

Rural Pennsylvania

A Legislative Agency of the Pennsylvania General Assembly

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Municipal Computer Use

Overview

In the fall of 2002, the Center for Rural Pennsylvania surveyed small municipalities to determine the availability and use of computers and the Internet. Fifty-nine percent of those surveyed responded. According to the survey results, 80 percent of small municipalities had computers, and local officials are using computers for many routine municipal/office functions such as bookkeeping, correspondence, and meeting notes. The survey also found that nearly 60 percent of small municipalities had Internet access.

Methods

To determine computer availability and use in Pennsylvania's small communities, the Center for Rural Pennsylvania mailed a survey to municipal officials in boroughs and townships with less than 2,500 residents. To conduct the survey, the Center identified the sample population and size, constructed the questionnaire, conducted a significance test, and analyzed the data. Throughout this report, boroughs and townships with less than 2,500 residents are referred to as "small municipalities."

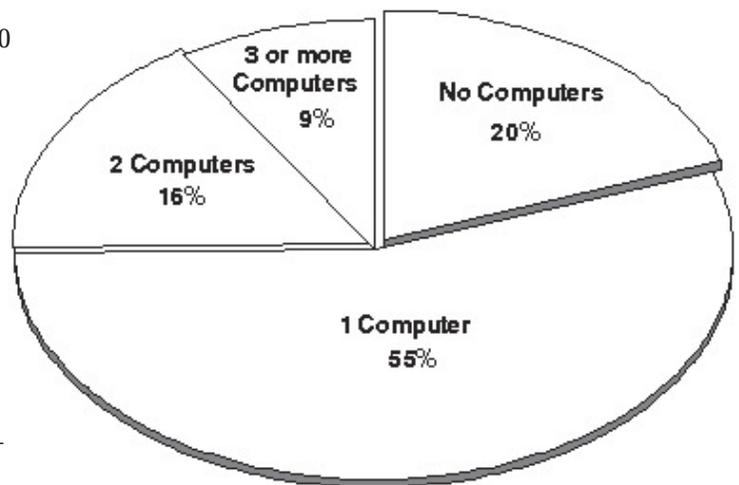
Sample Population and Size

The first step in conducting the survey was to identify the population from which to draw the survey sample. The Center for Rural Pennsylvania targeted boroughs and townships of the second class with less than 2,500 residents. Using the 2000 Census, 650 boroughs and 880 townships of the second class met this criterion. The names and mailing addresses of these municipalities were obtained from the Governor's Center for Local Government Services.

Questionnaire Construction

The three-page survey had 16 questions divided into three sections: background on the municipality and the availability of a computer; Internet access; and computer training and expenses. The questions were developed with the assistance of the Pennsylvania State Association of Boroughs and were field-tested.

Computer Availability in Small Municipalities (n=889)



Significance Testing

There were 1,530 questionnaires mailed out in early September 2002. By late October 2002, 906 usable questionnaires, or 59 percent, were returned. At the 95 percent confidence level, the confidence interval was plus or minus 2.1. This means that we are 95 percent confident that the results are within 2.1 percentage points of what all small town officials would answer. Because of the large sample size, the responses of boroughs and townships may be examined separately. The response rate for boroughs was 58 percent, which produces a confidence interval of plus or minus 3.3 percentage points. For townships, the response rate was 59 percent, for a confidence interval of 2.7 percentage points.

Data Analysis

After the survey data were recorded, they were analyzed using frequency tables and cross tabulations. The results are described in this analysis. Among the items analyzed were

computer availability, the age of the computer, tasks performed on the computer, Internet use, and computer expenditures.

Data Limitations

Although a scientific method was used to gather the data presented here, the validity of the results may have shortcomings.

- **Information Bias:** The respondent completing the survey may not be aware of all of the municipal computer issues. The survey was sent to the municipal office and not addressed to a specific person due to differences in titles and name changes. This bias is partially offset by the large response rate.

- **Use of Home Computers:** The survey did not include questions about non-municipal computer use. Approximately 4 percent of the respondents voluntarily indicated that they used their home computer or another non-

governmental computer for municipal business. Among the 20 percent of respondents who indicated that they do not have a municipal computer, it is possible that some use a computer outside the municipal building. As a result, it should not be assumed that the lack of a municipal computer means that municipal business is not done on a computer.

Survey Results

Computer Availability

- According to the survey results, 80 percent of small municipalities (82 percent of boroughs and 78 percent of townships) have at least one computer. Only 20 percent of the small municipalities reported having no computer. Approximately 25 percent of small municipalities reported having more than one computer.

- Regionally, 84 percent of eastern Pennsylvania small municipalities

reported having a computer, as did 80 percent of central Pennsylvania and 78 percent of western Pennsylvania municipalities.

- Statistically, there was a significant correlation between the number of computers a municipality has and both the municipality’s budget and number of municipal employees: the higher the municipal budget or the number of employees, the more computers are in the municipal office. Small municipalities with computers have, on average, budgets that are twice the size of non-computer municipalities.

- Small municipalities have relatively new computers. More than 71 percent were installed after 1999. There were only slight differences between small municipalities with older computers (pre-2000) and those with newer computers (2000 and after). Both groups have similar size budgets and number of employees. In addition, both groups perform similar tasks on the computer.

- Approximately 13 percent of small municipalities plan to purchase or lease a new computer within the next 12 months. Among these small municipalities, 23 percent do not currently own a computer, 33 percent own a computer that was installed before 2000, and 42 percent currently own only one computer.

Computer Use

- Eighty-five percent of small municipalities most frequently use computers for correspondence, recording meeting minutes, and bookkeeping/accounting. Municipal computers were used least for newsletters, community bulletin boards and calendars of events.

- Not surprisingly, the more staff and/or the larger the municipal budget, the more tasks employees

Characteristics of Small Municipalities with and without Computers		
	Computer(s)	No Computer
% Boroughs With	82.4%	17.6%
% Township With	78.7%	21.3%
Avg. Municipal Budget	\$370,681	\$172,289
Avg. # Full-Time Employees	3.65	2.46
Avg. # Part-Time Employees	5.41	4.46
% Planning to Purchase/Lease a News Computer Within the Next 12 Months	12.8%	15.4%

Characteristics of Small Municipalities with and without Internet Access		
	No Internet Access	Internet Access
% Boroughs With	25.2%	74.8%
% Township With	28.0%	72.0%
Avg. Municipal Budget	\$235,075	\$358,483
Avg. # Full-Time Employees	1.44	2.71
Avg. # Part-Time Employees	5.51	4.94
% With Computer Installed Before 2000	40.6%	25.3%

performed on computers. Also, the more years the person completing the survey had worked for the municipality, the fewer the tasks he or she does on the computer.

Internet Access and Use

- Among small municipalities with computers, 72 percent can access the Internet and 28 percent cannot. The most common method of accessing the Internet was a telephone (dial-up modem). Less than 10 percent of the small municipalities used such highspeed access as cable modem, T-1 line, or DSL.

- Small municipalities that access the Internet have larger budgets, more full-time employees, and relatively newer computers than those municipalities without Internet access. The top reasons why small municipalities do not access the Internet are cost and need.

- The top uses of the Internet are email and research. Less than 10 percent use the Internet to purchase goods and services.

- Less than 15 percent of small municipalities have a web site. Of those that have a site, 43 percent are maintained by municipal officials and 29 percent are maintained by a consultant or contractor. Municipal residents or volunteers maintained the remaining 28 percent of web sites.

- Approximately 20 percent of small municipalities with Internet access electronically filed reports with the state government in 2001. The most frequently filed report (12 percent) was the Pennsylvania Department of Transportation's (PennDOT) Liquid Fuels Data report. About 8 percent of the municipalities filed the Local Government Officials Report and Survey of Financial Conditions with

Cost	34.7%
Not Necessary for Municipal Work.....	33.2%
Security Concerns.....	13.1%
Computer Too Old/Slow.....	8.5%
Unsure How to Use Internet.....	8.0%
Don't Like the Technology	3.5%
Speed (Connection too Slow).....	3.0%
Lack of Internet Service Providers.....	0.5%

Email.....	82.1%
General Research.....	62.8%
File Reports With State Agencies.....	54.0%
Research Rules/Statutes	39.7%
Research Grant Information	38.2%
Identify & Contact Vendors.....	18.7%
Purchase Goods & Services.....	9.9%
Update Municipal Web Site.....	6.3%

the Center for Local Government Services.

- Less than 7 percent of municipal officials said that their municipality was involved with other government agencies, businesses, or community organizations to use telecommunications services.

- Seventy-three percent of boroughs and 72 percent of townships access the Internet.

Computer/Software Training and Costs

- Approximately 33 percent of the small municipalities with computers reported that within the last 12 months, someone on staff attended a computer training class. The classes attended included accounting/bookkeeping and spreadsheet applications (47 percent), spreadsheet software (29 percent), word processing software (23 percent),

electronic filing (9 percent), introduction to computers (9 percent) and introduction to Internet/email (6 percent).

- In 2001-2002, the average small municipality spent a total of \$1,443 on computers, software, and maintenance. There was a significant range in expenditures among municipalities. Approximately 10 percent of municipalities spent more than \$3,000, while 43 percent spent less than \$500. (The median expenditure was \$600.) Total computer expenditures accounted for about 0.3 percent of municipal budgets.

- Boroughs tended to spend more on computers and computer supplies than townships. The average total expenditure for boroughs was \$1,937; the average for townships was \$1,049. In general, total computer expenditures were positively correlated with municipal budgets; the larger the budget, the

more that was spent on computers. The same is true for the number of full-time employees and the number of municipal computers.

- Between 2001-2002, approximately 49 percent of small municipalities purchased computers or accessories like a scanner and printer. The average expenditure was \$1,372. More than 45 percent of municipalities purchased computer software with the average cost of \$719.

Conclusion

According to the survey, it appears that most small municipalities are keeping pace with technology. Eighty percent of small municipalities have computers, an improvement from 1994, when a Penn State Cooperative Extension survey found that among smaller municipalities, only 25 percent had computers. The increase in the number of computers may be attributed to lower computer costs¹ and state and local programs such as the Pennsylvania Municipal Technology Assistance Program², which provides computers at a discounted cost to local governments.

Another positive indicator is that more than 50 percent of municipal computers were less than two years old.

Internet access is still an issue. Approximately 42 percent of respondents indicated that they did not access the Internet because of costs and the perceived lack of necessity. By not accessing the Internet, municipalities may be putting themselves at a disadvantage, especially in terms of accessing information and funding resources.

¹ The cost of a new desktop computer in 1996 was about \$1,850. In 2002, the cost was about \$1,200.

² For information on the Municipal Technology Assistance Program, call the Center for Local Government Services toll-free at (888) 223-6837.

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The Center for Rural Pennsylvania is a bipartisan, bicameral legislative agency that serves as a resource for rural policy research within the Pennsylvania General Assembly. It was created in 1987 under Act 16, the Rural Revitalization Act, to promote and sustain the vitality of Pennsylvania's rural and small communities.

The Center seeks to preserve and enhance the rural environment, which makes the Commonwealth a unique place to live, work, or visit; awards grants for applied research and model projects; maintains and disseminates information on rural trends and conditions; develops publications to share research and project results; and sponsors local, state and national forums on rural issues.



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