YEAR 2000 COMPUTER PROBLEM

HEARING

BEFORE THE

SUBCOMMITTEE ON OVERSIGHT

OF THE

COMMITTEE ON WAYS AND MEANS
HOUSE OF REPRESENTATIVES

ONE HUNDRED FIFTH CONGRESS

SECOND SESSION

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THURSDAY, MAY 7, 1998

HOUSE OF REPRESENTATIVES,
COMMITTEE ON WAYS AND MEANS,
SUBCOMMITTEE ON OVERSIGHT,
Washington, DC.

The Subcommittee met, pursuant to notice, at 10 a.m., in room B–318, Rayburn House Office Building, Hon. Nancy L. Johnson (Chairman of the Subcommittee) presiding.

[The advisory announcing the hearing follows:]

ADVISORY

FROM THE COMMITTEE ON WAYS AND MEANS

SUBCOMMITTEE ON OVERSIGHT

FOR IMMEDIATE RELEASE
April 30, 1998
No. OV–17

CONTACT: (202) 225–7601

Johnson Announces Hearing on the Year 2000 Computer Problem

Congresswoman Nancy L. Johnson (R–CT), Chairman, Subcommittee on Oversight of the Committee on Ways and Means, today announced that the Subcommittee will hold a hearing on the potential effects of the year 2000 (Y2K) computer problem on the Federal programs within the jurisdiction of the Committee on Ways and Means. The hearing will take place on Thursday, May 7, 1998, in room B–318 Rayburn House Office Building, beginning at 10:00 a.m.

In view of the limited time available to hear witnesses, oral testimony at this hearing will be from invited witnesses only. Witnesses will include individuals testifying on behalf of the U.S. Departments of the Treasury and Health and Human Services, the Social Security Administration, the Office of Management and Budget and the U.S. General Accounting Office, as well as the private sector. However, any individual or organization not scheduled for an oral appearance may submit a written statement for consideration by the Committee and for inclusion in the printed record of the hearing.

BACKGROUND:

Most computers and computer systems in use in the Federal Government today will not be able to function beyond the year 2000 unless they are modified. In particular, this applies with respect to the Federal programs within the jurisdiction of the Committee on Ways and Means, including those administered by the U.S. Department of the Treasury, U.S. Department of Health and Human Services, and the Social Security Administration.

Some computers cannot be modified and must be replaced. In addition, there are many items, like elevators or security systems, that are not directly related to computer systems which have embedded computer chips. Many of these chips are date dependent and require replacement in order to function beyond the year 2000.

Currently most computers only store a two-digit number for the year, which makes the year 2000 indistinguishable from the year 1900. Computer operating systems and applications software that are dependent upon this two-digit year format will likely malfunction. Incorrect notices, penalty assessments, refund or beneficiary checks could result. Without proper renovation, computer malfunctions will cause many costly problems for both commerce and government.

While fixing the two-digit year field is technically simple, the process of analyzing, renovating, and testing software and hardware for all computer systems that must interact is a very complex management task. For most of the Federal Government's computer systems, it is too impractical and expensive to purchase a completely new system. Most software must be modified to accommodate four-digit years or to incorporate some other interim solution. To determine whether a computer system needs to be modified, all of its software code must be reviewed, which can entail reading hundreds, or millions, of lines of computer code. The process of reading and interpreting the code is made more difficult by the many computer languages in use

today and the shortage of programmers with skills in older languages. Most older programs which have been modified thousands of times over the years, no longer have the accompanying documentation.

A further complication is that there is no single solution to be used to renovate computer systems for the year 2000. Rather, there are dozens of standards, public and proprietary, for storing and processing dates in computers.

Although some may have doubted the seriousness of this problem a few years ago or had not focused on the potential risks to the success of their programs and systems, most business managers and government officials are now convinced that this will be a difficult and time-consuming management challenge. Federal agencies have established Y2K program offices, and an interagency committee has overseen government-wide actions. The century date change is a worldwide problem affecting every industry, locally, nationally, and internationally.

The information gained in this hearing will be helpful to Congress in evaluating the progress made by each agency in renovating its computer systems and in determining whether legislation or other congressional action is necessary to help ensure that renovation is successful and timely.

In announcing the hearing, Chairman Johnson stated: "We have a very real problem with a very real deadline. The programs within our Committee's jurisdiction affect more than 260 million Americans. Our revenue programs affect every taxpayer and every business. Millions rely on our benefit programs for their health and well being. These people need assurance that the services that they rely on will not be disrupted by a computer failure. Today we are assessing the adequacy of the planning and management of the bureaus within the Committee's jurisdiction to avert a potential disaster."

FOCUS OF THE HEARING:

The hearing will explore the Y2K issues for the major program areas within the jurisdiction of the Committee on Ways and Means. In particular the Subcommittee will examine the implications of the Y2K computer problem for the various program beneficiaries, the potential risks to program missions, and major remaining program vulnerabilities.

DETAILS FOR SUBMISSION OF WRITTEN COMMENTS:

Any person or organization wishing to submit a written statement for the printed record of the hearing should submit six (6) single-spaced copies of their statement, along with an IBM compatible 3.5-inch diskette in WordPerfect 5.1 format, with their name, address, and hearing date noted on a label, by the close of business, Thursday, May 21, 1998, to A.L. Singleton, Chief of Staff, Committee on Ways and Means, U.S. House of Representatives, 1102 Longworth House Office Building, Washington, D.C. 20515. If those filing written statements wish to have their statements distributed to the press and interested public at the hearing, they may deliver 200 additional copies for this purpose to the Subcommittee on Oversight office, room 1136 Longworth House Office Building, at least one hour before the hearing begins.

FORMATTING REQUIREMENTS:

Each statement presented for printing to the Committee by a witness, any written statement or exhibit submitted for the printed record or any written comments in response to a request for written comments must conform to the guidelines listed below. Any statement or exhibit not in compliance with these guidelines will not be printed, but will be maintained in the Committee files for review and use by the Committee.

1. All statements and any accompanying exhibits for printing must be submitted on an IBM compatible 3.5-inch diskette in WordPerfect 5.1 format, typed in single space and may not exceed a total of 10 pages including attachments. Witnesses are advised that the Committee will rely on electronic submissions for printing the official hearing record.

2. Copies of whole documents submitted as exhibit material will not be accepted for printing. Instead, exhibit material should be referenced and quoted or paraphrased. All exhibit material

not meeting these specifications will be maintained in the Committee files for review and use by the Committee.

3. A witness appearing at a public hearing, or submitting a statement for the record of a public hearing, or submitting written comments in response to a published request for comments by the Committee, must include on his statement or submission a list of all clients, persons, or organizations on whose behalf the witness appears.

4. A supplemental sheet must accompany each statement listing the name, company, address, telephone and fax numbers where the witness or the designated representative may be reached. This supplemental sheet will not be included in the printed record.

The above restrictions and limitations apply only to material being submitted for printing. Statements and exhibits or supplementary material submitted solely for distribution to the Members, the press, and the public during the course of a public hearing may be submitted in other forms.

Note: All Committee advisories and news releases are available on the World Wide Web at 'HTTP://WWW.HOUSE.GOV/WAYS__MEANS/'.

The Committee seeks to make its facilities accessible to persons with disabilities. If you are in need of special accommodations, please call 202–225–1721 or 202–226–3411 TTD/TTY in advance of the event (four business days notice is requested). Questions with regard to special accommodation needs in general (including availability of Committee materials in alternative formats) may be directed to the Committee as noted above.

Chairman JOHNSON of Connecticut [presiding]. Good morning, and welcome to all of you this morning. I am sorry that there are not chairs enough for everyone, but if experience is a guide, there will be.

Hardly a day goes by when we don't read a newspaper article or see a story on television about the year 2000. A problem with its own catchy acronym, Y2K, that is quickly becoming a household word. Some have suggested that we are headed toward a millennium meltdown with a high probability of a nationwide recession. Others have suggested it will merely be annoying.

Changing the date field to distinguish between January 1, 2000 and 1900 is not technically difficult. What is challenging, however, is finding the data fields in old undocumented computer programs and searching for date-dependent computer chips embedded in non-computer systems, such as elevators and security systems. Each must be modified in order to function in the year 2000. The enormity of the problem becomes evident when you consider that these modifications must be made by every organization, public and private, on every computer system that considers dates in any manner. Then, all those modified systems must be integrated and tested to make certain they produce consistent and accurate results.

Just in the Federal agencies alone, we have more than 7,850 mission-critical systems which must be able to function correctly by the year 2000. Of these mission-critical systems, 1,126 are within this Committee's jurisdiction, and nearly all must be able to exchange information with each other, State and local systems, and private sector systems to be able to make proper calculations for millions of Social Security recipients, Medicare beneficiaries, and taxpayers. These systems must be able to keep accurate beneficiary records and taxpayer accounts.

What has become evident to me is that this is a major management problem with a technical component. The Federal Government is not known for its ability to manage well, particularly its computer system modernization efforts. Yet, millions of beneficiaries and taxpayers find themselves relying on these managers to rise to the year 2000 challenge. While it is hard to have complete confidence in agencies that historically have been unable to successfully deliver computer systems that function properly and on schedule, January 1, 2000, is a finite date that cannot be missed without affecting millions and millions of Americans. It is our job in Congress to see that beneficiaries and taxpayers are protected against risks that may result in computer error systems from government systems that are not year 2000 compliant.

We're here today to hear from the major agencies within the Ways and Means Committee's jurisdiction how they are progressing toward the Y2K challenge and what confidence we should have that the affected taxpayers and beneficiaries will be properly served in the next century. We are interested in the risks that the agencies have identified and the actions that they are taking to manage those risks as well as their plans for contingencies.

We will also be hearing from private sector representatives about their efforts to manage their risks inherent in the Y2K effort. Many of these organizations are data trading partners with our agencies and will be affected in a major way by the success or failure of the Federal effort. Finally, we will hear from representatives of the U.S. General Accounting Office about the Y2K vulnerabilities that remain in our agencies' programs and what actions are being taken to fix these systems in time to avoid catastrophic consequences.

This is not solely a U.S. problem, it is a global one. Edward Yardeni, a noted economist from Deutsche Morgan Grenfell, has studied the problem—who as studied the problem, rates the odds that it will trigger a deep worldwide recession at 60 percent. While some consider this to be a pessimistic view, and I consider it to be a pessimistic view, the current focus on Asian financial instability and Eurodollar conversion may divert resources from being committed to properly preparing for the year 2000 and this could have serious economic consequences. There will always be pockets of those in the private sector who did not take the actions needed to look out for their business and economic interests. However, at the very least, it is our job to see that the public sector systems are ready with sufficient capacity to the economic needs of the private sector. We cannot afford to fail the millions of Americans who are relying on the public sector effort to be successful.

And, so, today, we bring our more comprehensive oversight effort at reviewing those systems under our jurisdiction, and I welcome all the witnesses here today. I know this is going to take a good deal of time, but I think the interrelationship of the different panels is important to our understanding where we are in meeting the challenge of this problem.

[The opening statement follows:]

Statement of Hon. Nancy L. Johnson, a Representative in Congress from the State of Connecticut

Good morning. Hardly a day goes by when we don't read a news paper article or see a story on TV about the year 2000 computer problem. A problem with its own

catchy acronym—"Y2K"—that is quickly becoming a household term. Some have suggested that we are headed towards a "millennium meltdown" with a high probability of a nationwide recession. Others have suggested it merely will be annoying.

Changing the date field to distinguish between January 1, 2000 and 1900 is not technically difficult. What is challenging, however, is finding the date fields in old undocumented computer programs and searching for date-dependent computer chips embedded in non-computer system items such as elevators and security systems. Each must be modified in order to function in the year 2000. The enormity of the problem becomes evident when you consider that these modifications must be made by every organization, public and private, on every computer system that considers dates in some manner. Then, all those modified systems must be integrated and tested to make certain they produce consistently accurate results.

Just in the Federal agencies alone, we have more than 7,850 mission critical systems which must be able to function in the year 2000. Of these mission critical systems, 1,126 are within this Committee's jurisdiction—and nearly all must be able to exchange information with each other, state and local systems, and private sector systems—to be able to make proper calculations for millions of Social Security recipients, Medicare beneficiaries and taxpayers. These systems must be able to keep accurate beneficiary records and taxpayer accounts.

What has become evident to me is that this is a major management problem with a technical component. The Federal government is not known for its ability to manage well, particularly its computer system modernization efforts. Yet millions of beneficiaries and taxpayers find themselves relying on these managers to rise to the year 2000 challenge. While it is hard to have complete confidence in agencies that historically have been unable to successfully deliver computer systems that function properly on schedule, January 1, 2000 is a finite date that cannot be missed—without effecting millions of Americans. It is our job, in Congress, to see that beneficiaries and taxpayers are protected against risks that may result in computer system errors from government systems that are not year 2000 compliant.

We are here to learn today from the major agencies within the Ways and Means Committee jurisdiction how they are progressing towards meeting the Y2K challenge and what confidence we should have that the effected taxpayers and beneficiaries will be properly served into the next century. We are interested in the risks that the agencies have identified and the actions that they are taking to manage those risks as well as their plans for contingencies.

We also will be hearing from private sector representatives about their efforts to manage risks inherent in the Y2K effort. Many of these organizations are data trading partners with our agencies, and will be affected in a major way by the success or failure of the Federal effort. Finally, we will hear from representatives from the U.S. General Accounting Office about the Y2K vulnerabilities that remain in our agencies' programs and what actions need to be taken to fix these systems in time to avoid catastrophic consequences.

This is not solely a U.S. problem; it is a global one. Edward Yardeni, a noted economist from Deutsche Morgan Grenfell, who has studied the problem, rates the odds that it will trigger a deep world-wide recession at 60 percent. While some may consider this to be a pessimistic view, the current focus on Asian financial instability and Eurodollar conversion may prevent others from committing the necessary resources to properly prepare for the year 2000 and could have serious economic consequences. There will always be pockets of those in the private sector who do not take the actions needed to look out for their business or economic interests. However, at the very least, it is our job to see that the public sector systems are ready with sufficient capacity to the economic needs of the private sector. We cannot afford to fail the millions of Americans win are relying on the public sector effort being successful.

Chairman JOHNSON of Connecticut. And at this point, I'd like to yield to my colleague, Mr. Coyne.

Mr. COYNE. Thank you, Madam Chairman.

Today, we will continue our review of the progress being made by departments and agencies within this Committee's jurisdiction to ensure a smooth computer system conversion process at the turn of the century. The year 2000 conversion process arises because many computer systems store dates using only the last two digits

for the year. For such computers, the year 2000 will be indistinguishable from the year 1900.

Correcting a year field is technically simple. However, the process of analyzing, correcting, testing, and integrating computer systems is a very complex and time-consuming task. The challenges facing the Federal Government are very similar to those facing the State and local governments, the private sector, foreign countries, and international organizations. While each entity needs to be prepared for the year 2000 internally, it is also critical that its data exchanges be year 2000 compliant in order to avoid systems breakdowns. The magnitude of the situation is daunting. Recent estimates indicate U.S. business are likely to spend between $30 and $50 billion addressing year 2000 changes, and that worldwide conversion costs could be between $300 and $600 billion.

It is timely that we review the overall year 2000 activities of the Department of Treasury, and Health and Human Services, as well as the progress being made in the Internal Revenue Service, U.S. Customs Service, the Health Care Financing Administration, and the Social Security Administration.

By and large, it appears that these Federal agencies are on track and are taking the year 2000 conversion process seriously. Nonetheless, as the General Accounting Office reported last week, and I quote: "The public continues to face a high risk that critical services provided by the Federal Government and the private sector could be severely disrupted by the year 2000 computing crisis."

In my opinion, the Subcommittee needs to ask the witnesses before us today the same fundamental questions being asked by the President's Council on the Year 2000 Conversion, and that is, what are your major risks? What are the most significant obstacles to removing those risks? And what contingency plans are appropriate in light of that analysis? From an Oversight Subcommittee standpoint, I would add two questions relating particularly to the Department of Treasury and the IRS, do you have the resources needed to get the job done? And, at the end of the day, is the conversion process going to be a success?

I look forward to exploring these issues with each of the witnesses, and I thank the Subcommittee Chairman, Mrs. Johnson, for scheduling today's hearing.

Thank you.

[The opening statements follow:]

Statement of Hon. William J. Coyne, a Representative in Congress from the State of Pennsylvania

Today, the Ways and Means Oversight Subcommittee will continue its review of progress being made, by departments and agencies in the Committee's jurisdiction, to insure a smooth computer system conversion process at the turn of the Century.

The year 2000 conversion process arises because computer systems store dates using only the last two digits for the year. For such computers, the year 2000 will be indistinguishable from the year 1900. Correcting a year field is technically simple. However, the process of analyzing, correcting, testing, and integrating computer systems is a very complex and time-consuming task.

The challenges facing the Federal Government are very similar to those facing state and local governments, the private sector, foreign countries, and international organizations. While each entity needs to be prepared for year 2000 internally, it also is critical that its data exchanges be year-2000-compliant in order to avoid systems breakdowns.

The magnitude of the situation is daunting. Recent estimates indicate that U.S. business are likely to spend between $30 and $50 billion addressing year 2000

changes, and that worldwide conversion costs could be between $300 and $600 billion.

It is timely that we review the overall year 2000 activities at the Departments of the Treasury and Health and Human Services, as well as progress being made at the Internal Revenue Service, the U.S. Customs Service, the Health Care Financing Administration, and the Social Security Administration. By in large, it appears that these Federal departments and agencies are on track and taking the year 2000 conversion process seriously.

Nonetheless, as the U.S. General Accounting Office reported last week, "the public continues to face a high risk that critical services provided by the Federal Government and the private sector could be severely disrupted by the year 2000 computing crisis."

In my opinion, the Subcommittee needs to ask the witnesses before us today, the same fundamental questions being asked by the "President's Council on the Year 2000 Conversion." They are:

- What are your major risks?
- What are the most significant obstacles to removing those risks? and,
- What contingency plans are appropriate in light of that analysis?

From an Oversight Subcommittee standpoint, I would add two questions relating particularly to the Department of the Treasury and the IRS:

- Do you have the resources needed to get the job done? and,
- At the end of the day, is the conversion process going to be a success?

I look forward to exploring these issues with each of the witnesses. I also want to thank Subcommittee Chairwoman Johnson for scheduling this important hearing.

Statement of Hon. Jim Ramstad, a Representative in Congress from the State of Minnesota

Madam Chairman, thank you for convening this important hearing on the Year 2000 (Y2K) Problem.

The possible malfunction of the government's computer systems is a critical issue for all Americans. The magnitude of this potential problem is illustrated by the number of representatives we have here today. All of our constituents have a vested interest in how the different aspects of their government are working to avoid a potential disaster.

Some progress on solving the Year 2000 problem has been made. But as January 1, 2000 rapidly approaches it is up to Congress to enure that we are doing our part to help solve this problem. We need to ensure that the people we represent are not left without the health care and financial services upon which they depend.

I am pleased that this hearing will allow us to examine what the different agencies under our jurisdiction are doing to be prepare for the year 2000 and how they are coordinating their efforts with the organizations in the private sector with which they work.

Again, Madam Chairman, thank you for your own leadership in looking into the Year 2000 computer problem by holding this critical hearing.

Chairman JOHNSON of Connecticut. Thank you very much. Our first witness is going to be Mr. Rossotti, who has to leave, so after his—after your statement, Commissioner, then I'll ask the members of the panel if they have any questions, if there's time enough for you. And, then you'll leave and we'll hear from the rest of the panel. Thank you.

Mr. Rossotti.

STATEMENT OF HON. CHARLES O. ROSSOTTI, COMMISSIONER, INTERNAL REVENUE SERVICE

Mr. ROSSOTTI. Thank you, and I appreciate that very much, Madam Chairman. And thank you for the opportunity to discuss the IRS' century date change program. I have just a brief oral

statement and I'd ask that my full testimony be included in the record.

Chairman JOHNSON of Connecticut. So ordered.

Mr. ROSSOTTI. Madam Chairman, the Y2K conversion, in conjunction with our preparations for the next filing season, are, without a doubt, our highest technology priorities. And I stress that we are very aggressively managing this almost $1 billion program. We are trying to identify risks and take timely action to ensure that the overriding goal of continuous service is fulfilled. I also want to mention, however, that on a program of this kind we have to often adjust deadlines and timetables as we identify new risks and new issues. So Y2K remains, not only a high priority, but a high risk that will require a continued intense focus by all of us to succeed.

I think that a big part of our challenge at the IRS is not only our computer programs, our applications programs which is what most people think of in terms of fixing the date field, but the enormous inventory of other kinds of technology, hardware, and software, and telecommunications that we have in the IRS. This includes about 80 mainframe computers, 1,400 minicomputers, over 100,000 personal computers, and a massive set of telecommunications networks that have over 100,000 components in them.

Because of the size of this inventory, as well as its age, fragmentation, and a wide variety of different vendor products associated with the infrastructure, the success of the overall Y2K program requires a strong central management and oversight of this whole combined program. In addition, we have to work with other outside parties such as the General Services Administration, who ensure that our buildings and facilities, including leased facilities, have operational elevators, physical security, equipment, and so forth after the century date change.

I have personally placed an extremely high priority on this Y2K project from literally the first week that I took office. One of the first things that I did was to organize an executive steering committee, which I chair myself, and it has representatives of all the key decisionmakers within the IRS, as well as the Treasury Department and even our National Treasury Employees Union. Recently, a representative from the GAO has been sitting in these meetings with us. In between these meetings, which are very important because they tend to "tee-up" exactly the decisions that we need to make, I also meet quite regularly with the Acting Chief Information Officer, and other executives to deal with specific issues and to monitor risks. We also have a variety of independent assessments going on from outside organizations, such as, consulting firms Booz-Allen and Hamilton, and Andersen Consulting, as well as active use of our internal audit staff which has actually very good technology auditing capabilities within the IRS. And, of course, the GAO assessments.

Madam Chairman, in my testimony, I want to give a balanced assessment of the situation that we're in but I don't want to minimize what is obviously a dangerous and risky situation. Let me describe some of the risk areas, and some of the things that we're trying to do about it. In addition to the conversion probe of the century date change and all the infrastructure, we have the unique situation—maybe it's not unique—but we have the situation at the

IRS that at this very time, this calendar year, we also have to implement about 750 to 800 tax law changes that stem from the 1997 Taxpayer Relief Act. Most of them are effective this tax year. These changes are being made to the same computer programs, by the same programmers and are being managed by the same people working on the century date change. So we are managing that as an integrated program with our century date change.

In order to try to mitigate that risk, one of the things that we did, that I did, actually, toward the end of last year was to try to accelerate, by at least several months, the normal schedule for doing these annual tax law changes so we would buy some elapsed time to make these changes. Nevertheless, even with that accelerated schedule, as we speak today in early May, none of these 750 to 800 changes has actually been implemented yet. In fact, some of them we met on this week and are not yet completely defined. So we have a significant job to complete that along with the century date change application programming this year.

Another important thing that we are attempting to turn our attention to right now, it has been underway for some time, but we're starting to focus more attention on it, is the planning for 1999 for our integrated end-to-end integration test. We will have to do a complete test of all these different pieces fitting together, the applications programs, the different kinds of computers, the software, and the telecommunications network. We will have to do a large-scale, integrated end-to-end for this next year.

In reflecting on this, I realize that this is probably going to be the largest single test of a business-type computer system ever, anywhere. There is no precedent that I'm aware of for this kind of a test. Planning for this is something that we have already underway and is going to be quite challenging.

Of course, we also have not only ourselves to worry about, but external trading partners as, I believe, you and Mr. Coyne mentioned in your opening statements. We have been also working on that. We have had an independent assessment with the aid of an outside firm looking at our 13 major trading partners, including the Social Security Administration, the Financial Management Service, and, of course, the key providers of our electronic payments, and our third-party information returns. And we have a program in place to work together and to identify what risks we have with those external trading partners.

Finally, I want to mention, as GAO has pointed out, that we need to also spend some of our time trying to work on contingency plans where we can, in those cases where there might not be full success in converting some of our technology. We're spending some of our effort on doing this kind of contingency planning. We're trying to focus our efforts, because we have limited management resources, on those areas where there would obviously be a high business impact, where there's a higher risk than other places where the schedule might slip. And also, of course, where there is a practical contingency plan that we can develop which doesn't apply in all cases. There are some places where there really is no contingency plan of any practical kind for the IRS. So we are working on that as well.

I guess I would just conclude by saying that this is a massive challenge. It requires a great deal of time and effort, which displaces other things that we would like to do. We will gain some benefit from this because I think the learning experience of conducting and managing this kind of a project in a place like the IRS will have some residual benefit in helping us to improve, certainly our inventory of technology, but also our management practices and our system life cycle. I think if you want to conclude where we are, I think that we are making progress. We are managing it aggressively, but clearly there are substantial risks remaining in specific technical areas, such as our tier 2 hardware and software, which is a complex area for us; our telecommunications network; and this large end-to-end integration test that we're going to have to do next year.

The final point is that I would just want to point out to the Committee, as we're discussing with members of the staff and Members over on the Senate side, that some of the provisions in the IRS restructuring bill that came out of the Senate Finance Committee, we believe need to have later effective dates than were in their draft in order for us to make this whole thing workable. This is not a matter of policy or desirability, it is just a feasibility question of how we will be able to accommodate some of these changes in light of all the other demands that we have on us. And, obviously, we have to give priority to maintaining uninterrupted service with the technology that we have.

So, let me just conclude there, Madam Chairman, and I would be happy to answer questions.

[The prepared statement follows:]

Statement of Hon. Charles O. Rossotti, Commissioner, Internal Revenue Service

Madame Chairman and Distinguished Members of the Subcommittee:

Thank you for the opportunity to discuss the Internal Revenue Service's (IRS') progress concerning the Century Date Conversion project.

PROGRAM SCOPE AND STATUS

The IRS is a huge enterprise, employing more than 100,000 individuals in service centers, regional offices, district offices and posts of duty across the United States and around the world. A $1.7 trillion financial services organization, the IRS depends on its automated systems to process tax returns, issue refunds, deposit payments, and provide employee access to timely and accurate taxpayer account data.

The IRS information technology organization faces major challenges associated with new tax law changes that require extensive reprogramming of legacy systems each filing season. For example, the Taxpayer Relief Act of 1997 requires the IRS to make more than 750 legacy systems changes for the 1999 filing season.

In addition, the scope and short time frames associated with our massive century date conversion project present tremendous challenges to our technical management of IRS systems. If not corrected, most existing application systems are programmed to display 00 in the year fields, and after January 1, 2000, would incorrectly use 1900 for the year in date-based calculations. Failure to identify, renovate and test each of these system calculations could result in catastrophic disruption to taxpayers and the government. For example, millions of erroneous tax notices, refunds, bills, taxpayer account adjustments, accounting transactions and financial reporting errors could be generated. Clearly, the IRS' role in collecting revenue supporting 95 percent of the federal government's operations could be jeopardized if the Century Date program is not completed in a timely fashion.

Adding to the challenge is our largely non-Year 2000 compliant technical infrastructure which includes more than 80 mainframes, 1,400 minicomputers, 130,000 personal computers and massive telecommunications networks comprised of more than 100,000 components. Because of the number, age, fragmentation, and variety

of products associated with this infrastructure, successful implementation of these aspects of our Year 2000 program require strong central management and oversight. Plans for upgrading and/or replacing these components must be integrated into the overall program management plan, schedule, and budget. Lastly, to ensure century date compliance, it is essential that the IRS continues to work with its landlord, the General Services Administration, to ensure that IRS buildings and leased facilities and equipment, including elevators and physical security systems, are upgraded or replaced.

Major elements of the IRS Year 2000 program are as follows:

- Application Systems Conversion

The IRS currently supports 127 mission-critical application systems comprising 85,000 modules and approximately 50 million lines of code. IRS has five phases for code conversion, each six months long, and has completed three phases to date. As of April 24, 1998, the IRS has renovated 83 of its 127 mission-critical systems and tested 62. Fifty-nine of these systems were placed back into production. These systems are working effectively and contributed to a successful filing season. We are on schedule to complete the systems conversion by January 1999.

- Tier II (minicomputer) and Tier III (personal computer) Platforms

Tier II and Tier III computers and their associated systems software (operating systems, data bases, etc.) require replacement or upgrades. Century date compliance for more than 1,400 minicomputers and 130,000 personal computers largely depends on obtaining vendor upgrades; many are only now being made available in the market place. We are currently evaluating and testing these components to ensure they are compliant. This year we will replace/upgrade over 35,000 personal computers; over 100 minicomputers will be replaced and several hundred more will be upgraded.

- Telecommunications

The critical IRS network backbone is supported through the Treasury Communications System (TCS) contract. A network component inventory was received from the contractor. We are reviewing and validating these data as well as the contractor's site specific plans to convert the network. Given the need to upgrade or replace thousands of components within the TCS network, as well as additional IRS proprietary networks which themselves comprise nearly 30,000 components, the network conversion represents a significant challenge. Integrated project management teams were formed with the TCS contractor, and we have engaged the services of other contractors to assist us in completing this critical effort.

- External Trading Partners

The IRS is but one of many data dependent public (e.g., Financial Management Service and Social Security Administration) and private sector organizations (e.g., banks and financial institutions) which both send and receive data from one another. At this time, IRS efforts are on schedule to validate the accuracy of both incoming century date compliant data from a variety of sources and outgoing IRS century date compliant data to its trading partners. Over 60 percent of our trading partner files have been made compliant, and the remainder are scheduled for conversion by January 1999.

- Non-Information Technology

A critical component of the non-information technology (non-IT) aspect of the program depends on the General Services Administration which is performing an inventory of its facilities. In addition, we are working with a contractor to complete an assessment of IRS-owned facilities and personal property. These inventories will be completed shortly, and cost and schedule information will be available in early summer.

- Testing

Even prior to identifying the Century Date Conversion testing requirements, the Information Systems Product Assurance Division, responsible for Systems Acceptance Testing, lacked sufficient resources to fulfill its mission. In 1996, the Division was able to test only 20 percent of the systems placed into production. While some progress has been made, the Division's current testing operation covers only 30 percent of the agency's production systems.

Given the critical need to undertake a comprehensive end-to-end Century Date systems test, we will dedicate significantly more IRS and contractor resources to these testing efforts. Internal IRS hiring is underway, and detailed integration test plans are currently being developed in conjunction with contractors who will support this effort.

- Mainframe Consolidation

Instead of investing more than $250 million to upgrade the agency's computer mainframes to ensure century date compliance, the IRS proposed and received Con-

gressional approval for a mainframe consolidation program that consolidates 67 mainframes currently located at 10 service centers into 12 mainframes located at two computing centers. These mainframes support IRS returns processing, customer service and compliance operations. The consolidation program will provide for both century date compliance and savings of more than $250 million over 10 years. In addition, this initiative will position the IRS to take significant steps forward in its long-term information technology modernization efforts. The rollout of a century date compliant network of approximately 16,000 personal computers and related equipment will standardize a major component of the IRS telecommunications infrastructure, thus improving the ability to communicate among systems. In an effort to mitigate risks and incorporate additional business requirements for disaster recovery and increased systems capacity based on new customer service needs, we are extending the time frame for completing the mainframe consolidation effort; however, the components of the project required to achieve Year 2000 compliance are currently on schedule and will be completed by December 1998.

- Integrated Submissions and Remittance Processing System

Integrated Submissions and Remittance Processing (ISRP) replaces the antiquated Distributed Input System (DIS) and Remittance Processing System (RPS) which form the core of the tax processing input pipeline that processes more than 200 million tax returns and accounts for tax revenues of over $1.5 trillion. ISRP is currently in pilot status at the Austin Service Center and is on schedule to be fully implemented in all 10 service centers for the 1999 filing season. As of April 18, 1998, ISRP has processed approximately two million tax returns and $1.3 billion in payments.

MITIGATING RISK

Without exception, the Century Date Conversion is the Service's highest technology priority. While the IRS assigned its most senior and qualified management to this program prior to my appointment as Commissioner, I reinforced the priority of this project by organizing and chairing a monthly Executive Steering Committee with representatives from Treasury, IRS, the General Accounting Office and the National Treasury Employees Union. As part of this process, I am personally monitoring the status of all Year 2000 activities and critical components. (See attached project overview for current status assessment.) I also meet on a regular basis with IRS' Acting Chief Information Officer and other top executives to obtain individual project status updates, monitor key risks, and make sure that necessary actions are being taken. In addition, recognizing the need to validate that we are doing everything we can to ensure that IRS is Year 2000 compliant, we initiated continuous independent assessments by organizations such as Booz-Allen & Hamilton, Inc. and Andersen Consulting, and continued Internal Audit and GAO assessments of our Year 2000 program.

I can assure you that this effort has top-level management commitment; however, I don't want to minimize the risks associated with this effort and the need to develop the following strategies:

- Planning and Implementing an Integrated Century Date Conversion and 1999 Filing Season Strategy

Considering the extent of the Taxpayer Relief Act systems changes that require reprogramming of the same legacy systems that must be made century date compliant by January 1999, it is essential to develop and implement an integrated Century Date/1999 Filing Season Plan. To mitigate risk, the IRS accelerated by several months the process for identifying the filing season related systems changes that would be incorporated into the integrated plan.

- Contingency Planning

Given the scope of the IRS program and its critical importance to both the nation's economy and its taxpayers, it is imperative that the Service's mission-critical systems continue to function properly in the new millennium. While the IRS has made substantial progress, the risks are still significant. Accordingly, the IRS must develop contingency plans to manage any adverse impacts of a less-than-fully successful century date program. These plans must address the needs of the IRS, as well as those of our data exchange partners. We intend to concentrate on those areas that have high business impact, significant Year 2000 complexity, and may not be completed on time or successfully. This will allow us to work on aspects that have the greatest risk, while leveraging the majority of limited resources on Year 2000 conversion and testing.

BUDGET

Projected FY 1998 cost estimates are $454 million, which includes:

- $ 234.3 million for Year 2000 work under the Century Date Change Project Office ($170 million appropriated; remaining covered through reprogramming);
- $ 52.4 million for the Integrated Submission and Remittance Processing System; and
- $ 167.3 million for the Service Center Mainframe Consolidation (SCMC) which also includes funding for relocation/retraining and project staff.

The IRS Century Date Change Project Office currently has specific budget requests totaling well over $170 million for fiscal year 1998. The $170 million only includes a small amount for non-IT conversion (the initial study) and additional funds are needed in this area as well as for Telecommunications, Tier II and Tier III hardware and commercial-off-the-shelf software, and Applications Conversion/ Testing for non-CIO owned systems. In addition, funding for a Human Resources Retention Allowance Strategy for key IS resources is essential to successful completion of Year 2000 activities. Both House and Senate Appropriations Subcommittees have approved the use of prior year inter-appropriation transfer authority to move unobligated balances from IRS' non-Information Systems accounts for fiscal years 1993, 1994, 1996, and 1997 to cover approximately $50 million of these additional Year 2000 requirements. The IRS is reviewing its current year resources to identify funds to cover the balance of these additional needs.

IRS' FY 1999 cost estimate for Century Date Change Project Office Year 2000 Project expenditures was $140 million, of which $50 million was held as a contingency until the IRS was able to complete its analysis of specific requirements. Since the budget was submitted, specific uses for $38.6 million of the $50 million contingency have been identified. The needs consist of: Non-Information Technology conversion, Tier III Hardware, Program Management, and the Human Resource Retention Allowance. The contingency is thus reduced from $50 million to $11.4 million. Total FY 1999 costs for Year 2000 Project Expenditures may increase as additional needs are identified.

Attached is a chart of estimated Y2K costs for FY 1997 through 2001.

OPPORTUNITIES

While the primary goal is to timely complete the century date conversion, the IRS plans to leverage a variety of opportunities stemming from the project:

- Eliminate Duplicate Applications

From an inventory of an estimated 20,000 computer applications, we asked business owners to eliminate duplicate applications and establish the "best in breed" as a national standard application. The IRS has already retired 3,000 business-supported applications, and expects to retire approximately 3,500 additional program components. Looking ahead, IRS will limit the growth of future applications to better manage its Information Technology investments.

- Create, within IS, a project planning and management environment.

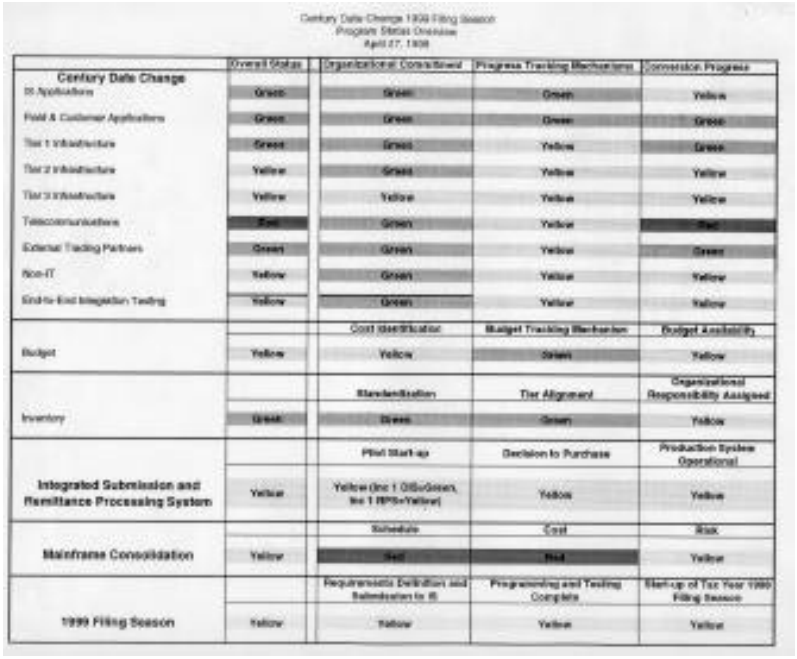
Century Date conversion is a massive project management challenge which requires the thoughtful development and faithful execution of a rigorous plan. We do not intend to walk away from the lessons learned and project management experience gained from this effort. We will use these tools and expertise in adopting systems life cycle best practices, policies and procedures for future information technology investments.

CONCLUSION

In conclusion, the Year 2000 effort at the IRS, a $1 billion project, is one of the federal government's most formidable challenges. Although we are making sustained progress and are on schedule, risks remain in specific technical areas such as Tiers II and III hardware, Telecommunications, End-to-End Integration Testing and non-Information Technology equipment. Because of its many stakeholders and interfaces, the IRS' Year 2000 program is highly complex. The IRS is working with its vendors to obtain Year 2000 compliant versions of their products. In addition, an independent risk assessment was conducted of IRS' major trading partners' Year 2000 conversion efforts (e.g., Social Security Administration, Financial Management Service, as well as key providers of electronic payments, returns and third party documents) to identify problems and work through solutions. Because the risks are so significant, the IRS is developing contingency plans to manage any adverse impacts of a less than successful Century Date Program.

Finally, the Administration has serious concerns with provisions of the IRS restructuring legislation that require changes to IRS computer systems in 1998 and

1999. Mandating these changes according to the schedule currently in the bill would make it virtually impossible for the IRS to ensure that its computer systems are Year 2000 compliant by January 1, 2000, and would create a genuine risk of a catastrophic failure of the Nation's tax collection system in the year 2000. Both Secretary Rubin and I have written the Senate Finance Committee warning them of this risk and recommending that the effective dates be modified in accordance with the schedule set forth in my April 23, 1998 letter.



Century Date Change 1999 Filing Season
Program Status Overview
April 27, 1998

	Overall Status	Organizational Commitment	Progress Tracking Mechanisms	Conversion Progress
Century Date Change				
OI Applications	Green	Green	Green	Yellow
Field & Customer Applications	Green	Green	Green	Green
Tier 1 Infrastructure	Green	Green	Yellow	Green
Tier 2 Infrastructure	Yellow	Green	Yellow	Yellow
Tier 3 Infrastructure	Yellow	Yellow	Yellow	Yellow
Telecommunications	Red	Green	Yellow	Red
External Trading Partners	Green	Green	Yellow	Green
Non-IT	Yellow	Green	Yellow	Yellow
End-to-End Integration Testing	Yellow	Green	Yellow	Yellow
		Cost Identification	Budget Tracking Mechanism	Budget Availability
Budget	Yellow	Yellow	Green	Yellow
		Standardization	Tier Alignment	Organizational Responsibility Assigned
Inventory	Green	Green	Green	Yellow
		Pilot Start-up	Decision to Purchase	Production System Operational
Integrated Submission and Remittance Processing System	Yellow	Yellow (Inc 1 OI/SuGreen, Inc 1 RPS=Yellow)	Yellow	Yellow
		Schedule	Cost	Risk
Mainframe Consolidation	Yellow	Red	Red	Yellow
		Requirements Definition and Submission to IR	Programming and Testing Complete	Start-up of Tax Year 1999 Filing Season
1999 Filing Season	Yellow	Yellow	Yellow	Yellow

YEAR 2000 RELATED STAY IN BUSINESS BUDGET NEEDS

Year 2000 Related Costs as of March 31, 1998

CENTURY DATE CHANGE CONVERSION	FY 1997 Actuals ($M)	Revised FY 1998 Congressional Level ($M)	Current FY 1998 AFS Allocation ($M)	FY 1998 Unfunded Needs ($M)	Total FY 1998 Requirements ($M)	COE per AFS ($M)	President's Budget FY 1999 ($M)	FY 2000 Requirements ($M)	FY 2001 Requirements ($M)	Total IRS Year 2000 Related Costs ($M)
CONGRESSIONAL CATEGORIES										
Conversion & Testing	42.3	64.1	64.1	0.0	64.1	41.0	128.6	30.0	10.0	275.0
Telecommunications	0.0	50.9	50.9	0.0	50.9	0.9	0.0	0.0	0.0	60.9
ADP Equipment	20.8	20.8	20.8	0.0	20.8	10.5	0.0	0.0	0.0	41.8
Operating Systems S/W (COTS)	13.6	9.0	9.0	0.0	9.0	0.9	0.0	0.0	0.0	22.6
CDC Project Office/PM	11.6	14.6	14.6	0.0	14.6	2.0	0.0	0.0	0.0	26.2
Certification	8.0	10.6	10.6	0.0	10.6	4.2	0.0	0.0	0.0	18.6
Contingency Funding	0.0	0.0	0.0	0.0	0.0	0.0	11.4	50.0	5.7	67.1
Non Information Technology (Non IT)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unfunded Needs Estimates										
Non Information Technology (Non IT)	0.0	0.0	0.0	14.5	14.5	0.0	0.0	0.0	0.0	14.5
Telecommunications (Jupiter/X.25 alt)	0.0	0.0	0.0	18.5	18.5	0.0	0.0	0.0	0.0	18.5
Tier 3 Hardware & Software	0.0	0.0	0.0	8.1	8.1	0.0	0.0	0.0	0.0	8.1
Non-CIO (Non IS) Apps Conversion & Testing	0.0	0.0	0.0	8.0	8.0	0.0	0.0	0.0	0.0	8.0
Tier 2 Hardware/COTS	0.0	0.0	0.0	12.0	12.0	0.0	0.0	0.0	0.0	12.0
HR Recruitment and Retention	0.0	0.0	0.0	3.2	3.2	0.0	0.0	0.0	0.0	3.2
1998 Filing Season Program Management	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SubTotal Century Date Change Conversion	**96.3**	**170.0**	**170.0**	**64.3**	**234.3**	**59.5**	**140.0**	**80.0**	**15.7**	**566.3**
MAINFRAME CONSOLIDATION	43.8	157.7	160.3	0.0	160.3	138.3	76.0	38.4	6.7	325.2
Retraining/Relocation	0.0	7.0	7.0	0.0	7.0	0.0	0.0	0.0	0.0	7.0
ISRP (DISRPS REPLACEMENT)	31.3	49.0	52.4	0.0	52.4	13.0	18.0	0.0	0.0	101.7
Total - CDC and Related Programs	**171.4**	**383.7**	**389.7**	**64.3**	**454.0**	**210.8**	**234.0**	**118.4**	**22.4**	**1,000.2**

1) FY 1996 expenditures are reported at $1.69M (MD510)
2) Current FY 1998 Allocation includes prior year funding sources of $97M
3) FYs 1999, 2000, and 2001 provide no category breakout. Intent is to adhere strictly to BOC/AFS breakout in FY 1999 and beyond, which is readily available on standard AFS reports.
4) CDC project office totals reflect a COE of $89.5 (difference is due to requisitions in signature process and financial plan changes project office considers as commitments and not available).
5) Unfunded needs will migrate into the Congressional Categories as they become funded

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Chairman JOHNSON of Connecticut. Thank you, Commissioner. You mentioned a couple of different times in your testimony that your, that dates were being adjusted.

Mr. ROSSOTTI. Yes.

Chairman JOHNSON of Connecticut. At one point you had hoped to complete most of the work by January 1999 in order to be in a better position to test and to do the kind of end-to-end integration

testing that is necessary. What has happened to that January date?

Mr. ROSSOTTI. Well, the January date is still the target date for all the critical, mission-critical things that we have to be able to complete in time to have this end-to-end test. But, there are some things that we can delay. For example, our mainframe consolidation project has also the objective of cost savings and bringing all the computers into two computing centers, there are some parts of that where we don't have to absolutely have to do the consolidation effort in 1998 because we do have the ability to upgrade some of the computers that are out in the service centers. So we're going to do that, we're going to upgrade, as one of the contingency plans I mentioned, the mainframes that are out in the service centers that will allow us to have more time to do the consolidation without impacting on our ability to do the filing season in 1999 and the integration test later on. That's an example of one of the kinds of dates. And that's a pretty big one because that's a very major part of the project and it's also a large consumer of management time.

In addition, there are other things that we adjust. For example, as a result of an internal audit project which I requested, which did a sample testing—did a test of a sample of some of the programs that have been converted. We found that there were some procedures that needed to be adjusted but there were also some certain kinds of errors that were detected that we had not been, I think, finding and fixing adequately enough. So we've added another step in there that we're going to do this summer to do a complete additional kind of test at the component level of the inventory of application programs. Those are the kinds of things I'm talking about where we're adjusting dates and adjusting programs as we get new information.

Chairman JOHNSON of Connecticut. In your earlier discussions, you were very high on at least succeeding and completing one of the consolidation centers——

Mr. ROSSOTTI. Yes.

Chairman JOHNSON of Connecticut. It sounds to me like you're probably deferring that effort now?

Mr. ROSSOTTI. No, we're not deferring the whole effort. We're working very hard on it. That whole mainframe consolidation has a number of different pieces to it. The two pieces that are absolutely critical for Y2K, because there's no alternative, are what's called the Communications Replacement System, and the replacement of some of the desktop top terminals. Those are, within a small margin, reasonably on schedule. The piece that involves actually taking all the mainframes out of the 10 service centers and bringing them in is the part where we have more flexibility with respect to Y2K. What we've done is we have one of those service centers that's in Memphis, converted and running on a test basis.

The second one is Kansas City, that's targeted for, I think, early summer. And what we're going to do in the Kansas City one is really the critical one in terms of testing how well the process is going to work. We're going to see how well that works and do some additional testing before we finalize the other schedule. Right now, we think the best estimate is that we can do Memphis and Kansas City plus two additional ones this year which would leave six for

next year. But those other six, or even eight if we had to, can be upgraded in place and we are planning as contingency plan to do that. So, I think, we've got the bases covered on that particular program in terms of Y2K.

Chairman JOHNSON of Connecticut. Thank you, Commissioner.

Mr. Coyne.

Mr. COYNE. Thank you, Madam Chairman. Commissioner, you indicated that you and Secretary Rubin had written a letter to the Senate Finance Committee. I wonder if we could have a copy of that letter?

Mr. ROSSOTTI. Sure.

Mr. COYNE. For the record.

Mr. ROSSOTTI. We'll get that for you.

[The following was subsequently received:]

DEPARTMENT OF THE TREASURY
INTERNAL REVENUE SERVICE
March 31, 1998

Honorable William V. Roth, Jr.
Chairman
Committee on Finance
United States Senate
Washington, D.C. 20510

Dear Mr. Chairman:

I am writing to provide the Senate Finance Committee information about provisions under consideration as pail of the IRS restructuring bill which, in order to implement, will require charges in IRS computer information systems.

As is noted in one of the provisions of the restructuring bill, it is essential that the work needed to make the IRS computer systems comply with the Century Date Change be given priority. If these changes are not made and tested successfully, computer systems on which the IRS directly depends for accepting and processing tax returns and tax payments will cease to function after December 31, 1999. in order to accomplish this change, a massive effort is underway now and will continue through January 2000. This project, one of the largest information systems challenges in the country today, is estimated to cost approximately $850 million through FY 1999 and requires updating and testing of about 75,000 computer applications programs, 1400 minicomputers, over 100,000 desktop computers, over 80 mainframe computers and data communications networks comprising more than 50,000 individual product components. In addition, the data entry system that processes most of the tax returns must be replaced.

Most of the work to repair or replace these Individual components must be done prior to the tax season that begins in January 1999, and thus is at its peak during calendar 1998. During this peak period, the IRS must also make the changes necessary to implement the provisions of the Taxpayer Relief Act of 1997 which are effective in tax year 1998. These changes are still being defined in detail but are currently estimated to require about 800 discrete computer systems changes.

The most critical systems to which these changes must be made are systems that were originally developed in the 1960's, 1970's and 1980's, and many are written in old computer languages. A limited number of technical staff have sufficient familiarity with these programs to make changes to them. Furthermore, the IRS suffered attrition of 8% of this staff during FY 97, which attrition has continued at the same or higher rate until recently. In part, this attrition reflected the very tight market for technical professionals as well as a perceived lack of future opportunities at the IRS.

This extraordinary situation has required the IRS to commit every available technical and technical management resource to these critical priorities and to defer most other requests for systems changes at least during calendar year 1998.

For these reasons, it will not be feasible to make any significant additional changes to the IRS systems prior to the 1999 ailing season, pushing the start of all additional work to about the second quarter of calendar 1999. Furthermore during 1999. a major amount of additional work will be required to perform the testing to ensure that all the repaired or replaced components work as expected prior to January 1, 2000. Given the magnitude of the changes, it is likely that additional work

will be required to repair defects and problems that will be uncovered during the testing in the second half of 1999. Thus, while some capacity to make systems changes is projected to exist in 1999, there is considerable uncertainty about how much capacity will in fact be available even during calendar 1999.

With this context in mind, we have attempted to identify the provisions in the restructuring bill that require significant changes to computer systems and estimate how much staff time would be needed to implement these changes. Based on this very preliminary analysis, we have prepared a list of recommended effective dates if these provisions are adopted. In all cases, we would strive to implement the provisions sooner if possible. In addition, two provisions entail both significant systems and policy issues. For these items, which are discussed first, we suggest an alternative approach.

ALTERNATIVE APPROACH

1. Require that all IRS notices and correspondence contain a name and a telephone number of an IRS employee who the taxpayer may call. Also, to the extent practicable and where it is advantageous to the taxpayer, the IRS should assign one employee to handle a matter with respect to a taxpayer until that matter is resolved.

Concern: We agree with the objectives of this proposal, but are concerned because it would entail a total redesign of customer service systems, and would actually move the IRS away from the best practices found in the private sector. We do support the proposal that the IRS should assign one employee to handle a matter with respect to the taxpayer where it is both practicable and where it is advantageous to the taxpayer.

The proposal would affect the Masterfile, Integrated Data Retrieval System (IDRS), and any system supported by IDRS (including AIMS and ACS). In addition, the proposal is likely to decrease the customer service we are trying to improve through our expansion of access by telephone to 7 days a week, 24 hours a day. The assignment of a particular employee for a taxpayer contact could actually increase the level of taxpayer frustration as the named employee may be on another phone call, working a different shift, or handling some other taxpayer matter when taxpayers call. In addition, consistent with private sector practices, we are currently installing a national call router designed to ensure that when a taxpayer calls with a question, the call can be routed to the next available customer service representative for the fastest response possible.

Proposal: Require that the IRS adopt best practices for customer service with regard to notices and correspondence, as exemplified by the private sector. Require that the IRS report to Congress on an annual basis on these private sector best practices, the comparable state of IRS activities, and the specific steps the IRS is taking to close any gap between its level and quality of service and that of the private sector. Furthermore, the IRS could be required to put employee names on individual correspondence it could require all employees to provide taxpayers with their names and employee ID numbers; and, finally, it could record, in the computer system, the ID number of the employee who takes any action on a taxpayer account.

2. The proposal would suspend the accrual of penalties and interest after one year, if the IRS has not sent the taxpayer a notice of deficiency within the year following the date which is the later of the original date of the return or the date on which the individual taxpayer timely filed the return.

Concern: We agree with the objective of the proposal to encourage the IRS to proceed expeditiously in any contact with taxpayers, however, our systems are currently unable to accommodate some of the data requirements with the speed necessary to make this proposal workable, In addition. we are concerned that the proposal could have the perverse incentive of encouraging taxpayers to actually drag out their audit proceedings rather than work with the IRS to bring them to a speedy conclusion. Our administrative appeals process, which is designed to resolve cases without the taxpayer and the government incurring the cost and burden of a trial, could also become a vehicle for taxpayers to delay issuance of a deficiency notice.

Proposal: Require the IRS to set as a goal the issuance of a notice of deficiency within one year of a timely filed return. Mandate that the IRS provide a report to the Congress on an annual basis that specifies: progress the IRS has made toward meeting this goal, measures the IRS has implemented to meet this goal, additional measures it proposes toward the same end, and any impediments or problems that hinder the IRS' ability to meet the goal. In addition, the proposal could reemphasize the requirement that the IRS abate interest during periods when there is a lapse in contact with the taxpayer because the IRS employee handling the case is unable

to proceed in a timely manner. The IRS could be required to provide information on the number of cases in which there is interest abatement each year in the report.

EFFECTIVE DATES

We propose the following effective dates for specific provisions. These dates are driven by the capacity of our information technology systems, not the impact of the policy. Some of these provisions would be fairly easy to implement, but in total and in conjunction with all the other demands on our information technology resources it is simply not feasible to implement them until the dates proposed. If the situation changes, we will strive to implement the provisions sooner.

The effective date for many of these charges is January 31, 2000. Given that all of these changes must be made compatible with the Century Date Change, we believe we will need the month of January 2000 to ensure all the Century Date Charges are successful before implementing the provisions listed below.

• Allow the taxpayers to designate deposits for each payroll period rather than using the first-in-first-out (FIFO) method that results in cascading penalties.

—Effective immediately for taxpayers making the designation at time of deposit.

—Effective July 31, 2000 for taxpayers making the designation after deposit.

• Overhaul the innocent spouse relief requirements and replace with Proportionate liability, etc.

—Effective date: July 31, 2000. The IRS has no way of administering proportionate liability with our current systems. This provision would require significant complex changes to cur systems and is likely to be cumbersome and error-prone for both taxpayers and the IRS,

• Require each notice of penalty to include a computation of penalty.

—Effective date: Notices issued more than 180 days after date of enactment

• Develop procedures for alternative to written signature for electronic filing.

—The IRS is already preparing a pilot project for filing season 1999. Subsequent roil out of alternatives to written signatures for electronic filing will depend an the success of the pilot.

• Develop procedures for a return-free tax system for appropriate individuals.

—This provision should be interpreted as a study of the requirements of a return-free tax system and the target segment of taxpayers. Actual implementation will be based on the findings and conclusions of the study.

• Increase the interest rate on overpayments for non-corporate taxpayers from the federal short-term interest +2% to +3%.

—Effective date: July 31, 1999.

• Do not impose the failure to pay penalty while the taxpayer is in an installment agreement.

—Effective date January 31, 2000.

• Require the IRS to provide notice of the taxpayer's rights (if the IRS requests an extension of the statute of limitations). Require Treasury IG to track.

—Effective date: January 31, 2000.

• Require IRS to provide on each deficiency notice the date the IRS determines is the last day for the taxpayer to file a tax court opinion. A petition filed by the specified date would be deemed timely filed.

—Effective date: notices mailed after December 31, 1998.

• Require the Treasury IG to certify that the IRS notifies taxpayers of amount collected from a former spouse.

—Effective date: January 31, 2000,

• Require the IRS to provide notice to the taxpayer 30 days (90 days in the case of life insurance) before the IRS liens, levies, or seizes a taxpayer's property.

—Effective date: 30 days after date of enactment for seizures; January 31, 2000 for liens and levies.

• Require the IRS to immediately release a)levy upon agreement that the amount is "currently not collectible."

—Effective date: January 31, 2000.

• Waive the 10% addition to tax for early withdrawal from an IRA or other qualified plan if the IRS levies.

—Effective date: January 31, 2000,

• The taxpayer would have 30 days to request a hearing with IRS Appeals. No collection activity (other than jeopardy situations) would be allowed until after the hearing. The taxpayer could raise any issue as to why collection should not be continued,

—Effective date: January 31, 2000.

• IRS to implement approval process for liens, levies. and seizures.

—Effective date: implement procedure manually 60 days after date of enactment; implement system for IG tracking and reporting January 31, 2000.

The following items were proposed in the Administration's FY 1999 Budget. In conjunction with the other proposals in this bill, they will also require significant systems changes:

- Eliminate the interest rate differential on overlapping periods of interest on income tax overpayments and underpayments.
- Prohibit the IRS from collecting a tax liability by levy if: (1) an offer-compromise is being processed; (2) within 30 days following rejection of an offer; and (3) during appeal of a rejection of an offer.
- Suspend collection of a levy during refund suit.
- Allow equitable tolling of the statute of limitations on filing a refund claim for the period of time a taxpayer is unable to manage his affairs due to a physical or mental disability that is expected to result in death or last more than 12 months. Tolling would not apply if someone was authorized to act on these taxpayers' behalf on financial affairs.
- Ensure availability of installment agreements if the liability is $10,000 or less.

Finally, we would attempt to immediately implement the cataloging of taxpayer complaints of employee misconduct and would stop any further designation of "illegal tax protesters." However, there may be some systems issues with regard to these proposals that could delay certain changes until some time in early 1999.

I look forward to working with you, the Finance Committee, and the Congress as we strive to restructure the Internal Revenue Service.

Sincerely,

CHARLES O. ROSSOTTI
Commissioner

cc: Senator Daniel Patrick Moynihan, Ranking Minority Member

Mr. COYNE. And also if you could discuss the major two or three taxpayer rights provisions that you say need a delayed effective date?

Mr. ROSSOTTI. I'll mention a few. I don't have the letter with me. I'll mention a few that are at the top of my mind, but there's actually more than a few that I'm afraid need some delayed dates, or actually some alternative ways of handling them. I mean, one example that I think is well intentioned in its objective is a provision that would require us to put the name of an individual employee on all notices that are sent to taxpayers. This is a really major problem because most of the time a notice is like a phone bill or something. It isn't associated with an individual employee and our whole strategy for improving customer service is to take advantage of all our resources across the country so that we can get a phone call through to the first available assister, first available customer representative. So that approach would be really a major problem in a number of ways. One is related to century date. The other is it really has to be rethought as to how we would do that one. I think that one is very problematical except for a small number of notices that are individually generated correspondence by individual, for example, revenue agents. That part is fine. Within a reasonable timeframe we can do that, but on the larger volume of notices, it isn't going to work. Another one has to do with the penalties on installment agreements. This was one that clearly, you know, everybody seems to agree to make sense. But it requires some significant reprogramming to deal with the way the penalty revision is in the taxpayer rights provision, and, you know, this gets right at the heart of the kind of resource requirements that we have for the year 2000.

So, for example, on that one we requested, I believe, to put the effective date off. In most cases, what we've asked for is to put the effective dates off so that we can fold them into the work we're going to do in 1999 that would go into effect after the turn of the century in the year 2000 filing season. And that is an example of that one. There are a fairly long list of others. There are some others that the Joint Committee staff has come up with. Some are, I think, practical ways to deal with them in the short term that we agree with.

So we're trying to work this issue and accommodate as many things as fast as we can. And I actually feel it's very unfortunate that we're in a situation where there are provisions that we all think, you know, are desirable and we're asking to put them off because of this reason. But that is, in fact, the reality that we're in.

Mr. COYNE. What are the departments, the IRS high-risk areas likely that are going to require a backup plan. For instance, would you issue refund checks annually?

Mr. ROSSOTTI. Well, the high-risk areas, I think, right now, the highest risk areas are the telecommunications network, what we call the tier 2, the middle-size minicomputers because they are in the IRS not very standardized and we have quite a bit of work to do on them. And I think more than anything is just the integration of all this into a comprehensive test plan. Those are the three most important.

Now, we also have risks on the mainframe consolidation but I think that one we do have a contingency plan for the parts that are higher risk if we were implementing that contingency plan. I mean, if you look at what would be a contingency plan for issuing refunds, if you don't have your computer systems, frankly, I don't think you can issue 90 million refunds in any way without the computer systems working. So for at least the main key systems we really have to get them to work which is why we're trying to get all those key things done by January 1999 so we have all of next year to test it.

I don't want to make this whole thing bleak. I want—because we are talking about risks but there also are things, some very positive things here, because I can see that I'm falling into the trap here of just talking only about the risks. I mean, we have implemented on the application programs a substantial number of change programs and put them into production for the filing season. It was very successful. It was last year. And that's very important because we actually got the majority, more than half, of our applications inventory back into production and already ran through a filing season. That doesn't completely test it but it's a pretty good sign. We only had a few examples of noticeable failures that affected taxpayers in the 1998 filing season. So, that is a very positive point to keep in mind.

Mr. COYNE. Thank you.

Chairman JOHNSON of Connecticut. That's very impressive.

Mr. Portman.

Mr. PORTMAN. Thank you, Madam Chair. Commissioner, you kind of jumped into a difficult situation here, haven't you?

Mr. ROSSOTTI. I knew it was here.

Mr. PORTMAN. Yes, I think I speak for all members of this panel; we're glad you have the experience and expertise to be able to try to run this marathon at a sprinter's pace which is what your former CIO, Chief Information Officer, told the IRS Commission about a year ago. And I assume from what you're telling us today that, in fact, you are sprinting?

Mr. ROSSOTTI. The date is not going to move. I mean, we have to get it done. And really, I think, as Madam Chairman said, we really have to get it done, most of it by January 1999. I mean, that is a very important observation for the IRS. We have to get it through so we can use it for the filing season.

Mr. PORTMAN. There's no extension?

Mr. ROSSOTTI. Pardon me?

Mr. PORTMAN. There's no way to file an extension on this deadline? [Laughter.]

Mr. ROSSOTTI. There's no way to file an extension, yes, exactly. It would be good. [Laughter.]

Mr. PORTMAN. OK, I've got three quick questions and I hope we can get through them, and I appreciate your working through the answers quickly also. In that March 31 letter that Bill Coyne just referenced, he talked about human resources. And my question to you, I guess, goes to some of the disturbing things you mentioned in the letter. One, you said you suffered an 8-percent attrition rate of your technical staff during fiscal year 1997. That continued, I think, until recently. And even though this 10-percent retention allowance that you give to, I think, about 1,000 programmers has helped, it seems to me that you're still not going to be able to do this internally. You're going to be relying more and more on the contractors, particularly, the TIPSS people, is that correct?

Mr. ROSSOTTI. Well, yes, but, unfortunately—we are where we can but, unfortunately, the contractors are in short supply but more importantly for some portions of this, it really is not practical to use contractors. I mean, we have to have people that are experienced. Some of these people in the very short term really can't be replaced with contractors.

Mr. PORTMAN. How are you going to keep these people? I guess my question is do you have the depth of resources, do you have the ability to keep the good people you have already, retain contractors?

Mr. ROSSOTTI. Well, we did the six-point program to try to retain the people and I don't have up-to-date figures yet. I can get them for you, Mr. Portman.

[The following was subsequently received:]

Since March 15, 1998, we have been paying a 10% retention allowance to over 800 eligible technical staff (Programmers within Information Systems and other areas of the agency). Our purpose in paying this allowance was to stabilize and ideally, reduce our attrition rate, which stood at 7.9% for fiscal year 1997. At this time, it is too soon to tell what impact the 10% retention allowance is having on our attrition rate.

We have begun measuring our attrition rate on a quarterly basis. In addition, we will simultaneously gather information as to why people are leaving. We expect this data to provide us with additional insight into those workplace factors (in addition to pay) that contribute to retaining qualified technical staff, which will benefit our future recruitment and retention efforts.

To further address the attrition issue we have recently undertaken a series of recruitment actions combined with additional hiring incentives as noted below.

• We have utilized a variety of recruitment vehicles in an attempt to attract a diverse and highly qualified group of candidates for our technical vacancies including; OPM's website, paid and unpaid ads in the Washington Post, various military publications and websites, technical career job fairs, and local colleges. In response the Service has received over 1000 telephone inquiries and numerous electronic mail contacts. In addition we have participated in three technical job fairs sponsored by private sector and minority organizations. In the first week following a Mike Causey column in the Washington Post, publicizing our recruitment efforts, over 500 calls were received from potential applicants.

• Since March 1998, the Service has posted multiple vacancy announcements for experienced technical professionals (programmers, systems developers, etc.). We have received over 800 applications (combination of external and internal candidates) for these positions. We are screening the applications to determine those with the required technical skills and will make selections accordingly. Those vacancy announcements have in some cases included additional hiring incentives such as:

—Potential recruitment bonuses of up to 25 percent of basic salary for new recruits and potential eligibility for retention allowances for qualified employees who remain with the Service for a minimum of 6 months of continuous service.

—In addition, we are planning to give temporary appointments to qualified retired annuitants using OPM's recently delegated authority (to IRS) for "waiver of dual compensation offset." This waiver will be offered to individuals, on a case by case basis, who will be working solely on Year 2000 conversion efforts.

Mr. ROSSOTTI. But I've heard reports that we seemed to have turned it around to some degree. I mean, some of the attrition seems to have slowed down but we need to get a couple more months' data to see if that's going to be the case. I mean, it's really essential to retain the people we have. Part of this was not just the money. It was conveying a message to the people that there's really a future for these people at the IRS because they've been getting a lot of mixed messages about whether there was going to be any programmers left at the IRS.

You know, we're going to need these people, no matter how many contractors, we're going to need these people even as we go through the modernization blueprint. So, I think we've tried to do a little bit in terms of more than just the dollars but getting across the message that these people do have a future at the IRS, and that's very important.

Mr. PORTMAN. Well, I think you need to tell us when that becomes a problem or there needs to be something done because we are all familiar with the escalating salaries in the private sector for these kind of technicians.

My next question has to do with the telecommunications. You mentioned in your testimony you have a massive set of telecommunications networks that are also creating a major challenge for you. In response to Mr. Coyne's question, you said it's a high-risk area. I just looked over Mr. Flyzik's testimony for later, and I know Treasury, through its communications system, believes it can meet your needs. You testified before the House Appropriations Committee saying that you thought it was a big problem. And my question to you is, given the degree to which we transmit data through telecommunications and to the degree to which that's really important for the IRS' viability and ability to make it through the filing season, the next two filing seasons, are you satisfied with the progress we've made, and having, again, looked at Mr. Flyzik's testimony, do you agree with him that the Treasury system is able

to, which is a pretty optimistic view, I think, support all of your needs?

Mr. ROSSOTTI. Well, I think that the question is will we be able to make it compliant in time, which is by 1999? And this has been a high-risk area and we identified it as a high-risk area. Within the last, I would say, month or 6 weeks working with Jim and Nancy Killefer who is the Assistant Secretary for Management, as well as internally, this is not just the Treasury, there are a lot of networks inside the IRS.

In fact, there's more inside of the IRS than there are ones—so what we've done is we've set up something that will, I think, make this thing work. That is a combined, integrated program management structure that is combined, meaning it includes all the different pieces of the puzzle in one roof which is really what we needed. I mean, we were not ever going to get there, I think, treating them as separate pieces.

Mr. PORTMAN. Do you have contingency plans for the telecommunications side? You didn't talk about that in your testimony.

Mr. ROSSOTTI. I don't have, we don't have the contingency plans for the telecommunications side at this point.

Mr. PORTMAN. I think that's one we all need more focus on because we talk a lot about the computers and less about that critical part.

Mr. ROSSOTTI. I think this combined management program that we put together in the last month, I think is really the key to making this whole thing work.

Mr. PORTMAN. But without a backup.

The final question, quickly, with regard to electronic filing, as you know, in our House-passed legislation, we came up with a solution that a signature was not required to be submitted to the IRS, that taxpayers could keep that signature on file. As you know, I have a bias here. That's the approach that I think makes the most sense. It's simple. It doesn't involve some of the Y2K issues that some other approaches might.

You mentioned in that same letter, March 31, that I'm looking at that you're developing a pilot project to test alternatives to the written signatures, and I just wonder if you believe that approach has merit? Again, it seems to me that the simplicity and the low taxpayer burden and then the Y2K problems——

Mr. ROSSOTTI. Yes.

Mr. PORTMAN [continuing]. Would all suggest moving toward doing something that's more in the lines of what we recommended in the House side.

Mr. ROSSOTTI. Yes, I think it does. I think it does. What we're trying to do in 1999 is to take advantage of what we've got that requires the least change to be able to allow more taxpayers to be able to file electronically without having to do this separate transaction. I've got Mr. Barr, who has come with us, who is actually focusing on that and we're going to be having some meetings. In fact, we were supposed to have them this week but they got postponed until next week to look at what he's going to propose, as to how exactly we're going to do this pilot for next year. So maybe what I should do is get that and get back to you with a report on that particular question.

Mr. PORTMAN. I guess my one comment would be that to the extent that we have all these other Y2K problems, why load it up with yet another issue——

Mr. ROSSOTTI. Right.

Mr. PORTMAN [continuing]. When there may be a simpler approach, not just because it's our approach but it's one that I think would result——

Mr. ROSSOTTI. OK. We're going to have this, literally within the next week we're having meetings on this, I'll get back to you on that question.

[The following was subsequently received:]

For 1999, the IRS is working toward an authentication pilot as a means of increasing electronically-filed returns. The pilot will use an alternative method of signature to replace the paper signature jurat, Form 8453. Based on the responses to Electronic Tax Administration's Request for Proposals, the IRS is currently considering a number of options for testing alternative methods next filing season.

Mr. PORTMAN. Thank you. Thank you, Madam Chair.

Chairman JOHNSON of Connecticut. Mr. Kleczka.

Mr. KLECZKA. Thank you, Madam Chair. Mr. Commissioner, thank you for appearing today. I also admire your courage in accepting this responsibility to run the Service. Now, as I understand some of the future tasks ahead for you, you have about 700 to 800 tax changes that have to be put online as per the 1997 tax bill, you have a major IRS reform bill that the IRS will have to implement in a short period of time. There's talk here in Congress of another major tax bill for 1998 which naturally will have to be up and running by 1999. And then you have the year 2000 problem.

Now, I know if you don't get all this accomplished, there will be folks around the Capitol here that are going to be after your hide. And I think that's something you probably already have accepted. But my question is, and I think it's something that you have to put in the record, do you have the resources to complete all of these tasks? I know full well that you're on the Hill every day responding to congressional hearings. You're here again today. The Service is not held in the highest regard nationwide. What can we provide to you so that all these tasks can be accomplished?

Mr. ROSSOTTI. I think what we need most is to work with you on the timing of new requirements. I mean, and, of course, the budget is also important. Although, I will say for fiscal 1998, for this moment, we've gotten the budget that we need. We really have the dollar resources for this fiscal year, and as we go forward, the 1999 appropriations, we'll have to look at that. But for this fiscal year we've got it. But you're quite right. I mean, we have an extraordinarily thin management structure at the IRS. We've got quite a few vacant positions in key management positions, especially in information technology and we have a lot going on and I think this is exactly why, I mean, this is the fundamental reason why I've asked so strongly that the effective dates on some of the new provisions in the new bill be postponed. It's not the substance of them, it's just the practical issue of how to get them done. I really ask that those be put out.

In most cases, there are a few exceptions, but in most cases, out beyond year 2000, which I know is a long time and it's not something that people like, but it's the honest statement of what I think we have to do to try to have a chance to succeed with this. I think, you know, obviously that would be equally true of any new, any additional tax bills that might be passed. It would be a matter of when these dates are made effective, you know, depending on the provisions.

Some of them may not affect computer systems that much but any that affect computer systems, and most of them do, really for the rest of this calendar year we really cannot cram anything more into the situation. It's already high risk, and to put more in is really not reasonable. Even in 1999, in theory, we will have additional capacity in 1999 in order to implement in the year 2000, after the date change. And from a purely numerical standpoint, in terms of staff capacity, we do have some, but we also have all these risks of integrating all these things and so there's a great deal of uncertainty as to how much even we'll be able to do in 1999.

Mr. KLECZKA. OK, well, I respect you coming forward and saying that when it comes to the IRS reform bill, there are some things you just can't accomplish immediately. Know full well, we want it done yesterday not tomorrow. But as we go through this session and, as the Ways and Means Committee looks at the Tax Code again, I would hope that you would not be bashful of coming forward again and saying, ''This is overload for the agency, my friends. We just can't do it. We ask that you consider a different track.'' So I, when you come before the Full Committee later in the year, I'll be again broaching this same subject matter to make sure that we're not setting you and the agency up for failure, which I think would be very unfair.

Thank you very much.

Chairman JOHNSON of Connecticut. Thank you.

Mr. Hulshof.

Mr. HULSHOF. Mr. Commissioner, I certainly don't want to be seen as piling on and appreciate the very forthright nature in which you've presented yourself these past weeks. Because we've got some excellent witnesses and I'm sort of reading ahead, I wanted to present to you some of the concerns that GAO has suggested. I know in your written testimony you mention that you did, in fact, consult GAO, particularly as it relates to mitigating risks and there's a concern that's been expressed by GAO regarding the contingency plan, and I just wanted to mention this and then ask for your comment.

One of the concerns that GAO has raised is that your contingency management plan doesn't address a likelihood that information systems that are converted on schedule may experience some systems failures. Would you care to comment on that particular concern?

Mr. ROSSOTTI. First of all, let me say that I think that one of the resources that I'm trying to make use of to identify risks such as, I mean, the whole point of managing a project like this is to identify risks, get them out there, and take action as early as possible. And I've been using every resource I can, including GAO, very

helpfully. In fact, now, I've got GAO, you know, attending our own steering committee meeting so we're welcoming this kind of input.

I think with respect to contingency plans we do need to do more on contingency plans. In some cases, we've already taken some action like in mainframe consolidations. The difficulty we have, frankly, is that in some cases it may not be practical really to develop really very viable contingency plans for some aspects of what we're doing.

But, second, the other problem we have is that the very people who are managing the program, in many cases, are the people who would have to divert time to developing contingency plans. I mean, given that our limited resource is management, which it really is even more a limiting of factor, as much of a limiting factor as staff, we even have to be careful to allocate our management resources to even doing things like contingency plans. We are going to do more in that area, and there are some that we've already done. We certainly are going to continue a very intense dialog with GAO on trying to get their help in identifying these risks and responding to them. But, in the end, we do have to sort of allocate our critical resources in the best way we can. And we really don't have enough to do everything that we'd like to do in some areas.

Mr. HULSHOF. Do you see as a problem, and Mrs. Johnson asked a question about, that the time tables are somewhat fluid. I think initially the hope was that 10 service centers would be up and ready to go by January 1999, now somewhat of a fudge factor that maybe we'll get five online, I mean, do you see this as potentially exacerbating the problem regarding contingency plans?

Mr. ROSSOTTI. Well, in the mainframe project, with the consolidation project, which is a very large project, that is one where because of its size and because there are practical options we are implementing a contingency plan which is practical. In fact, we're already doing it. We're going to upgrade the operating software for the mainframes that are in the service centers so that even if we don't convert them, we will still be able to operate them. It won't be as efficient. It will cost more money but we'll still be able to do it. There is another piece, this broad project called ''mainframe'' actually has about five pieces to it.

There is another piece, a very important piece, which is a communications computer which really has no contingency plan, practically speaking, because we really have to replace that. It's sort of in the middle of everything. But we have put a lot of emphasis on that piece, obviously, and that one we are, more or less, on schedule and we will be able to get that one through. So this is what we're—when I said, adjusting, this is the kind of thing we're doing. We keep drilling down deeper and deeper and say, well, this is the piece that's absolutely critical; we don't have a backup; we've got to get it done, and you put the emphasis on it. The other part you find a way, you know, allocate your resources that it can at least, you know, be sure to get you through even if you don't do it exactly the way you want it to. And that's the kind of thing that consumes an immense amount of management time, our scarce resource.

Mr. HULSHOF. Thank you, Commissioner. And Madam Chairman, I yield back.

Chairman JOHNSON of Connecticut. Thank you, Mr. Hulshof.

Ms. Dunn.

Ms. DUNN. Thank you, Madam Chairman. This is fascinating to hear you. We're very glad you're there, Mr. Rossotti, because we know that you understand the problems we've had with the IRS in the past, and that you're a management expert and you're going to do the best you can. And we all hope that working together we can make it turn out to be a really good job.

I was pleased in your testimony that you talked about some of the opportunities you have and I think that will be useful information to put at the beginning of any speech you give on this because we all realize how complicated this Y2K problem is going to be. I speak, having the background of a former systems analyst for IBM and, because I recall spending many nights and weekends at businesses to whom the equipment was oversold trying to bail people out and trying to find the bugs in the system. I guess I focus mostly on the complicated aspect of testing the changes that are going to be made. And I wonder if you could spend a minute or two just telling us what your experts have told you on how you're going to do this testing, and whether you're going to run parallel systems, or how are we going to know by the year 2000 that we're not going to have a problem collecting taxes from the people who are out there trying to pay them?

Mr. ROSSOTTI. First of all, let me say that your focus on testing data is on target. I mean, that's the hardest part of this whole program, I mean other than just managing the whole thing together, but without a doubt, testing. And the reason is because obviously even though each little change is fairly simple, as some of the other Members had noticed, when you have this many thousands and thousands of changes in many different kinds of components, finding the place where there's an error when it all fits together is the hard part. And I think that, therefore, what, I think, we're trying to do is we're trying to have testing at many levels. We're testing each, you know, at the component level. For example, in the programs there's testing, there's testing of the systems, the individual application systems before we put them, for example, back into the filing season.

On the telecommunications network, with Mr. Flyzik's help with the contractor that's working with us there, they have test lab set up where they're testing in the case of these different vendor components that they all fit together at the lab level. And then we've got another contractor, I mean, I hope I'm not being too long. We've got another contractor which is from the original Bell companies that's a telecommunications expert company that's doing a special test of some of the end-to-end pieces in the telecommunications network. We have another lab that's testing our minicomputers. So we've got all these levels of testing. Then the next and last piece, or the last piece is really the big integrated end-to-end test that we have to do in 1999 and that's really an unprecedented test. I mean, I was in the business for 28 years, I never heard of anything this big anywhere. So we are working now, OK, with a contractor to develop that end-to-end test and we're just turning our attention in a serious way now to figuring out how to do that. OK, that is really breaking some new ground as far as I'm aware.

Chairman JOHNSON of Connecticut. Mr. Ramstad.

Mr. RAMSTAD. Thank you, Madam Chair, and thank you, Commissioner. I know there are five witnesses waiting behind you. I know you have another commitment, so I'll be brief. First of all, I wouldn't trade jobs with you. Second, concerning the 2000 problem, I just finished a series of town meetings and, like most of my colleagues, this is becoming a dominant concern among the people. There's more concern, especially among older Americans about Social Security checks. In fact, it's pretty unanimous that if you're not ready there's not a big concern out there—[Laughter.] But if you aren't there's a major worry. Let me just follow up, if I may Commissioner, on your exchange with Mr. Hulshof about replacing the communications replacement system. Is that going to be done in all 10 service centers or just those that will be consolidated?

Mr. ROSSOTTI. No, that will be in all 10 service centers. That piece is essential in order to make the whole framework. And that's on a much more accelerated schedule. We're in the testing phase of that right now and we would be, I don't remember exactly, we can get you that, what the rollout is for that. But that one we are definitely planning to roll out this year to all 10 service centers.

Mr. RAMSTAD. And that's essentially on schedule?

Mr. ROSSOTTI. Yes, as of now. I always qualify those things because tomorrow we could get a test and find out we've got a new problem but I believe that that one is getting intense focus because it's so critical to making the whole rest of the thing work.

Mr. RAMSTAD. Thank you, again, Commissioner. Thank you, Madam Chair. I yield back.

Chairman JOHNSON of Connecticut. Thank you very much, Commissioner. We certainly do appreciate your knowledge, experience, your personal energy, and your leadership abilities. But I think we appreciate more seriously your honesty and straightforwardness with us, you are so cognizant of the enormity of this challenge and we'll work with you to make sure that the Congress backs you in every way we can to assure your success in what you so, I think, honestly describe as a dangerous and risky situation but not one that you are not aggressively working to manage and solve. Thank you for being with us this morning.

Mr. ROSSOTTI. Thank you, Madam Chair.

Chairman JOHNSON of Connecticut. Mr. Callahan.

STATEMENT OF HON. JOHN CALLAHAN, ASSISTANT SECRETARY, MANAGEMENT AND BUDGET; AND CHIEF INFORMATION OFFICER, U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES; ACCOMPANIED BY GARY CHRISTOPH, CHIEF INFORMATION OFFICER, HEALTH CARE FINANCING ADMINISTRATION; ELIZABETH JAMES, CHIEF INFORMATION OFFICER, ADMINISTRATION FOR CHILDREN AND FAMILIES; AND NORM THOMPSON, ASSOCIATE COMMISSIONER FOR AUTOMATION AND SPECIAL PROJECTS, ADMINISTRATION FOR CHILDREN AND FAMILIES

Mr. CALLAHAN. Thank you very much, Madam Chairman Johnson, Congressman Coyne, and other Members of the Subcommittee. I want to thank you for the opportunity to testify here today for the Department of Health and Human Services. I am the CIO, Chief Information Officer, for the Department and today I'm accom-

panied by Dr. Gary Christoph, for CIO for HCFA; Dr. Elizabeth James, the CIO for the Administration for Children and Families; and Norm Thompson is the Associate Commissioner for Automation at ACF. All of these individuals plus myself will make ourselves available to the Subcommittee at any time that they have questions now or in the future.

I submit to the record my written testimony, as well as our report to OMB in February 1998 which gives the full scope of what the Department is doing to correct its year 2000 computer problems.

[The report is being retained in the Committee files.]

I'd like to comment on three areas. One, the Y2K effort at HHS as a whole, just in general, then HCFA, then ACF. With regard to the Department as a whole, the Secretary, the Deputy Secretary, and myself have all indicated that year 2000 compliance is job number one for the Department. It is the top and only information technology that we intend to pursue with all the resources at our disposal.

What have we done this year? First of all, we've ensured that we have a December 31, 1998, deadline for year 2K compliance for all our mission-critical systems. We have 491 in the Department as a whole. We have a clear structure of administrative accountability. Every agency has a CIO. That CIO reports directly to its agency head, and they're responsible also to me, the Deputy Secretary, and the Secretary. We have required and are requiring independent validation and verification testing for all our mission-critical systems. We were the first agency to seek and to receive from the Office of Personnel Management authority to hire Federal retirees who have the skills to help us fix the year 2000 problem. We sought this at the end of last month, and we have received authority to hire up to 45 Federal retirees.

We are, as you requested, and others have requested, developing contingency plans for all our major agencies. We've shared our data interfaces, we've identified our data interfaces with all our State partners. We've shared these with the National Association of State Information Resource officials as of April 22. And, then, finally, as is indicated in our testimony, we have up and running a biomedical Web site, which is maintained by FDA, wherein individuals can determine the Y2K compliance of all biomedical manufacturers which are so important to direct our health facilities and things of that nature. So that is up and running at the moment.

Obviously, the biggest problem that we face in the Department is dealing with the year 2000 and HCFA. We have 25 internal mission-critical systems, and 75 external contractor mission-critical systems. Forty-nine million lines of code are in these systems, 19 million lines of code in our internal systems, 30 in our external systems. These need to be examined in order to be made Y2K compliant. This software, which is basically the engine, if you will, that allows 900 million fee-for-service claims to be paid annually by Medicare to more than 33 million beneficiaries and countless number of Medicare providers.

What are we doing in this regard? We have created and we have hired Dr. Gary Christoph from Los Alamos Laboratory as our CIO after a nationwide search. He and NancyAnn Min-DeParle have

created "tiger teams," for all our internal systems in order to make them year 2K compliant and they are using the personnel authorities that I described earlier to get additional personnel.

On the fiscal front, we have, as a result of the supplemental that was recently passed here and the President signed, we have channeled $20 million from ongoing transition work to single part A to part B systems to our year 2000 effort. We estimate that we may need $103 million more in 1998 and 1999 for our year 2K work. We have authorities at our disposal including the Secretary's 1-percent transfer authority which is in our annual appropriations act and we will be prepared to use that in order to channel additional moneys to the Y2K effort.

And NancyAnn Min-DeParle, who's the Administrator of HCFA, has said on numerous occasions that year 2000 is her top priority. She's been very proactive with her contractors, and we have finished, just about finished all our site visits with our 75 contractors to, again, talk to them about the urgency of the year 2K problem and to determine what they can and should be doing in that regard.

One element I would draw your attention to is that we have sent up to the Congress on January 1998 contractor reform legislation. This allows HCFA to have increased discretion in contracting for Medicare claims processing and payment. It would allow the administrator to contract for these functions on a best-value basis as permitted by the Federal acquisition regulations. We believe this legislation is important so that we can exercise contingency plans and long-term planning in order to permit business continuity in light of any contractor failure. This legislation would eliminate the rigidities that we believe are now inherent in current contracting law, under Medicare, which requires us to contract with only selected claims processors, provides for automatic contract renewal, and reimbursement for all allowable costs. Our feeling is that the Federal acquisition regulation law, if that were applied to Medicare contractors, the contractor system, would be a positive benefit. We do not feel that competent contractors would have anything to fear from this legislation, and would not be harmed by the legislation if it were passed.

Let me now just focus quickly on the Administration for Children and Families. We have 55 mission-critical systems in ACF. Twelve are now year 2000 compliant. We think as many as 33 will be more compliant by the end of this quarter. Forty-one are being repaired or replaced and two are being retired. There are two main areas in the Administration for Children and Families: One is grants administration, the other is child support enforcement. We believe that all the grant systems, grant information systems will be made compliant and that our grants processing system under ACF will be made compliant through a new system called Gates by the end of this year.

State data interfaces, that I mentioned earlier, we are handling that through what we call an electronic bridging system, which we're also using in CDC. All States that have to send information to us in the ACF systems, we will be able to accept that data whether it's year 2000 compliant or not, and bridge it into our system so that the data in fact is compliant. As I say, we used the

system, or are using the system also for CDC for very important epidemiological data.

With regard to child support, we expect the Federal Parent Locator System to be compliant by October 1, 1998, and the new higher data system which was required by recent welfare reform legislation is now being developed as a year 2000 compliant system. Five of our legacy systems in child support are moving to the SSA mainframe later this year.

One issue that I know Mr. Rossotti touched on which we had made progress in the Department is data center consolidation. We now have only three mainframe centers, really working mainframes in the Department, one at HCFA, one at NIH, and one at CDC. We have completed our data center consolidation system some time ago at a savings of about $127 million over a number of years.

State child support systems, as we all know here, are in effect the responsibilities of individual States. We had a meeting with a number of State CIOs recently, including the State CIO from Washington. I think they feel they're making good progress at the State level to make sure that their child support systems are compliant. We are able to help them out because they can support their Y2K compliance spending at the State level through the matching of child support grants which are 66⅔ percent. But we do think the States are working hard, and that they will succeed but obviously they have complex systems as well.

I would just say, in conclusion, Madam Chairman, we certainly regard year 2000 as our job number one. We will be accountable to the President. We will be accountable to the Congress and we will work with you continuously on this problem throughout the remaining time here before the year 2000. We do think that our basic job, certainly from headquarters is to do three things. We have to focus the resources, the money, we have to focus the personnel, and whatever authorities those people need to get the job done. We will deploy frontline people to get the job done and we intend to do that and will keep this Subcommittee fully informed of our efforts.

Thank you and I would be happy to answer any questions.

[The prepared statement follows:]

Statement of Hon. John Callahan, Assistant Secretary, Management and Budget; and Chief Information Officer, U.S. Department of Health and Human Services

Good morning. I am John Callahan, Assistant Secretary of the Department of Health and Human Services for Management and Budget (ASMB) and Chief Information Officer (CIO). I am pleased to appear before this Subcommittee to provide you with a report on the accomplishments of the Department and the challenges faced by the Department in assuring that our systems are Millennium compliant. We will especially emphasize the Year 2000 progress made by HCFA and ACF. I am accompanied today by Gary Christoph, CIO of the Health Care Financing Administration (HCFA), and by Elizabeth James, CIO of the Administration for Children and Families (ACF), and Norm Thompson, Associate Commissioner for Automation and Special Projects in ACF's Office of Child Support Enforcement.

HHS' YEAR 2000 EFFORT

The Secretary, the Deputy Secretary, and I have declared the Year 2000 (Y2K) date issue to be our highest information technology priority. We have already taken several steps, and we will continue to take action, to ensure that all HHS information systems are Year 2000 compliant. We have involved all parts of our organization, including staff with expertise in information systems, budget, human re-

sources, and acquisition management in solving the Year 2000 problem. No matter what else we do and what other initiatives we undertake, we must ensure that our ability to accomplish the Department's mission is not impaired.

For this reason, we have established December 31, 1998 as our internal deadline for Year 2000 compliance of mission critical systems. This was done in order to provide a full year of operations in which to detect and remedy any adverse interactions among HHS systems and those of our many service partners, including other Federal agencies, state and local governments, tribes, and contractors.

To meet our Year 2000 responsibilities, we have taken a series of strong administrative actions. We have established direct reporting lines between staff working on Year 2000 activities and all Operating Division (OPDIV) Chief Information Officers; and each OPDIV CIO is responsible for regular reporting on Y2K efforts directly to the OPDIV head and to me, until Year 2000 date compliance is accomplished.

In our February 1998 quarterly report to the Congress, HHS reported 491 mission critical systems. About 40 percent of these systems are now Year 2000 compliant. We closely monitor progress and maintain a monthly reporting system to track progress on all of our data systems. Our monitoring system prompts remedial action where and when necessary and encourages examination of systems that may be able to be retired, thereby making better use of limited Year 2000 resources. In addition, our OPDIVs have compiled inventories of their system interfaces, and have contacted their interface partners. On April 22, I provided a listing of state interfaces to the National Association of State Information Resources Executives (NASIRE). Because testing, including independent verification and validation (IV&V), is critical to our Year 2000 effort, we are requiring our OPDIVs to subject their systems to stringent testing and IV&V. We also know there is a possibility that, try as we might, some systems may not be fully compliant in time. Therefore, we are requiring the OPDIVs to develop contingency plans that permit business continuity in the event of system failure. These contingency plans will be noted in our next Year 2000 quarterly report.

We are taking action to retain, re-employ, and attract qualified information technology professionals, using both employment and contracting authorities. On March 31, we received Department-wide personnel authorities from the Office of Personnel Management (OPM) to waive the pay and retirement reduction for re-employed military and civilian retirees who return to work on Y2K remediation.

Late last week, the President signed a 1998 supplemental appropriations bill directing $20 million of HCFA contractor funds to be redirected toward HCFA's Year 2000 remediation efforts. While these funds will certainly help, HCFA still must find ways to address the shortfall. We estimate that HCFA will require additional Year 2000 funding in FY 1998 and FY 1999. In FY 1998, HCFA estimates it needs an additional $43 million, and in FY 1999, HCFA may require an additional $60 million for HCFA contractor remediation efforts. For FY 1998, we will soon be sending to Congress a letter notifying you of our intent to use the Secretary's one-percent transfer authority to shift funds from other HHS activities to make the additional $43 million available for HCFA's Y2K efforts. While cutting funding for other activities is never easy, and all may not be happy with our choices for offsets, we would appreciate Congress' support for our effort to give HCFA the resources necessary to address this problem.

HEALTH CARE FINANCING ADMINISTRATION CHALLENGES

Our greatest Year 2000 concern is for HCFA's Medicare program. This program is run by over seventy external contractors, including several shared systems maintainers, who operate and maintain a base of software programs that process 900 million fee-for-service claims payments annually for nearly 33 million Medicare beneficiaries. Nearly one quarter of the external Medicare contractors have not yet completed assessments of their systems. However, under the current law (Title XVIII of the Social Security Act) HCFA has limited authority for addressing the Year 2000 threat to Medicare systems. This situation illustrates why Medicare contracting reform has been and continues to be an Administration priority.

There are a number of facets to HCFA's current contracting authority that hinder HCFA's ability to aggressively orchestrate Year 2000 compliance.

Medicare claims processing contract terms are unique and differ in several important respects from typical Federal contracts awarded under Federal Acquisition Regulation. Medicare statutes require HCFA to contract for services with insurance companies only—not computer or transaction processing firms—and only on a cost reimbursement basis

Intermediary and carrier contracts provide for automatic renewal on an annual basis. Furthermore, HCFA may terminate a contract only for cause and not for con-

venience, while contractors may leave the Medicare program with 180 days notice. It generally takes HCFA six to nine months to transfer a contractor's workload to another contractor organization.

Most importantly, because HCFA is required to reimburse its Medicare contractors for all allowable costs, the agency's ability to exert financial leverage over its contractors to direct funds toward such activities as Year 2000 compliance is limited.

HCFA has been proactive in exerting what pressure is possible on the Medicare contractors with regard to Year 2000 compliance. HCFA has proposed amendments to Medicare contracts requiring millennium compliance, and has released guidance that would provide more restrictive definitions of compliance and testing requirements. Nonetheless, we remain greatly concerned about the need for a faster pace of progress by Medicare contractors in meeting our Year 2000 goal.

As I stated earlier, problems surrounding Year 2000 compliance are an illustration of why the Administration has proposed contracting reform legislation. On February 27, 1998, HHS sent a proposal for Medicare contractor reform to Congress. This proposal would amend the Medicare statute regarding HCFA-contractor relations. Our proposal would provide the Secretary with greater flexibility for managing the Medicare program, and allow increased discretion in contracting for claims processing and payment functions. Under this authority, the Secretary could award contracts from a larger pool of qualified contractors. We believe that this change would promote competition and potentially allow the Medicare program to obtain better value for its dollar. The new authority would also be especially helpful in allowing the Secretary to enforce contingency plans that permit business continuity in the event of system failure. This proposal has received the endorsement of John Koskinen, Special Assistant to the President for Year 2000, in testimony before the Senate Governmental Affairs Committee.

The proposal would allow the Secretary to contract for Medicare functions on a best value basis as permitted by the Federal Acquisition Regulations (FAR). It would change Medicare law to permit the Secretary to follow the FAR in administrative contracting. We would then be able to determine on a case-by-case basis the most appropriate contractual arrangements, with fixed price and incentive provisions, for example.

We have requested Medicare contracting reform from Congress for a number of years and recently submitted a proposal with our FY 1999 Budget request. While we understand that, due to uncontrollable variables, no organization can provide an absolute guarantee of end-to-end processing throughout the Millennium change, swift passage of this legislation now will provide HCFA with greater leverage to proactively manage Medicare contractors. We therefore, respectfully request, and encourage, your assistance in securing enactment of this very important proposal.

We recognize that HCFA will continue to face a daunting and exhausting effort that contractor reform alone cannot address. As noted earlier, this will require additional resources to be used for contractor Year 2000 remediation or testing and independent verification and validation. We will especially depend on HCFA's IV&V contractor, who will review both internal and contractor remediation efforts. HCFA's testing contractor will provide independent assurance that Medicare claims processing systems will operate properly in the next Millennium.

Administration for Children and Families Challenges

ACF has 55 mission critical systems. Of these systems, 12 are compliant, three are being repaired, 38 are being replaced, and two are being retired. ACF processes nearly 7,000 grants per year.

ACF's mission critical systems fall into two major categories. These categories are grants and child support enforcement. Approximately 40 ACF systems award grant funds and track the grants ranking and approval process, as well as tracking financial and program information, for example, how many children are enrolled in a local Head Start program.

Child support enforcement systems include the Federal Parent Locator Service (FPLS), which helps States to find non-custodial parents for purposes of establishing or enforcing child support orders. The FPLS allows the States to search Federal Government data bases for information such as Social Security records and Internal Revenue Service tax information. The FPLS will be compliant by October 1, 1998.

A new system mandated by the Personal Responsibility, and Work Opportunity Reconciliation Act, the New Hires data base, receives and processes information from all employers about newly hired employees. Knowing when an employee is newly hired or changes jobs can provide information that allows States to provide

more timely location of absent parents. The New Hires Data Base was developed as a Year 2000 compliant system.

ACF has completed the identification of its data exchanges and has established contact with its data trading partners. Many of ACF's data exchanges are incoming only. Much like the Centers for Disease Control, ACF is relying heavily on electronic bridging to convert non-compliant information, thereby avoiding difficult-to-detect "soft failure" caused by bad data.

In fact, ACF's contingency plans to ensure the continuity of operations, should the need arise, will rely on electronic bridging to exchange information. For example, the Office of Child Support Enforcement systems will use electronic bridges developed as part of the renovation process to allow ACF to successfully exchange and process both compliant and non-compliant data. In addition, ACF's systems for processing grants are being replaced by a Year 2000 compliant client-server system called GATES.

ACF is working closely with its state partners to ensure that the states continue to devote sufficient attention to Year 2000 issues. As noted above, many state systems, including most of the child support enforcement systems, have been developed over the last five years and are Year 2000 compliant. Yet, some older systems, for example in the welfare programs, may need work. ACF will maintain a dialogue with the states, and will provide assistance where necessary

BIOMEDICAL EQUIPMENT OUTREACH ACTIVITIES

Our Year 2000 related activities are not limited solely to HHS programs alone. On January 21, 1998, Deputy Secretary Kevin Thurm signed a letter, sent to over 16,000 biomedical equipment manufacturers, strongly urging them to identify non-compliant products, and the actions they are taking to ensure compliance. The manufacturers are now responding to this survey developed by my office and the Food and Drug Administration (FDA). The FDA now operates and maintains a public Internet web site listing all biomedical equipment information received from the manufacturers relating to Year 2000 compliance. The web site is operational and FDA is currently posting the manufacturer responses on the Internet "http:/ www.fda.gov/cdrh/yr2000/year2000.html.".

We are planning additional outreach activities, beyond the biomedical equipment issues, to inform the health and human services community in general about Year 2000 issues. These issues include the potential for Year 2000 problems with facilities equipment, telecommunication products, and commercial off-the-shelf software that runs automated information systems.

CONCLUSION

HHS still faces substantial challenges in our Year 2000 efforts. However, let me assure you, on behalf of Secretary Shalala and Deputy Secretary Kevin Thurm, that we will continue to vigorously pursue Year 2000 remediation as our most important information technology initiative. We recognize our obligation to the American people to assure that HHS's programs function properly now and in the next millennium.

I thank the Committee for its interest and oversight on this issue, and would be happy to answer any questions you may have.

Chairman JOHNSON of Connecticut. Thank you, Mr. Callahan. Mr. Dyer.

STATEMENT OF JOHN DYER, PRINCIPAL DEPUTY COMMISSIONER, SOCIAL SECURITY ADMINISTRATION

Mr. DYER. Chairman Johnson, Members of the Subcommittee, I'm pleased to be here to testify today concerning the Social Security Administration's efforts to prepare for year 2000. SSA became aware of the year 2000 problem and began planning for it in 1989 to make sure that the payments that we make to more than 48 million beneficiaries will not be in jeopardy. Let me assure you that Commissioner Apfel and the senior staff at SSA are well aware of the great importance of all the issues surrounding year 2000 com-

puter problems. As Commissioner Apfel testified before the Subcommittees on Social Security and Human Resources this year, ''preparing for year 2000 is unquestionably the biggest challenge the information technology industry has ever faced.''

How are we progressing at SSA to resolve the year 2000 problems? As of April 30, 1998, SSA has renovated more than 90 percent of the agency mission-critical systems that support our core business processes: Enumeration, earnings, claims, postentitlement, and informing the public. We are scheduled to complete all testing of all systems by December 31, 1998, and have all systems implemented into production in January 1999 providing a full year for postimplementation review. Beyond computer software, we have developed plans to address the year 2000 problem in the areas of telecommunications, hardware infrastructure, and facilities infrastructure. We have plans in place to upgrade or replace all noncompliant equipment and are working with the vendor community, General Services Administration, and the CIO Council Committee on Year 2000 to test vendor fixes.

What obstacles do we have yet ahead of us? In October 1997, the General Accounting Office issued a report entitled ''Social Security Administration: Significant Progress in Year 2000 Effort, But Key Risks Remain.'' The report was generally complimentary of our year 2000 program. However, it identified three concerns: The States' Disability Determination Services systems compliance, data exchanges, and contingency planning which we are addressing at this time, and will continue to address.

Now, let me talk about them individually. In terms of the State disability compliance, we have focused our attention on ensuring that the State's Disability Determination Services, or DDSs, as we call them, systems which are used to determine medical eligibility of disability applicants are made year 2000 compliant by the end of December 1998. Each State has developed a plan for year 2000 conversion and SSA, working closely with each State, monitors the progress of each State against its project milestones. As of today, 21 of the 55 DDS systems have been renovated, tested, and implemented.

Data exchanges: We have been actively addressing the issue of data exchanges which occur between SSA, other Federal agencies, States, and third parties. Thus far, 65 percent of our data exchanges are year 2000 compliant and implemented. Our target is to have all data exchanges implemented by December 1998. We are focusing particular attention on our exchanges with affected benefit payments. We are working very closely with the Treasury Department to ensure that Social Security and Supplemental Security Income checks and direct deposit payments for January 2000 will be on time. In addition to testing with Treasury, which we started March 4 of this year, we have agreements to test from SSA through Treasury and the Federal Reserve's automated clearinghouse for our direct deposit payments.

Contingency planning: On March 31, 1998, we issued the SSA Business Continuity and Contingency Plan. The plan addresses the core business functions, including disability claims processing functions supported by the DDSs which must be supported if year 2000 conversion activities experience unforeseen disruptions. The plan

identifies potential risks to business processes, ways to mitigate each risk, and strategies for ensuring continuity of operations if planned corrections are not completed or if systems fail to operate as intended. We certainly hope there will be no need to activate our contingency plan. However, if there are unforeseen problems or year 2000 disruptions, the contingency plan will be implemented to ensure continuation of SSA's vital service to the public.

Because of our early attention to this challenge, we are confident that our systems will function on and after year 2000 to ensure that our core business processes proceed smoothly and without disruption as we move into the 21st century. When we open our offices for business on January 3, 2000, we expect to be prepared to provide the full complement of services to the American public with the accuracy and reliability they have come to expect from us. And if there are unforeseen problems, we have contingency plans in place to assure continuation of our operations.

I'd be happy to answer any questions you may have. Thank you.

[The prepared statement follows:]

Statement of John Dyer, Principal Deputy Commissioner, Social Security Administration

Chairman Johnson and Members of the Subcommittee:

I am pleased to be here to testify today concerning the Social Security Administration's (SSA) efforts to prepare for the Year 2000. SSA became aware of the Year 2000 problem and began planning for it in 1989 to make sure that the payments we make to more than 48 million beneficiaries will not be in jeopardy.

Let me first assure you that Commissioner Apfel and all the Senior Staff at SSA are well aware of the great importance of all the issues surrounding the Year 2000 computer problem. As Commissioner Apfel testified before the Subcommittees on Social Security and Human Resources on March 12, 1998, "Preparing for the year 2000 is unquestionably the biggest challenge the information technology industry has ever faced."

Because we were on the forefront of Year 2000 preparation, our Assistant Deputy Commissioner for Systems, Kathleen Adams, was asked to Chair the Chief Information Officers (CIO) Council Committee on Year 2000. The purpose of this committee is to share lessons learned and best practices in addressing the Year 2000 challenge, address cross-cutting issues affecting all government agencies and identify ways to manage resources in solving the Year 2000 problem.

At SSA, we have used a systematic approach to making sure systems are Year 2000 compliant. This approach consists of five phases:

The *Awareness* phase, in which we defined the Year 2000 problem and ensured that everyone in SSA was aware of it;

The *Assessment* phase, in which we identified our core business processes, analyzed the systems supporting these processes, identified resources, and developed a detailed schedule for making corrections;

The *Renovation* phase, in which we converted databases and are renovating software and modifying interfaces;

The *Validation* phase, in which we are testing converted or replaced software; and

The *Implementation* phase, in which we will implement converted or replacement systems.

SSA has completed the first two phases as well as more than 90 percent of the renovation phase of its Year 2000 program. We are in the process of testing all of our renovated systems in our Year 2000 Test Facility. We are on schedule to complete testing of all systems by December 31, 1998, and to have all systems implemented into production in January 1999, providing a full year for post-implementation review.

HOW IS SSA PROGRESSING IN RESOLVING ITS YEAR 2000 PROBLEMS?

As of April 30, 1998, SSA has renovated more than 90 percent of the Agency's mission-critical systems. These mission-critical systems support our core business processes—enumeration, earnings, claims, postentitlement, and informing the public—through which we maintain the accuracy of beneficiary records and process and

adjudicate claims. SSA has also renovated 67 percent of its non-mission-critical systems. All of SSA's systems are scheduled to be Year 2000 compliant by December of this year.

In addition, we have taken an active role in addressing the issue of Year 2000 compliance in case processing systems used by the State Disability Determination Services (DDSs) and data exchanges between SSA and other entities.

Furthermore, SSA has developed plans to address the Year 2000 problem in the areas of our telecommunications and hardware infrastructure and facilities infrastructure. We have inventoried all components of these infrastructures and have plans in place to upgrade or replace all non-compliant equipment. We are working with the vendor community, the General Services Administration, and the CIO Council Committee on Year 2000 to test vendor fixes.

What Obstacles Stand in the Way of the Completion of Preparations for Year 2000?

In October, 1997, the General Accounting Office issued a report entitled, "Social Security Administration: Significant Progress Made in Year 2000 Effort, But Key Risks Remain." The report was generally very complimentary of SSA's Year 2000 program; however, it identified three concerns—DDS systems compliance, data exchanges, and contingency planning. At the time the report was issued we were addressing all three areas and we continue to do so.

DDS Software Compliance

SSA has focused increased attention on ensuring that State DDS systems, which are used in determining the medical eligibility of disability applicants, are made Year 2000 compliant by December 1998. There are 55 DDSs: one in each of the States and the District of Columbia, Puerto Rico, Guam, and the Virgin Islands, as well as the Federal DDS at SSA Central Office in Baltimore. Since DDSs are fully funded by SSA, Year 2000 compliance activity costs in the DDSs were not borne by the States.

We requested and received Year 2000 plans from each of the DDSs that identify specific milestones, resources, and schedules for completing Year 2000 conversion activities. All DDS systems are scheduled to be Year 2000 compliant by SSA's target of December 1998. As of today, twenty-one DDS systems have been renovated, tested and implemented. These DDSs are: Alabama, Arizona, Arkansas, Connecticut, Florida, Idaho, Indiana, Kentucky, Maine, Massachusetts, Michigan, Minnesota, New Mexico, Ohio, Oklahoma, Oregon, Pennsylvania, Vermont, Washington DC, Wisconsin, and the Federal DDS.

We are working closely with each DDS on monitoring and oversight of DDS Year 2000 activities. SSA has a DDS Year 2000 Project Team working full time on DDS Year 2000 activities. Each DDS has named a Year 2000 Project Coordinator. In addition, each SSA regional office has named a DDS Year 2000 Coordinator for the DDSs in that region. The SSA DDS Year 2000 Project Team and SSA's Year 2000 Program Manager are in constant communication with the DDS Year 2000 Project Coordinators, Regional Office Coordinators, and State systems contractor representatives. The progress in each State continues to be monitored and tracked against project milestones in the State's Year 2000 plan.

Since the majority of the DDSs (43) contract with one of two vendors for their systems, SSA decided to enter into a contract with each vendor to cover all of the Year 2000 conversion work for these 43 systems. This was done to enable Year 2000 conversion work to begin more rapidly and to allow SSA to exercise a greater degree of control to ensure the Year 2000 conversions are done timely. The DDSs which do not use these vendors' systems use either in-house systems, other vendor systems, or are not automated. The States using other systems have all entered into contracts with their vendors, or planned for in-house changes to their systems, respectively. There are five DDSs that do not have automated claims processing systems.

We believe these actions and oversight activities, together with a close working relationship with the DDSs, will enable us to meet our schedule of making the DDS systems Year 2000 compliant by December 1998.

Data Exchanges

SSA has been actively addressing the issue of data exchanges which occur between SSA and other Federal agencies, States, and third parties. We have inventoried all of our external exchanges. In order to formally track the progress of each external data exchange, SSA developed the Data Exchange Tracking System

(DETS). SSA has just over 2,000 data exchanges with Federal agencies, States, or third parties. For example, SSA exchanges data with the Treasury Department to make benefit payments and with the States to verify death records.

We have been in contact with all of our trading partners regarding the format and schedule for making these data exchanges compliant. Thus far, 65 percent of our data exchanges have been made Year 2000 compliant and implemented. We are in the process of negotiating, scheduling, and implementing remaining changes. Our target is to have all data exchanges implemented by December 1998.

We are focusing particular attention on our exchanges which affect benefit payments. We are working very closely with the Treasury Department to ensure Social Security and Supplemental Security Income (SSI) checks and direct deposit payments for January 2000 will be on time. The testing plans for Social Security and SSI payments have been approved by SSA and Treasury. Joint testing of files began on March 4, 1998, and testing is going as planned. In addition to testing with Treasury, we have agreements to test from SSA, through Treasury and the Federal Reserve's automated clearinghouse, for direct deposit payments.

CONTINGENCY PLANNING

On March 31, 1998, we issued the SSA Business Continuity and Contingency Plan. The plan addresses the core business functions, including disability claims processing functions supported by the DDSs, which must be supported if Year 2000 conversion activities experience unforeseen disruptions. The plan identifies potential risks to business processes, ways to mitigate each risk, and strategies for ensuring continuity of operations if planned corrections are not completed or if systems fail to operate as intended. The plan, which also identifies milestones, target dates, and responsible components for developing local contingency plans and procedures throughout all of SSA's operating components, will be updated quarterly and used to track development and testing of local contingencies planned throughout the agency.

We certainly hope that there will be no need to activate the SSA Business Continuity and Contingency Plan. However, if there are unforeseen, Year 2000-induced disruptions, this contingency plan will be implemented to ensure continuation of SSA's vital services to the public.

WILL SSA'S DATA SYSTEMS BE READY FOR THE TRANSITION TO THE NEW MILLENNIUM?

There is no question that the Year 2000 problem is the biggest challenge ever facing the information technology industry. Since SSA is so dependent on computers to do its business and serve the public, we have taken this problem very seriously and dedicated the resources to address it in a timely manner.

Because of our early attention to this challenge, we are confident that our systems will function on and after the Year 2000 to ensure that our core business processes proceed smoothly and without disruption as we move into the 21st century. When we open our offices for business on January 3, 2000, we expect to be prepared to provide our full complement of services to the American public with the accuracy and reliability they have come to expect from SSA. And, if there are unforeseen problems, we will have contingency plans in place to assure continuity of SSA's business operations.

I would be happy to answer any questions you may have.

Chairman JOHNSON of Connecticut. Thank you very much. Mr. Flyzik.

STATEMENT OF JAMES J. FLYZIK, DEPUTY ASSISTANT SECRETARY FOR INFORMATION SYSTEMS; AND CHIEF INFORMATION OFFICER, U.S. DEPARTMENT OF THE TREASURY

Mr. FLYZIK. Madam Chairman, Representative Coyne, and Members of the Subcommittee, thank you very much for the opportunity to appear today to discuss the Department of Treasury's progress

on year 2000. I request that my complete written testimony be submitted for the record. I'll summarize here for the sake of time.

The Department has indicated that the year 2000 computer problem is our highest priority information technology challenge, and I am confident that Treasury has a strong program in place to address this challenge. While there is much work ahead of us, we have made significant progress to date. The Assistant Secretary for Management and Chief Financial Officer has the overall responsibility for year 2000. As the Deputy Assistant Secretary of Information Systems and Chief Information Officer, I am the overall program manager for this effort. Day-to-day responsibilities reside in my office. We have contracted with several firms with specialized skills to assist us with our effort. Attached to my submitted written statement is a chart that shows how we're organized to address this problem.

The Secretary of the Treasury himself is briefed periodically by me on the status of our program, and the Assistant Secretary for Management and Chief Financial Officer, and myself meet every week with the bureaus to review their progress. We have working groups that meet regularly for information technology, noninformation technology, and telecommunications components and, our bureaus submit monthly reports to me.

We've identified 323 mission-critical IT systems and 269 mission-critical non-IT systems. At present, we have renovated 133, or 55 percent, of the mission-critical systems that need to be converted. We can now report 125 out of 323 of the total mission-critical IT systems are year 2000 compliant.

The TCS, Treasury Communications System, as mentioned by Commissioner Rossotti, is a nationwide data network serving all Treasury bureaus and many other Federal agencies. The TCS as we call it, provides multiple services and is the largest secure, private wide-area network in the U.S. civilian government. We have established a test laboratory where each component of this network can be tested both as an independent system and from an interoperability perspective as each component is interconnected with the other components. As Mr. Rossotti testified, we formed a combined program management team which brings all the individuals associated with this program together to work with our contractors in one location. We are coordinating issues with the manufacturer of each piece of equipment and software incorporated in our network, and we expect to be in a position by September 30, 1998, to be year 2000 compliant.

In order to address these challenges, we also have established a command center to serve as our central location for telecommunications activities, including our executive body and working group meetings. Charts and graphs that depict the current status of hardware and software for each corporate program, the independent verification and validation testing process, and progress tracking are displayed prominently for use by program managers and executives.

To further promote communications among my offices, executive body, program areas, working groups, and our bureaus, we have established a telecommunication site on our year 2000 Internet Web site. We have engaged a telecommunications company to perform

independent verification and validation of all of our infrastructure components with respect to year 2000 compliance.

As of March 6, 1998, we have identified 6,898 external data exchanges of which 3,169 are incoming, and 3,729 are outgoing. The Department has assessed 99.7 percent of these external data exchanges and found that 87 percent are year 2000 compliant or have been granted a waiver. Of the 2,551 interfaces with the U.S. private sector, Treasury bureaus and offices thus far have contacted 2,446 and reached agreements with 2,391. In our regulatory and oversight roles, the Office of Thrift Supervision and the Office of the Comptroller of the Currency are participating with the Federal Financial Institutions Examination Council in aggressive programs to audit the financial institutions compliance on year 2000.

In early 1996, we established September 1998 as a program milestone for completion of contingency plans. During a series of meetings with bureau and office heads in June 1997, the Department emphasized the need for contingency planning.

In spite of our best efforts to date, and our aggressive plans for the future, the year 2000 is far from solved. Indeed, several key significant issues pose special challenges for us and possibly for other agencies as well. One issue that concerns us is vendor schedules for year 2000 compliant versions of their commercial off-the-shelf hardware and software products. As Mr. Rossotti indicated, we have a large number of products in our networks. Some vendors have yet to release year 2000 compliant upgrades.

While we are continuing to work on our renovation efforts, our testing cannot be completed until we have obtained and integrated the year 2000 compliant third-party versions of these products. In addition to funding challenges, we must also contend with the increasing rate of attrition within our information systems work force. Skilled programmers, especially those with experience in legacy system platforms, are in strong demand within the private sector which can pay significantly higher salaries than the government.

I believe that Treasury has an aggressive overall year 2000 program in place and we are on target to complete the conversion, testing, validation, and implementation of all mission-critical systems in time to avoid disruptions to any of these critical systems. Nothing less than 100 percent compliance will be acceptable to the American public and to me personally.

Thank you for the opportunity to meet with you today to discuss the actions being taken by the Department of the Treasury. I will be happy to answer questions you may have on this important matter.

[The prepared statement follows:]

Statement of James J. Flyzik, Deputy Assistant Secretary for Information Systems; and Chief Information Officer, U.S. Department of the Treasury

Chairwoman Johnson, Representative Coyne, and members of the Subcommittee, thank you for the opportunity to appear today to discuss the Department of the Treasury's progress on the Year 2000 computer problem. The Department of the Treasury has stated that the Year 2000 computer problem is our highest priority information technology challenge. I am confident that Treasury has a strong program in place to address this challenge, and while there is much work ahead of us, we have made significant progress to date.

The Assistant Secretary for Management and CFO has overall responsibility for the Year 2000 date transition. As Deputy Assistant Secretary (Information Systems) and CIO, I am the overall program manager for the Year 2000 effort. The day-to-day responsibilities of the Year 2000 program reside within my office. In addition, Treasury has contracted with several firms with specialized skills in the Year 2000 problem, and these firms are assisting the Department in its oversight role. Attached to this statement are copies of the Year 2000 Program Organization at the Department of the Treasury.

Secretary of the Treasury Rubin is briefed periodically on the status of our Year 2000 program, and the Assistant Secretary for Management and CFO and myself meet weekly with bureau heads to review their Year 2000 progress. Working groups meet regularly for the IT, Non-IT, and Telecommunications components of our program. The Department requires each bureau and office to submit detailed monthly status reports. Additionally, the Secretary of the Treasury has mandated that each bureau and office head select an executive official to be in charge of their Year 2000 program. This individual, typically at the CIO or CFO level or higher, is responsible for ensuring that the Year 2000 program at their bureau or office is completed in a timely manner. I would now like to describe the overall status of Treasury's Year 2000 program, some successes we have experienced, and some remaining challenges we must address.

Treasury has identified 323 mission critical IT systems and 269 mission critical Non-IT systems. At present, we have renovated 133, or 54.7% of the mission critical IT systems that need to be converted. We can now report 125 out of 323 (38.7%) of the total mission critical IT systems are now Year 2000 compliant.

I believe that, as a Department, we have made significantly more progress than has been indicated by the above figures. We are conservatively not reporting progress until *entire systems* have been renovated and tested. For example, the Customs Service, like the IRS, manages its renovation efforts by components. Customs has three mission critical systems, all of which require repair, which included 186 components. Although we report none of these three Customs mission critical IT systems as completed renovation, testing, or implementation, the fact is that 68.5% of the *components* within these systems have been renovated, 35.3% have been tested, and 25% have been implemented.

Treasury operates one of the largest enterprise telecommunications networks in the Government. This Treasury Enterprise System includes both local and nationwide telecommunications systems. My office is directly responsible for the Year 2000 compliance of these telecommunications systems.

The Digital Telecommunications System (DTS) is an integrated voice/data local telephone system in over 30 Treasury locations that serves over 30,000 Treasury employees. Treasury has established a phased implementation schedule so that DTS will be Year 2000 compliant by September 1998.

The Treasury Communications System (TCS) is a nationwide data network serving all Treasury bureaus and some Federal agencies (such as Justice). The TCS provides multiple services and is the largest secure, private wide-area network in the U.S. civilian Government. We have established a test laboratory where each component of the TCS network can be tested, both as an independent system, and from an interoperability perspective as each component is interconnected with other components. Treasury is coordinating the Year 2000 issues with the manufacturer of each piece of equipment and software incorporated in the TCS network and expects to be operationally Year 2000 compliant on or before 30 September 1998.

In order to address these challenges, a Year 2000 Telecommunications "Command Center" has been established to serve as a central location for telecommunications activities, including the Telecommunications Executive Body and Working Group meetings. Charts and graphs depicting current hardware and software status of each corporate telecommunications program, the independent verification and validation (IV&V) testing process, and overall progress tracking are displayed prominently for use by program managers and executives. To further promote communications among the CIO, Executive Body, program areas, working groups and bureaus, the Department has established a telecommunications site on the Treasury Year 2000 Intranet web site. In addition, Treasury has engaged a telecommunications company to perform independent verification and validation (IV&V) of the telecommunications infrastructure with respect to Year 2000 compliance.

Since the kickoff of the Treasury Non-IT Working Group on August 28, 1997, Non-IT efforts have been continuing. The management planning and the definition of bureau and office specific Treasury Year 2000 Non-IT management plans began on October 16, 1997. These plans are based on the standard plan format, overall process, and content requirements as defined in the Treasury Year 2000 Non-IT Baseline Management Plan, dated October 16, 1997. This Treasury plan has been

used as a model by the General Services Administration (GSA) for addressing Non-IT systems.

The Non-IT effort is supported by a central Non-IT database, on the Treasury Intranet Year 2000 site, which provides a tracking tool to determine the compliance status of vendor products.

As of March 6, 1998, Treasury bureaus and offices had identified 6,898 external data exchanges, of which 3,169 were incoming and 3,729 were outgoing. The Department has assessed 6,878 out of 6,898 (99.7%) of these external data exchanges, and found that 87.3% are Year 2000 compliant or have been granted a waiver. Of the 2,551 interfaces with the US private sector, Treasury bureaus and offices thus far have contacted 2,446 and reached agreements with 2,391.

In our regulatory and oversight roles, the Office of Thrift Supervision (OTS) and the Office of the Comptroller of the Currency (OCC) are participating on the Federal Financial Institutions Examinations Council (FFIEC) with aggressive programs to audit financial institutions' compliance on Year 2000.

At the Department level, coordination on Year 2000 data exchanges has been ongoing with other government agencies. Treasury has held a series of meetings with executives and staffs from the Department of Defense and the Department of Agriculture's National Finance Center to address and resolve data exchange issues and readiness for Year 2000 testing.

In early 1996, Treasury established September 1998 as a program milestone date for the completion of contingency plans. During a series of meetings with bureau and offices heads in June 1997, the Department emphasized the need for contingency planning and asked the bureaus and offices to accelerate their schedules for the development of these plans. Since then, Year 2000 Contingency Management Plans have been developed at several bureaus and offices for mission critical IT systems and components. Factors such as failure date, time to implement, dependencies, interfaces, resources, responsible office, impact, and criteria for invoking the plans are included. The bureaus' and offices' contingency planning efforts will be expanded to address Non-IT mission critical systems and telecommunications items.

In spite of our best efforts to date and our aggressive plans for the future, the Year 2000 problem is far from solved. Indeed, several significant key issues pose special challenges for us, and possibly for other Government agencies as well.

One issue that concerns us is vendor schedules for Year 2000 compliant versions of their commercial off-the-shelf hardware and software products. Some vendors have yet to release Year 2000 compliant upgrades of their products. While we are continuing to work on our renovation efforts, our testing cannot be completed until we have obtained and integrated the Year 2000 compliant third-party versions of these products.

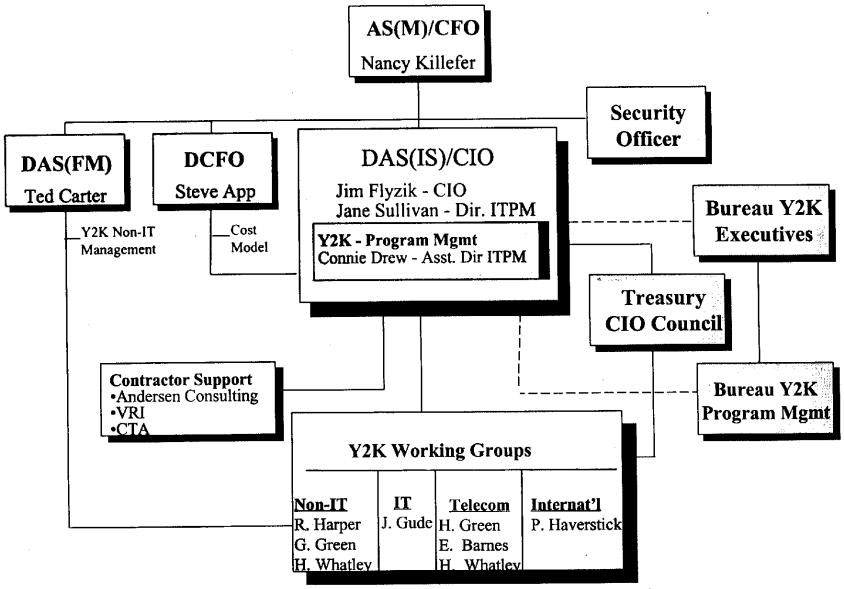
Treasury's cost estimates for fixing the Year 2000 computer problem have continued to rise. In our submission to OMB for the February 15, 1998, report, we estimated a total cost of $1.43 billion, with the bulk of that cost being incurred in this fiscal year. Our cost estimates were initially based in large part on a Year 2000 cost model that focused on costs associated with mainframe lines of code. In the period since those initial estimates were provided, Treasury bureaus and offices have made significant progress in their inventory and cost estimate efforts for repairing and testing IT items, telecommunications items, and Non-IT items. In the February 15, 1998, quarterly report, we estimated Non-IT program costs of $68.6 million, and $295 million for telecommunications costs.

In addition to funding challenges, we must also contend with the increasing rate of attrition within our information systems workforce. Skilled programmers—especially those with skills in legacy system platforms—are in strong demand within the private sector, which can pay significantly higher salaries than the Government.

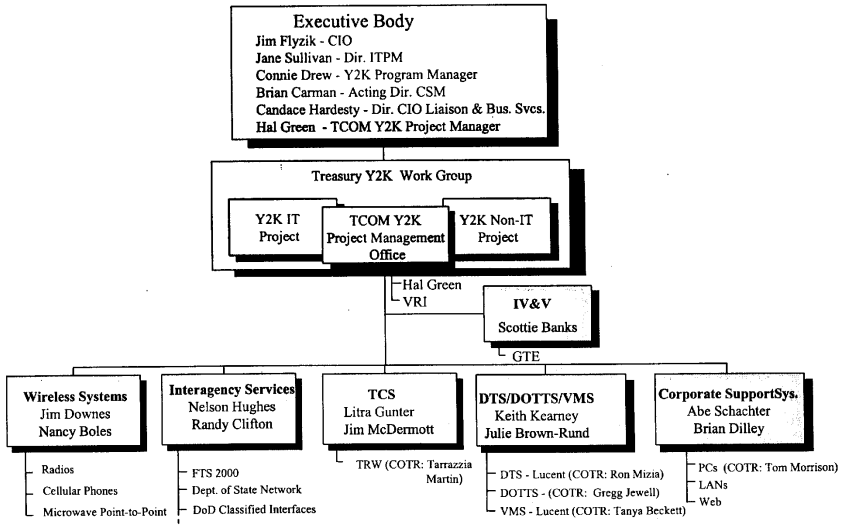
I believe that Treasury has an aggressive overall Year 2000 program in place, and we are on target to complete the conversion, testing, validation, and implementation of all mission critical systems in time to avoid disruption to any critical systems. Nothing less than 100% compliance will be acceptable to the American public, or to me personally.

Thank you for the opportunity to meet with you today to discuss the actions being taken by the Department of the Treasury in addressing the Year 2000 computer problem. I will be happy to answer any questions you may have regarding this important matter.

Treasury Year 2000 Program Management



Telecommunications Year 2000 Work Group



Chairman JOHNSON of Connecticut. Thank you very much.
Ms. Craig.

STATEMENT OF CONSTANCE E. CRAIG, ASSISTANT COMMISSIONER, INFORMATION RESOURCES, FINANCIAL MANAGEMENT SERVICE, U.S. DEPARTMENT OF THE TREASURY

Ms. CRAIG. Good morning. Thank you for the opportunity to appear today. The highest priority of the Financial Management Service is to adapt our mission-critical computer systems to the century date change. FMS is devoting all possible resources to ensure that the day-to-day services we provide to the American people will not be disrupted after January 1 of the year 2000.

FMS plays a central and critical role within the government. Virtually every Federal agency depends on FMS to facilitate the issuance of payments, collection of revenue and delinquent debt, and account for the government's receipts and outlays. Each fiscal year we issue over 850 million payments with a dollar value of more than $1 trillion. We issue these payments on behalf of civilian agencies, such as the Social Security Administration, the Department of Veterans Affairs, and IRS. FMS also provides debt collection services and manages the processing of roughly $1.4 trillion in Federal revenue. FMS also maintains the central accounting and reporting systems that track the government's monetary assets and liabilities.

In terms of current status, we have turned a corner and gained momentum since the beginning of this year. We are now well underway with making the necessary changes to our software code and all but 3 of our 62 mission-critical systems are scheduled for completion by the end of 1998. The remaining three systems will be implemented in early to mid 1999. We are confident that we will complete all of the necessary work to ensure compliance before the beginning of the year 2000.

As an example, we have made critical progress with the Social Security Administration to ensure that monthly direct deposits and check payments will continue to go out accurately and on time after January 1 of the year 2000. Our Philadelphia office and the Social Security Administration have been working closely together to coordinate the required program and format changes needed for Y2K compliance. As Mr. Dyer indicated, testing between Social Security and FMS began in March. We will complete that testing in July, and implement Y2K compliance systems for both Social Security and Supplemental Security Income payments in August. Based on the fact that our testing will be completed at least 15 months before the year 2000 deadline, we believe we can be confident that all Social Security payments will be issued correctly and on time by FMS when the century begins.

In addition to renovating and testing our critical systems, we are taking steps to mitigate risks by focusing extra attention on data exchange, certification, and contingency planning. FMS interfaces with almost every Federal program agency. We believe we can reduce risks by minimizing the interface changes needed for successful data exchange. For many of our systems we are not requiring agencies to change file formats or adopt a four-digit year. Our assessment indicated that these systems would continue to function

beyond the year 2000 without using a four-digit date. Our analysis also indicated that it would require less time and effort to ensure compliance if date and file formats remained the same. As a result, we are not changing those formats, rather, these systems are being internally modified to distinguish between the years 1900 and 2000.

With regard to certification, we have developed procedures which include baseline testing, simulated forward date testing, and some actual forward date testing. We are also employing a contractor to provide independent review and validation of test results for each internal mission-critical system prior to certification.

To further address the challenges and risks of Y2K, we are developing contingency plans to ensure that a basic level of service can be provided as disruptions occur. This includes identification of specific risks and associated mitigation strategies. As an example, if there are local power outages, we will move the work to one of our centers that has continuous backup power capability. We are putting a significant amount of effort into this planning because we do touch the lives of so many Americans, and we expect to complete the contingency planning process before the end of the summer.

FMS views systems preparation for the year 2000 as our absolute highest priority and we will assign whatever resources are needed to ensure we do not fail.

Thank you for allowing me the opportunity to discuss our plans to meet the year 2000 challenge. I would be happy to answer any questions you may have regarding this issue.

[The prepared statement follows:]

Statement of Constance E. Craig, Assistant Commissioner, Information Resources, Financial Management Service, U.S. Department of the Treasury

Chairwoman Johnson, and members of the Subcommittee, thank you for the opportunity to appear today to discuss the Financial Management Service's (FMS) progress in meeting the challenges posed by the year 2000 (Y2K) computer problem. In my capacity as Assistant Commissioner of Information Resources, I have the responsibility for making the program decisions to ensure that FMS computer systems are Y2K compliant.

The highest priority of the Financial Management Service is to adapt its mission critical computer systems to the century date change. FMS is devoting all possible resources to ensure that the day-to-day services we provide to the American people, on behalf of other Federal agencies, will not be disrupted on January 1, 2000 or thereafter.

FMS plays a central and critical role within the government. Virtually every Federal agency depends on us to facilitate the issuance of payments, collection of revenue and delinquent debt, and accounting for the government's receipts and outlays. Each fiscal year, FMS issues over 850 million payments, with a dollar value of more than $1 trillion. We issue these payments on behalf of civilian agencies such as the Social Security Administration, the Department of Veterans Affairs, and the Internal Revenue Service. Our payment services touch the lives of over 100 million people, and literally tens of millions of Americans depend on FMS systems to meet lifeline needs every month. FMS also provides debt collection services and manages the processing of roughly $1.4 trillion in Federal revenues, which include corporate and individual income taxes, customs duties, and Federal fines. And, FMS maintains the central accounting and reporting systems that track the government's monetary assets and liabilities, 7,500 separate Congressionally enacted accounts in all. Making sure our systems are year 2000 compliant is absolutely essential to our operations and the integrity of our systems for paying, collecting and accounting for money government wide.

To make the necessary modifications to our automated systems for the century date change requires a massive, all out effort that touches every part of FMS. It is our number one priority effort and we are well underway with making the

changes to our software code to have our systems in compliance. I have attached several charts to my testimony that show the status of FMS's 62 mission critical systems. Since January, we have implemented three replacement systems and completed repair on two systems requiring renovation, bringing to 15 the number of Y2K compliant mission critical systems. In addition, of the 38 systems still in need of repair, we have completed assessment on 33, 22 of which are now in the renovation phase, and 11 of which are in validation testing. Implementation of Y2K compliant systems for all but three of our mission critical systems is planned, and on schedule, for completion by the end of 1998. The remaining three will be implemented in early to mid-1999. We are confident that we will complete all necessary work to ensure compliance well before January of the year 2000.

For example, we have made critical progress with the Social Security Administration (SSA) to ensure that monthly direct deposit and check payments will continue to go out accurately and on time after January 1, 2000. Social Security disbursements comprise almost two-thirds of our overall payment volume. Each month, FMS issues 33 million electronic funds transfer/direct deposit payments and 17 million check payments to Social Security recipients. The majority of these payments are issued by our Philadelphia Regional Financial Center.

The FMS Philadelphia office and the Social Security Administration have been working closely together to coordinate the required program and format changes needed for Y2K compliance. All of the programming changes necessary to begin Y2K validation have been completed, and testing between SSA and FMS began in March. Testing will be accomplished through all Social Security and FMS processes, including the transmission of input from the Social Security Administration to FMS, processing of that information in FMS's payment system, end to end testing from the payment system to FMS claims and accounting systems and the Federal Reserve, and transmission of output back to SSA. Validation will also be accomplished using both current and forward date testing. We will complete all of our testing by July, and implement Y2K compliant systems for both Title II (old age and survivors benefits) and Title XVI (supplemental security income) payments in August. Based on the fact that our testing will be completed at least 15 months before the year 2000 deadline, we can be confident that all Social Security payments will be issued correctly and on time by FMS when the next century begins.

In addition to renovating and testing our critical systems, we are taking steps to mitigate the risks to our mission and the American people by focusing extra attention on data exchange, certification and contingency planning. Because almost every Federal program agency exchanges data with us, we are minimizing the amount of change needed to interface with our systems wherever possible. For the majority of the FMS payment, accounting and claims systems, we are not requiring agencies to change file formats or to adopt a four digit year. Our Analysis indicated that these systems could continue to function beyond the year 2000 without using a four digit date, and that it would require less time and effort to make the changes needed to ensure compliance if formats did not change. The majority of the agencies interfacing with these systems have also indicated that it would facilitate their conversion efforts if date and file format requirements do not change. Consequently, we are not changing these file formats, rather our systems are being internally modified to distinguish between the year 1900 and the year 2000. FMS has established a Web page and issued a number of Treasury Financial Manual bulletins, to provide guidance on these issues. We are also meeting regularly, and working closely, with our major data exchange partners to ensure we have a common understanding on date standards, file formats and testing schedules.

With regard to certification, procedures have been developed which include baseline testing, simulated forward date testing and actual forward date testing. A contractor will be employed to provide independent review and validation of test results for each internal mission critical system, and make recommendations for re-testing or certification based on that review. If re-testing is necessary, they will provide specific guidance on necessary steps to fix identified problems and achieve successful validation testing. Certification is scheduled for completion on all but one of our systems, by March of 1999; the remaining system will be certified by June of 1999. Post implementation reviews will be conducted during the rest of 1999.

Although these efforts will greatly reduce the chance of a systems failure, there will still be areas of risk as FMS depends on vendors for telecommunications and software services, and public infrastructure services for power and transportation. To address these challenges, we are also developing contingency plans so that, in the event there are Y2K related disruptions, a basic level of service can be provided to FMS customers and the Public until normal service can be restored. This includes identification of specific risks and associated mitigation strategies. As examples, if we experience data communications problems in one area, we could route the work-

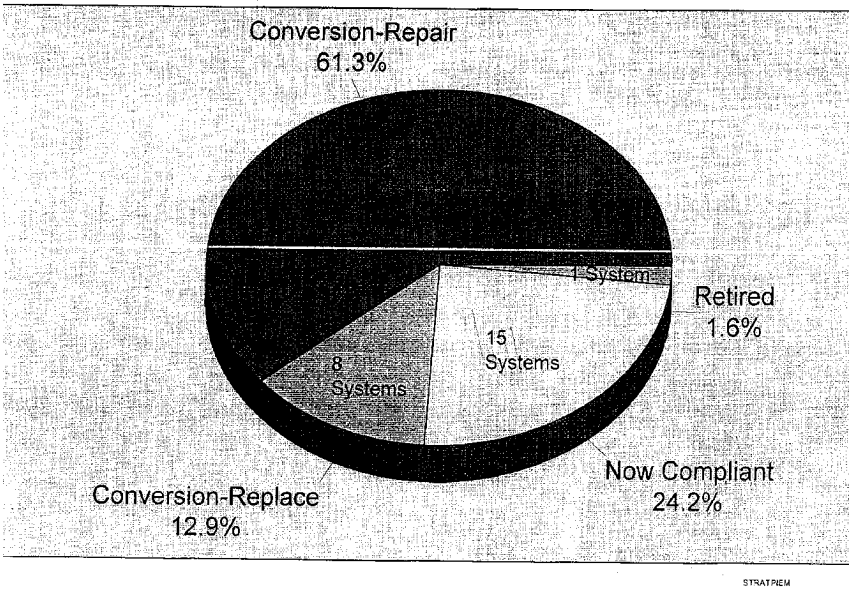
load to another center; or if there are local power outages, we could move the workload to a center with backup power capabilities. Because FMS touches the lives of so many Americans, we are doing everything we can to ensure that our critical business services will not be interrupted. Completion of contingency plans is targeted for this summer.

We view systems preparation for the year 2000 as our absolute highest priority, enabling us to successfully maintain payment and collection operations in the next century. FMS will assign whatever resources are needed to ensure we do not fail to accomplish these changes to our computer systems.

Thank you for allowing me the opportunity to discuss FMS's plans to complete the work necessary to enable us to meet the year 2000 computer challenge. We recognize the importance and enormity of the challenge and are working to ensure that important government services are not disrupted on January 1, 2000. I would be happy to answer any questions you may have regarding this issue.

Financial Management Service
Year 2000 Compliance Status

Shows the current status of FMS's 62 Mission Critical Systems



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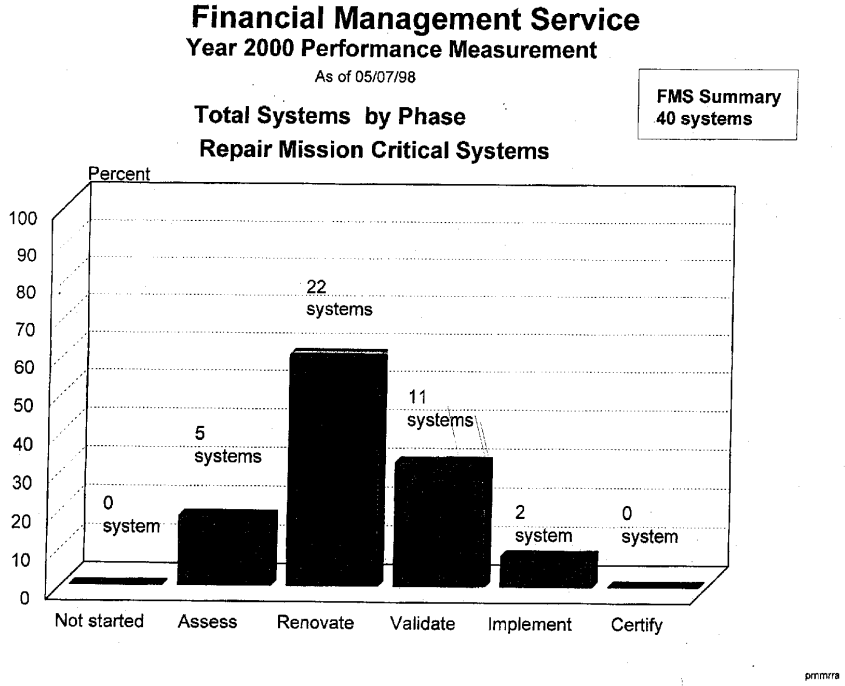

Chairman JOHNSON of Connecticut. Thank you very much, Ms. Craig.

Ms. Goerl.

STATEMENT OF VINCETTE L. GOERL, ASSISTANT COMMISSIONER, OFFICE OF FINANCE; AND CHIEF FINANCIAL OFFICER, U.S. CUSTOMS SERVICE

Ms. GOERL. Good morning, Madam Chairman, and Members of the Subcommittee. It is a pleasure to appear before you to present Customs' approach to managing the year 2000 renovation effort and how the year 2000 will affect Customs' major program areas in fulfilling our commitment to deliver safe borders for the American people. With your permission, I would like to submit my formal statement for the record and briefly address some of the issues of interest to the Subcommittee.

Everything I will discuss with you today revolves around Customs' commitment to ensuring that the transition to the next millennium will move smoothly with minimal disruption to trade and law enforcement activities. Customs interfaces with millions of people, commercial organizations, and national and international organizations through, or in conjunction with other computer and other systems.

Three mission-critical systems support Customs' efforts, the Automated Commercial System processes over $850 billion in imported merchandise and accounts for the collection of $21 billion in revenue. The Treasury Enforcement and Communications System assists in the processing of over 450 million passengers annually

through the U.S. borders. The Administrative and Management System provides for Customs accounting functions, human resource management activities, payroll activities, and various other administrative functions. The failure of these mission-critical systems to be in compliance with the year 2000 change could have a substantial impact on Customs programs. Customs compliance laws would have to be manually ensured which would cost the U.S. Treasury millions of dollars in fines, fees, and penalties. For our trading partners, the release of cargo would be delayed as millions of entries would have to be manually processed. This would cause a fundamental slowdown in trade and hinder the ability of businesses to provide their goods to their customers.

Customs law enforcement activities rely on accurate and up-to-date data. Inspectors rely on this data to make informed decisions as to which shipment to review resulting in possible loss of revenue. The Customs Treasury Enforcement and Communications System, or TECS, provides a large database of law enforcement data which interfaces with other Federal and State law enforcement systems and provides integral information for border operations. Without TECS, intelligence, alerts, and lookouts could be lost and we could see an increase in the smuggling of narcotics and other prohibited merchandise, money laundering, and commercial fraud.

Our traveling public could also be adversely affected if the systems should fail due to year 2000 related problems, as advanced passenger information used for targeting high-risk passengers may be unavailable. This could result in more passengers being interviewed and more luggage searched causing congestion and backups at international processing facilities. With systems conversion problems, Customs could also be looking at manually processing checks, the majority of such payments now being made electronically.

In order to ensure that these program nightmares do not occur, Customs developed a comprehensive year 2000 program in 1997 in conformance with the General Accounting Office guidelines to address the efforts required to bring information technology systems and non-IT systems activities in conformance with year 2000 requirements. An executive council, composed of senior Customs managers, was formed to provide oversight to the program. A systematic approach was developed to address the year 2000 challenges. Detailed plans were developed to guide the year 2000 efforts through each step of the process in conformance with the GAO requirements and OMB mandates. Contingency plans also have been developed to address mission-critical computer systems in the event of major systems failures. Contingency plans are in process to address non-mission-critical computer systems, computer operating systems, and telecommunications.

I'm happy to report that Customs is on schedule to meet target dates established by the year 2000 program plan. To date, of the 21 million lines of code associated with mission-critical systems, 88 percent have been renovated, 60 percent have been tested, and 37 percent are back in production.

For the non-IT items, we are continuing our assessment of building systems by reviewing the H-back systems, elevators, and security. Our plans call for the LAN and personal computers to be as-

sessed, tested, and brought into year 2000 conformance by either making modifications or replacement of the equipment. Of the over 4,300 other non-IT products we have assessed in our inventory, 67 percent do not have a date functionality. Of the products with date function, 93 percent are year 2000 compliant. Our next steps in the non-IT area will be to validate the products, oversee the renovations, and develop product-specific test plans and execution strategies. By October 1, 1998, all mission-critical and non-mission-critical systems are to be in production to allow for the full fiscal year of operations for the year 2000. By March 31, 1999, all non-IT systems are to be in production.

The cost to complete the year 2000 renovation is estimated at $122 million. These costs represent the estimated expenditures from project conception to completion, that is, for fiscal 1997 through the year 2000. Of this amount, $34 million relates to the three mission-critical systems, and $50.5 million relate to non-applications such as personal computers, mainframe upgrades and infrastructure.

In closing, I would like to say that although we have made much progress in year 2000 efforts, Customs' year 2000 program approach has provided long-term benefits beyond the year 2000 conversion. This approach has allowed us to take positive steps toward guiding application inventory, central repository, standard metrics for measuring performance, and contingency planning. We realize that there's not much left to be done. However, we will continue to follow our Y2K project approach and move toward our implementation goals. We look forward to working with the Subcommittee to accomplish year 2000 conversion efforts.

Thank you, Madam Chairman. I would be pleased to answer any questions.

[The prepared statement follows:]

Statement of Vincette L. Goerl, Assistant Commissioner, Office of Finance; and Chief Financial Officer, U.S. Customs Service

Good morning, Madam Chairman and Members of the Subcommittee. I am pleased to be here today and present Customs approach to managing the Year 2000 renovation efforts, the status of our efforts and how our efforts will affect Customs major program areas. Although the original mission of Customs was to collect revenue, its role includes guarding and protecting the nations's borders. Customs inspectors at the borders are the nation's first line of defense against illegal drugs, tainted or deseased food and plant products, unsafe or counterfeit goods, illegal weapons, other types of contraband, child pornography, financial crimes and money laundering. It is important for Customs to process passengers and cargo quickly and efficiently but also to ensure that sufficient vigilance and care are exercised to detect and intercept noncomplying persons and substances.

To ensure that Customs pursues its mission effectively and efficiently, three mission critical systems are used. The Automated Commercial System processes over $850 billion in imported merchandise and accounts for the collection of $21 billion in revenue. The Treasury Enforcement and Communications System assists in the processing of over 450 million passengers annually through the U.S. borders. The third system, the Adminstrative/Management System provides for Customs accounting functions, human resource management activities, payroll activities and various other administrative functions. Within Customs, nearly 21 million lines of code must be reviewed as a part of the Y2K efforts for these mission critical systems. Without renovation to these systems, collections after December 31, 1999, cannot be deposited for any previous dates; alerts, lookouts and intelligence would be lost; and payments to creditors and employees would be delayed or incorrect. Y2K non-IT efforts require among many things that 340 LANs and 19,000 personal computers be brought into compliance, and for laboratory equipment to be tested and upgraded as necessary.

PROGRAM IMPACT

Customs interfaces with millions of people, commerical organizations and national and international governmental organizations. Much of this interface is through or in conjunction with computer and other systems. As a result, the failure of these systems to be in compliance with the century change, would critically impact commerce and law enforcement in the United States.

United States Citizenry

The United States Customs compliance laws would have to be manually enforced which could cost the United States Treasury millions of dollars in fines, fees and penalties. In addition, collections could be further impacted should post Year 2000 dates result in incorrect interest and aging calculations.

Trading Partners

Our goal for our Trading Partners is to ensure the release of cargo will not be delayed. The nearly 1.5 million entries, most of which are automatically released, would have to be manually processed. Delays up to a week or more could occur. This could cause a fundamental slow down in trade and hinder the ability of businesses to provide their goods to their customers. For instance, businesses with "just-in-time" inventories will have tremendous problems conducting normal activities. Additionally, shipments with perishable goods could see spoilage causing potentially tremendous losses before the entries are processed and the goods are releasable into the economy.

Brokers, importers, port authorities and others currently have direct access to certain public Customs computer files—primarily entry summary type of data. Qualified users can now monitor and track product entries by use of such tools as information queries, paper less electronic updates and messaging. Tariff, quota status and cargo release data are just some types of data available to qualified system users which would no longer be available, in the event of system failures. The impact of not being able to provide this access would not only mean delays in processing import information but also would burden Customs staffing and may result in less compliance enforcement, as well as less accurate revenue information.

The trade community would suffer further should there be a failure to the systems that the air, sea, rail and truck carriers use to assist them in reconciling their cargo inventories. The reconciliations are necessary as they lead to better management of carriers billing, accounting and traffic control functions.

U.S. Law Enforcement Organizations

For most U.S. Law Enforcement Organizations, enforcement or compliance laws would be in jeopardy if the automated processes used to assist Customs Inspectors in determining which shipments to review is not functioning properly. As a result, the review process would be based solely on the Inspectors' intuitive analyses. This could lead to loss of revenue in the form of fines, fees, penalties and seizures.

The Customs Treasury Enforcement and Communications System provides a large database of law enforcement data which interfaces with other Federal and State law enforcement systems. The system supports other agency border operations, for example, the Immigration and Naturalization Service. Without this system, intelligence, alerts, and lookouts would be lost or not available on a timely basis. Law Enforcement agencies may not be able to detect criminal elements not only on the border but at numerous other locations throughout the country. Increases in smuggling or narcotics and other prohibited merchandise, money laundering, and commercial fraud would be a real possibility.

Traveling Public

The Traveling Public would be adversely affected as advanced passenger information used for targeting high risk passengers may be unavailable should Customs, air carriers and cruise ships systems fail due to Year 2000 related problems. A result would be that a larger number of passengers would be interviewed and luggage searched leading to increased passenger processing time, missed transportation connections and a possible "melt down" at international processing facilities.

Banking Industry

Most of the payments to and from Customs are automated. Filers transmit payment authorization electronically. The payer's account is debited and the Customs account is credited with the amount due, requiring no paper payments and no cashiers. Additionally, Customs clearinghouse bank automatically provides debit information to the payer's (trade community) bank. To revert to manual processing of

checks would adversely impact not only cash flow to Customs but would result in an overwhelming increase in labor costs for both Customs and the payer's banks to process the millions of checks generated daily. The accuracy and timeliness of payment data would also be impacted.

Other Government Agencies

Other Government Agencies interface with Customs computer systems and would experience problems should Customs not be Year 2000 compliant. One Customs system edits broker transactions against classifications established by the Census Bureau. The classification parameters are generally measured against tariff numbers. The data is gathered from the entries and is collected to support the Census Bureau statistical data capture needs.

The Fish and Wildlife Service, Food and Drug Administration and U.S. Department of Agriculture rely on Customs selectivity modules to support their compliance efforts. These agencies would have to revert to manual methods, should they no longer be able to rely on Customs systems.

Antidumping and Countervailing (AD/CVD) enforcement would be impacted by the loss of Customs computer systems. When a United States industry files a claim that merchandise is illegally being sold at less than fair value, these systems are used to track the case as it is investigated. Data is maintained by the U.S. Department of Commerce and is used by Customs as part of its investigative function.

Y2K Program

To address the renovation efforts and potential problems, Customs developed a comprehensive Y2K Program. The Y2K Program was developed in compliance with General Accounting Office guidelines to address the efforts required to bring IT systems and non-IT activities in compliance with Y2K requirements. To provide oversight to the Y2K Program, the Executive Council composed of senior Customs managers was formed. The Program ensured that an approach was taken to address vulnerability assessments, renovation of mission critical systems, validation of efforts and implementation. Also, the Program included provisions for the completion of non-IT building and equipment surveys. Comprehensive strategic and operations plans were developed to guide the Y2K efforts through each step of the process in conformance with the GAO requirements and OMB mandates. Contingency plans were developed to address Customs mission critical computer systems in the event of major systems failures. Contingency plans are also in process to address non-mission critical computer systems, computer operating systems and telecommunications.

For non-IT items, we are continuing the assessment of building systems, equipment and security systems. Most of these systems and products do not date functionality or are compliant. Solutions and fixes have been identified, but must be validated or tested. Our biggest challenge will be ensuring that personal computers and LANS located in over 1500 locations are compliant, either through modification or replacement

Customs is on schedule to meet target dates established by the Y2K Program plans. Of the 21 million lines of code associated with mission critical systems, to date 88 percent have been renovated, 60 percent have been tested and 37 percent are in production. By October 1, 1998, all mission critical and non mission critical systems are to be in production to allow for a full fiscal year of operation before the year 2000. By March 31, 1999, all non-IT systems (telecommunications, building equipment, etc.) are to be in production.

Costs

Project costs to complete the Y2K renovations are estimated at $122 million. These costs represent the estimated expenditures from project conception in FY 1997 to completion in FY 2000, but do not include $1.5 million for independent verification and validation. The $122 million includes:

—$34.1 million relates to the three mission critical systems,

—$50.5 relates to non applications (personal computers, mainframe upgrade, infrastructure, etc.),

—$10 million relates to non-IT systems,

—$9 million to the Y2K Program Office, and

—$18.1 million for government labor.

The Y2K Program approach has several long term benefits beyond the conversion to the Year 2000. This approach has allowed us to streamline application inventory, create a central repository by tying applications to files, tables and internal and external users implementing a Uniform methodology, and develop standard metrics

for measuring performance. We realize that there is much left to be done. We will continue to follow our Y2K Project approach and move toward our implementation goals. This concludes my statement for the record. I will be happy to answer and questions the Committee may have. Thank you again for this opportunity to appear before the Committee.

Chairman JOHNSON of Connecticut. Thank you very much. We have been notified of a vote so I think with five of us here we'll each ask one question, so we get one brief round, and then in case anyone can't come back for a few minutes, they will have had one chance.

I'll start with Mr. Callahan. First of all, thank you all very much for your testimony. It's apparent that you are all very focused on this project in your various agencies. It also is apparent that time is an advantage, Mr. Dyer, that Social Security started early and you are well advanced. I hope that some of your testing experience may give guidance to others that are well behind you, and prevent them from making unnecessary mistakes.

Mr. Callahan, last month you testified before the House Appropriations Subcommittee on Labor, Health and Human Services, and Education, of HCFA's great concern of the slow pace the Medicare contractors were making toward meeting their year 2000 goals. What triggered your concern and how confident are you that the contractors are meeting this? And do you have any reason at all to believe that you should have any concern about the Medicare Choice plans?

Mr. CALLAHAN. In terms of what triggers our concern, Madam Chairman, obviously, the basic concern is they have to be up and running the 70 systems, as you know, process all those 900 million fee-for-service claims. We have visited HCFA staff, as well as some departmental staff, have now visited all the 70 contractors and I think there's a general feeling that while a number of the contractors are making some significant progress, obviously, we would like to be in a position to have them all be ready to do end-to-end testing by December 31, 1998. I think that's a tall order and so that's the reason I indicated my concerns at the Subcommittee hearing. With regard to Medicare+Choice, I think the issue is somewhat the same as Mr. Rossotti mentioned. A lot of the people we're having dealing with the programming of systems have to do year 2000, they initially were doing transition work to single A and single B systems which we've now suspended so that they can go back to year 2000 work. So, I will give you an answer for the record about the impact of this on our Medicare Choice contractor systems. I don't have a definitive answer for you right now.

Chairman JOHNSON of Connecticut. OK, thank you very much.

Mr. Coyne.

Mr. COYNE. Thank you, Madam Chairman. Mr. Dyer, are there any particular concerns that you have with regard to the administration, Social Security Administration's systems interface with IRS, the employers and others that you deal with?

Mr. DYER. At this time, we do not have any concerns. We track it. I have a list biweekly of where we are, whom we're working with. As I mentioned, 65 percent of our data exchanges are year

2000 compliant and have been implemented, and we've set our priority, obviously, on being able to assure we get our payments out, our checks out, direct deposits made successfully, and we're zeroed in on it. At this time, we're not aware of any problem.

Mr. COYNE. And your relationships with the others doesn't present you a problem?

Mr. DYER. No, we've been working very closely with everybody at this table.

Mr. COYNE. Thank you.

Chairman JOHNSON of Connecticut. Mr. Hulshof.

Mr. HULSHOF. Mr. Callahan, following up Mrs. Johnson's questions regarding the contractor issue, seems that a lot of the claims processing contractors are doing a great deal of non-Medicare business which requires Y2K compliance systems. In fact, some of your part B claims processing is done by a firm that is well known within the industry. So is there a problem with these contractors? I'd like you to elaborate just a little bit if you would.

Mr. CALLAHAN. Well, I can't give you a specific answer for every specific contractor. I'll give you this general answer. We do know—it's our understanding that on their non-Medicare side of the business, which is the proprietary side, they're obviously moving heaven and Earth to make sure that that part of their business is Y2K compliant. We would hope, obviously, that the lessons they learn there will be reflected back over into the Medicare side. One thing that I would mention is that we indicated in my testimony that we believe there is a need for additional resources for the contractor effort at HCFA to make it Y2K compliant. We received another $20 million. We're going to be transferring probably another $43 million as quickly as we can and another $60 million in 1999. So we will move the resources as best we can into this effort.

Chairman JOHNSON of Connecticut. Thank you.

Ms. Thurman.

Ms. THURMAN. Mr. Dyer or Ms. Craig, in following up to Mr. Coyne's question, we talked a lot about agencies within agencies, what about direct deposit where we would be working with banks? What is happening in that area?

Mr. DYER. Why don't you go ahead.

Ms. CRAIG. The Federal Reserve System has already announced that they are compliant, and for the electronic payments, we actually transmit those payments to the Federal Reserve and then they're working with all the financial institutions. Most of them, we think, are doing OK. If it should turn out that there is a bank that is not ready, that payment would then come back as nonreceipt, and we would, back through the Federal Reserve, through Treasury, to Social Security. So it wouldn't get lost, it's just that it would take extra time then to either reissue it as a check payment or wait until that bank was ready to issue it.

Ms. THURMAN. OK, thank you.

Chairman JOHNSON of Connecticut. I think it was Mr. Callahan, one of you mentioned in your testimony that in the telecommunications area, some of the companies did not have Y2K compliant components yet. Which one was it?

Mr. FLYZIK. Madam Chairman, yes, that was me—Treasury operates the largest private communications network in the civilian

government and one of the risks I identified is the massive complexity of scheduling this. We're scheduling around the IRS tax season. We're scheduling around what we need to do to support all the bureaus as well as then trying to plan that as vendor compliant products become available, we need to factor in their schedules. One of the high-risk areas we have is some of those vendors schedules have continued to move and have been moving targets which means we are constantly adjusting our schedules to be able to do end-to-end testing. So even though many of our applications will be available, say in Washington and out in various regions, the ability to test them across the entire United States for all the components that we're relying on from the commercial services, individual products, and vendor's components has been an issue we're dealing with.

Chairman JOHNSON of Connecticut. This is extremely concerning. I mean it's very clear from all of you the role the telecommunications system plays in the government being able to serve nationally and internationally its taxpayers and customers. And if we can do everything we're responsible for doing but can't get the parts then we have the same outcome. So I would like to have you get back to me about how serious this is, what can be done, is there a way to press forward on a second set of suppliers. We have faced these situations sometimes in defense areas, and certainly we cannot allow the possibility of untimely delivery of components to prevent us from moving forward if we've met all the other management challenges and technical challenges associated with being compliant with the year 2000 demand. So if there's—I think you need to enlarge on that for us and I think we need to talk through whether there's any way that we could be a more helpful partner in achieving that goal. I am going to dismiss this panel. We're going to go vote, give you all a break. I'm sorry that we didn't have a longer question period but I appreciate the quality of your testimony and also because we haven't had much time to question, we may follow up with written questions not raised and then, of course, there is some conversation to go forward on issues raised.

We'll recess for, is it one vote or two? One vote. We'll recess until 12. Thank you.

[Recess.]

Mr. PORTMAN [presiding]. First, John Bace is here, research director of the Gartner Group, Inc., in Rosemont, Illinois. We're also going to hear from Harris N. Miller, president of Information Technology Association of America; Steven McManus, who is communications manager of the BankBoston, Boston, Massachusetts; Irene Dec, vice president, information systems, Prudential Insurance Co. of America; Jennifer Jackson, general counsel of the Connecticut Hospital Association, on behalf of the American Hospital Association; and Mary Nell Lehnhard who is senior vice president, Office of Policy and Representation, Blue Cross and Blue Shield.

Mr. Bace, if you could begin the testimony. We'll just go right down the line. We have 5 minutes for your formal presentation, and any written material you have will be happily accepted into the record, but we want to keep it on track so we have a chance to ask questions.

Mr. Bace.

STATEMENT OF JOHN BACE, RESEARCH DIRECTOR, GARTNER GROUP, INC.

Mr. BACE. Very good. Thank you, Mr. Chairman, and Members of the Subcommittee. My name is John Bace and I'm a research director for the Gartner Group and I would like to take this opportunity to thank you for inviting us today to share with you our findings on the year 2000, or Y2K as it's known, and the state of work underway on year 2000 projects, both here in the United States and around the world.

Before I get into the details of our research, allow me to tell you something about the Gartner Group. Founded in 1979, we're the world's largest information technology research and advisory firm, with more than 33,000 individual clients at more than 9,000 organizations worldwide. We cover this very fast growing industry with more than 750 analysts located in 49 countries around the world. We published our first research about the upcoming impact on Y2K back in 1989 and we're sorry to say that we can only deduce that our warnings and suggestions have gone mostly unheeded. Our current research, completed in the first quarter of 1998 on the state of the IT infrastructure regarding year 2000 makes us very pessimistic. Indeed, the year 2000 problem infesting the world's computers and IT systems has the potential to have a negative impact on or to disrupt the normal flow of everything we do, from brewing our coffee in the morning and recording our favorite television show at night, to putting into question our financial net worth or keeping track of who we are and where we work.

At the heart of this problem, as you've heard time and again, is the practice of using only two digits to record the year in computer programs, records, and database entries. Thirty-five years ago when hardware was expensive and storage was scarce and the industry was evolving quickly, the use of two digits for years was considered a best practice. The programmers or systems analysts of the day never thought that the programs that they were writing would survive to the end of the decade, much less into the next century. Indeed, many companies faced many Y2K crises in 1969, 1979, and 1989 as they wrestled with some computer programs that kept track of the year with only one digit. However, the way the industry evolved building the next generation on top of the previous, those best practices of yesteryear became the cracks in the foundation that threaten the entire house today.

As a result, we stand on the threshold of an unpredictable and uncertain future. No one is completely sure what impact this year 2000 problem will have on us personally, on the economy, or the society in general. Some will lead you to believe that the problem will begin at the stroke of midnight on December 31, 1999. Indeed, some scenarios recall the fifties science fiction movie, "The Day the Earth Stood Still," with lights going out, motors grinding to a halt, and airplanes falling from the sky.

These are not the subjects of our research at the Gartner Group regarding the year 2000. We believe that the fundamental computer programs, those that are used to run most companies have, in some cases, already experienced the year 2000 anomaly. Indeed, some production planning systems that use a 5-year resource balance view, hit the Y2K wall 3 years ago. Insurance companies and

financial institutions that calculate interest rates have been wrestling with and doing work around the 00 year for some time. In each case, as these companies hit their time horizon failure, or THF, as we call it, normal operations were interrupted and the resources of the enterprise were thrown in to fight the problem in crisis mode.

Most have handled these year 2000 problems successfully and have done nothing more than create a small ripple through the economic structure of the company. What worries us at the Gartner Group is that as we approach New Year's Eve 1999, more and more companies will hit their time horizon failure on more and more different applications. As a result, more and more business functions within each enterprise will be negatively impacted and need to be dealt with in a crisis mode. We're afraid that there just will not be enough talent and resources available, given the amount of time left, to handle all of the potential failures in a timely fashion. As a result, companies could lose the ability to process invoices, issue payroll checks, or collect taxes for an unpredictable amount of time as they wrestle with each system failure. Other companies who are dependent upon electronic commerce, EDI, or just-in-time manufacturing need to be concerned about the integrity of the systems of their trading partners and their supply change. For example, the inability of a parts supplier to be able to correctly read inventory levels at manufacturing companies could shut down another firm's production line. The result is that no one single year 2000 problem hits a major artery that could kill a company, however, the combination of failures within the enterprise and from outside might have the effect of disrupting business in such a way that the company bleeds to death instead from a series of paper cuts.

As normal business operations are interrupted, there will be follow-on economic disruptions. Some say the impact will be mild, a two- or three-quarter dip in the gross national product that will feel like a speed bump on the road of the longest economic expansion in history. Others suggest that the year 2000 business disruptions will be a pothole that finally puts to an end our growing economy. Indeed, one estimate suggests the economic impact will be equal to the OPEC oil embargo in 1972.

Finally, before I get into the details of our research, allow me to share with you one last observation about the year 2000 marketplace. Some estimate that Y2K has the potential to become the most litigious event in the history of civilization. Indeed, if the Internet is any indication and depending upon the type of search engine you use, you may find nearly one half of the results from a search on year 2000 and Y2K to be from law firms or class action groups preparing for the results of the new millennium crossover. Lloyds of London, at an underwriter's conference in June 1997, estimated impact of year 2000 total cost for just the United States at $1 trillion. The Lloyds' figure included not just the cost of hardware, software, and services for remediation, but also the cost of litigation, actual and punitive damages, and lost opportunity cost.

Five years ago, the Gartner Group began work on a measurement tool called the COMPARE Scale, and COMPARE stands for compliance, progress and readiness. Our clients told us that they wanted a universally understood yardstick that could be used to

communicate within the enterprise, the board of directors, auditors, trading partners, and customers, about the status of the year 2000 remediation efforts.

Mr. PORTMAN. Mr. Bace.

Mr. BACE. Yes.

Mr. PORTMAN. Could I ask you to summarize the remainder of your oral testimony? Again, knowing that your entire written statement will be made part of the record.

Mr. BACE. Very well, sir. In essence, what we find as of the first quarter of 1998, is there are only 5 percent of all companies in the world that are fully remediated year 2000 capable. They are at what we call level 4, which is all mission-critical systems fully operational and the enterprise is operationally sustainable, the enterprises are at 10 percent. Those who have at least 20 percent of their systems remediated and in work is at 25 percent, and we find approximately 50 percent of all companies have, at this point in time, not touched a single line of code at work in Y2K. And if we project that out to the future, given the trend lines, by January 1 in the year 2000, only 50 percent of the companies of the world, the enterprises of the world will be at what we call level four, or level five which is basically operationally sustainable vis-a-vis year 2000.

[The prepared statement follows:]

Statement of John Bace, Research Director, Gartner Group, Inc.

Good afternoon Madam Chairwoman and members of the committee. My name is John Bace and I am a research director for the Gartner Group. I would like to take this opportunity to thank you for inviting us here today to share with you the findings of our research on the year 2000—or Y2K as it is known—and the state of work underway on year 2000 projects both here in the United States and around the world.

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In each case, as these companies hit their Time Horizon to Failure (THF), normal operations were interrupted and the resources of the enterprise were thrown in to fight the problem in a crisis mode. Most have handled these year 2000 problems successfully and have done nothing more than create a small ripple through the economic structure of the company.

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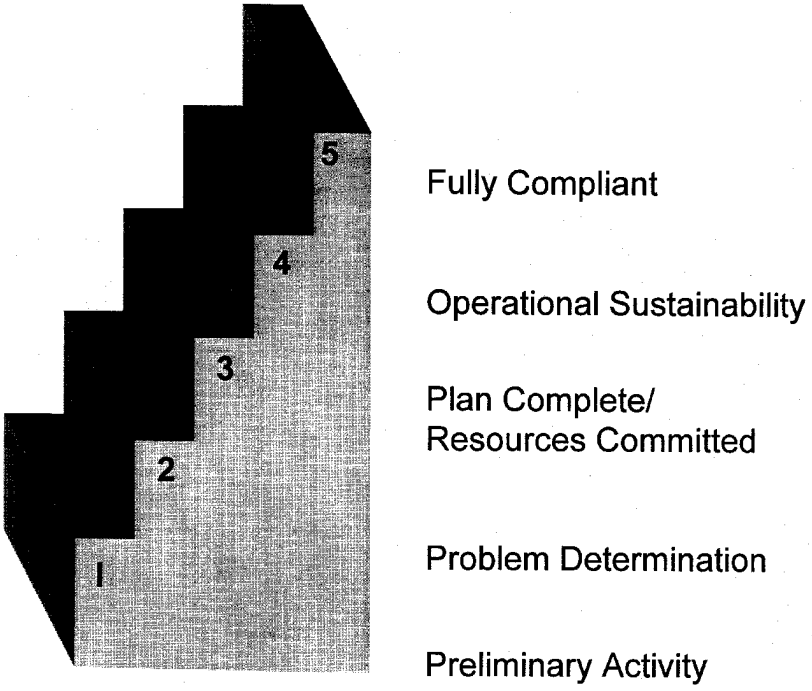
The scale, which is seen in Figure One, is graphically illustrated as a smooth set of equal steps. In reality, the scale is logarithmic, which means it is nearly twice as difficult to go from step three to step four as it was to go from step two to step three.

Figure One



The scale begins, of course, at Level Zero, which means no awareness of the year 2000 problem. At Level One, the enterprise is in the information gathering stage, planning resources, and establishing vendor compliance requirements.

At Level Two, the enterprise has a full and complete inventory of its IT portfolio, the core team for the Y2K Project Management Office has been selected, test scripts are being developed, non-IT and embedded systems are being reviewed and an impact analysis is underway.

At Level Three, the key requirements that need to be met for the enterprise are that the budgets are fully approved, assessment is complete as well as the impact analysis and the test scripts are fully developed. By this point in time, the enterprise needs have completed at least 20 percent of mission critical systems remediated, tested and reimplemented as well as 20 percent of its PC and desktop assets.

At Level Four, the remaining 80 percent of all mission critical systems are fully remediated, tested, and reimplemented. Which means, the IT systems provide the enterprise operational sustainability to reach the millennium crossover point.

At Level Five, the key factor for success is that all of the trading partners, electronic commerce links, and supply chain systems for the enterprise are fully remediated, tested, and functional.

In the first quarter of 1998, Gartner Group undertook a survey of 6,000 companies in 47 countries to determine the worldwide status of year 2000 projects. This survey sample was developed in such a way as to give us the most accurate and detailed status by size of enterprise, industry, and geography. Figure Two shows the results of our worldwide findings.

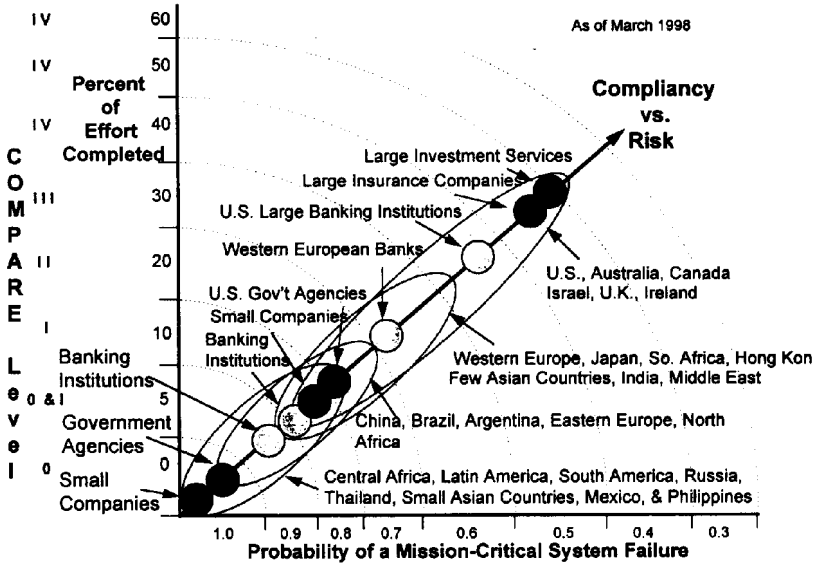
Figure Two. Worldwide COMPARE Scale Results as of 1Q1998

COMPARE Scale	Percentage
Level Zero	25%
Level One	20%
Level Two	15%
Level Three	25%
Level Four	10%
Level Five	5%

The most telling numbers here are the cumulative additions for Levels Zero, One, and Two. That translates into 60 percent of the world's companies which have yet to remediate, test, and reimplement at least 20 percent of their IT systems. Additionally, our research shows that the five percent reporting themselves at Level Five are either very small companies or those with extremely limited, non-automated interaction with other firms.

How does the United States and how do key industries show up on the COMPARE Scale? I call your attention to Figure Three, which at first glance looks to be extremely complicated, but allow me to walk you through this chart.

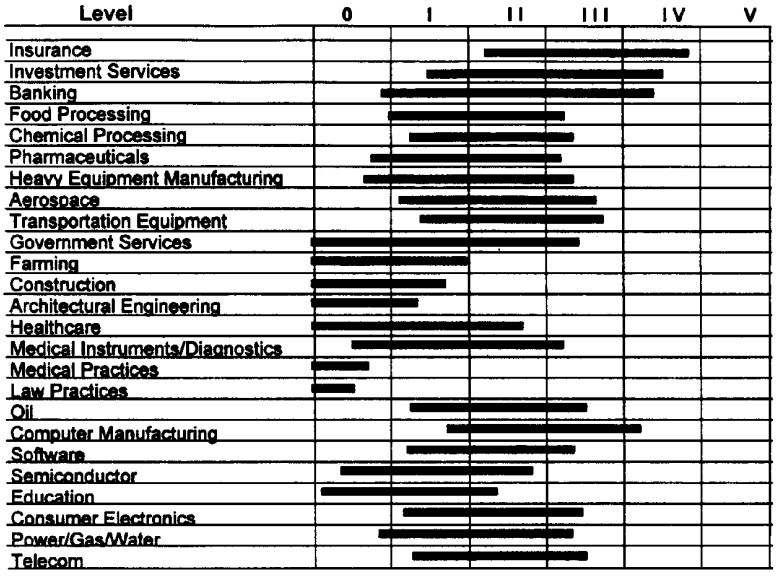
Figure Three



We can see a large oval stretching primarily from the Level One 10 percent curve to just beyond the 50 percent complete curve at Level Four. This represents the status of the United States, Australia, Canada, Israel, the United Kingdom, and Ireland. Within that oval, you can see that the large investment services, large insurance companies, and large banking institutions are the furthest along on this scale, which translates into the lowest probability of a mission critical system failure due to year 2000 anomalies.

Figure Four

Status by Industry — Worldwide

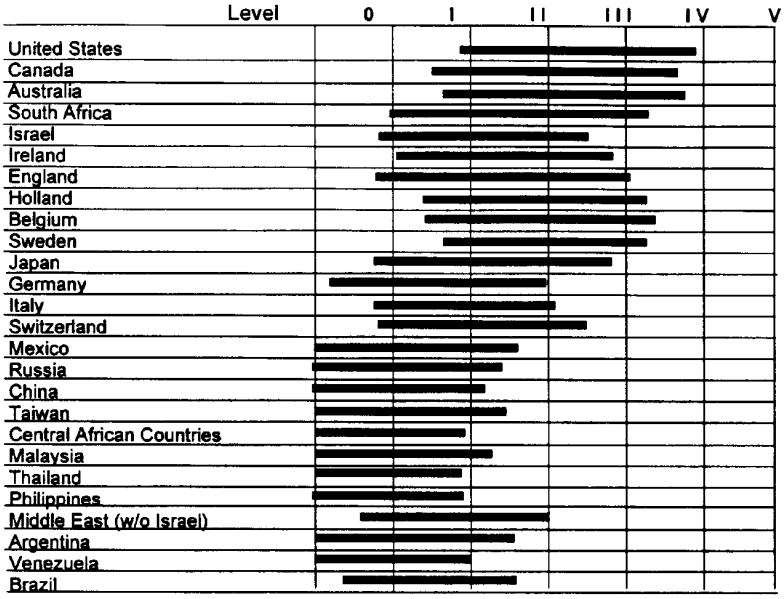


Our research indicates that governmental agencies in the United States—state, local, and federal—are generally at about 15 percent complete in their year 2000 projects, which would place them on the threshold of entering Level Three on the COMPARE Scale. There are, of course, some agencies further along than others, however the majority are still far behind in their work.

Figures Four and Five provide an overview of the worldwide results by both geography and industry.

Figure Five

Status by Geography — Worldwide



If these trends continue, our predictions for completion of year 2000 projects by January 1, 2000 are very pessimistic. Figure Six summarizes our estimates based on current trends. These translate into only half of worldwide enterprises reaching operational sustainability with 20 percent reaching Level Five and 30 percent at Level Four. This does not mean we are predicting one half of these companies will fail. What we are suggesting here is that these companies will experience disruptions in normal business procedures and operations due to year 2000 computer related problems.

Figure Six. COMPARE Scale Predictions as of January 1, 2000

COMPARE Scale	Percentage
Level Zero	20%
Level One	5%
Level Two	10%
Level Three	15%
Level Four	30%
Level Five	20%

As a citizen of the Republic and an investor in the economy, I wish I could be more optimistic. However, as a technologist who wrote his first computer program in 1968 I am painfully aware of the impact even two simple wrong digits can have on the operation of any IT system. As result, this is a very real problem that needs to be addressed quickly.

I thank you for your time and this opportunity.

Mr. PORTMAN. I don't know if I should thank you for that discouraging statement, but I will thank you for your testimony, and I look forward to questions. [Laughter.]

Mr. Miller.

STATEMENT OF HARRIS N. MILLER, PRESIDENT, INFORMATION TECHNOLOGY ASSOCIATION OF AMERICA (ITAA)

Mr. MILLER. Chairman Portman, I'm not going to be any more optimistic than the previous speaker, unfortunately. We, in the information technology industry, both in the United States and globally, are very frustrated with the lack of progress. Let me go on record publicly with what those in the know are thinking and saying privately. We are very, very worried. In the several years that ITAA has been out there speaking about this issue, I'm afraid to say the progress is very slow. The first panel this morning, which I would characterize as the Bobby McFerrin panel, ''Don't worry, be happy,'' really didn't convince me very much we're making a lot of progress.

I'd ask the Chair to note, that for example, they kept talking only about mission-critical progress. They're not even talking about all their systems. The jargon has changed a lot the last 3 years. I would also note that there was a lot of focus on contingency planning which, again, doesn't bring a lot of optimism to one's heart.

I'd like to talk about five areas where I think that this Congress can take leadership to deal with this major crisis which is not just a national, but international crisis. First, I believe the Congress needs to step up to the challenge. For example, the Senate recently set up a special committee which goes across jurisdictional lines, committee lines. I think that gives the Senate a more effective oversight and I would suggest the House consider doing the same.

Second, I would suggest that the U.S. Congress, because of its role, in essence, as the Nation's board of directors, provide a much more aggressive set of oversight hearings because ultimately the voters, the taxpayers, the citizens are going to look to you. For example, the Congress should call immediately upon the President and the Vice President to take a much more aggressive leadership role. John Koskinen, the Y2K Czar, is a very outstanding public servant determined to do his best. But without a major commitment from the top of this country, and that means the President and the Vice President of the United States, we simply are not going to pay enough attention to this.

Other countries have come to this realization. If you look to the United Kingdom where Prime Minister Tony Blair has taken leadership; If you look to Canada where the Prime Minister Jean Chretien has spoken; if you look to Australia where they're now about to embark on a national television advertising campaign, you see a lot more leadership from the political leaders in those countries than you do in the United States. And that's why we believe the President should make a national address and Congress should be much more aggressive on this issue.

Step two is it takes more money. Again, we're involved in what John Koskinen himself has referred to as a Kabuki dance, where Congress doesn't appropriate more money because the agencies don't ask for it, and the agencies don't ask for it because they're trying to stay within certain predetermined budget limitations. The fact of the matter is if the systems go wrong, as they possibly can, in the Federal Government, the State governments, the private sec-

tor, the price to be paid down the road will be substantial. And we suggest very strongly that we need to get the funding available as soon as possible. I'm pleased to see as a citizen that we're heading toward a budget surplus in this country for the first time in three decades. But if we're not appropriating enough money to fix the year 2000 problem, the surplus could quickly turn into a deficit because of the negative impact on the economy.

We have already found in a survey that we did that 44 percent of organizations have already experienced a system failure. You will hear similar reports from other speakers later. We're recommending, specifically, Mr. Portman, that the Congress establish a $500 million contingency fund immediately that would be available, particularly during the period when Congress will be in recess—you'll be going into recess in early October and not back until February—that may be a critical time for the Federal agencies that need access to money. I think this Subcommittee could play a leadership role in that.

Third, public education is absolutely critical. I mentioned the public advertising campaign in Australia. I think the government needs to take a much more aggressive public education role in this country. You need to be much more aggressive in terms of bringing the message back to your constituents. Every Congressperson, every Senator has townhall meetings. You all have newsletters. You need to communicate much more aggressively with your constituents. That will help get the message out there. It's not a good message to deliver. I know elected officials don't always like to deliver messages that aren't very positive, but I know you've been very candid as a Congressperson in your leadership of this country, and I know your colleagues want to do the same. This is a time for real leadership.

Fourth, when there is more public education, there's going to be more public demand for rational solutions. And there are some creative public policy responses that this country has not yet looked at that are being looked at in other countries. For example, emergency tax incentives to help the most at-risk populations, particularly small- and medium-size enterprises, because they are the ones that have the most at risk. Also, research and development, R and D, tax credits, and credit guarantees, expedited procurement process, enhanced training opportunities and associated tax credits to deal with the work force shortage. All of this needs to be focused on.

My final suggestion is discipline. We have to focus on the year 2000 problem and to solve it. Within the Federal Government, State governments, local governments, and in the private sector. Basically, what we see is what we call the big disconnect, a lot of talk about the crisis but not much action in terms of solution. This Congress could lead on discipline. You've already heard from Mr. Rossotti this morning, and we endorse his request that there be some deferral of some important tax law changes. Not elimination but deferral, so that there can be a focus.

Europe, for example, has dug itself a tremendous hole by trying to move ahead with the year 2000 challenge at the same time as trying to do their Euro conversion creating, in a sense, an impossible task. Please don't do the same thing to our government, to

Mr. Rossotti, to any Federal agencies, by adding new IT demands on top of the year 2000. In fact, Canada is implementing what they call basically a change freeze, no more laws that will change IT if it would in any way get in the way of the year 2000.

In summary, I would urge Congress to not perpetuate the big disconnect, to put the pieces together of the difficulties that are faced and the challenge that must be addressed. Congress has a critical role of planning this challenge. And I tell you that the industry is prepared to work with you to help solve the challenge.

Thank you very much, Mr. Portman.

[The prepared statement follows:]

Statement of Harris N. Miller, President, Information Technology Association of America (ITAA)

Madame Chairwoman and distinguished members of the Subcommittee, on behalf of the 11,000 direct and affiliate members of the Information Technology Association of America (ITAA), I am pleased to appear before you and offer insights into the single most important information technology challenge facing government and industry today—the worldwide Year 2000 software conversion.

This is not just an information technology challenge. This is a fundamental challenge to the ability of organizations throughout the world to continue to function. And it is a challenge which could have tremendous negative consequences for economies and governments throughout the world if it is not met.

ITAA represents information technology companies working at the forefront of computer software, Internet and electronic commerce, telecommunications, systems integration, outsourcing, consulting and more. Our members have been on the front lines of the struggle with the Year 2000 software challenge, helping their customers leap this hurdle with new products and services or Y2K specific fixes to existing systems. As an Association, ITAA has led industry's efforts in dealing with this difficult issue. Because I also serve as President of the World Information Technology and Services Alliance (WITSA), ITAA has reached out to many international organizations such as the Organization for Economic Cooperation and Development (OECD), the United Nations, the World Bank, the Bank for International Settlements and the G–8 to urge them to take Y2K seriously. The WITSA White Paper was the first international paper on the importance of Year 2000. ITAA is proud to be the organization that the world looks to for Y2K information, news, insight and public policy leadership.

You have asked ITAA to provide an assessment of the nation's Year 2000 preparedness. Let me go on record publicly with what those in the know are thinking and saying privately. We are very worried. When ITAA first got involved with the Year 2000 issue back in 1995, we talked in terms of the marketplace as a "deer in the headlights." In those halcyon days, we sought a balanced approach to this situation which would educate organizations to the urgency for fast movement while not allowing the magnitude of the problem to cause sensory shutdown.

How far have we come in the last three years? I must say, not very. On the first part of the challenge—awareness—we have done reasonably well. Virtually no one can say that he or she is not aware of the Y2K issue. But on the next stages—commitment to and actually solving the problem—we are very frustrated. The focus of conversation among those best versed in this issue is about how we are going to clean up after what appears now to be an inevitable train wreck. As a society, we are on the point of conceding failure. Those unwilling or unable to move off the track are numerous. Federal agencies. State governments. Local and municipal governments. School districts. Private sector industries. Small and mid-sized companies. Critical infrastructure players. And most foreign nations. It's crazy. It's frustrating. It cannot be happening. But it is. Now the "smart" questions have shifted to concentrate on contingency planning, crisis management, and liability. Lawyers are circling, and that is not a good sign.

Failure is not part of the American fiber. Yet after this transition to the new century, society may have to admit that here was a situation it saw coming. Everyone understood its hard deadline. Everyone appreciated its worldwide scope. Everyone realized its massive potential to cause harm. And everyone let it happen.

This morning I would like to talk what Congress can do help the country and the world off the path of fast approaching disaster.

My five step program to Y2K wellness includes:

1. Step up to the challenge

2. Spend the money required
3. Educate the public to the problem
4. Provide incentives to a solution, while highlighting contingency planning
5. Exercise discipline in setting competing priorities

Stepping up to the challenge means accepting the mantle of leadership on this issue. The Senate recently established a special Committee to deal with the Year 2000 situation, and I encourage the House to do the same. The Senate Committee will provide oversight and legislative recommendations to help the government and private sector react quicker and more effectively to the economic difficulties arising from the Year 2000 system failures. The Committee will focus special emphasis on such areas as utilities, telecommunications, transportation, financial services, general government services, general business services and litigation, cutting across traditional jurisdictional lines. Under the leadership of Senator Robert Bennett, the Senate has begun to take a big step in the right direction.

The government Y2K report cards issued by Congressman Stephen Horn and the hearings held on this issue by the House Subcommittee on Government Management, Information and Technology; the House Subcommittee on Technology; and other Subcommittees have also helped bring important scrutiny to bear on the performance of government agencies and, to a lesser extent, regulated industry. The House is to be commended for its leadership in this area.

What has been missing throughout this process, stretching back to the first House hearing in 1996, is a sense of real ownership. The U.S. Congress is the nation's board of directors. You provide the highest level oversight of federal agencies, critical infrastructure industries and international relations. You are ultimately responsible to your shareholders—the American voter.

Year 2000 is an issue which will affect shareholder values. Those values are measured in the health of the national economy, consumer confidence, global trade, political stability and similar constructs. The proliferation of information systems into virtually every facet of modern life, from the embedded chips in complicated weapons systems to the wafer thin chip on a smart card, puts Y2K on a collide path with business as usual.

With the notable exceptions that I mentioned just now, Congress has been slow to grapple with this issue of the century date change. The Year 2000 is a potentially devastating issue with breathtaking scope and an immovable deadline. The Year 2000 challenge is a call to think beyond the routine in response to an unprecedented situation. Today, leadership demands that Congress move past exploratory hearings to concrete actions; tomorrow, your accountability will be to the American people.

How do you exercise this leadership? First, use the power of the Legislative Branch to get the President Clinton and Vice President Gore. John Koskinen, the recently appointed Y2K czar, is an outstanding public servant doing exceptional work in attempting to marshal a cohesive federal response. But his appointment came very late. We have drifted well beyond the point where anyone but the President and Vice President of the United States can put the country on the necessary emergency response footing. The office of the Y2K Czar is staffed by four people and does not have the needed resources that a problem of this magnitude requires.

Other nations have come to this realization. In the United Kingdom, despite some stumbles along the way, Prime Minister Tony Blair has put the force of his government behind the Y2K issue, placing a Cabinet Minister in charge of a ministerial-level Y2K oversight group and forming a government program, Action 2000, to coordinate a government/industry response. Prime Minister Blair has proposed a set of initiatives valued at almost 100 million pounds, with 30 million pounds slated for "bug busting" training courses and 17 million pounds for programs affecting small and mid-sized businesses and related work.

In Canada, Task Force Year 2000, a blue ribbon commission of key industry CEOs, is working with the government to make recommendations as an impetus to action. We would do well as a nation to use the commission's series of 18 recommendations to bootstrap a national action agenda for the United States.

In Australia, a national television advertising campaign is about to bring a Year 2000 focus into the homes of average citizens and on to the radar screens of thousands of small and mid-sized businesses.

By any measure, the U.S. is the world leader in information technology. Just last month, the U.S. Department of Commerce released a report showing that information technology accounts for 8.2 percent of GDP, up from 6 percent just a few years ago, and contributes more than twenty five percent of GDP growth. With so much at stake, should we really be doing less than the U.K., Canada or Australia? Of course not. That is why we believe President Clinton should make a major national address on the issue immediately. That is why we believe Vice President Gore should be using his status as the "high tech" Vice President to press the urgency

of the Year 2000 message to industry groups and his standing as the "reinventing government" Vice President to ramp up the response within federal agencies.

Step two. Congressional leadership on this issue will require spending the money required to make the necessary repairs inside government and to understand the status of external trading parties. John Koskinen referred to the current Y2K funding situation in Washington as "a grand kabuki" dance, with federal agencies refusing to step forward with requests for additional funding and Congress unwilling to supply the funds until such requests are made. President Clinton, speaking through the Office of Management and Budget, has told his agency heads to reprogram the necessary dollars.

This dance has been going on for at least two years now. Unfortunately, federal agencies have too often placed the need to protect programs and jobs in front of the more urgent requirement to solve their Year 2000 problems. Nothing will changeunless you change it. I urge you to stop the kabuki dance by forcing agencies to disclose the level of reprogramming now underway. I respectfully suggest that if an agency is not appropriated new Y2K funds and is not reprogramming existing funds, insufficient date repair work of consequence is being performed. I am pleased that the U.S. government will run a budget surplus this year for the first time in decades, but if one of the prices for doing so is not fixing the Y2K problem, that is a very bad trade-off. The negative economic consequences of not fixing Y2K could, some economists are predicting, lead to a substantial slowdown in our country's economic growth. This, in turn, would lead to reduced tax revenues and head our federal budget back towards deficits.

Congress can be part of the solution by demonstrating the risk management strategies now urged for the marketplace as a whole. Part of risk management involves having the vision to plan for contingencies. Given where the federal government stands today, I feel very confident in predicting that some mission critical government systems will fail—perhaps as early as January 1, 1999. A recent ITAA survey showed that 44% of organizations have already experience a Y2K failure.

ITAA is not alone in stating this likelihood of failure; the General Accounting Office (GAO) also shares this assessment If and when these failures happen, reprogramming dollars or protecting federal workers—the federal kabuki dance—may at last be considered beside the point. I assume that at that unhappy point in time, government agency heads will be ready to contract with private sector firms specializing in Y2K remediation and testing to expedite the necessary repairs. We suggest that a special $500 million contingency fund be established to cover the period of October 1998 through February 1999. Congress will be adjourned during most of this period—a period during which emergency access to additional funds may prove critical.

I also urge this Subcommittee—and every other Subcommittee with oversight authority—to require agencies to identify and respond to their inter-government and extra-government interfaces. Such electronic handshakes must be made with state governments, municipalities, foreign nations, and private sector firms. The smooth functioning of government depends on the ability of these highly integrated systems to operate without date errors. While Mr. Koskinen and the Federal CIO Council are making attempts to build the list of external interfaces with state governments, I suggest that Congress make this cross-cutting project its own, spending whatever funds are necessary to acquire the private sector expertise necessary to perform quickly and effectively the work.

Step three. Public education is critical. I mentioned the public service advertising campaign launched in Australia. I urge Congress to make Year 2000 a the top priority issue of the U.S. government for at least the next two years. No services are more important to Americans than Social Security and Medicare; no system may be more important to the efficient operation of government than tax collection. Your conviction to hold this hearing today is a stake in the ground. Now build on this good start by continuing to hold Y2K hearings. Also, as you get public and private sector CEOs, CFOs, and CIOs in these witness seats, whether or not the hearing is specifically related to Year 2000, ask about Y2K status. The answers you receive may be very revealing. And do not accept pat responses or easy assurances. Congress is the steward of the public trust. I urge Congress to keep asking questions and to drill down for substantive answers. Doing so will help the public understand this issue, and where they should concentrate their concerns moving forward.

Individual Congressmen and Senators can also use other tools as their disposal such as newsletters and town meetings to increase the awareness among the general public.

Step four. Public education will inevitably lead to public demand for rational solutions. We have not begun to scratch the surface on creative public policy responses to this issue. Countries around the globe are considering emergency tax incentives

to help the most-at-risk populations—small and mid-sized enterprises—deal with this issue. We have begun to hear about low interest government loans to stave off bankruptcies. R&D tax credits and credit guarantees. Expedited procurement processes. Productivity corps to assist small firms and proliferate best practices. Enhanced training opportunities and associated tax credits. And much more. We are limited in creativity only by our willingness to engage this issue directly.

And that brings me to my final point this morning. Step five. Discipline. Having the will to attend to the Year 2000 problem and to solve it. Within our local communities. Across states. Around the nation and throughout the world. During World War II, we did not become distracted by other concerns and divert precious resources to other efforts. As a country, we found the collective will to win. We discovered the discipline. Today, America's efforts to cope with the Year 2000 are diluted and disconnected. Indeed, we often talk about the tepid response to the Y2K tidal wave in terms of "the Big Disconnect."

This Congress can help the country find its will to win by exercising discipline. As Congress goes to pass new laws that will require computer system changes, ask yourselves whether the risk is worth the reward. In Europe, we have the example of a rush to judgment on the Euro implementation—a competition which at best dramatically decreases the odds for successful Year 2000 conversion in some of the world's largest economies. Here, we have a similar concern with the Internal Revenue Service (IRS). With systems already committed to the limit, Congress must show flexibility in asking the IRS to maintain existing systems, introduce changes to the tax laws, modernize and conduct the Year 2000 conversion. ITAA urges Congress to follow Commissioner Charles Rossotti's request to soften some of its timelines in the current legislation in order to ensure that our tax collection system is able to operate effectively in the Year 2000.

Congress must reconsider any legislation that requires major changes in the federal IT systems. Canada is attempting to implement a "change freeze" in its government IT systems so all energy can be focused on Y2K. It is too late to expect government agencies to fix their systems while also adapting them for new programs. Today, by ignoring this simple reality, Congress is perpetuating "the Big Disconnect." The pervasive apathy. The business as usual mentality. Today, you can help end it. With discipline.

In conclusion, I urge this Subcommittee to do everything in its power to make Y2K preparedness a national concern. There are 602 days left. Although the train is barreling down the track, it is still not too late. Congress has a critical role to play in meeting the challenge, and the five step program I have outlined here today can help. Congress does not want to be placed in the position of wishing it had taken this issue more seriously while there was time left to address the challenges. The American public—and the world at large—are counting on you. ITAA is ready to assist you in every way possible.

Thank you very much.

Mr. PORTMAN. Thank you very much, Mr. Miller.

Mr. McManus.

STATEMENT OF STEVEN P. MCMANUS, COMMUNICATIONS MANAGER, MILLENNIUM PROJECT, BANKBOSTON, N.A.

Mr. MCMANUS. Mr. Portman, I'm Steven McManus, communications manager for BankBoston's millennium project, and I'm pleased to have this opportunity to present my views on the magnitude of the year 2000 problem, the associated business risks, and the adequacy of remediation and risk management efforts being undertaken by the financial services industry.

With $71 billion in assets, BankBoston is ranked number 15 in the country, with over 700 offices in 24 different countries. We were also the first bank in the United States to receive ITAA 2000 certification which speaks to our methods and processes in place, essentially, that we're on the right path.

The year 2000 computer problem is pervasive and is global in scope. It affects not only the financial services industry but all in-

dustries. Each business is itself both a customer and a supplier in the food chain of international commerce. Each industry is simultaneously competing for available human resources to complete its remediation processes against this fixed deadline in order to mitigate its year 2000 risks. The millennium challenge is a significant project management challenge that requires institutionally focused attention as well addressing dependencies on its suppliers that are facing the very same challenge. These are the parameters that make the year 2000 challenge unique.

Financial institutions are also extremely dependent on one another as well as common service providers for the interchange of electronic commerce. The national payment system is dependent upon automation to clear checks principally through the Federal Reserve System. The automated clearinghouses present the primary means of processing preauthorized payments enabling automatic direct deposits of Social Security checks to the consumer's bank of choice, in addition to processing standing orders for repetitive payments such as insurance premiums, automobile payments, and investments. The retail consumer is dependent on the use of credit and debit card conveniences offered internationally through suppliers such as Visa, MasterCard, and American Express, which have extensive electronic networks linking a transaction from its point of sale to the consumer's financial institution. Corporate customers are heavily dependent on electronic data interchange, EDI, wire transfers, letters of credit. The increasing globalization of the business enterprise radiates these dependencies beyond our borders to include financial institutions worldwide. It should be clear from these examples that there are significant risks associated with such tightly woven interdependencies.

Like all financial institutions, BankBoston is heavily dependent on computer technology in the conduct of our business. We have major data centers in New England, London, Brazil, Argentina, and Singapore with large scale data communications networks linking these centers to our branches, remote offices, customers, and service providers like the Federal Reserve. Additionally, we participate in multiple delivery networks for ATM processing, point of sale services, information exchanges, and other forms of electronic commerce.

This dependence on technology was the prime motivation for BankBoston to begin its millennium project in the spring of 1995. The initial assessment of our systems inventory revealed that roughly 50 percent of our software is supplied to us by external vendors and that this vendor supplied software is usually customized to meet the unique needs of our institution. This heavy reliance on external vendor software, which is common within financial services, represents the single biggest risk in being able to meet the millennium challenge since the timely deliver of this millennium compliant software is outside of each bank's control. However, even managing these types of software risks that are germane to individual institutions will only help ensure millennium compliance within their own spheres of influence.

I'd also tell you that the year 2000 problem is very real at BankBoston which identified and corrected millennium related logic errors within systems that have already been through our re-

mediation process. I have four examples in my written testimony that include our certificates of deposit system, negotiable collateral system, and our controlled disbursement system, as well as precious metals.

So keep in mind that these situations, had they not been identified in advance, our ability to respond to all of them simultaneously in the year 2000 may have been hampered by the availability of computer resources and the pressures brought on by the demands of our customer base. As I mentioned earlier, BankBoston had begun its millennium preparedness in early 1995. As such, I feel comfortable that we will be able to complete our internal preparedness, given the project organization processes that we currently have in place.

But it has taken us 3 years to structure this very rigorous program that we have in place today. Our project also includes not only information technology by the non-IT issues, the business' risk issues which I've listed in my written testimony. This side of our project is headed by our executive vice president of risk management, and this program is reviewing the potential risks associated with each major line of business, and they're outlined in my written testimony.

And I bring our model to your attention, not only because we're proud of what was accomplished, but to underscore the fact to you that it has taken us 3 years to get where we are today. Knowing that all financial institutions must address the very same issues that we have faced with much less time remaining, I'm concerned with the general preparedness of the rest of the financial services industry. In my discussions with other banks, customers, and service providers, I feel that unless comparable programs to BankBoston's are put in place within the next few months, the effect will adversely impact even those that are adequately prepared.

And this concludes my testimony.

[The prepared statement follows:]

Statement of Steven P. McManus, Communications Manager, Millennium Project, BankBoston, N.A.

Mrs. Johnson and distinguished members of the Subcommittee, my name is Steven McManus and I am the Communications Manager for the Millennium Project at BankBoston. I am pleased to have this opportunity to present my views on the magnitude of the Year 2000 problem, the associated business risks, and the adequacy of remediation and risk management efforts being undertaken by the financial services industry.

Let me first tell you a little about who we are. We are a large New England based Superregional Bank holding company with $71 billion in assets, ranked number 15 in the United States with 475 branches and 275 offices located in 24 countries. We offer a complete range of financial products and services both domestically and internationally.

The Year 2000 computer problem is pervasive and is global in scope. It affects not only the financial services industry, but all industries. Each business is itself both a customer and a supplier in the food chain of international commerce. Each industry is simultaneously competing for available human resources to complete its remediation processes against a fixed deadline in order to mitigate its Year 2000 risks. The millennium challenge is a significant project management challenge that requires institutionally focused attention as well as addressing dependencies on its suppliers that are facing the very same challenge. These are the parameters that make the millennium challenge unique.

Financial institutions are extremely dependent on one another as well as common service providers for the interchange of electronic commerce. The national payment system is dependent upon automation to clear checks principally through the Fed-

eral Reserve System. The Automated Clearing Houses represent the primary means of processing pre-authorized payments enabling automated direct deposits of social security checks to the consumer's Bank of choice in addition to processing standing orders for repetitive payments such as insurance premiums, automobile payments, and investments. The retail consumer is dependent on the use of credit and debit card conveniences offered internationally through suppliers such as VISA, MASTERCARD, and AMERICAN EXPRESS which have extensive electronic networks linking a transaction from its point of sale to the consumer's financial institution. The Corporate customer, heavily dependent on Electronic Data Interchange (EDI), Wire Transfers, and Letters of Credit, uses the nation's financial institutions as their financial intermediaries. The increasing globalization of the business enterprise radiates these dependencies beyond our borders to include financial institutions worldwide. It should be clear from these examples that there are significant risks associated with such tightly woven interdependencies.

Like all financial institutions, BankBoston is heavily dependent on computer technology in the conduct of our business. We have major Data Centers in New England, London, Brazil, Argentina, and Singapore with large scale data communications networks linking these Centers to our branches, remote offices, customers, and service providers like the Federal Reserve. Additionally, we participate in multiple delivery networks for ATM processing, point of sale services, information exchange, and other forms of electronic commerce. This dependence on technology was the prime motivation for BankBoston to begin its Millennium Project in the Spring of 1995. The initial assessment of our systems inventory revealed that roughly fifty percent of our software is supplied to us by external Vendors, and that this Vendor supplied software is usually customized to meet the unique needs of our institution. This heavy reliance on external Vendor software, which is common within the financial services industry, represents the single biggest risk in being able to meet the millennium challenge since the timely delivery of this millennium compliant software is outside of each bank's control. However, even managing these types of software risks that are germane to individual institutions will help ensure millennium compliance only within their own spheres of influence.

The Year 2000 problem is also very real. At BankBoston, we have identified and corrected millennium related logic errors within our systems that have already been through the remediation process. For example, we found that:

- we would not have been able to mature our customers' Certificates of Deposits in the year 2000 and beyond;
- our Negotiable Collateral system would have lost expiration dates and review dates on collateral used to secure loans in the event of loan default;
- the system processing a daily volume of $800 million of Controlled Disbursements for our corporate customers would have been inoperable for ten days while the problem was corrected in January, 2000 resulting in massive overdrafts to the Bank., and;
- our Precious Metals business would have been inoperable for up to two weeks while systems changes were being made to correct erroneous date processing.

And keep in mind that had these situations not been identified in advance, our ability to respond to all of them simultaneously in the Year 2000 may have been hampered by the availability of computer resources and the pressures brought on by the demands of our customer base.

As I mentioned earlier, BankBoston had begun its millennium preparedness in early 1995. As such, I feel comfortable that we will be able to complete our internal preparedness given the project organization and processes that we currently have in place. It has taken us two years to structure the very rigorous program that we have in place today. Our inventory of technology applications is under constant review and newly acquired or developed applications are being scrutinized for their millennium compliance, both contractually and in their acceptance testing, in order not to propagate the millennium problem.

We have developed an extensive Communications and Awareness program within the Bank to sensitize every facet of the business to review the risks of the millennium challenge to their business. This is a mandatory program for every financial institution. We have also instituted a very rigorous Vendor and Contracts Management program to track the millennium readiness and delivery of the vendor supplied applications which account for more than half of our application inventory. We have developed comprehensive remediation and certification processes to carefully examine and test all of our systems to assure accurate operability in the year 2000 and beyond. We have developed sound Project Administration practices to track costs, maintain accurate inventory, and manage issues. We have put in place and continually monitor the Technical Support infrastructure required to conduct remediation and certification concurrently with the day to day systems demands of our

business. And we have developed an elaborate Planning and Scheduling program that integrates our resource requirements planning, Vendor software availability, and triage program founded on an already existing Disaster Recovery Plan that orders our most critical applications for renovation before those of lesser importance.

Complementing the systemic preparations being undertaken within BankBoston, we have a corporate-wide millennium risk management program underway where the potential impacts of the Year 2000 challenge are being addressed as risk related business issues and opportunities to gain competitive advantage. Headed by our Director of Risk Management Assessment, this program is reviewing the potential risks associated with each major line of business:

Credit. Credit policy is being reviewed to account for the potential risk that the borrower's ability to repay outstanding debt may be affected by the impact of the year 2000 on the borrower. Increased allowances for potential loan losses are accordingly being evaluated. Existing loans requiring customer unqualified financial statements are being watched in the event that the customer's own millennium preparation expense may erode comfortable profit margins. Loan participations and syndications require the cooperation of all participants in the evaluation of millennium related risk.

Finance. Regulatory requirements concerning SEC 10K and 10Q millennium disclosures are being reviewed as are FASB's treatment of accounting and tax implications of millennium related expenses.

Third Party Suppliers. Critical outsourcing arrangements such as loan portfolio servicing are being reviewed to ensure uninterrupted revenue streams. The risks associated with potential disruption of critical point solutions that augment the bank's business functions (such as news services, stock quotations, et al) are also under review.

Joint Ventures. The millennium preparedness of all joint ventures in which BankBoston is a participant is being investigated to protect the value of our investment.

Legal Issues. BankBoston is taking aggressive steps to conduct the appropriate due diligence associated with its preparedness for the millennium. These include supplier contract review of indemnification and warrantee provisions, board level project review, and escalation of critical business related issues.

Mergers and Acquisitions. BankBoston completed a merger with BayBanks in 1997. This merger involved extensive best of breed product integration into the surviving systems that serve the combined entity. This fifteen month effort required extensive systems renovation which consumed the attention of systems personnel involved with the merger. In future M&A activities, the valuation of any acquired software will have to be significantly discounted unless it is already millennium compliant. There simply isn't enough time remaining to affect product integration concurrent with providing for millennium readiness.

Insurance. It is imperative for all businesses to review Director and Officer liability insurance in addition to business interruption insurance policies currently in place or under renewal. Given the estimated certainty of forthcoming lawsuits surrounding predicted business failures, BankBoston has begun such reviews.

Marketing. The millennium prepared financial institution will enjoy a competitive advantage over other Banks' inaction. Cross selling of additional products and services to a nervous customer base will provide an opportunity for additional fee income to the millennium compliant bank. Communicating millennium strategy to the retail and corporate customer is becoming more of a sensitive issue as our customers' awareness of the millennium issue increases.

I bring the BankBoston model to your attention, not only because I am proud of what we have accomplished, but to underscore to you the fact that it has taken us three years to experience and overcome some of the project management complexities associated with the Year 2000 challenge. Knowing that all financial institutions must address the very same issues that we have faced with much less time remaining, I am concerned with the general preparedness of the rest of the financial services industry. In my discussions with other banks, customers, and service suppliers, I feel that unless comparable programs to BankBoston's are put in place within the next few months, the effect will adversely impact even those that are adequately prepared.

On a positive note, a cohesiveness is developing in the Banking industry to address the millennium challenge. The Bank Administration Institute (BAI), a US banking industry association representing about 80% of the nation's banking assets, has been quite proactive in bringing together its membership and service providers to address common issues. In fact, BankBoston will be hosting a BAI Rountable on Readiness Testing on June 2 and 3.

The majority of the critical work, however, lies ahead. As I mentioned earlier, there is an enormous interdependency among all financial institutions on the viability of the payments system. All must be prepared for the millennium. All common financial services providers must be prepared. All systems and application vendors must be prepared. All suppliers and customers must be prepared. And then we must all test the interdependencies we share well before the year 2000 to ensure stability of the system not only domestically, but also globally.

The Federal Financial Institutions Examination Council (FFIEC), has been proactive in delivering the urgency of the millennium challenge to the industry and has stepped up its examinations. In many cases, especially to smaller institutions that do not have the resources to manage such large scale projects against an immutable deadline, the Regulatory bodies represented by the FFIEC will be required to offer assistance. As each financial institution must mitigate risk through rigorous contingency planning, our Regulators must develop contingency plans to assure stability of the Banking system. We have a collective fiduciary responsibility to our customers and must continue to relax the roles of the Regulator and the Regulated by working together to ensure the safety and soundness of this nation's banking system.

This concludes my testimony. Thank you.

Mr. PORTMAN. Thank you, Mr. McManus.

Ms. Dec.

STATEMENT OF IRENE DEC, VICE PRESIDENT, INFORMATION SYSTEMS, CORPORATE INFORMATION TECHNOLOGY; AND MANAGER, YEAR 2000 PROGRAM, PRUDENTIAL INSURANCE COMPANY OF AMERICA

Ms. DEC. Mr. Portman and Members of the Subcommittee, my name is Irene Dec and I'm vice president of corporate information technology for the Prudential Insurance Co. of America which is headquartered in New Jersey. I am Prudential's year 2000 program manager and lead the companywide project. I'm pleased to have this opportunity to present Prudential's strategies for solving the year 2000 problem. They are strategies that can be applied to any large organizations, including the government.

Because of Prudential's size and scope, our year 2000 problem was monumental. Fortunately, our chief executive officer, Art Ryan, and our CIO, Bill Friel, recognized the seriousness of the problem and identified it as an enterprise priority. Prudential's entire senior management team sees year 2000 as a critical business issue, not a technology nuisance.

It is too late to start early. As of today, there are 603 days left and 86 weekends. At this point, it's late. We began to address year 2K in the fall of 1995 and we have moved aggressively since then. For those organizations that have not moved aggressively on the year 2K, I will be focusing on 10 risk management actions that should take place.

First, secure executive commitment. Identify the year 2000 project as the most critical project in your organization, and secure unwavering executive commitment.

Second, establish a program office immediately, assign your best people, and it must be full time.

Third, identify your critical applications, those that have the greatest impact on people and on business. Focus on those first.

Fourth, stop all other projects. There is no time for applications or systems that are not year 2K related. Year 2000 must take com-

plete and total priority. When we hear year 2K is a high priority we must measure that priority. Simply saying, It's a high priority, will not get you there.

Fifth, devote time to testing. It takes three times the normal application testing time. It takes over 50 percent. When you hear that renovation is complete, that is only 50 percent of the project done. Be ready. When you're testing, you will find problems, which means did you allow in your schedule the fact that you have to go back and fix again.

Sixth, develop contingency plans. Organizations must think about building manual processes to do work around. You know you will not meet all of your objectives. Start working on those plans and communicating how the processes will be different.

Seventh, review and assess business partners, including software vendors and other suppliers. You must also identify vendors that put your organization at risk and if you need to, you need to go out and find alternative software and business partner replacements.

Eighth, validate desktops. In this case, I'm referring to desktops that are not IT controlled. In many businesses today, decisions are based on calculations performed on spreadsheets and databases that are hidden in the corners of our offices.

Ninth, determine your computer capacity. Do not wait. In most cases, you need twice the capacity you have today to do the test.

Tenth, develop and control your risk validation process. Your audit and management integrated control department must assist in validating your progress and reviewing your compliance. In addition, you may need to hire an outside firm to validate or audit your process. For example, ITAA was brought in to validate and certify Prudential's year 2000 process. Also determine a process to do spot checks on the code that is compliant. You may choose to hire a vendor to come in and perform this validation. Don't wait until 2000 for validation.

The key message that I am compelled to leave you with is that year 2000 is a problem of titanic proportions but information technology controls only the tip. The remaining is the unseen. The risks include business partners, software providers, and your desktops. We can do the best job. We can do the fixes. We can do all of that, but we cannot do it alone. We have got to have the unwavering support of our executives. It was an unseen portion of the iceberg which struck *Titanic* below decks. That doomed everyone aboard. My grave concern is that the leaders of too many organizations will and have dismissed the criticalness of the year 2K. In my opinion, the year 2000 is a sink or swim proposition.

However, being somewhat of an optimistic person, I'd like to leave you with a different message. During the *Apollo 13,* Jim Lovell said, "Houston, we have a problem." And it was because they were smart and strategic that their lives were saved. I will now say, "Washington, we have a problem. It's the year 2000. I believe you will be smart and strategic but you must understand what that means and be prepared by having contingency plans."

In closing, it would be impossible for me to overstate the size and scope and challenge that the Federal Government has, and its obligation to the citizens of this great Nation, as leaders. We Ameri-

cans must take the lead on the year 2000. We must set an example for other countries. We must demonstrate with decisive action the bold measures to follow. I urge you to take swift action on your 10 action steps.

Mr. Portman and Subcommittee Members, thank you for giving me the opportunity to speak with you today. It is, indeed, an honor for Prudential to be invited to contribute to the public dialog on what will surely be the defining moment at the end of the 20th century, not only for the United States, but the world.

This concludes my testimony.

[The prepared statement follows:]

Statement of Irene Dec, Vice President, Information Systems, Corporate Information Technology; and Manager, Year 2000 Program, Prudential Insurance Company of America

Congresswoman Johnson and members of the committee:

My name is Irene Dec and I am a Vice President of Corporate Information Technology at Prudential. I am the Prudential Year 2000 Program Manager, leading the company-wide Program Office. It is my responsibility to work with all of Prudential's Business Groups and Corporate Functions to bring the entire enterprise to Year 2000 compliance. I am pleased to have this opportunity to present Prudential's experiences regarding the magnitude of the Year 2000 problem. In the time you've given me, I'd like to discuss the strategies Prudential is using to solve the Year 2000 problem. I also will discuss how these strategies might be applied to other large organizations.

INTRODUCTION

First, some background on Prudential. We are one of America's largest insurance and financial services companies, with a presence in every state of the union and offices abroad. As of December 31, 1997, our statutory assets were $194.0 billion and we had $37 billion in revenues on a GAAP basis. We employ almost 80,000 people and serve nearly 40 million customers worldwide. Our gross 1997 information technology budget was approximately $1 billion.

Because of Prudential's size and scope, the magnitude of our Year 2000 problem is monumental. We were fortunate that our Chief Executive Officer, Art Ryan, and our Chief Information Officer, Bill Friel, recognized the seriousness of the problem and identified it as a priority. Also, Prudential's senior management team sees Year 2000 as a business issue not as a technology nuisance. Early on, Prudential realized the potential business risk represented by Year 2000, and sought to manage that risk intelligently. Year 2000 is a risk to all businesses. It is essential for all organizations to run Y2K projects with a sound risk management philosophy.

TOO LATE TO START EARLY

As of today, there are exactly 603 days left until we reach the Year 2000. That includes only 86 weekends. At this point, it is simply too late to start early. We began addressing the Y2K issue at Prudential in 1995. While we are confident we'll meet our objectives, we are not wasting one single day. This is the ultimate information technology deadline. And unfortunately, information technology professionals are widely regarded by our corporate colleagues as people who cannot meet deadlines.

It is time to move beyond awareness of the Y2K problem. It is time to take action.

RISK MANAGEMENT ACTIONS

For those organizations that have not moved aggressively on the Y2K project, the following risk management actions should be considered:

1. Secure Executive Commitment

Identify the Year 2000 project as the most critical project within your organization, and secure unwavering executive commitment to it at once.

2. Establish a Year 2000 Program Office

Implement a Year 2000 Program Office immediately and assign your best people to the project.

3. Identify Critical Applications

Identify your most critical applications, those that have the greatest impact on the business and on people. Focus your efforts on achieving Year 2000 compliance for those critical applications first and foremost.

4. Stop All Other Projects

Place all other systems work on hold until your Year 2000 project is completed. At this point, there isn't time for anything else. You cannot afford to take your focus off the Year 2000 goal. The Y2K project cannot be done along with other projects. Y2K takes complete and total priority.

5. Devote Time to Testing

Testing for Year 2000 will require three times the normal procedures since the organization will have to test before Year 2K, as the century turns, and on critical dates, such as Leap Year and the first working day of the year. Allow sufficient time for testing. Approximately 50% of the Year 2000 project will be spent on testing. Organizations must set up Year 2K simulated testing environments for networks, distributed applications and mainframes.

6. Develop Contingency Plans

If the risk is high that your organization may not get done with its Year 2000 project in time, a contingency plan is critical. You must build manual processes to do the work and you must communicate to the people who are impacted. Do not wait until you have missed Year 2000 target dates to communicate. Tell people how you plan to handle the work in the interim and what they can expect.

7. Review and Assess Business Partner Risks

One of the greatest risks to Y2K projects is an organization's business partners, including software vendors and other suppliers. Take time to review all software products and identify those that require version upgrades in order to become Y2K compliant. Identify software vendors that put your organization at risk for non-compliance and prepare contingency plans for alternative software replacements. Also, identify the processes required to maintain critical business functions.

8. Validate Desktops

Testing and validating applications and systems, software and hardware are extremely important. Equally critical is assessing and validating end user desktop compliance. Many business decisions are based on calculations performed on spreadsheets and databases on personal computers. Your Y2K plan must include a process to ensuring that every desktop in the organization is Year 2000 compliant.

To be successful in their Y2K initiatives, organizations must run this project differently than they have ever run anything before. Year 2000 cannot be managed as just another normal information technology maintenance project. It must be run from a dedicated, organization-wide Program Office and it must call upon the skills of your very best people.

YEAR 2000 STRATEGIC DECISIONS

At Prudential, we developed our Year 2000 strategy around several key decisions. I'd like to take some time to walk through these decisions to show you how we built our strategy and how it is moving us toward Year 2000 compliance.

1. DEFINE ORGANIZATIONAL STRUCTURE

First, we defined our organizational structure. We created an Enterprise-wide Year 2000 Program Office. Because Prudential has multiple lines of business, such as Individual Insurance, HealthCare and Securities and Investments, for example, we also created Year 2000 Program Offices in each one of our Business Groups. The Business Group Program Offices report to the corporate-wide Y2K Program Office, which I manage. Any large organization that encompasses diverse activities should consider this approach.

Once we had our structure in place, we staffed the Program Offices with our best people. And we staffed it sufficiently. You can't expect to meet the Y2K deadline with staff members who can only devote a percentage of their time to the fix. Our Program Office employees are dedicated full-time to achieving Y2K compliance. To meet the extraordinary manpower demands Prudential's Year 2000 problem presents, we also brought on board contractors and consultants to assist us.

2. Identify Operating Principles

With the Program Office established, we were able to identify standard operating principles. These are the rules and regulations of how we'll manage our Year 2000 initiative. For example, there are basically two ways to fix the Year 2000 issue field expansion or windowing. One is to actually expand the field from two position year to four positions. The other is to build logic into the code that fixes the problem. Rather than ask our individual Business Groups to make this decision for themselves, Prudential's Y2K Program Office made the decision that is mandated across the entire company. We have selected the windowing technique.

By establishing Operating Principles up front and by setting a company direction, we've reduced indecision and unnecessary analysis throughout the company. There is no waffling on important standards because they've already been set by the Enterprise-level Program Office. Thanks to our Operating Principles, there's less opportunity for wasting time.

There will be exceptions to any Operating principles that are established. We anticipated that and built a process wherein our Business Groups may present specific cases, based on business reasons, for making exceptions to the Operating Principles. As a result, we've granted some exceptions.

Prudential's Operating Principles are:

- All existing applications will require a Year 2000 certification for compliance.
- New software (purchases and internal development) will be certified before purchase and installation.
- Rigorous risk and cost analyses will determine whether Prudential applications should be repaired or replaced.
- Redundant applications will be consolidated where appropriate.
- Replacement applications have been targeted for December 1998.
- Parallel development activities will be carefully researched and assessed to ensure against jeopardizing the timely success of Year 2000 maintenance. As I recommended earlier, your organization's entire IT team should have one common and central purpose: to become Year 2000 compliant in time to avert disaster. You should be working on nothing else until Y2K is solved.
- Standard date formats established by the Year 2000 Team will be employed in new development.
- Date "windowing" (the logic approach) will be employed when renovating existing applications.
- Application replacement projects will be scheduled for completion by December 1998. Dual strategy (i.e. renovation) will be required for any projects that will not meet that target.
- Select vendors have been approved for the Year 2000 assessment and renovation work at Prudential.

3. Complete Strategic Portfolio Analysis

In deciding how you'll tackle your Year 2000 problem, you might want to consider the approach of triage. Ask yourself three questions about your existing applications and systems: Should we renovate or fix it to make it Y2K compliant? Should we replace it with something new? Should we just retire it, since we aren't even using it anymore?

At Prudential, our Year 2000 Program Office looked at every one of our 1,533 applications and decided to renovate 1,035 of them. With a total of more than 170 million lines of code, we are working on fixing about 97 million of them. Our decision was to renovate 75% of our existing applications. We decided to replace 12% and retire 13%.

At this point, however, replacement strategies are high-risk. It is too late to begin a replacement/new development project, unless the project has been targeted for completion by 1998. The better approach would be to consider a renovation strategy and begin immediately.

Organizations should not allow illogical rationale to creep into their Y2K decision making. Some are saying that they don't need to fix particular applications because they will just replace them. But remember, everyone in the IT industry is notoriously bad about meeting target dates even software vendors. If the replacement is not intensely controlled, there's a potential risk you will not be done on time. Organizations can't take that chance. It is better to go straight to renovation. Select systems or applications that are most critical those with a health impact or a financial impact. In the case of the federal government, they are the applications and systems that will affect the quality of life of American citizens. In the case of Prudential, we determined that the applications that are most critical to us are the ones that

touch our customers. Those applications became our priorities and we scheduled them first.

4. Implement Communications Strategy

The fourth step in Prudential's Year 2000 Strategic decision-making process was to create a process for communicating about our initiative. Organizations need to communicate to two groups. One is the information technology community. They need to be aware of directions, tools, achievements, expectations and the like. The second group you must communicate with is all employees. Year 2000 impacts every desktop in your organization. Employees and associates need to know what changes they can expect and what they must do to cooperate with Y2K strategies.

At Prudential, we use every means of communication available to us to reach these two important constituents. We produce a quarterly newsletter and send E-mail messages out on a regular basis. We have established databases to share information and to answer frequently asked questions about Y2K.

We are also addressing the subject of external communication to the public, and most important, to our customers and business partners.

5. Identify Staff Retention Approach

Another important step in our Y2K strategy was acknowledging that staff retention would be an issue and developing an approach to keeping our people with us. There is a huge demand for coders, project managers, program managers and quality testers. I told you that at Prudential, we put our best people on our Year 2000 effort. We do not want to lose them. We used approaches to motivate our best and brightest to stick with us in the face of tempting offers from other organizations.

Our retention strategy is to offer bonuses to individuals who stay with us in our Y2K effort. It is a strategy that many companies are using successfully and we decided to adopt it. Enriching compensation may not be an option for some organizations, including the government, perhaps. But money is not the only incentive to stick with a job. Take a look at your people and what motivates them. Offer the awards that will have meaning to the people in your organization. It might be increased vacation time, a promotion, training, flexible scheduling or a number of other lower-cost options your organization can comfortably offer.

6. Select External Service Providers

An organization needs to make a decision as to which components of the Year 2K program their own employees will work on and which will be handled either outside the company or by external contractors who may work on-site. General categories include program and project management, assessment, code fixing and testing. Prudential's decision was to outsource about 65% of code fixing to outside providers.

In selecting your service providers, it is too late to spend a lot of time on RFPs (Requests For Proposals) and RFIs (Requests For Information). There just isn't time now. Choose providers with whom you've already established partnerships, whose work is proven and whose people you trust.

Using outside providers will save your organization time. Many have an automated tool set that allows their people to come in and fix your code in a fraction of the time it might take your own employees who don't have those advanced tools available. Automated tools reduce the chance for error and give you more time to work on testing.

7. Identify Standards

One key step in Prudential's Y2K strategy was to identify standards for tools, methodology, certification and renovation. Just as we saw the advantages of establishing company-wide Operating Principles, we also saw the need to identify standards that would apply throughout the company. This saves analysis time, as we've seen. It also gets everyone on the same page. With a standard tool set and methodology, for example, we can also obtain consistent metrics and data for reporting purposes. And by applying the same standards for certification across the Enterprise, we have reduced our Year 2000 risk.

8. Identify Renovation-Fix Strategy

There are two ways an organization can fix the Year 2000 code problems. One is to actually expand the field from two position years to four positions. The other is to build logic into the code that fixes the problem. This can not be a decision made by individual programmers. Your Program Office must decide which solution is right

for the entire organization. At this point, however, the field expansion fix may not be an option, since it takes longer to do and to test. And it costs more.

9. Implement Project Tracking and Reporting

It is May 7, 1998. Do you know where your Year 2000 project is?

Doing the work is critical, but tracking your progress is equally important. In a large organization, tracking and reporting are key strategies for Y2K success. The most meaningful method for project tracking gauges "planned" versus "actual" accomplishments. Status reports that summarize what people did that week or month are worthless, if they are not tagged to a planned completion date. Prudential's Year 2000 Program Office set milestones for accomplishing specific objectives. Our people have to track their accomplishment based on those established milestones. We've built in checkpoints to validate that we are always on target to meet our long-range goals. Perhaps most important, we report on a monthly basis. This is absolutely critical if your aim in reporting is to give senior management the opportunity to do some course correction, if the metrics warrant it.

Following are the five milestones we've identified on the project:

- Not started
- Assessment phase
- Code fix
- Testing
- Certification complete and back in production.

Meticulous tracking and reporting with real accountability attached is one of the best ways to reduce the risk of failure. Antiquated tracking methods or haphazard reporting are unacceptable for the Year 2000. Large organizations, especially, must rely on sophisticated metrics and tools to track their Y2K projects.

10. Conduct Certification Procedures

A certification process is critical. Prudential has established its own certification process to assure that all our Business Groups and Corporate Functions meet our standards for Year 2000 compliance. Organizations can not take a chance that Y2K compliance is compromised on any front. You cannot rely on an individual's assurance that the application will be ready to go. You need definitive, objective measures that demonstrate without a shadow of a doubt that all of your applications are functioning properly, in complete Y2K compliance, both before Y2K and after.

In addition to creating our own 15-point Y2K compliance certification procedure, Prudential has obtained certification from the Information Technology Association of America (ITAA) for its Year 2000 program. The ITAA certification process is an excellent means for determining whether or not an organization has an effective Y2K process in place.

11. Identify Contingency Plans

Since Year 2000 is a business management risk, it requires a business continuation plan. Organizations need to look at the potential for high risk to the company and its constituents and create contingency plans for critical business functions.

Contingency planning goes beyond applications. You must also prepare contingency plans around infrastructure, including all your data centers, computers, buildings and facilities, and your telecommunications. In addition, you must have contingency planning in place as it relates to your business partners and suppliers.

12. Inventory Business Partners and Suppliers

One of the greatest risks to an organization is its Y2K vulnerability with business partners and suppliers. You can control your own applications and systems. You can have an airtight business continuation plan in place. But if your critical business partners and suppliers fall short on delivering Y2K compliance, that could have serious repercussions for your organization. At Prudential, we identified our critical business partners and suppliers and surveyed them to determine their ability to meet Y2K compliance. We put together a risk assessment team to help us determine for sure whether our business partners and suppliers meet our Y2K standards and to replace or assist those that do not meet our expectations.

13. Determine Financial Tracking

Just as you track how you are progressing on your Year 2000 project, you should also track how much it is costing the organization. You must identify those costs

that are associated with Y2K and establish a mechanism for tracking your organization's financial commitment to the project.

14. Develop a Process for Responding to Inquiries

One of the things that has helped Prudential's Year 2000 Program is our propensity to develop a process to handle everything related to our work. As part of our Y2K process, we receive inquiries and surveys from our business partners, including the government, our suppliers, and our customers, asking us about our procedures. In order to streamline our responses and to track them effectively, we created a process and developed legally approved language to help us answer questions quickly and consistently. We track these inquiries in a database to make sure they are answered in a timely, appropriate way.

A Problem of Titanic Proportions

That is a summary of the strategic decisions Prudential and any other large organization must make in order to orchestrate a successful Year 2000 transition. This is a huge undertaking for our company and for every organization and industry around the globe. No one has ever had to do an IT project of this size and scope before, and it will be a significant challenge to our industry.

But one key message I am compelled to leave with you is this. Year 2000 is an issue of Titanic proportions, but information technology controls just a tip of the iceberg. The remaining and often unseen risks include business partners, software vendors and the validation of the desktop environment.

Prudential executives support Year 2000 as a critical business issue. They realize that technology is so integrated into our products and services that Year 2000 is an issue in which each employee has a stake and makes a contribution.

We in the information technology department can run the Y2K Program Offices, manage the projects and fix or replace the code. We can test for compliance and prepare the organization for January 1, 2000 and beyond. But we can't do it alone. We've got to have the unwavering support of our top executives and the understanding and cooperation of every employee in the organization and every one of our business partners.

It was the unseen portion of the iceberg, which struck Titanic below-decks, that doomed everyone aboard. My grave concern is that the leaders of too many organizations will dismiss the critical nature of the Y2K project. They may overestimate the ability of their already stretched information technology staff. Or perhaps, they will underestimate the amount of work and resources needed to become Year 2000 compliant by the deadline. It's a deadline that is imposed by the relentless force of time the toughest taskmaster of them all.

Failure Is Not An Option

In my opinion, the Year 2000 problem is a sink or swim proposition. But because I am, by nature, an optimist, I prefer to leave you with a different image of Y2K.

When Jim Lovell, the commander on the ill-fated Apollo 13 mission, uttered those immortal words, "Houston, we have a problem," he wasn't kidding.

For us at Prudential, and for any organization that plans to succeed into the 21St century, failure is not an option. Those were the confident and determined words of Gene Kranz, Mission Control Chief, who was largely responsible for returning the astronauts safely to Earth.

Houston, "there is a problem." And its name is Year 2000. Yet, I believe if you are smart and strategic, if you make every second count from now until the clock strikes midnight on December 31, 1999, you will achieve your goals and survive this mission critical assignment.

Because we at Prudential have zero tolerance for Y2K failure within our own organization, we have zero tolerance for Y2K failure within any of our business partners' organizations. We are aggressively working with all our partners in fields as diverse as finance, law, medicine and government to ensure that Prudential's customers will not feel so much as a tremor when we collectively blast into the new millennium.

Conclusion

That is why, in closing, it would be impossible for me to overstate the size and scope of the challenge the Federal government faces in preparing to meet its obligation to the citizens of this great nation regarding Year 2000 readiness. As world leaders, we Americans must take the lead in Y2K compliance. We must set the ex-

ample for other countries to follow. We must demonstrate with decisive action and bold measures that failure is not an option.

I urge the Subcommittee on Oversight of the Committee on Ways and Means to take swift action on the eight risk management actions for successful Year 2000 transition, which are:

1. Secure Executive Commitment
2. Establish a Year 2000 Program Office
3. Identify Critical Applications
4. Stop All Other Projects
5. Devote Time to Testing
6. Develop Contingency Plans
7. Review and Assess Business Partner Risks
8. Validate Desktops

Congresswoman Johnson and committee members, thank you for giving me this opportunity to speak with you today. It is indeed an honor for Prudential to have been invited to contribute to the public dialogue on what will surely be the defining moment of the end of the 20th century, not only here in the United States, but around the world. This concludes my testimony.

Mr. PORTMAN. Thank you, Ms. Dec.

Ms. Jackson.

STATEMENT OF JENNIFER JACKSON, GENERAL COUNSEL AND VICE PRESIDENT, CLINICAL SERVICES, CONNECTICUT HOSPITAL ASSOCIATION; ON BEHALF OF AMERICAN HOSPITAL ASSOCIATION

Ms. JACKSON. Mr. Portman, I'm Jennifer Jackson, general counsel and vice president of Clinical Services at the Connecticut Hospital Association. And I'm pleased to be here today on behalf of the American Hospital Association which represents nearly 5,000 hospitals, health systems, networks, and other providers of care.

Hospitals and health systems are taking the year 2000 situation very seriously. They face the same potential problems as most other institutions and businesses. Their computer systems, their telecommunications systems, their security systems, their elevators, all could be affected by year 2000 problems. However, hospitals are unique places and they have the potential for unique problems primarily because of their heavy dependence on technology and medical devices and equipment.

In analyzing these potential problems, our priority is, as always, the safety of our patients and the delivery of high-quality patient care. There are several key players that can help prevent those problems from occurring. There are hospitals and their associations, manufacturers of medical devices and equipment, the Food and Drug Administration, the Health Care Financing Administration, and Congress. AHA and State hospital associations are working together to ensure that our members know about the potential dangers of the millennium bug and they are taking steps to avoid problems.

When it comes to medical devices and equipment, however, our efforts alone will not solve the problem. Information about whether or not these devices will be affected by the date change must come from the manufacturers of the equipment. We believe that existing regulations allow the FDA to require manufacturers to perform year 2000 testing and report adverse results. We urge the FDA to exercise its enforcement authority and we ask Congress to do ev-

erything in its power to enable the FDA to take the lead in ensuring that year 2000 information regarding medical devices gets from the manufacturers to those who need it the most—and that is the health care providers.

We also need the help of the Health Care Financing Administration. America's hospitals and health systems receive, on average, half of their revenue from government programs like Medicare and it is critical that the flow of these funds not be interrupted by year 2000 problems. HCFA must require its contractors to ensure that their performance will not be interrupted by the date change. Letting providers know what changes may be required of their billing systems is also important so that providers and contractors can work together to ensure that their systems are compatible.

Of course, there also remains the possibility that unforeseen problems could occur so there should be a contingency plan. A system to provide periodic interim payments based on past payment levels is an ideal way to do this.

Congress also has a key role to play. Your attention to this issue through hearings like this one reflects your understanding of the gravity of the situation. We ask you to help America's health care system to avoid year 2000 problems by taking several steps. First, Congress should appropriate whatever funds the FDA may need to ensure that manufacturers of medical devices investigate, report, and correct year 2000 related problems in their products. Second, Congress should consider enacting some form of immunity from liability for health care providers who have taken steps to prevent year 2000 problems. And, third, Congress should authorize the use of periodic interim payments under the Medicare Program.

America's hospitals and health systems, their State associations, and the American Hospital Association are working together to prepare for the year 2000. We encourage Congress and our Federal agencies to work with us as well so that together we can ensure a smooth and healthy transition into the new millennium.

Thank you.

[The prepared statement follows:]

Statement of Jennifer Jackson, General Counsel and Vice President, Clinical Services, Connecticut Hospital Association; on behalf of American Hospital Association

Madam Chairwoman, I am Jennifer Jackson, General Counsel and Vice President, Clinical Services, at the Connecticut Hospital Association. I am here on behalf of the American Hospital Association (AHA), which represents nearly 5,000 hospitals, health systems, networks, and other providers of care.

We appreciate this opportunity to present our views on an issue that is of critical importance to our members and the patients they care for: the potential for the "millennium bug"—the inability of computer chips to recognize the Year 2000—to interrupt the smooth delivery of high-quality health care. The AHA and its members are committed to taking whatever steps may be necessary to prevent potential Year 2000 problems from affecting patient care.

Hospitals and health systems operate seven days a week, 24 hours a day. Their doors are always open because the people they serve trust that they will be there whenever the need arises. Our number one concern is the health and safety of our patients, and that is why I am here.

Hospitals and health systems face the same potential problems as most other institutions. Cellular phones, pagers, security systems, elevators—all could be affected by Year 2000 problems. However, hospitals are special places that also rely daily upon unique medical devices and equipment. We are concerned about the potential impact of Year 2000 computer problems on patient safety—and hospitals, health care providers and their associations cannot reduce, let alone eliminate, that risk

by themselves. We need your help and cooperation, and that of the federal agencies that regulate the health care field: namely, the Food and Drug Administration (FDA) and the Health Care Financing Administration (HCFA).

In particular, we need the federal government to exercise its authority in this area—now. We need the federal government to create an atmosphere in which everyone involved in the health care field will view the full and timely disclosure of Year 2000 computer problems not only as diligent and prudent behavior—the right thing to do—but also as mandatory conduct.

One of our primary concerns has to do with potentially non-compliant medical devices and equipment. Microchips (or microprocessors) that use date-sensitive logic are embedded in many medical devices, and we need to find out whether those devices will be affected by the date change to the Year 2000, and, if so, how we can fix them to avoid an interruption or other malfunction. The manufacturers of these devices are the best and, and in some cases, the only source of this information. Assuming that prudent medical device and equipment manufacturers are engaging in Year 2000 testing, we need to know what they are discovering, especially if they are uncovering problems. Here lies the heart of our concern.

While we as health care providers can ask manufacturers to disclose Year 2000 information to us, we cannot force them to do so. We do not have the legislative or regulatory authority to compel disclosure. We believe that is a job for Congress and the FDA.

The Role of AHA and State Hospital Associations

Hospitals and health systems are trying to do their part. Across the nation, more and more hospitals are preparing for the date change, and making a commitment to take all appropriate steps to avoid any disruption in patient care. Continuing a tradition of partnership in addressing issues that affect our mutual members, the AHA and the nation's state hospital associations are working together to inform and educate hospitals and health systems about the Year 2000 issue.

We are committed to ensuring that our members are aware of the dangers of the millennium bug. We can make sure they have the latest information on what their colleagues and other organizations are doing to address the problem. And we can help them learn about solutions that can help them.

Our State Issues Forum, which tracks state-level legislative and advocacy activities, is hosting biweekly conference calls dedicated entirely to the Year 2000 issue. On these calls, information is shared among and between states and AHA staff. A special AHA task force on the Year 2000 problem has been drawing up specific timelines for action to make sure our members get the latest information and know where to turn for help.

Articles are appearing regularly in AHA News, our national newspaper, in Hospitals and Health Networks, our national magazine for hospital CEOs, in Trustee, our national magazine for volunteer hospital leadership, and in several other national publications that are published by various AHA membership societies. Several of these societies, such as the American Society for Healthcare Engineering and the American Society for Healthcare Risk Management, are deeply involved in helping their members attack the millennium bug in their hospitals.

In addition, the AHA Web site has become an important clearinghouse of information on the Year 2000 issue, including links to other Web sites that also have information that can help our members.

The Role of the Food and Drug Administration

When it comes to medical devices, however, our efforts are not going to be sufficient to solve the problem, unless the manufacturers cooperate fully and quickly. While we anticipate that the number of devices that are affected may be limited, it is critical that accurate and thorough information be available from manufacturers. Health care providers must inventory their thousands of devices and pieces of equipment. But information about whether these devices are Year 2000-compliant—that is, whether or not they will be affected by the date change—must come from the manufacturers. The FDA has a key role to play in this area.

The Center for Devices and Radiological Health (CDRH), the arm of FDA responsible for regulating the safety and effectiveness of medical devices, has taken a number of steps to ensure that manufacturers of medical devices address potential Year 2000 problems. We commend the center for its actions. Dr. Thomas Shope, who is heading FDA's efforts, has been very receptive to our concerns. We believe that current regulations allow the FDA to require manufacturers of medical devices to perform Year 2000 testing and report adverse results. We urge that FDA be given

whatever resources or support it may need from Congress to exercise its enforcement authority in this area.

THE ROLE OF THE HEALTH CARE FINANCING ADMINISTRATION

On average, America's hospitals and health systems receive roughly half of their revenues from government programs like Medicare and Medicaid. If that much revenue were to be suddenly cut off, hospitals could not survive, and patient care could be jeopardized. Hospitals would not be able to pay vendors. They would not be able to purchase food, supplies, laundry services, maintain medical equipment—in short, they would not be able to do the job their communities expect of them. All this would occur even as hospitals and health systems faced the substantial costs of addressing their own Year 2000 system needs.

HCFA must make sure its contractors have taken steps to ensure that their performance will not be interrupted by Year 2000 problems caused by the millennium bug. HCFA should make readily available its work plan for bringing the contractors into compliance and aggressively monitor their efforts. Letting the providers know what changes may be required of them is also important. This would allow both providers and contractors to prepare simultaneously and ensure that their systems are compatible.

Even if all contractors express confidence that their payment mechanisms will not be affected by the millennium bug, the possibility remains that unforeseen problems could crop up. Therefore, HCFA should establish a contingency plan in case contractors' payment mechanisms somehow fail at the turn of the century.

Medicare beneficiaries' health care needs will remain constant, regardless of whether we are prepared for Year 2000 problems. If carrier and fiscal intermediary payment systems are clogged up by the millennium bug, hospitals' ability to continue providing high-quality health care could be severely affected. A system to provide periodic interim payments, based on past payment levels, is one way that this could be done. It would ensure that hospitals have the resources necessary to care for Medicare patients.

And let me add that Medicare is certainly not the only payer for hospital services. Similar payment delays could occur if private health insurers and, in the case of Medicaid, individual states, have not addressed their own Year 2000 problems. The federal government has the power to prevent this from happening, and we urge you to use that power.

THE ROLE OF CONGRESS

As I have described, health care providers and the associations that represent them are devoting significant time, resources and energy to preventing potential Year 2000 problems from affecting patient safety. It is essential that we all look for ways to help prepare America's health care system for the turn of the century, and Congress can play an important role. Your attention to this issue, through hearings such as this, reflects your understanding of the gravity of the situation.

We ask you to help America's health care system avoid Year 2000 problems by taking several steps that relate to the issues I have described:

- Congress should appropriate whatever funds are necessary for the FDA to ensure that manufacturers of medical devices investigate and correct Year 2000-related problems in their products, and report the results in a timely fashion to the FDA and to the users of their products.
- Congress should enact some form of immunity from liability for health care providers that have taken steps to prevent Year 2000 problems from affecting patient care—for example, relying on the FDA's data base of medical devices and equipment for information about Year 2000 compliance. To a great extent, hospitals must rely on manufacturers of medical equipment and devices—and on vendors providing other systems and products—to disclose whether a Year 2000 problem may arise, and how to correct the problem. In addition, some products and systems may have been purchased by hospitals years ago, before the Year 2000 date change became a consideration. Providers should not be liable for damages for the Year 2000 limitations of those products and systems.
- Congress should authorize the use of periodic interim payments under the Medicare program. These payments, based on past payment levels, should be implemented to ensure adequate cash flow for providers in case carrier and fiscal intermediary payment systems fail due to the date change.

Madam Chairman, the Year 2000 issue will affect every aspect of American life, but few, if any, are as important as health care. America's hospitals and health systems, their state associations, and the AHA are partners in the effort to prepare for the Year 2000. We encourage Congress and our federal agencies to work with

us as well. Together, we can ensure a smooth—and healthy—transition into the new millennium.

Mr. PORTMAN. Thank you, Ms. Jackson.
Ms. Lehnhard.

STATEMENT OF MARY NELL LEHNHARD, SENIOR VICE PRESIDENT, POLICY AND REPRESENTATION, BLUE CROSS AND BLUE SHIELD ASSOCIATION

Ms. LEHNHARD. Congressman Portman, I'm Mary Nell Lehnhard, senior vice president of the Blue Cross and Blue Shield Association. I appreciate the opportunity to testify on behalf of the 38 Blue Cross and Blue Shield plans that are part A intermediaries and the 21 plans that are part B carriers.

Medicare is administered through a very successful partnership between private industry and HCFA. Blue Cross and Blue Shield plans process 85 percent of part A claims, and about two-thirds of all part B claims. Medicare contractors have successfully met many significant challenges through this 33-year partnership. Contractors have been able to handle a dramatic increase in workload from about 60 million claims in 1970 to about 900 million claims in 1998. We process more than 3 million claims every working day. Contractors have handled major challenges in the past, implementing programmatic changes quickly, including Medicare prospective payment systems for hospitals in the eighties, the physician resource-based relative value scale in the nineties, and the many complex payment changes in BBA, the Balanced Budget Act, in 1997. These complex undertakings were accomplished in extremely tight timeframes and were successful.

Our next challenge is assuring that year 2000 computer adjustments are made accurately and in accordance with the timetable set out with HCFA. I want to state very clearly that Medicare contractors are committed to year 2000 compliance. Despite the very real challenges, let me assure you that contractors are working toward becoming compliant on a timetable that will meet HCFA's deadline of December 31, 1998, which is actually 2 months earlier than the governmentwide target set by OMB.

Blue Cross and Blue Shield Association and our contractors have been working closely with HCFA on all the compliance issues. I would note that two circumstances have made year 2000 compliance even more challenging for our contractors. First, there's been a significant change in how contractors are to proceed in assuring millennium compliance. Originally, many of the system changes that would have been necessary for compliance were to be accomplished through the conversion of all the contractors to the Medicare Transaction System, MTS. As you know, MTS was dropped 6 months ago and, as a result, contractors that would have been making significant changes, in the absence of MTS, they are behind because they've totally switched directions. Also, instead of converting to the MTS system, Medicare contractors are now transitioning to a single part A system and a single part B system. In some cases, this has made it difficult to focus on millennium compliance. It's a diversion of resource, a diversion of expertise, and several

contractors have asked HCFA to delay these major transition requirements so they could focus on the year 2000 issues. We're very pleased that just last week HCFA agreed to delay transition to the single system for some plans.

Funding is also an issue. We have yet to receive any funding for our transition activities—our compliance activities. We anticipate that the year 2000 compliance will be very costly and, in the absence of allocation of funds, we've had to reallocate funding from other important activities to support our compliance activities. We're very pleased that Congress actually reprogrammed $20 million in the fiscal year 1998 supplemental appropriations bill to cover our millennium costs but given the very high cost of compliance, more funding is going to be necessary.

Finally, I'd note that HCFA has been seeking legislative authority to dramatically restructure the Medicare contracting process arguing that contractor reform is necessary to achieve compliance. Given our efforts to work cooperatively with HCFA on the issue, and the very broad authority that HCFA has under current contracts, we're perplexed about why HCFA is asking for contractor reform to support year 2000 compliance. Contractor reform wouldn't address year 2000 compliance issues. New contractors are going to face the same difficulties as current contractors, including compliance dates that are 2 months earlier than many subcontractors they depend on that also have government contracts. In fact, contractors unfamiliar with Medicare would have the added burden of learning its extremely complex rules and regulations while simultaneously working to achieve millennium compliance. Also, given the overwhelming current responsibilities from BBA and HIPAA, the Health Insurance Portability and Accountability Act, we don't believe the agency has the resources or staff to implement any additional activities such as new procurement. And, finally, HCFA has very broad authority under current law, and can terminate contractors for nonperformance including failure to meet the year 2000 timetable. In fact, HCFA has already put us on notice that this is the standard for compliance with the program.

The Ways and Means Subcommittee on Health has reviewed and rejected similar proposals for new authority in the past and my testimony details our specific concerns with the reform legislation such as preempting the Secretary from the competitive bidding process under the Federal acquisition regulations.

In summary, contractors are working diligently to become compliant by December 1, 1998. It's a monumental task but contractors are committed to meeting these challenges just as they have met past challenges. And we believe Congress should reject HCFA's use of 2000 compliance as a reason for legislating far-reaching changes in the program. In fact, contractors reform at this time would introduce major change, confusion, and diversion of resources at a time when experience and focus is extremely important.

Thank you.

[The prepared statement follows:]

Statement of Mary Nell Lehnhard, Senior Vice President, Policy and Representation, Blue Cross and Blue Shield Association

Madam Chairman and members of the subcommittee, I am Mary Nell Lehnhard, Senior Vice President of the Blue Cross and Blue Shield Association, the organiza-

tion representing 55 independent Blue Cross and Blue Shield Plans throughout the nation. I appreciate the opportunity to testify before the subcommittee on the efforts of Medicare contractors to ensure that Medicare computer systems will function properly beyond the year 2000.

The Medicare program is administered through a successful partnership between private industry and the Health Care Financing Administration (HCFA). Since 1965, Blue Cross and Blue Shield Plans have played a leading role in administering the program. They have contracted with the federal government to handle much of the day-to-day work of paying Medicare claims accurately and in a timely manner. Today, Blue Cross and Blue Shield Plans process 85 percent of Medicare Part A claims from hospitals, nursing homes, and other institutional providers, and about two-thirds of all Part B claims from physicians, labs, durable medical equipment and other health care practitioners.

Medicare contractors have successfully met many significant challenges during this thirty-three-year partnership. Medicare contractors, for example, have been able to handle a dramatic increase in workload. The number of Medicare claims has increased almost 15 fold from 61 million claims in 1970 to an estimated 889 million in 1998. Today, Medicare contractors process more than 3 million claims every working day.

On top of this massive growth in workload, contractors have handled other major challenges such as quickly implementing major programmatic changes, especially over the last 15 years. These changes to the Medicare program include: the institution and refinement of the Medicare prospective payment system for hospitals in the mid-1980s, the physician resource-based relative value payment system in the 1990s, and the many new payment system changes that are required by the Balanced Budget Act of 1997. These critical undertakings were accomplished in extremely tight time frames. We are very proud of our role as Medicare administrators, and our record of efficiency and cost effectiveness for the federal government.

My testimony today focuses on one of our next major challenges assuring that Year 2000 computer adjustments are made accurately and in accordance with the timetable set out by HCFA. Specifically, I will discuss:

- Medicare contractors' commitment to becoming Year 2000 compliant;
- Our efforts with HCFA to ensure compliance;
- Other factors affecting contractor compliance; and
- Why Medicare contractor reform is not necessary to assure compliance.

I. Medicare Contractors Are Committed To Year 2000 Compliance

I want to state clearly that Medicare contractors are committed to Year 2000 compliance. In recent congressional hearings and press reports, it has been suggested that contractors are not being diligent in their efforts to meet this requirement and that HCFA needs additional authority to assure compliance. Nothing could be further from the truth. The confusion may be the result of a discussion between HCFA and contractors regarding a contract amendment, and I will say more about that later in my testimony.

Year 2000 compliance is a top priority for Medicare contractors. Despite the real challenges, let me assure you that Medicare contractors are working toward becoming compliant on a timetable that will meet HCFA's deadline of December 31, 1998, which is two months earlier than the government-wide target date set by Office of Management and Budget (OMB).

Medicare contractors will make every effort to meet this challenge just as they have successfully met other challenges in the past. It is in everyone's interest Blue Cross and Blue Shield Plans, the government, providers and beneficiaries for contractors to become millenium compliant. For Blue Cross and Blue Shield Plans, both their Medicare and private business depend on meeting this challenge.

II. Our Efforts With HCFA To Ensure Compliance

BCBSA and Medicare contractors have been working closely with HCFA on compliance issues. As part of this process, BCBSA has been working with HCFA to find an agreeable contract amendment related to Year 2000 compliance. I want to discuss the circumstances surrounding this amendment.

Last fall, HCFA sent all Medicare contractors a contract amendment intended to assure Year 2000 compliance. The proposed amendment required Medicare contractors to be Year 2000 compliant by December 31, 1998 two months ahead of other government contractors. The amendment also defined HCFA's expectations of Medicare contractors with regard to Year 2000 compliance.

While we fully support HCFA's efforts to address the Year 2000 issue in a timely fashion, BCBSA raised several questions about the proposed amendment. We did

not have a problem with being compliant earlier than other government contractors, but we did raise several problems, such as contractors' dependence on vendors, which is described below. Plans and contractors believed that no entity would legally be able to sign the proposed amendment, and we asked that it be modified. We had the following concerns:

- BCBSA pointed out that it would be impossible to provide HCFA the assurances for Year 2000 compliance that the contract amendment would have required because "full" compliance depends on other businesses. Examples of other businesses that contractors will depend on for compliance are manufacturers of microchips, banks, and the claims systems that are owned and maintained by doctors' offices and hospitals. The problem is that all of these entities are following varying compliance dates. If any one of these other entities has a later compliance date, then the Plan cannot be in "full" compliance. Since Medicare contractors cannot force third-party vendors to become compliant by a certain date, contractors would be in no position to ensure full compliance.
- A decision about compliance by the Securities and Exchange Commission (SEC) illustrates and adds to the problem we are raising. A recent SEC policy statement said that it is impossible for any entity to represent that it has achieved full Year 2000 compliance before January 1, 2000. Contractors would essentially be put in the position of forcing the compliance of public entities that have different timetables for compliance. This could pose significant problems. Based on our legal interpretation of the amendment, even if our claims processing activities were compliant, we could have been considered noncompliant if, for example, our maintenance company for the elevators in a building we rent failed to assure compliance by December 31, 1998.
- The amendment also would have required that contractors certify the compliance of all vendors. Certification is a specific procedure that creates a civil or criminal liability for contractors if the information is incorrect. Certification of Year 2000 compliance would have required contractors to know all the facts about any entity that has any kind of relationship with the contractor (e.g., all subcontractors in a building rented or owned by the contractor, all vendors and all vendor subcontractors). Contractors would be subject to civil and criminal penalties if they certified compliance and were not in compliance through circumstances beyond their control. There are circumstances where contractors have to certify the validity of information (e.g., financial statements). These are, however, situations where contractors are familiar with and know all the facts. But it is an unacceptable level of liability for us to certify that everyone contractors have a relationship with is Year 2000 compliant.
- In addition, the amendment would have allowed HCFA to prohibit Plans with Medicare contracts from entering into other Medicare contracts, such as managed care contracts or Medicare Integrity Program contracts, if they were noncompliant. We find no statutory basis for unilaterally debarring Plans with Medicare contracts from participating in other Medicare programs—especially programs such as Medicare+Choice that are not part of the scope of the current Medicare contracts—based on non-compliance of Medicare contractors.
- Another concern with the proposed contract amendment is that we believe HCFA has current authority to terminate contractors that do not meet its performance standards, including Year 2000 compliance.

Notwithstanding these concerns, we are willing to sign an amendment if the terms are appropriate.

Two weeks ago, HCFA responded to our letter. It acknowledged that it was not the agency's intention to require compliance with contractors outside of the contractors' direct control. We are now working with HCFA to redraft a new amendment that is mutually agreeable.

In addition to our work with HCFA on the contractor amendment, we are collaborating closely with the agency on compliance issues. BCBSA has, in fact, recommended a regular, formal process to assure regular communication with HCFA. A steering committee to facilitate this communication has been established. The steering committee which is chaired by HCFA's chief operating officer and vice-chaired by BCBSA—has established four working groups and will hold its third meeting on June 2. We are very pleased with the progress that has been made at these meetings and with the constructive dialogue between HCFA and the contractors. We look forward to more of this type of cooperation.

III. Other Factors Affecting Contractor Compliance

In reviewing the circumstances and issues related to Year 2000 compliance, the subcommittee should be aware of two additional issues that have made Year 2000 compliance activities even more challenging.

First, there has been a significant change in direction in how contractors are to proceed in assuring millenium compliance. Originally, many of the system changes that are necessary for compliance would have been accomplished by the conversion of all Medicare contractors to the Medicare Transaction System (MTS). As you know, the MTS initiative was dropped last year. As a result, contractors had to make significant changes that, in the absence of MTS, they would have been working on for some time.

In addition, instead of converting to the MTS system, Medicare contractors are now transitioning to a single Part A and Part B system. In some cases, this conversion to different systems has made it more difficult to focus on millenium compliance. As a result, several contractors requested that HCFA delay transition requirements so they could focus on Year 2000 issues. We are very pleased that just last week, HCFA agreed to delay transitions for some Plans. We are continuing to work with HCFA to assure priority attention to this effort.

The second issue is funding. We anticipate Year 2000 compliance to be very costly, but funding has not yet been available to contractors to cover their expenses. As a result, contractors have had to reallocate funding from other important activities on a temporary basis.

Some of the costs that contractors will face include:

- Additional salaries and benefits for FTEs;
- Additional software licensing, telecommunications, and a CPU upgrade;
- Testing of software programs;
- Testing and upgrading telephone and security systems;
- Testing of LAN and PC environments; and
- Training costs, including provider training.

We are very pleased that Congress included in the FY 1998 supplemental appropriation bill reprogramming of $20 million to cover millenium costs. But given the high costs of compliance, we believe more funding is necessary.

Compliance will be both time- and resource-intensive. For example, contractors will need to properly test new computer systems, which necessitates that they model their systems in a closed environment. Contractors will have to use separate staff and software and construct separate systems to do proper testing.

IV. Contractor Reform Is Not Necessary

In addition to pursuing amendments to the contracts, HCFA is also seeking legislative authority to dramatically restructure the Medicare contracting process. This effort to make broad changes in contract authority is not a new initiative. But most recently, HCFA has been arguing that this contractor reform is necessary to assure compliance.

Given our efforts to work cooperatively with HCFA on this issue and the broad authority HCFA already has under current contracts, we are disappointed and perplexed about why it is linking contractor reform legislation with Year 2000 compliance.

Contractor reform would not improve the Year 2000 problem. Every potential new contractor would face the same difficulties as current contractors, such as government compliance dates that are later than the compliance date for Medicare contractors. In fact, contractors unfamiliar with the Medicare program would have the added burden of having to learn its extremely complex rules and regulations while simultaneously working to achieving millenium compliance.

Under contractor reform, HCFA would potentially have to manage many new contracts for claims-processing services with entities unfamiliar with Medicare. Management of these new contracts would require diversion of major HCFA resources at a time when HCFA has many other responsibilities such as implementation of the Balanced Budget Act and the Health Insurance Portability and Accountability Act. Also, HCFA has just begun to implement the new contracting provisions for the Medicare Integrity Program. We believe the agency does not have the resources or staff to implement any additional procurement activities.

Importantly, HCFA already has broad authority to sanction contractors that are not in compliance. HCFA can replace or terminate contractors for poor performance, including non-compliance for Year 2000. In fact, in a letter sent to contractors on November 17, 1997, HCFA indicated that "failure on the part of a [Medicare] contractor to bring its system into compliance will be considered a serous deficiency in contract performance." Contractor reform—or even a contract amendment—is not

necessary to replace contractors that are not millenium compliant. The contract amendment would only provide HCFA with more detailed performance criteria.

For several years, HCFA has been seeking contractor reform legislation that would give HCFA broad authority to fragment the functions of current contractors. We believe that contractor reform provisions: jeopardize the continuity of Medicare claims payment to providers and service to beneficiaries; are ill-advised in the absence of HCFA articulating a new strategy for Medicare administration and of public debate on that strategy; are unnecessary for the continued smooth operation of the Medicare program; and give HCFA extraordinary authority not needed in the current environment.

This proposal would have significant implications and unintended consequences for Medicare beneficiaries and providers. The Ways and Means Subcommittee on Health has reviewed and rejected similar proposals in the past.

Our specific concerns with the contractor legislation are as follows:

- Current law gives the Health and Human Services Secretary authority to terminate Medicare contracts for lack of performance. Beneficiaries and providers have been well served by this language. The so called "reform" legislation would give the Secretary and HCFA a free hand to terminate contracts at will, regardless of how efficiently and effectively the contractor has performed under the contract. Medicare contractors' provider payments and services to beneficiaries thus would become subject to the whim of HCFA staff.
- The "reform" legislation also would authorize the transfer of functions among fiscal intermediaries without regard to any provision of law requiring competition. Transfer of functions could happen at the whim of HCFA, with no warning and no recourse for the contractor or providers effected by the transfer. This would create an unstable system and would prohibit contractors from investing in the technology and resources needed in top-flight organizations.
- As noted, this legislation would provide HCFA with expanded, unprecedented authority to terminate and debar contractors without due process or appeal rights. Like the Year 2000 contract amendment, this language could be interpreted as precluding any terminated contractor from receiving other government contracts, such as FEP, CHAMPUS, Medicaid, and Medicare+Choice. The lack of due process and the de facto debarment provides HCFA with authority well beyond what is allowed by the Federal Acquisition Regulations (FAR).

This reform proposal would give HCFA the authority to totally revamp participation in Medicare contracting within one year of enactment without due process for current contractors and without competition. Taken together these reform provisions would give HCFA the authority to cast out with no recourse Medicare contractors that have served the country faithfully for over 30 years, without stating the plan for future Medicare contractor administration. What will it look like? Who will HCFA contract with? What experience will they have? How will service to beneficiaries and providers improve? This authority and the possibility of an unplanned, behind-closed-doors use of it would impede Medicare contracting for many years to come.

Success in Medicare claims administration requires that HCFA and the contractors work together toward their mutual goal of accurate and timely claims payment. This partnership should extend to planning the future of Medicare contract administration.

Change in Medicare contracting is ongoing and inevitable. In the last ten years, the number of contractors has declined, with most withdrawing from Medicare contract administration to pursue private business interests. MTS failed, but HCFA is rapidly moving the contractors onto three standard claims processing systems that HCFA controls. This represents a dramatic opportunity for the government to directly control program expenditures and reduce the variability that exists throughout the country.

In summary, we do not believe these legislative changes are necessary to assure efficiency and high performance levels.

V. Conclusion

Let me reiterate that Medicare contractors are working diligently to become millenium compliant by December 31, 1998. This is a monumental task, and we will face a number of challenges along the way. Medicare contractors are committed to meeting these challenges just as they have done in the past.

We will continue to work with HCFA to resolve issues that arise and to ensure compliance. A cooperative approach between contractors and HCFA will achieve the best results.

Congress should reject HCFA's use of year 2000 compliance as a reason for legislating far-reaching changes to the Medicare contractor program. Contractor reform raises fundamental issues and implications for the Medicare program. In fact, contractor reform could introduce change, confusion and diversion of resources at a time when experience and focus is important.

Thank you for the opportunity to speak with you on this important issue.

Mr. PORTMAN. Thank you, Ms. Lehnhard. And we're now joined by the Chairwoman of the panel.

Chairman JOHNSON of Connecticut [presiding]. My apologies for having to have been absent much longer than I thought I would have to. But I'm going to let Mr. Portman start questioning, and then join in.

Mr. PORTMAN. Well, first thanks to all the witnesses. I've learned a lot and although it seems as though the panel is somewhat empty this afternoon, know that the staff is here and, after all, they're the most important people around. But more important, honestly, your written remarks are in the record. That record is reviewed and that is the basis upon which we often act so it's very important you're here today to bring more, frankly, public and congressional attention to this very critical issue.

I learned a lot about the private sector today because I've been more focused, of course, on the Federal agencies, particularly the IRS and also the interconnection of not only the Federal agencies to the private sector, particularly in some of these more regulated areas, like hospitals and insurance, but also with regard to the interconnection between companies. So if a bank, for instance, spends 3 years getting all of its year 2000 problems resolved it really doesn't matter because you still have to deal with the Federal Reserve and other banks and other institutions.

And, finally, Mr. Bace started off by shocking us with his analysis and I guess what I've learned is about the international aspect of this. That there's not just a national problem. Mr. Bace, in looking at your chart, which you didn't have time to go into in your oral remarks, but those who haven't seen it, you want to get a copy of this because it's very interesting to see the degree to which the United States is actually somewhat ahead of other global trading partners where we have this interconnected relationship.

I guess I would start off by saying I'm impressed enough today to understand that the message is important. And you talked about Apollo 13, Ms. Dec, and Lovell saying, "Houston, we have a problem." I go back to the well of the House of Representatives where Jack Kennedy said we're going to get to the moon, and that's maybe even the better analogy here because we need that kind of leadership and maybe that kind of consolidation of effort on the Hill and downtown, meaning at the White House. So I hope that President Clinton and Vice President Gore, being as interested as they are in information technology and the hope for information technology to even spur further economic growth, will also start to focus more on this very real problem in our information technology revolution, and begin to take more of a leadership role as well as Congress. Frankly, they have a bully pulpit that is somewhat more powerful than ours. So although we need to do more, as Mr. Miller

said, I think we also have to try to encourage the administration to do more on a national level with the private sector.

My first question for Mr. Bace and any of the panelists is from what you heard from that first panel, do you think our Federal officials understand the risks, that they understand the challenges, and do you think they are taking adequate steps to manage and mitigate those risks?

Mr. BACE. Yes, I do. I believe that they are very much aware of the issues facing them, but I think there has generally been, for a lack of a better term, sort of management malaise for years thinking that it's just a simple information technology problem, an IT problem. Go fix the two digits dates in the computer and, as Mr. Miller was saying, there's a serious lack of a crisis attitude within society. I had hoped we would have been getting these kind of status reports maybe 2 years ago where we still had much more time instead of being within 603 days of the millennium crossover at this point in time.

Mr. PORTMAN. Mr. Miller.

Mr. MILLER. Mr. Portman, I think they're also hamstrung by the lack of financial resources. The current numbers we're hearing for the government is $4.7 billion. This sounds like a lot of money, but then you realize that one company, General Motors or Citibank, is talking about spending $600 million alone. That government number is ludicrously small. Obviously, again, as government officials they have to stay within the party line. And the party line from the Office of Management and Budget is we don't need more money. But, clearly, if you listen to them carefully, they do need a lot more money and additionally they have the problem of the retention of employees which is very serious. I chaired a panel recently of senior human resource people from the government and they indicated there are very serious retention problems. The Office of Personnel Management is trying to be helpful. But the fact is salaries are going up so rapidly in the private sector that it's very hard to convince people to stay in the public sector. So money is a huge problem and that's why we're recommending, at a minimum, Congress provide some contingency funding and somehow work out a way to get the Congress to give additional funding because there has to be more honesty about the needs for funding.

Mr. PORTMAN. Just one quick comment to that, I think we have to rely to a certain extent on OMB to tell us what the funding needs are. I mean, it's difficult for us, on this Subcommittee or Committees, to establish what the priorities are and to spend even that $500 million which, as you say, is a somewhat questionable sum given that General Motors, as you indicated, said they're going to spend that amount as one company, a relatively large company. But, so, I think you're right but, again, I would turn some attention back downtown to say they have to tell us, I mean, they're the ones that know where those needs are within their agencies and how to allocate those funds and prioritize those funds. And we gave the Commissioner opportunity today to talk about that, and he said he had adequate funding in this fiscal year. He indicates for next fiscal year, they'll need more. But when pressed, he seems to be saying it's not a resource question. But I appreciate your input. You've talked to people maybe in a more candid environment without

OMB there. Other comments on the Federal witnesses this morning?

Ms. Lehnhard.

Ms. LEHNHARD. Mr. Portman, I would also suggest that a strong signal from the Congress to the executive branch to focus on this as a priority and eliminate, I believe the panelists mentioned that, other activities that pull resources away. I can't overemphasize that. And I would also suggest that this is probably not the time to be passing major legislative proposals that are again going to divert HCFA resources. They're still struggling to implement HIPAA and BBA, and to put a major new legislative proposal on the top of that at the time we're struggling with year 2000 compliance, it is just not a timely—an appropriate time to do that, we believe.

Mr. PORTMAN. That is a point well taken and Mrs. Johnson is on the Health Subcommittee and is closer to these issues than I am, but I think what we heard from the Commissioner today is consistent with that which is we need to be careful not to overburden the system in the next 18 months, otherwise we will not be able to meet both the legislative priorities and the year 2000. I would also harken back to what Mr. Miller said earlier about legislation. If you have specific ideas on the R and D tax credit, for instance, or tax deductions, or other tax preferences that might be helpful to move this effort forward in the private sector, I hope you're letting us know with more specificity. Maybe it's in your written comments.

It's difficult for us, given the timeframe here, we're sort of like the companies in the middle of the year 2000 crisis, we need more time because we're probably going to have only one shot at it, which will be the tax bill which will be put together in the next few months in order to be able to affect what happens in turn between now and the year 2000.

So to the extent you have thoughts on HCFA in addition to what you've indicated administratively, if you think there's something legislative we should do, for instance, you need to get that to us.

And I guess I'll give the opportunity, Ms. Jackson, to discuss that, and then I will turn it over to the Chairwoman.

Ms. JACKSON. One of the other things that we found that I believe members of this other panel have mentioned is how enormous this problem is and that it is not restricted to what I think everyone thought, and a lot of people still think that it's computers. And what we hear is that because we are so advanced in this day and age in computer technology, there's some sort of assumption that there's just going to be a fix, that someone will find the fix. And there's a growing recognition that it also has to do with how we move money and how we keep records. But there is a whole other side to this, and we're finding in our industry that it's operational. And, for instance, in health care, as we've discussed, it has to do with how we take care of patients, not just how we run the business end of it, but actually taking care of patients and I'm sure that's true in other industries as well. That there are very concrete, critical operational issues that are going to arise.

Mr. PORTMAN. With regard, again, to the medical devices issue you mentioned, which I guess would fall in that category, if you can give us more specificity as to what we should do legislatively vis-

a-vis the FDA, that would be very helpful, that's not within this Committee's jurisdiction, as you know, but we do get into Medicare. [Laughter.]

And that's the sort of thing that, again, if we don't begin that process of legislating now, it will be too late to be able to affect this particular problem. I know FDA can do a lot administratively but if you could give us some more guidance on that, that would be helpful.

Ms. JACKSON. And we very much appreciate that opportunity but would note that, in terms of the FDA, there is strong legislative and perhaps regulatory authority that already exists and a very clear congressional policy as to how that should be applied in partnership with all of us.

Mr. PORTMAN. All right, well, again, I really appreciate the panel's input and I'll turn it back to the Chairwoman who was here all morning listening to the government witnesses. And I thank you for your testimony.

Chairman JOHNSON of Connecticut. Thank you very much for joining us. Just to follow up on the issue of all the things we're not looking at, I appreciate your suggestion, Ms. Jackson, that we use existing authority, but we would need a lot of help from the private sector and the public sector to sort of shape what is that mandate that we're putting out there because we really are, I would say, you know, only in the last few months developing any depth of knowledge ourselves of even what the challenge is to our own executive branch in management and interrelationships, and public, private impacts, as opposed to just technology, and programs, and computers, so this issue that you bring up is extremely important and the more I've read in this area, the more I understand how important it is. I have literally no way of, in a sense, laying out in verbiage all of the scope of that directive that we clearly need to put in place so that we, in a sense, permeate the information system in the private sector and make it work faster.

I'm not at all sure that this doesn't take legislation, some kind of mandate that any company that makes anything at all with a timing chip in it has to reveal that and publicize the fact that this is a problem and when they plan to fix it. I think probably there is no one who can define all of the ways in which this issue is going to insinuate itself in our lives and so I think some umbrella action like that, and if any of you have thoughts on how to develop that, we would be very interested in having you work with us.

Mr. MILLER. One possibility, Madam Chair, following Mr. Portman's suggestion, is to ask the Congressional Budget Office to assume Mr. Yardeni is right in terms of the impact on the GDP, and determine what does that mean in terms of the Federal and State tax collections over the next 2 to 3 years. Maybe that would get OMB's attention.

One accountant did an analysis just in the State of New Jersey, and he estimated it could cost the State of New Jersey several hundred million dollars in lost anticipated tax revenue. That's just one State. He did not do a national sample. So we're back to this Kabuki dance I referred to earlier. It's tough to get the administration to admit that it needs more money because the mantra downtown

is, Let's stay within the balanced budget agreement, let's not go outside of it.

But if the tradeoff for that, as I suggest in my testimony, is down the road a recession, as Mr. Yardeni and others are suggesting, and a loss of economic activity and a concomitant loss of revenue to the Federal Government, then all the great plans this Congress has carried out to get us back to surplus can quickly be reversed. Maybe the way to get OMB's attention is to have the Congressional Budget Office do that type of scenario: Not to predict a recession, but just to say what the outcome could be. Then OMB would realize that you've got to fix the roof now to make sure you don't have serious leaks down the road a couple of years.

Chairman JOHNSON of Connecticut. Yes, I appreciate that. I'm not, I think it's, it's not likely, in my estimation, and I may be wrong, and I'll be interested in GAO's evaluation of this, in my estimation it's not likely that they really can see and understand big costs that they're not telling us about. I think they believe their estimates. They may believe that they are skinny. They may believe that they're on the conservative side, but I don't believe that their understanding of the problem leads them to believe that they need three times as much money but they don't have the nerve to say it.

So there are just too many back channels, there's too many, we've had too many hearings. We've got people like Steve Horn out there who has worked on both sides of the administration. It is conceivable to me that some of you who work in this area more broadly, in a sense, and look at its ramifications and have seen big bureaucracies move further along in the accommodation than we have, would have a different view.

But, for instance, you know, the Social Security system is really well along. I think that at this point there's a level of knowledge that we haven't, in a sense, forced out on to the table about what compliance is going to involve, at least that's just what I hear you saying and what I, you know, what you say reverberates in my mind with some of the things I've read. But, you know, to what extent do you think that's the problem?

Mr. MILLER. Well, again, you don't have witnesses up here protected by cloth covering——

Chairman JOHNSON of Connecticut. Right.

Mr. MILLER [continuing]. Like you did on the IRS whistle blower hearing. I spoke recently before a group of Army officials at the invitation of the Army Science Board. I will tell you the official Army line of the people who spoke, the generals and the civilians, was "We're going to tackle this, we don't need any more money." I got up and said, "I'm skeptical of that based on what my contractor members and other people like Gartner say." The coffee break came, and sure enough, those same people who stood up in front of the room and said, "We're going do this and we're going to get it done with the money we have"—and these are can-do people of the military—privately said there's no way we can get this done with the resources we have. And you hear that over and over again. When you drill down a little bit, that's what you get. It seems to be the relationship, as one of my members suggested, be-

tween how high in the organization you ask the question and how favorable a response you get.

Mr. Rossotti, if you really listen to him carefully, I think was saying, "Help." Now, maybe he is constrained by OMB not to ask for more money but I think if you listen to him carefully, he has problems. He has very senior management positions unfilled today. He has no CIO, for example.

Chairman JOHNSON of Connecticut. Well, I think the personnel issue is a very significant issue but, you know, I think you need to help us frame better questions if we're going to elicit the right answers.

Mr. MILLER. OK.

Ms. DEC. I just wanted to add something of this morning where we heard a lot about every organization giving this a high priority and executive commitment. I think the thing we have to be careful of is that I'm sure the sincerity is there and they all believe in it, but the difference is to be able to make that happen. And the status of today's projects shows real indication that only 50 percent of it is going to be done. So just hearing the words isn't the answer. It's the ability of the government to change those business priorities and measure the effect new bills will have on the computer system and on the year 2000 work. And it's almost as if you need to, in each of the organizations, is set up a task force who will make the decision on what work is going to get done and what is mandatory, other than the year 2K work? Because what happens is by the time it drifts down, honestly, if you did an outside review, you'd probably see over 50 percent of the work is non-Y2K work. You have to understand that simply saying the words is not going to provide the actions. And, again, having been at Prudential 3 years——

Chairman JOHNSON of Connecticut. I do understand that but I think you're going to have to help us define much more accurate questions if you're going to expect us to understand what you're talking about, you know. The agencies come up and they say how many systems have, and how much equipment, and presumably they do know what they mean when they say that, and it's not hard to evaluate the cost of equipment replacement. And there's a lot of very old equipment in the Federal Government, and a lot of it's going to have to be replaced. And then there are system changes, some of which are hard and some of which are easy, I wonder what your evaluation is, Mr. Bace and Mr. Miller? And I'm sorry I didn't get through all the testimony, but anyone who would really like to comment.

One of the problems that we're running into, particularly in the IRS, but this is also true in HCFA, both of which systems have had really failing efforts of technology modernization, so we have particularly old systems and multiplicity of disparate systems, and so we almost have to modernize the systems and deal with the mainframe problem at the same time we're doing this. Now, that's my conclusion. Do you think we have to take on things like mainframe consolidation at the same time we're taking on Y2K?

Mr. BACE. I think what you have to be aware of or look at in total here is that year 2000 is not a technology problem. It is a business problem and a management problem that is infested due

to some technology anomalies that occurred some years back. From what I heard this morning in the panel is that, given the things that I study for the Gartner Group which include the dynamics of this very immature marketplace, the year 2000 marketplace, and by the way, this may be the first marketplace that never reaches maturity. The clock will run out before it ever grows up. So it's a very unusual market but what I heard this morning, there was a cognitive dissonance there. I heard people talking about high turnover rates, losing employees, which is true across the entire industry within the traditional and user enterprise, the turnover rates are 12 to 15 percent. In the service provider category, they are 18 to 20 percent. We have some reports as high as 70 percent turnover of staff.

Chairman JOHNSON of Connecticut. You mean in the private sector?

Mr. BACE. In the private sector, yes, of turnover of employees. I think it was Mr. Rossotti who said that, you know, he had an 8-percent turnover rate. I thought, my God, that's great. And part of what is fueling that is the inflationary costs. If you're talking about contractors coming in to do services work in the IT industry right now, in 1997, my research found that there was a 20-percent inflationary cost and if we plotted that out, we're looking at about a 50-percent increase in contractor and external service providers for Y2K work between now and the year 2000. So if the cost of your basic raw materials and the people who are going to come in and help you is going up by an inflation rate of 50 percent, you're going to need, perhaps, some more money. And that's just based upon what was said.

Chairman JOHNSON of Connecticut. Yes, I think that's very likely. I mean, I think that's logical and you can anticipate that that's going to happen. What do you think about that same kind of mechanism on the production end? I mean here we already have the Federal Government saying they're not getting the components. Well, if you don't get the components, you can't do the testing. If you don't do the testing, you know, beginning a year out, you're not going to have a good system. I had a small banker tell me, over a year ago, that he already ordered all his new computers and it was only going to cost him $400,000. This is a relatively small bank. It only has several branches, and yet it cost him $400,000. And he just did it early because he wasn't going to be caught.

And I wonder how many haven't done anything. I mean what is going to be the demand, the production demand on the computer industry? I mention this to some computer, you know, some businesspeople in that area and they said the industry is at such undercapacity right now, it's a good time for this to hit. Are there ways we should be focusing the purchasing process of the Federal Government, making sure that that, beginning now, is going to roll out in a way where the demand can be met? What is the aspect of the problem?

Mr. MILLER. The purchasing process does have some reforms. The government has taken advantage of some of the provisions that Congress implemented in 1996 to allow that. But we have suggested some other reforms and we would be glad to share that with you in detail. But I'd also like to emphasize the work force issue.

Our study recently identified 346,000 vacant positions in the private sector today. Salaries going up in double-digit rates. I found out at the work force panel that I chaired recently for the Reinvention Revolution Conference that the Vice President ran is that the workers who are staying in the Federal Government are older. And that's not to say older workers aren't also productive. But they're getting close to retirement, so they're staying in. But the Treasury Department, for example, said that 70 percent of their work force in IT will be eligible for retirement in the year 2004. They're having a very hard time recruiting new people, younger people, because they're able to pay GS–5 salaries in a marketplace which is demanding GS–9 or GS–10 salaries.

And the other place they're having difficulty is where Mr. Rossotti is having difficulty—finding CIOs and senior managers because the CIO salary, $125,000 or whatever it is in the government, compared to $300,000 in the private sector—is very, very difficult to do. Mr. Rossotti, I believe, has gotten a waiver to raise that a little bit, but that's very difficult. So I would really emphasize the work force side of it, Madam Chair. I think that's really a big difficulty.

We have suggested some changes in procurement. The Federal Government has been relatively flexible in that area, surprisingly so in a positive way.

Ms. LEHNHARD. I would point out one example where, I think, the executive branch has focused in this discussion about doing only what's necessary. I mentioned a week or two ago, HCFA said they're going to drop some transitions to a single system for part A and part B in Medicare and that allowed us to free up more people to focus on year 2000 compliance. I think that's the type of very positive exchange and working out of priorities that needs to go on. The other thing I would mention again that has our plans very, very concerned on the private side and their government side is another massive piece of legislation.

As I mentioned, we're still implementing HIPAA and BBA. I would give you one example. One private side change was mental health parity, a relatively simple provision. HCFA is so overloaded with responsibilities right now that even though they move very quickly, they weren't able to get the regulations out on that until December 28 which meant that we couldn't sign our private side contracts until December 28 or January 1, then we had to make all our systems changes once we knew what would be legal within 2 or 3 days. And some plans had to process by hand because it takes a long time to make these system changes. That was one little provision.

The bills that are being contemplated now have hundreds of provisions like that, particularly if you get into quality measurement, outcomes measurement, and data collection. Those are going to be hundreds and hundreds of systems changes at the same time we're trying to do compliance on both sides and it will affect both our private side business and Medicare.

Chairman JOHNSON of Connecticut. Thank you. That was very interesting, very helpful.

Ms. Jackson.

Ms. JACKSON. One of the other issues, as we've talked a lot about all the work that we have to do, is our reliance on systems and products that are not within our control; and our need to have information on medical devices is a primary example. And that's why I was particularly pleased to hear your interest in creating an atmosphere where mandatory disclosure or full disclosure is mandatory conduct. We don't know why we're not able to get some of the information. We think it may be because it's not available yet, that manufacturers of products haven't completed their testing. But we also have a concern that there's a fear of liability and that's why some of the manufacturers have not released their information. So, again, an atmosphere of full disclosure of information and communicating and sharing of information is very important for us all to work in partnership to address this issue.

Ms. LEHNHARD. You know, one thing I would say, I think you have to make it a sexy issue. Right now it's a wonk issue and I think you have to make it OK to talk about how these bills, these activities, are a problem administratively. Right now, that's an inside the beltway issue. It's not an issue that's acceptable to the American public to say you can't do certain things because of that. I don't know if we can get there but that——

Chairman JOHNSON of Connecticut. It's very hard to make a management issue a sexy issue and the danger is that you make it sexy by sort of picturing doomsday. And one of the little vignettes I read was the tip of the coolants in the radar system at the airport is time dependent. And it could stop releasing the coolant once we roll into the year 2000. The radar will go out and the airports will close. So, I mean, that helped me a lot to see, and I'll tell you I hear what you're saying differently because I read that example because I really hadn't thought about this issue of its insinuation into so many situations, and I think it's not just the health equipment producers. It's really any manufacturer who produces anything that has a chip in it that triggers any action on the basis of date. And how you get a grasp of how to get that level of public disclosure out, I don't know but certainly I hope you'll think about it and get back to us with some ideas because I can see how important that is.

Mr. MCMANUS. Before we close, if I could suggest that you were looking for questions that you might ask, going forward, of people that come to you and present numbers or plans to you. The first question that should be asked is, "What's included?" "What have you included in the scope of this project in this dollar amount, what is included in that?" The second question is, "What's excluded?" And then the third question, "Who controls what's critical and what's the definition of critical?" Because if people are redefining, "Well, this was critical but it's not critical any more because we're too close to the deadline." Then the inventory shifts on you and the inventory needs to include a lot of other things besides desktops and mainframes and telecommunication systems.

I mean, there's a lot of third-party vendors that are going to help any agency or business get through the day and does this dollar figure that you're prepared to spend, or saying that that's enough resources, that's enough money for my agency, does that include all these third—some analysis of all of these third-party vendors? And

it will quickly get you into a level of detail if you're trying to put the puzzle together. If there's a piece missing, there's an explanation for what's not a part of that puzzle.

Chairman JOHNSON of Connecticut. Thank you very much for your testimony, and I look forward to reading the parts that I hadn't had a chance to read. And I really appreciate your thoughtfulness and your experience, and I invite your continued input as we move forward with this. And we will share your thoughts with Steve Horn and his Subcommittee too and see if we can't get a little broader systemic response. One of the things that's hard for the Congress is that the oversight is Committee by Committee. And so while Ways and Means has oversight over a lot of the systems, we don't have oversight over all the systems and I don't know that anybody knows exactly what's going on everywhere but there are certain common threads and common problems and I very much appreciate your working with us.

Thank you.

The next panel will be Lynda Willis from the GAO, Joel Willemssen, Director of Civil Agencies Information Systems, Accounting and Information Management; accompanied by Randy Hite, Senior Assistant Director of the Defense and Government-wide Systems, Accounting and Information Management Division.

Welcome, welcome, Lynda, thank you for being with us today and I always hate to have you sit through the whole hearing. It is useful to us to have you hear all the testimony that went before and I look forward to your comments.

STATEMENT OF LYNDA D. WILLIS, DIRECTOR, TAX POLICY AND ADMINISTRATION ISSUES, GENERAL GOVERNMENT DIVISION, U.S. GENERAL ACCOUNTING OFFICE

Ms. WILLIS. Thank you, Madam Chairman, I can assure you it was very useful to us to sit there and hear not only the other panelists, in addition to the Commissioner, whom we have a lot of contact with on this issue, but also the private sector who reflect some of the very concerns that we have as well. And I think, while not wanting to be alarmist about it, that there is no question that there are major issues here that need to be addressed and, most important of all, time is running out and that is our most important resource right now and it is something that you cannot buy. And I think that that's one of the problems that they're having in getting a handle on this.

IRS, for example, has less than 9 months to complete the work that it believes is necessary to reach its goal of having all of its systems year 2000 compliant by the end of January 1999. Meeting this goal is important to help ensure that IRS has almost a full year and a filing season to test the multitude of changes that are necessary and to fix problems that will undoubtedly arise.

Madam Chairman, we identified two significant risk areas to IRS' year 2000 efforts. The first is the lack of a master conversion and replacement schedule. The second is a limited approach to contingency planning. As the Commissioner noted, IRS is taking actions to address both of these concerns. A master conversion and replacement schedule could establish the sequential relationships between the tasks associated with the year 2000 conversion and re-

placement projects at IRS, identify how much a task can slip without affecting other tasks, or the overall year 2000 effort, help determine whether programming and testing resources are likely to be available when needed as time gets shorter, and provide a tool for prioritizing and assigning programming and testing resources that are essential in the most efficient manner.

IRS currently has a contractor working on the development of an integrated schedule of its year 2000 related efforts, including making all of the necessary tax law changes for 1999. But time is running out for completing such a schedule. Unless IRS obtains a schedule soon, its value as a management tool to help anticipate bottlenecks is diminished. We also remain concerned that IRS' approach to contingency planning does not address the likelihood that system failures could occur once systems are implemented. However, recent communication, in fact, communication that took place this week with IRS officials, indicates that the agency will take additional steps to establish contingency plans for its highest priority systems.

And, Madam Chairman, I'd like to stress here that a contingency plan is not necessarily an alternative system, that there are other ways that may need to be considered in terms of back up for any problems that would occur with a particular system with the year 2000 failure. And that might be changes in businesses processes. It could even include changes in legislative requirements. And I think that a holistic and an expansive approach to contingency planning at this point is very important to making sure that we understand what the options are and also understand what it's going to take including time, resources, and so forth, to implement the contingencies.

In summary, IRS has established the goal to complete its year 2000 work by January 31 so that it will have converted and replaced systems implemented for the 1999 filing season. By establishing this goal, IRS built a safety net into its schedule to allow time to work out problems. However, given the conversion status of some of its infrastructure areas, IRS runs the risk of not completing all of its work by January 1999.

I'll stop my prepared statement there. Madam Chairman, I ask that the entire statement be placed in the record, and will be happy to answer any questions you may ask.

[The prepared statement follows:]

Statement of Lynda D. Willis, Director, Tax Policy and Administration Issues, General Government Division, U.S. General Accounting Office

Madam Chairman and Members of the Subcommittee:

We are pleased to be here today to discuss the results of our work to date on the Internal Revenue Service's (IRS) efforts to have its information systems function correctly when processing dates beyond December 31, 1999. These efforts are necessary because IRS' information systems, many of which are over 25 years old, were programmed to read two-digit date fields. Therefore, if unchanged, beginning January 1, 2000, these systems would interpret 2000 as 1900, and thus would seriously jeopardize critical tax processing and collection operations. According to IRS, the failure to change two-digit date fields before 2000 could result in generating millions of erroneous tax notices, refunds and bills. IRS has less than 9 months to complete the work that it believes is necessary to reach its goal of having all of its systems Year 2000 compliant by January 31, 1999. Meeting this goal is important to help ensure that IRS (1) can accurately process tax returns during the 1999 filing season and (2) has almost a full year to test the multitude of changes that are necessary

and make additional corrections so that its systems operate properly in the next millennium.

Our statement today is based on the work we did to prepare a draft report on the status of IRS' Year 2000 efforts. Our draft report is currently at IRS for comment. In preparing that report, we interviewed officials from IRS' National Office, computing centers, service centers, regions, and district offices. We analyzed and compared IRS' planning, budget, and performance-monitoring documentation with our Year 2000 assessment guide [1] as a part of a structured approach for reviewing IRS' conversion efforts.

Our statement today includes the following points:

—For its existing systems, IRS has made more progress in converting application software than converting its information systems infrastructure, which includes hardware, systems software, and telecommunications. Despite its progress on converting applications, IRS fell short of its goal to have the applications for 66 of the 127 systems that it considers mission-critical converted by January 1998. IRS is still assessing or in the early stages of converting its hardware and systems software for two of its three levels of computing operations—minicomputers/file servers and personal computers. Of all the infrastructure areas, according to IRS' tracking systems, telecommunications is at the highest risk for not being completed by January 31, 1999.

—In addition to converting systems, IRS is undertaking two major system replacement projects as part of its Year 2000 efforts. Both of these projects have encountered some schedule delays.

—In a briefing to this Subcommittee in January 1998, we identified two significant risk areas to IRS' Year 2000 efforts. The first was the lack of a master conversion and replacement schedule. The second was a limited approach to contingency planning. IRS is taking actions to address our concerns regarding the lack of a master conversion and replacement schedule. However, we remain concerned that IRS' current approach to contingency planning does not address the likelihood that system failures could occur once systems are implemented.

Status of Conversion and Replacement Efforts

To assist agencies in their Year 2000 conversion efforts, we developed an assessment guide that includes a structured, step-by-step approach that agencies may use for reviewing and assessing their readiness to handle the Year 2000 problem. The assessment guide states that the Year 2000 conversion efforts should be managed as a single, large information systems project. The assessment guide describes in detail the five phases of a Year 2000 conversion process (i.e., awareness, assessment, renovation, validation, and implementation). Each of these phases represents a major Year 2000 program activity or segment. To successfully address the Year 2000 problem, effective program and project management is required for all five phases.

IRS' Chief Information Officer (CIO) established several parallel efforts to help ensure that IRS achieves Year 2000 compliance by January 31, 1999. These efforts include creating the Century Date Change Project Office, which is responsible for coordinating the conversion of most existing information systems that can be made Year 2000 compliant as well as ensuring that all systems are converted in accordance with a 14-step conversion process. That process incorporates the five phases included in our assessment guide. Some of the steps involved in converting existing systems include (1) correcting millions of lines of application code; (2) upgrading thousands of hardware and systems software products for IRS' three levels of computing operations—mainframes, minicomputers/file servers, and personal computers, (3) upgrading telecommunications networks; and (4) ensuring that external data exchanges are Year 2000 compliant.

The other parallel Year 2000 efforts are two major system replacement projects—the replacement of the Distributed Input System (DIS) and the Remittance Processing System (RPS) with the Integrated Submission and Remittance Processing (ISRP) system and the consolidation of the mainframe computer processing operations at 10 service centers to 2 computing centers. IRS personnel use DIS to input taxpayer data and RPS to input remittance data. According to IRS, these two systems are old, and it is not cost-beneficial to make them Year 2000 compliant. Therefore, IRS decided to replace DIS and RPS with ISRP. ISRP will be piloted in two phases at the Austin Service Center. The first phase is underway and the second phase is scheduled to begin July 31, 1998. Nationwide implementation is scheduled for January 1999.

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[1] *Year 2000 Computing Crisis: An Assessment Guide* (GAO/AIMD–10.1.14, Sept. 1997).

As a part of its mainframe consolidation effort, IRS is to (1) replace and/or upgrade service center mainframe hardware, systems software, and the associated telecommunications infrastructure; (2) replace about 16,000 terminals that support frontline customer service and compliance operations; and (3) replace the Communication Replacement System (CRS) that provides security functions for on-line taxpayer account databases. Replacements of the terminals and CRS are critical to IRS' achieving Year 2000 compliance.

Conversion of Existing Systems

According to IRS, before January 1999, it needs to complete 12 steps of its 14-step process for converting (1) the applications for its existing systems; (2) telecommunications networks; and (3) systems software and/or hardware for mainframes, minicomputers/file servers, and personal computers. In addition, before January 31, 1999, IRS needs to (1) make its systems for external data exchanges Year 2000 compliant; (2) replace its data input and remittance processing systems and, at a minimum, the Year 2000 portions of its mainframe consolidation program; and (3) modify application software to implement tax law changes for the 1999 and 2000 filing seasons.

Much of IRS' initial Year 2000 efforts focused on the awareness and assessment phases for the applications for existing information systems controlled by the CIO.[2] In May 1997, IRS began assessing the date dependencies of applications for information systems that were controlled by either field offices or business functional areas (hereafter referred to as field/customer systems). As a result of the CIO and field/customer system assessments, as of March 31, 1998, IRS had identified 127 mission-critical systems, including 7 telecommunications systems.

IRS has made more progress in converting its applications than in converting its information systems infrastructure. Specifically, as of March 31, 1998, IRS reported that it had completed the first 12 steps of its 14-step conversion process for applications for about 59 (46 percent) of its 127 mission-critical systems. IRS' goal is to convert the applications for the remaining 68 mission-critical systems by January 31, 1999. IRS officials said they believe they are on track for meeting that goal.

IRS has completed its assessment of the hardware and systems software for its mainframe computers. Conversion efforts for other infrastructure areas—hardware and systems software for minicomputers/file servers and personal computers, telecommunications networks, and external data exchanges—are, for the most part, either in the assessment phase or the early stages of conversion. According to IRS, of these areas, telecommunications networks will likely present the most significant conversion challenge and may be at the highest risk for not being completed by January 31, 1999.

According to IRS, the capability to exchange information, both voice and data, among various computer systems is the backbone of IRS' ability to perform all of its tax processing and customer service functions. IRS uses a telecommunications network that is supported through the Department of the Treasury and additional networks that are unique to IRS. As of March 10, 1998, IRS had an inventory of the components that are included in Treasury's network and was verifying a preliminary inventory of the components in the networks unique to IRS. A contractor is currently doing a risk assessment to help develop a conversion schedule so that the most important work will be scheduled first to minimize adverse impacts if IRS is unable to complete all of its telecommunications work by January 31, 1999.

System Replacement Efforts

The two major system replacement projects included in IRS' Year 2000 efforts are experiencing some schedule slippages. For example, certain software development for ISRP that was to be completed in April 1998 is now scheduled to be done in June 1998. As a result, the time available for testing before the start of the second phase of the pilot has been reduced. ISRP officials do not believe this two-month delay will affect either the start of the second phase of the ISRP pilot or its nationwide implementation. According to IRS officials, IRS has revised its mainframe consolidation completion schedule because of field office concerns about the ambitious schedule and pending expanded business requirements. Under the revised schedule, IRS plans to delay the consolidation of data processing operations of five service centers from 1998 until after June 1999. IRS officials said they expect to complete the Year 2000 portions of mainframe consolidation (e.g., terminal replacement and CRS) by January 31, 1999. However, according to IRS' weekly status reports on main-

[2] CIO-controlled systems are generally large, mainframe-based tax processing systems. Field or business functional area systems are smaller, more specialized systems that use a variety of platforms.

frame consolidation, CRS has been experiencing some difficulties and is somewhat behind its original schedule for system testing.

IRS is Taking Actions to Develop a Master Conversion and Replacement Schedule

In our January briefing to your office, we identified two major risk areas for IRS' Year 2000 effort: (1) the lack of an integrated master conversion and replacement schedule and (2) a limited approach to contingency planning. IRS is taking action to have a contractor develop a master conversion and replacement schedule. A master conversion and replacement schedule, according to our Year 2000 assessment guide, should be a part of an agency's Year 2000 Program Plan. This schedule could be used to track the progress of concurrent and interdependent projects that must be ready for integrated systems testing at the end of January 1999. This year, IRS has a host of activities that it must complete concurrently so that its systems will be able to function correctly in 2000. Managing the interdependencies of these activities is critical to help IRS ensure the timely completion of its Year 2000 effort.

A master conversion and replacement schedule could (1) establish the sequential relationships between the tasks associated with the Year 2000 conversion and replacement activities, (2) identify how much a task can slip without affecting other tasks or the overall Year 2000 effort, (3) help determine whether programming and testing resources are likely to be available when needed, and (4) provide a tool for prioritizing and assigning programming and testing resources that are essential to the success of all Year 2000 efforts in the most efficient manner.

Recognizing that several major and complex projects, including application software changes that are needed to implement recent tax legislation, must be completed before the 1999 filing season, in November 1997, the Commissioner of Internal Revenue announced the establishment of an executive steering committee. This committee is to identify risks to the 1999 filing season and the entire Year 2000 effort and take actions to mitigate those risks. As a part of this effort, IRS developed a Century Date Change Project Schedule for its Year 2000 activities. Although the project schedule identifies the tasks for major Year 2000 activities, their corresponding start and finish dates, and the primary organizations responsible for them, the schedule does not yet establish a link between related tasks or analyze how the timing of the various tasks may affect resource availability. Until these actions are complete, IRS cannot project whether resources will be available when needed for concurrent tasks. Thus, IRS faces the risk that resources may not be available when needed.

IRS currently has a contractor working on the development of an integrated schedule of its Year 2000-related efforts, including making all of the necessary tax law changes for 1999. If properly developed, this schedule should meet the intent of the master conversion and replacement schedule called for in our assessment guide. But time is running out for completing such a schedule. Unless IRS obtains this schedule soon, its value as a management tool to help anticipate bottlenecks is diminished.

IRS' Contingency Planning Approach Poses Risk to Continuity of Operations

Contingency planning was the second risk area we identified in our January 1998 briefing. In part, due to concerns that the same resources that are doing Year 2000 conversion work would be needed to do contingency planning, IRS officials decided to develop a contingency planning process that would minimize the number of contingency plans that would have to be developed. Accordingly, IRS' "Century Date Change Contingency Management Plan" calls for developing contingency plans only for those business functions or processes that are supported by application projects that are at risk of not being made Year 2000 compliant on schedule.

The Century Date Change Project Office has established criteria to identify such projects. For these projects, IRS is to initiate a business function impact analysis. Once that analysis is complete, technical and business owners evaluate available alternatives, including using any existing contingency procedures, such as manual procedures, or using an alternative technological solution, such as commercial off-the-shelf software. IRS plans to use a similar approach for initiating contingency plans for business functions when the conversion of infrastructure areas such as systems software, external data exchanges, and telecommunications network components fall behind schedule.

IRS' "Century Date Change Contingency Management Plan" does not address the likelihood that information systems that are converted on schedule may experience system failures. As a result, IRS will be ill-prepared to effectively manage all Year 2000-induced system failures that could affect core business processes. IRS' contin-

gency management plan does not address the possibility that (1) IRS may have overlooked a date dependency during its assessment phase of applications or infrastructure areas or (2) even if system conversion and replacement efforts are completed on time and fully tested, unexpected system failures may occur.

Aspects of contingency planning are under way for IRS' replacement projects (i.e., ISRP and mainframe consolidation). For example, the ISRP project office has developed a contingency plan that identifies (1) various risks to the ISRP pilot and nationwide implementation, (2) the probability of those risks, and (3) contingency options for addressing those risks. Also, as part of a larger effort to enhance IRS' disaster recovery capabilities, IRS officials said they hope to finalize expanded disaster recovery requirements for service center data processing in May 1998 so that those requirements can be included in the mainframe consolidation project.

Our exposure draft on business continuity and contingency planning states that agencies must start business continuity and contingency planning now to reduce the risk of Year 2000 business failures.[3] Among other things, the exposure draft states that agencies need to do a business impact analysis to determine the effect of mission-critical system failures on the viability of agency operations. This analysis is to include examining business priorities; dependencies; service levels; and, most importantly, the business process dependency on mission-critical information systems. According to our exposure draft, the business impact analysis triggers the development of contingency plans for each core business process, including any information system components that support that process. Contingency plans would also address the actions IRS may take, for example, to notify taxpayers in the event that Year 2000 failures cause significant delays in processing tax returns and issuing refunds.

In summary, IRS established the goal to complete its Year 2000 work by January 31, 1999, so that it would have converted and replaced systems implemented for the 1999 filing season. By establishing this goal, IRS built a safety net into its schedule to allow time to work out problems with converted and replaced systems before January 1, 2000. However, given the conversion status of some of its infrastructure areas, IRS runs the risk of not completing all of its work by the January 31, 1999, milestone. Moreover, even if all of IRS' work is completed according to schedule, the potential exists for failures in systems that were fully assessed, converted, tested and implemented according to schedule. We remain concerned about IRS' narrow approach to contingency planning which focuses on developing contingency plans only for business functions that are supported by information systems projects that have a known risk of not being completed according to schedule. Under this approach, IRS has no assurance that its core business processes will be able to continue to function, albeit, possibly at some reduced level of service, in the event that Year 2000-induced system failures occur in systems that were converted according to schedule.

That concludes my prepared statement. We welcome any questions that you may have.

Chairman JOHNSON of Connecticut. OK.
Mr. Willemssen.

STATEMENT OF JOEL C. WILLEMSSEN, DIRECTOR, CIVIL AGENCIES INFORMATION SYSTEMS, ACCOUNTING AND INFORMATION MANAGEMENT DIVISION, U.S. GENERAL ACCOUNTING OFFICE; ACCOMPANIED BY RANDY HITE, SENIOR ASSISTANT DIRECTOR, DEFENSE AND GOVERNMENTWIDE INFORMATION SYSTEMS, ACCOUNTING AND INFORMATION MANAGEMENT DIVISION, U.S. GENERAL ACCOUNTING OFFICE

Mr. WILLEMSSEN. Thank you, Madam Chair. I am going to very briefly summarize our statement. Accompanying me is Randy Hite who is responsible for much of our work at Treasury components,

[3] *Year 2000 Computing Crisis: Business Continuity and Contingency Planning* (GAO/AIMD–10.1.19, Mar. 1998).

other than IRS. I'm going to briefly summarize what we found at SSA, HCFA, and some of those Treasury components.

Let me begin with SSA. What we found is SSA is a leader among Federal agencies in addressing the year 2000 issue. And they've made significant progress in assessing, and renovating mission-critical mainframe systems that are essential to the delivery of benefits. However, as we reported last fall and as was mentioned earlier today, we did find some risks at SSA. Those risks surrounded States' disability systems, the data exchange issue, and contingency planning. And we recommended several actions to mitigate those risks. Now SSA has agreed to implement all of our recommendations and actions are underway to do that. For example, SSA recently completed a high-level overall plan for ensuring business continuity in the event of year 2000 induced failures.

Next, let me turn to HCFA and Medicare. In our report of last year, we discussed the serious weaknesses in HCFA's approach to addressing the year 2000 issue. For example, we found that HCFA generally did not have agreements with its contractors stating how or when the year 2000 problem would be corrected. In addition, while HCFA had done some work on its internal systems, it had not completed similar reviews of the Medicare contractors claims processing systems. In addition, they did not have plans for independent validation of renovation strategies and testing. We made several recommendations to HHS to address these weaknesses. Since then, HCFA has made some progress. The most encouraging note is they have clearly made it now a top priority. However, it appears the agency still has not determined how its core business functions would be affected if its systems fail.

Finally, let me turn briefly to Treasury. Again, we see some evidence of progress at the Department but there are key risks remaining. Let me point out one of the more severe risks at one of those Treasury components and that is at FMS, which as has been mentioned today, plays a critical role in delivering government services, such as Social Security and Medicare payments. FMS is falling seriously behind schedule in converting some of its systems to be year 2000 compliant. For example, as of the end of March, FMS still had not completed assessing the compliance of five of its mission-critical systems. That's an activity that should have been done last summer. Fortunately, Treasury recognizes it now must focus on FMS. Department officials have told us that FMS is now Treasury's highest bureau priority because of its slow progress and because of its overall criticality.

That summarizes my statement, and, as with Lynda, be pleased to address any questions that you may have.

[The prepared statement follows:]

Statement of Joel C. Willemssen, Director, Civil Agencies Information Systems, Accounting and Information Management Division, U.S. General Accounting Office

Madam Chairwoman and Members of the Subcommittee:

We are pleased to be here today to discuss the computing challenges that the upcoming change of century poses to virtually all major organizations, public and private, including government programs with a high degree of interaction with the American public such as the Social Security Administration (SSA) and Medicare. As the world's most advanced and most dependent user of information technology, the United States possesses close to half of all computer capacity and 60 percent of

Internet assets.[1] As a result, the coming century change presents a particularly sweeping and urgent challenge for entities in this country.[2]

For this reason, we have designated the Year 2000 computing problem as a high-risk area[3] for the federal government, and have published guidance[4] to help organizations successfully address the issue. Since early 1997 we have issued over 35 products detailing specific findings and recommendations related to the Year 2000 readiness of a wide range of federal agencies.[5]

The common theme of these reports has been that serious vulnerabilities remain in addressing the federal government's Year 2000 readiness. Much more action is needed to ensure that federal agencies satisfactorily mitigate Year 2000 risks to avoid debilitating consequences. Vital economic sectors of the nation are also vulnerable. These include state and local governments; telecommunications; banking and finance; health, safety, and emergency services; transportation; utilities; and manufacturing and small business.

While actions by government and industry are underway throughout the nation, the creation of the President's Council on Year 2000 Conversion represents an opportunity to orchestrate the leadership and public/private partnerships essential to confronting the unprecedented challenges that our nation faces. My testimony today will briefly outline our views on what additional actions must be taken to reduce the nation's Year 2000 risks, and what our inquiries into Year 2000 readiness found at Social Security, the Health Care Financing Administration (HCFA) and Medicare, and at the Department of the Treasury.

Risk of Year 2000 Disruptions Requires Leadership

The public faces the risk that critical services could be severely disrupted by the Year 2000 computing crisis. Financial transactions could be delayed, airline flights grounded, and national defense affected. The many interdependencies that exist among the levels of governments and within key economic sectors of our nation could cause a single failure to have wide-ranging repercussions. While managers in the government and the private sector are acting to mitigate these risks, a significant amount of work remains.

The federal government is extremely vulnerable to the Year 2000 issue due to its widespread dependence on computer systems to process financial transactions, deliver vital public services, and carry out its operations. This challenge is made more difficult by the age and poor documentation of many of the government's existing systems and its lackluster track record in modernizing systems to deliver expected improvements and meet promised deadlines.

Year 2000-related problems have already occurred. For example, an automated Defense Logistics Agency system erroneously deactivated 90,000 inventoried items as the result of an incorrect date calculation. According to the agency, if the problem had not been corrected (which took 400 work hours), the impact would have seriously hampered its mission to deliver materiel in a timely manner.[6]

Our reviews of federal agency Year 2000 programs have found uneven progress, and our reports contain numerous recommendations, which the agencies have almost universally agreed to implement. Among them are the need to establish priorities, solidify data exchange agreements, and develop contingency plans.

One of the largest, and largely unknown, risks relates to the global nature of the problem. With the advent of electronic communication and international commerce, the United States and the rest of the world have become critically dependent on computers. However, with this electronic dependence and massive exchanging of data comes increasing risk that uncorrected Year 2000 problems in other countries will adversely affect the United States. And there are indications of Year 2000 readiness problems internationally. In September 1997, the Gartner Group, a private re-

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[1] *Critical Foundations: Protecting America's Infrastructures* (President's Commission on Critical Infrastructure Protection, October 1997).

[2] For the past several decades, automated information systems have typically represented the year using two digits rather than four in order to conserve electronic data storage space and reduce operating costs. In this format, however, 2000 is indistinguishable from 1900 because both are represented only as 00. As a result, if not modified, computer systems or applications that use dates or perform date- or time-sensitive calculations may generate incorrect results beyond 1999.

[3] *High-Risk Series: Information Management and Technology* (GAO/HR–97–9, February 1997).

[4] *Year 2000 Computing Crisis: An Assessment Guide* (GAO/AIMD–10.1.14, September 1997) and *Year 2000 Computing Crisis: Business Continuity and Contingency Planning* (GAO/AIMD–10.1.19, March 1998 [exposure draft]).

[5] A listing of our publications is included as an attachment to this statement.

[6] *Defense Computers: Issues Confronting DLA in Addressing Year 2000 Problems* (GAO/AIMD–97–106, August 12, 1997).

search firm acknowledged for its expertise in Year 2000 computing issues, surveyed 2,400 companies in 17 countries and concluded that "[t]hirty percent of all companies have not started dealing with the year 2000 problem."[7]

Additional Actions Must Be Taken To Reduce Nation's Year 2000 Risks

As 2000 approaches, the scope of the risks that the century change could bring has become more clear, and the federal government's actions have intensified. This past February, an executive order was issued establishing the President's Council on Year 2000 Conversion. The Council Chair is to oversee federal agency Year 2000 efforts as well as be the spokesman in national and international forums, coordinate with state and local governments, promote appropriate federal roles with respect to private-sector activities, and report to the President on a quarterly basis.

As we testified in March,[8] there are a number of actions we believe the Council must take to avert this crisis. In a report issued just last week, we detailed specific recommendations.[9] The following summarizes a few of the key areas in which we recommend action:

- Because departments and agencies have taken longer than recommended to assess the readiness of their systems, it is unlikely that they will be able to renovate and fully test all mission-critical systems by January 1, 2000. Consequently, setting priorities is essential, with the focus being on systems most critical to our health and safety, financial well being, national security, or the economy.
- Agencies must start business continuity and contingency planning now to safeguard their ability to deliver a minimum acceptable level of services in the event of Year 2000-induced failures. In March we issued an exposure draft of a guide providing information on business continuity and contingency planning issues common to most large enterprises; OMB recently adopted this guide as a model for federal agencies.[10] Agencies developing such plans only for systems currently behind schedule, however, are not addressing the need to ensure business continuity in the event of unforeseen failures. Further, such plans should not be limited to the risks posed by the Year 2000-induced failures of internal information systems, but must include the potential Year 2000 failures of others, including business partners and infrastructure service providers.
- The Office of Management and Budget's (OMB) assessment of the current status of federal Year 2000 progress is predominantly based on agency reports that have not been consistently verified or independently reviewed. Without such independent reviews, OMB and the President's Council on Year 2000 Conversion have little assurance that they are receiving accurate information. Accordingly, agencies must have independent verification strategies involving inspectors general or other independent organizations.
- As a nation, we do not know where we stand overall with regard to Year 2000 risks and readiness. No nationwide assessment—including the private and public sectors—has been undertaken to gauge this. In partnership with the private sector and state and local governments, the President's Council could orchestrate such an assessment.

Social Security Administration

At this point I would like to address our findings at specific agencies, beginning with the Social Security Administration. We see significant progress at SSA, and it is essential that this progress continue. SSA has been anticipating the change of century since 1989, initiating an early response to the potential crisis. It made important early progress in assessing and renovating mission-critical mainframe systems—those necessary to prevent the disruption of benefits—and has been a leader among federal agencies.

Three key risks remained, however, as discussed in our report of last October and testimony of this past March.[11] One major risk concerned Year 2000 compliance of

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[7] *Year 2000-World Status* (Gartner Group, Document #M–100–037, November 25, 1997).

[8] *Year 2000 Computing Crisis: Strong Leadership and Effective Public/Private Cooperation Needed to Avoid Major Disruptions* (GAO/T–AIMD–98–101, March 18, 1998).

[9] *Year 2000 Computing Crisis: Potential For Widespread Disruption Calls For Strong Leadership and Partnerships* (GAO/AIMD–98–85, April 30, 1998)

[10] GAO/AIMD–10.1.19, March 1998 [exposure draft].

[11] *Social Security Administration: Significant Progress Made in Year 2000 Effort, But Key Risks Remain* (GAO/AIMD–98–6, October 22, 1997) and *Social Security Administration: Information Technology Challenges Facing the Commissioner* (GAO/T–AIMD–98–109, March 12, 1998).

the 54 state Disability Determination Services (DDS)[12] that provide vital support to the agency in administering SSA's disability programs. The second major risk concerned data exchanges, ensuring that information obtained from these thousands of outside sources—such as other federal agencies, state agencies, and private businesses—was not "corrupted" by data being passed from systems not Year 2000 compliant. Third, such risks were compounded by the lack of contingency plans to ensure business continuity in the event of systems failure.

We recommended several specific actions to mitigate these risks. These included (1) strengthening monitoring and oversight of state DDS Year 2000 activities, (2) expeditiously completing the assessment of mission-critical systems at DDS offices and using those results to establish specific plans of action, (3) discussing the status of DDS Year 2000 activities in SSA's quarterly reports to OMB, (4) quickly completing SSA's Year 2000 compliance coordination with all data exchange partners, and (5) developing specific contingency plans that articulate clear strategies for ensuring the continuity of core business functions.

At the request of this Committee's Subcommittee on Social Security and the Senate Special Committee on Aging, we are monitoring SSA's implementation of our recommendations. SSA has agreed with all of our recommendations, and actions to implement them have either been taken or are underway.

Regarding state DDSs, SSA has enhanced its monitoring and oversight by establishing a full-time DDS project team, designating project managers and coordinators, and requesting biweekly status reports. Further, almost all states have now submitted initial Year 2000 plans; SSA now reports that 22 DDSs have had their systems renovated, tested, and implemented. In addition, beginning with its November 1997 report, SSA has included information on DDSs in its quarterly reports to OMB.

SSA has also identified its external data exchanges and is in the process of coordinating with its partners to make the exchanges Year 2000 compliant. Further, SSA began working with the Department of the Treasury in March of this year to test for the disbursement of benefit checks and other direct deposit payments.

Finally, in accordance with our guidance, SSA has completed a high-level, overall plan for business continuity. This plan represents a sound framework from which SSA can build its specific contingency plans. These specific plans—for each core business area—need to be developed to ensure that operations continue uninterrupted.

MEDICARE AND THE HEALTH CARE FINANCING ADMINISTRATION

As the nation's largest health insurer, Medicare expects to process over a billion claims and pay $288 billion in benefits annually by 2000. The consequences, then, of its systems' not being Year 2000 compliant could be enormous. In a report issued last May,[13] we discussed the critical managerial and technical challenges facing the Health Care Financing Administration (HCFA) in its efforts to ensure the viability of systems to handle Medicare transactions into the next century.

We found that HCFA had not required systems contractors to submit Year 2000 plans for approval. Further, it did not have contracts or other specific legal agreements with any contractors, other than one recently selected contractor, stating how or when the Year 2000 problem would be corrected, or whether contractors would certify that they would correct the problem.

HCFA had also not identified critical areas of responsibility for Year 2000 activities. Although HCFA's regional offices have a role in overseeing contractor efforts, their specific Year 2000 responsibilities had not been defined, nor had guidance been prepared on how to monitor or evaluate contractor performance. While HCFA had been assessing the impact of the century change on its internal systems, it had not completed a similar review of Medicare contractors' claims processing systems. Further, HCFA had not required its contractors to prepare an assessment of the severity of impact of potential Year 2000 problems.

Plans for independent validation of contractors' strategies and test plans were also lacking. Likewise, while HCFA had asked contractors to identify their system interfaces, it had no plans for approving the contractors' approaches for addressing interface and data exchange issues. Moreover, HCFA had not developed contingency plans to address continuity of business operations in the event of Year 2000-induced

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[12] One for each state plus the District of Columbia, Guam, Puerto Rico, and the Virgin Islands. A federal DDS serves as a backup and model office for testing new technologies and work processes.

[13] *Medicare Transaction System: Success Depends Upon Correcting Critical Managerial and Technical Weaknesses* (GAO/AIMD–97–78, May 16, 1997).

failures. HCFA officials were again relying on the contractors themselves to identify and complete the necessary work in time to avoid problems. Yet the contractors had not developed contingency plans—and did not intend to—because they considered this HCFA's responsibility.

To address these deficiencies in HCFA's approach, we made several recommendations to the Secretary of Health and Human Services. These included identifying responsibilities for managing and monitoring Year 2000 actions, preparing an assessment of the severity of impact and timing of potential Year 2000 problems, and developing contingency plans. We also recommended that HCFA require its contractors to submit for review and approval (1) plans for identifying and correcting potential problems, including certification that their changes would correct the problems, (2) validation strategies and test plans for systems, and (3) plans for addressing interface and data exchange issues.

The Department of Health and Human Services (HHS) has agreed to implement our recommendations. For example, HCFA has established the position of Chief Information Officer (CIO); this individual has made the Year 2000 issue his top priority. HCFA has also established a Year 2000 organization, and the issue is included in HCFA's information technology investment process and annual performance plan goals. It is also developing business continuity and contingency plans, with a draft plan set for release this month. Further, the Medicare carriers' manual has been revised to require such contingency planning.

It should be noted, however, that since our report of last year,[14] HHS' and OMB's concerns about the Medicare contractors' systems have become more evident. For example, according to HHS' February 1998 quarterly Year 2000 report, "HCFA's Medicare contractor systems continue to be of great concern to the Department." In addition, in its summary of all agencies' February 1998 reports, OMB concluded that HHS was making insufficient progress on Year 2000 due in large part to HCFA's delays.

There are also indications that the agency has not documented the severity of impact of Year 2000-related failures—in other words, how its core business functions would be affected if its automated information systems failed because of Year 2000-related problems. For example, if Medicare systems failed, the number of health services providers who would not be paid, paid late, or in incorrect amounts is unknown. HCFA has recently begun contingency planning that may address some of these issues. We are currently evaluating the effectiveness of HCFA's actions, at the request of the Senate Special Committee on Aging.

Department of the Treasury

With respect to the Department of the Treasury, we must first point out that—unlike with Social Security and Medicare—we have not completed a thorough assessment of the Department's Year 2000 readiness. However, we can describe some of what we have seen, and what Treasury officials themselves report. In addition, we have undertaken detailed work at the Internal Revenue Service (IRS), which will be discussed in a separate statement today.

Treasury's role in delivering government services, such as Social Security and Medicare payments, is vital. Treasury's Financial Management Service (FMS), for instance, as the government's cash receipts and disbursements agent and financial manager, represents the crossroads of financial activity for the federal government. However, the Department's progress in making systems Year 2000 compliant has been mixed. Bureaus such as its Office of Thrift Supervision are making good progress in converting their systems and in overseeing the conversion activities of the financial institutions that they regulate and inspect.[15] In contrast, FMS is falling seriously behind schedule in converting some of its systems.[16] Treasury Year 2000 program officials are aware of these and other related risks facing the Department, and have established program management structures and processes to address them, which we are presently evaluating.

To perform their core business functions, Treasury and its bureaus rely on a vast—and in many cases antiquated—collection of systems, thereby complicating

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[14] GAO/AIMD–97–78, May 16, 1997.

[15] *Year 2000 Computing Crisis: Office of Thrift Supervision's Efforts to Ensure Thrift Systems Are Year 2000 Compliant* (GAO/T–AIMD–98–102, March 18, 1998).

[16] Treasury encompasses 14 separate bureaus or program offices. Two of these—the Internal Revenue Service (IRS) and the U.S. Customs Service—account for almost 98 percent of federal revenues each year. Two other major bureaus for which Year 2000 compliance implications are critical include FMS and the Bureau of the Public Debt. Taken together, these four bureaus are instrumental in the efficient collection and payment functions that support beneficiaries of programs such as Social Security and Medicare.

Year 2000 renovations. To integrate many of the bureaus' systems and permit them to interact and exchange information with a wide assortment of federal, state, and local government and private-sector data exchange partners (over 6,800, according to the Department), Treasury operates and maintains the largest non-Defense telecommunications network in the federal government.

The responsibilities of Treasury's Year 2000 program office are basically twofold: guiding, monitoring, and reporting on the conversion activities of its bureaus; and converting and reporting on Departmentwide telecommunications systems that support its bureaus. To guide, monitor, and report on bureau activities, Treasury has (1) established a departmental program office and designated a program manager within the CIO organization, (2) established Year 2000 working groups and designated work group project managers to focus on major categories of systems, (3) issued a departmental Year 2000 conversion strategy, guidance, and standards, and (4) established monthly progress reporting requirements. Additionally, it used its existing CIO Council as a forum for Year 2000 information exchanges between the Department and bureau CIOs, hired a contractor to validate the information being reported by its bureaus, and developed draft guidance governing the process to be used in certifying systems as compliant and for verification and validation of certification determinations.

As a result of this program office oversight, Treasury has a good appreciation of where its attention must be focused. Program officials recognize that progress among the bureaus has been uneven, as has progress within individual agencies for certain categories of systems. For example, they stated that FMS is Treasury's highest priority because of its slow progress to date and the criticality of its role in managing the government's finances. As a result, according to the Department's Year 2000 program manager, FMS progress and activities are tracked on a daily basis and, consequently, FMS Year 2000 management effectiveness has improved.

Department Year 2000 officials further report that telecommunications systems and non-information technology (IT) areas, such as systems embedded in facilities and equipment, are not as far along as other IT areas, such as financial and management information systems, because work in these areas started late. To address this risk, Treasury has established working groups and project managers for both telecommunications and non-IT systems, along with formal processes for guiding, monitoring, and reporting on these areas.

To address the conversion of its telecommunications systems, the program office has established a telecommunications working group and designated a project manager. A risk management plan has also been established, as has a test facility to permit all telecommunications systems components to be tested before being placed in operation. In addition, a contractor has been hired to perform independent verification and validation of telecommunications conversion activities.

Despite these actions, Treasury and its bureaus face other major risks that must be managed effectively if key systems are to be ready in time. For example, the assessment phase—during which the compliance of mission-critical systems is determined—has not been completed. This is worrisome because it reduces the amount of time left for critical renovation, validation, and implementation activities. Treasury's milestone for assessing all mission-critical systems was July 1997. However, as of the end of March 1998, FMS still had not completed assessing the compliance of five of its mission-critical systems.

For example, according to Treasury's latest status report, FMS is awaiting a contractor proposal for renovating a system called GOALS I—for Government On-Line Accounting Link System I. This system plays a critical role in processing interagency payments and collections. Of particular note is that the need to assess GOALS I for renovation arose only recently, when it became apparent that GOALS II, intended to replace GOALS I, will not be ready in time.

For non-IT systems, Treasury's components are farther behind. As of mid-March, systems in 3 of Treasury's 14 bureaus had still not been inventoried. Of the systems in the 11 inventoried bureaus, about one quarter remain to be assessed.

A final risk area is that contingency plans for ensuring continuity of business operations have not yet been developed. As our guidance points out,[17] business area priorities and system dependencies must be examined in light of possible Year 2000-induced failures; contingency planning to help ensure continuity of business operations must then be developed and tested.

Although Treasury's Year 2000 program office recognizes the importance of business continuity planning and has issued guidance in this area, bureaus have not yet completed such plans, and are at risk of being unable to complete them in time. For example, IRS plans to develop contingency plans only for those business areas rely-

[17] GAO/AIMD–10.1.19, March 1998 [exposure draft].

ing on systems whose conversions are behind schedule. With this approach, IRS will have no ready response to unexpected Year 2000-induced problems. Further exacerbating this problem is that devising and activating manual or contract processes to ensure continuity of operations could be a daunting task. According to a Treasury contractor, it may be difficult for some Treasury components, such as FMS, to formulate an approach to operating in a nonautomated environment.

In conclusion, the change of century will present many difficult challenges in information technology and in ensuring the continuity of business operations, and has the potential to cause serious disruption to the nation and to government entities on which the public depends, including SSA, Medicare, and Treasury. These risks can be mitigated and disruptions minimized with proper attention and management. While these agencies and programs have been working to mitigate their Year 2000 risks, further action must be taken to ensure continuity of mission-critical business operations. Continued congressional oversight through hearings such as this can help ensure that such attention is sustained and that appropriate actions are taken to address this crisis.

Madam Chairwoman, this concludes my statement. I would be happy to respond to any questions that you or other members of the Subcommittee may have at this time.

GAO REPORTS AND TESTIMONY ADDRESSING THE YEAR 2000 CRISIS

Year 2000 Computing Crisis: Potential For Widespread Disruption Calls For Strong Leadership and Partnerships (GAO/AIMD–98–85, April 30, 1998)

Defense Computers: Year 2000 Computer Problems Threaten DOD Operations (GAO/AIMD–98–72, April 30, 1998)

Department of the Interior: Year 2000 Computing Crisis Presents Risk of Disruption to Key Operations (GAO/T–AIMD–98–149, April 22, 1998)

Year 2000 Computing Crisis: Business Continuity and Contingency Planning (GAO/AIMD–10.1.19, Exposure Draft, March 1998)

Tax Administration: IRS' Fiscal Year 1999 Budget Request and Fiscal Year 1998 Filing Season (GAO/T–GGD/AIMD–98–114, March 31, 1998)

Year 2000 Computing Crisis: Strong Leadership Needed to Avoid Disruption of Essential Services (GAO/T–AIMD–98–117, March 24, 1998)

Year 2000 Computing Crisis: Office of Thrift Supervision's Efforts to Ensure Thrift Systems Are Year 2000 Compliant (GAO/T–AIMD–98–102, March 18, 1998)

Year 2000 Computing Crisis: Strong Leadership and Effective Public/Private Cooperation Needed to Avoid Major Disruptions (GAO/T–AIMD–98–101, March 18, 1998)

Post-Hearing Questions on the Federal Deposit Insurance Corporation's Year 2000 (Y2K) Preparedness (AIMD–98–108R, March 18, 1998)

SEC Year 2000 Report: Future Reports Could Provide More Detailed Information (GAO/GGD/AIMD–98–51, March 6, 1998

Year 2000 Readiness: NRC's Proposed Approach Regarding Nuclear Powerplants (GAO/AIMD–98–90R, March 6, 1998)

Year 2000 Computing Crisis: Federal Deposit Insurance Corporation's Efforts to Ensure Bank Systems Are Year 2000 Compliant (GAO/T–AIMD–98–73, February 10, 1998)

Year 2000 Computing Crisis: FAA Must Act Quickly to Prevent Systems Failures (GAO/T–AIMD–98–63, February 4, 1998)

FAA Computer Systems: Limited Progress on Year 2000 Issue Increases Risk Dramatically (GAO/AIMD–98–45, January 30, 1998)

Defense Computers: Air Force Needs to Strengthen Year 2000 Oversight (GAO/AIMD–98–35, January 16, 1998)

Year 2000 Computing Crisis: Actions Needed to Address Credit Union Systems' Year 2000 Problem (GAO/AIMD–98–48, January 7, 1998)

Veterans Health Administration Facility Systems: Some Progress Made In Ensuring Year 2000 Compliance, But Challenges Remain (GAO/AIMD–98–31R, November 7, 1997)

Year 2000 Computing Crisis: National Credit Union Administration's Efforts to Ensure Credit Union Systems Are Year 2000 Compliant (GAO/T–AIMD–98–20, October 22, 1997)

Social Security Administration: Significant Progress Made in Year 2000 Effort, But Key Risks Remain (GAO/AIMD–98–6, October 22, 1997)

Defense Computers: Technical Support Is Key to Naval Supply Year 2000 Success (GAO/AIMD–98–7R, October 21, 1997)

Defense Computers: LSSC Needs to Confront Significant Year 2000 Issues (GAO/AIMD–97–149, September 26, 1997)

Veterans Affairs Computer Systems: Action Underway Yet Much Work Remains To Resolve Year 2000 Crisis (GAO/T–AIMD–97–174, September 25, 1997)

Year 2000 Computing Crisis: Success Depends Upon Strong Management and Structured Approach, (GAO/T–AIMD–97–173, September 25, 1997)

Year 2000 Computing Crisis: An Assessment Guide (GAO/AIMD–10.1.14, September 1997)

Defense Computers: SSG Needs to Sustain Year 2000 Progress (GAO/AIMD–97–120R, August 19, 1997)

Defense Computers: Improvements to DOD Systems Inventory Needed for Year 2000 Effort (GAO/AIMD–97–112, August 13, 1997)

Defense Computers: Issues Confronting DLA in Addressing Year 2000 Problems (GAO/AIMD–97–106, August 12, 1997)

Defense Computers: DFAS Faces Challenges in Solving the Year 2000 Problem (GAO/AIMD–97–117, August 11, 1997)
Year 2000 Computing Crisis: Time is Running Out for Federal Agencies to Prepare for the New Millennium (GAO/T–AIMD–97–129, July 10, 1997)
Veterans Benefits Computer Systems: Uninterrupted Delivery of Benefits Depends on Timely Correction of Year-2000 Problems (GAO/T–AIMD–97–114, June 26, 1997)
Veterans Benefits Computers Systems: Risks of VBA's Year-2000 Efforts (GAO/AIMD–97–79, May 30, 1997)
Medicare Transaction System: Success Depends Upon Correcting Critical Managerial and Technical Weaknesses (GAO/AIMD–97–78, May 16, 1997)
Medicare Transaction System: Serious Managerial and Technical Weaknesses Threaten Modernization (GAO/T–AIMD–97–91, May 16, 1997)
Year 2000 Computing Crisis: Risk of Serious Disruption to Essential Government Functions Calls for Agency Action Now (GAO/T–AIMD–97–52, February 27, 1997)
Year 2000 Computing Crisis: Strong Leadership Today Needed To Prevent Future Disruption of Government Services (GAO/T–AIMD–97–51, February 24, 1997)
High Risk Series: Information Management and Technology (GAO/HR–97–9, February 1997)

Chairman JOHNSON of Connecticut. That's a pretty pessimistic evaluation of where we are. How do you respond to the issue of personnel that's been raised? How serious do you think that is?

Ms. WILLIS. I would think for IRS it is a serious problem. In part because many of the key component functions that are now doing the year 2000 work were understaffed to begin with, and this includes some of the product assurance and testing functions. And so when you start in a deficit situation and you start losing people through attrition, leaving the organization, then you have an even greater problem with carrying out what I think is going to be the most critical challenge facing IRS. And as the Commissioner noted, I think there are some real questions about the fungibility of individuals in terms of being able to do the testing. It is not going to be possible, in many cases, for IRS to just pick people up off the street, no matter how much money they're willing to pay, who are familiar enough with the systems to be able to complete the testing in the time that's available.

Mr. WILLEMSSEN. If I could speak toward the issue from also a governmentwide perspective, we are seeing increasing evidence that this is an urgent problem. In fact, we made a recommendation in a report that we issued last week to Mr. Koskinen, the Chair of the Y2K Conversion Council, that we must have a variety of actions in the personnel area to address this. We are seeing more and more anecdotal evidence at key departments and agencies that they are beginning to lose those personnel. We are seeing some positive movement, governmentwide, for example, as I believe was mentioned earlier. OPM has put out a waiver of some of the rehiring of retired annuitants, and also we've seen some encouraging action in the way of trying to retain existing staff. Because in some cases where we're talking about very old systems that are not well documented, you must rely on your existing staff who are the only ones immediately available who really understand the systems.

Chairman JOHNSON of Connecticut. How aggressive are their incentives to retain existing staff?

Mr. WILLEMSSEN. We have seen——

Chairman JOHNSON of Connecticut. Are they adequate, are they succeeding?

Mr. WILLEMSSEN. They are succeeding in some regard, but I think we're going to have to see more aggressive action, because

the unfortunate situation we have here is as the private sector salaries continue to ratchet up, we're going to have to be even more innovative in the Federal Government, and we're going to have to take a stance that we just cannot allow certain critical folks to leave and we've got to take whatever measures are necessary to do that. One key example, I know it's outside the purview of this committee, but at the Federal Aviation Administration, there again, we have some absolutely critical systems, very old systems, though, that only a handful, a cadre of folks know, and it's not really a viable solution to go out and get contractors support in some cases for those kinds of scenarios. So I think we've got to be flexible and be alert to the marketplace and whatever the marketplace demands, we've got to be responsive to that.

Ms. WILLIS. As far as IRS goes, I know that the Commissioner has been looking very hard at the new provisions that would allow him to rehire retirees without the penalty to the pension, and he hopes that if he can pick up even 10 percent of those that it will make a significant difference. And at the last steering committee meeting, one of the things that was discussed was alternative work arrangements and various options that were available to make this work attractive to people who have left IRS or to keep people who are currently there now. I think there are limitations around the issue of how much money people in the Federal Government can be paid. And even their retention bonuses and some of the other incentives that have been offered, while they're significant for the Federal Government, I think one of the open questions is whether they will match what's available in the private sector. And I heard from the last panel that CIOs working with this were making $300,000. Around the issue of the IRS CIO, that may not be high enough given the size of IRS' systems and the year 2000 challenge that it faces.

Chairman JOHNSON of Connecticut. Have you developed any, has GAO developed any information on what the salaries are in the private sector for the kinds of positions that we see people leaving in the Federal Government across the board?

Mr. WILLEMSSEN. We have an assignment that we have just initiated in the personnel area at the request of Chairman Leach so that work is just underway to look at the personnel issues and those kind of salary ramifications, and we hope to have something out additionally on that this summer.

Chairman JOHNSON of Connecticut. OK. We hope to share in that. I'll speak to Congressman Leach about that. What about this issue of the availability of technology? How serious is the problem of the telecommunications industry not upgrading their equipment promptly?

Mr. WILLEMSSEN. The telecommunications area is one of great concern to us. I think one of the issues that we need to see more movement on from a governmentwide perspective is there needs to be data on telecommunications and exactly what the compliance status is right now. Many of the major providers are reluctant to date to share much of that data. Mr. Koskinen and his Conversion Council have made telecommunications a major priority area. They had an initial major meeting, unfortunately much of the discussion at that meeting centered around litigation and the reluctance to

share data on the compliance status of various telecommunications components. I don't think we can go much longer and talk about those kind of issues. We've got to get into more exactly where we are compliancewise and we've got to be sharing information because no matter how good the agencies up before you today are going to do, if the telecommunication isn't there.

Chairman JOHNSON of Connecticut. Well, that's my concern but you heard from the preceding panel that there also is concern about medical equipment and, you know, when you look at all the equipment across the board——

Mr. WILLEMSSEN. There should be concern, again, we have an ongoing assignment on biomedical equipment, also, that we're doing for the House Veterans' Affairs Committee, and there should be concern about that. There are efforts underway to collect data on the wide range of biomedical equipment out there and the exact nature of what the Y2K issues may be. So there are efforts underway, we just need to more aggressively speed up those efforts.

Chairman JOHNSON of Connecticut. I'd appreciate if you'd give some thought to if you were going to formulate a mandate about, you know, who in our society ought to be reporting publicly to where they are and what the liability protection that you would have to give them. I mean, it sounds to me like we're going to need an umbrella action here, otherwise you're not going to get the information out in a timely fashion. There has to be some protection so I think we need help on that because it would have to move very rapidly, it would certainly have to go through Judiciary, it would be very controversial, as liability things are. I don't see how you're going to get the information you need without it.

Ms. WILLIS. Well, Mrs. Johnson, I think, again, the time issue is very, very important because we can't wait until December 1999 for an agency like IRS that is heavily dependent upon telecommunications to do its basic job to move data around the country, and so forth. Those systems, ideally, need to be in place early next year——

Chairman JOHNSON of Connecticut. Right.

Ms. WILLIS [continuing]. In time for IRS to be able to test them as a component part of its end-to-end testing.

Chairman JOHNSON of Connecticut. If you have any other suggestions, I mean legislating is slow and then it has to go into effect.

Ms. WILLIS. Right.

Chairman JOHNSON of Connecticut. If you have any other suggestions as to how the Congress could work on this problem. It clearly is a very critical problem. And if it's dominating the meetings, all that time is not going to the other planning. And it's very, very important.

Mr. WILLEMSSEN. Totally agree with you. And because of the increasing amount of attention that this litigation area has received recently, we have now initiated some work to get at that as quickly as possible and we will share with you as soon as we have our overall conclusions and recommendations on that area.

Chairman JOHNSON of Connecticut. When do you expect that to be?

Mr. WILLEMSSEN. We need to have that by, hopefully, early, early summer.

Chairman JOHNSON of Connecticut. You need to have it before then.

Mr. WILLEMSSEN. OK.

Chairman JOHNSON of Connecticut. Or at least you need to have some, we need to have some idea——

Mr. WILLEMSSEN. Well, but we can give some preliminary indications very quickly, just in terms of a final product——

Chairman JOHNSON of Connecticut. And the truth is if there's going to be any greater pressure put on the resolution of this problem systemically, we really have no time at all to lose because you have to get the ideas at least into the key committees before the May recess so they can germinate over the May recess and then possibly have some life in June and, you know, you certainly you can't wait for this stuff to take place in September. And if you can help develop sort of a hierarchy of actions that could be taken, you know, some of them bully pulpit, some of them legislative. It is extremely concerning to see how terribly important succeeding on this year 2000 project is and what is at stake for us as an economy and a society and to see that test companies not giving their upgrades soon enough to be tested, you know, could in a sense destroy all of the good efforts, recognizing that there's plenty of problems on the good effort side. So, I think that and the personnel issue, I think the money follows those things but I think those are issues that we really have to focus more attention on than I had realized before this hearing.

Would you enlarge a little bit more on this issue of contingency planning? I must say when I see what this Commissioner, and the same is true for Nancy Min-DeParle, that they're very capable people, they've come in, you know, they didn't start in 1989 like the Social Security Administration did, and the problems they face are really extraordinary. I don't know how yourself as thin as developing contingency plans which, in my mind, have been sort of backup systems, so I was interested that you indicated that you indicated that you thought there were contingency plans that didn't constitute backup systems, and I'd like you to give me a little clearer idea of what you mean by that.

Ms. WILLIS. Well, Madam Chairman, it could be things such as changes in how they operate certain types of business processes. Now, obviously with IRS to go to a manual process, as somebody noted, for 90 million refunds is not viable but there may be dates that could be changed for certain statutory requirements, such as filing requirements. You could delay the impact of some of these things on systems that are not ready yet. I'm just saying that I think we need to start at the very beginning and look at what the desired outcome of the process is and look at the timing of it and turn it and twist it every which way to see how blocks start fitting together to address the vulnerabilities and the potential problems.

One of the things with the tax system is that you're talking such a huge base, both in the number of taxpayers and in terms of dollars, that it doesn't take very long to start racking up a lot of costs indirectly around any kind of problem, any kind of delay. It might be easier and cheaper to fix in anticipation.

But I guess my concern right now is that we're not at a point where we truly understand what the contingencies and the risks in

a concrete fashion are that are ahead of IRS as they move into testing. As witnesses testified earlier, and I believe as Joel has in his testimony, testing is taking much, much longer than people anticipated and, so I think one of the things that you do as a contingency plan is that you keep that year that you've set aside as sacrosanct.

One of the things that came up earlier today was mainframe consolidation at IRS. Not all of the component parts of mainframe consolidation are necessary to make the systems year 2000 compliant. One of the questions that needs to be on the table is whether it is necessary to roll out those additional service centers in 1999, or whether that management talent, those resources, and the energy that's involved with that is better placed elsewhere. And I think there are other things throughout the agency in terms of setting priorities——

Chairman JOHNSON of Connecticut. On that particular issue, have you looked closely at the tradeoff between, you know, the center operations and the fact that they will be not only new technology but very much more capable and simplified system down through—in other words, they have a lot of ramifications for the systems, is that not worth the management investment now? Can you really modernize all of the complex old stuff? It seems to me that it might be better to push ahead with some of these.

Ms. WILLIS. Well, I think there's two things to be considered. One is exactly how much modernization you're getting from the consolidation effort. And most of the benefits that IRS estimated that it would receive, and those are currently under reevaluation because of slippages in the schedule, came from reducing the number of people they needed to have around the country managing their various computing operations. So the applications are not changing as they move to this new platform. They're basically doing business in a lot of the same ways but at a different location in a consolidated environment. So I'm not sure that you're getting a whole lot through that process in terms of actual modernization. You're getting more current computers but they are able to make, and will be making, the existing computers year 2000 compliant. And I'm not suggesting that consolidation is not something that you don't want to do at all, but something that maybe you want to delay for a year as a tradeoff in terms of the risks that you're undertaking around it and I think that's an issue that needs to be looked at very carefully, not only for consolidation but in the other part of the system that's going to be undergoing replacement, and so forth.

Mr. WILLEMSSEN. If I could add a couple of points also, Madam Chair. Contingency planning is probably the topic we've gotten the most traffic on in the last few months. The item that people want to know how to do. So at the request of the executive branch, we did put together a guide in March of this year on how to go about and how to do contingency planning. A couple of points to make related to that——

Chairman JOHNSON of Connecticut. I'll hope you'll share that with the Subcommittee.

Mr. WILLEMSSEN. Definitely.

Chairman JOHNSON of Connecticut. It would be very useful to us.

Mr. WILLEMSSEN. Definitely. A couple of points to consider related to that is our contingency planning needs to be focused on backing up business processes more so than individual systems. That is, how do we go about delivering our service? And if there's a Y2K induced failure that prevents us from doing that, what are we going to do instead? So we have to think of it from a business perspective and a little less so from a system perspective although there's obviously a relationship and integration to consider. Given that, we would expect the business side of the House, generally speaking, to take the lead in putting these kind of plans together with the involvement, obviously, of the information technology staff, including the year 2000 personnel. But the business side of the House, they're the ones that know how they deliver services. They're the ones in the best position to know——

Chairman JOHNSON of Connecticut. In other words, the contingency planning people don't necessarily have to be the same as the system reform people?

Mr. WILLEMSSEN. That's exactly right. You need to involve them but it's not necessarily a tradeoff issue. Ironically, the organization in the Federal Government furthest ahead on this is the Social Security Administration. And there's a point to be made there too. We don't do contingency plans just because we're falling behind. You do them regardless, because of the unforeseen circumstances that could hit like the telecommunications issue that we talked about earlier. And SSA has put together a very sound structure for an overall business continuity and contingency plan.

Chairman JOHNSON of Connecticut. Do you foresee any problem with the government being able to get the technology it needs——

Mr. WILLEMSSEN. I would say——

Chairman JOHNSON of Connecticut [continuing]. The computers, and the number of parts?

Mr. WILLEMSSEN. I would say from what we see at selected agencies, is there are a lot of, should I say, "to-be-determined," as it pertains to commercial off-the-shelf products and what their year 2000 compliance status is. And a lot of those commercial off-the-shelf products are absolutely crucial to the operation of key business functions.

Chairman JOHNSON of Connecticut. Are we going to test commercial off-the-shelf components?

Mr. WILLEMSSEN. One of the things that the executive branch is doing is setting up a separate test facility for commercial off-the-shelf products. SSA and GSA are beginning to do that and then they will put the results up on a Web site so beyond just the manufacturer's claim that it's compliant, there will be some independent testing to that effect.

Chairman JOHNSON of Connecticut. Good.

Ms. WILLIS. Madam Chairman, the one thing that I would add is what we found at IRS. Part of the problem with their existing systems is that the contractors or the vendors are no longer supporting some of the commercial off-the-shelf, or COTS, products. I think, agencies with old systems, much like IRS, are going to run into this problem as well and you're running out of time in terms of deciding what your alternatives are. And at IRS, for example, that's one of the big concerns around the tier 2 systems. Just now,

after months and months and months of negotiations, IRS has received the beta version of some of the operating systems that they need and they've got a massive number of platforms, a massive number of applications that all have to be testing on this new operating system. And so it's not as easy as with a new company, perhaps, that can simply go down to their local vendor and buy the latest year 2000 upgrade. A lot of these systems simply aren't supported any more.

Chairman JOHNSON of Connecticut. Which aspects of the IRS year 2000 effort do you believe are least likely to be completed by January 1999?

Ms. WILLIS. I think there are serious concerns around some aspects of the mainframe consolidation, especially the parts that must be completed for IRS to be year 2000 compliant, like CRS, the Communication Replacement System. They are running into some slippages, some delays and one of the things that we've learned as we've watched over the past year as things start to slip and time starts to domino that it's much harder to get things back on track along that line. They have problems with their tier 2 systems, again, because of the variety of platforms that they're working on as well as the large number of applications across the country, many of which are not standardized so they have to do different things in different places.

And I think the thing that I would put at the top of the list is testing. IRS does not currently have an integrated test plan for all of its conversion and replacement efforts. So right now it's not real clear, come January 1999, how they are going to test everything. And a comment I would make on some of the things that I heard earlier this morning from one of the prior panelists is be sure that everybody understands what we're talking about when we talk about things being completed. IRS, for example, has completed the conversion of a number of its main applications and those are running this filing season. But those applications have not been tested on, or may not be running on year 2000 compliant platforms nor in an integrated environment. So we're not home free on the systems that are running this year, or that will run next year and run successfully through the filing season.

Chairman JOHNSON of Connecticut. I see, interesting. Thank you very much. I appreciate your testimony today and look forward to working with you.

The hearing will be adjourned.

[Whereupon, at 1:42 p.m., the hearing was adjourned, subject to the call of the Chair.]

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