

E-government; Providing Financial Information via the World Wide Web

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Abstract: Governments are increasingly using the Internet to provide information to users. This study is a survey of how prevalent the use of the Internet is among governments in disseminating financial information and examines the quality and effect of the information provided.

E-government; Providing Financial Information Via the World Wide Web

In May 2000, the Wall Street Journal reported that e-commerce is entering the governmental arena. Governments are generally known as the least innovative sector of the U.S. economy, but e-government is quickly become a reality. E-government refers to the use of information and communication technologies (primarily the World Wide Web) to deliver government services and information to the public. In the year 2000 alone, e-government initiatives totaled more than \$1 billion (2). E-government is changing the way that the government does business and it is revolutionizing Americans' relationship with their government as both consumers of governmental services and citizens of democracy (13). While previous studies have examined government web sites in general, this study focuses specifically on the presentation of financial information and the effect of providing this information.

According to the Hart-Teeter survey and the National Technology Readiness Survey, e-government is becoming a reality with widespread support from the public. There are obvious benefits for becoming an e-government including improving access to government information and services, reducing service-processing costs, and providing a higher quality of service (2). More citizens may be able to participate in the process of government easily and at lower costs in terms of both time and money, although some are concerned that access to the web is not equal for all citizens.

E-government provides citizens with greater access to more types government information, which allows them to become more involved in governmental decision-making. Since the focus of e-government is on reaching out to citizens rather than forcing them to come to the government, the costs of getting citizens more involved will be lower (7). In general, e-government serves as an additional channel through which to deliver government services, but at a greater convenience, higher level of quality, and lower cost than traditional channels. For example, it will certainly be less expensive to publish a 200-page annual report in a document file on the web than to print several hundred copies for distribution to citizens and other interested parties.

One specific service for which e-government may be used is the dissemination of financial information. Financial information is important to citizens, employees, suppliers, and investors in the government's securities. According to the Government Finance Officers Association (GFOA), technology allows securities' issuers to be more efficient and effective in communicating with the municipal market. Investors, analysts, and the Securities and Exchange Commission (SEC) have commended the use of the Internet for disclosure. They believe that the web is the next best thing for providing financial disclosures because reporting on the web promotes transparency, liquidity, and efficiency in the capital markets. As a result, the GFOA has recently issued a recommendation that governmental issuers use their web sites to disseminate information to the municipal securities market regarding municipal debt, financial condition, and other related information. It claims that municipal web sites are a powerful communication tool and can potentially be an integral part of an effective investor relations program (5).

The GFOA released some guidelines for maintaining an investor relations program in 1996. Investor relations are extremely important because investors are the primary source of financing capital asset acquisitions for state and local governments. When governments sell bonds, they enter into a long-term contract to make timely debt service payments to the holders of such bonds. Therefore, an effective investor relations program is attentive to investor needs and concerns and has the potential to lower borrowing costs for issuers. GFOA guidelines suggest the focus of such a program should be to provide annual financial, operating, and other significant information in a timely fashion that is consistent with federal and state laws and SEC rules. Annual budgets, financial plans, and comprehensive annual financial reports (CAFRs) are examples of documents that would provide investors with useful information. Another important consideration according to the GFOA is that procedures should be developed to ensure that such information is delivered to all municipal market participants simultaneously and not just to certain investors (3).

Using a web site for disclosure meets many of the GFOA's recommendations for an effective investor relations program. First and foremost, a web site can make documents associated with a bond sale available electronically as well as provide ongoing disclosure information to the municipal market. A web site can also store historical financial documents that may be used by investors for reference purposes. Other advantages include preventing preferential treatment of certain investors by ensuring the simultaneous release of disclosure information, controlling the content and timing of the release of information, assuring the accuracy and completeness of the information because the media is not involved, and providing the most current information available, with the option to update it as necessary.

Web sites also serve as an efficient, low-cost method for continually communicating timely information to investors. They can be used for (1) press releases notifying investors of significant events, (2) accelerating and broadening the distribution of timely disclosure information, (3) reducing investor inquiries, and (4) satisfying investor requests for less expensive, more accessible disclosure information. Another feature is that web site disclosure may enhance an issuer's reputation in the municipal bond market thereby strengthening investor confidence in the issuer. Web site disclosure may also make an issuer's bonds more attractive to investors, which facilitates secondary market liquidity. Improving the liquidity of an issuer's bonds will help improve the efficiency of the municipal market, and, possibly, lower borrowing costs. If an issuer has already developed a web site for other purposes, adding financial information for investors would involve little or no extra cost (5). It is clear that using municipal web sites for the dissemination of bond disclosure and other financial information has many advantages for issuers, investors, and all other municipal securities market participants. These advantages are similar to the advantages of participating in other areas of e-government: greater information content and availability, increased citizen/investor involvement, and higher quality services, all provided with greater efficiency at a lower cost.

The GFOA considers the ease of use and accessibility of a web site to be important, suggesting that care be taken to ensure that the web site design maximizes usefulness to investors. Another important feature according to the GFOA is that information posted on a web site should be reviewed and approved to ensure accuracy, consistency, and completeness. The most recent date that information

has been updated should be posted on the web site, and outdated reports or other information should be clearly marked (5). Another important consideration is that the author or source of any information provided is given (1).

The primary focus of this study is to gather information about the use of the Internet by local municipalities to disseminate financial information and to examine these web sites' ability to meet citizen needs. The focus on financial information is because it provides both information and accountability to citizens.

The governments used in this study are taken from a database containing 596 governments with a population greater than 100,000. The web addresses for these governments are gathered from OfficialCitySites.org, a web site that lists local and county web sites by state. Web addresses that could not be obtained from OfficialCitySites.org are researched on the Internet using various search engines.

Table 1 summarizes the findings related to the 596 government web sites included in this study. They represent 30 states, or 60% of the states, as well as the District of Columbia. Of the 596 governments contained in the original database, only 100 web sites (16.8%) contained a CAFR or some other form of financial statements. These 100 web sites are examined in great detail to assess the financial information provided. In examining these 100 web sites, it is interesting to note that California, home to 16 of the 100 governments containing financial statements, appears the most number of times while the next most frequently appearing states are Texas, home to 12 sites, and Florida, home to 10 sites.

Table 1 Overview of Surveyed Web Sites		
# of Sites	Used in Study	Status
78	x	Full CAFR (Comprehensive Annual Financial Report)
18	x	Partial CAFR
2	x	Full PAFR (Popular Annual Financial Report)
2	x	Annual Reports with financial statements
66		No web site found
24		URL's could not be accessed (at least 1 had CAFR)
23		Information on how to obtain full copy of CAFR
10		Completely or partially under construction
8		Annual Reports without financial statements
5		Finance/CAFR/Annual Report link not working
4		Finance page or site under development
3		CAFR summary without financial statements
2		Down for updates (either to entire site or CAFR)
1		Financial statements other than CAFR or Annual Reports
373		No Financial Statements (CAFR, annual report, or other)

It is not surprising to see three of the most populated states in the U.S. appearing at the top of the list of those states whose local governments provide financial information online. In general, larger governments tend to have more resources, so they are more likely to be able to help fund and promote e-government initiatives. However, it is also more than likely that these states have more cities or towns with high populations and consequently appear more often in the original database. It is also interesting to consider representation by state capitals. All but four state capitals are listed in the original database of 596 local governments but only 15 are included in the final sample of 100.

Governments that provide financial statements on their web sites should have higher bond ratings if providing financial information on the web lowers borrowing costs. Standard and Poor's is one of the agencies that rates government bonds. Its highest rating, AAA, is held by governments that are characterized by strong and proactive administrations, effective debt management with moderate to low debt, a vibrant and diverse economy, and a strong financial position. However, only eight of the

100 governments achieve Standard and Poor's highest bond rating. Therefore, the assumption that governments who provide their financial statements online have high bond ratings is not very convincing.

Since the dissemination of financial information on a local government web site is not mandatory at this time, another assumption is that the information that is provided will be of higher quality. Therefore, it is interesting to consider the incidence of clean audit opinions and the receipt of financial awards among the governments that voluntarily provide their CAFRs online. Of the governments reporting CAFRs or financial statements online, 13 did not provide their independent auditor's report while 82 of them received clean, unqualified audit opinions. The remaining five received either an unqualified report with modified wording or a qualified opinion.

Another indication of high quality financial statements is the receipt of awards like the GFOA Certificate of Achievement for Excellence in Financial Reporting. The GFOA also awards a similar award for distinguished budgets. Of the 100 governments with CAFRs or financial statements, 85 received an award. The high number of governments receiving awards indicates that governments are more likely to provide their financial information online if it is of higher quality.

How easy it is to access the financial information will play a critical role in whether people use the site to review this information. The length of financial documents and the way in which they can be navigated contribute to the ease of use of the web sites examined in this study. The length of the CAFRs or financial statements range from 13 pages to 320 pages. Half of the web sites with CAFRs or financial statements had documents that are less than 200 pages long. Of the 100 total web sites with financial statements, 16 did not provide the entire document or a table of contents.

Generally, the longer a financial document is, the more overwhelming it is to the user, the longer it takes to download, and the more difficult it is to go through the document. However, some of the web sites attempted to increase their ease of use by allowing users to download the financial documents in sections, or click on main headings or a table of contents to be taken directly to that information, rather than having to scroll down through the entire document. Of the 100 sites, 22 allowed users to download the financial statements in sections. Another 24 of the sites require users to scroll through the

documents while one site even had a financial report set up in columns, requiring the reader to scroll up and down just to read one page.

The most convenient way to look through the financial documents would allow users to simply click on a page in the table of contents and then go directly to that page. Thirty-eight sites provide this linkage. Another three sites allowed users to click on sections of the document, two sites allow users to click within downloaded sections, and one site allows users to click on main headings. Another convenient format, used by nine of the sites, is the use of bookmarks in Adobe Acrobat. Bookmarks are an outline of the document located in a frame to the left of the page that is being viewed. The user can click on a bookmark and then be taken directly to that information. The use of bookmarks, the ability to click on a table of contents and the ability to download financial documents in sections all contribute to the ease of use of web sites.

A significant factor that hinders a user's ability to access information is the number of clicks or menus that the user must go through to get to the information. For 68 of the sites, the financial information could be found in four or fewer clicks or menus.

Still another important consideration besides ease of use of the web site is ease of use of the financial information itself. It is important for citizens to know how their governments are spending their tax dollars but many citizens do not have the financial expertise or the patience to read and comprehend CAFRs or other financial statements. Budget documents are often easier to comprehend than CAFRs and 80 of the web sites examined in this study provide some type budget documents. Other types of document that are easier for citizens to understand include annual reports (provided by a few of the sites), financial summaries, and PAFRs. PAFRs are generally short in length and contain highly condensed financial information, budget summaries, and narrative descriptions. However, they contain unaudited summary data. Only two of the 100 web sites with CAFRs or financial statements contain PAFRs. In addition to providing summary financial information, governments can make information easier to understand by presenting it in tables or graphs. Eighty-four sites present some information in tables or graphs with revenues, expenditures, and taxes the most common items shown. Some governments made their CAFRs more pleasing to the eye by providing full-color documents and

graphics. This type of document is much less overwhelming than plain black-and-white documents. Three governments made their CAFRs easier to understand by providing very good explanations of both the document and fund accounting. Overall, financial information on 14 sites is either easy or relatively easy to understand and information on 5 of the sites is complex or difficult to understand. The rest of the sites are in between. While governments seem to be taking some steps to ensure that financial information provided on their web sites is easy to use, citizens would benefit from better descriptions and explanations of that information, more summary financial information, and greater use of color, tables, and graphs.

In addition to ease of use, accountability is another criterion that can be used to evaluate government web sites. There are many ways in which e-government sites can fulfill their responsibility to their citizens by being accountable. One of the most important ways is by providing financial information so that citizens can see how their tax dollars are being spent. Another tool indicating accountability is to provide basic contact information for the government, such as the names, addresses, and phone numbers of government offices and/or officials. Some prior studies have found that many times web sites are lacking this basic contact information. However, all of the 100 web sites in this study contain contact information.

E-governments can also provide citizens with some sort of feedback form or survey to increase accountability and to ensure that the web site is meeting user needs. Of the 100 web sites, 55 have some sort of feedback form or survey for users.

There are other ways in which e-government web sites can demonstrate accountability. It is important for citizens to know what their governments' values, goals, and mission. A mission statement is provided by 80 of the governments in this survey.

Another indication of accountability is providing a projection for future revenues and/or expenditures—52 provide information about future revenues and/or expenditures, generally in the form of a long-term capital improvement plan. The most common length of time over which revenue and/or expenditure projections are given is five years.

Governments can increase their accountability to citizens is by providing a variety of financial information, not simply CAFRs or financial statements, for multiple years. Very few of the web sites examined in this study contain just a CAFR. The most commonly provided financial document other than a CAFR is some form of budget document, including proposed, adopted, operating, capital, or summary budgets, the mayor's budget message, or a citizen's budget guide. Two other common financial documents found on the web sites (27 sites for each) are a capital improvement plan or bond information. This information varied from site to site, but include such documents as bond obligations and outstanding series, bond sales, bond ratings, proposed issues, bonded debt reports, debt management policies and procedures, debt components, ratios, and definitions. Other types of financial information provided by the sites include tax rates and other tax information, annual reports, financial trends, financial reviews or highlights, investment policies, financial plans, performance reports, monthly or quarterly reports, business plans, grant compliance reports, internal audit reports, fund overviews, investment reports, and purchasing and bid information. In addition, Portland, OR reports service efforts and accomplishments (SEAs), and Richmond, VA, has a set of reporting standards that explains why citizens should care about government financial reporting.

Governments increase their accountability by providing financial information for multiple years. Most of the governments in this study provide CAFRs or financial statements for one to four years, during the period from 1995 to 2001. The more financial information available, the more accountability a government shows, as long as the information is labeled and dated properly.

Another strong indicator of government accountability is the use of an internal audit committee to review the government's financial affairs. Knowing that financial transactions are being monitored gives citizens more confidence that the government's resources are being used properly. Of the 100 web sites, 46 governments indicate that they have these committees.

Although this study is focused on the financial aspects of local government web sites, an important factor in evaluating these sites is the balance between financial and non-financial information. Every user of a government site will not necessarily be looking for specific financial information, so this study also examines whether the web sites have information relating to the overall economy or business climate of

the government, including a list of major employers and information related to the quality of life in the area. Of the 100 web sites, 74 contain at least some information related to the economy. Also found in the survey are 73 sites that contain information relating to the quality of life, although some did so by providing links to other organizations such as the Chamber of Commerce.

Linking users to other web sites is a popular method to balance financial information with non-financial information. In this manner the government serves as a resource for their users and helps provide other useful information. Most of the web sites examined in this study have a link or main menu on the home page marked "other links." Others have links scattered throughout the site. Of the 100 web sites, 89 sites provide links to other web sites. Interestingly 13 of these provide links to highly technical web sites including the GASB, the GAO, the GFOA, FASB, the AICPA, the National Association of Local Government Auditors (NALGA), the ACFE, the Institute of Internal Auditors (IIA), the Office of Management and Budget (OMB), state audit departments, the IRS, or Standard & Poor's, Fitch's, and Moody's. Most citizens would have little use for these web sites, with the possible exception of the IRS.

Other non-financial links that are very popular include links to the area Chamber of Commerce and the area Visitors & Convention Bureau. Forty-two of the sites include a link to their state's official web site. Many sites also contain links to federal government web sites, including the following: the White House, House of Representatives, Senate, Congress, Cabinet, Social Security Administration, Library of Congress, and the Department of the Treasury. A few sites in Washington State even contain links to the Canadian government. Links to other web sites not only provide site users with more information, but they may also help those users to better understand information on the site they are viewing.

Two other important criteria for evaluating government web sites are providing the source of information found on the site (found on 94 of the sites) and content update procedures and dates. Although the government is ultimately responsible for supplying the information, governments increase their accountability by disclosing which departments or individuals are responsible for reporting the financial information. The source of the financial information is generally found on the cover or title page of the CAFR or annual report. Other common places to find the source of financial information are the

transmittal letter in the financial document, or under a description of the duties of the department responsible for preparing the information.

Although most of the web sites in this study list the source of their financial information, they are not as likely to provide their content update procedures and dates. Only 37 sites provide the date on which the web site was last modified or updated. However, it is apparent that most of the sites had been updated recently because they list current events, current news, or the current week's council meeting agenda or minutes. To increase accountability and to provide better, more accurate information to citizens, all government web sites should explain their update policies and procedures, and they should list the date on which the site was last updated.

In addition to assessing the ability of government web sites to address the needs of their users, this study compiled some interesting facts about governments that did provide their CAFRs or financial statements. For example, the most common fiscal year end for such governments is June 30th, with 53 of the governments having this year-end. In terms of auditors, the governments in this study were more likely to have been audited by a "Big Five" (at the time of the survey) public accounting firm than a local or regional firm. This study also notes which local governments had adopted GASB's new financial reporting model for governments required by GASB Statement No. 34. Only 21 of the surveyed governments have implemented the new reporting requirements.

CONCLUSION

Governments are expanding into the exciting world of e-government. Internet usage among governments is increasing rapidly. Citizens are excited about the prospects of e-government and web sites are a great resource for governments to provide bond and other financial documents to the government market. While only 16.7% of 596 local governments examined in this survey currently provide financial statements on their web sites, this number is expected to grow rapidly in the coming years. There are obvious benefits for governments to providing their services online, including greater convenience, higher level of quality, and lower cost. However, e-government sites can only be effective if they are meeting citizens' needs in terms of ease-of-use, accountability, accessibility, balance, organization, and accuracy. The data collected in this study suggests that most governments are making

progress in these areas but there is still plenty of room for improvement. These results are consistent with e-government initiatives in general. We believe that governments will continue to make strong gains in this area greatly increasing everyone's access to all levels of governments.

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