A publication of the American Society of Pension Actuaries

THE PENSION ACTUARY

Vol. XXVIII, Number 6 Special Supplement

ASPA
Dedicated to the Private Pension System

Y2K and Qualified Retirement Plans

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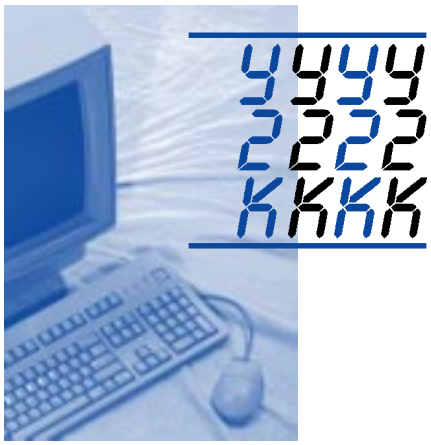

Is it the dawning of a new age or just another thousand years? In either case, at the turn of the century the retirement plan industry will be faced with all of the same issues as business in general relative to this frequently headlined 'millenium bug.' Additionally as actuaries, retirement plan consultants, administrators, and recordkeepers, we are faced with our own set of unique and perhaps even more onerous challenges for the year 2000.

Basic Problem

First, the basic Y2K computer problem is ubiquitous as it relates to computer hardware, software and platforms. This includes mainframes, minicomputers, client server systems, workstations, and personal computers operating systems, general use programs, in-house developed specific use software, plus any hardware containing a chip using a date function.

Consideration also must be given to printed and stored data as well as databases and spreadsheets, especially those containing macros. The problem actually goes beyond just the software issue and can also show up in the multitude of hardware products containing embedded microchips. A few examples include the maintenance system in your car phone, fax machines, lighting systems, radar systems, air traffic control, your home alarm, and so on and on. It's difficult to ascertain just how widespread the Y2K problem is. Capers Jones, in his book "The Year 2000 Software Problem: Quantifying the Costs and Assessing the Consequences," estimated that there are roughly 36,000,000 software applications in the United States and about a third of them—12,000,000—have some form of Y2K problem.

There is no discrimination as far as size of business is concerned; every business large and small must access the potential impact on them. While the problem is probably most dramatic for larger companies with legacy systems, the impact on the smallest of companies will be proportionally important. For example, the BIOS (Basic Input Output System) chip in the PC that any size company purchased prior to 1997 is likely as not to tell your computer that the date is January 1, 1900 as the new century is born. This internal clock and calendar maintains and reports the date and time to you, your computer, and other programs. If you are running programs on your computers that access that PC's date, these programs will produce unknown results.

There are three underlying components of the calendar date problem:

1. Two-digit date storage. A large number of programs still in existence today represent dates in the form "mm/dd/yy" or "dd/mm/yy," etc. A birth date of January 1, 1970 would be represented as 01/01/70 and we know through simple math that on January 1, 2000 that person will turn age 30. However, a computer program might calculate the year as 00 less 70 and produce pre-gestation age of –70.
2. Special function dates. In many programs the digits 99 or 9999 have special meaning such as the end of the program. In some cases, the date Sept 9, 1999 often written as 9/9/99 will trigger that special function and create

undesirable or unpredictable results.

3. Incorrect leap year calculations. The rule for calculating leap year is: A year that is divisible by 4, but not by 100 unless it is also divisible by 400. The year 2000, therefore, is a leap year; but many date manipulations in today's computer programs calculate otherwise, and so in the year 2000 you may end up a day short.

Any one or combination of these components can easily create undesirable results in both hardware and software systems and must be considered in any Y2K remedial action plan.

Additional Concerns For Retirement Plan Practitioners

Our concerns around the Y2K problem are perhaps best summarized by the July 23, 1998 DOL press release (the second on the subject) that read:

LABOR DEPARTMENT RE-AFFIRMS WARNING TO EMPLOYEE BENEFITPLAN ADMINISTRATORS ABOUT YEAR 2000 SOFTWARE PROBLEMS

The U.S. Department of Labor's Pension and Welfare Benefits Administration (PWBA) today re-affirmed the need for employee benefit plan administrators and service providers to act to protect workers' benefits against the looming year 2000 (Y2K) software problem. The problem — computer software which recognizes years only by the last two digits — is widespread and difficult to fix because datelines are buried throughout interlocking software applications and programs. Any computerized tasks requiring date dependent computations or comparisons, such as computing interest, determining length of service or calculating retirement benefits will be affected. The problem involves not only plan recordkeeping systems, but also such systems as employer payrolls that interface with plans and other systems essential to plan operations.

In responding to hundreds of phone inquiries about this issue since the agency issued a news release on the Y2K problem on Feb. 9, PWBA officials are:

- re-affirming that plan administrators have a fiduciary responsibility to see that the Year 2000 problem is addressed; and
- posting on the PWBA WebPage a series of questions and answers which addresses many of the inquiries received by the agency from the employer and benefits communities. PWBA's website address is **www.dol.gov/dol/pwba**.

The PWBA noted that if plan administrators have not already done so, they should take steps immediately to identify the computer systems needed for plan operations, determine who is responsible for those systems and establish procedures for assuring that workable strategies and contingency plans are in place to address the Year 2000 problem.

Meanwhile, PWBA officials have been meeting with various employer and service provider organizations to discuss their Year 2000 strategies and how they are working to solve the problem.

If that is not enough to get your attention, the following is an excerpt from Senate bill S. 2000 introduced on April 28, 1988 by Senator Bennett (R-Utah who co-chairs the Senate committee on the Year 2000 Technology Problem).

SECTION 1. FIDUCIARIES OF EMPLOYEE BENEFIT PLANS MUST CONSIDER YEAR 2000 COMPUTER PROBLEMS IN MAKING INVESTMENT DECISIONS.

(a) IN GENERAL- Section 404(a) of the Employee Retirement Income Security Act of 1974 is amended by adding at the end the following new paragraph:

(3) A fiduciary shall not be treated as meeting the requirements of paragraph (1)(B) unless the fiduciary determines that—

- the issuer of any security in which the fiduciary seeks to invest the assets of the plan has, or is taking, steps to substantially eliminate any year 2000 computer problem faced by the issuer, and
- such security is traded on a market that is prepared to operate without any interruption due to the year 2000 computer problem, or
- in any case where such assets are invested by an insurance carrier, bank, or similar institution, the fiduciary determines that such institution makes the determinations described in subparagraph (A) with respect to the investment of such assets.
- (b) EFFECTIVE DATE- The amendment made by this section shall apply to investments made by a fiduciary, and contracts to invest plan assets entered into with insurance carriers, banks, and similar institutions, on or after the date of the enactment of this Act.

The bill was read twice and referred to the Committee on Governmental Affairs for further action. No further action has been taken to this

point due probably to the impractical requirement this bill places on plan fiduciaries.

The PWBA also issued fiduciary related Questions and Answers about the Y2K computer problem. One especially pertinent Q & A follows:

Q ***What should a plan administrator disclose about the plan's year 2000 activities to participants and beneficiaries?***

A The Department strongly encourages plan administrators to disclose to their participants and beneficiaries the extent of the plan's Y2K preparedness. The administrator is encouraged to inform participants and beneficiaries as to the steps being taken to ensure the Y2K issue does not interrupt the operation of the plan or participants' and beneficiaries' access to their individual accounts. Administrators are recommended to inform their participants and beneficiaries about:

- The plan's current level of readiness.
- The strategy for bringing the plan's systems into Y2K compliance.
- A timetable for when the critical systems become Y2K compliant.
- The level of compliance for service provider companies.
- Possible effects on the participants and the beneficiaries should the plan become impaired in any way due to Y2K problems.
- Any contingency or backup plans that have been devised in the event the plan is not Y2K compliant in time.

We know full well that our retirement plan clients will turn directly to us to address their problems in this area so we need to be certain we are prepared.

Solutions for Retirement Plan Practitioners

There are numerous sources for checklists and strategic initiatives around the Y2K dilemma. A rather simple one that might have application to a company involved in retirement plan consulting (actuarial and other), administration and recordkeeping is developed below.

1) Assign responsibility and create awareness. This should be done for both the overall project and for each of the systems identified. If you are a member of a very small company, the person in charge just may be you.

2) Perform a complete inventory. Identify and list all of the different computer-based systems. Components include systems developed in-house, purchased software, computers and associated hardware, telephone and other service providers, and any other hardware that contains microchips that support your business. Rank each entry using some scale ranging from mission critical to unimportant. Typical programs that would be considered mission critical in our business include: actuarial valuation packages, balance forward recordkeeping systems, daily valuation systems and related programs, such as payroll systems (both your own and your clients).

3) Assess impact. Continuing the inventory and ranking concept above, assess how severe and widespread the problem is in your business and determine which systems are date-sensitive in any respect.

4) Contact all alliance partners and vendors to determine their preparedness for the year 2000. Computer systems that operate independently are rare. Most exchange data with other systems, and many interface with data bases, software and even hardware outside of your organization. A classic example relates to self-directed 401(k) accounts where you place trades directly with a multitude of fund houses. Don't be shy about sending them letters of inquiry and be certain to keep a copy of each response.

5) Analyze alternatives for each item listed. Some alternatives might include: rewriting in-house legacy systems, retiring legacy systems, purchasing new software or equipment, revising internal processes to circumvent the problem, and upgrading to newer versions of vendor provided software.

6) Develop well thought out procedures and responses to Y2K inquiries from others. This may include customers, business partners, alliances, and vendors. You probably have already received inquiries from your clients or others on your Y2K readiness. You need to develop a standard response that you feel comfortable with, being certain that you are not making unnecessary guarantees but being certain that you do convey an accurate and confident response. Your attorney should review it.

7) Determine if your liability insurance coverage will cover claims relating to year 2000 compliance. Some policies may contain exclusions or limited coverage for year 2000 issues. See article entitled "Learning to Live with the Millennium Bug" by David Levin in this same issue of *The Pension Actuary* for additional information on this and other fi-

Below is the meager beginning of a sample checklist that might be used as a starting point for a retirement plan practitioner. Blanks were left to emphasize that any such checklist is and must be specific to your organization.

Y2K (*Short*) Checklist for the ABC Retirement Co.

Table #1 Software

Software ID	Vendor or N/A if In-house	Vendor Letter Requested Y/N	Vendor Letter Received Y/N	Priority*	Y2K** Status	To be Tested In-house?	Date Tested	Testing Outcome
Windows 98	MS	N		1	C	N		
Office 97 Suite	MS	N		1	C	N		
Actuarial Valuation	EZY Inc	Y	Y	1	?	Y	11-5-98	C
Benefit Calculator	N/A	N/A		3	N		11-4-98	C
Retirement Planner	Plan Now Co	Y		3	C			
Balance Forward	ABC Corp	Y	Y	1	?	Y		
Daily Valuation	YZ Daily	Y	Y	1	U	Y		
Voice Response	Talks-a Lot	Y		1	?	Y	11-5-98	U
Interactive Web	PQR	Y		1	C			
Government Forms	5500 Corp	Y		3	U			
Document Preparation	Doc Person	Y		4	C			
Spreadsheet	N/A	N/A	N/A	3	Various	Y	Various	Ongoing
Macros								
Other								

* 1 = Mission Critical, 5 = Of little concern
**N = Not Compliant, C= Compliant, U = Upgrade required

duciary implications.

8) Develop a plan of notification to plan sponsors and/or plan participants in accordance with DOL Q&A, a complete copy of which can be found at the end of this article.

9) Develop a last-trench solution as a final resource. This may have to be manually based, but you need to have an alternative set of solutions to fall back on in the event that computer systems fail. Consideration should be given to expanding the time frame for which you keep paper files. Be sure to retain adequate offsite electronic backups.

10) Establish a timetable for resolution of each of the solutions developed. Issue periodic detailed status reports.

11) Implement and monitor the solutions developed. Test each of the alternatives developed as you integrate them within your organization.

Related Web Sites

http://www.microsoft.com/technet/topics/year2k/default.htm - Microsoft Year 2000 Resource Center

http://www.software.ibm.com/year2000 - IBM Year 2000

http://www.year2000.com - The Year 2000 Information Center

http://www.compinfo.co.uk/y2k/manufpos.htm - The Computer Information Center

http://www.itaa.org/questmain1.htm - Technology Association of America Year 2000 Product Questionnaire

http://www.greenwich2000.com/ - General Information on the Millenium

http://www.sec.gov/rules/concept/33-7558.htm - SEC Statement Regarding Disclosure

http://www.sba.gov/y2k - The Small Business Administration Help for the Year 2000

http://www.jks.co.uk/y2ki/confer/notices/dtisme01.htm - Helping the Small Business Tackle Year 2000

http://www.isquare.com/y2k.htm - The Small Business Advisor Web Site

http://www.bog.frb.fed.us/y2k - Year 2000 – Century Date Change Initiatives of the Board of Governors of the Federal Reserve Bank

http://www.itpolicy.gsa.gov - General Services Administration

http://www.ffiec.gov/y2k - The Year 2000 Century Date Change Initiatives

http://www.frbsf.org/fiservices/cdc - The Federal Reserve Bank of San Francisco's Year 2000 page

http://www.y2kjournal.com - Year/2000 Journal - A magazine dedicated to the discussion of the Y2K century date problem, covering specific aspects of the millennium bug.

DOL Questions and Answers

Q ***What is the Year 2000 problem, and how does it affect employee benefit plans?***

A The Year 2000 (Y2K) problem arises when a computer performing date-dependent computations or operations produces erroneous results because its system recognizes years only by the last two digits, causing a "00" entry to be read as the year "1900" rather than "2000." Because the computer systems, both hardware and software, produced in the past have commonly used the two-digit date designation, virtually all businesses are now faced with the enormous task of determining the extent to which their systems will be affected by the Year 2000 problem. Computer systems that are found to have a problem must be converted to a compliant format, i.e., a format that reflects the correct date. As a general matter, the conversion process is recognized as both time-consuming and expensive.

Like most business operations, employee benefit plans rely on computers for most of their critical operations such as benefit calculations and payments. The Year 2000 problem may affect these operations in serious and potentially unpredictable ways. For example, assume a plan provides that an employee becomes eligible to participate in the plan at

age 21 with one year of service. For a participant born in 1979 and employed beginning in December 1998, on January 1, 2000, the plan's computer system may miscalculate eligibility by showing the employee as minus 21 years of age and as having worked minus 99 years.

In addition, the Y2K problem is an issue for all of the businesses that provide critical services to employee benefit plans, such as banks, insurance companies, actuarial firms and investment management companies. The extent to which these businesses are affected by the Year 2000 problem could have serious consequences for their client plans.

Q ***What is a plan fiduciary's potential liability under the Employee Retirement Income Security Act (ERISA) with respect to the Year 2000 problem?***

A As stated in the Department of Labor's February 9, 1998 press release, plan fiduciaries, such as plan administrators and trustees, are responsible for ensuring that plans and their participants and beneficiaries are protected. Such protection includes the establishment and implementation of a prudent procedure for ensuring that the plans' own computers, and, to the extent possible, those of the plans' service providers are Year 2000 compliant. ERISA establishes comprehensive standards to govern fiduciary conduct. Among other things, a plan fiduciary must discharge his or her duties with respect to a plan solely in the interest of the plan's participants and beneficiaries. In addition, a plan fiduciary must discharge those duties with "the care, skill, prudence and diligence under the circumstances then prevailing that a prudent person acting in a like capacity and familiar with such matters would use in the conduct of an enterprise of a like character and with like aims." A fiduciary's failure to comply with ERISA's fiduciary responsibility requirements may result in personal liability for losses incurred by a plan or its participants and beneficiaries.

Q ***What constitutes a prudent procedure for ensuring Year 2000 compliance?***

A Because the Year 2000 problem could have a substantial impact on plan investments, benefit payments and other essential plan operations, plan fiduciaries are responsible for establishing and implementing a strategy to evaluate and ensure Year 2000 compliance. Because of the complex and technological nature of this problem, however, plan fiduciaries may choose to hire outside consultants and experts to inventory, review, assess, convert and test the computer systems relating to the plan. The plan fiduciary's selection of those service providers is subject to the same fiduciary considerations as the selection of other plan service providers.

In addition to addressing the Year 2000 problem as it relates to computer systems under their control, plan fiduciaries have an obligation to determine whether the plan's critical operations will be endangered by the computer systems of unrelated service providers, such as third party administrators. In this regard, plan fiduciaries have an obligation to obtain information sufficient to evaluate each service provider's Year 2000 compliance and to monitor that compliance to ensure the plan's interests are protected.

Because of the pervasive nature of the Year 2000 problem, it may not be possible to prevent a disruption of computer operations. In recognition of that possibility, a plan fiduciary must determine how best to protect the plan and its participants and beneficiaries through the establishment of a contingency plan that will be implemented in the event the plan's essential operations are affected.

Q ***To what extent are plan fiduciaries responsible for Year 2000 problems that are caused by unrelated plan service providers?***

A Plan fiduciaries are responsible for obtaining in a timely fashion appropriate information to evaluate the Year 2000 compliance of all of the plan's service providers and determining what action is appropriate to ensure that the interests of the plan and its participants and beneficiaries are protected. In addition, when selecting service providers, plan fiduciaries should include Year 2000 compliance as another factor to be considered. Finally, the plan fiduciary is responsible for monitoring the service provider's operations to ensure ongoing compliance and protection of the plan's interests.

Q ***Can the plan be charged for the costs associated with the Year 2000 problem?***

A ERISA provides that reasonable expenses relating to the administration of an employee benefit plan may be charged to the plan. Also, the plan document should identify which costs may be charged to the plan. The issue of whether the cost of ameliorating the Year 2000 problem of a specific plan may be passed through depends on the terms of the plan document and whether the cost constitutes a reasonable administrative expense related to the plan.

For example, Company Y is a manufacturer and offers its employees a 401(k) plan through payroll deductions. Y has determined that its

computerized payroll system is not Year 2000 compliant and large portions of its complex software system must be converted. As a general matter, Y is responsible for the costs of achieving Year 2000 compliance for its corporate payroll system. However, because the plan document permits charging the plan reasonable administrative fees, that portion of the cost relating directly to the plan's administration may be charged to the plan.

Q I*s the Department planning to implement an enforcement initiative with respect to the Year 2000 problem?*

A The Department's Pension and Welfare Benefits Administration (PWBA) investigators have already begun addressing the Year 2000 problem in the course of new and ongoing investigations. In those cases where plan fiduciaries have failed to act prudently in performing their plan duties and plan participants and beneficiaries have been adversely affected, appropriate enforcement action will be determined and pursued.

Q *What should a plan administrator disclose about the plan's year 2000 activities to participants and beneficiaries?*

A The Department strongly encourages plan administrators to disclose to their participants and beneficiaries the extent of the plan's Y2K preparedness. The administrator is encouraged to inform participants and beneficiaries as to the steps being taken to ensure the Y2K issue does not interrupt the operation of the plan or participants' and beneficiaries' access to their individual accounts.

Administrators are recommended to inform their participants and beneficiaries about:

- The plan's current level of readiness
- The strategy for bringing the plan's systems intoY2K compliance
- A timetable for when the critical systems will become Y2K compliant
- The level of compliance for service provider companies
- Possible effect on the participants and their beneficiaries should the plan become impaired in any way due to Y2K problems
- Any contingency, or backup, plans that have been devised in the event the plan is not Y2K compliant in time.

Q *Are plan auditors, as part of their current engagements, required to detect potential recordkeeping problems associated with the year 2000?*

A No. It is the plan administrator's responsibility for assessing and remedying any problems associated with the Y2K problem. Under generally accepted auditing standards (GAAS), the auditor does not have a responsibility to determine the effects of the Y2K issue on operational matters that do not affect the plan's ability to prepare financial statements for other than the year being audited.

SAS No. 83, Establishing an Understanding With the Client, requires auditors to obtain an understanding with the client regarding the services to be performed. This understanding is usually documented in an engagement letter addressed to the plan administrator and signed by the auditor. The Department of Labor encourages plan administrators to have language in engagement letters in order to clarify the auditor's responsibility regarding the Y2K issue. This should minimize any confusion surrounding the auditor's duties and responsibilities. Engagement letters also should clarify how auditors intend to exercise their discretion to communicate matters that come to their attention relating to the Y2K issue in management letters or otherwise.

Q *What information will be disclosed to the plan administrator by the plan's auditor relative to the Y2K problem?*

A In general, the auditor is only obligated to list current system failures as reportable conditions and is not obligated to forecast future system failures. Therefore, the plan administrator cannot rely upon the plan's auditor to comment on potential recordkeeping problems regarding the Y2K issue that may arise in the future.

Plan auditors are extremely cautious about being associated with any assertions that their clients' systems are Year 2000 compliant. The plan auditor's responsibility is limited to planning and performing an audit with the goal of obtaining reasonable assurance about whether the financial statements are free of material misstatement. The auditor is also responsible for reporting significant problems to the plan's management if such problems exist during the period being audited. The auditor's focus is on the current period, not future periods. Therefore, even in the event of an auditor becoming aware that in some period after the period being audited, the Y2K issue could adversely affect the plan's ability to process financial information, this potential future problem does not constitute a reportable condition in the current year.

Q *What assurances will the Reports on the Processing of Transac-*

tions by Service Organizations (commonly referred to as SAS No. 70 reports) provide to plan administrators and their auditors regarding the Y2K issues?

A None. The Reports on the Processing of Transactions by Service Organizations (SAS No. 70 reports) are typically prepared by a service organization's independent auditors. These reports can provide a level of assurance to plan administrators and auditors regarding the system of internal controls in place at the service organization. Because these reports deal with a historical perspective, they do not provide assurances for prospective periods regarding deficiencies which may affect those future periods (such as the Y2K issue). Accordingly, plan administrators and auditors should not expect the Reports on the Processing of Transactions by Service Organizations to provide any assurance on the organization's Y2K compliance.

Q ***Whom should I call if I have questions about how to address the Year 2000 problem?***

A The Department of Labor is not in a position to provide guidance regarding the technical issue of how to resolve the Y2K problem. However, a large amount of information on the topic is available through the Internet. Some useful Websites include:

Federal Financial Institutions Examination Council (FFIEC) - **www.ffiec.gov** - which provides a list of resources (bank association Websites and documents) useful to federally supervised financial institutions as well as trade groups, vendors and companies providing services to institutions.

American Institute of Certified Public Accountants (AICPA) - **www.aicpa.org** - which also has established hyperlinks to many private-sector and governmental Websites where helpful resources are identified.

The Small Business Administration (SBA) - **www.sba.gov/y2k/** - which offers specific assistance to the small business owner on the Y2K problem.

Office of the Comptroller of the Currency (OCC) - **www.occ.ustreas.gov** - which regulates and supervises national banks to ensure a safe, sound and competitive national banking system.

General Accounting Office (GAC) - **www.gao.gov** - which even includes an auditor's checklist for the computer crisis.

Securities and Exchange Commission (SEC) - **www.sec.gov** - which is responsible for administering the federal securities laws designed to protect investors in securities markets that operate fairly and ensure that investors have access to disclosure of all material information concerning publicly traded securities.

Information Technology Association of American (ITAA) - **www.itaa.org./year2000.htm** - which is a trade association representing the interests of the information technology industry.

General Services Administration (GSA) **www.itpolicy.gsa.gov/mks/yr2000/y2khome.htm** - which contains information about planning, testing and contingency policy and also links to hundreds of private and public sites that offer advice and examples.

Q ***Whom should I call if I have questions about my potential fiduciary liability?***

A If you have questions regarding your potential fiduciary liability, you may contact the Pension and Welfare Benefits Administration's Regional or District Office nearest you. A list of the agency's field offices follows:

- Atlanta Regional Office: (404) 562-2156
- Boston Regional Office: (617) 565-9600
- Chicago Regional Office: (312) 353-0900
- Dallas Regional Office: (214) 767-6831
- Detroit District Office: (313) 226-7450
- Kansas City Regional Office: (816)-426-5131
- Los Angeles Regional Office: (626) 583-7862
- Miami District Office: (954) 424-4022
- New York Regional Office: (212) 399-5191
- Philadelphia Regional Office: (215) 596-1134
- San Francisco Regional Office: (415) 975-4600
- St. Louis District Office: (314) 539-2693
- Seattle District Office: (206) 553-4244
- Washington, DC District Office: (202) 254-7013

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