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Summary: This symposium provides new thought, insight and easy dialogue between many disciplines as professionals discuss the ways the aging population and changing family structures are changing retirement today. Some content is U.S.-centric, but much goes beyond U.S. borders. The research papers are available at http://www.soa.org/sections/pension.html.

MS. JUDY ANDERSON: I won't do any introductory remarks other than to introduce our panel members. We have Chiu Chang, who is a professor and head of department at the Graduate Institute of Business Administration at Chang Gung University. He is also the director of their MBA program and consultant to the insurance industry and governments at that university. Prior to his tenure there he was at Nanyang Technological University in Singapore, where he served as associate professor and director of health care economics and management, where he taught and conducted research in the Division of Actuarial Science and Insurance, School of Accountancy in Business.

Dr. Chang was also appointed to direct research and provide consulting services in

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health care economics and management. He received his M.A. from the University of Tennessee and his Ph.D. from the University of Cincinnati. He's a member of a number of actuarial organizations, in both the United States and Asia. Dr. Chang's community and industry activities include being the consultant for the World Bank, the actuary for the National Health Insurance Plan, Ministry of Health of the Republic of China, and a member of the University Faculty Evaluation Committee, Ministry of Education of the Republic of China.

We also have Tapen Sinha, who is the ING Commercial American Chair Professor at the Instituto Tecnologico Autonomo de Mexico in Mexico City. He is also a professor at the School of Business at the University of Nottingham in the United Kingdom. He's the founder/director of the International Centre for Pension Research and an associate of the Centre for Risk and Insurance Studies at the University of Nottingham. He holds a doctorate in financial economics from the University of Minnesota.

Professor Sinha has published over 80 research papers in journals in economics, finance, medicine, insurance, marketing, accountancy and actuarial studies. He has made more than 100 presentations at various international conferences around the world. His papers on pension and insurance issues have won awards from the International Insurance Society, the Society of Actuaries, and the National Insurance Commission of Mexico, among others.

He has recently published two books on pension reforms in Latin America: *Pension Reform in Latin America and Its Lessons for International Policy Makers* and *Retrospective and Prospective Analysis of the Privatized Mandatory Pension System in Mexico.*

We also have Aliya Wong. Aliya is a practicing attorney in the tax benefits, trust and estates department of Thelen, Reden & Priest, a national law firm that provides a full range of corporate transactional, counseling and litigation services. She specializes in ERISA and tax qualification matters related to pension, health and welfare plans in executive compensation.

Prior to her current position, she worked in the tax-consulting department of PricewaterhouseCooper's, where she advised clients of the tax ramifications of the various business strategies. She was also with Feder, Semo, Clark & Bard, an employee benefits firm in Washington, D.C. She is the co-author of an amicus curiae brief filed with the U.S. Supreme Court, in the matter of *Englehoff v. Englehoff*, which was ruled upon favorably.

Aliya is a member of the New York State Bar and the District of Columbia Bar. She's an active member of the tax committee of the American Bar Association. She's a 1997 graduate of New York University School of Law, where she also received a master's in law and taxation. She holds a bachelor of arts in economics from Yale.

Our discussant is Joe Applebaum. Joe is an actuary at the U.S. General Accounting Office, where he provides actuarial advice on employer-based and public pension programs. Joe is a member of the Society of Actuaries Board of Governors and has chaired the Society's Committees on Social Security and its Committee on Retirement Research.

Joe is a fellow of the Society of Actuaries and received his bachelor's and master's degrees in mathematics from Columbia University and the University of Illinois, respectively. With that, I will turn it over to Aliya.

MS. ALIYA WONG: As Judy mentioned, my background deals with the legal side of employee plans, primarily with the design and compliance issues associated with such plans. My paper really focuses on plan design issues for implementing a defined-benefit plan in terms of phased retirement and legal issues that should be dealt with in accordance with such implementation.

One of the good things about being in the last panel is that a lot of these issues have been discussed. I can just kind of summarize them, but these are the topics that I hope to cover. The definition of phased retirement has not been set; it refers to a lot of different alternative work arrangements.

The reasons for phased retirement, as other panelists have discussed, are financial and personal. There have been a couple of articles talking about how baby boomers, in particular, will not be rushing out to retire as perhaps other generations have. They have very personal reasons such as liking their jobs and wanting to continue to be productive. They want to continue to stay in the work force.

The employer reasons for phased retirement, as we've heard, are retention of skilled employees, controlling early retirement cost, and defraying the cost of hiring and retraining new employees.

The current situation really favors defined-benefit plans for a number of reasons. As we've seen with Enron and Global Crossing, litigation is always an issue. Litigation over 401(k) plans is kind of the hot issue right now. Whether or not they'll be successful or not remains to be seen, but even getting involved in this kind of litigation is expensive, and employers often wish to avoid it.

Social Security is uncertain. People are not sure whether there will be a Social Security benefit when they retire. It's a good opportunity to implement a defined-benefit plan that can pay out a specified benefit, much the way Social Security does. There are rising health care costs. Because of the health care situation and costs associated with it, any additional sums of money that people can get in retirement will obviously help alleviate that burden.

One of the primary disadvantages to defined-benefit plans is the cost. It is generally an employer-sponsored benefit in that the employer makes contributions. There is legal and administrative complexity. There are a lot of rules and compliance issues that employers have to keep up with that are constantly changing. Nonportability is becoming a major issue as the work force becomes more mobile. People really want a benefit that they can take with them as they move to different jobs. The traditional defined-benefit plan has not made that an easy process. The benefits of a defined-benefit plan in phased retirement are that it provides financial security and is a supplement to health care costs.

Greater financial needs in phased retirement will be caused by a number of issues. One is increased life expectancy, as we've heard before. People retiring today can expect to spend longer periods in retirement than previous generations did. Of course, they'll need greater funds to make retirement comfortable. There are problematic saving trends. Workers have not been saving as well as they should have to really make retirement as comfortable as they would like.

Again, there is the Social Security uncertainty. Will there be a Social Security benefit in the future that can help with retirement needs?

There is also financial security as the cost of health care increases In addition the rising cost of health care has legal issues that add to that cost. In 2001, in the Third Circuit, an appellate court ruled that disparate benefits provided to retirees could violate the Age Discrimination in Employment Act (ADEA) of 1967. This was a surprise to plan sponsors and attorneys, who had traditionally thought that retiree benefits were not subject to the ADEA.

Initially, the Equal Employment Opportunity Commission supported that position and was interested in going out and seeking employers who provided these disparate benefits. Luckily, since then, they've backed off of that position and just recently decided not to pursue such employers.

On the appellate level, in this particular case, the employer provided a supplement for Medicare eligible retirees and full health coverage for retirees who were not Medicare eligible. It's a pretty common plan design. At the appellate level, it was sent back to the lower court to determine whether or not that fact pattern violated the ADEA.

On remand, the case was settled out of court. This case is still valid in the Third Circuit, and there are no fact patterns to decide whether or not your case would comply with the ADEA or not.

Prescription drug coverage: In addition to just the rising costs, there have been several cases under Title 7 of the Civil Rights Act in which employers have been found to be discriminating against female employees for not providing certain prescription drug coverages. They are usually related to contraceptive prescription drugs. This is an issue if employers are required to provide additional benefits that they did not anticipate having to provide.

The patient's bill of rights: Even just the mention of the proposed legislation increased health costs and had employers worried. A recent Supreme Court case has allowed state review of HMOs. It remains to be seen how that will affect the legislation. In any case, there will be some impact upon the cost of health care coverage.

When thinking about using a defined-benefit plan for phased retirement, I think there are two primary issues that need to be addressed: portability and administrative compliance. One way to increase portability is to use a cash-balance plan. This has been a touchy topic, and I'm not going to get into the debate of whether the conversion of cash-balance plans violates all kinds of rules. For an employer that does not have a defined-benefit plan at all, implementing a cash-balance plan is really a viable option. It's something that's easy for employees to understand. It can be easily translated to another plan if they decide to move.

The multiemployer plans were discussed by Denise Clark earlier, so I will skip over those. Multiple-employer plans that do not require the collectively bargained component are good for small employers who wish to offer this kind of benefit but maybe cannot handle the cost on its own. Getting together with other employers in the industry, splitting the administrative cost, and splitting the amortization cost over the number of employees who are covered by the plan is a viable option.

The IRS and the Department of Labor have addressed administrative compliance. Several of these topics have already been addressed and simplified. The determination letter process has a white paper put out by the IRS, and they're asking for comments. They are seriously considering further simplifications of that process. It hopefully will help employers to stay compliant with the rules but not have to spend a lot of money getting the guarantee that they're compliant.

In the minimum distribution rules, the IRS has recently published a list of final regulations that substantially simplifies those rules and makes it easier for employees and employers to understand and to comply with those rules.

The elimination of the combined 415(e) limit encourages employers to have both a defined-benefit and a defined-contribution plan without having to worry about limits. It just eliminates another compliance aspect that would cost further administrative expense.

There's proposed legislation to combine defined-benefit and defined-contribution features. There have been several proposals, and I think the most current one that's getting a great deal of attention is the target 401(k) plan. It remains to be seen where it goes, but I think it's a viable option in that it lists out the defined benefit that the employee will receive. The employee attempts to reach that benefit by contributing his or her own money, but if the employee does not make that benefit goal, then the employer makes up the difference. I think it's actually a good idea because it shares the cost, and there's still a target-specified benefit for the employee.

One of the things that we could see some more work on is the elimination of prohibited employment. In the multiemployer plans, this is a very popular design feature. If we're trying to encourage employees to stay employed, taking away their benefit is not the way to do that.

There is an exclusion under the prohibited employment provision for employees who work 40 hours a month. But that doesn't exclude very many people. If you really want to make an exclusion that cuts out part-time workers, which we usually consider 20–25 hours a week, that exclusion should be raised to about 100 hours a month to really exclude those people.

Another issue is changes to the funding of defined-benefit plans. Defined-benefit plans have a minimum funding limit, but they also have a full-funding limitation. So when the plan is doing really well, the employer cannot contribute to the plan and still receive a deduction. When the economy is doing well, it's good for the employers. They don't have to make contributions. But then, as we've seen, when the economy is not doing so well, the employer must make a defined-benefit contribution, in addition to worrying about regular costs of running the business, paying salaries and so on. It would be good if there were some way to allow employers to keep making contributions when the economy is doing well, and when the business is doing well. This would make up for offsets when the economy is doing poorly. I think that would help to protect benefits for employees, and it also would encourage employers to implement these kinds of plans.

DR. CHIU-CHENG CHANG: My paper is very simple conceptually, but it did win some prizes this year. In the United Kingdom, it received the best paper prize in conjunction with the International Conference of Actuaries in Cancun, Mexico, in 2002. It won second best paper awarded by the Society of Actuaries, again in conjunction with the International Conference of Actuaries. So this paper may deserve your time.

This paper is titled *A Century for Big Areas*. In what area do I make my observation and analysis of trends in the twenty-first century? I look at not only the demographic changes but also lifestyle and retirement style patterns.

The second part is the introduction of my model. The third part is where I give all the many desirable features from my model, which include being fully equitable and fully portable. Aliya just mentioned full portability. Other aspects are fully fundable, fully intergenerational, independent and so on. There are many very desirable features. Once I describe all of the desirable features, I apply this model to answer each and every conceivable problem faced by today's existing social security systems that I have seen in many countries. So those are the four parts of the paper.

I like this quote very much, and if you don't mind, I would like to read it: "Old age is Indian country. Uncharted and dark. Even when we have parents still living to provide us with maps, show us over the rising hill, the crest of the road, we don't want to look. Fear, perhaps. Not of death so much as of all the indignities lying in wait for us" (Nina Bawden in *Walking Naked*).

There are major changes and shifts around the world. There is a changing population structure, which you have all learned about from much of the popular news media. There is a changing family pattern. We know that the divorce rate is very high. There are many single parents and also same-sex marriages. So the family pattern is entirely different from the time when most of the existing social security systems were designed. That's the problem that we face today. The changing retirement pattern shows early retirement. In this spring meeting, we have heard a lot about these retirement patterns. Some say early retirement, but some say that most employees want to work longer. In addition, many people who retire want to continue to work during retirement.

Apparently there are many conflicting results from all kinds of studies. But the one thing that is for sure is retirement patterns are changing. Apparently the financial consideration and the health consideration are such that I believe this pattern will be uncertain in the foreseeable future.

Another major change is the information revolution and global electronic village. There is also a shift from nation state to business state. I think this is very understandable. The political boundaries may not be as important as what we see in economic integration and globalization of economies.

Another major change is the shift from fixed to flexible. We see things like more flexible working schedules. There is a shift from short term to long term. The long-term consideration probably will outweigh the short-term consideration. Of course, you will argue with me that many studies might be focused on short-term interest. For example, Rob Brown, in the last session, mentioned how politicians always have a four-year horizon because they are interested in getting reelected. There are other indications that long-term considerations may prevail.

There has been the formation of trade blocs and harmonization of standards. With the North American Free Trade Agreement, the Asia Pacific Economic Cooperation forum, and the European Union, you will see that these trade bloc formations will play an increasingly important role.

All of these points are important because they are related to the design of my model.

There is increasing labor mobility. You also see globalization, like that which exists in the People's Republic of China. This labor mobility is seen not only in countries like the United States.

There is the formation of a new and global lifestyle. Because of the reduced confidence in traditional institutions, like Social Security, we have all sorts of problems. There is the Enron situation, and WorldCom and Arthur Andersen, the accounting firm. These situations reduce confidence so people will literally move away from institutional help to self-help. There will be a shift from complacency to accountability.

I already mentioned the aging population. Politics will take a back seat to economics. The consumer will be sovereign. Innovative employees, specializing in information science, will be more in demand. In the new mobile and global lifestyle people will get more used to shared help and accountability.

My model is called the Dynamic Social Security System (DSSS). The membership is every working person, including self-employed people. Each employed person will have an account with the Social Security system. This system will specify the contribution rate. The contribution rate will change according to the change in the macroeconomic situation.

In the good times, the contribution rate will be higher. The contribution rate could be equally divided between the employer and the employee. In the good times, maybe each contributes 20 percent or 10 percent, all depending on the macroeconomic situation.

In the case of recession, the contribution could be much lower, at 5 percent, let's say. It might be 0 percent for the employer, and for the employee 5 percent. This is changeable, all according to the macroeconomic situation. Each individual's account, with the Social Security account, will be earning interest, and the interest rate could vary, depending on the macroeconomic situation.

An administration system can be done effectively. Many people who are opposed to my model stated that the administrative costs will be very high. For example, the Singapore government has a model that is similar to mine. The administrative cost is not that high at all, and it is very efficient. I worked there for three years, so I know that. I was also the Singapore government's consulting actuary and advisor.

The retirement age is completely flexible. You can retire at the age of 30 if you are Bill Gates. Or you can retire at the age of 70. It all depends on you, it is your individual choice. There is no specified retirement age. It just depends on the individual.

We can also divide the account into whatever society might need. For example, there is a medical account and a catastrophic insurance scheme. There are those people who don't have a job at all. Any society can have people who are classified as poor. Their income is below some kind of poverty line. We can have a fund called Medifund, set up just to help those poor people. There is money in your account that you can withdraw for a specific reason, like for education. If you choose not to withdraw it for something like education, then the money can be withdrawn only when you are retired. In my paper I give examples of the special conditions under which the money can be partially withdrawn.

A desirable future of DSSS is that it is fully equitable because of the employee-employer contribution that is based on a percentage of your salary. So it's fully equitable and fully funded.

The account is extremely simple and fully vested. If you work one month, and you have a dispute with your boss and quit, you still have one month's worth of funding in your account. It is fully vested and fully portable. It is not only portable within the country but portable across the political boundaries. It is also intergenerationally independent. Every social security system should be designed, in my strong opinion, in such a way that there is an intergenerational independent feature.

Another desirable feature is it is fully reciprocal across national boundaries. It also encourages private intergenerational transfers. Let's say, for example, that your parents don't have enough funds in their account. You are allowed to transfer your funds into your parents' account. Or say your children cannot find a job. You are also allowed to transfer your account to your children.

The model also encourages late, phased or flexible retirement. There are no fixed retirement ages. If you want to work until 90, you are free to do so. There is so much individual difference. Individual difference should be recognized in designing any social security system.

There is an emphasis on saving and personal responsibility, and this is particularly important. I like this feature most because our younger generation probably doesn't get to develop good personal responsibility, particularly those in well-off families. In Asia I see this very frequently. The children in wealthy families are not doing very well because they are so well protected. They don't have any personal sense of responsibility. With the emphasis on employer responsibility, the person is fully funded at any moment in time.

This model also provides for disability and medical expense too. The account can be divided into medical, pension and so on. It is divided into different accounts depending on society.

I'm going to breeze past the applications because of time. Each application attempts to answer each and every conceivable problem I know of from all of the existing social security systems. There are all kinds of problems that can be answered under this model. They are also answered clearly and without ambiguity.

DR. TAPEN SINHA: I have several versions of this paper. One is on the Web site, which is about 40 pages long. What I'll do now is try to motivate you to read the paper.

First, I will give you a two-second summary of the paper, and then I will give you a 10-minute summary of the paper. The two-second summary of the paper is the answer to the question, Can Latin American experience teach the United States? My two-second response to that question is, No.

I don't know whether you are aware that there are a lot of things going on in Washington. But these are not just going on in the United States alone. If you look at other countries, like the United Kingdom and Japan, you will see similar sorts of sentiments being expressed across the globe. There is a report from the prime minister of Japan who talked about how the social security system should encourage self-help and self-sufficiency.

Let's go back about 21 years ago. You will hear a lot about the people who were part of the Chilean reform. There are eight Latin American countries that have undertaken this reform.

Let's get into some specifics of the things that have been going on. One is the gender issue. We all know that the whole model rests on this very simplistic assumption that the worker, male or female, is working throughout their lives for their entire lifespan. We know, for a fact, that this is not true for the majority of women. If we look at the male part of the equation, we will see that there has been a substantial drop in the labor force participation rate.

If you look at people age 55 and older in developed countries, you will see that the participation rate has fallen substantially across all countries. It's particularly striking in some of the Scandinavian countries, such as in Finland and Denmark.

If we look at women, you will see overall that there has been an increasing trend in women's participation in the labor force. In some countries, the rates are more or less the same between men and women. Let's look at Argentina. If you look at males 55 and older in the work force, you will see that Argentina looks pretty much like other developed countries. It doesn't look so much like less developed countries such as Guatemala. They continue to work in the labor force after age 55.

I know a little bit about the Mexican experience because I live there. Table 1 is a breakdown of the people in the labor force in Mexico. At age 70–74, more than half of the men are still in the labor force, and they are not working for fun. How long are they working? Those that are working are putting in a lot of hours.

Table 1

Mexican experience

- % in the labor force

Age	Men	Women
60-64	74	25
65-69	64	22
70-74	58	15
75-79	49	10
80+	26	5

- They are NOT working for fun

Let's take a look at the global picture. It's a very mixed bag. For example, Bangladesh and Pakistan used to be the same country. Table 2 shows that the labor force differs between men and women. They are vastly different. China looks pretty much like the United States. It's a very mixed bag; by looking at the participation rate, you can conclude absolutely nothing.

Table 2

Global view: participation rates

- Percentage in labor force

Region	Men	Women
China	89	79
India	82	35
Bangladesh	90	57
Pakistan	87	13
European Union	77	56
United States	84	71

What do we get from the gender issue? If we look at women in the labor force in Chile, you will see that at least 40 percent of the women are working in the informal sector. This is something that you don't hear about in the Chilean success story. What proportion of the population are actually in the system? The ugly fact is that most women who have less than a university or secondary education practically are not in the system long enough to accumulate enough money. They end up in very dire poverty. What kind of informal sector are we talking about? It's huge. In the case of Chile, it's not all that big, but in Bolivia, 66 percent of the labor force are in the informal market. Thy have a fully privatized social security system, so you're on your own.

Some people have argued that the size of the informal sector has been declining in Latin America. Do you see any trend anywhere that it is declining? I don't. This happens across all Latin American countries. Here is an example from Mexico. The people who have social security, or a little bit more than social security, is roughly one-third of the labor force, which means two-thirds are fully privatized.

You hear about certain benefits that social security privatization is going to bring in, such as development of the stock market, the bond market and other types of capital market instruments. What I do in the paper is go through each of these items one at a time and show that none of these things are happening with the possible exception of development of some kinds of bond markets. The reason is because when most of these countries have a privatized pension system, basically what they can buy is government bonds. So if you are in the Mexican pension privatized system, your fund contains something like Treasury bills.

The other thing I discuss is the supposed benefit of privatization, that it increases savings. In fact, we see exactly the opposite effect. I show why that is logically so.

The other thing that most people don't realize is that we create these management fees. How large are they? When I put 100 pesos in my privatized pension fund, I pay about 30 pesos right off the bat, which goes into management fees. So what exactly are they managing? They're managing the Treasury bonds, whether they are going to put in a 90-day bond or 180-day bond.

Some people argue that we have seen, over a period of 20 years, that the charges are coming down in Chile. Charges are coming down, depending on how you report the charges. What I show is that if you report it in one way, over time, the charges are coming down. If you report it in another way—and these, by the way, are not numbers that I have made up; I've just taken them from what is publicly available from their system—you see that the charges are actually going up. This myth about charges coming down and management fees being low is just not true. Much of this has a lot of political undertone to it, as you might expect.

The problem with the politics is, of course, when the Chilean system was introduced, it was a fully dictatorial system. Therefore, the government didn't have to go out and ask people whether they wanted to privatize social security. In most countries around the world, you do have to ask whether people want to privatize social security, and people might say no.

There are other kinds of myths that float around. You hear all these things about how the burden of the working population versus the retired population is going to be unbearable. It would be two-to-one or something to that effect, which is not true if you assume that the retirement age is movable.

The other thing that we hear a lot about is privatization going on in the former Soviet Union countries, or the Eastern European countries. They are employing the same kind of model that they have in Chile. The problem is that in their population structure, they have had no baby boom. Since the Second World War the number of children people are having has been coming down by leaps and bounds.

The large international institutions are putting all these things in place. How are they doing it? They are making their loans conditional.

The other related associations are the conservative think tanks around the Washington area. Their main argument is that this is freedom of choice. I have done a survey of a new Mexican system. I asked people, How did you choose your plan? Over 90 percent said they picked the suggestion that their employer made. I asked why. They said that they couldn't do any better. They said that the employer knows better than they do, so they picked that one. So there goes the freedom of choice.

MR. JOSEPH APPLEBAUM: It's a pleasure to be here with you and to have the privilege of discussing these three very interesting papers. One deals with private pension plans and phased retirement. The second and third deal with various aspects of individual account designs for social insurance programs.

These papers can be viewed in a larger context, which I'm not going to go into in great detail, regarding the relative efficacy of defined-contribution versus defined-benefit approaches to providing retirement income security. In the context of private plans, the discussion has tended to focus on the strengths of a particular approach. Those are probably well known to most of the people in this audience.

For public plans, interestingly, the discussion has tended to emphasize weaknesses of approaches. There is one thing that I would remind you about regarding defined-benefit approaches, because many of the discussions we have had at this meeting have been U.S. based. That one-size-fits–all mentality might not be appropriate for some vulnerable subpopulations. That has been the emphasis of a considerable number of the discussions here.

With those preliminary remarks out of the way, let me turn to the paper of Aliya Wong. She, in her paper, suggests using defined-benefit plans, particularly for phased retirement. Phased retirement has become, as we have heard throughout this symposium, an issue of increasing importance for policy purposes. That is because, among other things, it would help to increase the labor force supply of older workers and alleviate some of the labor force shortages that are predicted over the next 20–50 years.

In her paper, Ms. Wong discusses the benefits to bridge workers, but has only a limited discussion of the employer costs associated with using defined-benefit plans. I must admit that in the face of a widespread migration from defined-benefit to defined-contribution plans, her paper certainly raises some provocative questions. I would, however, want to take the other side for the moment and ask why that shift has occurred and give at least a few reasons why I think it might have happened.

The first reason is the regulatory complexity that she and others have mentioned throughout the conference. There is at least relative complexity of defined-benefit plans in the United States versus defined-contribution plans. Even beyond that, there are other important factors, such as the lack of appreciation of the cost of providing such benefits by employees. This has been a topic of some discussion in a number of Society of Actuaries projects dealing with the lack of knowledge of the man on the street about the costs of providing retirement income security.

Second is the traditional defined-benefit plans do have certain accrual patterns, which, as we all know, tend to provide most of the benefits toward the end of an employee's career. In the context of a war for talent, the recruitment of workers becomes critical, and their desire or preference for current accruals and current compensation has, I think, been another force in moving toward defined-contribution plans.

Finally, let's not disregard that employers do have some risk aversion. There are many financial risks that employers take on in sponsoring defined-benefit plans. Those should not be minimized.

So, having said that, we might want to ask, Why do bridge workers take jobs? There is a difference between those who continue with their career employer and those who are looking for jobs after they finish their main career. I think that that's an important point that was not sufficiently emphasized.

In any event, what is the balance between the desire of such workers—whether they are what have been called phased retirement or bridge workers—as far as their preference for current compensation, including health benefits versus deferred compensation and other aspects of work? Bridge workers, by definition, tend to be older than average workers, so the accruals under a traditional defined-benefit plan are expensive, particularly when compared to the typical cost within a large firm.

One would ask whether the bridge workers' preferences differ significantly from the employer's other workers, as far as the mix of current and deferred compensation. I would suggest that we need a considerable amount of empirical research on these issues.

Ms. Wong's paper provides much valuable information and observations on the regulatory thicket that surrounds defined-benefit pensions in the United States. However, the paper fails to take into account the disincentives present in the early retirement subsidies in traditional defined-benefit plans, which might make it disadvantageous for a retirement-eligible employee not to retire from a career job at his or her first eligibility.

Plans with more even accruals might make the decision for retirement eligibles to change jobs more neutral. This might encourage them to continue with their career employer, rather than retiring and seeking full-time or part-time employment elsewhere.

However, such programs will not deter switches by career employees not yet eligible for retirement. So there is a certain amount of balancing that needs to be done when looking at the relative advantages and disadvantages of these designs.

Turning to Professor Chiu-Cheng Chang's paper, one is daunted by the fact that one is discussing a paper that's gotten prizes from a whole bunch of distinguished organizations, including this panel. Professor Chang gives us a very broad description of global trends. It is a fascinating paper based on the amount of information he provides us.

He then provides a very generalized description of a social insurance model, based on a more or less pure individual account approach. He tells us about the advantages and applications of the design. The trends that Professor Chang observes might be widespread, but I'm not sure whether they're universal. For example, family and demographic trends might proceed at rather different paces in different countries.

While globalization might cause some convergence in the organization of businesses, we have to ask whether that is the dominant trend or an effect at the margin. However, one cannot deny that Professor Chang has a vision for a program, while leaving many, in my view, details unanswered.

One example would be determining the contribution rate depending on macroeconomic conditions. I've found that it's very easy to lower rates of contribution or taxes, but it's very hard to raise them because people say the good times are here. The good times are never here.

Further, the basic program, at least as I understand it, has little pooling required. So one might ask how life and disability coverages would be provided under the program. Would they be required or optional and in what amounts? How would those coverages be priced to reflect the ongoing changes in family structure of an individual or upon marriage, the birth of children, or the death of a spouse.

Because there are a wide variety of benefits that are potentially payable under the program, it would seem to me that we need the mechanisms to balance competing needs. For the retirement program, one of the usual questions is whether or not annuitization would be mandatory or whether other payout forms would be allowed.

The one place where a true insurance program works is in the health care area where a catastrophic medical insurance program is proposed. That's not part of the system, at least it's not part of the financing of the system. It's a pure general revenue program. So it is the combination of the medical benefits payable under the basic program and the Medifund, or the medical benefits under the social insurance system would need to be coordinated in ways that would minimize moral hazard and overuse of the system.

Professor Sinha's paper provides some very interesting data on individual accounts based on reform in Latin America. I'm looking at this from an American point of view, which is the only one I really can have, I guess. The most important thing in Latin America is the fact that, in all too many cases, there is little or no coverage in the informal sector. This, in many cases, is a majority of the working population of the country.

He also gives us some very good detail on expense issues. I think that he makes a pretty persuasive case for almost everybody—not withstanding the countries he has chosen for his cross-national comparisons—that the public defined-benefit approaches would appear to have lower expense ratios than the individual account reforms that have been put through.

Finally, Professors Sinha and Chang present very different views of social insurance systems based on individual accounts. I note that Professor Sinha gives us a number of important precautionary notes that we should examine in considering such designs. For example, there is coverage, investment of funds and expense controls. Although he didn't have time to talk about them, he makes some very important points in his paper about the role of savings in these programs.

Professor Chang, I'm afraid, provides us with only a cursory treatment on the role of savings in these program. Given the magnitude of the program Professor Chang describes, one would expect a net national saving to result.

Given the size of that program, development of mechanisms to ensure the accountability, transparency and proper stewardship of funds will be critical. The dynamic social security system that Professor Chang has proposed has many features. For example, financing of housing could be considered peripheral to the social insurance programs in many countries. The affordability of national social insurance programs is directly related to the size and rate of growth of the nation's economy.

This brings into question Professor Chang's assertion that the dynamic social security system is relatively immune to demographic changes. The more critical question in my view is whether individual account programs down the road lead to greater economic growth. That, in turn, will depend on many factors, including those outside the control of the social insurance system. Among the most important are the overall budget policy within the nation and the possible substitution effects that the savings that occur in the social insurance systems may lead to less savings elsewhere. The measurement issues of those effects are extraordinarily complex and controversial and have been subject to wide interpretation.

FROM THE FLOOR: I read Professor Sinha's paper with great fascination. I'm sorry you had to cover it so swiftly today. I had to take a good deal of time with it to digest all of the points that you were making, and they were very fascinating.

However, I'd like to challenge you a little bit because I found a couple of the arguments less than persuasive. While it's interesting to know what size the informal sector is in other countries, I'm not sure that's a argument against individual accounts in a country where the formal economy is the dominant economy. Likewise, the level of fees as a percentage of contributions declines as a percentage of account balances over time. Again, I don't find it a very persuasive argument given the level of fees that exist in most American mutual funds, for example.

I guess I'd like to ask you to focus in a little bit. If I were to put you in front of Congress to speak, what would you say is one of the most important things, in your experience and study, that would tell you that the so-called success of the Latin American systems is or is not portable into the American system? How would you respond?

DR. SINHA: To start with, I must confess that I do not have an answer to your question, but I do have one point to make about trying to compare a mutual fund with this sort of system. A mutual fund is like a bar of soap. I can walk into a store and buy it or not buy it. In Chile and in other countries, you have to make a 10 percent contribution; you do not have a choice. The question of whether you are free to choose is not really there. You have to contribute 10 percent in Chile, and you have to contribute 40 percent in Singapore. You do not have that choice.

The point I'm trying to make is that when you do have a choice, if they charge you a lot, you can walk away from the deal. You can say that you do not want to put the money in the mutual fund. In Mexico you do not have that option.

FROM THE FLOOR: Many of your problems are already resolved in Canada. It's surprising that you have not come to the country that is a friend of the United States and that is so close.

In Canada and in Quebec, the accounts are fully portable, so you can transfer the value to an individual retirement account. That money is locked in and must be used for retirement purposes. Persons aren't forced to use it to buy a pension at retirement. There are life income funds that are used to disperse the money during the lifetime of the person at retirement.

A lot of things that you have discussed, like earning and sharing, exist in the Canada/Quebec Pension Plan. When someone divorces, the gain of the two individuals is summed up and divided into the accounts of both spouses.

FROM THE FLOOR: My question is for Professor Sinha. Are you aware of any of the countries trying to bring the informal sector into the social security system? For instance, I'm aware of the country of Ghana in West Africa. It has 18 million people, but they have only 600,000 people in the social security system.

DR. SINHA: There are some moves toward trying to bring the informal sector in. I should say that there are some experiments going on. Some African countries, such as Kenya, have been trying the experiments, but only on a very small scale. They have been going on for about three or four years, so I really don't know whether they have been a success or not. I have read about them being implemented on a small scale in some villages. These villages have a similar sort of cooperative system. But I cannot tell you whether they have been a success or not. It has been just too short a period of time.

MS. ANDERSON: I'd like to thank our panel very much. At this time, I'd like to ask Neela Ranade to come up for closing remarks and awarding the prizes.

MS. NEELA RANADE: We are a society of great diversity—diversity in income and diversity in the way we live our lives. We might get married, we might have children, or we might get divorced. As we move through life and then retire, we bring the same diversity as well as the expectation to have solutions that are customized for our needs. That's what we're seeing here as the topic of these papers.

We're looking at the baby boom generation, which is facing retirement, and the number of solutions that the baby boom generation expects. They expect customized solutions, but we are in a position where the economy is down, the financial markets are down, and there's a greater need and urgency to have solutions proposed for these problems. These loom larger because of the financial problems that are here at this time.

When I say "we," I'm referring primarily to the United States, but also, to some extent, I'm referring to Canada. When we issued the call for papers, we were hoping to get a comprehensive paper that covered both the American and Canadian situations. We actually did get several papers on the Canadian situation. I do believe that Canadians do some things better than we do, some of the things Canadians do with their social security systems. So I'm glad to find that we got the Canadian perspective.

We were also hoping to get an international perspective that would illuminate the situation in the United States and Canada. We heard from the authors about the situation in Latin America, Singapore, Britain and Germany and comparatives among those countries.

One hope in issuing the call for papers was to get dialogue from various perspectives. When I listened to the presentations over the last few days, I could hear the different facets of each of the situations that were presented here. We heard about some major trends emerging. Phased retirement was one, poverty among elderly women was another, and one of the comments made by one of the panelists stayed with me. She said that our bridges are great. We are actuaries, and we look at averages and norms. We have to remember that beneath the averages, we have to remember there are real people who are one or two standard deviations below. We need to examine the situation for them.

I think we received presentations on different points of view, which not all of us will agree with. What was important was that all those points of view were presented. The Singapore situation as well as the Latin American situation and the poverty issues were presented.

People in Washington or in various places try to come up with solutions. I think all the parties bringing all these questions to bear are extremely important. That was one of the hopes in issuing the call for papers. I think that was satisfied.

There was a paper on the financial markets and whether Americans can retire. There's so much heated discussion about it. All I want to say is, I think it presents a contrary opinion when there is so much prevailing wisdom. Everybody is saying that, for the long term, you must invest in stocks. The more you invest in stocks, the better your long-term return will be, as long as you ride out the volatility. I think there are some strong arguments underlying it. I'm hoping that part is not going to be entirely correct. I don't think any of us want that to be entirely correct. I think it was important for this conference to have those kinds of voices heard. Various people said to me that there was something to this argument, although we heard only some of the opposition to it.

I want to recognize the various people who made this conference possible. First, there is a planning committee. This conference has been in preparation for a long time. Anna Rappaport was our fearless leader. There were also Judy Anderson, Laurel Beeden of AARP, and Lance Weiss from the Conference of Consulting Actuaries.

There is one group I want to mention because they had a major role. That is World at Work. World at Work, besides being a cooperating sponsor, advertised the conference. They also announced a very generous prize of $5,000. I want to recognize them. They were not able to send a representative, but they were very important to us.

I want to also recognize Sandy Neuenkirchen of the Society of Actuaries. I'd also like to acknowledge the prize selection committee. This conference was under the auspices of the Social Insurance Committee of the Society of Actuaries. There were five of us from that committee who went through all the papers. We tried to have a broad viewpoint in selecting the prize-winning papers. Joe Applebaum, Judy and I are among the committee members who are here.

There were two others who were on the prize selection committee who are not here. Sam Gutterman, who is a past president of the Society of Actuaries, is also the chairman of the Social Insurance Committee. He couldn't be here, but he was on the prize selection committee. Bruce MacDonald, one of our Canadian members, is also on the Social Insurance Committee.

This conference was supposed to be held last October. Then after 9/11, we changed our plan. We didn't want to wait to put out the papers and give out the prizes, so we announced the prizes on the Web site. We also sent out the cash prizes. We do have these plaques here, so you can put them on your mantelpiece. It's always nice to have that once the money is spent.

Let me first just announce that we gave out four equal prizes from the Society of Actuaries. When we went through all of our discussions, we said we couldn't clearly decide on one paper being the best, so we found four papers equally worthy, and we gave a prize of $1,500 a piece for each of the four papers. One of the papers was also a paper chosen by World at Work, whose criteria were different.

Anyway, we chose the Scahill-Forman paper, which World at Work also chose for their prize. At this point, I'm going to give these out in alphabetical order. I try to do these things impartially. First is the prize that goes to Karen Holden and Meeryoung Kim. The next one goes to Beverly Orth. The third one is for Scahill and Forman, and you also have something from the World at Work. The final prize is for Tapen Sinha.