# The Y2K Problem in Delaware: Public Attitudes and Perceptions

prepared for

**Delaware Emergency Management Agency** 

by

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### Introduction

### **Background**

Over the last several years, a great deal has been made about the ending of one century and the beginning of another. In contrast to past crossings of century boundaries, this entry into the Year 2000 brings about a number of new problems that are occurring for the first time. The development of microprocessors, computers, and information technology over the past 50 years is responsible for many of these problems. Together these problems are referred to as the Millennium bug or more popularly as the Y2K bug. In Delaware, the Delaware Emergency Management Agency has been given the charge of preparing the state for any problems created by the Y2K bug. That agency is sponsoring this research.

In one sense it is not really correct to think of this problem as a bug. Traditionally, a bug is a mistake in the software or firmware where the program does not work as designed. The Y2K bug is an error of omission rather than one of commission. A significant amount of the software running today was designed long before anyone considered the year 2000. In fact, many designers probably did not think that their software would still be in use ten or twenty years after its development. However, just as a 25 year old jet airliner is rather common, so is software of that vintage.

The Y2K bug comes in a number of different varieties although it can be grouped broadly into three categories. First, there are problems with the use of a two digit year. Normally, software understands that year 99 is greater than year 98 and can execute appropriately. However, when the year 2000 arrives year 99 is greater than year 00 and that presents problems for any software concerned with differences in dates. The remedy for this problem has been retrofitting software and databases to provide four digit years or at least a new field for century. This process has been underway for years in most organizations with a total cost measured in the billions of dollars. Most, if not all, critical software in the US has probably been fixed. Undoubtedly, there are many less critical pieces of software that have not been analyzed or retrofitted.

The second category covers the firmware/hardware area. For example, many personal computers built before 1996 may not have the capability to deal with four digit years and there may not be an upgrade capable of dealing with the problem. Those computers may continue to

operate albeit with the wrong dates. For many, this may not be a problem. For others, it may be disconcerting to send out e-mail with a date from 1984 or to find that none of the date/calendar functions work in your spreadsheet. (Usually one can find a year that has the same days of the week as the current year).

The more difficult part of the hardware problem is that presented by special purpose chips that contain date specific functions of which no one is aware. Estimates suggest that perhaps 40 million chips are in service of this type although no one knows how many might be affected by Y2K. Examples of the types of problems include equipment that refuses to operate because its maintenance date has passed; security systems that fail because they no longer calculate the appropriate day of the week; or sensors of all types that indicate the passing of time in some way.

The most serious problems however may be those created by the public's own reaction to the Y2K problem. The withdrawal of large sums of money in anticipation of bank failures may lead to an increase in burglaries or robberies. Hoarding of food, batteries, and other items may create shortages and that may cause some to panic. Emergency 911 systems may fail because they are flooded with calls about perceived Y2K problems.

In order to plan for such eventualities, it is crucial to understand what the public knows about the Y2K problem and how they are likely to respond. With this information, it may be possible to calm whatever fears are lurking and, at the same time, better prepare for events as they unfold. To better understand public perceptions and attitudes, a survey research project was designed and executed.

#### Methodology

The telephone survey was conducted during June and July of 1999. Overall, 935 adult Delawareans were interviewed; 304 in Kent County, 323 in New Castle County, and 308 in Sussex County. Households were selected using random-digit dialing techniques and one person 18 years of age or older was randomly selected, from among all eligible respondents in the household, to respond to the survey.

After all the data was collected, respondents were weighted to adjust for the number of eligible respondents and the number of residential phone numbers in that household. At the end of

this process, the age-sex obtained was adjusted to match the latest age-sex distribution provided by the Delaware Population Consortium.

The survey itself was designed to parallel a Gallup survey last executed in August, 1999 so that comparable US estimates would be available for most questions. The survey instrument is found in the Appendix.

The survey was executed in the CATI (computer assisted telephone interviewing) laboratory operated by the Center for Applied Demography and Survey Research, at the University of Delaware. Randomly generated phone numbers were called up to 15 times in order to obtain an interview. Calls were conducted during the daytime(3), weekend(3), and the nighttime(6). The other three calls occurred either at night or on the weekend. On the average each number was called 5.6 times in order to reach a disposition.

The estimates obtained from the survey are approximately +/- 5% at the county level and +/- 4% at the state level. Both estimates of precision assume that the sampling and interviewing procedures used have obtained a random sample. After 15 callbacks within the time period of the survey, 70% of the sample was contacted. (Many of the non-contacts are undoubtedly associated with phones that are used for special purposes such as personal computers). The survey was completed by 59% of the randomly selected respondents. This is a somewhat lower completion rate than that experienced on other state-wide surveys executed by the Center this year. However, this can probably be attributed to the specialized topic of the survey and perhaps, the time of the year.

#### Structure

The report that follows this introduction is divided into three substantive sections followed by some concluding observations. In the first section, the perceptions and knowledge of the Y2K problem expressed by the respondents are presented.

The second section examines the actions planned by the respondents to prepare for and mitigate any problems created by this event.

The final section deals with the way respondents get information. These results may provide some insight as to how best to alleviate any unwarranted fears of the respondents expressed by their perceptions.

# **Perceptions**

Respondents were asked how much of a problem the mistakes made as a result of the Y2K bug would be. The results are found in Figure 2.1, below. Overall, about 18% of adult Delawareans think the Y2K bug will cause major problems and that is comparable to national results<sup>1</sup>. The concern is somewhat less in New Castle County than in either Kent or Sussex County and the differences are statistically significant.

Percent 100 80 60 40 20 0 Kent **New Castle** Sussex **Delaware** Maior Problem■ 21.3 15.8 17.8 22.3 Minor Problem 60.3 66.3 59.1 64.1 No Problem■ 18.4 17.8 18.6 18.1

Figure 2.1
Will Y2K Cause Problems?
by County

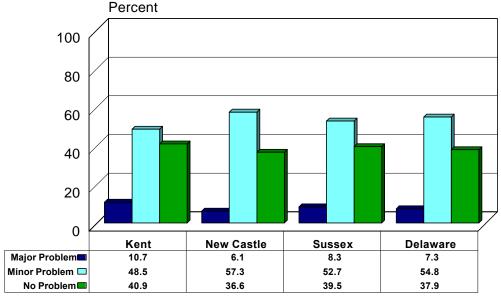
Source: Center for Applied Demography & Survey Research, University of Delaware

Respondents who are age 40 or older are slightly less likely to expect major problems and more likely to expect no problems. There were no discernible differences between men and women, but those respondents living in higher income households (\$50,000+) were less concerned than those from lower income households. Those respondents who did not have a personal computer in the household were <u>both</u> more likely to expect *major problems* and more likely to expect *no problem* than those respondents with a PC in the household.

<sup>&</sup>lt;sup>1</sup> The August 25-29 Gallup Poll on Y2K conducted for the National Science Foundation reported that 11% of US adults currently think that major problems will occur. That is a significant drop from the March 5-7 poll where 21% felt Y2K would cause major problems.

Frequently respondents will assess the level of any problem as much greater when it is not with specific reference to themselves. This is true in this case as well, as is shown in Figure 2.2, below. The level of concern falls from 17.8% to 7.3% when the reference is made more specific. The difference between these two measures suggests that people in Delaware are significantly more concerned about the situation nationally and internationally than they are about problems nearby<sup>2</sup>. The gap (10.5%) here in Delaware is much larger than that observed nationally a month later (4%). This reduction was observed in all three counties with New Castle County respondents still expressing the least concern.

Figure 2.2
Will Y2K Cause Problems for You, Personally?
by County



Source: Center for Applied Demography & Survey Research, University of Delaware

Respondents who are age 40 or older are slightly less likely to expect *minor problems* and more likely to expect no problems at all for themselves personally. Women were more likely to expect *minor problems* to occur for themselves, and those respondents living in higher income households (\$50,000+) expressed the same level of concern as those from lower income households. Those respondents who had a personal computer in the household were both more

<sup>&</sup>lt;sup>2</sup> The August 25-29 Gallup Poll on Y2K conducted for the National Science Foundation reported that 7% of US adults currently think that major problems will affect them personally. That was a slight and insignificant drop from the March 5-7 poll where 9% felt Y2K would cause major problems for them personally.

likely to expect *minor problems* and less likely to expect *no problem* than those that did not have a computer. This finding is certainly sensible since the majority of those with computers will have to at least update their regional settings for four digit dates and test their real-time clocks for proper rollover to 2000.

Percent 100 80 60 40 20 0 **New Castle** Kent Sussex Delaware Great Deal■ 60.9 53.9 58.5 58.1 Some = 30.9 32.2 26.1 30.9 Not Much ■ 11.8 8.4 8.8 9.1 Nothing 3.3 0.9 1.9

Figure 2.3
How Much Have You Heard about the Y2K Problem?
by County

Source: Center for Applied Demography & Survey Research, University of Delaware

An estimated 98% of the sample had heard at least something of the Y2K problem and over 58% had heard a *great deal* (Figure 2.3, above). These responses once again mirror those measured nationally.<sup>3</sup> Differences between the counties were not statistically significant.

While respondents of age 40 and older tend to be less concerned about the Y2K problem, they seem to have heard about the same amount regarding the problem as younger respondents. There is no statistical difference between the groups. In contrast, men are much more likely to say they have heard a *great deal* about the problem than women. This may explain part of the reason why female respondents expressed a somewhat higher level of concern. It was not a surprise to find a major difference (70% to 51%) between respondents in higher income households with respect to having heard a *great deal* about the Y2K problem. A similar difference (65% to 48%)

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<sup>&</sup>lt;sup>3</sup> The August 25-29 Gallup Poll on Y2K conducted for the National Science Foundation reported that 64% of US adults had heard a great deal about the Y2K. That was a significant increase from the March 5-7 poll where 56% had heard a great deal about Y2K. About 3% nationally still had heard nothing about Y2K.

was found between those who had a computer in the household and those that did not on that same response.

Percent 100 80 60 40 20 0 **New Castle** Kent Sussex Delaware Very■ 11.5 7.9 11.8 11.1 Somewhat == 34.1 35.4 31.7 33.8 37.8 37.1 Not too 33.1 38.6

16.7

Figure 2.4
Overall, How Concerned Are You about the Y2K Problem?
by County

Source: Center for Applied Demography & Survey Research, University of Delaware

23.5

Not at all □

Even though people expect problems as a result of the Y2K bug, they are not necessarily overly concerned. About one person in nine is *very concerned* about the problems that may occur and almost one in every five is *not at all concerned* (Figure 2.4, above). Those results are similar to those achieved in the national sample.<sup>4</sup> The small differences between counties were not statistically significant.

18.1

18.1

There were no measurable differences between the age groups on this issue, but women still express a higher level of concern than men. This may be because they think the problems will be more substantial than men and thus should be of greater concern. Similarly, respondents from lower income households tend to be more concerned about the problems, but they too feel that the Y2K problem will have a greater impact. Overall, 33% of those who think there will be *major* 

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<sup>&</sup>lt;sup>4</sup> The August 25-29 Gallup Poll on Y2K conducted for the National Science Foundation reported that 6% of US adults were *very concerned* about Y2K problems and 19% were *not at all concerned*. That was a significant decrease from the December 9-13 poll where 16% were very concerned and 13% were not at all concerned about Y2K problems. The question was not asked in the March poll.

35.9

32.8

26.1

5.2

*problems* say they are *very concerned*. In contrast only 5% of those that think the problems will be minor say that they are *very concerned*.

Percent

100

80

60

40

20

Kent New Castle Sussex Delaware

37.5

30.1

27

5.4

Figure 2.5
How Long Do You Expect the Y2K Problem to Last?
by County

Source: Center for Applied Demography & Survey Research, University of Delaware

31.2

36.9

27

Few days

One year+  $\square$ 

Several weeks

Several months

People's evaluations and reactions to Y2K problems will be more significant if the duration of the problems is longer. Given what might be called a low level of concern observed both nationally and here in Delaware, it is not unexpected to find that the majority of respondents think the problems will be over in a matter of days or weeks (Figure 2.5, above). The responses of adult Delawareans are within the margin of error of the national results in all categories. The differences between counties were not statistically significant.

34.5

38.8

21.6

Those respondents in the older age group tended to be more optimistic with a larger percentage expecting problems to last a *few days* (40% to 27%). The assessment of the duration between men and women was essentially the same even though women have tended to look on this event with more caution. The differences between income groups and owners of a personal computer with respect to duration of the problem were not significant. However, there was a

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<sup>&</sup>lt;sup>5</sup> The August 25-29 Gallup Poll on Y2K conducted for the National Science Foundation reported that 71% of US adults thought problems would last *a few days* or *several weeks*. That was a significant increase from the March 5-7 poll where 53% fell into those 2 categories.

significant relationship between how long the respondent thinks the problem will persist and how concerned he/she is about Y2K problems overall as well as whether the problems will be major.

Percent 100 80 60 40 20 0 Kent **New Castle** Sussex Delaware Total breakdown■ 2.7 0.6 3.3 1.5 Serious problems 13.9 16.1 14.7 15.5 Minor problems■ 68.8 65.6 69.2 66.8 No negative impact □ 12.9 16.1 11.7 14.7 Other effect 1.7 1.6 1.1 1.4

Figure 2.6
What Will be the Effect on the US Economy?
by County

Source: Center for Applied Demography & Survey Research, University of Delaware

One of the most mentioned and discussed problems that could arise from Y2K is the US economy. Disruptions on the electric power grid, communication systems, and transportation systems could provide significant challenges to business. Some have predicted an economic slowdown if not an outright recession. Overall, respondents see that as unlikely with 17% expecting something between *serious problems* and *total breakdown* (Figure 2.6, above). These results are not significantly different from the national sample.<sup>6</sup>

Just as the younger age group is more concerned in general about Y2K, they are almost twice as likely (23.1% to 12.6%) to suspect that problems in the US economy will fall into the two most serious categories when compared to the older age group. Men and women responded much the same way to this question, although women were slightly more likely to evaluate the problems seriously and were somewhat less willing to say there would be *no negative impact*.

<sup>&</sup>lt;sup>6</sup> The August 25-29 Gallup Poll on Y2K conducted for the National Science Foundation reported that 15% of US adults thought there would be economic breakdown or serious problems in the US economy. That was a significant decrease from the December 9-13 poll where 29% fell into those 2 categories. The question was not asked in the March 5-7 poll.

There were statistically significant differences between the income groups. Respondents in the lower income group were 50% more likely (19.7% to 12.7%) to see serious problems in the economy. Three quarters of the upper income group placed the effect on the economy in the *minor problems* category. Those respondents with personal computers in the household were somewhat more likely to expect some problems in the economy than those without computers. This result parallels that seen on other questions.

Percent 100 80 60 40 20 0 **New Castle** Kent Sussex Delaware US Large businesses■ 89.5 92.1 88.7 91.1 US small business□ 64.2 61.1 64.9 62.2

Figure 2.7
Are You Generally Confident that Businesses Are Prepared?
by County

Source: Center for Applied Demography & Survey Research, University of Delaware

One of the reasons respondents may feel fairly confident about the US economy is their confidence that business will do what is necessary to avoid problems. This issue is addressed in Figure 2.7, above. Confidence level is quite high in large businesses with more than 90% of the respondents expressing positive feelings. These results parallel those found in the national sample although adult Delawareans are more confident in both areas. They are less sanguine about small businesses and with good reason. Smaller businesses have fewer resources to take preemptive actions and are likely to resort to manual measures until they understand the nature and

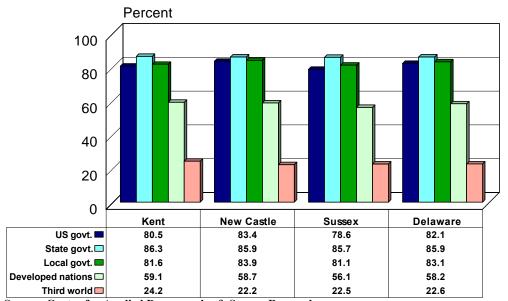
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<sup>&</sup>lt;sup>7</sup> The August 25-29 Gallup Poll on Y2K conducted for the National Science Foundation reported that 82% of US adults were confident in large US businesses and 56% were confident in small US businesses. In contrast with other questions, these levels remain virtually unchanged since the March 5-7 poll.

magnitude of the problem according to the Senate Special Committee on the Year 2000 Technology Problem.

There were no significant differences by age, gender, or computer ownership with respect to confidence in businesses. The results were essentially the same as those observed for the overall sample. The higher income group was more confident in large businesses (95% to 86%) than that expressed by respondents in the lower income group. There were no discernible differences with reference to small businesses. The differences between the counties are insignificant.

Figure 2.8
Are You Generally Confident that Governments Are Prepared?
by County



Source: Center for Applied Demography & Survey Research, University of Delaware

Another factor that affects respondents views on the Y2K problem is the level of confidence that they hold in various levels of government. Many of the areas of potential Y2K problems are directly or indirectly affected by how well governments have prepared. The results from this survey are displayed in Figure 2.8, above.

For all practical purposes, the three levels of government in the US are accorded the same level of confidence. There is far less confidence in the governments in the rest of the developed

world and even less in governments within less developed countries. The results from this survey are consistently more positive toward US governments than those found in the national sample.<sup>8,9</sup>

Among the contrast groups, i.e., age, gender, income, and PC in the household, there were few significant differences. Younger people were a bit more likely to have confidence in governments in the developed world and higher income respondents had lower levels of confidence in Third World governments. There were no significant differences between the counties.

Percent 100 80 60 40 20 0 Kent **New Castle** Delaware Sussex **Disasters**■ 3.1 4.8 5.9 4.8 Disruptions 18.9 22.5 18.2 21.1 Minor disruptions ■ 63.6 65.6 63.4 64.7 No negative impact□ 14.1 7.1 11.6 9.1 Other effect 0.3 1.1 0.2

Figure 2.9
How Serious Will Y2K Problems be in the US?
by County

Source: Center for Applied Demography & Survey Research, University of Delaware

Problems with the US economy are one thing, but problems that could directly impact the health and safety of people are another. Respondents were asked if they thought Y2K would cause events that would result in the loss of human life (Disaster) or just economic/social disruptions or minor inconveniences. The results are found in Figure 2.9, above.

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<sup>&</sup>lt;sup>8</sup> The August 25-29 Gallup Poll on Y2K conducted for the National Science Foundation reported that confidence in state, local, and federal government in the US among US adults as 73%, 68%, and 68% respectively. These levels have declined slightly since the March 5-7 poll and significantly from the December 9-13 poll.

<sup>&</sup>lt;sup>9</sup> The August 25-29 Gallup Poll on Y2K conducted for the National Science Foundation reported that confidence in governments of developed countries and developing countries among US adults as 48%, and 18% respectively. These levels are virtually unchanged since the December 9-13 poll.

While 17% of the respondents expect serious problems in the economy, about 25% expect serious economic and social disruptions. This suggests that people are expecting serious repercussions that transcend the economic sphere. The data from the national sample do not diverge as much. There was not as much of a divergence between the two samples with respect to the question on the economy.

The younger age group and women were more likely to expect *economic and social disruptions* while they evaluated the likelihood of *disaster* similarly. The two income groups evaluated the result somewhat differently with the upper income group tending to expect any disruptions to be less serious. Similarly, those respondents with a PC in the household tended to expect more serious effects, but there are also larger percentages of respondents in non-PC households who place themselves in both the *disaster* and *no negative impact* camps.

Survey respondents were asked about their outlook for various potential Y2K generated problems. The results are found in Figures 2.10 and 2.11, below. At the low end of the spectrum, only 13% of the sample expects any problem with cars and trucks as a result of Y2K. At the high end of the spectrum, over 50% expect that there will be failures in the banking and accounting systems and failures on the power grid. The national sample reported 12% and 48% for these two areas, respectively although no question was asked about the power grid. The level of these perceptions is important since it may cause people to take actions that exacerbate the initial problem. If people expect banks to have problems, they may withdraw substantial sums of money. If they expect the power to fail, they may buy generators or stock up on wood. Excessive areas in activities like these may have substantial side-effects.

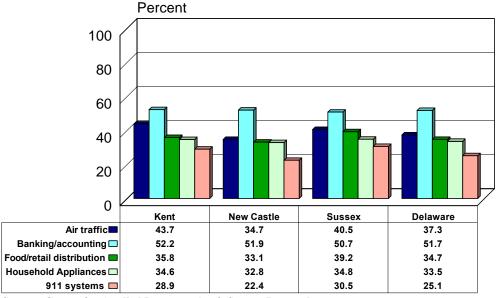
One result requires special explanation. More than 35% of the respondents expect looting and/or rioting as a result of Y2K related problems. This question does not restrict these problems to Delaware. While the question was not asked in the national survey referenced here, it was asked in a CNN/Time Poll in January, 1999 and 38% of US adults thought there would be rioting and looting.

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<sup>&</sup>lt;sup>10</sup> The August 25-29 Gallup Poll on Y2K conducted for the National Science Foundation reported that 18% of US adults expect *disasters* or *economic and social disruptions*. These levels have declined significantly since the question was last asked on December 9-13 poll when 34% responded in that way.

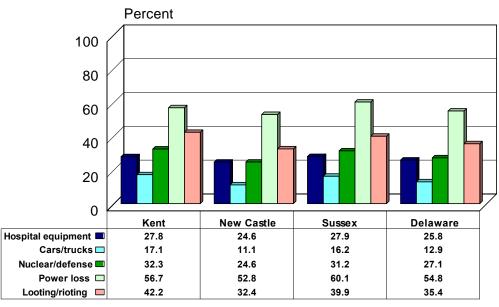
<sup>&</sup>lt;sup>11</sup> The August 25-29 Gallup Poll on Y2K conducted for the National Science Foundation reported that 35% of US adults expect failures in air traffic control, 48% in banking, 35% in food/retail, and 27% in 911 systems. All of these levels have declined significantly since the questions were asked during the March 5-7 poll.

Figure 2.10
How Likely Are the Following Problems in the US?
by County



Source: Center for Applied Demography & Survey Research, University of Delaware

Figure 2.11
How Likely Are the Following Problems in the US (continued)?
by County



Source: Center for Applied Demography & Survey Research, University of Delaware

Overall, 78% of the respondents reported being concerned about one or more of these 10 areas. The average respondent thought that 3.4 of the areas were likely to fail. Those that indicated they were *very concerned* about Y2K problems earlier in this report averaged 6.4 areas while those that were *somewhat concerned* selected an average of 4.2 items. Those respondents that were either *not too concerned* or *not at all concerned* averaged 2.4 and 2.3 areas respectively.

Younger respondents, along with women and lower income groups, were more likely to think that *air traffic control systems* were likely to fail. The same result held for *banking and accounting systems* and those respondents without a PC in the household joined the others.

Women, the lower income group, and those without a PC are more likely to think that *food/retail distribution systems* will fail and only women among the contrast groups expect that *household appliances* will fail.

The younger age group and the lower income group are more likely to think that hospital equipment will fail than their comparison groups. The same result occurs for *emergency/911 systems* and those respondents without a PC concur. No differences were observed with respect to passenger cars and trucks.

Respondents in the younger age group along with those in the lower income group and those without a PC in the household are more likely to think that *nuclear power/defense systems* will fail than their comparison group. Female respondents, those in the lower income group, and the younger age group all expect *power failures* at a rate higher than the comparison group. Those in the younger age group and the lower income group are more likely to expect *looting* and rioting.

Overall, respondents in the lower income group identified 1.2 more areas for failures than did the upper income group. On average, the younger age group selected 1.0 more areas than the older age group, and women selected 0.6 more areas than men. Those respondents without PCs in the household averaged 0.5 more areas for failures.

In the next section, the actions that the respondents plan to take will be addressed together with the characteristics of the people planning those actions.

#### **Actions**

If there is a hurricane or a snow storm coming, most Delawareans will take some actions to mitigate the impact of those events. In that context, the Y2K bug is no different. Usually people can draw on their own experience to decide what actions might be helpful. In this case, that experience is missing and they must rely on information in the press, material provided by emergency management agencies, information supplied by businesses and institutions, and rumor. The end result of this information gathering process or lack thereof, is the perceptions discussed in the previous section. In this section, the focus shifts to the actions Delawareans plan to take based on their current perceptions.

Percent 100 80 60 40 20 0 **New Castle** Kent Delaware Sussex Confirm Financials 59.4 59.9 60.6 66.6 Stockpile food/water 42.5 35.7 37.9 37.1 Buv generator/wood stove■ 18.6 144 19.7 16.1 Order Prescriptions□ 30.6 27.1 30.4 28.3

Figure 3.1
What Will You Do to Protect Yourself from the Y2K Problem?
by County

Source: Center for Applied Demography & Survey Research, University of Delaware

Respondents were asked if they would probably take a series of potential actions. Four of those actions are displayed in Figure 3.1, above. The most prominent within this list is confirming financial information in case there is a failure in the financial/banking system. This same result was found in the national sample. <sup>12</sup> This action is correlated with the perception of the likelihood

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<sup>&</sup>lt;sup>12</sup> The August 25-29 Gallup Poll on Y2K conducted for the National Science Foundation reported that 51% of US adults will confirm financial information, 36% will stockpile food and water, and 14% would buy a generator or stove. All of these levels have declined somewhat since the questions were asked during the March 5-7 poll.

of failure in the banking system, which was also at the top of the list. If the respondent felt the banking system would have a problem, the probability that they would confirm financial information increased by more than 20%. Among those that did not believe failure was likely, 50% still will confirm financial information in advance of Y2K. Obviously, this number of requests could cause considerable disruption and might generate additional concern if the information could not be immediately obtained. It is hardly surprising to find that banks, in particular, are sending out their own Y2K information in statements prior to the end of the year.

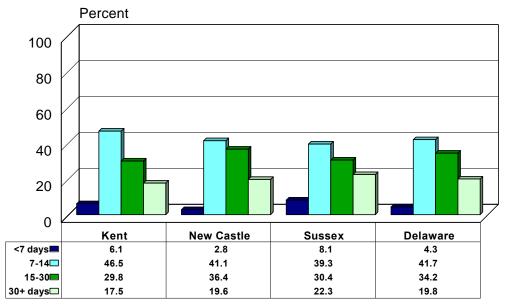
Those respondents in the lower income group were just as likely to confirm financial records as those in the higher income group. There were no statistical differences between men and women on this issue either. The only differences were found in age and having a PC in the household. The younger age group and those with a PC in the household were more likely to confirm financial information than the comparison group.

Stockpiling of food and water is probably the most often used action to mitigate the impact of an event. In the case of Y2K, 37% of adult Delawareans intend to take this action (Figure 3.1, above). This result is consistent with the 36% measured in the national sample. Those that expected failures in food/retail distribution systems were almost 40% more likely to say they would stockpile food and water. One in four thought failure in those systems was unlikely but was going to stockpile anyway.

Once again, the younger age group and respondents with a PC in the household were taking no chances and were more likely than their comparison group to stockpile. There were no statistically significant differences by gender or income.

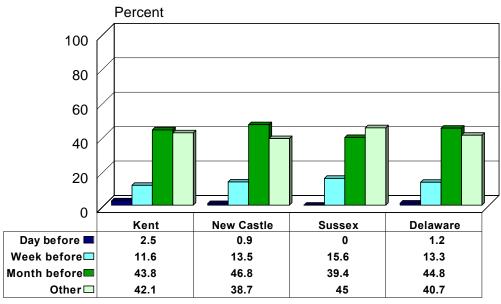
Probably the more interesting information is how much food and water the respondents would stockpile. Those results are found in Figure 3.2, below. Keep in mind that these data apply only to the 37% who answered that they would stockpile. Probably the most surprising result is that few respondents are stockpiling for less than a week. On average this group would stockpile for about five weeks but this varied considerably based on how long they expected problems to last (see Figure 2.5, earlier). Those responding that they expected problems to last for a few days, stockpiled for three weeks while those that expected problems for more than a year stockpiled for three months.

Figure 3.2 How Many Days of Food and Water Will You Stockpile? by County



Source: Center for Applied Demography & Survey Research, University of Delaware

Figure 3.3
When Would You Get these Supplies?
by County



Source: Center for Applied Demography & Survey Research, University of Delaware

Respondents who planned to stockpile were also asked when they would take this action. Those results are shown in Figure 3.3, above. Most adult Delawareans are going to begin well in advance if they are going to stockpile at all. There is a significant relationship between the amount they will stockpile and how far in advance they will do it. If, for example, the respondent intended to begin the day before, he/she would generally be buying for a week. For a months supply, he/she would start two months in advance. Finally, those with the most pessimistic view are currently accumulating supplies.

Buying a generator or a wood stove to mitigate a Y2K problem suggests that some respondents think there will be failures on the power grid or in the fuel delivery system. Some 16% of adult Delawareans fall into this category (see Figure 3.1, earlier). This compares with 14% in the national sample. Of those that thought a loss of power was likely (see Figure 2.11 earlier), one in four would buy a generator or wood stove. This rate was more than three times higher than that observed for those that thought a power loss was unlikely.

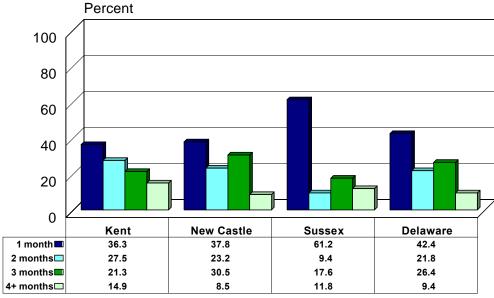
As has been true for most of this report, the younger age group, those in the lower income group, and those with a PC in the household continue to be risk averse. All three groups were statistically more likely to buy a generator or wood stove than their comparison groups.

The final action, presented earlier in Figure 3.1, was ordering of prescriptions in advance. This is a complex question and there is no national reference point. First, the majority of people are not taking prescription medicine at any given point in time. Second, some prescriptions are limited by law with respect to the amount that can be prescribed, e.g. narcotics. Third, physicians may be unwilling to prescribe too far in advance if they need to frequently check the patient's condition and assess the need for the medicine.

The 28.3% of respondents who would take this action are probably assuming a hypothetical situation, i.e., "If I had a prescription and if there were no restriction, I would act this way". The fact that there is no difference between age groups is consistent with this hypothesis. In addition, the responses for Kent and Sussex counties are essentially the same even though the respondents are five years older on the average in Sussex County. Women and respondents in the lower income group were more likely to order prescription supplies in advance than their comparison groups.

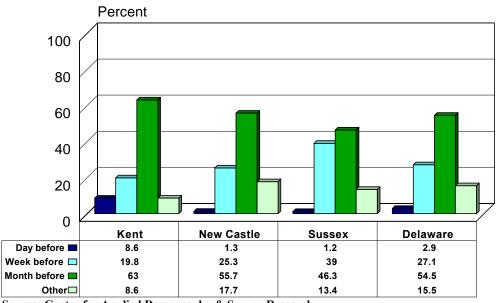
Those responding that they would order prescriptions were asked how much they would stockpile and how far in advance they would place those orders. Those results are found in

Figure 3.4
How Many Months of Prescription Supplies Would You Order?
by County



Source: Center for Applied Demography & Survey Research, University of Delaware

Figure 3.5
When Would You Expect to Get Your Prescriptions?
by County



Source: Center for Applied Demography & Survey Research, University of Delaware

Figure 3.4 and Figure 3.5, above. The percentages provided apply only to the 28% who would stockpile prescription supplies and the sampling variation with this subset is more than double that of the base sample.

Almost half of the respondents who intend to order in advance will attempt to get a one month supply. There is considerable variation by county with Sussex County respondents far more likely to get a one month supply. The vast majority of respondents will take this action one month or less in advance of Y2K. This probably reflects the lead time for getting the appropriate physician to concur with the request.

Percent 100 80 60 40 20 0 **New Castle** Sussex Delaware Kent Withdraw all money 15.8 9.2 9.5 7.9 Set aside cash□ 31.6 26.8 27.9 27.8 Avoid airplanes 51.7 50.6 39.3 48.7 Arm yourself□ 13.8 9.6 17.1 11.8

Figure 3.6
Will You Take Any of the Following Actions?
by County

Source: Center for Applied Demography & Survey Research, University of Delaware

A second set of potential actions is found in Figure 3.6, above. Only about 10% of the respondents intend to empty their bank accounts prior to Y2K. This corresponds well with the national sample. Both those who earlier had said they were *very concerned* about Y2K or expected banking/accounting systems to fail were far more likely to say they would withdraw their money. Clearly, perceptions and actions are related.

<sup>13</sup> The August 25-29 Gallup Poll on Y2K conducted for the National Science Foundation reported that 10% of US adults would withdraw all their money, 25% would set aside cash, and 43% would avoid airplanes. The question about arming oneself was not asked. All of these levels have declined somewhat since the questions were asked during the March 5-7 poll. The declines were probably not statistically significant.

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The pattern among the contrast was somewhat different this time. The younger age group and those without a PC in the household were twice as likely to withdraw all their money than those in the comparison group. Those in the lower income group were more than three times more likely to withdraw all their money.

Percent 100 80 60 40 20 0 **New Castle** Kent Sussex Delaware \$1-\$499 15.6 16.3 9.8 28.1 20.1 \$500-\$999 14.8 22.1 19.4 \$1000-\$1999 27.9 37.8 24.1 33.1 26.7 \$2000+ 47.5 26.1 31.3

Figure 3.7 How Much Money Will You Withdraw? by County

Source: Center for Applied Demography & Survey Research, University of Delaware

Almost 28% of adult Delawareans are planning to withdraw and set aside a large amount of cash prior to Y2K (Figure 3.6, above). That is consistent with the national sample where 25% of US adults expect to do the same. The amount they intend to withdraw is shown in Figure 3.7, above. Comparable information is not available for the national sample.

The average amount of withdrawal for those that plan to do so is \$3000 with a median of \$1000. Taking into account those that plan to withdraw nothing, the expectation is for withdrawals of \$525 per adult and \$1100 per household. The Federal Reserve is planning for up to \$2000 per household but expecting about \$500 to be withdrawn. The estimates obtained from this survey are within that range.

Air travel has also been the topic of great debate relative to Y2K. The original scenarios of planes falling out of the sky or in-flight collisions has been generally discredited. The FAA has completed its compliance work however, the Senate committee on Y2K reports that jetway

security and runway lighting in the US could still be a problem. International air traffic control and airports are open to question. There is still significant concern out there. Slightly under half of the respondents plan to avoid air travel during the period when Y2K problems are likely to exist. This is consistent with the national sample. Those that thought the air traffic control would fail were almost twice as likely to avoid air travel. However, about one third of those who thought that such a failure was unlikely still would hedge their bets and avoid air travel.

There were no statistically significant differences between the income, gender, and PC in the household contrast groups. Respondents in the younger age group again were more risk averse since they were more likely to say they would avoid air travel.

The last action in this set of options was to arm themselves. One respondent in ten reported that they would select this action. This level was consistent with a national sample where 13% responded affirmatively to this option. <sup>14</sup> One reason that people might do this is that they are expecting looting and/or rioting to occur. Respondents who reported looting and rioting was likely were three times more likely to arm themselves.

Male respondents and the younger age group were more likely to choose arming themselves as an option. If a respondent was both young and male then the likelihood of choosing this option increased by more than 60%. There were no significant differences by either income or having a PC in the household.

The final topic for this section deals with personal computers. While many people have PCs in the household, they are not necessarily doing anything to prepare. The first question asked of respondents was whether they had a personal computer in the household. Approximately 60% of those interviewed responded affirmatively (Figure 3.8, below). This is consistent with the national sample as well. The proportion with PCs at home in Sussex County is significantly less than in the other two counties. Those that had a PC at home were also asked if they were connected to the Internet or some on-line service. Three quarters of those responding were connected and that result held across the counties. Again this result mirrors the national sample. The proportion with PCs at home were also asked if they were connected and that result held across the counties. Again this result mirrors the national sample.

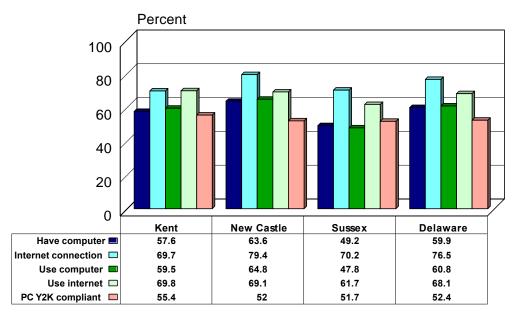
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<sup>&</sup>lt;sup>14</sup> The CNN/Time poll of US adults conducted in January,1999 reported that 13% of the respondents would arm themselves.

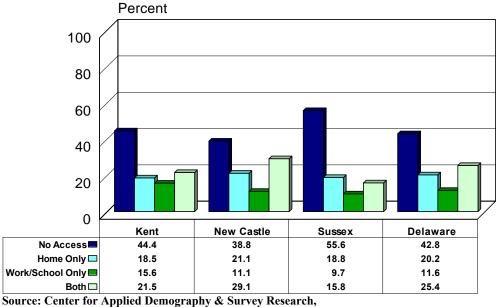
<sup>&</sup>lt;sup>15</sup> The August 25-29 Gallup Poll on Y2K conducted for the National Science Foundation reported that 60% of US adults said they had a computer in their household. Of those,74% were connected to the Internet or used an on-line service. Fifty eight percent reported using a computer at work or school. Almost all of these levels have increased somewhat since the questions were asked during the December 9-13 poll. The increases are probably not statistically significant.

Figure 3.8 Computer Ownership and Usage by County



Source: Center for Applied Demography & Survey Research, University of Delaware

Figure 3.9
What is Your Access to the Internet?
by County

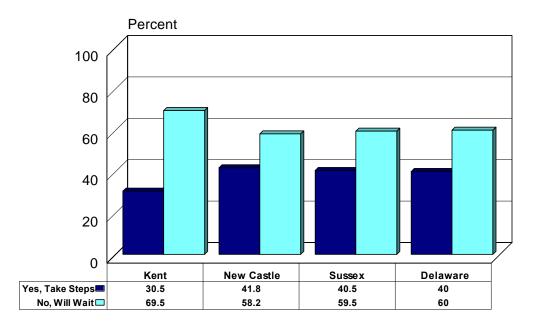


Source: Center for Applied Demography & Survey Research, University of Delaware

Computer usage extends beyond the home. People use them at work and at school. About 60% of respondents both in Delaware and in the US report doing so. Of those that use a computer at school or work, some 68% use the Internet or an on-line service. This frequency of connectivity is simplified in Figure 3.9, above. Approximately 43% of adult Delawareans have no access to the Internet. That rate is significantly higher in Sussex County. Another 32% have access at either home or work/school. The "information elite" might be those 25% who have access in both places.

The younger age group is twice as likely to be among the information elite and is only half as likely to be in the *no access* category. The higher income group is three times more likely to have access in both places and is only half as likely to be in the no access category. There were also differences by gender although they were nowhere near as strong as those found within the two previous contrasts groups. Women are about 25% less likely to be in the information elite and 25% more likely to have no access.

Figure 3.10
Will You Take Steps to Fix Your Computer?
by County

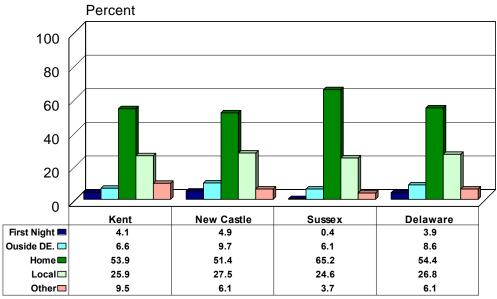


Source: Center for Applied Demography & Survey Research, University of Delaware

According to Figure 3.8, above, approximately half of those with personal computers in the household think that they are Y2K compliant. This result is consistent with the national

sample where 57% reported this to be the case. <sup>16</sup> A second question was asked of those who were not compliant as to whether they would take steps to become compliant. Those results are found in Figure 3.10, above. Sixty percent of those who are not compliant or are unsure will just wait and see what happens. These procrastinators are not systematically related to any of the contrast groups. Nor do they exhibit any more or less concern over the Y2K bug. The distribution is also reasonably consistent across counties when the reduced sample size is considered.

Figure 3.11 What Will You Do on New Years Eve? by County



Source: Center for Applied Demography & Survey Research, University of Delaware

The final substantive question asked of respondents was about their plans for New Year's Eve (Figure 3.11, above). It is difficult to interpret the responses since there is no comparison either to a national sample or to a previous New Year's Eve. What can be said is that most

<sup>16</sup>The August 25-29 Gallup Poll on Y2K conducted for the National Science Foundation reported that 57% of US adults with a computer in their household thought that it was Y2K compliant. Of those that were either unsure or knew that it was not compliant, 63% were taking a wait and see attitude. The level of those who think they are Y2K compliant has increased significantly since the question was asked during the December 9-13 poll. The proportion of those taking a wait and see attitude has also increased.

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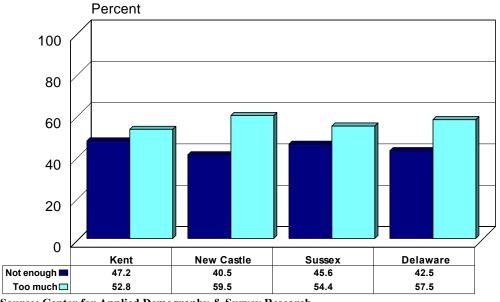
people are staying close to home and somewhat more are doing that in Sussex County than in the rest of the state. Among the problems that people expect, only those that expect looting and rioting are slightly more likely to stay at home.

#### **Sources of Information**

At this point it should be abundantly clear that people have formed perceptions about the Y2K problem. They also have indicated that they will take action consistent with those perceptions. Some of the perceptions and associated actions are inconsistent with what appears to be factual information about Y2K. For example, a large percentage of the respondents in this survey in Delaware and as well as national surveys still fear problems with the banking industry. Both the US Senate committee on Y2K and the Federal Reserve amply demonstrate that this is not the case. Perhaps more information in this area would help alleviate the secondary impacts of people seeking to solve what appears to be a non-problem.

In this section, results pertaining to how people get their information will be presented. Recall that previously in Figure 2.3, almost 60% of the respondents said they had heard a great deal about Y2K and only about 10% had heard little or nothing about the problem. Following up on that issue, respondents were asked if they were receiving enough information. Those responses are displayed in Figure 4.1, below.

Figure 4.1
Are You Receiving Enough Y2K Information?
by County



Source: Center for Applied Demography & Survey Research, University of Delaware

Apparently adult Delawareans disagree on whether they have received enough Y2K information. They are nearly evenly split on the issue. There is still an appetite for additional information although it varies depending on how much they have already heard about Y2K. The fact that one third of those who have heard a great deal about the problem still think they need more information is instructive. The majority of those who had heard less than a great deal about Y2K, wanted more information.

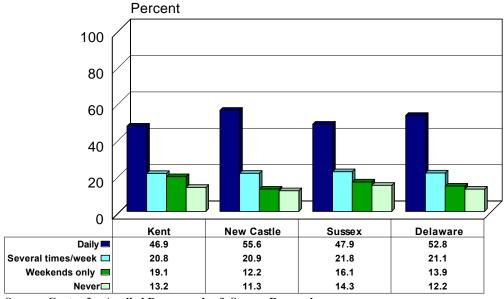
The question is would more information change the actions people might take. Two pieces of information suggest that it would. First, the concerns people have over the Y2K bug have generally declined over the past nine months as more information was made available or people began paying attention. Second, in this survey respondents who have heard a great deal about the problem on average listed two fewer areas than those that had heard next to nothing. In almost every one of the problem areas the proportion saying a particular event is likely falls as the amount of information they have heard increases. The notable exception is the loss of power and that may have been influenced by power failures that occurred during the summer.

There are many different ways to get information to those who want and need it. One method is the Internet. Based on the survey almost 60% of the respondents had some kind of access although only a small percentage listed this as the primary source of Y2K information. The Internet does require active participation of the individual; it does not "spoon feed" the user. However, there are many web sites that have useful documents related to Y2K, if the surfer is willing to look. The more traditional outlets such as newspapers, radio, and television may reach a broader audience without requiring action by the recipient.

The effectiveness of the print and broadcast media depend on who is reading, watching, and listening. Those responses are summarized in Figures 4.2 through 4.5, below. The two responses that are most meaningful are probably *daily* and *never*. Network news has the highest overall audience with only 10% of the respondents reporting that they never watch. It also has the highest daily participation as well. Newspapers are essentially tied with network news for overall utilization with 12% of respondents reporting that they never read a newspaper. But daily participation is significantly lower.

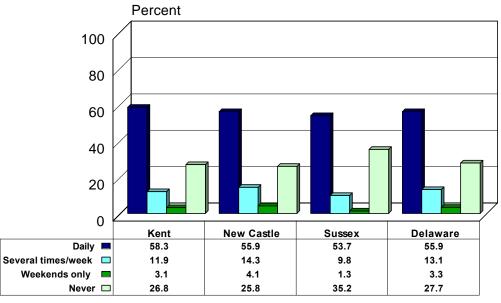
Radio news programming has essentially the same daily participation as the newspapers but 27% of respondents report that they never listen to news on the radio. Cable news reaches almost the same amount of audience as radio, but the intensity of the utilization is much lower.

Figure 4.2 How Often Do You Read a Newspaper? by County



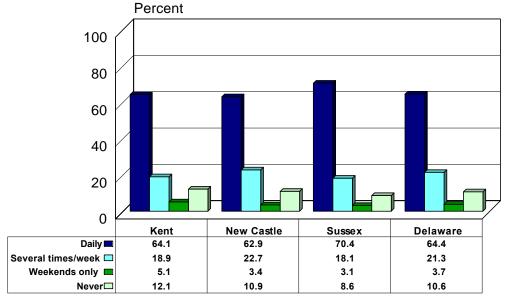
Source: Center for Applied Demography & Survey Research, University of Delaware

Figure 4.3 How Often Do You Listen to News on the Radio? by County



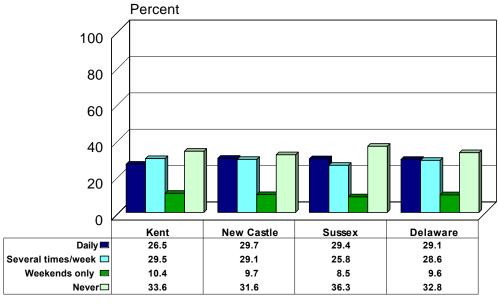
Source: Center for Applied Demography & Survey Research, University of Delaware \*

Figure 4.4
How Often Do Watch Network News on TV?
by County



Source: Center for Applied Demography & Survey Research, University of Delaware

Figure 4.5
How Often Do Watch Cable News on TV?
by County



Source: Center for Applied Demography & Survey Research, University of Delaware

In the previous sections, differences between various contrast groups were identified. There may be differences in the way these groups get their information as well. If there are, then different strategies may have to be employed if needed information is to reach them. This information must be interpreted with caution since nothing can be said about what content people are reading, e.g. news, sports, comics, etc. There is an implicit assumption that frequent readers/listeners/watchers are more broadly exposed to all types of material when compared to those who are exposed less frequently.

Newspaper readership does vary significantly by age. The older age group is more likely to read a newspaper (60% to 38%) on a *daily* basis than the younger group. The rates for *never* reading the paper were statistically equivalent between the groups although the proportion among the younger respondents is higher (15% to 11%). No significant differences were found for either income or gender.

The age of the respondent makes little if any difference when the source is radio and that conclusion holds for gender as well. However, respondents in the higher income group are more likely (63% to 53%) to listen to news on the radio. More than 30% of respondents in the lower income group report *never* listening to radio news compared to 20% of the higher income group.

There is more variation when the source is television news. Respondents in the older age group are more likely (74% to 56%) to watch network television news on a *daily* basis than those in the younger group. While the differences by gender are smaller (but significant), women are more likely to watch network television news *daily* (71% to 60%) than men. Similar differences exist between the income groups with respondents in the lower income group getting more news on a *daily* basis from network television (71% to 60%) than those in the higher income group.

The results were almost opposite for daily viewers of cable news. While the differences were not significant by age group, there were differences by gender. Men were more likely to watch cable news on a daily basis (33% to 24%) than women. At the same time, respondents in the higher income group were less likely to respond (26% to 36%) that they *never* watched cable news than those in the lower income group. These results are consistent with the differences found in network television viewing.

The survey shows that 65% of the respondents use multiple sources to obtain news. It also shows that about 10% of the respondents are not daily consumers of news from any source.

The other 25% use a single source with 10% using only radio and another 9% using only network television.

Some 38% of the younger age group, which is the one group that appears to be more concerned with Y2K problems than others, can be reached through the newspaper. An additional 32% are reachable by radio. However, it appears that 15% of the younger age group is unlikely to be reached by any media source with any degree of certainty.

Finally, respondents identified many other sources of Y2K information. Among the most prominent sources outside of the traditional media were work-related discussions, magazines, discussions with friends, and community meetings.

## **Observations**

The countdown of the last 100 days until the Y2K bug comes to visit has begun in earnest. There will likely be problems but those problems are not likely to be either disastrous or non-existent. This survey adds one more piece of information that will help those with Y2K responsibilities to better understand what people are feeling and thinking. Listed below are a few of the findings that stand out in the results.

- Adults in Delaware hold most of the same attitudes and perceptions that are expressed by adults throughout the US.
- The actions that are likely to be taken to mitigate the likely impact of Y2K are also remarkably similar to those throughout the country.
- Most people feel that there will be problems but they will be relatively minor and of relatively short duration. There is concern expressed but it is not extensive. Over the last year, the level of anxiety has been falling.
- Delawareans express a high level of confidence in both businesses and government to handle the problem properly. However, they are much more concerned about the rest of the world.
- In spite of the fact that the financial sector is probably the most prepared in the US, people continue to express a high level of concern. The same level of concern is attached to the electrical power industry even though preparations are for all practical purposes complete.
- People are far less concerned with the health care sector than with the financial sector in spite of the vast differences in preparedness. There are also significant differences in preparedness within the sector itself.
- Adults under the age of 40 and lower income groups appear to be more concerned probably because of less experience and/or less perceived control over the situation.
- People are likely to act on their perceptions. They will withdraw between \$500 and \$1000 from the banks just as a precaution and they will confirm their account information prior to Y2K. These actions may create extra work for the banks and increase the probability of burglary and robbery.
- To counter the possibility of power loss, some will buy electrical generators and wood stoves. This might have the side-effect of increasing the probability of fires. Batteries will also be in high demand as well as portable radios.
- Many will stockpile food and water for as much as two weeks. Fortunately they will
  do this over a one to two month period reducing the probability of shortages as the
  end of the year approaches.

• Adults in Delaware are nearly evenly split on whether they have enough Y2K information. Those that think they do not are more likely to improperly assess the magnitude of the Y2K problem and take unnecessary action.

- People are getting Y2K information from a variety of sources. Since there is diversity in the use of the media, no single method is likely to reach all who need the information. There is however substantial information available on how to mitigate most Y2K problems.
- Businesses and institutions may need to be more aggressive in providing specific Y2K information to their customers. This strategy may be more effective than broad brush media efforts.

This survey research suggests that information flows can affect perceptions and the actions that flow from those perceptions. Some of those actions may produce unintended consequences. While most adult Delawareans seem to think they have had enough Y2K information, it still may be wise to keep the flows going and aim it at those with inaccurate perceptions using as many tools as are available. Certainly, the national media will be increasing coverage as the event approaches and this alone should help correct some of the misperceptions that are still widely held.

## **APPENDIX**

## Y2K Millennium Computer Bug Problem Survey #519

Phone Number:		Interviewer#		
Sample #		Interview Date /	1999	
		Begin Time : :	AM/PM	
		End Time : :	AM/PM	
conduc	rname iscalling from to the detail a survey for the Delaware Emergency Managunderstanding of issues related to the so-called Years.	gement Agency to learn more a	e are about	
1)	As you may know, most computer systems around that they can accurately recognize the date once that computer mistakes due to the Year 2000 issuproblems, or no problems at all?  [ ] Major problems	we reach the Year 2000. Do y	ou think	
	<ul><li>[ ] Minor problems</li><li>[ ] No problems at all</li><li>[ ] No opinion (Don't read)</li></ul>			
2)	Do you think that computer mistakes due to the problems, minor problems, or no problems at all		jor	
	<ul><li>[ ] Major problems</li><li>[ ] Minor problems</li><li>[ ] No problems at all</li><li>[ ] No opinion (Don't read)</li></ul>			
3)	How much have you seen or heard about the Yea (sometimes called the Millennium Bug or the Y-not much, or nothing at all?			
	<ul><li>[ ] A great deal</li><li>[ ] Some</li><li>[ ] Not much</li><li>[ ] Nothing at all</li><li>[ ] No opinion (Don't read)</li></ul>			

The rest of the questions on this survey will deal with the Year 2000 computer issue. For 4) convenience, we will refer to it throughout the survey as the "Y2K' computer bug. Overall, how concerned are you about the Y2K computer bug problem? [ ] Very concerned [ ] Somewhat concerned [ ] Not too concerned [ ] Not at all concerned [ ] No opinion (Don't read) 5) To the extent Y2K computer problems occur, how long do you think they will last? [ ] For only a few days around January 1, 2000, [ ] For several weeks, [ ] For several months to a year, [ ] For more than a year [ ] No opinion (Don't read) For each of the following, please say whether that is something you probably will or will not do in order to protect yourself against problems associated with the Y2K computer bug. Will you obtain special confirmation or documentation of your bank account balances, 6a) retirement funds, or other financial records? [ ] Yes [ ] No [ ] No opinion (don't read) 6b) Will you stockpile food and water? [ ] Yes → Go to 6C [ ] No → Go to 6E [ ] No opinion (don't read) For how many days would you stockpile supplies? 6b2) 6b3) When would you get these supplies? [ ] The day before [ ] The week before [ ] The month before Some other time frame (please specify) Will you buy a generator or wood stove? 6c) [ ] Yes [ ] No [ ] No opinion (don't read) Will you withdraw all your money from the bank? 6d) [ ] Yes → Approximately how much money do you intend to withdraw?\_\_\_\_ [ ] No [ ] No opinion (don't read)

Will you withdraw and set aside a large amount of cash? 6e) [ ] Yes → Approximately how much money do you intend to withdraw?\_\_\_ [ ] No [ ] No opinion (don't read) Will you avoid traveling on airplanes on or around January 1, 2000? 6f) [ ] Yes [ ] No [ ] No opinion (don't read) Will you order prescription supplies? 6g) [ ] Yes → Go to 6j [ ] No **→** Go to 61 [ ] No opinion (don't read) How many months of prescription supplies would you order?\_\_\_\_\_ 6g2) When do you expect to get or renew your prescription supply? 6g3) [ ] The day before [ ] The week before [ ] The month before Other time frame (specify)\_\_\_\_\_ Will you arm yourself? 6h) [ ] Yes [ ] No [ ] No opinion (don't read) Is there anything else you probably will do to protect yourself? 6.5)Yes → (Specify)\_\_\_\_ [ ] No [ ] No opinion (don't read) 7) Thinking about the US economy, which of the following statements best describes the possible effect you think the Y2K bug will have on the economy? [ ] It will cause a total economic breakdown or catastrophe [ ] It will cause serious problems in the economy such as slowing production or create a recession [ ] It will cause only minor problems in the economy [ ] It will have no negative impact on the economy Other (Don't read) If other, specify:\_\_\_\_\_ [ ] No opinion (Don't read)

8)	Think more generally about the kind of problems which could possibly be
	created by the Y2K computer bug, which of the following best describes
	how serious these problems will be in the United States?
	[ ] Y2K will result in disasters, which could cause the loss of human life
	[ ] Y2K will cause economic and social disruptions, but will not be life
	threatening
	[ ] Y2K will cause only minor disruptions and inconveniences
	[ ] Y2K will have no negative impact on people's lives
	Other (Don't read) If other, specify:
	[ ] No opinion (Don't read)

9) Next, I'm going to read some specific problems. As I read each one, please say whether you think it likely or unlikely to occur as a result of Y2K.

		T '1 1	TT 1'1 1	No	D C 1
		Likely	Unlikely	Opinion	Refused
a)	Air traffic control systems will fail, putting air				
	Travel in jeopardy				
b)	Banking and accounting systems will fail, possibly				
	Causing errors in employee paychecks, government				
	Paychecks, and other automated financial				
	Transactions				
c)	Food and retail distribution systems will fail,				
	possibly causing grocery and other store shortages				
d)	Household appliances such as VCRs, video cameras,				
	and air conditioning systems will fail to turn on or				
	work properly				
e)	Hospital equipment and services will fail, putting				
	patients at risk				
f)	City or county emergency 911 communication				
	systems will fail, putting citizens at risk				
g)	Passenger cars and trucks will fail to work properly,				
	Possibly causing social and economic disruption				
h)	Nuclear power or defense systems could fail, causing				
	A major accident				
i)	Loss of power				
j)	Looting and rioting				

9.5)	(IF "YES" to 9i) If there is a loss of power, how would you stay informed?
	[ ] car radio
	[ ] radio with batteries
	[ ] through the community

10) As you may know, efforts are currently underway throughout the country to upgrade computer systems in order to correct the Y2K computer problem. We'd like to know whether you are generally confident or NOT confident that each of the following levels of government and business will have upgraded their computer systems before any Y2K problems can occur. How about ...

		Yes	No	No Opinion	Refused
a)	The U.S. Government, including all federal offices and agencies			•	
b)	Your state government				
c)	Your local government				
d)	US corporations and large businesses				
e)	Small US businesses				
f)	Foreign governments of other developed and industrialized Countries				
g)	Foreign governments of Third World and other less Developed countries				

11)	Do you have a personal computer in your household?  [ ] Yes → Go to Q12  [ ] No → Go to Q13  [ ] No opinion (Don't read)
12)	Do you personally, use your home computer to connect to the Internet or an online services such as Prodigy or America Online?  [ ] Yes   [ ] No   [ ] No opinion (Don't read)
13)	Do you use a computer at work or school?  [ ] Yes → Go to Q13a  [ ] No → Go to Q14  [ ] Don't work/ go to school  [ ] No opinion (Don't read)
13a)	Do you, personally, use the Internet or other computer on-line service at your place of work or school?  [ ] Yes [ ] No [ ] No opinion (Don't read)
14)	Do you know for sure whether your home computer or computers are programmed to comprehend the Year 2000 date field correctly, or are you unsure?  [ ] Yes, programmed correctly [ ] No [ ] Unsure → Go to 14a [ ] No opinion (Don't read)

If not sure about home computer: Do you plan to take steps to make sure your computer 14a) is programmed correctly, or are you going to wait and see what happens? [ ] Yes, going to take steps [ ] No, wait and see what happens [ ] No opinion (Don't read) The next few questions deal with how you generally receive news information. How often do you read a newspaper? 15a) [ ] Daily [ ] Several times a week [ ] Weekends only [] Never What newspaper do you read most often? 15b) 15c) What is the second newspaper you read most often? How often to do you listen to the radio? 16a) [ ] Daily [ ] Several times a week [ ] Weekends only [ ] Never What radio station do you listen to most often for news?\_\_\_\_\_ 16b) What is the second radio station you listen to for news?\_\_\_\_\_ 16c) How often do you watch news on NETWORKS such as NBC, CBS, ABC or PBS? 17a) [ ] Daily [ ] Several times a week [ ] Weekends only [ ] Never 17b) What is your primary source for TV network news? \_\_\_\_\_ 17c) What is your secondary source for TV network news? 19a) How often do you watch CABLE NEWS channels such as CNN, MSNBC or CNBC? [ ] Daily [ ] Several times a week [ ] Weekends only [ ] Never What is you primary source of Cable'TV news? 19b)

What is your secondary source of Cable TV news?

19c)

What is your primary source of Year 2000 information? 19d) 19e) Regarding Year 2000 information, are you receiving not enough, or too much? [ ] not enough [ ] too much 20) What county do you live in? [ ] Kent [ ] New Castle [ ] Sussex Don't Know (Don't read) [ ] Refused (Don't read) 21) Which of the following currently applies to you? Are you . . . [ ] Employed for pay [ ] Unemployed [ ] Retired [ ] Homemaker [ ] Student None/Other (Don't read) If other, specify: [ ] No opinion (Don't read) 22) If employed, what is your occupation? If employed, are you a small business owner? 22.5) [ ] Yes  $\rightarrow$  Go to question 23 [ ] No What type of business 23) [ ] Retail [ ] Manufacturing Other, specify Is your employer or place of business taking sufficient steps to correct any 24) problems it might face because of Y2K problems, is it NOT taking sufficient steps, or are you unsure? [ ] Yes, taking steps [ ] No, not taking sufficient steps [ ] DOES NOT APPLY [ ] Unsure 25) What is your marital status? [ ] Never married [ ] Married [ ] Separated [ ] Divorced [ ] Widowed [ ] Refused (Don't read) What is your age?\_\_\_\_\_ 26)

27) Are you of Hispanic, Latino, or Spanish origin? [ ] Yes [ ] No [ ] Refused (Don't read) 28) How would you describe your race? [ ] White/Caucasian [ ] African American [ ] Asian [ ] American Indian Other (Don't read) If other, specify: [ ] Refused (Don't read) 28) What plans have you made for New Year's Eve? [ ] First Night or other large event Outside Delaware travel (NYC Times Square for ex.) [ ] Home [ ] Local (party) [ ] Other (specify): \_\_\_\_\_ 29) Please stop me when I have read the category that best fits the total annual income in your household: [ ] Under \$5,000 [ ] \$5,000 - \$9,999 [ ] \$10,000 - \$14,999 [ ] \$15,000 - \$19,999 [] \$20,000 - \$24,999 [ ] \$25,000 - \$34,999 [ ] \$35,000 - \$49,999 [ ] \$50,000 - \$99,999 [ ] \$100,000 and above [ ] Don't know (Don't read) [ ] Refuse (Don't read) 30) Do you own or rent your home? [] Own [ ] Rent Don't know (Don't read) [ ] Refused (Don't read) 31) Do you have more than one residential telephone number? [ ] Yes → How many? \_\_ [ ] No [ ] Refused (Don't read) GENDER of respondent: 32) [ ] Male [ ] Female

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That's my last question. If you would like more information, I have a toll-free number and a Y2K website address ....

(IF NOT) Well, thank you for taking the time to help us with this survey. Good bye.

(IF YES), they request further information: The toll free number is 1877 SAY DEMA (1877 729-3362), or the website address is http://www.state.de.us (This will take you to the State of Delaware homepage; at the bottom is a link to their Y2K page).

Thanks for taking the time to help us with this survey. Good bye.