



TRANSPORTATION & PUBLIC UTILITIES COMMITTEE

COMMITTEE MEETING

~ MINUTES ~

Wednesday, April 24, 2024

3:00 PM

Sullivan Chamber
795 Massachusetts Avenue
Cambridge, MA 02139

The Transportation and Public Utilities Committee will hold a public hearing on the Digital Navigator Pilot Program (DNP), a collaborative effort between the City of Cambridge Information Technology Department, Cambridge Public Library, Cambridge Public Schools Department, Just A Start, and Cambridge Community Television (CCTV) to discuss how this initiative is designed to support residents’ digital needs.

Attendee Name	Present	Absent	Late	Arrived
Burhan Azeem	<input type="checkbox"/> Remote	<input type="checkbox"/>	<input type="checkbox"/>	
Joan Pickett	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Jivan Sobrinho-Wheeler	<input type="checkbox"/> Remote	<input type="checkbox"/>	<input type="checkbox"/>	
Paul F. Toner	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Ayesha M. Wilson	<input type="checkbox"/> Remote	<input type="checkbox"/>	<input type="checkbox"/>	

A public meeting of the Cambridge City Council’s Transportation and Public Utilities Committee was held on Wednesday, April 24, 2024. The meeting was Called to Order at 3:00p.m. by the Chair, Councillor Pickett. Pursuant to Chapter 2 of the Acts of 2023 adopted by Massachusetts General Court and approved by the Governor, the City is authorized to use remote participation. This public meeting was hybrid, allowing participation in person, in the Sullivan Chamber, 2nd Floor, City Hall, 795 Massachusetts Avenue, Cambridge, MA and by remote participation via Zoom.

At the request of the Chair, Clerk of Committees Erwin called the roll.

- Councillor Azeem – Present/Remote
- Councillor Pickett – Present/In Sullivan Chamber
- Councillor Sobrinho-Wheeler – Present/Remote
- Councillor Toner – Absent
- Councillor Wilson – Present/Remote

Present – 4, Absent – 1. Quorum established.

The Chair, Councillor Pickett offered opening remarks (Attachment A) and noted that the Call of the meeting was to discuss the Digital Navigator Pilot Program (DNP), a collaborative effort between the City of Cambridge Information Technology Department, Cambridge Public Library, Cambridge Public Schools Department, Just A Start, and Cambridge Community Television (CCTV) to discuss how this initiative is designed to support residents’ digital needs. Present at the meeting was Maria McCauley, Director of Libraries, Sue Walsh, Assistant Director of Adult and Family Services, Patrick McCormick, CIO, and Gina Josette Rivera, Digital Equity Manager. Councillor Siddiqui was also present at the meeting.

The Chair, Councillor Pickett opened Public Comment.

Saul Tannenbaum, 385 Chestnut Hill Avenue, Cambridge, MA, urged the City to be intentional with their planning.

The Chair, Councillor Pickett recognized Maria McCauley, Sue Walsh, and Patrick McCormick who offered a detailed review of their report on the update of the Digital Equity progress including the Digital Navigator Program in Cambridge. The report was provided in advance of the meeting and included in the Agenda Packet. During the review, Committee members were recognized for comments and questions related to the report.

The Chair, Councillor Pickett recognized Councillor Sobrinho-Wheeler who offered suggestions towards outreach and partnering with groups who are already doing outreach with some members of the community. Councillor Sobrinho-Wheeler asked if the DNP works with City services, such as the Multi Service Center or Housing Liaison, to help assist those who may not be familiar with navigating online services. Sue Walsh responded and agreed with comments made by Councillor Sobrinho-Wheeler, pointing out that once more planning has taken place, using City services to help those vulnerable residents will be extremely beneficial.

The Chair, Councillor Pickett asked how the team will be measuring the success of the pilot. Pat McCormick pointed out that the measuring of success has been an important topic of discussion within the team and offered examples of different metrics used to measure success of the pilot. Sue Walsh provided additional information, noting that the more data that can be collected from the pilot, the better it will be to reach shared goals. Chair Pickett asked the team if they could provide more information on the Digital Justice Equity Diversity and Inclusion Group. Sue Walsh responded and gave an overview of the program, highlighting that their model is to bring groups together for shared learning and planning in the communities that are involved.

The Chair, Councillor Pickett recognized Councillor Wison who asked for more information relative to the funding that the pilot is receiving. Sue Walsh was able to provide a breakdown of grants and ARPA funding that help support the program and shared that there have been discussions of partnering with other agencies who are interested in deploying navigators at their properties. Councillor Wilson noted the importance of reaching out to community members and working through and supporting the challenges of language barriers, so that everyone can use the resources that are available to them. Sue Walsh agreed and shared how services will be available to families and the community. In addition, Councillor Wilson highlighted how important it is to collaborate with the nonprofit organizations to help reach members of the community and using those organizations as a resource for the program. Gina Josette Rivera shared their experience and background working in digital equity and provided comments to support the team's plan to build out their program in the community.

The Chair, Councillor Pickett recognized Councillor Siddiqui who asked what the CHA pilot project timeline looked like and MIT's involvement. Patrick McCormick noted that in many ways, the timeline is dictated by ARPA funding and gave a brief overview of the timeline, pointing out that funds need to be submitted by the end of this calendar year. Patrick McCormick

shared that MIT has been very generous with their time and resources and shared their role in terms of some of the challenges that the team is facing with getting the pilot running.

The Chair, Councillor Pickett offered closing remarks and shared how this program will be helpful for residents and shared she looks forward to future conversations on the success of the program.

The Chair, Councillor Pickett made a motion to adjourn the meeting.

Clerk of Committees Erwin called the roll.

Councillor Azeem – Absent

Councillor Pickett – Yes

Councillor Sobrinho-Wheeler – Yes

Councillor Toner – Absent

Councillor Wilson – Yes

Yes – 3, No – 0, Absent – 2. The meeting was adjourned at approximately 4:15p.m.

Attachment A – Opening remarks by Councillor Pickett.

Attachment B – One communication from the public.

Clerk’s Note: The City of Cambridge/22 City View records every City Council meeting and every City Council Committee meeting. This is a permanent record. The video for this meeting can be viewed at:

https://cambridgema.granicus.com/player/clip/735?view_id=1&redirect=true

A communication was received from Maria McCauley, Director of Libraries, Sue Walsh, Assistant Director Adult and Family Services, and Patrick McCormick, CIO, transmitting a document relative to the Digital Equity and Digital Navigators Update.

A communication was received from Councillor Pickett, transmitting information regarding Cambridge Public Internet (CPI) WiFi Access Points.

A communication was received from Councillor Pickett, transmitting information relative to the City of Cambridge Comprehensive Digital Equity Study.

ATT A

While the city will be continuing its conversation on the feasibility of municipal broadband, there is a lot of important work taking place now on how to minimize technology barriers for our vulnerable and marginalized communities. Regardless of how the service is delivered --- Fiber to the premise or wifi, it is important to know that once residents have access to internet service they have the skills and support to use it effectively

Today we're going to hear about one of those efforts ... the digital navigator program which is a pilot supported by ARPA funding. It is an effort that is supported within the city by a collaboration between multiple city and private entities.

From: [Saul Tannenbaum](#)
To: [Pickett, Joan](#); [Azeem, Burhan](#); [Sobrinho-Wheeler, Jivan](#); [Toner, Paul](#); [Wilson, Ayesha](#)
Cc: [McCormick, Patrick](#); [City Clerk](#)
Subject: Some comments regarding the Digital Navigator Pilot for the Transportation and Public Utilities Committee
Date: Tuesday, April 23, 2024 8:15:30 PM
Attachments: [BRIDGING THE DIGITAL DIVIDE AT NEWTOWNE COURT PILOT PROGRAM EVALUATION.pdf](#)

To Chair Pickett, Members of the Transportation and Public Utilities Committee:
CC: Pat McCormick, CIO. City of Cambridge, City Clerk for inclusion in the record

I write as someone who has been involved in digital equity issues in Cambridge since 2006, when then-Mayor Henrietta Davis and the City Council pledged to bridge the digital divide. Unfortunately, as evidenced by our presence here today, that effort did not succeed.

Digital inequity is part of a broader set of inequalities that Cambridge, through various efforts, has rightly chosen to combat. Providing meaningful access to broadband for all residents is as important as any of these initiatives. As one of the places where the Internet was born, Cambridge should be a place where digital inequality ends.

Beyond broader structural issues, digital inequity also arises from another cause: federal regulations from the 1990s, designed to promote competition in the broadband marketplace, backfired and created regional monopolies. Cambridge, as several reports over the years have indicated, remains a Comcast monopoly. With little competition, Comcast can direct the revenue it collects from Cambridge residents toward stock buybacks, mergers and acquisitions, and executive compensation instead of lowering prices to make broadband more affordable. The federal government has attempted to bridge this gap with the Affordable Connectivity Program (ACP), which provides subsidies to those who need them. However, this program is winding down.

The need for competition in the broadband marketplace has long been established by the [Broadband Task Force](#) (on which I served) and the [Municipal Broadband in Cambridge: Feasibility and Business Model Options](#) study. If there was any doubt about the need for government intervention, those doubts should be erased by the creation of the ACP. The remaining question is what form that intervention should take. The ACP subsidizes Comcast's predatory pricing with taxpayer dollars. Instead, Cambridge could decide that broadband, like streets, sidewalks, water, and sewer, is a necessary infrastructure that requires city investment.

Regarding the Digital Navigator Pilot, as of this writing (Monday), there is no detailed information available to the public. From what is available, it seems a strong effort building upon best practices of other digital equity efforts. Two other things can be said about it.

First, Cambridge has done this before. In 2006-2007, Cambridge launched a pilot program to provide Internet access to residents of Newtowne Court. For those unfamiliar with this program, I have attached a report, authored by the Office of Workforce Development, Department of Human Service Programs, evaluating the pilot. This pilot, which was devised before best practices were established, was successful. The real problem came later: there was no effort to make it sustainable. When complaints grew louder, the City replaced the hardware, but maintenance remained a volunteer effort, with residents lacking authorized access to Newtowne Court climbing onto roofs in the winter to replace frayed cables and

CCTV called on to technically monitor the network, something for which it was neither funded nor trained.

Second, pilot programs end, and the Newtowne Court example should serve as a cautionary tale about the dangers of not planning for what comes next. Two years—the proposed length of the Digital Navigator Pilot—is not long in Cambridge planning terms. While the pilot will provide valuable insights and will likely be successful, planning must start soon for what comes next. Otherwise, we might find ourselves here again in another decade discussing the same issues.

With the impending loss of federal subsidies, Cambridge will once again face the Internet affordability problem. Cambridge could choose to do nothing and let the vision of digital equity fade away. Alternatively, it could replace federal subsidies with city funds, but taxing residents to enrich one of the most reviled corporations in America seems politically unwise. A better option is to follow the lead of cities like [Hillsboro, Oregon](#), [Fort Collins, Colorado](#), and [Pharr, Texas](#), which have invested in municipal broadband, integrating digital equity into their city-controlled broadband systems. While municipal broadband is not a panacea, it provides the only foundation for a sustainable, successful effort to achieve digital equity.

Saul Tannenbaum
Boston, MA

PS. Pat, please feel free to forward this to City staff involved the Digital Navigator Pilot

Saul Tannenbaum saul@tannenbaum.org [@stannenb](#) Past President, Society for Industrial Archeology

28. Appendix M: Bridging the Digital Divide at Newtowne Court – Pilot Program Evaluation

The following report, while not prepared by Tilson, is appended here at the request of the City to provide additional historical context on prior City efforts to address the Digital Divide.

BRIDGING THE DIGITAL DIVIDE AT NEWTOWNE COURT PILOT PROGRAM EVALUATION

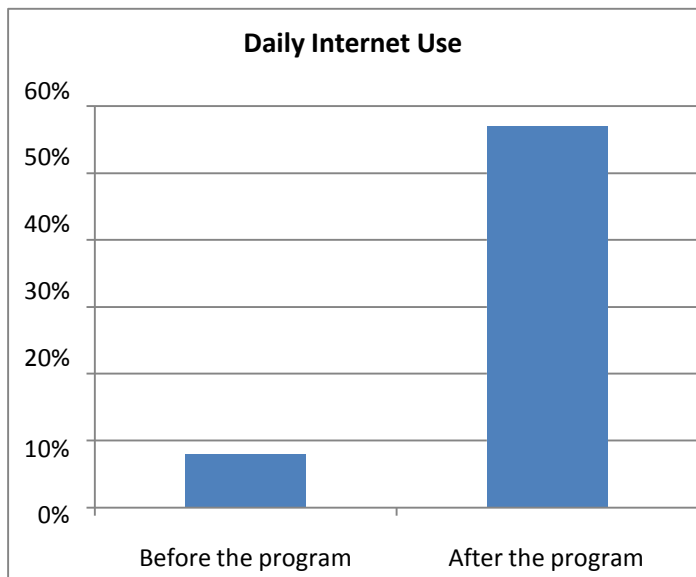
Prepared by:
Allyson J. Allen
Employment Planning & Development Director
Office of Workforce Development – Department of Human Service Programs
City of Cambridge, MA

EXECUTIVE SUMMARY

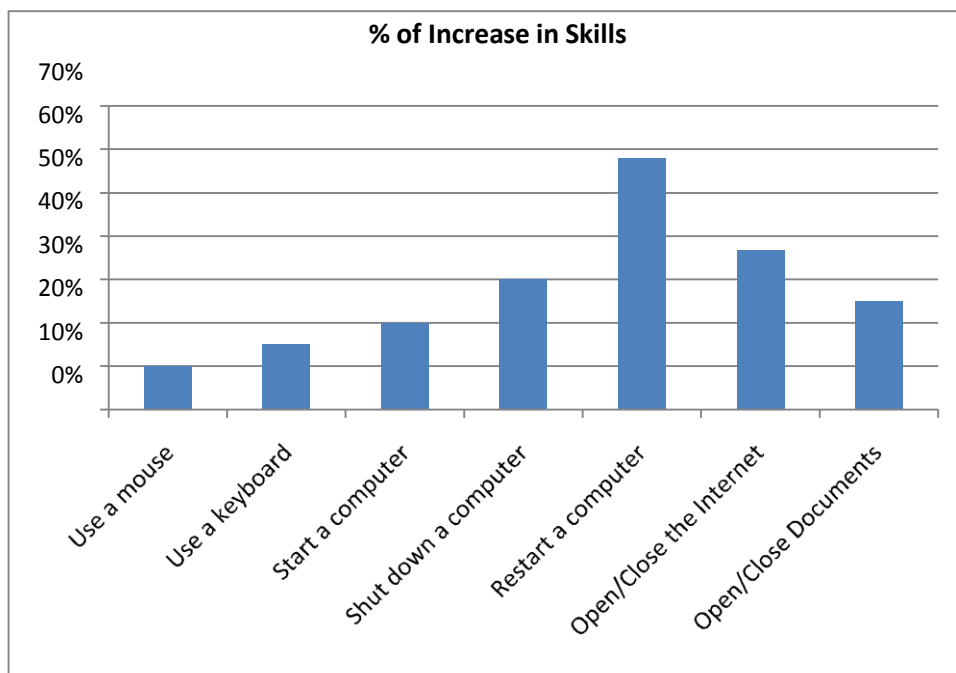
In November 2006, in response to a Council Order requesting that the City help bridge the digital divide, the City Manager appointed a committee charged with finding ways to address barriers to Internet access. This committee was to include members of the City Council, School Committee, and other agency representatives. The City Manager appointed the committee and designated Assistant City Manager Ellen Semonoff as its chair.

The pilot program developed by the committee served 35 families providing them with computers to access the free wi fi network supplied by the City of Cambridge, along with training and technical support for 6 months in hopes of increasing participants' access and use of the Internet.

Before the start of the program, approximately 8% of program participants used the Internet daily. After completing the program, 57% were using the Internet daily with an additional 10% using it at least a few times a week.



Participants were satisfied with the program; almost 90% reported they were happy they completed the program *and* that they would recommend the program to a friend.



Many participants had very basic skills, (i.e. they knew how to use a mouse or keyboard). The program was successful in developing higher level skills (although still basic) in some participants.

All respondents remarked that additional training was needed.

Many of the advisory committee members surveyed believed the highlight of the program was the amount of community-building occurring through collaborations. The process of creating the program was exciting, challenging, and progressive due to the support of strong leaders.

Issues that are likely to arise in replication include:

Connectivity – access to a reliable and consistent network is key to any program’s success.

Hardware – refurbish or partner to receive new?

Program support – strong collaboration is a must, with a leader who can hold partners accountable.

Outreach – How can program enrollment be maximized?

Training – How extensive should it be? To what extent, if any, should the program provide participants with referrals to other programs to develop further computer skills?

Technical support – how long should it be offered and how personal should it be?

Background & Introduction

In response to a Council Order requesting that the City help bridge the digital divide, the City Manager appointed a committee charged with finding ways to address barriers to Internet access. This committee was to include members of the City Council, School Committee, and other agency representatives. The City Manager appointed the committee, and designated Assistant City Manager Ellen Semonoff as its chair. The first meeting of the committee was held in March, 2007.

The Digital Divide Committee surveyed many projects that provide computers, training, technical support and Internet access to students and households. After reviewing the several different models and the pros and cons of those models, the group reached consensus on several critical issues: First, the decision was made to provide desktop computers and not laptops. Second the decision was made to use refurbished computers rather than purchase new computers. Third, the decision was made to incorporate workforce development opportunities into the program by having the computers refurbished by RSTA students who would also provide the majority of the call center tech support. Finally, the decision was made to do the pilot at Newtowne Court in conjunction with the City's existing wi fi pilot and to target residents of any age and family structure who do not currently have access to the Internet. Through smaller working groups, the pilot proposal was developed with the purpose of examining how various departments of the City of Cambridge and local non-profit organizations could work together to help bridge the digital divide in low-income households.

Pilot Program Description

Pilot program research showed that technical support and user education are the most important issues to solve in a network deployment. Since users – particularly in low-income housing developments – have a wide variety and age of equipment, it is difficult to provide a universal set of guidelines that will work for every user. Therefore, a technical support call center providing users with assistance for their specific problems is important in a full-scale deployment.

In order to get the most out of a community network, education is also a critical issue. Education can include a wide variety of topics from email usage to network management to website development and everything in between. By providing such education opportunities – both on and offline – a community can derive the greatest benefit possible from its wireless network.

The goals of the proposed pilot program were:

1. To develop a model to provide low-income residents with tools to access the Internet
2. To provide the tools, training, and technical support for 50 Newtowne Court households to successfully utilize the free wi fi Internet access that the City has made available
3. To serve as a workforce development tool for RSTA students.

The first step in the pilot program was to ensure reliable wi fi coverage. Prior to the establishment of the Digital Divide pilot, the City's **IT Department (ITD)** had been working diligently to make wireless access available to the residents of Newtowne Court. ITD upgraded the network hardware in Newtowne Court so that units throughout the development would be able to receive a consistent, strong signal. ITD established mechanisms for monitoring the network and procedures for responding to user reports of outages and connectivity issues.

Refurbished computers were available to the pilot program at no cost. These computers were decommissioned 833MhZ Pentium II computers from the City of Cambridge and were refurbished by students at the Rindge School of Technical Arts. **Cambridge Community Television (CCTV)** donated (in-kind) 9 Macintosh computers of comparable specifications in order to determine which platform was most cost effective in the short and long term. See Specifications Addendum A.

Pilot program participants were recruited through the Cambridge Housing Authority using household mailings in multiple languages.

35 pilot program participants were selected according to the following criteria:

1. Live in Newtowne Court
2. Do not currently have broadband access to the Internet either because there is no computer in the household or because the existing computer is not capable of accessing the wireless signal
3. Be willing to help the City evaluate the effectiveness of the pilot by answering questions about household use of a computer and the Internet prior to, during and at the end of the pilot
4. Be willing either to demonstrate computer proficiency or to complete training successfully
5. Have at least one adult member of the household who agrees to participate in the pilot

Selected households met with technical support staff to establish specific needs, existing level of skill and usage, and assurances that participants were willing to engage in assessment and evaluation. A clear explanation of what the pilot would and would not deliver and limitations of liability were explained. Applicants completed a pre-test to collect data on their previous experience and skill with computers and the Internet and to ascertain the level of training they would require.

Most pilot program participants attended three two-hour sessions of training offered at various times and with assistance in the language in which they are fluent. See Lesson Plans in Addendum B. The first two sessions were designed and required for those with limited computer/Internet experience, while participants with demonstrable skills were able to bypass sessions. The last session, on Internet safety and computer maintenance, was required of everyone. Participants received their computers at the end of the third session.

Tech support for the pilot program was available for 6 months after participants received their computers. Tech support included a call center, staffed by RSTA students for 2 hours each day during the school year and 2 hours a day, twice weekly during the summer. The call center included a voice mailbox and was staffed 5 days per week for 2 hours each day. Additional support in the form of an in-home specialist was also provided to program participants.

The City of Cambridge budgeted \$50,000 for this project. Please see Addendum C for the full monetary and in-kind budget breakdown.

Purpose of the Evaluation

The evaluation is designed to examine *the process* of creating this pilot in an attempt to lay the groundwork for future replication by community organizations seeking to “Bridge the Digital Divide”. It also seeks to answer the following questions:

1. Costs of implementation for a larger population, including equipment, tech support and training
2. Changes in participants’ access to and use of Internet
3. Participant satisfaction
4. Process issues: what would we do differently next time?
5. What are the tech support needs at the end of the project?
6. In households with school-aged children, has there been increased interaction by parents with the school department? Have students shown increased involvement with or success in their school work?

Methodology

This evaluation utilizes both qualitative and quantitative tools. These methods were intended to provide participants with an environment in which their ideas, suggestions, and criticisms could be clearly conveyed. Program staff and advisory board members were surveyed via email and, in some cases, phone interviews. Program participant feedback was collected during focus groups and pre-program interviews. Each qualitative tool consisted of less than ten open-ended questions asking about the process and experience of creating the pilot program. The only quantitative tool used was Pre/Post test issued to program participants to measure growth in both computer skills and Internet use.

In order to ensure quality, scripts were developed for all interviews and are attached in Addendum D.

The sample size and population for each tool is listed below:

<u>Population</u>	<u>Tool</u>	<u>Number of Respondents</u>
Participant	Pre Test	35
Participant	Post Test	23
Participant	Intake assessment	35
Participant	Focus Group	7
Staff	Phone Survey/Email	7
Advisory Committee	Email Survey/Phone	6

Focus Groups

Two focus groups took place over two consecutive Saturday afternoons. Late Saturday afternoons worked well for the group of participants. Each focus group was scheduled for one hour and took place at CCTV less than half a mile from where participants reside. A short telephone script was created and used to recruit participants. Telephone calls were made by program staff who offered participants the choice of two dates, both at the same time of day over the span of two Saturdays. As each focus group drew closer, follow-up calls were made to program participants in an effort to ensure adequate attendance.

Each focus group was recorded by an assistant with a laptop; participants signed a consent form at the start. At the end of each session the focus group minutes were reviewed for accuracy. After completion of the editing process, the transcripts were then analyzed for common themes.

Program Staff Phone Interviews

Program staff phone interviews consisted of seven open-ended questions designed to assess how the program progressed. A phone script was developed and used to introduce the survey. There were approximately thirteen program staff and they were initially contacted by phone.

Phone interviews were easier for some respondents. In most cases, the survey administrator left messages asking program staff to call back with their availabilities. The survey administrator recorded as the respondent spoke. This method provided rich data; some respondents were very talkative and had many ideas that they wanted to share. Other respondents preferred to respond to the survey in email, as they were not available to talk during the day. This additional contact (via email) produced a slight increase in the response rate. Two additional program staff surveys were submitted as a result.

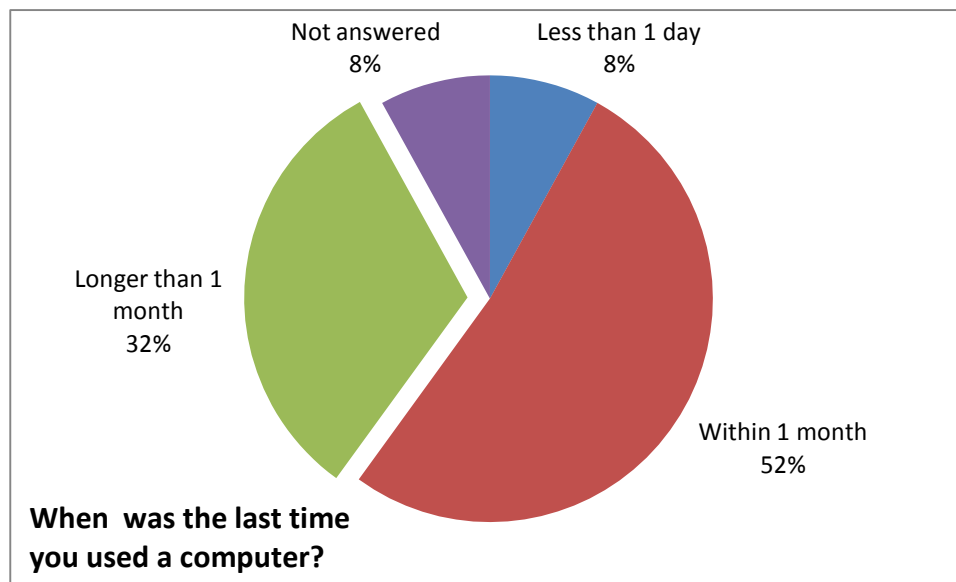
Advisory Committee Email Survey

An email survey was administered to the Advisory Committee. As with the program staff survey, there was a brief script prepared to introduce the survey followed by seven open-ended questions. The questions were very similar to those used in the program staff survey.

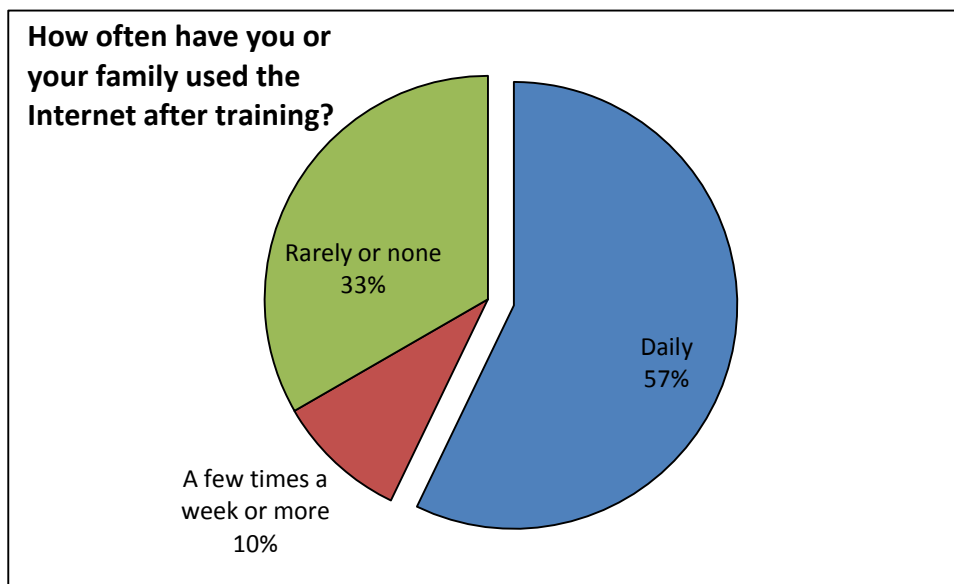
In an effort to make completing the survey as convenient as possible, the email survey was sent in the body of the email, along with an attached Word document of the survey. This provided the advisory committee with the option of replying using the text in the email, or by using the attached Word document. The use of email to distribute our surveys proved to be a much more effective way to disseminate materials to a large population in a shorter period of time. On average, it took 7 fewer days to receive the email survey than to complete them by phone.

Analysis

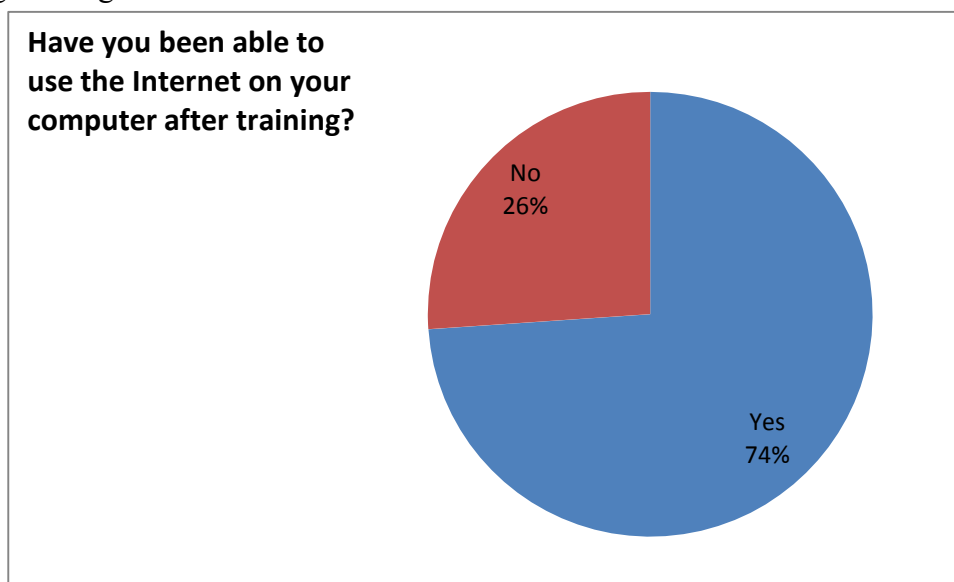
The chart below shows the last time the program participants used a computer *before* participating in the program:



This chart shows that the amount of daily users greatly increased *after* participating in the program.



Despite reporting a large increase in daily Internet usage by participants, the following chart reflects that more than a quarter of program participants did not have Internet access after completing training.



Connectivity was a chronic issue for some program participants. Others received a consistent signal when they logged onto the Internet, but they report the Internet “bounced on and off” and was “unpredictable” and “random”. Participants remarked that it was “impossible” to access the Internet on the weekends. One factor was the location of a resident’s unit in relation to the city’s fiber optic network and the wireless mesh network.

This program provided the first opportunity to deeply monitor the network at Newtowne Court, and the program uncovered dead spots where no signal could be received. There two aspects to the network inconsistency: 1) hardware failure and 2) human error. Hardware failure relates to the discovery that the equipment was not placed appropriately to optimize Internet connectivity. Human error explains that the network fails when a user unplugs, moves, or removes a networking unit.

Because of the challenges of the network, the City's ITD agreed to provide additional funding to upgrade the network. January 2009, the pilot program contracted with Anaptyx (<http://www.anaptyx.com/>) to install an upgrade to the network at Newtowne Court. Anaptyx installed additional units to draw the signal into the building to improve the network's overall stability and performance.

After the completion of the upgrade, 13 of the 35 pilot program families were surveyed; 10 confirmed with CCTV that the network is better than before the upgrade. Respondents told CCTV that they've noticed that the network is faster, more reliable and they are not getting "bumped off" the network as they were before. In addition, CCTV is collecting information from residents and program participants to collect unused mesh units to redistribute them in areas where residents are still having difficulty connecting.

Participant Satisfaction

What worked well?

Overall, satisfaction was high. Many of the program participants were very pleased to have received computers at no cost. In addition, the technical training and support they received enhanced their experience in a positive way. Despite the difficulties of obtaining consistent Internet connectivity, participants felt they were able to better their personal circumstances by being able to prepare a resume, or seek employment online. Participants also reported using the Internet to look up city-wide events, communicate with family overseas, build business and for mental health support.

Approximately **87%** of program participants reported they are *happy they completed the program* and that they *would recommend the program to a friend*.

*the other 13% did not respond to that question.

A question was posed during the creation of the program: "Would families be able to connect to their child's school online after training?" There were 2 program participants who didn't anticipate using the Internet to connect to their child's school, *but in fact did so*. However, quite a few participants who had hoped to use the Internet for that purpose did not. This finding could mean that additional support is needed in order to help families connect better with the schools online. Simply providing the Internet access is not enough to help these families engage online with the school system. It is not known if the *students* in the programs' families were able to use the Internet and other computer programs to complete schoolwork. Some of the families who had hoped to use the Internet to help with their child's schoolwork reported using the Internet for that purpose after training.

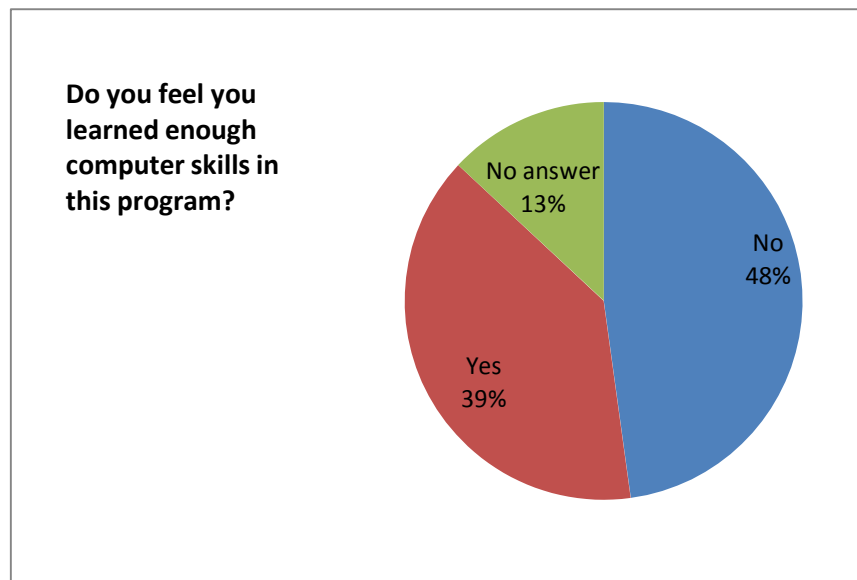
What skills did participants gain?

Almost 2/3 of the participants who said they would use the Internet for email in fact used the Internet for that purpose. Approximately 75% of the participants *who had not expected* to use the Internet for email, *did in fact use it for email after completing training*.

The list below shows how many of the 20 respondents obtained the skills described *before* and *after* completing training.

<u># Before</u>	<u>Skill</u>	<u># After</u>
18	Use a mouse	20
17	Use a Keyboard	20
16	Start a Computer	20
14	Shutdown a Computer	20
8	<i>Restart a computer</i>	19
12	<i>Open & Close the Internet</i>	19
9	Open & Close Documents	12
9	Create & Save Documents	11
7	Copy & Paste	9
5	Use Folder to Organize	8

The program was designed to give its participants basic skills necessary to conduct Internet searches and to use Open Office and other open source software. This level of training proved to be adequate as evidenced in the chart above that shows growth in daily Internet use, however, many program participants indicated that they need additional training. A major theme was that the training was not long enough.



Upon completion of the program, program staff at CCTV contacted program participants to gauge computer interests and offer additional classes.

Program participants' interests included: learning to type, utilizing the graphic capabilities available on their computers, conducting comprehensive Internet searches, burning CD's, downloading from the Internet, writing and formatting documents, emailing, and creating web pages. Other participants believe training should have spent more time explaining how to compute safely by providing more information on computer maintenance and Internet safety. There was a consensus among program participants that the training provided a rudimentary understanding of how to navigate the Internet and Open Office and other open source software, but that more training is required in order for them to maximize their computer and online experience.

Process

In response to a Council Order requesting that the City help bridge the digital divide, the City Manager appointed a committee charged with finding ways to address barriers to Internet access and designated Assistant City manager Ellen Semonoff as its chair. This group was comprised of City & Cambridge Public Schools staff, City Councilor - Henrietta Davis, local nonprofits and other community organizations, as well as interested residents. Overall, the advisory committee members felt their experience creating this pilot program was positive. Some committee members believed the group moved forward with the help of key leaders. Others felt the group contained the right mix of interested parties and believed the group was most productive when broken into small work groups. It was important however, to have a point person be the „thread“ throughout all the work groups. A person in this role keeps the communication open and flowing to promote sharing in a project with as many moving parts as this pilot. In this pilot, a City staff member was appointed to carry the thread of communication because the Project Manager was brought on late (in the opinion of some respondents) into the process. In replication, ideally the Project Manager would play this role.

This project proceeded with the support and resources of the City of Cambridge. It is unlikely that the City has the infrastructure to continue to do this work. Therefore, any community groups hoping to replicate the program should find equally strong partners and community leaders in local agencies, universities, and businesses to support this work. All committee members surveyed spoke of the importance of community-building and appreciating all the committee members that took on responsibility and were active participants. Suggestions for improvement and replication are continued below.

Youth Refurbishing & Technical Support

Almost every staff and advisory committee respondent highlighted the partnership with RSTA as an integral part of the program, since the project received recently decommissioned computers from the City's IT Department. RSTA students rebuilt each computer to uniform specifications (See Addendum C) including parts installation and troubleshooting. The committee's Cambridge Public School representative reports that the refurbishing project provided a live work experience for the students while also providing the opportunity to participate in community development. Student engagement was high and the students were eager to learn and happy to help others obtain their goal of computer proficiency.

Led by committee member Ellen McLaughlin at Tutoring Plus, RSTA high school students were able to create a help desk to track calls for service and monitor the network. The pilot program was designed with 6 months of technical support and supervised RSTA students filled this role through the school year and summer, responding to emails and phone calls in addition to voicemail messages.

Having RSTA students refurbish the computers fulfilled the committee's goal to use this project to foster civic engagement; however, some committee members questioned the ease of replicating such a program. The question is: Under what circumstances is it cheaper to secure new computers rather than refurbish decommissioned computers? Two of the 35 computers had to be replaced due to hardware complications. As evidenced in other programs researched before creating this pilot, using new computers means fewer technical support calls. A community group seeking to create a program to Bridge the Digital Divide will have to weigh the bounty of collaborating with RSTA students or another technology vocational program against the capacity for managing technical support calls. Committee members suggested that organizations looking to create a similar program investigate a corporate sponsorship program, where a company would use their bulk rate to buy extra computers to donate to the project.

Lastly, some committee members feel laptops should replace the desktops provided in this program.

In-Home Technical Support

In addition to live technical support, the pilot program also offered in-home technical support provided by a community member residing in Newtowne Court, hired as contract staff for the pilot. Program participants indicated that the level of in-home support they received was necessary and very accommodating. They noted that the technical team was responsive and thorough. When problems occurred that could not be readily reconciled, technical support personnel followed up with participants regarding possible solutions and other trouble-shooting techniques. The program initially decided to offer both in-home technical support and a Saturday drop-in clinic. Since the in-home support was preferred by participants who needed help beyond what the help desk could provide, Saturday drop-in hours were never utilized.

Accessibility – Outreach & Training

Communications to solicit program participants were written in English, Spanish and French. This project was created to support 50 families, yet only enrolled 35. It is unclear why the program was unable to recruit more participants. Participants were shocked to find out that the program was unable to serve as many families as planned, and in fact, 5 participants at the focus group enrolled in the program as a result of personal referrals from other program participants and partner programs. It is possible that the advertised refurbished computer dissuaded potential participants; it certainly caused 1 potential candidate to withdraw from the application process. It also possible that times and/or commitment were prohibitive to potential participants, although the program designed a very short curriculum consisting of 2 three-hour classes for some participants. A major theme among the suggestions for improvement was a more direct form of communication, i.e. door-to-door, partner with local churches, civic organizations.

Bilingual trainers were available at each training session for participants needing translation, however very few participants utilized the translator services. Trainers came from both CCTV and the Community Learning Center (CLC). Those agencies are only two of many possible partners with bilingual trainers.

Training occurred at CCTV, CLC and the CHA computer lab directly across the street from Newtowne Court. All locations were chosen with regard to their proximity to Newtowne Court.

According to most staff reports, participants were engaged and asked numerous questions. One trainer remarked that teaching these participants was more rewarding than teaching other computer classes, due to their eagerness to learn and motivation. Staff reported little attrition of participants, mostly among those frustrated with the lack of connectivity to the Internet.

Additionally, because the knowledge base of the participants varied, different levels of training were suggested. For example, some suggested that novice students would be placed in the same training class while, all intermediate students could be placed in a different class. In the model for this program, proficient participants would „test out“ of the required classes. This would allow everyone to get the desired level of training, and provide space for those who already possess some skills to enhance their proficiency. Due to the inclusive nature of training, families were able to bring other family members including small children, since child care was provided. Some participants remarked that training was loud and too crowded to focus on the lesson. Suggestions for replication include scheduling one-on-one training appointments or limiting training sessions to smaller groups of families and offering more training times.

Information & Referrals

Program participants, program staff, and members of the advisory committee agreed that participants could have benefitted from a more systematic method of providing referrals to other computer training programs. Program staff called participants to identify further training needs. In a testament to the community-building aspect of the program, some program participants reported running into program trainers in the community and making connections to other programs in that way.

Conclusion

Almost everyone surveyed stated that this pilot program was “a steppingstone” or just the beginning of necessary efforts to truly bridge the digital divide. There is consensus that more works needs to be done. Many felt that this program helped generate a lot of learning about what it takes to run and support a program designed to get low-income residents connected to the Internet. Initially, spotty Internet access hindered the program’s efforts to get participants online. Consistent, reliable, and *monitored* Internet access is the basis for a successful program. Now that the network has been upgraded, it was suggested that the program look into expanding, with the help of new partners, to reach more residents at Newtowne Court. One response wished for the whole City to be “hooked up”.

Most respondents agreed that the goal of serving as a workforce development tool for RSTA students was a shining achievement of the program. Also highlighted by respondents was the promotion of civic engagement and community-building by the many community agencies and individuals (including residents) working toward the goal of making this program successful. At least 3 residents of Newtowne Court participated in the program *and* were hired as program staff to do either training or technical support. These community leaders remain even though the program has concluded.

Generally, responses reflected participants’ high satisfaction and engagement with the program. Participants felt rewarded and staff felt enriched by their work in the program. Students were motivated and excited to learn more and therefore remain engaged with CCTV for further learning and support.

ADDENDUM A Computer Specifications

Windows

Mac

Processor	1GHz Pentium 3/4	933 MHz G4
Monitor	15" flat screen	15" flat screen
Memory	256 MB	512 MB
Hard drive	40 GB	40 GB
Optical drive	CD-RW/DVD	CD-RW/DVD
Networking	Wireless Network Card, IEEE 802.11g capable	Wireless Network Card, IEEE 802.11g capable
Video Ram	64 MB	128 MB
Operating System	Windows XP	Mac OSX
Software	<p><u>Productivity:</u> Open Office Acrobat Reader 7-Zip</p> <p><u>Browser – E-Mail:</u> Firefox Gmail</p> <p><u>Security:</u> Spybot Ad-Aware Avast Anti-Virus</p> <p><u>Graphics:</u> The Gimp Picasa Tux Paint</p> <p><u>Multimedia:</u> iTunes WinAmp VLC Flash Player</p> <p><u>Entertainment:</u> Google Earth Jardinains</p>	<p><u>Productivity:</u> Open Office Acrobat Reader 7-Zip</p> <p><u>Browser – E-Mail:</u> Firefox Gmail</p> <p><u>Security:</u> Spybot Ad-Aware Avast Anti-Virus</p> <p><u>Graphics:</u> The Gimp Picasa Tux Paint</p> <p><u>Multimedia:</u> iTunes WinAmp VLC Flash Player</p> <p><u>Entertainment:</u> Google Earth Jardinains</p>

ADDENDUM B

Lesson Plans

Lesson Plans

*adapted from GCLearnFree.org

Customized with screen prints for both Apple computers and PCs

Lesson 1

Part I – 30 min – What is a computer?

Part II – 30 min – Input Devices & Output Devices

Part III – 30 min – Types of Software

Part IV – 30 min – File Maintenance

Lesson 2

Part I – 30 min – The Internet and the Web

Part II – 30 min – Connecting to and Using the Web

Part III – 30 min – All about email

Part IV – 30 min – Making the most of your experience

Lesson 3

Part I – 45 min – Setting up your Computer and Keeping it Clean

Part II – 45 min – Connecting and Staying Safe on the Internet

Part III - 30 min – Backing up, Troubleshooting and Diagnostics

Part IV – 30 min – Support

Digital Divide Pilot Project Budget		
	Actual	Proposed
Income		
City of Cambridge	\$57,194	\$47,550
CCTV	\$ 6,764	\$ 2,000
Cambridge Housing Authority	\$ 5,000	\$ 3,000
Total Cash Income	\$68,958	\$52,550
Expenses		
Project Manager	\$18,000	\$18,000
Computer Refurbishing	\$ 8,308	\$ 7,900
Mac Computers	\$ 2,000	\$ 2,000
Windsor Lab Computer Upgrade	\$ 9,500	\$ 9,500
Intake Workers	\$ 624	\$ 1,300
Call Center Staffing/Tech Support	\$ 3,133	\$ 7,850
Training	\$ 2,084	\$ 4,000
Network Upgrades	\$25,309	\$ 2,000
Total Expense	\$68,958	\$50,550

ADDENDUM D -1
Consent Form

Oral Consent Script for the Newtowne Court Housing Development Digital Divide Project

Hello, I'm calling from UMass Boston. My name is _____. We are conducting a evaluation

of The Newtowne Court Housing Development Digital Divide Project to lay the groundwork for the program's replication in the event that any other organization in the City wish to create a similar program. The formative evaluation includes researching the effectiveness of the program's delivery via secondary data from surveys with participants and focus groups and interviews with program staff and members of the advisory committee. Your participation is voluntary.

May we proceed?

What We Should Learn from Pilot:

1. Costs of implementation for a larger population, including equipment, tech support and training
2. Changes in participants' access to and use of Internet
3. Participant satisfaction
4. Process issues: what would we do differently next time?
5. What are the tech support needs at the end of the project?
6. In households with school-aged children, has there been increased interaction by parents with the school department? Have students shown increased involvement with or success in their school work?

If you would like a copy of our final report you may request one by emailing Allyson Allen (aallen@cambridgema.gov) at the City of Cambridge.

ADDENDUM D - 2
Advisory Committee Email
Survey

"Good day,

My name is Carlotta Hampton and I am writing to you on behalf of Allyson Allen and the University of Massachusetts. We are sending you this email in an attempt to assess the Digital Divide project at Newtowne Court administered this year by Cambridge Community Television.

The goal of this survey is to capture your thoughts regarding the project in effort to determine what was most successful in implementing this project and what the areas for improvement in replication are. The email survey is voluntary and will take about 25 minutes.

Please take a moment to answer this short survey, as it will help lay the groundwork for other community groups to create similar programs. Upon completion, please forward your comments to Carlotta.hampton001@umb.edu on or before October 27, 2008.

Thank you for taking the time to participate in this important survey."

1. Do you think the project achieved its intended goal of bridging the digital divide at Newtowne Court? Was the vision to foster civic engagement and encourage community-building upheld?
2. The target population for this project was anyone without Wi-Fi Internet access. In replication, should the scope of the target population be narrowed or expanded? If so, why?
3. What type funding is feasible for future replication of the program? What suggestions do you have to secure computers? Is using refurbished computers an option in replicating the program. Why or why not?
4. Describe your experience as an advisory board member. What suggestions would you offer regarding the structure of future advisory committees or community organizations?
5. What suggestions would you offer for future program design?
6. Additional comments:

UMB does not share this information or keep it permanently, as it is for the sole purpose of sending this one time e-mail.

ADDENDUM D - 3
Program Staff Phone/ Email
Survey

Oral Consent Script for Telephone Interviews with Staff: Newtowne Court Digital Divide Project

Hello, my name is Carlotta Hampton and I am calling on behalf of the City of Cambridge and the University of Massachusetts Boston. I am conducting a phone survey to gather feedback regarding the Digital Divide project at Newtowne Court.

I am calling program staff that participated in the facilitating this project. This survey is voluntary and will take about 20 minutes. Your opinions are very important to us and all responses are confidential. May I proceed?

Program Staff questions:

1. Do you think the project achieved its intended goal of bridging the digital divide at Newtowne Court? Was the vision to foster civic engagement and encourage community-building upheld?
2. Describe your experience as a staff member on this project. What suggestions would you offer to future advisory committees or community organizations wishing to replicate this project?
3. What changes would you suggest to further engage project participants from recruitment through project participation and post project?
4. What obstacles did you encounter in administering the project?
5. What suggestions would you offer for future program design?
6. Additional Comments:

We have completed the interview. I would like to thank you for participating in this important survey. Your feedback has been invaluable.

If you would like a copy of our final report you may request one by emailing Allyson Allen (aallen@cambridgema.gov) at the City of Cambridge.

ADDENDUM D - 4 Program Participant Focus Group Survey

Welcome – how's everyone doing today.

My name is Allyson Allen and I am Director of Planning & Development in the Office of Workforce Development with the City of Cambridge. Alongside me is Carlotta Hampton, a graduate student from the University of Massachusetts. She will be assisting me with today's focus group. We'd like to thank you all for coming in today.

We are here today to discuss the Digital Divide Project at Newtowne Court that you participated in earlier this year. Basically, we are looking for your feedback on the program. We'd like to talk a bit about your experiences so that we can work to improve future programs of this kind.

I would ask that you all take a moment to introduce yourselves – starting on this side, please tell us your name and how you heard about the program.

Okay, let's begin. I will be asking you some questions about the Digital Divide program and would like you to respond freely and honestly. If you feel uncomfortable about any of the questions you can decline to answer.

The first thing we'd like to know is:

1. Why did you choose to get involved in the program?
2. What was your experience in the program?
3. Did the program meet your needs?
4. Has your internet use changed since participating in this program? If so, how?
5. In households with school-aged children, have you been able to interact with the school department by using the internet? Have your children shown any increase in using the computer to do schoolwork?
6. What are your thoughts on the training you received in the program? Have you learned any more about computers and the internet since the project has ended? If so, how did you learn these new skills?
7. Do you have any thoughts on how we can improve this program in the future?
8. What suggestions would you offer to other community groups looking to create this project?

Well, that just about wraps it up. But before we finish, do you have anything you'd like to say that we haven't already covered?

Okay. To thank you for coming in today, we have some gift cards for you – they are from Target and are worth \$10. We are so pleased that you took the time to help us out, and we hope you enjoy spending your money. Christmas is right around the corner, so we hope this will help.

Take care everyone and thanks again.