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For over a year, OATS has been collaborating with Per Scholas and more than a dozen community technology partners to provide training and free computers to older adults around New York City. To date, we have trained over 700 individuals and delivered computers to their homes. The seniors agree to try to maintain Internet access at home, but many struggle with the cost of high-speed ISP service and end up using dial-up service or no service at all. We strongly support efforts by the Broadband Advisory Committee to find ways to connect more low-income New Yorkers to the Internet.

We have compiled several hundred surveys from seniors who attended this program. Here is what we have learned so far.

- 46% live alone
- 50% of participants have annual incomes below \$13,200
- 44% report some significant physical disability (hearing, vision, mobility, other)
- 20% specify mobility impairment (in a lab-based class)
- 29% are white, 48% are black, 20% are "other" (likely Hispanic)
- 92% rated their instructors "very highly"
- 51% rated the quality of the classroom "very high"
- The most popular application for which they plan to use computers is "Internet Research (46%)
- The second most popular application is "email" (28%)
- 75% feel "much more connected to friends and family" as a result of the program
- 69% say they feel "much more confident in their ability to live independently."
- 92% were "very satisfied with the course"

## **What's at Stake**

December 9, 2007

"On the whole it has really been great due to the fact I live alone, which can some-times be lonely , but not with a computer it doesn't matter what time day or night there is always something to do or someone to talk to. I play all kinds of games from the game show network to online card games.

I have two email addresses the one you provided and the one I obtained on my own. i have a myspace page which my children keep me updated with pictures of my grand children who are five month today and three years old.

Any information I want or need is right at my finger tips through search or dictionaries such as the origin of the word poetry which I recently needed for a group I am involved with.

I could go on and on but last but not least I've learned so much more since finishing the class due to the fact I was provided with my own computer."

*Graduate of OATS/Per Scholas course at Jewish Home and Hospital Location, 2007*



**The NonProfit HelpDesk**  
*helping you do good, better.*

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*A division of the  
Jewish Community Council of  
Greater Coney Island, Inc.*

Good afternoon.

My name is Kayza Kleinman, and I am the director of the Nonprofit Helpdesk, which has worked with over 700 small to medium sized nonprofit organizations throughout the city.

Much has been said about all the different aspects of New York City's broadband needs (including by me). I would like to touch on just a few points today.

To get a sense of the scope of the nonprofit sector in New York City, and how dependent the City is on the continued health and functioning of these organizations, it's worth looking at the activities of at least one city agency. New York City's Department of Youth and Community Development spent just over \$308m to fund a variety of programs that touch on some of the most basic issues residents face. A visit to the DYCD website ([www.nyc.gov/dycd](http://www.nyc.gov/dycd)) makes it clear just how broad the scope of services is. What the site does not capture is how well DYCD is leveraging resources by contracting with many agencies that are extending their services by combining different public and private sector sources of funds. In other words, when looking at the hundreds of agencies providing dozens of different services under contract to DYCD, it's important to realize that the DYCD funding represents only a portion of the services these organizations provide.

DYCD is not the only city agency to work with nonprofit organizations to provide critical services to residents of the city. They are just the one with arguably the broadest scope. This means that the City's nonprofit, community based organizations are a critical part of the infrastructure that the City uses to maintain services.

These programs are as diverse as the communities they serve. It would be extremely difficult, and maybe even impossible, for the city to replace what these organizations do to make the city the wonderful, dynamic place it is, and to serve the most basic needs of its residents.

As diverse as these organizations are, they do share some characteristics. One is the increasing reliance on computers to store and manage increasing amounts of data and information. An organization that loses it's data would suffer severe repercussions, and could be destroyed by a loss of its data, or even loss of access.

Such things can happen more easily than people realize. It doesn't need a terrorist attack, just some rather more mundane occurrences. Computers and servers crash, break-ins, vandalism and damage to buildings happen. And, sometimes people can't get into work, whether it's because of a strike, the subways in a particular area are shut down due to flooding or fire, the building is inaccessible, or some other cause.

Organizations *can* protect themselves. But an affordable, reliable and effective plan absolutely requires access to stable, affordable and reasonably high speed broadband access.

Every organization should have backups of all important data, and some of those backups should be stored off site. The most effective way to do this is through the use of backups on external servers of backups done using high speed internet connections. We're looking at *a lot* of data that needs to be moved, though. That means we need to have a connection that can move large amounts of data quickly and reliably, on a regular basis. As I said, a fast, stable and affordable internet line.

The second line of defense is the ability to have key staff reach your systems even when they can't get into the building. Again, it needs a fast, affordable and rock solid internet access line. But, if you can do that, you can generally insure that some level of operations continues, which means that the people you serve are not going to be left stranded without services they desperately need.

Which leads to another area where broadband matters. The city has put in enormous efforts to deal with the issue of possible flooding, and evacuations. One thing that has repeatedly come up is the need for community based organizations to reach out to their constituencies and their families when evacuations need to happen, and work with the community. But, realistically speaking, how is this supposed to happen when staff of the organizations are supposed to be heading *out* of the community, rather than in? One effective way is remote access to data, either in the office, or at the remote backup site. Of course, that takes the same fast, reliable and affordable broadband connection I've been going on about.

I don't pretend to have the answers. But, New Yorkers are smart and innovative people, so I know that answers - probably lots of answers - will be suggested. I'm confident that some of them will work, and work well. But, we need to make sure that we think through all of the ramifications of any scheme we adopt. Not to shoot it down, but to make sure that any issues are dealt with, and dealt with properly.

For example, there is the idea of organizations with high speed internet setting up wireless hotspots that neighbors can access. The Public Libraries would do it because their internet access is publicly funded, and the mission of the library is to further access to information anyway. Small businesses might do this in exchange for free help in setting their systems up, as is being done by one group in Manhattan. It's a great idea for many uses. But, hot spots present serious security issues for both the organizations providing them, and for the people using them. They *can* be dealt with. But, it will only happen if we think about the issue. Som let's think.

Thank you very much.

# **Testimony to the New York City Broadband Advisory Committee**

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Ladies and Gentlemen of the Broadband Advisory Committee and Members and Staff of the New York City Council, I would like to thank you for inviting me here today to provide my testimony and provide what I hope is useful guidance on the issue of broadband availability and uptake in New York City. I hope to speak to you today about two things: one, about NYCwireless as an organization and the work that we do, and two, about the vision that we share for building a ubiquitous, affordable high-speed internet access infrastructure that will become a shining example of a truly 21<sup>st</sup> century city.

As an organization, we were founded in early 2001 by some enterprising technology enthusiasts who, in their spare time, wondered about how they could use this new technology called 802.11 and share it with their neighbors. They took an access point and hung it out their window, to see if they could receive a signal on their laptop from next door. Upon successfully connecting to their home internet connection from their neighbor's place, they began to think big, about what would happen if more people on their block had Wi-Fi access points, and everyone that had a laptop could connect with each other via wireless signals and communicate in ways that were previously unimaginable.

Since those early days, we've grown as an organization. We were one of the inventors of the phenomena of Community Wireless. We were the first group to light up a public space at Tompkins Square park. We assisted struggling software companies regain access to the internet in downtown Manhattan after 9/11. We were the first to bring public Wi-Fi to the forefront when we lit up Bryant Park in 2002, and we continue to this day to build free Wi-Fi in city parks and public spaces.

We are responsible for bringing free Wi-Fi to about 2 dozen city parks, including Madison Square Park, Union Square Park, Brooklyn Bridge Park, an early version of Washington Square Park, Stuyvesant Cove Park (one of the first solar powered hotspots on the East Coast), and our newest park: Wagner Park in Battery Park City.

We also pioneered the use of free Wi-Fi internet in affordable housing residences with Dunn Development Corporation and Community Access. In fact, this past Friday, we, along with almost 20 volunteer employees from Cisco, installed a free Wi-Fi network in a new residence on Davidson Avenue in the Bronx.

We educate the public about all things wireless, and we field questions and phone calls from any number of different people on a daily basis asking about getting access to wireless internet in their homes, or getting access to free internet because they cannot afford to purchase it from Time Warner Cable or Verizon. We teach at local universities, including Columbia, NYU, The New School, Parsons, and Monroe College, helping college students to understand the issues surrounding Wi-Fi networks as well as bringing internet to local communities. In fact, you heard at the Bronx hearing from Professor John

MacMullen, who's students work with NYCwireless to bring free internet hotspots to local businesses throughout Manhattan and the Bronx.

Why do we do it?

All of the volunteers that work with NYCwireless believe that the internet is something that has the power to change people's lives. By helping to bring the internet out of the office and home, and into the public spaces within a community, we believe that we are performing a public service and giving something back to our neighbors. We see the results of this work each and every day. More people are outside and in New York City parks because they can actually get their work done there (at least when its not raining!). And while they are outside, they can enjoy the great spaces and amenities that make New York City and its parks famous.

We've held art shows outdoors so that people can experience their environment through the eyes of artists. We see school teachers and college professors bring their classes outside to learn within a shared and public environment instead of within the locked-in, gray walls of an institution. And we've seen people who live next door to each other meet for the first time in a shared chat room, and then later form a block party and socialize with all of their neighbors.

We also believe in the unifying and transformative power of bringing the internet to those who would not otherwise have access. We hear, time and time again, from the folks that live in Community Access buildings, about how the NYCwireless free Wi-Fi network has enabled them to connect with family and friends, reach out to other people like them, and educate themselves in order to better their lives.

Lastly, we believe that ubiquitous internet access will cause more people to be engaged more often, leading to a more active and more informed citizenry.

Based on our experiences with NYCwireless, including discussions we've had with countless community leaders and local residents, there are a few things that seem clear.

**First, there is no such thing as a single solution that will meet all of the needs and provide high-speed internet affordably to all New Yorkers.** In fact, one of the biggest issues we've seen is that there's not enough competition for broadband in New York City. I'm sure others have told you that there are places in the City where you cannot get DSL or Cable. Still more can only get one or the other. With DSL, there are a few companies to choose from, but with new fiber deployments, which can remove the ability to get DSL at all, there's only a single vendor providing ISP service. So when residents do have a choice, its really just between Time Warner Cable and Verizon, or Cablevision and Verizon.

Competition in high-speed broadband does more than reduce prices, though that would be enough. It creates incentive for ISPs to aggressively market their services to **all** New Yorkers, not just the ones who know they want high-speed internet. It also creates incentive for other companies to enter the market and offer services because they think they can do it better and cheaper than the incumbents. As this virtuous cycle plays out, as the **competitive** marketplace plays out, prices go down, features go up, innovation increases, more people adopt the technology, and everyone, especially the consumer, wins.

This brings me to the second issue that we have encountered: **There are many people who don't have internet for any number of reasons, and the fact that they can't physically get a connection due to lacking infrastructure is only one of the lesser ones.** This is where having multiple solutions can provide an answer.

NYCwireless offers an internet service that no ISP offers. In addition to being free, it provides a service in a space that is completely unserved by Verizon, Time Warner Cable, and Cablevision. This is important. What we've found is that broadband isn't just about getting fast connections to your desk at work or your desk at home, though those things are important. Its about also having access when you leave those places and navigate around the City.

I'm sure all of you have seen the multitude of people who bring their laptops to Bryant Park or Madison Square Park to work. Internet access in these public places, these third places, has become a critical part of business in New York City. People's needs here are different from their needs at home. High-speed is less important than mobility and easy access (though broadband speeds are important). These public places also help to create new uses for high-speed internet access. As I mentioned earlier, we've brought art into parks because of the Wi-Fi there. Public Access TV stations, like Manhattan Neighborhood Network, have used our networks to broadcast live programs on their channels. And new social software enables people to meet each other when they are in the same location, or leave geographically located notes at a particular place for others to view.

According to a survey by NYCwireless Board Member Laura Forlano, Wi-Fi is a factor in attracting people to specific locations throughout the city for 70% of those surveyed. These findings have potential implications for economic development and support the rational that WiFi may enable commerce and productivity that would not have occurred otherwise. For example, one respondent commutes 20 minutes from Queens to use the Bryant Park wireless network on weekends in order to work on his food and wine website outside rather than at home.

Home broadband doesn't provide for these types of experiences, and many New Yorkers choose not to adopt home broadband because they don't see the value. Instead, they opt for access in public spaces. But there's also significant issues due to the cost of home broadband. As I'm sure all of you know, there's a cost/value equation that people play out in their heads when they make the choice to subscribe to home broadband. And for many people, the cost is way out of balance with what they perceive as its value. For some, the community and social aspects that NYCwireless networks provide increases that value significantly. But for many others, we aren't available and can't help.

At the Bronx hearing, you heard from a student who told you that his family really can't afford broadband. \$50 or \$60 a month is a lot for many to pay. Competition, which drives down price and will create low cost options, will help many of these folks out, at least the ones that are interested in getting broadband.

I've argued for the last few years, in speaking about municipal wireless networks in other cities, that such networks aren't competitive with cable and telecom incumbents. Their real value isn't in taking part of the pie from these companies, though certainly there would be a little attrition. **What these networks do is increase the pie for all market players.**

As a rather crude example, if you had 100 people who were currently served by broadband, 49 via Verizon, 49 via Time Warner Cable, and 2 via other DSL and satellite ISPs, the addition of a municipal wireless network doesn't reduce their numbers. Instead it takes that pie of 100 people, and expands it to 300 people.

**This happens because it raises the baseline for internet access.** Dial-up goes away and those people that subscribed to dial-up become part of the broadband pie. Others, like those served by NYCwireless, become part of that pie as well. And some of them, who only had dial-up or no home access before, all of a sudden see additional value in high-speed internet at home, which they didn't really have access to before, and they upgrade to the more "premium" services that Verizon and Time Warner Cable provide. So that 49 person slice that the incumbents had before balloons to 60, 70, maybe even 100 people out of the 300 person pie.

Now, there's another thing that can get people to adopt broadband. Local communities. As you've heard at other hearings, and I'm sure you've experienced, New York City isn't one single, large community. It's made up of an almost uncountable collection of smaller local communities. These local communities, each have their leaders, people whom other people gather around, groups that are created to serve needs of local residents. **These** are the people and groups that move the general population to do something or think a certain way. These leaders are the key to getting the last group of citizens on the internet, those that weren't swayed by additional value or lower price.

At NYCwireless, we've worked with many of these local leaders. Some of them are BIDs like the Downtown Alliance or public benefit corporations like the Battery Park City Authority. Some are local developers, like the one we're working with in the West Village who wants to transform a park and part of a neighborhood from being a place for homeless people to being a place for families and children. Some are activists, like Judith Escalona, an artist that runs the art space and gallery Media Noche in Spanish Harlem, who wants to create a mesh network for residents along East 102nd street.

These local leaders with whom we have worked have transformed their communities, and helped us bring internet to the people. Unfortunately so many more come to us with visions of helping out their neighborhood, but don't have the funds to make it happen. While NYCwireless provides a very low cost option for building public Wi-Fi, it's not free. And many of the local leaders we've spoken to have no current means to get the funding they need to build and create local broadband. In speaking with them, we know that with just enough funding, these people too could change their communities, and bring whole groups online. So the third thing we've observed is that funding must be injected into local communities in order to provide resources for these leaders to do their work.

In speaking through these stories and experiences, we've come up with some general ideas about how to solve the broadband problem:

**One, additional infrastructure is needed to enable increased competition.** One solution is a municipal wireless network, but we think that a government sponsored network has the same problems as any single party solution. Additionally, wireless is just a temporary patch, since such networks really only offer 1mbps of service, and often don't reach into homes, only to their front doors. We believe the



key is building for the future, and utilizing multiple technologies, both wired and wireless. Better solutions can be found in two cities, which this Committee should study closely and take as examples, Boston and Cleveland.

In Boston, the City is setting up a truly competitive wireless infrastructure. They are seeking many different companies and organizations to build a hybrid infrastructure and provide unified, wholesale service. They are also seeking many different companies to act as ISPs that will buy access to this wholesale infrastructure and provide citizens, businesses, and visitors with internet access. Open marketplace on one side, open marketplace on the other side, and a single non-profit to coordinate and manage them.

In Cleveland, through the OneCommunity initiative led by Case Western Reserve University CIO Lev Gonick, they are building out a world class fiber infrastructure that local businesses can utilize. On top of this future proof infrastructure, they also offer free Wi-Fi to the city and surrounding areas. But don't mistake this for a municipal wireless network. Its far more than that. OneCommunity has created a high-speed internet infrastructure throughout the city, to which many different services can be connected, that will support Cleveland well into the 21<sup>st</sup> century.

**Two, funding sources must be created that can support local organizations doing the heavy lifting.** As I discussed earlier, there are leaders in every community in New York City who have the power and will to create local solutions for bringing the internet to the people, and bringing all of their community members to the table. Setting up a fund such that any local group can apply for and be granted a few tens of thousands of dollars to use to bring Wi-Fi to a park or a residence would help tremendously.

Additionally, building developers and boards have tremendous ability to create solutions, as our work with Dunn Development Corporation has proved. Providing a tax incentive for developers to light up the public and semipublic spaces they create would ensure that anywhere people go they would have internet access.

Funding sources can also be attracted via state and federal sources, as well as through private companies and individuals. NYCwireless has been successful, but why not have hundreds of NYCwireless-like organizations, each working to solve local broadband issues.

**Three, existing infrastructure must be made affordable and available.** One of the biggest barriers to creating local community networks is getting access to places to put equipment. One solution would be to make City light poles available free or at low cost on an individual basis for the deployment of community supported networks. NYCwireless can help out with this initiative by helping to create a standard, weatherproof, upgradable hardware package, which we currently use in our outdoor wireless networks.

**Four, the City should get out of the way.** While we certainly appreciate the fact that at least one City department, namely the Parks Department, has seen the value of bringing free Wi-Fi to city parks, their methods and plans are outmoded, poorly conceived, and unsuccessful. The most recent RFP for free Wi-Fi that the Parks Department put out generated an anemic response, even after they remove the onerous franchise fee payment requirements that were present in the previous RFP.

NYCwireless has successfully launched 6 hotspots when working **around** the Parks Department, and in the one instance we tried to work **with** the Parks Department, the hotspot, now 2 years in the making at Dag Hammarskjold Plaza, is still not launched, a delay that can be attributed directly to the failed RFP process and bureaucracy of the Department.

The power to change is in our hands as New Yorkers, and in your hands as the Broadband Advisory Committee. The urgent problems of broadband in New York City, of the growing Digital Divide, and of building for our future are within our power to fix.

I'll leave you with this recent quote from our Governor:

"As we build an Innovation Economy we must make New York the most connected and technologically advanced place to live and do business in the world.... Internet access is no longer a luxury. We must implement a strategy that leads to every New Yorker having access to affordable, high-speed Internet so that they may take advantage of the economic, social and cultural opportunities it provides."

Thank You.



THE CITY OF NEW YORK  
**OFFICE OF THE PRESIDENT**  
BOROUGH OF MANHATTAN

**SCOTT M. STRINGER**  
BOROUGH PRESIDENT

Good afternoon. I want to thank Council Member Brewer for taking the initiative in creating the New York City Broadband Advisory Committee and for holding this hearing today on the importance of high-speed broadband internet access for all of our city's residents.

Today, people shop, bank, read newspapers, go to college, communicate, find jobs, and socialize online. The internet has created a global network that links everyday people with a universe of information that was once difficult or impossible to access. According to the Pew Internet and American Life Project, of the 71 percent of American adults who use the internet, 72 percent use it to get news, 71 percent use it to shop for products, and 66 percent use it to visit a local, state or federal government website. And these uses are only the beginning of the internet's social value. The internet will continue to change our world in ways we cannot anticipate, and in order to compete in this evolving market, New York must stay ahead of the curve in the use and dissemination of internet technology. To do that, New York should provide high speed broadband internet access for all city residents, thereby ensuring a competitive future for our children, businesses, and democracy.

The bottom line is that for young people in the information age, fewer opportunities to get online means fewer opportunities in life, and a greater chance of falling to the margins of society. The digital divide in this country is undeniable: 93 percent of Americans who make more than \$75,000 a year use the internet; 69 percent of those who make between \$30,000 to \$49,999 use it; and a mere 55 percent of those who make less than \$30,000 a year use the internet. The internet is the current marketplace for how we communicate and share ideas. If you are not a part of that online community then you are out of the game with less access to jobs, educational resources, and government services. And if this digital divide continues to grow, our low-income families will be left behind. Providing free or subsidized online access to search for jobs or get an education can only benefit those who already face too many obstacles.

Beyond closing the digital divide, there are immeasurable benefits to ensuring free or affordable broadband access, a few of which I would like to highlight. First, free broadband access can provide a critical means of public communication during emergency situations. During the last six months, our city has faced a tragic fire in the highly contaminated former Deutsche Bank building, a system-wide transit shutdown, a tornado which ripped through buildings, and the collapse of a wall at Park West Village. In the wake of these disasters, constituents expressed concern over the lack of information provided regarding what was happening, how to react, and

where to go for answers. The Mayor recently announced a pilot program to deliver public information by email, text messages, and reverse-911 messages. A person can sign-up for this program at the city's website on which alerts will also be posted. I applaud the Mayor for implementing this much needed program. A concern, however, is that it assumes that people have reliable internet access in their homes or on their person. If free or affordable high speed internet was made available throughout the city, the Mayor's plan could be much more effective. In the world of emergency response and elsewhere, we must recognize that widespread internet service has the power to set new standards in social betterment and government performance.

A second consideration is that free or subsidized broadband access can be a key tool in facilitating dialogue between local community government, activists, and opinion makers. The internet is a means, sometimes the only one, for those who do not have access to the media to get their message out. Community Boards, though often overlooked, are uniquely suited to express neighborhood concerns and ambitions that may differ from the goals of large commercial and political institutions. The internet should be a tool for Community Boards to communicate and share information with local residents. Community Boards could webcast meetings, provide information on local issues, and gather residents' comments--all online. The more affordable broadband internet is, the more people will be able to interact with their Boards, and the better the Boards will be equipped to represent community needs.

We are all aware of the progress that's been made in Philadelphia, Atlanta, Minneapolis, and San Francisco where plans are in place for free and subsidized wireless access. We must follow their lead and if not provide free access, then the city should at the least provide subsidized broadband for all with a further discounted rate for low-income residents. The city should also provide free wireless "hot spots." Currently, there are ten parks in this city that provide free wireless access through a network supported by sponsorship and advertising. We need more of these areas. A goal of PlaNYC is to create a public plaza in each community - each of these plazas should be a free wireless "hot spot" which if not fully subsidized, can be funded through public-private partnerships.

Last week, the Governor announced the formation of the New York State Council for Universal Broadband which is responsible for researching, designing and implementing internet access for those underserved regions of the State and City. I commend the Governor for taking this initiative and I hope that together with the New York City Broadband Advisory Committee, accessible broadband will soon be realized. Everyday use of high speed internet is the current reality for some, but it must be the future for all. I look forward to working with all of you to reach this goal.

Thank you again for the opportunity to testify.