we structure the defined contribution plans today, even if lump sums are not permitted, many people, seeing that pot growing with their names on it, would feel that it was their pot of money.

MR. BRASKETT: Maybe I am too cynical, but I think the pressure will always be for cash now as opposed to an income stream later.

MR. GRUBBS: Although confidence in Social Security is improving, it's still a substantial problem. I feel it's a problem of communication more than anything else. The projections of the Office of the Actuary show that we are in close actuarial balance over the long term. Although some adjustment might be made, I don't think there is any real question that it can be provided. But we do have a communication gap; that gap perhaps can be closed in two ways: (1) trying to communicate better how the system as a whole works, and (2) helping to communicate to individuals what their benefits might be. I was delighted with the new benefit statement that SSA has introduced; it helps people understand what their benefit is. How can we get more people to obtain that statement, so they can see what their pension is going to be? How can we better help people understand that the program is basically sound in the long run?

MR. MYERS: I believe the new benefit statement is an excellent thing in principle. This has been advocated for some time, but the computer system just wasn't up to it. The next step, as recommended by the National Commission on Social Security, is to send the statement automatically to everybody, but that's a bit down the road.

However, one criticism about this new benefit statement is that it is misleading because it overstates the retirement benefit by the way it projects. All the estimates are in 1988 dollars; the requestor gives his 1988 salary and he is going to compare the benefit that is shown in that statement to the 1988 salary. But the benefit projection includes the assumption of a 1% annual real increase in wages. It's a good statement for someone in their sixties because that doesn't have much of an effect. In the case of a youngster, say somebody 25, it looks

as though the benefit is going to be 70% of their wage, whereas it is going to be more like 42% for an average worker. The statement is weak in that it does not show what the final wage of the person would be under these assumptions. The Committee on Social Insurance of the American Academy of Actuaries wrote to the Secretary of Health and Human Services and to the Commissioner of Social Security about this.

MR. FOSTER: The committee that worked on designing this statement considered many different approaches about how to show estimated future benefits. Unfortunately our office was not well represented on the committee; we did not hear about the decision until after it had been made. It was not our first choice, but it is not a hopeless decision. The intent was to show that the actual retirement benefit amount would not be what you see in today's dollars, because it will reflect real wage growth in the interim. I have to agree with Bob, however, that I would have preferred to err on the side of being too conservative on the estimate rather than running the risk of misleading people.

Bob, you mentioned the need to get this statement to more people. The proposal of the SSA is to make this an automatic, periodic statement that will be sent to all workers, but we are not there yet. As Bob mentioned, the Administration is not yet up to the workload. It has only been 3 months that the statements have been available on a voluntary basis. We have had nearly 4 million requests so far, most of which have already been answered. We are still getting many requests.

MR. STEPHEN G. KELLISON: I am concerned about the quality of the work force in relation to the needed quality of the work force. I have heard Bob Myers give an eloquent plea for retaining more elderly people in the work force; certainly a previous speaker gave some strong reasons, from an economic point of view, why that might be desirable. I have also heard Rick Foster indicate the demographics of the age groups going into the work force will make full employment early in the next century a high probability. However, then I also hear Dan Arnold and others talking about early retirement windows, etc., as convenient vehicles for employers to prune out some of these people. It may not be that easy for some of these folks to get satisfactory employment. I have heard Barry Watson talk about the mismatch.

So at the same time I read where the quality of the work force needs to go up because we need to be more technologically up-to-date, I read articles about the deteriorating state of education in this country. It seems to me there are cross-currents going on here. I'd be interested in what any of the panelists see in their crystal balls as to how some of this may sort itself out.

MR. TRAPNELL: I guess my own reaction is that perhaps the aging must care for the aged.

MR. WATSON: The mismatch was essentially that the need to increase skills will not be met by the people coming into the work force because the entire social background of the presently unemployed, and perhaps unemployable, is not up to the job. I don't know how this problem is going to be solved. I think we should work on the educational systems.

I worry about making the assumption that we can rely so heavily upon the older workers to solve this problem. For many older workers, it's not so much that they want to retire early, it's that physiologically they have to retire early.

This is one reason I don't like the idea of saying, "We'll use a stick on them and make them continue to work." Retirement is not defined by any particular age. It's defined by whether you are able to continue to work productively or not, and I think we have to worry about that.

MR. MYERS: I do not believe solely in the "stick approach," but we need more of it than we now have. Barry has agreed that the approach of raising the normal retirement age in Social Security is an appropriate and acceptable way of doing it. I think we may have to raise that age further 2 to 3 decades from now.

MR. NUESSLEIN: The problem is that as a person goes through his career, he starts off in the mail room, then is promoted to something else, and eventually becomes a floorman and he becomes a CEO. What the problem really is is that in the later part of the career, when an individual might be making two or three times the median wage, he probably should be making closer to the median wage. Some sort of a mechanism to get him back to where he really belongs, in a humane way, is really the issue, I think.