NEW HOPE COMPUTERS
A UTEC PROJECT

Final Project Report

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APPROVED BY DR. CHRISTINA CLAMP

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"The global employment situation is grim, and getting grimmer. "Stubbornly persisting high levels of unemployment and underemployment lead to social exclusion of the young and the old, the less skilled, the disabled and ethnic minority groups - with a strong bias against women in all categories."

Michel Hansenne
(Director General of the ILO - International Labour Union)

"As a nation, we are best served when all of our citizens have the opportunity to contribute their talent, ideas and energy to the workforce."

Kenneth S. Apfel
(Commissioner of the Social Security Administration 1997-2001)
I. Abstract

This document is an overview of the project New Hope Computers, a computer literacy program to provide the necessary occupational and entrepreneurial expertise for At-Risk Youth to compete in current job markets. Nicole Carbone and Eliot Yaffa originally began two separate programs geared towards a similar interest in enhancing the skills of today’s youth. Carbone began with a project to assist the lower income area of Lawrence Ma in a computer refurbishing business and Yaffa sought to develop the soft skills of At-Risk Youth within Lowell MA. Both individuals combined efforts once a suitable host - The United Teen Equality Center (UTEC) of Lowell MA - was found to house a program that served both initiatives goals concurrently. The partnership works to service young adults in Lowell Massachusetts through the creation of a Youth-run Multimedia program that teaches computer technology, financial literacy, and the soft skills needed in today’s workplace. This initiative also serves as a platform for a Youth Run Computer repair business, for At-Risk Teens by At-Risk Teens.
II. Executive Summary

Originally the project proposed to increase the level of Adult Computer Literacy in the Greater Lawrence Area through High School Volunteers who were well versed in current computer technology. High School Volunteers would be educated in the upgrade and maintenance of computer systems. The participating techs were to hold a computer expo where refurbished computer units would be resold to the community. Profit from the CPU sales was to be placed into a scholarship fund, so that participants would have financial assistance to attend institutions of higher education. The projected program partners from the Lawrence Community were unable to assist in the creation of the project due to the lack of funding and organizational support essential to successfully implement the program.

Eliot Yaffa’s project aimed to initiate a program to assist the same target population receiving skills to enter the workforce, focusing on soft skills rather than technological abilities. At the outset Eliot Yaffa and Nicole Carbone partnered to create a Computer Cooperative between youth from both Lowell and Lawrence MA. The program proposed to achieve the following:

• The computer program will utilize High School student, College Student, and Americorps volunteers from the Merrimack Valley area to enhance the computer literacy skills of adults within the Lowell and Lawrence Community.
• The High School student volunteers will be taught to upgrade a portion of the donated computers and resell them to the community at a reduced and affordable cost.
• Revenues from the computer sales will be used for a scholarship fund/account for the students who qualify - based on involvement and an essay- to have for post secondary education (college, tech school, etc. for studies related to the field of Technology). The Students will also be given the opportunity to fix a computer for their own homes if desired by the host organization.

During the initial stages of the project proposal an estimated 65 or more computers, monitors and printers were obtained for the teens to use as learning equipment. Community networking helped establish relationships with the Lowell Career Center for potential interested students, as well as with the Northern Massachusetts Telephone Workers Credit Union for financial education instruction in business planning, marketing, and investment in addition to enrollment in a savings plan.

In search of a fiscal agent and program host for the program titled “New Hope Computers” a partnership was formed with the Lowell Wish Project. The Lowell Wish Project showed a desire to house the program at its nonpermanent location, but not provide the professional staff and assistance needed to host the program. With
differing agendas and limited startup funds project partners Eliot Yaffa and Nicole Carbone sought a new project host. The United Teen Equality Center, located in the Lowell downtown area, proved a suitable fit seeing it set out to improve its computer center and begin computer training and repair project parallel to New Hope Computers.

The United Teen Equality Center was formed in 1999 as a place for 13-23 year-olds of Lowell to find alternatives to gang and gang related activities. Operating as a 501c3 the center offers over 20 classes for its members to develop new skills and is a place for resources and guidance. Over 1,000 youths are members of UTEC. Over the last year UTEC has looked to new endeavors such as forming youth run “businesses in PC repair, video production and catering.” When presented the new Hope Computers proposal the United Teen Equality Center agreed to host the project because it was an enterprise currently desired by the organization.

A Multimedia Center was formed that offers computer repair instruction, A+ certification classes and test monies, as well as a place to develop computer program and web design skills. A permanent home has been found for the program at a new location purchased to house the host organization. A class instructor has been hired and currently there are 6 students set to begin classes by Mid-May.

III. Community Need Assessment

Community Profile

Lowell, Massachusetts is an urban community located at intersections of Routes 495, 93, 3 and the Lowell Connector. Industry surrounds Lowell, the 4th largest city in Massachusetts, is surrounded by industry. Corporations Cisco Systems, Hewlett-Packard, Avid Technologies, Wang Industries, “Enterprise Bank and Trust Co., M/A-Com, US Filter, JP Morgan, Fred C. Church Insurance, Coca-Cola, Ballard, TRC, Interstate Container and The Lowell Sun Publishing Company” that are situated in and around the city. Small contract manufacturers, as well as U.S. Department of Defense contractors will continue to support new ideas in the region, and Nanomanufacturing stands to rise to the forefront of Greater Lowell’s manufacturing sector in coming years (Sheehan 2006).

As recorded by the 2000 US Census, the total population of Lowell was 105,167 people, which made for 377,887 households, and 23,982 families within the city. Lowell is the second largest Cambodian population in the United States next to Long Beach California and local representatives estimate the Cambodian Population to be

1 http://www.utec-lowell.org/about.php
2 http://www.lowellma.gov/business
approximately 35,000 people\(^3\). In Lowell Massachusetts 29% of the population lacks a high school diploma.

The Department of Workforce development in Massachusetts website places the unemployment level at 6.9%; whereas the United States Department of Labor online account affirms the national average to be 4.4%.

Community Needs Assessment

The community and the United Teen Equality Center have been working together since 1999 to give alternatives to gang activity in the city of Lowell. “The city has thirty known active street gangs comprised of Latin and Asian youths.”\(^4\) UTEC provides a sociable environment for at-risk youth to make positive decisions about their future. According to the Urban Institute at risk teens are individuals who are more likely to become participants in youth crime and violence, substance abuse, gangs, become school dropouts, and have low academic performance, and other issues (Lerman 1996).

The Greater Lowell Workforce Investment Board’s Summary of Trends in the Greater Lowell Workforce Area (December 2005), Between October 2004 and October 2005, the seasonally unadjusted unemployment rate in Greater Lowell fell from 4.9% to 4.6%. A total of 6,685 Greater Lowell residents were unemployed in October 2005. The seasonally unadjusted rate in Massachusetts remained at 4.3% during the same period. A total of 2,619 individuals were continuing to collect Unemployment Insurance in Greater Lowell in October 2005, representing a decline of 470 claimants of 18% from October 2004 (Sheehan 2006).

This Multimedia program will address the local community’s access to information and the concern over youth violence. Community Teamwork, Inc. of Lowell (CTI) complied CNA data in Lowell MA for their 2006-2008 Community Action Plan. As a result they discovered that thirty-four percent (34%) of those surveyed indicated they would like to take adult education classes, while 37% said they could not afford further education or training. Finding that in terms of technology, 46% do not have access to a computer or the Internet. Of those who do have access to a computer, 31% said they needed computer training. Youth violence in schools and neighborhoods was a concern for 59% of those surveyed (CTI 2006).


IV. The Problem

1. Problem Statement

The level of unemployment and poverty in the State of Massachusetts, while illustrating the local demand for employees with computer related skills. There is an emphasis on the importance of Workforce and Financial Asset Development for low income or unemployed youth.

The underemployed need continued education in computer technology, but have limited access to the resources to learn its applications at home. Regrettably, the country known for opportunity maybe leaving a large section of its population in a cycle of poverty, as is advances itself technologically. Even the youngest of children of working middle class parents in current society have access to higher technology in there toys that are equivalent to what 1940’s robots that were made at the worlds fair thought to be cutting edge technology, but lower-income workers are without computer literacy and personal access to a computer unit.

Although many low-income families strive to save, the lack of asset accumulation among the working poor is an issue of growing national concern among policy makers, researchers, educators, and advocates. Research indicates that significantly more families live in asset poverty than income poverty. The lack of assets among low-income families can significantly undermine their economic security and opportunities for advancement.

2. Project target community

The target community is youths between the ages of 14. This program includes 35-50 middle-school aged students, a Vision Team, and the After-School Program Coordinator, Cathy Nowacki. This program offers the middle-school students of this town a safe, productive environment to occupy their after-school hours. The town residents consist largely of commuters. The after-school program is part of a drug-free initiative adopted by the school community. This project addresses the program’s need for sustainability options after initial grant money dissipates. The target community also consists of the local business population, which will be asked to support both the sustainability of the After-School Program, and the goals of the project. The purpose is to create a positive relationship with the students in the Program and the local businesses, with the added benefit of creating funding for the After-School Program and its youth. Included in the project development are two high school students. These students will help the middle-school students develop their items for sale. Finally, the project community consists of the community volunteers who have given their time to work with the middle school students each Friday afternoon.
3. **Stakeholders**

A.) Youth from the City of Lowell (6-12 students)
B.) The United Teen Equality Center Staff (Host to fund program and execute goals of project plan)
C.) The City of Lowell and its residents (Volunteers)
D.) Local businesses (Cisco Systems, Comcast, Lowell Career Center and the Northern Massachusetts Telephone Workers Credit Union (Equipment, Internships and Course Curriculum)

4. **Project goals in CED terms**

New Hope Computer’s **Multimedia Educational Collaborative in Terms of Community Economic Development**

- Soft skill training: Teaching Interview skills, work place behavior
- Technical skill training: A+ certification, upgrading computers
- Small business creation: Incorporate both training programs to create a youth run multimedia business.
- Young adults who have updated skills needed to enter the 21st century’s work force
- Computers in at least 80% of Greater Lowell households
- Increased number of educated citizens (both in computers and financial education) in Greater Lowell.

The creation of an IT Higher Education Fund for the Program participants that’s purpose will be for either; continued Technological Education and additional certifications; or reinvestment into a funding source chosen after Asset Development training.

5. **Project Objectives**

1. Enhance technological skills needed for today’s labor force.
2. Place affordable personal computers in low income homes, resale of upgraded computers and equipment at reduced cost to members of the Greater Lowell community.
3. Educate younger participants in future career skills ideal for both technological and entrepreneurial paths
4. Reduce Unemployment, with increased skill development participants become apart of a more desirable workforce
5. Increase the average number of young persons educated in Computer repair, IT support, business and financial investment (Asset Development) in order to combat poverty.
New Hope’s youth participants will benefit from the proposed Community Computer Cooperative on several levels. If successful, the program will provide students with a new piece of computer equipment, and students will acquire potential job skills. Students will also gain a new understanding of technology, and will be able to utilize this technology in their daily lives.

Participants in the New Hope Community Computer Cooperative will learn the importance of asset development, which is the development of policies and programs that help boost savings and investment. These programs can complement and build upon more traditional anti-poverty programs, by helping low-income families achieve greater economic security and stability. Asset development can help move families on a path of self-sufficiency, where they no longer need publicly-funded supports and services to help them make ends meet (Finance Project website, 2005).

V. Project Design:

1. Literature Review

Cyberinfrastructure is entwined in every aspect of today’s world, from paying bills and balancing your check book to applying for a job or enrolling in a health plan. Information Super Highway has arrived and everything is handled via the worldwide web, soon paper will be a thing of the past. This literature review addresses the current economic climate and job market in the target area. Moreover prove that Information Technology (IT) is pertinent to employment; emphasize the need for IT and asset building literacy, and present successfully run youth training programs.

Employment, unless one is born independently wealthy, is necessary for economic stability and self-sufficiency. The nation’s ability to produce jobs that provide a decent wage makes for a healthy and stable economy. Unfortunately, the United States’ economy has been on a rollercoaster ride with fearsome dips for the past decade and a half. As the U.S.’s economy has begun to recover over the last few years with an increased Gross National Product, many of the employed remain unable to financially support themselves, due to insufficient wages.

During the administration of the mid-1990s through the early 2000s the American workers wages finally began to grow from the aftermath of the early 1980’s recession. “Trends in U.S. wages since 1995 have been positive. However, the U.S. economy has a long way to go to reverse the broad-based wage erosion and rising wage inequality of the period from 1979-95.” The growth can be seen in table 1.
The gap between the income levels has expanded and a nation of “all persons created equal” faces severe gaps in wealth. “The result is a rise in the share of national income paid to the owners of capital, with a corresponding lower share paid out as wages and benefits to workers.”

Life spans are increasing not decreasing, given that the average person is living into their late 70’s. “Life expectancy for U.S. residents increased to a record 77.6 years and mortality rates for most leading causes of death declined in 2003, according to the preliminary annual mortality report released Monday by CDC’s National Center for Health Statistics, the AP/Las Vegas Sun reports (Schmid, AP/Las Vegas Sun, 2/28).”

At present people need to work longer and those retired thrive from retirement and financial investments. Work, Retirement, and Investments all rely on computer technology to function through employment requirements, administration,

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Table 1: Unemployment Rates and its components, 1994-2005 from The State of Working America 2006-07

<table>
<thead>
<tr>
<th>Year</th>
<th>Labor force</th>
<th>Part-time for economic reasons</th>
<th>Marginally attached</th>
<th>Discouraged workers</th>
<th>Unemployed</th>
<th>Underemployment rate</th>
<th>Unemployment rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1994</td>
<td>131856</td>
<td>4625</td>
<td>1807</td>
<td>650</td>
<td>7796</td>
<td>12.9%</td>
<td>6.1%</td>
</tr>
<tr>
<td>1995</td>
<td>132314</td>
<td>4473</td>
<td>1503</td>
<td>416</td>
<td>7434</td>
<td>10.1%</td>
<td>5.6%</td>
</tr>
<tr>
<td>1996</td>
<td>133943</td>
<td>4315</td>
<td>1508</td>
<td>397</td>
<td>7236</td>
<td>9.7%</td>
<td>5.4%</td>
</tr>
<tr>
<td>1997</td>
<td>136297</td>
<td>4068</td>
<td>1416</td>
<td>343</td>
<td>6739</td>
<td>8.9%</td>
<td>4.9%</td>
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<tr>
<td>1998</td>
<td>137673</td>
<td>3965</td>
<td>1310</td>
<td>331</td>
<td>6219</td>
<td>8.0%</td>
<td>4.5%</td>
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<tr>
<td>1999</td>
<td>139168</td>
<td>3867</td>
<td>1201</td>
<td>273</td>
<td>5880</td>
<td>7.4%</td>
<td>4.2%</td>
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<td>2000</td>
<td>142683</td>
<td>3227</td>
<td>1157</td>
<td>262</td>
<td>5692</td>
<td>7.9%</td>
<td>4.0%</td>
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<tr>
<td>2001</td>
<td>143734</td>
<td>3715</td>
<td>1256</td>
<td>321</td>
<td>6801</td>
<td>8.1%</td>
<td>4.7%</td>
</tr>
<tr>
<td>2002</td>
<td>144863</td>
<td>4213</td>
<td>1439</td>
<td>369</td>
<td>6378</td>
<td>9.5%</td>
<td>5.8%</td>
</tr>
<tr>
<td>2003</td>
<td>146510</td>
<td>4701</td>
<td>1531</td>
<td>457</td>
<td>8774</td>
<td>10.1%</td>
<td>6.0%</td>
</tr>
<tr>
<td>2004</td>
<td>147401</td>
<td>4567</td>
<td>1574</td>
<td>466</td>
<td>8149</td>
<td>9.6%</td>
<td>5.5%</td>
</tr>
<tr>
<td>2005</td>
<td>149329</td>
<td>4350</td>
<td>1545</td>
<td>436</td>
<td>7591</td>
<td>9.9%</td>
<td>5.1%</td>
</tr>
</tbody>
</table>

*Underemployment rate = [(part-time + marginally attached + unemployed)/(labor force + marginally attached)]*100

NOTE: Marginally attached workers are persons who currently are neither working nor looking for work but indicate that they want and are available for a job and have looked for work sometime in the recent past. Discouraged workers, a subset of the marginally attached, have given a job-market related reason for not currently looking for a job. Persons employed part-time for economic reasons are those who want and are available for full-time work but have had to settle for part-time work.

Source: Authors' analyses from The State of Working America 2006-07; table 4.5.

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5 www.ilo.org
6 http://www.medicalnewstoday.com/medicalnews.php?newsid=20557
transactions, communications and maintenance. A lower share of the workforce has employer-provided health insurance coverage today (62.9% of workers in 1998) than 20 years ago (70.2% of workers in 1979). Nearly half the workforce is without pension coverage. In 1998 the average outstanding debt for households in the middle fifth of the income distribution was $45,800, up $11,800 since 1989 (ILO 1998). Asset development is indispensable especially when the average person has limited income to rely upon to ensure them household resources to endure a life time.

Assets are critical to enabling low-income families to build the personal and financial resources to achieve and maintain self-sufficiency. Assets can help insure these families against the risk of major life events, such as divorce, unemployment, retirement, illness, death or accidents that can cause significant financial hardship. Assets also enable individuals and families to obtain education and training, purchase a home and plan for their children’s future. In this way, assets help families to not only get ahead, but to pass on opportunities to future generations. IDAs reward the monthly savings of working-poor families who are trying to buy their first home, pay for post-secondary education, or start a small business. These matched savings accounts are similar to 401(k) plans and other matched savings accounts but can serve a broad range of purposes (Allegretto 2006).

Graph 1: Stock Holdings by Wealth Group, 2004

As technology advances education requirements expand. Thirty years ago the job description for an entry level office position requested proficiency in shorthand, typing – for a typewriter, and accurate dictation; whereas the average administrative
assistant in the current job market must be adept in computer technology, e.g. familiarity with the latest version of Microsoft programs and software applications.

The technology sector fuels the nation. The United States is less reliant on the production of agricultural products, investing heavily in technology research and development.

The US has the largest and most technologically powerful economy in the world, with a per capita GDP (gross domestic product) of $42,000. In this market-oriented economy, private individuals and business firms make most of the decisions, and the federal and state governments buy needed goods and services predominantly in the private marketplace. 4.9% of agricultural products are imported. Agricultural products produced in the United States only contribute towards 1% of the nation’s GDP, whereas industry accounts for 20.4% of the GDP and Service Industry makes up 78.7% of the gross domestic product (CIA website, 2004).

According to Benjamin and Lord (1996):

The National Telecommunications & Information Administration plentiful evidence exists at the national level that access to computers and the Internet is lower in low-income households, and in particular the households of low-income, immigrant Latinos and other minorities (NTIAA, 2000 - National Telecommunications & Information Administration) (Benjamin, L, & Lord, J., 1996)

In the article, A Proactive Approach to Technological Literacy, author Katherine Webber supports the need for adult literacy and skill enhancement to create more employable citizens. To enhance the literacy and basic skills of adults, to ensure that all adults in the United States acquire the basic skills necessary to function effectively and achieve the greatest possible opportunity in their work and in their lives, and to strengthen and coordinate adult literacy programs (Weber 2005).

The United States Government acknowledges the need for literacy in the US and outlines both the current day meaning of literacy and the need for increase skills among the United Stated workforce in The National Literacy Act of 1991 Act. The term "literacy" means an individual's ability to read, write, and speak in English, and compute and solve problems at levels of proficiency necessary to function on the job and in society, to achieve one's goals, and develop one's knowledge and potential. According to Congress, the supply of unskilled workers is increasing while the demand for unskilled labor is decreasing; programs under the Adult Education Act, which are the largest Federal source of direct literacy services in the United States, serve
only 10 percent of eligible participants; and all public and private literacy programs serve only about 19 percent of those who need help (US CENSUS, 2004).

The United Nations Educational, Scientific and Cultural Organization UNESCO identify the importance of literacy in today’s society. Literacy is defined as:

"Literacy is the ability to identify, understand, interpret, create, communicate and compute using printed and written materials associated with varying contexts. Literacy involves a continuum of learning to enable an individual to achieve his or her goals, to develop his or her knowledge and potential, and to participate fully in the wider society” (UNESCO, 2007).

Eileen Appelbaum wrote in a briefing paper for the Economic Policy Institute in November of 2000 that low income households in the United States are at a bigger disadvantage than those in less developed countries.

Due to the highly unequal distribution of income in the U.S., low-wage workers and low-income households here are almost universally worse off in absolute terms than their low-wage, low-income counterparts in other, less-affluent countries (Applebaum, E., 2000)

The ILO (International Labour Organization) estimates that about 60 million young people around the world between the ages of 15 and 24 are in search of work, with youth unemployment running 20% in many OECD (Organisation for Economic Co-operation and Development) countries (ILO website, 2007).

The increase in youth unemployment provoked a change in laws regarding youth workers. The Workforce Investment Act of 1998 (WIA) reforms workforce development services for youth, emphasizing comprehensive youth services and a youth development approach. WIA requires that its program services provide preparation for and success in employment, improve educational achievement, support for youth, and services to develop the potential of youth as citizens and leaders. In addition, all youth participants are to receive one year of follow-up services. WIA requires that local Workforce Investment Boards establish Youth Councils as subgroups to develop local plans, coordinate youth activities, recommend providers, and oversee youth services.

The act supports state and local programs that:

Engage primarily adults (ages 16-25) in full-time community service, training, and educational activities. Under the guidance of adult leaders, who serve as role models, crews carry out a wide range of services. In return for their efforts to restore and strengthen communities, corps members receive: 1)
living allowance; 2) classroom improve basic competencies and, if necessary, to secure high school diploma; 3) service-learning based education; and technical skills training; 5) supportive services; and in some cases, an AmeriCorps post-service educational award (Finance Project website, 2006).

Recycling the computer parts is difficult because the material is hazardous and cannot be disposed in a dumpster like regular trash. According to the EPA (Environmental Protection Agency):

As we become more dependent on electronic products to make life more convenient, the stockpile of used, obsolete products grow. The National Safety Council projects that nearly 250 million computers will become obsolete in the next five years and mobile phones will be discarded at a rate of 130 million per year by 2005. eCycling is reusing or recycling of these consumer electronics.


Computer monitors and older TV picture tubes contain an average of four pounds of lead and require special handling at the end of their lives. In addition to lead, electronics can contain chromium, cadmium, mercury, beryllium, nickel, zinc, and brominated flame retardants. When electronics are not disposed of or recycled properly, these toxic materials can present problems. Extending the life of your electronics or donating your most up-to-date and working electronics can save you money and saves valuable resources. Safely recycling outdated electronics can promote the safe management of hazardous components and supports the recovery and reuse of valuable materials.

IBM has an asset recovery service that pays individuals for their equipment, whether it is an IBM product or a non-IBM product. The company will also provide transportation for a charge of $25 per item. If the materials are not re-marketable, the cost is approximately $30 per item, which includes recycling and transportation. Online equipment value estimates are also available through the site.

IBM makes it easy and economical for you to recycle 1 to 250 pieces of IBM and non-IBM equipment. IBM Express Asset Recovery Solutions now offers a recycling service for assets without market value in accordance with applicable United States federal, state, and local laws (IBM website, 2005).
Staples Stores also have an equipment recycling program that recorded its progress and findings.

In New England Pilot Project to Collect and Recycle Used Computers Using Reverse Under EPA’s Plug-In To eCycling Program Project Description transporting old computers and other transport the old electronics to office products, including supplies, technology, furniture, and business services, partnered with the Product computers, peripherals, and office providing the labor, transportation equipment pilot. Participating manufacturers shared the costs of transporting used the recycler, as well as paying a share government agencies assisted in technical assistance and regulatory from Staples' electronics collection and nationwide (EPA website, 2004)

Refer to Appendix 2

Seattle's Technical Teens Internship Program is busily turning today's middle-school and high-school students into future Java programmers by providing with summer internships and teaching job skills. As part of their real-world training, the teens craft Websites for nonprofit groups and maintain computer networks. Open to up to 40 students every year, the program is targeted at minority children, but it's open to everyone (Curriculum Review, 2001).

South End Technology Center at Tent City in Boston MA is a program which shares New Hope Computer’s goals and has been in operation since March of 1997. New Hope Computers is modeled after this existing community-based technological organization (http://www.tech-center-enlightentcity.tv/pages/794366/). The South End Technology Center was founded in the late 1990’s by a group of people, including Mel King, the Program Director. Mel King is aware of the proposed program for New Hope Computers and provided background information on The South End Technology Center. Mr. King approved of New Hope’s computer initiative and offered the SETC as a model for the program and extended his assistance and knowledge to New Hope’s endeavor.

The South End Technology Center @ Tent City (The Tech Center) is a collaborative venture between the Tent City Corporation (TCC) and the Massachusetts Institute of Technology (MIT). Our fundamental purpose is to enable people to become producers of knowledge and sharers of ideas and information. Our scope and methods are as diverse as the people we serve. We provide free or low-cost access and training in most aspects of computer-related technology. The staff is mostly volunteers and has extensive backgrounds in computer technology and their applications (IBM Website, 2006).
The goals of the South End Technology Center are:

- Recruit and train persons in computer technology who have been excluded from the technological revolution and are at an increased risk of joblessness.
- Encourage community residents to use information technology as a means of personal and professional development.
- Help residents move from being consumers of information to producers and creators of knowledge.


In an interview with Mel King, conducted by the author of this document, Mel stated that in the first computer class where students learned to rebuild computers and take one home to own, there were 13 students and the first A+ certification class held 36 people. Over the past 10 years, well over 150-200 people received A+ certification averaging roughly 15 people per year. Many of the program volunteers were once students and one moved on to form his own center, Network Solutions, in Somerville MA (King 2007).

A Jobs for the Future program, Year Up is a flourishing career advancement training program for young adults age eighteen through twenty-four. The non-profit was founded in 2000 it facilitates programs for 200 students each year. The retention rate of Year Ups vigorous year long program is eighty-three percent. Forty-four percent of the annual number of participants graduate and attend college and eighty seven percent of the students entry pay is an upwards $14.71 per hour (Radha 2005).

Weymouth High School, in Weymouth Massachusetts, has a Scholar and Cents program that teaches teens how to manage money and understand finance. South Shore Bank has a fully functioning branch within the high school with branch manager, John Henderson, on location and student staff. Operating hours are throughout the week from 11:30 am until 12 pm. One of the school’s faculty members, Ellen Scott Garvey, oversees the program. The day to day experience work helps students to develop skills for lasting careers. The “Kids and Cash” concept teaches teens about financial responsibility, coaching them on interest rates and the dangers of debit cards (Fox News 2007).
2. **Program**

This program acknowledges the level of unemployment and poverty in the State of Massachusetts, while illustrating the local demand within the vicinity of Lowell MA for employees with computer related skills. It will emphasize the importance of Workforce and Financial Asset Development for low income or unemployed youth. New Hope Computers- NHC’s goal is to be a successful Youth Career Program that correlates the needs of the local Youth Workforce Development with Information Technology as well as PC Repair and Resale. Along with presenting the need for recycling IT equipment and how it can be achieved through NHC’s computer resale program.

Community participants, as well as youth members will benefit from the proposed Community Computer Cooperative on several levels. If successful the program will:

- Enhance literacy skills that include technological skills for today’s labor force, adults will work with technological savvy students from area high schools and colleges.
- Provide participants with technology skills that are in direct correlation with their children’s school assignments, by working with high school volunteers who also tutor children ranging from kindergarten through grade eight.
- Increase Wealth-Building through asset education. The purpose of the program is to increase the intellectual abilities that will ultimately augment intergenerational knowledge, the more the adults learn the more they can assist their own children with their school work and the more likely both the parents and children will not fear pursuing a higher level of education than their relatives did in the past.
- Place affordable personal computers in low income homes; provide resale of upgraded computers and equipment at reduced cost, which will allow adult participants and community members to purchase computers for their family to utilize at home.
- Educate younger participants in future career skills which are ideal for both technological and entrepreneurial paths – paid instructor recently
filled to assist in this effort.

- Reduce Unemployment, by increasing skill development in the participants, who will have the skills necessary to become a part of a more desirable workforce
- Increase the average education level within the Greater Lowell Community.

Facilitate community-building by encouraging organizations who have donated the computer equipment for this project to contribute further by allowing their employees to volunteer their time and expertise. This will increase community ties and access to resources. Also, participants will be able to utilize community ties for job placement, once their IT related certification is obtained.

<table>
<thead>
<tr>
<th>HYPOTHESIS</th>
<th>VARIABLES</th>
<th>INDICATORS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Majority of Lowell homes do not have computers because they earn below the average for homes with incomes that reflect computer ownership</td>
<td>Indirect Variable (IV): Income</td>
<td>IV: Lack of skills&lt;br&gt;DV: Unable to have the technology to increase skills for better jobs</td>
</tr>
<tr>
<td></td>
<td>Direct Variable (DV): No computers in the home</td>
<td></td>
</tr>
<tr>
<td>If affordable computers and computer literacy is provided than income will increase.</td>
<td>IV: Provide tools for today’s work force</td>
<td>IV: Ability to compete in the job market</td>
</tr>
<tr>
<td></td>
<td>DV: Increased Wages</td>
<td>DV: Better job position</td>
</tr>
<tr>
<td>If computer ownership increases, then support is provided</td>
<td>IV: Incentive for permanent support from fiscal agent</td>
<td></td>
</tr>
<tr>
<td>If participants are trained in computer literacy, then knowledge for today’s workforce increases</td>
<td>DV: Permanent program</td>
<td></td>
</tr>
<tr>
<td>If 30 participants are trained in computer technology, then knowledge on computer technology increases</td>
<td>IV: Achieve goals of both stakeholders and program</td>
<td>DV: Bettering community standards</td>
</tr>
</tbody>
</table>
3. **Participants:**

The United Teen Equality Center Staff, UTEC Members, Americorps Vista Member, community members, and two Southern New Hampshire CED students have been involved in the program. Cisco systems have assisted in creating the server and network for the Multimedia center.

4. **Community Role:**

The project consists of having the children in the after-school program create a fund-raising and opportunity through the learning of new skills and creation of goods which will be sold. Local businesses will be asked to sponsor this Project and the After-School Program and its activities. The students will sell the items they create through a series of workshops teaching them new craft skills. This program will provide the children with several important lessons, including reaching out to community members and recycling used goods. The children will then take the goods they have created and sell them at a community sale at the end of the school year. The children can work on various pieces to sell during after-school program sessions. The coordinator would be involved by supervising the children in these activities. One day could be set aside for each type of item, for example. Students from the local high school will be asked to volunteer their time to assist the middle school students with this project. The children will take the funds that are raised and apply a percentage of them to the after-school program, and the rest will be given to a local charity.

5. **Host organization:**

United Teen Equality Center’s Youth Development Center, emphasizes that “skills and personal development are not created by focusing on one element of a young person’s life; many different elements must be considered and acknowledged in order for true positive development to succeed. UTEC is committed to being a youth-led and youth-managed center; all classes are started at the request of teen members who are able to gain a minimum of 10 signatures on a sign-up sheet (UTEC website, 2007).”
6. **Organizational Chart**

![Organizational Chart]

UTEC has a simple organizational structure:

1. Executive Board (comprised of youth and adults, 50:50) sets high level policy and direction.
2. Executive Director fully empowered to manage the day to day operations of UTEC.
3. Leadership Team is UTEC’s teen decision-making body, the, makes decisions regarding membership policies, disciplinary actions, budget allocations and approvals, new programming initiatives, and organizes special events.
4. The there are the Four Primary Centers: Streetworker Center, Youth Development Center, Organizing Center, and The Open School.

VI. **Project Implementation:**

1. **Staffing Pattern:**

United Teen Equality Center, Inc. (UTEC) Staff:

   Executive Director – GREGG CROTEAU  
   Director of Multimedia - SOVANNA POUV  
   Computer Teacher - FRU NKIMBENG  
   IT Assistant – AARON CHALEK  
   Volunteer – Americorp Vista
Gregg Croteau - oversees the program and the major gifts donations

Sovanna Pouv – main contact and administrator for the program

Fru NKimebeng - recently hired as a part-time A+ Certification, PC Repair/Networking Instructor for young people between the ages 16-24.

Aaron Chalek – assists with various administrative duties

Americorps Vista – the Year of Service for the current member is finished and a new member will be assigned to this position in August. It is a 10 month commitment through the Corporation for National Service.

2. **Budget:**

Summary Budget: May 2007 – April 2008

<table>
<thead>
<tr>
<th>Item</th>
<th>Personnel</th>
<th>Supplies</th>
<th>Operating Expenses</th>
<th>Indirect Overhead</th>
<th>Total Project Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personnel</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Part Time Program Staff Members</td>
<td>12,480</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Full Time Program Staff Members</td>
<td>49,920</td>
<td></td>
<td></td>
<td></td>
<td>62,400</td>
</tr>
<tr>
<td></td>
<td></td>
<td>20,000</td>
<td></td>
<td>2,760</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>24,000</td>
<td>109,160</td>
</tr>
</tbody>
</table>

3. **Project Implementation Report:**

The United Teen Equality Center has moved to a new location on Hurd Street in Lowell MA. The building is spacious and has recently been renovated from a Church into a permanent home for UTEC. Thorough word of mouth advertisement the Multimedia Director has received several inquiries regarding the computer program from interested participants.

Currently there are 6 students, 1 Americorps Vista, the Instructor and an IT Assistant who are implementing the program. In May the program will begin training its students and prepare them to meet the requirements of A+ Certification. Students will take the exam at the end the 3-month training period. Once their training is complete, students will undergo a small business training course in partnership with the LSBAC (Lowell Small Business Assistance Center) in order to best prepare them for their participation in UTEC's youth-run pc repair business (UTEC website, 2007).
Shown below is New Hope Computer’s month by month timeline developed by the United Teen Equality Center of Lowell MA.

May: Month One
- Students will focus on the hardware and networking sections of the course.
- Students will be able to identify computer components and to assemble basic networks through either a(n) physical or wireless interface.
- Students will be able to troubleshoot physical issues of the personal computer.

June: Month Two
- Students will focus on the software section of the course.
- Students will be able to identify different operating systems and their unique differences.
- Students will be able to troubleshoot software issues within the Microsoft Windows Operating System environment.

July: Month Three (week 1 & 2)
- Students will use their regular class time to focus on the simulation tests that is part of the course.
- Students will use this test, and many other resources, to better prepare them for the upcoming exams.
- Both Hardware and Software will be covered.
- **Outreach for the new class will begin.

August: Month Three (mid-of-month)
- Students will take the examinations at a local Xintra, or computer agency.
- Once students pass examinations, UTEC will give them their very own PC repair tool-kit as a reward for the successful completion of the course.
- **Outreach for the new class will continue…

September: Month Three (week 3 & 4)
- Students will begin the Entrepreneurship Training program that is provided, and based, at the Small Business Assistance Center (SBAC)
- Students will be taught the basic knowledge of starting a business, for example; finding a good location, what type of business to run, how to manage money, and find the right customers.
- **Outreach for new class will continue…

October: Month Four
- Students will continue to take the course till the end of the month.
- Students will acquire a certificate that acknowledges the students of their successful completion of the SBAC Training Course.
- Interviews for the new class will be held.
November: Month Five
- Students will be hired part time to help with PC Repair business.
- Students will help promote, outreach for potential students, and help send the word out to the community about the business and what type of services will be offered.
- **New class will begin.

December: Month Six
- Students are offered resume training and assistance with job search.
The participants will benefit from the assistance of the stakeholders Lowell Career Center (LCC) and the Northern Massachusetts Telephone Workers Credit Union for personal development. LCC has offered to aid program members in resume writing and internship placement. The Credit Union has extended its services for workshops on subjects including financial management and asset accumulation, as well as extended membership to program participants allowing them access to services, i.e. savings plans and checking accounts.
### 4. Project Implementation Gantt Chart:

<table>
<thead>
<tr>
<th>2007</th>
<th>date</th>
<th>date</th>
<th>date</th>
<th>date</th>
<th>date</th>
<th>Task Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skills training period</td>
<td>05/01</td>
<td>05/31</td>
<td></td>
<td></td>
<td></td>
<td>1 month</td>
</tr>
<tr>
<td>focusing on PC Hardware/Networking</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skills training period</td>
<td>06/01</td>
<td>06/30</td>
<td></td>
<td></td>
<td></td>
<td>1 month</td>
</tr>
<tr>
<td>focusing on PC Software</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intense study period</td>
<td>07/01</td>
<td>07/18</td>
<td></td>
<td></td>
<td></td>
<td>1st half of Third Month</td>
</tr>
<tr>
<td>focusing on both Hardware/Software</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Examinations – Middle of Third Month</td>
<td>07/19</td>
<td>07/19</td>
<td></td>
<td></td>
<td></td>
<td>3 hours</td>
</tr>
<tr>
<td>Start entrepreneurship</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2nd half Third Month till end of Fourth Month</td>
</tr>
<tr>
<td>training</td>
<td>07/20</td>
<td>08/31</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Youth-Run Business</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>09/01</td>
<td>Ongoing</td>
</tr>
<tr>
<td>Begins</td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>Softskill Development</td>
<td></td>
<td></td>
<td></td>
<td>10/01</td>
<td></td>
<td>Ongoing</td>
</tr>
<tr>
<td>Training - Resume &amp; Asset Building</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Placement into</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>11/01</td>
<td>Ongoing</td>
</tr>
<tr>
<td>community job placements</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>12/31</td>
<td></td>
</tr>
</tbody>
</table>

Note: The “red” cells denote critical path. The “aqua” cells denote building blocks for Program.
VII. Monitoring/Evaluation:

The success of this program will be evaluated by determining (a) how many of the 30 participants complete the training program (measured by a comprehension test of the basic skills needed to repair and upgrade a computer); (b) the number of refurbished computers sold at the end of the coops fiscal year; and (c) a follow up evaluation of the participants at the end of the program year – it will consist of questions that will gage what participants learned, what their ambitions in the field are, and if they have future aspirations in computer technology. Also have detailed bookkeeping of all transactions and each computer

Evaluation Questions

- How many computers were repaired?
- Was a business created?
- How many computers were sold?
- How many students received their A+ certification?
- How many students are retained in employment?

The amount of Computers refurbished will be the variables used to determine the success of the projects computer repair component. Each enrollee will be given the option to sign a contract and required to keep monthly journal for each computer being worked on by the individual student will be maintained. Students will keep log forms with accurate accounts of each computer unit they refurbish in order to Record keeping is reliable, readily accessible, and a form of self-evaluation for the target population. There will be itemized computer records, containing serial numbers, parts used, etc, and the number of refurbished computers completed by each youth member.

Technical skill, Soft Skill, and Financial education will come from training manuals, volunteers, community consultants and hired instructor. Participants will be given practice tests to gage their knowledge base.
Business and Community Purchases of Equipment: a sales report will be maintained by the students and evaluated by the instructor and Director of the Multimedia Center. The instructor is to set aside a computer for each promissory note signed and keep track of each note per computer ratio to insure that there are ample computers.

All data will be collected at the start and finish of each the project Quarter.

VIII. Sustainability

The project aims to educate members in entrepreneurial and technical skills to initiate their own business and sell refurbished machines to gain profit that will assist in sustaining the program. The projection of this plan is and its success depends on participants’ involvement and access to the resources and tools essential for achieving the programs mission. The project predicts multiple several approaches to fundraising and obtaining the resources necessary for long term project success.

Continuous Fundraising Method:
Empties4Cash – A recycling program that offers monetary awards for used ink cartridges. New Hope Computer can offer program partners a disposal service through hosting a drop of center to donate their used cartridges to be recycled. UTEC – New Hope Computers then can mail the empty ink cartridges to Empties4Cash and receive anywhere from $2-$4 for them. Empties4Cash is a no cost fundraising method. Collection boxes are mailed to your organization, with prepaid shipping labels on boxes and there are no limits, nor any obligations, so the funding method is dictated by your organizations needs.

Annual Fundraiser

Silent Auction – items to be auctioned for fundraising purposes will range from repaired computers to graphic art or services.

Equipment donations:

The Greater Lawrence Family Health Center has donated 65 computers that are licensed for Windows 98, but will not come with Windows 98 on them. Licensed for 98 meaning they have a Win98 product key on them and the Center is giving the Co-op a Windows 98 CD. The donation will be computers (no monitors or peripherals) – perfect for the programs upgrade and resale process.

Stephen Sciarrio, DDS of 2 Madison Ave, Hooksett, NH 03106 donated 25 machines and printers for the program
The Southern New Hampshire University has agreed to set aside roughly 15 used computer systems and computer towers in the spring 2007 for this program.

IX. Conclusions and Recommendations:
1. Results:

The objectives of both projects were met as well as that of the host organization the United Teen Equality center. A program initiative is housed, there are students enrolled in class and it has current funding and is in the process of obtaining additional donations and developing partnerships for future funding sources.

Analysis of the developmental process for the project New Hope Computers presents a perfect case study on CED program creation. The project originally derived from two different students with similar ideas to improve their local communities. In the two different communities both projects faced typical setbacks for a start up project. The Project would have space and not funding, a host organization but not staff for project support and donations of computers and equipment but no longer a host. In the end the two projects merged and created a great program that enhanced an existing community organization’s project.

The United Teen Equality Center and its participants are involved and enthused to see the New Hope Multimedia program flourish. Currently, the organization is looking to past initiatives and project partners for support and the prospects are positive. Success and upward movement is projected for this project.

Recommendations in respect to the project would be to establish a permanent partnership with the Northern Massachusetts Telephone Workers Credit Union and investigate possibilities for a program similar to that of Weymouth High Schools Scholar and Cents program.

2. Recommendations:

The New Hope Computer’s Multimedia Project was a positive and enriching experience. It proves that with a great idea and perseverance anything can be accomplished. Advice to aspiring CED practitioners would be to persevere. The Non-profit world is different than the public sector with regards to funding, organizational management and guidelines, so pitfalls are to be expected.