2010

BUILDING E-GOVERNMENT CAPACITIES SURVEY
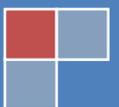
Final Report

Prepared for the: Great Lakes Innovation Group

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Executive Summary

Building E-Government Capacities is a research project undertaken by the Center for Public Administration and Public Policy at Kent State University, which focused on local e-government presence and citizen-government relations on the internet in Northeast Ohio. This report provides the results of the survey portion of this project and, in turn, a better understanding of the extent to which local governments in Northeast Ohio are using their web presence to foster government efficiency and improve services for their citizens. The following points illustrate some of the most interesting observations made during the analysis of the survey results.

Respondent Profiles
- 65 government entities responded to the survey
- The vast majority of responding governments were small; more than half with populations of less than 5,000
- Nearly 37% of respondents to the survey reported five or fewer FTEs and more than half reported less than 25 FTEs
- Roughly 85% of respondents indicated that their entity employed 1 or fewer FTEs to manage information technology (IT) services and 78% of respondents reported no separate budget line item for IT

Web Presence and Characteristics
- 69.2% indicated that their local government maintained a website presence
- For those government entities without websites, 44.4% felt that having a website was unnecessary and 27.8% felt a lack of resources prevented them from producing one
- The most commonly provided services on respondent websites include:
    - Agendas and meeting minutes   48.9%
    - Government codes and/or ordinances   48.9%
    - Job announcements   37.8%
- Few responding governments indicated that they have conducted either a citizen or business survey to determine demand for online services (just eight and five percent respectively)

Barriers and Benefits to E-Government
- Ten of the responding entities reported no significant barriers to e-government initiatives
- The most commonly cited barriers to e-government were:
    - Lack of financial resources   46.2%
    - Lack of technology/web staff   40.0%
    - Lack of technology/web expertise   33.9%
    - Lack of resident interest/demand   20.0%

- A number of positive benefits perceived regarding e-government by respondents including:
    - Improved local government communication with the public   26.2%
    - Improved customer service   26.2%
    - Business processes are more efficient   16.9%
    - Reduced time demands on staff   13.9%
    - Increased citizen contact with elected and appointed officials   13.9%
    - Reduced incoming phone calls   13.9%
- Respondents responded that the most important benefits of e-government included:
    - "One-stop shopping" and automatic links to local governments and state agencies were both indicated to be the most important by nine entities (13.9%)
    - "Increases availability of government services from virtually any location" appeared on 41.5% of the rankings (at one of the three ranking positions)
    - Only 3 respondents (4.6%) indicated they perceived no benefits to e-government
- Respondents also ranked the most significant drawbacks of e-government including:
    - "Falling short of expectations" was cited as the most significant drawback by 10.77% of respondents
    - Nearly one-third (32.3%) of respondents indicated that e-government "de-personalizes" government (at one of the three ranking positions)

Although a decent percentage of governmental entities are showing progress in the movement toward e-government, results from this survey indicate that there is still a large feeling of uncertainty about this mode of governing from local governments. The results also suggest that training and technical assistance for these government entities may help bridge the gap prompted by a general lack of knowledge, skills and available resources.

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Introduction and Purpose

Local governments in the United States for hundreds of years have adhered to face-to-face encounters with citizens and businesses to provide information, process transactions, and deliver services. E-government has emerged as a new medium for government in the 21st century to provide 24x7x365 electronic access to government information and services via the internet. Many people today do not live where they work and visiting city hall to conduct business has become difficult and somewhat inconvenient. Both citizens and businesses are eager to take advantage of e-government access to city hall from their homes and offices when it is convenient for them. Today, many local governments are facing the extremely challenging dilemma of trying to maintain services amid rapidly declining revenues. E-government offers a promising mechanism to provide efficient service delivery requiring far fewer resources than the traditional methods of service commonly utilized by government.

Building E-Government Capacities is a research project undertaken by the Center for Public Administration and Public Policy at Kent State University, which focused on local e-government presence and citizen-government relations on the internet in Northeast Ohio. The research is based on a survey and an assessment of the worldwide web presence of 428 local governments in northeast Ohio with a population of 4 million citizens. Local governments included in this study consist of thirteen counties, as well as the cities, villages, and townships within each of these counties. This report provides the results of the survey portion of this project. The results of the website evaluation can be found in the Cassell and Hoornbeek 2010 book chapter.

The survey itself, focused upon four primary areas of inquiry including: 1) government structure; 2) internet presence and access; 3) on-line service provision; and 4) respondent experiences with e-government initiatives. Questions regarding the structure of the responding governments inquired

about budgets, employment, governmental organization and information technology responsibilities. In the area of internet access, respondents were queried regarding office internet capabilities, government web presence and efforts to seek input from citizens and businesses in reference to their need of services. Respondents were also asked to indicate whether certain government services were currently provided via the internet, whether the respondents anticipated providing such services within the next year and if there were any fees associated with access to said services. Finally, responding governments were asked to identify barriers encountered during their experiences with e-government as well as the positive and negative changes connected with such efforts.

The purpose of the *Building E-Government Capacities* research project was to gain a better understanding of the extent to which local governments in northeast Ohio are using their web presence to foster government efficiency and improve services for their citizens. Gaining a better understanding of these trends in northeast Ohio stands to aid researchers in discerning the effects of technology choice upon public service provision and its place in the larger arena of public administration.

Methodology

The Building E-Government Capacities Survey was administered with assistance from the Kent State University Survey Research Lab during a four-month period from September 2009 to December 2009. The survey area consisted of local government entities within 13 counties in northeast Ohio.

Utilizing the Ohio Municipal, Township, and School Board Roster published by the Ohio Secretary of State's Office (Brunner 2006-2007), we identified 428 local government entities in within our survey area consisting of 13 counties, 102 cities, 112 villages, and 201 townships. This publication,

in addition to web searches, enabled us to identify e-mail addresses for an official point-of-contact for

326 of the 428 local governments in our sample[1].

The Kent State University Research Lab administered a web-based electronic version of the

survey via an e-mail format for these 326 point-of-contacts during a six-week period from September

2009 to November 2009. A weekly invitation to participate in the survey was sent to non-respondents to

increase the response rate. A total of 41 complete responses were received out of the 326 electronic

surveys sent out for an initial response rate 12.6%. A paper version of the survey was mailed to the 102

local government primary points-of contact that did not have an e-mail address resulting in twenty

additional returns. Follow-up phone calls were made to non-respondents who were given the option to

return the survey via U.S. Mail or complete an electronic version via e-mail. This follow-up effort

resulted in the submittal of four additional responses. A total of 65 responses were received from both

the electronic web survey and the paper survey for a total response rate of 15.2%.

Respondents

Government Structure

Respondents to the survey were largely represented by village, city and township governments

(two counties responded to the survey). The governmental structure measure was dominated by the

Township Board of Trustees (46.2%) but this is primarily a product of the respondent distribution

(roughly half of the survey universe consisted of townships). Approximately an equal number of

respondents reported the structure of "Township Board of Trustees" as there are "Townships" in our

sample. In mayoral structures, respondents reported a nearly three-to-one ratio of "strong-mayor"

systems as opposed to those classified as "weak-mayor". Within the survey instrument itself, definitions

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[1] The primary point-of- contacts were a county commissioner for counties, the mayor for cities and villages, a township trustee for townships, or the fiscal officer of the entity. If an e-mail address for a primary contact could not be identified, the electronic version of the survey was sent to a general e-mail address for the entity when such e-mail addresses were listed on the entities web site.

of both weak-mayor[2] and strong-mayor[3] systems were provided. The observed pattern of responses is strikingly consistent with the distribution of government types across the surveyed population providing at least partial evidence of the representativeness of our sample. Please see Table 1 and Table 2 for further detail.

Table 1. Respondent Government Type

Government Type	Sample Count	Sample Percent	Universe Count	Universe Percent
Township	29	44.62%	201	46.96%
City	19	29.23%	102	23.83%
Village	15	23.08%	112	26.17%
County	2	3.08%	13	3.04%
Total	**65**	**100.00%**	**428**	**100.00%**

Table 2. Government Structures of Respondents

| Structure Type	Count	Percent
Township Board of Trustees	30	46.15%
Strong-Mayor	14	21.54%
Other	8	12.31%
Council-Manager	7	10.77%
Weak-Mayor	5	7.69%
County Commissioners	1	1.54%
Grand Total	**65**	**100.00%**

Employment

The number of full-time employees (FTEs) reported by government entities is indicative of the survey sample. More than half of the survey respondents reported employing less than 25 FTEs and more than one-third reported five or fewer FTEs. 15 entities (or roughly 23 percent) indicated

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[2] Weak-Mayor is defined as having an elected mayor with an elected law director, auditor, and treasurer. The mayor has no veto power. The mayor's appointments to boards and commissions must be confirmed by council.
[3] Strong-Mayor is defined as having an elected mayor with veto power. The mayor has authority to appoint his or her department heads and members of boards and commissions without council conferring on the appointment.

employing between 101 and 250 FTEs. This combines to suggest significant variation among the

employment patterns of regional governments.

Figure 1. Reported Full-time Employees
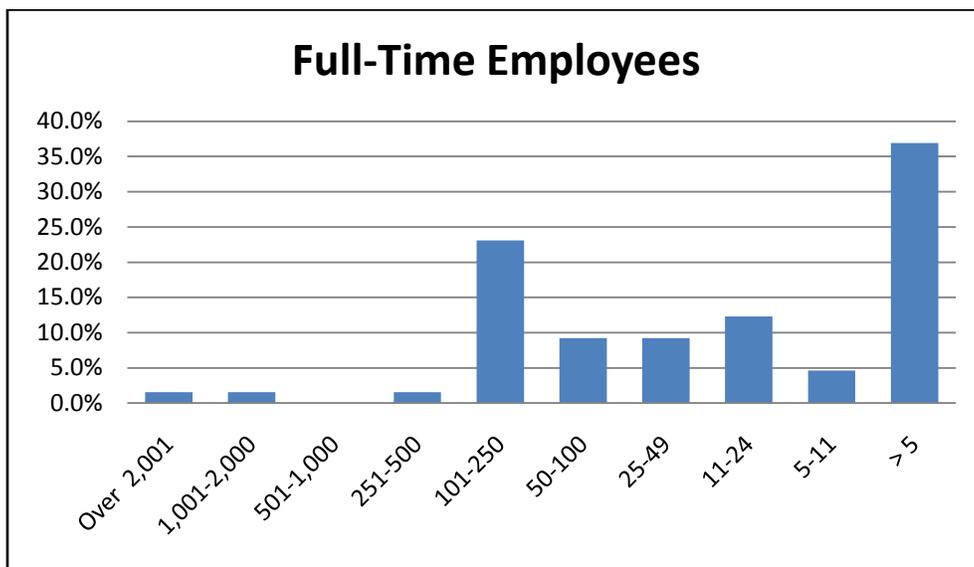
Interests

Technical Assistance and Training

Respondents were asked to provide (up to five) areas of technical assistance and/or training that

they would have an interest in receiving. By a large margin, the most popular option was assistance in

Information Technology contract preparation and negotiation (with nearly two-thirds of respondents

indicating interest). More than one-third of respondents denoted interest in the certification of

information technology management. The topics of "Procuring information technology", "Web page

content management", "Web 2.0" (which includes video and communication software applications

developed commercially) were indicated by at least twenty percent of respondents. Only three of the

survey's respondents explicitly stated that they had no interest in any type of training or assistance in

any of the areas provided via the survey instrument. Please refer to Table 4 for more information.
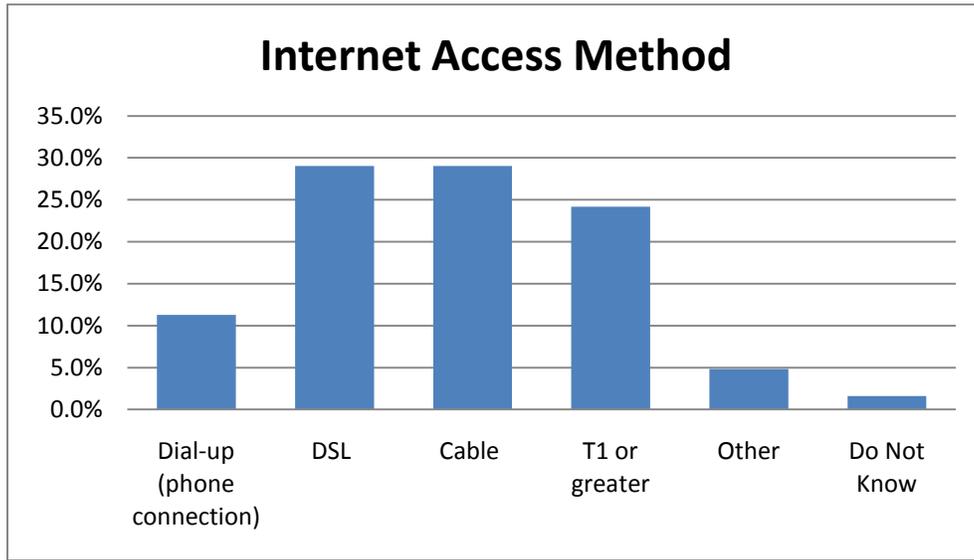
Table 4. Interest in Technical Assistance/Training

Assistance/Training Type	Count	Percent
IT contract preparation and negotiation	41	63.08%
IT management certification	23	35.38%
Web page content management	15	23.08%
Web 2.0 (Facebook, Twitter, YouTube)	14	21.54%
Procuring information technology	13	20.00%
E-government best practices	9	13.85%
Starting our own web page	7	10.77%
Integration into a single cohesive site	7	10.77%
IT strategic planning	6	9.23%
Enhancing service delivery through E-government	6	9.23%
Learning more about open source solutions	5	7.69%
Other	5	7.69%
How to avoid high-tech fiascoes	4	6.15%
IT project management	3	4.62%
None	3	4.62%

The Internet and Websites

From the responses, we note that the overwhelming majority of respondents reported having access to the internet in their government offices. Only four respondents in our sample reported no internet access. For those respondents indicating internet access in their government offices, respondents were asked to identify the method of such access. Only about 11 percent of respondents indicated that they relied upon dial-up (phone) internet connections. Results were spread fairly evenly over the three high-speed internet choices of Digital Subscriber Lines (DSL), Cable, or T1 (or greater modems) suggesting moderate adoption and access to broadband technology. These results are presented graphically in Figure 2.

Figure 2. Method of Access to the Internet

Internet Access Method

(Bar chart showing percentages of internet access methods)

Method	Approx. Percent
Dial-up (phone connection)	~11%
DSL	~29%
Cable	~29%
T1 or greater	~24%
Other	~5%
Do Not Know	~1.5%

Slightly less than seventy percent of respondents reported having a website. This left more than a quarter of respondents (18 in total) with no website for their government entity.   Two respondents failed to answer the question.

Those entities indicating the presence of a website were then asked to provide the method(s) of its development. Respondents were not limited to any number of choices, thus reported percentages do not sum to 100 percent. Roughly half of the respondents indicated the use of consultants to develop their websites and more than one-third of respondents noted the use of in-house staff. Five respondents indicate the use of methods other than those provided via the survey instrument. Please see Table 5 for more detailed information.

Table 5. Method of Website Development

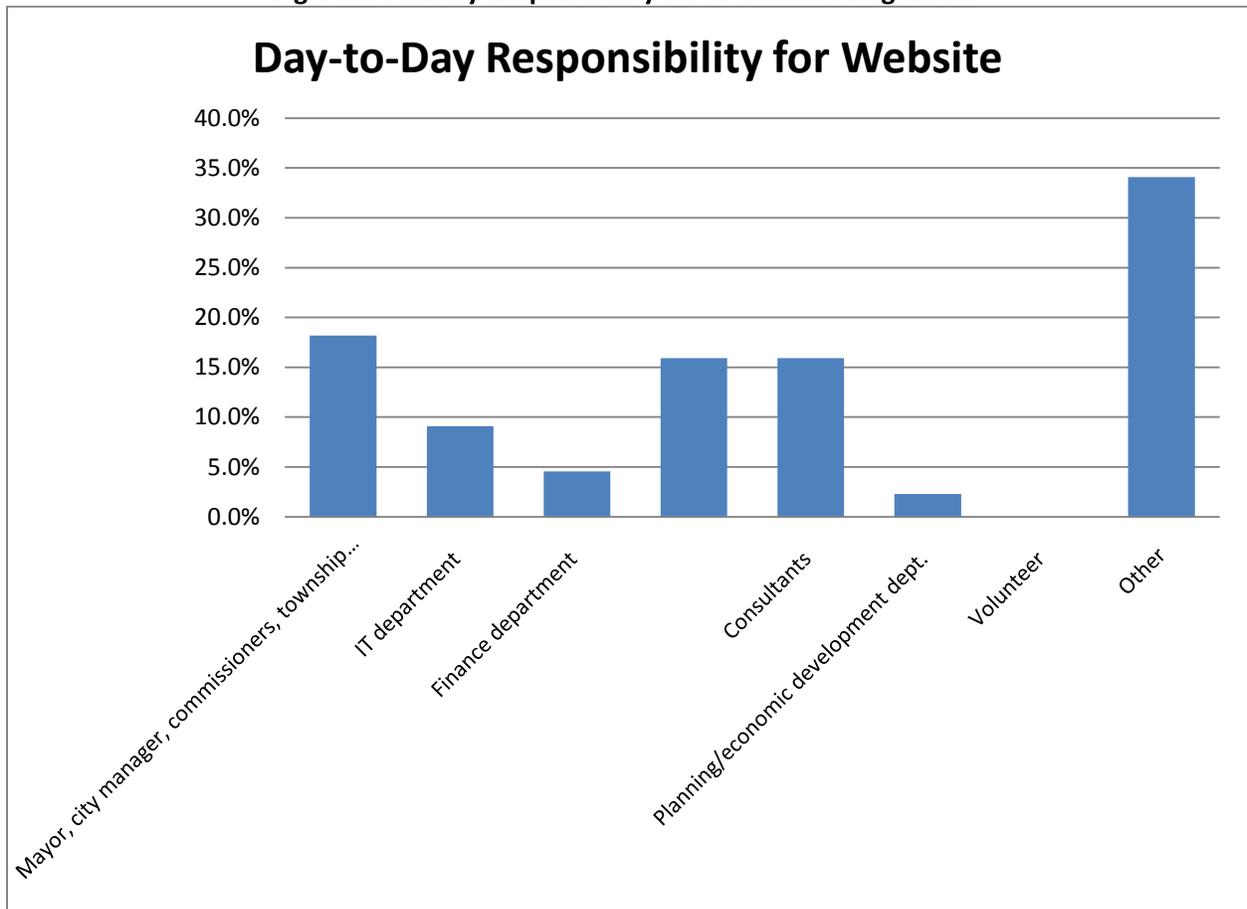| Website Development Method	Count	Percent
Developed by consultants	22	49%
Developed in-house by local government staff	16	36%
Outsourced to Application Service Providers	8	18%
Other	5	11%
Programs are purchased from IT vendors and integrated into our databases.	3	7%
Do Not Know/NA	0	0%

Those respondents who indicated that they did not have a website were asked to identify the most important reason as to why that was the case. Roughly 44 percent did "not feel it is necessary", while multiple respondents cited a lack of resources (28 percent) and expertise (17 percent).

Concerning the primary day-to-day responsibility for management of websites, more than one third of respondents indicated that someone other than the array of choices presented held such a duty. Managers of local governments (in a variety of elected and non-elected positions), consultants and web management members from departments outside of IT or Finance each represented approximately 16-18 percent of those responsible for website management. It should be noted here, that "Other" was a non-specific category option regarding individuals tasked with day-to-day website management.

An overwhelming majority of respondents indicated that they had not conducted any type of citizen survey to gauge demand for the provision of particular services online. Only three entities responded to the question in the affirmative. No entity responded that they had performed a survey to determine the demand for online service delivery for area businesses.

A little more than 30 percent of the respondents indicated that their government entity provided services through a web site, leaving nearly two-thirds of respondents replying in the negative. Of the 45 respondents who indicated that they did not provide online services via the web in the previous question, 34 (approximately 75 percent) provided a response to the question concerning plans to offer such services within the next year. Of those respondents, more than half indicated that there were no plans to begin providing such service access, while nearly one-third were unsure. These figures suggest that a large percentage of the survey respondents see little need, at this point in time, to offer government services on the web.

Figure 3. Primary Responsibility for Website Management

Day-to-Day Responsibility for Website

(Bar chart showing percentages by category:)
- Mayor, city manager, commissioners, township...: ~18%
- IT department: ~9%
- Finance department: ~4.5%
- Consultants: ~16%
- Planning/economic development dept.: ~16%
- Volunteer: ~2%
- Other: ~34%

Y-axis ranges from 0.0% to 40.0% in 5.0% increments.

Service Provision

Twenty-one questions in the survey asked about the provision of specific services online, fees associated with those services, and whether or not the respondent anticipated offering those services that were currently not available within the next year. For the ease of analysis and presentation, the questions were broken down into related aggregations. The percentages presented in the following analysis regarding current online service provision refer only to those respondents with websites.

Online Payments
- **Does your website offer online payment of taxes?**
- **Does your website offer online payment of utility bills?**
- **Does your website offer online payment of fines/fees?**

Questions concerning service offerings regarding the payments of taxes, utility bills and fines or fees are aggregated into a single group for presentation. Less than ten percent of respondents with web

sites provided online payment of taxes and less than five percent offered online payments of utility bills.

No respondents indicated that the offered the online payments of fines or fees.   One of the two

respondents indicated provision of utility payment services online charge for the service. No more than

three respondents indicated plans to provide any of these services within the next year.

Table 6. Online Payment of Offerings and Fees

Online Payment of Offerings and Fees	Offer	Charge
Payment of taxes	8.9%	0.0%
Payment of utility bills	4.4%	50.0%
Payment of fines/fees	0.0%	-

Online Forms and Records
- **Does your website offer online form submittal?**
- **Does your website offer online record searches?**
- **Does your website offer online record requests?**

Questions concerning service offerings regarding online form submittal, record searches and

record requests are aggregated into a single group for presentation. Less than ten percent of

respondents (with web sites) indicated that their entity provided a means of online form submittal.

Approximately one quarter of respondents reported online record searches and requests. While no

entity reported charging for either form submittal or record searches, one third of entities providing

record requests charged a fee for said services. No more than three respondents indicated plans to

offer any of the three services in this group within the next year.

Table 7. Online Forms and Records

Online Forms and Records	Offer	Charge
Record requests	26.7%	33.3%
Record searches	24.4%	0.0%
Form submittal	8.9%	0.0%

Online Complaints and Service Requests
- **Does your website offer online citizen complaint tracking?**
- **Does your website offer online service requests?**

Questions concerning service offerings regarding citizen complaint tracking and service requests are aggregated into a single group for presentation. Slightly more than ten percent of respondents indicated that their web sites provided a method of online complaint tracking and nearly one quarter of entities provided a mechanism for service requests online. No entity reported charging for either online service. Four respondents indicated plans to offer citizen complaint tracking within the next year, while two reported plans to provide online service requests within the same period.

Table 8. Online Complaints and Service Requests

Online Complaints and Service Requests	Offer	Charge
Service requests	24.4%	0.0%
Citizen complaint tracking	11.1%	0.0%

Online Licenses, Permits, and Registrations

- **Does your website offer online license issuance & renewals?**
- **Does your website offer online building permit issuance?**
- **Does your website offer online registrations for facility use?**

Questions concerning service offerings regarding license issuance and renewals, building permits, and facility use registrations are aggregated into a single group for presentation. No entities reported providing license issuance or renewals online and only a single entity reported issuing building permits online. Roughly eleven percent of respondents offer registrations for the use of facilities online, with one in five charging a fee for the service. No more than three respondents indicated plans to offer any of the three services in this group within the next year.

Table 9. Online Licenses, Permits, and Registrations

Online Licenses, Permits, and Registrations	Offer	Charge
Registrations for facility use	11.1%	20.0%
Building permit issuance	2.2%	0.0%
License issuance & renewals	0.0%	-

Online Meeting and Code/Ordinance Information

- **Does your website offer online agendas and minutes?**
- **Does your website offer online codes and/or ordinances?**

Questions concerning service offerings regarding online agendas and meeting minutes as well as online codes and/or ordinances are aggregated into a single group for presentation. Nearly half of respondents with websites indicated that they provided agenda and meeting minutes as well as online codes and/or ordinances. No entity reported charging a fee for access to either service. Only one entity who did not report current provision of such services indicated a plan to do so within the next year.

Table 10. Online Meeting and Code/Ordinance Information

Online Meeting and Code/Ordinance Information	Offer	Charge
Agendas and minutes	48.9%	0.0%
Codes and/or ordinances	48.9%	0.0%

Online Multimedia

- **Does your website offer streaming videos of public meetings online?**
- **Does your website offer online podcast or RSS Feeds?**

Questions concerning service offerings regarding public meeting video streaming and online codes podcasts or Really Simple Syndication (RSS) feeds are aggregated into a single group for presentation. Less than five percent of respondents reported the provision of streaming videos of public meetings and roughly two percent offer podcasts or RSS feeds. No entities providing the services charged a fee in relation to the service. No respondents reported plans to provide such services within the next year.

Table 11. Online Multimedia

Online Multimedia	Offer	Charge
Streaming videos of public meetings online	4.4%	0.0%
Podcast or RSS Feeds	2.2%	0.0%

Online Auction and Job Information

- **Does your website offer online auctions?**
- **Does your website offer online job announcements?**
- **Does your website offer online job application submittal?**

Questions concerning service offerings regarding auctions, job announcements, and job application submittal are aggregated into a single group for presentation. More than one-third (37.8%) of responding entities indicated that job announcements were provided on their web sites. Less than five percent of entities reported that application for open positions could be submitted online. No entities reported charging fees for these services and no more than two entities signified plans to offer these services within the next year.

Table 12. Online Auction and Job Information

Online Auction and Job Information	Offer	Charge
Job announcements	37.8%	0.0%
Auctions	4.4%	0.0%
Job application submittal	4.4%	0.0%

Online Outreach

- **Does your website offer online citizen surveys?**
- **Does your website offer online newsletter for residents/businesses?**
- **Do you have your government on social networking sites (Facebook, Twitter, MySpace)?**

Questions concerning service offerings relating to online citizen surveys, newsletters, and connections to social media are aggregated into a single group for presentation. Nearly one third of respondents reported the provision of a newsletter for either residents or businesses via their web site. Approximately ten percent of entities indicated the use of citizen surveys, while less than 5% reported connections to social networking sites or applications. No respondent indicated charging fees related to these services. Ten percent of respondents indicated plans to begin offering citizen surveys within the next year.

Table 13. Online Outreach

Online Outreach	Offer	Charge
Newsletter for residents/businesses	31.1%	0.0%
Citizen surveys	11.1%	0.0%
Social Networking sites	4.4%	0.0%

Information Technology: Management and Budgets

More than half of respondents answered that information technology was managed using "in-house" sources of support, leaving one-third who answered negatively to the question and eight percent providing no answer or were unsure of the mechanism. Of those respondents indicating that they managed their own information technology, approximately half dedicated less than one full-time equivalent to IT services management and a combined 85 percent relied on one FTE or less.

Figure 4. Information Technology Management
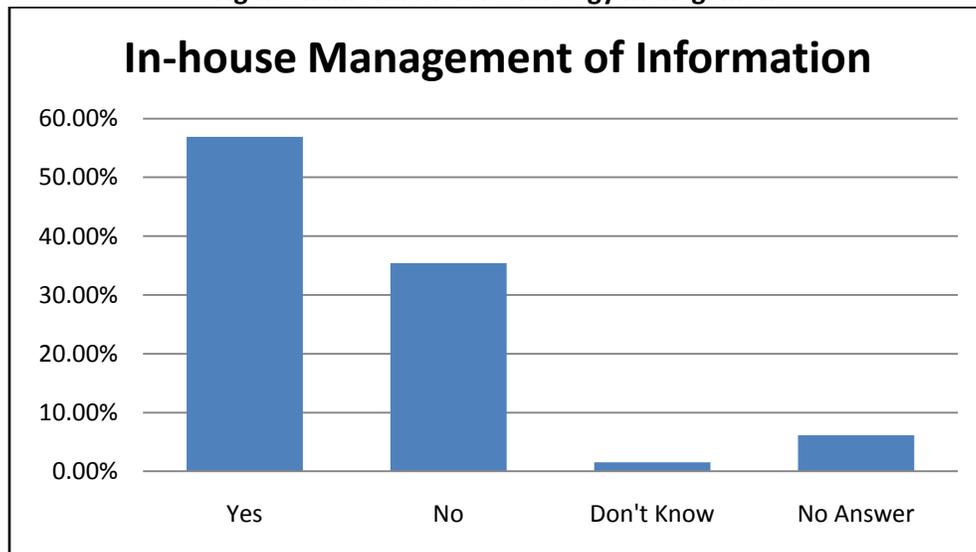
Table 14. Full-Time Equivalents Employed to Manage Information Technology

FTEs for IT services	Count	Percent
Less than 1 FTE	18	46.15%
1 FTE	15	38.46%
2-3 FTEs	4	10.26%
11-20 FTEs	1	2.56%
Don't Know	1	2.56%
Grand Total	**39**	**100.00%**

More than 70 percent of respondents provided no answer concerning their total operating budget for IT and E-government in the current fiscal year. The remaining 29 percent indicated that they did not know. The responses in reference to the current fiscal year capital budgets for information technology closely mirrored that of the operating budget question. All respondents indicated either that they did not know or provided no answer.

Not surprisingly in this context, the vast majority of respondents (more than three-quarters in percentage terms) reported not maintaining a separate budget item for information technology. Six percent of respondents indicated that there were separate budget items for IT and that IT budget responsibility lay with a particular department or the IT department itself was responsible for its determination.

Figure 5. E-Government Budget Process

E-Government Budget Process
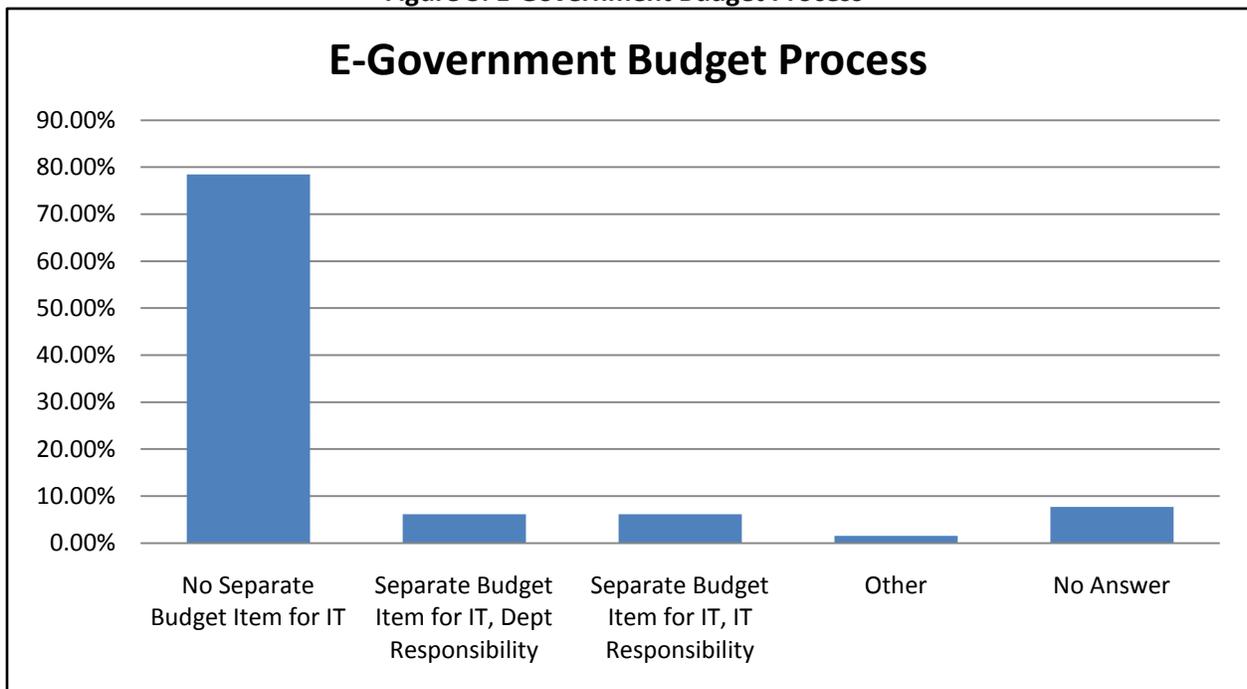
Roughly, 62 percent of entities responded that current e-government efforts were funded at least partially via general revenues. While nearly a quarter of respondents indicated that they were unsure of the funding mechanism for e-government activities, no other method was identified by more than three respondents. It should be noted that because respondents could chose more than one funding mechanism, the percentages do not sum up to 100 percent.

Table 15. Funding E-Government

E-government funding	Count	Percent
General revenues	40	61.54%
Don't know	15	23.08%
Other	3	4.62%
Utility funds/revenues	2	3.08%
Federal or state grants	2	3.08%
Designated technology funds under the Ohio Revised Code	2	3.08%
Special revenues	1	1.54%
Transaction fees from services provided	1	1.54%
Cable fees	1	1.54%
Risk-sharing (a private sector firm provides the application and receives a percent of the revenue)	0	0.00%
Municipal bond financing	0	0.00%
Enterprise fund	0	0.00%
Website advertising	0	0.00%

Barriers and Benefits

Respondents were then asked to identify what barriers (if any) they had encountered during the development of e-government initiatives for their local government. A Lack of financial resources, technology/web staff and expertise were the most frequently cited barriers that local government had encountered. At least ten respondents (or a minimum of 15 percent) also identified a lack of resident demand, a lack of security, a lack of information regarding e-government applications, a lack of support from elected officials, or a difficulty in justifying a return on the investment. Fifteen percent of respondents indicated that they had encountered no barriers, however. As multiple choices were allowed, the percentages do not sum to 100 percent. Please refer to Table 16 for more detail.

Table 16. Barriers to E-Government Initiatives

Barriers to E-Government initiatives	Count	Percent
Lack of financial resources	30	46.15%
Lack of technology/web staff	26	40.00%
Lack of technology web expertise	22	33.85%
Lack of resident interest/demand	13	20.00%
Lack of information about e-gov applications	12	18.46%
Lack of security	12	18.46%
Lack of support from elected officials	11	16.92%
No barriers	10	15.38%
Difficulty justifying a return on investment	10	15.38%
Staff resistant to change	8	12.31%
Need to upgrade technology	8	12.31%
Don't know	7	10.77%
Convenience fees for online transactions	5	7.69%
Lack of collaboration among depts.	4	6.15%
Resident resistance to change	4	6.15%
Issues regarding privacy	4	6.15%
Other	4	6.15%
Issues regarding public records and or redacting data	2	3.08%
Bandwidth issues	1	1.54%

Nearly 40 percent of respondents indicated that they were unsure of the ways that e-government had positively affected local government. More than a quarter of respondents indicated that e-government had improved government communication with the public and an equal number cited improvements to customer service. Other notable response levels were observed for efficiency improvements in business processes, increased citizen contact with government officials, and a reduction in incoming telephone calls. As multiple choices were allowed, the percentages do not sum to 100 percent.

Table 17. Positive Impacts from E-Government

Positive Changes from E-Government	Count	Percent
Don't know	25	38.46%
Has improved local government communication with the public	17	26.15%
Has improved customer service	17	26.15%
Business processes are more efficient	11	16.92%
Has reduced time demands on staff	9	13.85%
Has increased citizen contact with elected and appointed officials	9	13.85%
Has reduced incoming phone calls	9	13.85%
Allowing business processes to be re-engineered	6	9.23%
Has positively changed the role of staff	6	9.23%
Has reduced counter service	6	9.23%
Reducing the number of staff	2	3.08%
Has reduced overall costs	2	3.08%
Other	2	3.08%
Has increased non-tax-based revenues	0	0.00%

Respondents were then asked to rank the three most significant benefits to their entity arising from e-government or to indicate that they believed there were no such benefits. The percentages identified in Table 18 are the benefits that entities ranked as their most important benefit. "One-stop" shopping, round the clock availability and the provision of an automatic link to local governments and state agencies were the most frequently cited benefits. Less than five percent of respondents reported a belief that there were no benefits from e-government. As multiple choices were allowed, the percentages do not sum to 100 percent.

Table 18. Most Significant Benefits from E-Government

Benefits Ranked as Most Important	Percent
Provides automatic links to local governments and state agencies	13.85%
Offers "one-stop shopping" for government services and information	13.85%
Offers the convenience of round-the-clock availability 24x7	12.31%
Increases availability of government services from virtually any location	9.23%
Offers direct communications between elected officials and their constituents via e-mail	6.15%
There are no benefits to e-government	4.62%
Reduces operating costs for government	1.54%
Reduces staff requirements	1.54%
Increases efficiency of government	1.54%
Other	0.0%
Generates additional revenues from online transactions	0.0%

Conversely, the respondents were asked to identify perceived negative impacts from local e-government initiatives. More than half reported that they knew of no negative impacts from such efforts. No more than five respondents identified any particular negative change, with the largest percentage of responses coming in the form of increased time demands upon staff and overall cost increases. Again, as multiple choices were allowed the percentages do not sum to 100 percent.

Table 19. Negative Impacts from E-Government

Negative Changes from E-Government	Count	Percent
Don't know	34	52.31%
Has increased time demands on staff	5	7.69%
Has increased overall costs	5	7.69%
Other	3	4.62%
Has not improved local government communication with the public	2	3.08%
Has not increased citizen contact with elected and appointed officials	2	3.08%
Has increased incoming phone calls	2	3.08%
Has not improved customer service	0	0.00%
Has decreased non-tax-based revenues	0	0.00%
Business processes are less efficient	0	0.00%
Has increased counter service	0	0.00%
Has negatively changed the role of staff	0	0.00%
Has increased the number of staff	0	0.00%

Respondents were then asked to rank the three most significant drawbacks to their entity arising from e-government or to indicate that they believed there were no such drawbacks. The percentages identified in Table 20 are the drawbacks that entities ranked as being most important. The belief that e-government initiatives usually fell short of expectations was the most frequently cited drawback. No respondents reported a belief that there were no drawbacks from the implementation e-government. As multiple choices were allowed, the percentages do not sum to 100 percent.

Table 20. Most Significant Drawbacks from E-Government

Drawbacks Ranked as Most Important	Percent
Usually falls short of expectations	10.77%
De-personalizes government	6.15%
Draws resources away from more important projects and activities	4.62%
Threatens privacy of citizens / customers	1.54%
Requires 24 hour seven day a week services	0.00%
Gives people too much information	0.00%
Adds more work for departments/employees	0.00%
Other	0.00%
There are no drawbacks to e-government	0.00%

Open Source Software

Nearly 82 percent of respondents indicated that their government entity did not make use of open source software applications. Only ten respondents indicated using such tools. For those entities that indicated that they were not employing open source applications, 98 percent reported that they had not considered their use.

Table 21. Use of Open Source Applications

Open Source Applications	Count	Percent
No	53	81.54%
Yes	10	15.38%
No Answer	2	3.08%

For those respondents that indicated using open source applications, the vast majority (70 percent) reported using internet browsers as one of the open source software applications in use. As multiple choices were allowed, the percentages do not sum to 100 percent. Interestingly, 40 percent of those indicating the use of open source software were unsure of what type of application was actually being used.

Table 22. Areas of Open Source Adoption

Open Source Area	Count	Percent
Browsers (i.e., Firefox)	7	70.0%
Don't Know	4	40.0%
Servers (i.e., Apache)	3	30.0%
Word processing (i.e., Open Office)	2	20.0%
Operating Systems (i.e. Linux)	2	20.0%
GIS Systems (i.e., Grass)	1	10.0%
Procurement Systems i.e., Coupa Express)	0	0.0%
Others	0	0.0%

Cost and flexibility were most often identified as reasons that those who employ open source software application have chosen to do so. Other responses were relatively evenly distributed. As multiple responses were allowed, the percentages displayed to not sum to 100 percent. Finally, of the respondents who reported the consideration (if not simply the adoption) of open source application, nearly half cited a lack of knowledge or expertise as the primary obstacle to open source adoption. An equal number of respondents were unsure of the obstacles that were in place. Employee resistance as well as resistance within the organization was also cited frequently by the group.

Table 23. Reasons for Open Source Adoption

Reasons to Adopt Open Source	Count	Percent
Cost	6	60.0%
Flexibility	6	60.0%
Reduced dependence on proprietary systems	2	20.0%
Security	2	20.0%
Don't Know	2	20.0%
Other	1	10.0%
Support	1	10.0%

Table 24. Obstacles to Open Source Adoption

Open Source Obstacles	Count	Percent
Lack of knowledge and expertise	5	45.45%
Don't Know	5	45.45%
Employee resistance	3	27.27%
Organizational resistance or inertia	3	27.27%
Lack of financial resources	2	18.18%
Other	1	9.09%
Pressure from proprietary vendors	0	0.00%

Conclusion

A total of 65 entities responded to the survey regarding e-government capacity. The vast majority of these were small (more than half with populations of less than 5,000), employed few full-time employees (roughly 54 percent had fewer than 25 employees), and did not dedicate many of those to full-time employees managing information technology (IT). The respondents indicated interest in a wide variety of technical assistance and training opportunities, particularly information technology contract preparation and negotiation, IT management certification, technology procurement, and training in web applications. Nearly 80 percent of the respondents identified that they maintain no separate line item for information technology in their budgets and roughly 62 percent fund IT in some manner through general revenues. In fact, nearly one-quarter of the survey respondents were unclear how their IT activities were funded.

While internet access was reported to be nearly universal across the responding entity offices, only about 70 percent reported having a government website. Of those without a web presence, a perceived lack of need, resources and expertise were frequently cited as the primary reasons. Responses indicate that few if any entities have conducted any types of survey to gauge either citizen or business demand for online services.

Slightly less than one-third of respondents indicate offering online services. Of those indicating that they did not provide such services, only 15% (five respondents) indicated plans to begin doing so within the next year. Approximately half of respondents providing online services supply meeting agendas and minutes. Online job announcements, citizen newsletters, records searches and/or requests and service requests were also frequently cited website attributes. Few entities reported offering online payments, permits, registration or multimedia files.

A lack of technology, staffing and resources were reported as the largest barriers to e-government according to survey responses. The positive benefits were still unclear for many

respondents, but improvements in both communication with citizens and customer service were noted. Countering these benefits, a minority of respondents mentioned increased costs and demands upon staff time. Some respondents indicated that the high expectations created by e-government were difficult to obtain.

The vast majority of responding entities indicated that they were not using open source software products and this appears to be the result of a lack of knowledge regarding such software and a general uncertainty regarding its use.

Although a decent percentage of governmental entities are showing progress in the movement toward e-government, results from this survey indicate that there is still a large feeling of uncertainty about this mode of governing from local governments. The results also suggest that training and technical assistance for these government entities may help bridge the gap prompted by a general lack of knowledge, skills and available resources.

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