

Connecting Low-income Communities to Develop “Digital-Age” Skills

Project Purpose:

UHAB's mission, background, and services supporting affordable co-ops for low-income people-

The Urban Homesteading Assistance Board was formed over 25 years ago to support innovative self-help solutions to New York City's housing crisis. In the midst of housing abandonment and neighborhood deterioration, UHAB set out to help low-income community residents gain control over abandoned and city-owned housing and become cooperative homeowners with a long-term stake in their neighborhoods.

In large part through UHAB's efforts, New York City now boasts the largest community of low-income housing co-ops in the country, with 1,200 buildings housing approximately 100,000 people. These co-ops – which are mostly clustered in distressed and under-served neighborhoods including the South Bronx, Harlem, the Lower East Side, Williamsburg and Bedford-Stuyvesant/Crown Heights in Brooklyn (maps in appendix) – have been extraordinarily successful in providing good-quality, affordable housing for the families who live there. In a report comparing programs for city-owned buildings, researchers from the City University of NY Graduate Center for Human Environments (CUNY HERG) found that cooperative ownership outperformed other housing privatization programs in terms of management and housing quality, fewer problems with drugs and crime, and tenant satisfaction.

UHAB's primary mission is to enable this population's 28,000 families to succeed in preserving their co-ops' housing quality and affordability. This occurs through UHAB's delivery of vital training and information to these buildings' tenant associations and elected resident-leaders. The result is that they are largely self-sufficient, armed with reference materials and experiential, skills-based training that UHAB provides. UHAB also provides services and support to cooperatives and Community Development groups in Chicago, Atlanta, Boston, Patterson, NJ, Yonkers, NY, and elsewhere in the US and internationally.

UHAB provides its services primarily through training, writing and publishing manuals, and technical assistance, such as consulting services. With the exception of our manuals, which must be requested and mailed out during office hours, our services occur in 'real time' either in our offices or at the co-ops. This has been our working model since our founding in 1973. This person-to-person model is highly effective as evidenced in these buildings' consistent successes.

Problem 1: The population of low-income cooperative buildings is growing faster than UHAB

UHAB's reliance on the resource intensive 'real time' service delivery model is problematic in three important ways. First, the growth of the number of low-income cooperatives has outpaced UHAB's personnel growth. The number of these co-ops has grown six fold from about 200 in the late-1970s to over 1,200 today. Each of these buildings has a core of leaders (Executive Board Members), a total of approximately 4,000 resident-leaders across New York City. UHAB's staff size of approximately 33 has remained largely the same. The ratio of building leaders to UHAB staff has increased from approximately 24:1 twenty years ago to 121:1 today. In each of the next three years, UHAB expects 40-60 more cooperatives to be formed, increasing the population by about 1000 families per year, and increasing the numbers of leaders that turn to UHAB for answers by about 200 per year. In 2004 the ratio of building leaders to UHAB staff will increase to 139:1. The average need for UHAB's training and consulting

services for each cooperative remains steady at about 5 service contacts per building per year, while the number of cooperatives increases annually. UHAB's staff and leadership is experienced, dedicated and efficient, but if it does not fully leverage network technologies, UHAB will strain to keep up with the increasing demand for its information services.

The second issue is that these buildings are spread across much of New York City. Low-income housing cooperatives are represented in all five Boroughs and 27:51 of NYC's Council Districts. UHAB has three NYC offices, yet many buildings are a great distance from our training centers and can take an hour for our Housing Specialists to reach.

The third issue is that UHAB continually needs to reach new residents and leaders as well as potential new building leaders. Most of the buildings that UHAB assists have steady leadership. Some leaders have been re-elected for 10-20 years; they step down due to age, health or other interests, or their cooperatives elect new leaders for a change. New leaders and leaders of new cooperatives go through a series of classes to learn how to assume management and leadership of their buildings. This is an intensive process, because these co-ops must be run as viable businesses, accountable to resident-shareholders and in compliance with complex government regulations. UHAB's Housing Specialists are also available to provide consulting for all these buildings' residents.

In 1999 UHAB's assistance was provided in nearly 6,000 instances, including 450 classes offered in our Brooklyn and Harlem offices. UHAB estimates that there may be a pent up demand for up to 18,000 more service contacts to interested residents, potential leaders and current leaders with questions. This is limited by UHAB's outreach and intake ability, combined with residents': working hours conflicts, distance/commuting issues, physical disabilities, or family (elder or child) care obligations. By 2004 UHAB expects the number of service contacts to increase 12.5% to 6,750 instances per year (assuming an average of 5 contacts per building per year and 150 new buildings).

These buildings need UHAB to scale its delivery of knowledge and skills to meet the needs of the low-income cooperative community, which has grown and dispersed across the U.S.' most populous city. Network technology can enable UHAB to meet this demand in scale, and to provide services on demand when and where our 'customers' need them, be it from their homes, community technology centers or offices.

Population: Underserved and working to sustain itself-

Nearly 90 percent of these buildings' populations are historically under-served African Americans or Hispanics who need training in building management, bookkeeping, repairs, and financial planning. The next generation of this community of low-income housing cooperatives' leaders is often going to be increasingly working-poor, single parent head of household, or on public assistance. Since most of these buildings come from City ownership, some of their residents were formerly homeless, placed from the City Shelter system. Average family incomes are low-income at \$14,782 per year, according to recent City University of New York (CUNY) surveys. While there is a variety of educational levels attained by low-income co-op residents, more than 40% of these residents have not graduated from high school.

Self-help housing's successes in the Low-income Cooperatives' Communities-

These cooperators' hard work applying UHAB's training has dividends beyond housing, affecting their individual and community lives. Many of these tenants have become forces for

positive change in their communities. Researchers from CUNY HERG have shown that co-op residents have very high levels of involvement in community institutions like churches, schools and neighborhood associations.¹ (Footnotes are in Appendix 1) In addition, UHAB has helped many residents form Neighborhood Networks of 1-2 dozen local co-ops that build community gardens in vacant lots, create fuel-buying co-operatives, organize street fairs and advocate for better services and support for their buildings.

The skills that building leaders learn from running their buildings as a business are often applied in the work world. Cooperators learn to manage their own businesses, including day care, building management and bookkeeping. Others gain the confidence to enter or rejoin the workforce. Finally, low-income families cooperating in these buildings gain their first major financial asset, the shares in their cooperatives, the fruits of their labors to improve their buildings and neighborhoods.

Problem 2: The 'far side' of the Digital Divide needs to be bridged through home and neighbors

UHAB's self-help philosophy is built on the belief that residents and their experiences are the best foundation for their future success in managing their buildings. We help people from a variety of backgrounds take over abandoned buildings and then teach and help them to manage their buildings well, providing quality affordable housing. The Department of Commerce, the Benton Foundation, and many others have documented the 'Digital Divide,' which continues to persist in these buildings' census tracts. UHAB's expertise is using the home as a base for training and providing information to improve one's situation. These same homes often lack computers and network access. Computer hardware, software, network access, training and support need to be relevant, affordable and accessible. These low-income cooperative families need a bundle of effective computer and network adoption services available through UHAB, including marketing, training, installation and support.

Using the Network and Information Technology to Magnify Successes-

A 1998 Benton Foundation report stresses "the importance of nurturing individuals and indigenous community organizations that already provide help and support in the community" to bridge the digital divide. Given that low-income co-ops often function as springboards for personal growth and community improvement, they are logical places to introduce information technology. The Benton report emphasizes that such efforts "will be more difficult than simply introducing computers or offering classes . . . Creative ways will have to be found to make computer networking more a part of the social lives of people in low-income neighborhoods."

For people on welfare or in unskilled, low-paying jobs, learning computer skills in their own building or home, with help from supportive neighbors and local resources, can give them the skills and confidence to enter the workforce or step up the career ladder. By learning how to track building finances with a computerized bookkeeping application, resident building leaders will gain current financial literacy skills – skills that can help them with personal budgeting, getting a financial management job, or starting their own businesses. In short, UHAB is proposing to use the Network to deliver its services and foster communities, while giving further reasons and incentives to cross the 'digital divide.'

Problem 3: Other obstacles to 'bridging the divide' include lack of bandwidth and ease of use-

Utilities have long neglected the needs of low-income peoples in distressed neighborhoods. UHAB's Harlem office cannot get DSL because the local phone service is of

poor quality. There is a bottleneck provisioning high bandwidth DSL, Cable modem, and wireless Internet access to the mass market, and low-income neighborhoods seem to be the lowest priority in New York City. Digital cable and DSL has yet to reach these neighborhoods, for example.

Computer Hardware and Software continues to be difficult to use and learn. This obstacle is especially daunting if it comes at great expense without training or support to get PCs functioning and useful, much less online. The pace of innovation in the technology sector is leaving ordinary people behind, much less those contending with limited incomes in distressed communities. Technology firms and access providers can find markets, if their next markets articulate what they need.

Problem or Opportunity 4: Service jobs, and better paying jobs increasingly require computer skills

New York City once had 800,000 manufacturing jobs, which attracted most of today's residents of low-income co-ops to immigrate from the South or the Caribbean. By the 1980s most of NYC's industrial jobs went elsewhere. Two things were left: widespread economic dislocation causing neighborhood abandonment that became the soil for low-income cooperatives, and a service economy that increasingly requires education and a familiarity with computers.

Problem or Opportunity 5: The Information Economy and its need for computer and IT skills is here to stay

Familiarity with computers is becoming a pre-requisite for a job. Jobs in the service and manufacturing sectors increasingly require knowledge of computers, software, computing interfaces and operating systems. The skills that will be gained through this program will enable participants to improve their ability to get a job, advance in their careers, start businesses, or to work in Information Technology.

Between 1997 and 1999, 250,000 Internet Industry jobs were added to New York City.¹ Even a year after the Dot-com crash began, a recent New York City search in the leading InformationTech job site, Dice.com, shows nearly 1,300 positions available in the Metro area for people who know HTML and over 700 for "Web Developer," which requires more skills. Even though IT skills are not commanding the salaries and rates they did at their peak, their averages exceed the average incomes of this community of cooperatives' families. This program will transfer in-demand skills, such as computer training or web publishing, to a low-income community that largely lacks such skills.

Solutions and outcomes-

Just as UHAB helped low-income residents turn abandoned buildings into homes, it will use the lack of accessible and affordable computer services in these buildings as an opportunity to provide quality computers, training, and support. Meanwhile, UHAB will improve its own services through providing digital services that are scalable to the growing number of low-income housing cooperatives and their residents going online. Specifically, UHAB will:

1. Digitize its service directory and dozens of printed manuals online and on CDROM with search features that answer plain language questions - a scalable reference and answer tool available anytime for thousands of co-operators, and housing organizations

- nationwide, that need specific answers at anytime from anywhere (in Year 1); this will enable better decisions, planning, and repairs – in short, better managed buildings. UHAB will convert approximately 1,752 pages of reference and training materials, many of which are illustrated. (Quote provided in Appendix.). The outcome will be that UHAB's answers will be accessible to more low-income co-op residents.
2. Create a business and technical plan for this project to be self sustaining and scalable; local government support of UHAB's work with low-income cooperatives is not scaling with the growth of this community and its demand for information. Leveraging technology enables UHAB to provide a new kind of service at prices that are affordable to cooperatives with low-income residents, while providing a source of program income to support UHAB's digital programs. (Year 1)
 3. Supervise the customization of software that allows the easy publishing to the Web of interactive curricula and community features like bulletin boards so that UHAB, other organizations, and building residents can publish to the web and support project and learning communities. (Years 1 and 2)
 4. Publish online directories of low-income housing co-ops by neighborhood and encourage willing residents connect with each other and to add their neighborhood resources to the map after developing privacy and online security policies in consultation with building leaders; the benefits will include mutual support through advice, increased community involvement, and more opportunities for local and interest-based relationships
 5. Inform and assist at-risk co-ops that owe Real Estate Taxes and other City charges through publishing an easy to use, searchable database of tax and city charges arrears information on the Web gleaned from the New York City Department of Finance starting in Year 1; building leaders and the rest of their cooperative shareholders can quickly access the same important up-to-date information.
 6. Foster communities of building leaders online, maintaining and moderating a bulletin board and archive of questions and answers and building management tips so building leaders can support and network with each other.
 7. Provide free computers and Internet access, supported with computer/Internet training and technical support in 20 leaders' homes in each of 20 local buildings as a pilot project during Year 1 to bridge the digital divide among influential low-income grassroots leaders, and to learn how buildings, individuals and families best adopt and use networked PCs.
 8. Package and market affordable computers, high bandwidth access, and computer/Internet training and free technical support to our entire service population citywide starting Year 2 to 28,000 families in these low-income cooperatives.
 9. Train UHAB's 10 Corporation for National Service VISTA volunteers to be Technology Advocates (Year 1) who work in partnership with local groups with programs in place to train low-income co-operators to go online and/or train their neighbors (Year 2).
 10. Work in partnership with local groups with programs in place, such as Community Technology Centers, to make basic job training, basic PC skills, and more advanced programming training and certifications easily available to interested low-income co-operators.

11. Work in partnership with local job placement and training groups and/or employers who need placements (Year 2). The outcome will be greater employment, enhanced career opportunities, and addressing a technology staffing shortage.
12. Hire an Information Technical Services Director who will research the co-ops' PC and Internet adoption and uses, which high bandwidth access technologies – DSL, Cable Modem, Wireless – and providers are most appropriate for particular buildings and neighborhoods, and establish relationships with these companies (Year 1) to improve services for these communities.
13. The InfoTech Director will reach out to building, community, and business leaders to form a stakeholders' online advisory committee to provide early direction and constant feedback for the project (beginning of Year 1).
14. The InfoTech Director will: research and publish findings comparing provisioning high bandwidth access, availability, cost, technical support, and performance with other cities and higher income residential neighborhoods, sharing the findings with community residents and leaders, and addressing oversight and public service commission hearings (Year 1).
15. The InfoTech Director will work with the VISTA Organizers as needed to organize community advocacy around issues that practically affect bridging the digital divide in our under-served communities, including: provisioning access, availability, cost, technical support, and performance (starting Year 1). The outcome will be improved access to high bandwidth connectivity in under-served low-income areas.
16. The InfoTech Director will work with the VISTA Organizers further on Digital Divide issues (Year 2) and will reach out to hardware, software, and networking companies to improve their products' ease of use, and to encourage these firms to partner with this community. The outcomes should include increased private sector volunteerism and community service around digital divide needs, better deals for equipment, software, and services through aggregated demand, and better products through linking companies with consumers.

Innovation:

UHAB's Connecting Communities program builds on UHAB's legacy of innovating self-help methodologies and trainings that help building leaders transform themselves, their families and buildings, and their neighborhoods. Our goal is to put the tools (hardware and learning and web building templates) into the hands of the organizers, then the homegrown leaders and residents, starting where they live so that the tools are used and become indispensable.

First we will provide training for the Trainers, starting with 10 VISTAs (Volunteers In Service to America) who come from the buildings that UHAB serves. They, in turn, will reach out to building leaders who will support their neighbors with adopting PCs and network technology in their homes. As UHAB and the building leaders and residents put content and resources online, the value of the online services increases. The goal is to have residents and building leaders using the network to answer questions and to foster cooperation across the city to solve management issues, provide leadership advice and support, and to advocate for improved services from utility providers such as the phone and cable companies, and, eventually

hardware and software firms.

The very process of using networked computers to connect building leaders to online resources, including each other, will not only preserve their housing, but it will develop marketable job and entrepreneurial skills, and empower people over technology. Consumers will become producers of content and help. The project will also connect low-income Internet users with providers of connectivity, hardware and software, which will not only foster greater understanding and opportunities among divergent populations, but will give the 'service and product producers' valuable insight on customer service and product quality. Those providers that listen and deal with this cooperative of cooperatives will learn a great deal how to market their products to the rest of the population, enabling their industry's next new growth area.

UHAB's project approach builds on innovations that it pioneered twenty to twenty five years ago when we first embarked on providing training and assistance for low-income homesteaders using sweat equity to transform abandoned buildings into quality affordable residences. We use highly participatory training methods that build on peoples' own life experiences to solve problems. UHAB emphasizes skills development and sharing this to foster their neighbors' development.

Just as UHAB has expert-trainers on Boilers, Building Systems, Repairs, Construction, Budgeting, Bookkeeping, and Government agencies, this project recognizes a new system that is just as vital to survival in today's world: information and communication technologies. Our goal is to demystify it and disseminate the knowledge so people have control over technology and use it to improve their lives in ways that the project designers can only begin to imagine. This scope will go beyond buildings, neighborhoods, and jobs.

UHAB is building on the work of previous projects, such as Project InterLinc, which provides government information and Internet access to people and communities, and Austin's FreeNet, which built computer networks and resources on top of existing community infrastructure such as churches and schools. UHAB will work in partnership with Community Technology Centers and other organizations to provide training and support. Our project differs in that we are focusing on the home, one's building, and neighbors, then one's neighborhood, then one's community of like-building leaders across the City or beyond.

In addition, we are encouraging the residents to become producers of content and help for each other in person and online. This will be supported by easy to use online community building software applications. As the project develops, these relationships can strengthen through collaborative projects such as improving neighborhood services, bandwidth, or the quality of the technologies. UHAB intends to use the computer network to foster a stronger human network, so that information and services is not just broadcasted, but fosters transformations.

Diffusion Potential:

Community Organizing has been turning neighborhood decline around for decades, and it usually occurs face to face, almost always in real time. Recently, with the popularization of the Web and the Internet, communities of interest have developed online. UHAB is working under the assumption that the strongest online communities form from hybrids combining online and offline interactions.

UHAB works with a community of building leaders and residents who share many similar issues. Their cooperatives foster community because residents work together on building business and are accountable to each other. But because we live in a large city we don't often know who our neighbors are down the street, or what resources are available to us. Networked computers provide a way for people to connect and share with each other. Kevin Kelly of Wired Magazine said, "the value of a network increases exponentially" by the number of its participants². Putting UHAB's services online will also make this network much more valuable and compelling. UHAB would like to leverage this network to scale our services to reach more people and to encourage the greatest form of scaling, communities of people cooperating and working together for mutual benefit. This project will demonstrate how disseminating networked skills and technology, supported by compelling relevant content and personal contact can improve quality of low-income peoples' lives, their buildings, and neighborhoods in the context of economic poverty.

Part of this project would be the creation of Web-based templates so that people could collaborate with their fellow residents and community members on solving problems in their buildings or neighborhoods. These templates could be shared with other housing and community organizations. Such templates can also be used to advocate for improved access to bandwidth, services, and products, which will ultimately improve them and cause their greater adoption.

Cooperatives are part of an international movement. All co-ops require a common purpose and great deal of ongoing communication, education and organization to be sustainable. Sizeable communities of low-income co-ops, similar to New York City's, exist in several other cities across the country, including Chicago, Boston, Washington, D.C., Atlanta, San Francisco, and Los Angeles. UHAB's information technology/networking model could be usefully replicated in these cities. In addition, our NYC-based model has the potential to be scaled to a national level, providing a number of services not only to our local constituency, but also to the co-op community nation-wide. For example, UHAB has already developed, under contract to the National Co-op Bank, a national directory of professional resources for co-op development, which can be accessed through UHAB's web site. UHAB will learn and share how to create Technical Advocates from low-income families who will act as peers to support networked computer adoption among their neighbors. As the last half of the US is yet to be online, this sort of person-to-person support and training methodology will be instrumental in getting more people to go and stay online.

UHAB, as a training and technical assistance organization in the cooperative and self-help movements, is committed to disseminating its learning. We frequently participate in conferences and we sponsor *City Limits*, the Community Affairs publication, which is a sister organization to the Center for an Urban Future think tank. The project director will also participate in online communities such as Benton's Digital Divide Network and the New York City Technology Resources Consortium. UHAB's planning in this area has received much interest from these communities.

Project Feasibility:

Marketing computers and teaching folks how to take advantage of them it is not much different than the competencies that UHAB has already developed. We have honed a

methodology to encourage and effectively train thousands of low-income adults how to own and run complex multifamily apartment buildings in distressed urban contexts. Similar principles can be applied to teaching bookkeeping, maintenance and repairs, energy conservation and cooperative living as can be applied to training adults how to take advantage of information technology and the network. As previously mentioned, UHAB will also be building upon the experiences of previous urban community networking projects.

UHAB works with a community of highly successful and motivated people who have experience with taking many positive steps to improve their families' and neighbors' situation. Most of these buildings already have leaders who reach out to their neighbors, neighborhoods, and community groups. This population is largely the same as the nation's inner-city low-income population that is on the far side of the digital divide. These buildings are populated with people who have a thirst for knowledge and progress. Each cooperative building was purchased by at least 60% of the residents. Getting a good computer in one's home is much more concrete than the cooperative conversion process in which the residents buy shares in a corporation that owns their building.

Once this equipment and knowledge is readily available to these buildings' grassroots leaders, they will spread the word about the need to adopt computing and networks, while helping each other solve building issues and simple computer issues. Their neighbors will be eager to learn computers to keep up with whatever their children are learning in schools, and they will be interested in getting computers in the home so their children can become more adept with computers, while they use the Internet for communication and research, and to improve their own job or entrepreneurial skills.

In addition, UHAB has three years experience teaching computer skills to co-op residents. In 1998 our two Neighborhood Resource Centers in Harlem and Downtown Brooklyn began offering classes in basic computer skills, then we added "Introduction to the Internet." These classes have been well attended.

Each UHAB Neighborhood Resource Center has computers open to "walk-in" use to send e-mail or access the Internet, write up co-op meeting minutes, create a flyer or newsletter, or conduct other building-related business. The popularity of our computer classes and the steady use of the Resource Center computers suggest a pent-up demand for computers and computer training within the low-income co-op community. Co-op residents' strong interest in computer training was confirmed by a survey that we did several years ago to gauge interest in potential new training classes. The majority of respondents indicated that they would find computerized bookkeeping classes and other computer training classes very useful.

Because we plan to employ interactive training features into our online training and community experiences, UHAB would like to enable the deployment of affordable high bandwidth access to the cooperatives we serve during the second year of the project. Cable and DSL provision is spotty in most of the neighborhoods that we work in. UHAB contacted wireless access providers in preparation for this proposal, but was not able to enter into technical or contract discussions with providers until we secure a funding commitment.

UHAB is going to take the same approach to providing and using bandwidth, computer hardware, network hardware, and software that we took with mastering training and technical assistance provision for Boilers, Plumbing, or the Department of Environmental Protection, for

example. We will use the project to become experts in Information Technology issues, deployment, training, and find out who is who in different technologies and neighborhoods and put that knowledge in the hands of the cooperative community we serve.

UHAB values simplicity online, and we will publish with the least bells and whistles to optimize downloading on early Pentium class computers or other comparable processors, regardless of platform. In order to reach out to the broadest population, our website and online services will be accessible for people with disabilities in compliance with CAST.org (Center for Applied Special Technology) guidelines, which are a standard for making web sites accessible. We will also provide Spanish training outreach and web services.

UHAB plans to use widely available technologies to the extent that they further the program's goals. The technical and business planning process will occur early in the program to ensure that the technology and the program is well integrated, scaleable, and sustainable.

UHAB has budgeted for training, maintenance and enhancement of our site, and creating a sustainable business and a scalable technical model. Year 1 emphasizes this, as well as training for VISTA Organizers to work with a pilot neighborhood after surveying community interest and researching local technical assistance providers. We have also budgeted for CUNY HERG to plan and evaluate our program in person 1-4 days per month.

Year 2 emphasizes the final evaluation research, as well as deployment of our strategy, including marketing a bundle of affordable services to the 28,000 families living in the cooperatives that we work with, and money for providing equipment to serve cooperatives' information needs, such as wireless receivers and a server. The exact use of this equipment will be determined by our business and technical plan developed in Year 1.

UHAB has over twenty years experience successfully executing local, state, and federal government contracts. The outcome has always been transferring skills to the low-income cooperative community so that it could solve complex problems, such as rehabilitating and managing buildings in distressed neighborhoods, while addressing underlying issues. The outcomes include improved housing and neighborhoods and enhanced social mobility. Over the years we have taught building repairs and bookkeeping, now we seek to add networked computing to our repertoire. This project's diverse budget support, combined with community involvement, experienced staff and the talents of the community we serve, make this ambitious project feasible.

Community Involvement:

Through network technology, UHAB's Connecting Communities initiative will bring together residents and leaders in co-ops that already exist as small but vibrant communities within their neighborhoods. Many of these co-op leaders are already involved in broader community-improvement efforts, through participation in PTAs, police precinct councils, churches and community boards. With organizing assistance from UHAB, building leaders in several neighborhoods have joined together in local "Neighborhood Networks" to address common issues and problems and share information about co-op resources and management "best practices."

Interest in computers and networking technology within this population appears to be very strong, as previously mentioned. UHAB will employ lessons learned from its Neighborhood

Networks project to recruit an advisory board of low-income co-op building leaders, the VISTA organizers, community technology experts, and technology industry representatives to provide early guidance and quarterly feedback in person on the project's progress. Feedback will also occur more frequently through the network. A UHAB consultant, Jared Goldstein, has ties with both the housing and Internet communities and has expressed interest in leading this project.

UHAB has also reached out to Communities of the Future, a North Carolina based organization that assists with projects like ours. Locally, UHAB has met with Per Scholas, which provides affordable quality hardware, training, and support for nonprofits. MOUSE a local organization that wires schools, has expressed an interest in providing wiring and installation assistance for a T1 connection in a Harlem Homesteading building that UHAB is gut renovating.

Evaluation:

UHAB has worked alongside social science professionals from CUNY HERG for years as they provided evaluation on projects like UHAB's Neighborhood Networks and our US Agency for International Development (USAID) work in Russia. CUNY HERG's evaluation methodology employs the active 'participant observer model.' They will be part of the program's planning and will observe and measure its development and implementation throughout the process. Researchers from HERG have published monographs and books (some listed in appendix) based on their work with UHAB and the buildings that UHAB works with. HERG is experienced with researching human environments, especially in housing and neighborhoods. Their work investigates how the process of taking over housing fosters social capital, especially among women, the predominant leaders of low-income housing co-ops.

HERG employs qualitative and quantitative techniques, such as statistical analysis and control groups. They will provide feedback during implementation so that program improvements will rapidly occur. CUNY will also track web usage, use surveys and other methods, including interviews, as well as observe usage and interactions.

CUNY is experienced with evaluating UHAB programs and these programs' building leaders, and can assess the skills levels, and compare offline v. online methodologies and results. CUNY will answer how many more people are reached this way, if there is a difference in this population online v. offline, if this affects learning housing management, and how job, entrepreneurial and community leadership skills are impacted. HERG will also evaluate each of the program's outputs, including:

- \$ the organization and efficacy of the stakeholders online advisory committee;
- \$ usage of the online manuals and tax resources;
- \$ the online community bulletin boards and resources;
- \$ the free PC and access pilot's effects on individual and building skills and unity;
- \$ training and outreach;
- \$ the research methodologies documenting potential disparities in high bandwidth provisioning to low-income communities;
- \$ organizing around these issues;
- \$ how building, community, and InfoTech company leaders collaborate.

Most importantly, CUNY will investigate if and how online communities can be organized effectively to support low-income self-help communities. Their findings will improve UHAB's

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home-based peer organizing model, while improving how our online resources support this.

APPENDIX 1: Footnotes

1. "No More Housing of Last Resort: The Importance of Affordability and Resident Participation in In Rem Housing," by Michele Cotton with Prof. Susan Saegert and David Reiss. Published by The Task Force on City-Owned Property, April 1996. Fig. 28, opposite page 52 shows that out of five different types of low-income housing, tenant co-ops have the highest levels of participation by tenants in a tenant group. Fig. 29, also opposite page 52, shows that tenant co-ops showed greater levels of building leadership. Fig. 30 shows that coop and nonprofit buildings show the highest levels of help-giving among residents, and Fig. 33 shows that in seven indicators of community involvement -- in churches, block associations, neighborhood groups, schools, community boards, police precincts and other local groups -- tenant co-ops have the highest level of participation.

1. New York New Media Association (NYNMA.org) and PriceWaterhouseCoopers 3rd Annual New York New Media Industry Survey, p. 27.

² "New Rules for the New Economy," Wired Magazine, September 1997.
<http://www.wired.com/wired/archive/5.09/newrules.html?pg=2&topic=>