

# The Community Anchor Institutions of Champaign-Urbana, Illinois

## Technology Use by Non-Profit and Public Organizations in the Broadband Moment

Volume 2

Edited by Kate Williams, Abdul Alkalimat, and Abigail Sackmann  
The University of Illinois at Urbana Champaign





# **The Community Anchor Institutions of Champaign-Urbana, Illinois**

---

**Technology use by non-profit and public  
organizations in the broadband moment**

**Volume 2**

**Edited by Kate Williams, Abdul Alkalimat, and Abigail Sackmann**

---

**The University of Illinois at Urbana Champaign**

**Published by the University of Illinois at Urbana Champaign  
Department of African American Studies, the Center for Digital  
Inclusion, the Graduate School of Library and Information Science, and  
Urbana Champaign Big Broadband (UC2B)**

---

**Also available online at <http://ideals.illinois.edu>**

**CI Lab Note #14, October 2012**



# Table of Contents

---

Preface by Ronald W. Bailey.....	5
Preface by Mike Smeltzer.....	7
Preface by Jon Gant.....	9
Introduction by Kate Williams.....	11
Community Organizations.....	19
1: The Center for Women in Transition .....	19
2: Community Elements (formerly Mental Health Center of Champaign County).....	29
3: Crisis Nursery .....	39
4: Cunningham Children’s Home .....	49
5: Developmental Services Center .....	54
6: Don Moyer Boys and Girls Club.....	64
7: empty tomb, inc.....	72
8: The Girl Scouts of Champaign.....	80
9: Habitat for Humanity of Champaign County.....	91
10: Land of Lincoln Legal Assistance .....	96
11: Muslim American Society .....	103
12: Orpheum Children’s Science Museum.....	111
13: Restoration Urban Ministries .....	119
14: St. Jude Catholic Worker House .....	129
15: Salt & Light.....	140
16: Salvation Army Red Shield Center .....	146
17: Stake Family History Center.....	155
18: United Way of Champaign County .....	163
19: Urbana-Champaign Independent Media Center.....	172
Places of Worship and Spirituality.....	179
20: Bethel A.M.E. Church .....	179
21: Center of Hope Church.....	187
22: Church of the Brethren .....	192
23: The Church of the Living God .....	201
24: Cornerstone Baptist Church (formerly Garden Hills Baptist Church) .....	212
25: First Christian Church .....	221

26: First United Methodist Church .....	232
27: Holy Cross Catholic Church and School.....	240
28: Mt. Olive Missionary Baptist Church .....	249
29: New Hope Church of God In Christ.....	257
30: Prairie Zen Center .....	265
31: Salem Baptist Church .....	273
32: St. John Lutheran Church .....	283
33: St. Luke Christian Methodist Episcopal Church.....	292
34: St. Mary Catholic Church/St. Patrick Catholic Church.....	299
35: St. Matthew Catholic Church.....	309
36: Stone Creek Church .....	318
<b>Government .....</b>	<b>325</b>
37: Champaign County Regional Planning GIS Consortium.....	325
38: Champaign Park District .....	330
39: City of Champaign .....	341
40: City of Champaign Township.....	349
41: City of Urbana.....	357
42: Cunningham Township .....	364
43: Urbana Champaign Sanitary District .....	372
44: Urbana Post Office .....	377
45: Urbana Township .....	386
46: USGS Illinois Water Science Center .....	395
47: Village of Savoy.....	404
<b>Education.....</b>	<b>413</b>
48: Champaign County Head Start .....	413
49: Champaign Unit 4 School District .....	422
50: Champaign Consortium/Parkland Job Training Center .....	429
51: Countryside School .....	439
52: Judah Christian School.....	447
53: Next Generation School .....	456
54: Parkland College .....	465
55: Urbana School District 116 .....	475
<b>Health Care .....</b>	<b>489</b>
56: Amber Glen Alzheimer’s Special Care Center.....	489
57: The Champaign County Christian Health Center .....	496
58: Christie Clinic .....	505
59: Community Blood Services of Illinois.....	512

60: Illini Heritage Rehab & Health .....	519
61: Pavilion Behavioral Health System.....	526
62: Provena Covenant Medical Center.....	536
Public Safety .....	545
63: Champaign County Emergency Management Agency .....	545
64: Champaign Fire Department.....	553
65: Eastern Prairie Fire Protection District.....	561
66: Parkland College Police.....	568
67: Urbana Fire Rescue .....	578
68: Urbana Police Department.....	590
69: Village of Savoy Fire Department.....	600
Housing.....	607
70: Clark-Lindsey Village .....	607
71: Housing Authority of Champaign County.....	613
72: Prairie Winds of Urbana .....	621
73: Round Barn Manor .....	630
74: The Windsor of Savoy.....	639
Transportation .....	647
75: Champaign-Urbana Mass Transit District.....	647
76: Federal Aviation Administration.....	657
77: University of Illinois Willard Airport.....	666
Libraries.....	675
78: Champaign Public Library.....	675
79: Douglass Branch Library .....	684
80: Urbana Free Library .....	695
Appendix A: Research Instruments.....	703
Appendix B: UC2B Archive.....	717
Index to Authors.....	721



# 41: City of Urbana

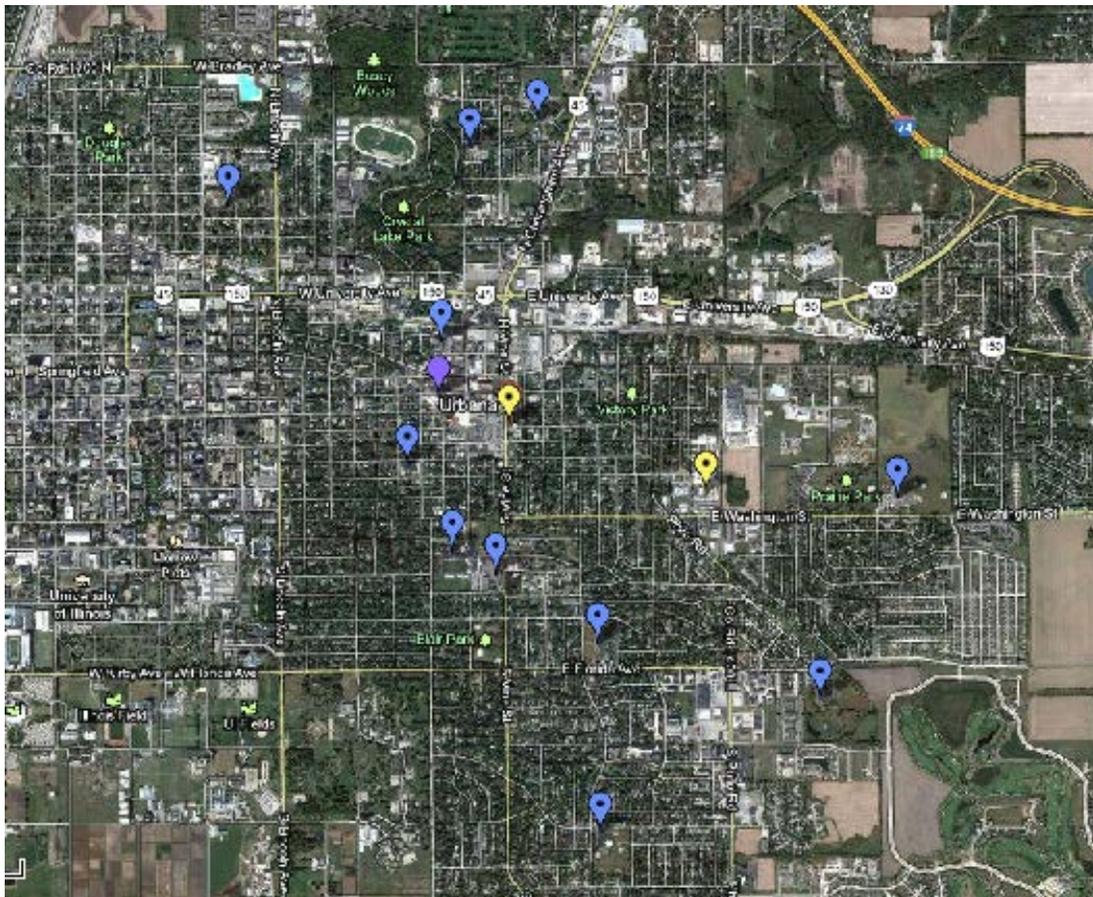
**Abigail Sackmann**

Master's student, GSLIS

## 1 Executive summary

The City of Urbana has a robust, coherent, and effective IT program currently and is poised to maximize the benefits brought by UC2B. The city currently has fiber connecting many of its buildings, and UC2B will extend existing rings as well as forge speedy connections to other local institutions. This extension will support much of the future vision for technology use, both within city offices and for the public. Examples include swift data sharing and graphical reporting, enhanced backups, price sharing for hardware and software, and a new project for community media involving video storage and streaming.

## 2 Maps



City of Urbana properties: schools (blue), library (purple), parks (marked by name), and city buildings (yellow).



City of Urbana Main Offices.

### 3 Photographs



City of Urbana Main Offices.

#### 4 Demographics of City of Urbana (2010 Census Figures)

Population	41,250
White	60.4%
Black	16.3%
American Indian and Alaska Native	0.3%
Asian	17.8%
Persons reporting two or more races	3.1%
Persons of Hispanic or Latino origin	5.2%
Foreign-born persons	18.3%
Language other than English spoken at home	24.3%
High school graduates, percent of persons age 25+	93.2%
Bachelor's degree or higher, percent of persons age 25+	55.3%
Median household income	\$34,951
Persons below poverty level	29.8%

#### 5 History

Urbana was chartered by the State of Illinois in 1855 and its first mayor was elected in June of that year. The building of the Central Illinois Railroad, with a station two miles west of the city center, contributed to the growth of the town and set the framework for the dual cities that exists today.

City government has been on the cutting edge of technology use for decades. In 1980 the offices had an IBM System/3 computer for payroll and general ledger accounting. This was replaced a few years later with a System/34, the first multitasking, multiuser computer which provided several departments with their own terminals by means of which they could input and receive data. These computers were still used mainly for payroll and general ledger, but wider access streamlined the processes, the first step in a long history of technological advances contributing to improved efficiency and effectiveness.

In addition to hardware advances, the city's IT department took the initiative to write much of their own software, a practice that continues today. One of the first programs written was a package for keeping police records in the mid-1980s, the success of which caused the Champaign and UIUC police departments to adopt the program in the mid-90s.

The next big turning point in the city's use of technology was in the early 1990s, when PCs were put in many offices for daily use beyond payroll and general ledger. Each building had its own Local Area Network (LAN), but there was no cross-site network yet between the main city building and the public works site. A few years later a T-1 line connected the two sites.



**IBM System/3(**Photo courtesy of [en.wikipedia.org/wiki/IBM\\_System/3](https://en.wikipedia.org/wiki/IBM_System/3)**)**

In 2002, the city began to buy bandwidth from the Illinois Century Network (ICN), a state telecommunications network that provides services to public institutions. This relationship provided the city with consistent access to broadband at a low price. In the same year the Champaign County GIS consortium was formed, fostering intergovernmental cooperation and causing a big step forward in terms of data collection and analysis.

The City of Urbana started laying optical fiber in 2005, running lines to schools and office buildings. The connection was also extended to Champaign County and METCAD, the consolidated 911 dispatch center that fields calls from most of the county. This fiber connection simplified and sped up all connections, facilitating a much-faster flow of information. Connecting to UC2B fiber is a logical next step for the municipality.



IBM System/34 (Photo courtesy of [www-03.ibm.com](http://www-03.ibm.com))

## 6 Technology inventory

Hardware	Software, Systems, Communication	Staff
250 desktop computers, white boxed	Microsoft Windows Office environment	250 total
IBM iSeries server for general ledger and payroll	Exchange servers	7 IT staff including manager, network administrator, programmer, document technician, web programmer, and support.
Scanners and copiers	Area-specific software, e.g., AutoCAD and ArcGIS	Program to reimburse employees when they buy a PC for their homes
	Self-authored software, e.g., parking ticket self-service and police records	
	External website	
	Robust internal website with software tutorials	
	Wireless and wired broadband	

## 7 Analysis

Note: Though this report focuses on the past, present, and future of only two Urbana City buildings, the main offices on Vine Street and the public works building, separate reports are available on the city's other departments, including the school district, police department, and fire department.

The City of Urbana has a robust information technology program and a strong employee skill set. All computers are white boxed (meaning designed and built for their particular needs), IT staff write much of the specialty software used by departments, and the city is continually moving forward with technology in order to maximize the effectiveness of their programs, services, and governance. They have a program to reimburse employees for the cost of a PC they can use at home, and an internal website with tutorials, frequently asked questions about software and networks, and step-by-step guides to keep tech use functioning smoothly.

The city has a large stake in UC2B, and is one of three main partners both in obtaining the grant and in the implementation of the project. Many city sites have existing fiber as a result of the build-out that began in 2005; UC2B will add to this network by completing the existing fiber rings with mutually beneficial rights of use (through IRU agreements) for fiber from both projects.

The biggest obstacle currently for the municipality is bandwidth—not access, but cost. For a government organization that is relatively small, the kind of high speeds that would make computing and communication the most efficient are often not cost-effective. A similar challenge is present with expensive hardware and software. The connectivity provided by UC2B could potentially mitigate some of these issues not just for the city but for other organizations as well, through partnerships reminiscent of buying clubs. An example of a successful intergovernmental partnership is the police-reporting software mentioned in the History section above. In addition, all of the police records for Champaign, UIUC, and Urbana are stored on Urbana servers, which helps to streamline communication and access. With UC2B and the proposed 1Gbps local connection, remote access to the database can be faster, while accommodating the possibility for photographs and video to enhance the system.

Indeed, partnerships with other governments and institutions in the area is potentially the most innovative and rewarding outcome of the project. Currently the connection between Champaign and Urbana governments is relatively slow. As the IT representative at the city said, “Just as residents move seamlessly between Urbana and Champaign, it is to our mutual benefit to create a seamless partnership.” One example of current intergovernmental collaboration that will benefit greatly from the UC2B project is the Champaign County GIS Consortium. Members include the cities of Champaign and Urbana, villages of Savoy, Rantoul, and Mahomet, and the University of Illinois. Principal Data Clients include the Mass Transit District, the Public Health District, Sanitary District, and the Economic Development Corp. The main purpose is to collaborate on data collection and analysis for both increased access to data and cost sharing, making this partnership an excellent example of what is possible through UC2B. Current connection speeds are often too slow for these large and graphical datasets; the 1Gbps local connection will be of significant value here. Access to GIS data sets and

maps will not just be of benefit to local governments, however—the potential for public and institutional access and contribution is also very exciting.

Another project that will benefit from lightning-speed local connectivity is Urbana Public Television's recent grant through the Open Media Project. The City of Urbana was one of six cities nationwide to receive this grant (along with Denver, CO; Davis, CA; Austin, TX; Portland OR, and Boston, MA), facilitating access to an amazing amount of virtual storage and a community of open-source software developers in order to create a community-driven media program. The result could be an amazing digital video archive of locally produced video, from school plays to documentaries to oral histories, organized and interfaced with open-source applications. As of this writing, the city is working hard to make this a reality in the short term, possibly even by the summer of 2012.

In addition to these partnerships and connections, access to fast and inexpensive bandwidth can help with each of the three main areas of technological advancement for the city: virtualization, improved backup, and planning for disaster recovery. For example, with more access points connected reliably to city servers, backups can be diversified and redundant, helping to mitigate the effects of any catastrophic data loss.

The City of Urbana is truly on the cutting edge with regard to IT, both within city government and through partnerships with other institutions. Beyond continuing to be an effective local government, it is poised to lead the way for the success of the 1Gbps local connection, showcasing the potential for effective bolstering of both intergovernmental collaboration and services for the public.

## **42: Cunningham Township**

### **Jane Sandberg**

Master's student, GSLIS

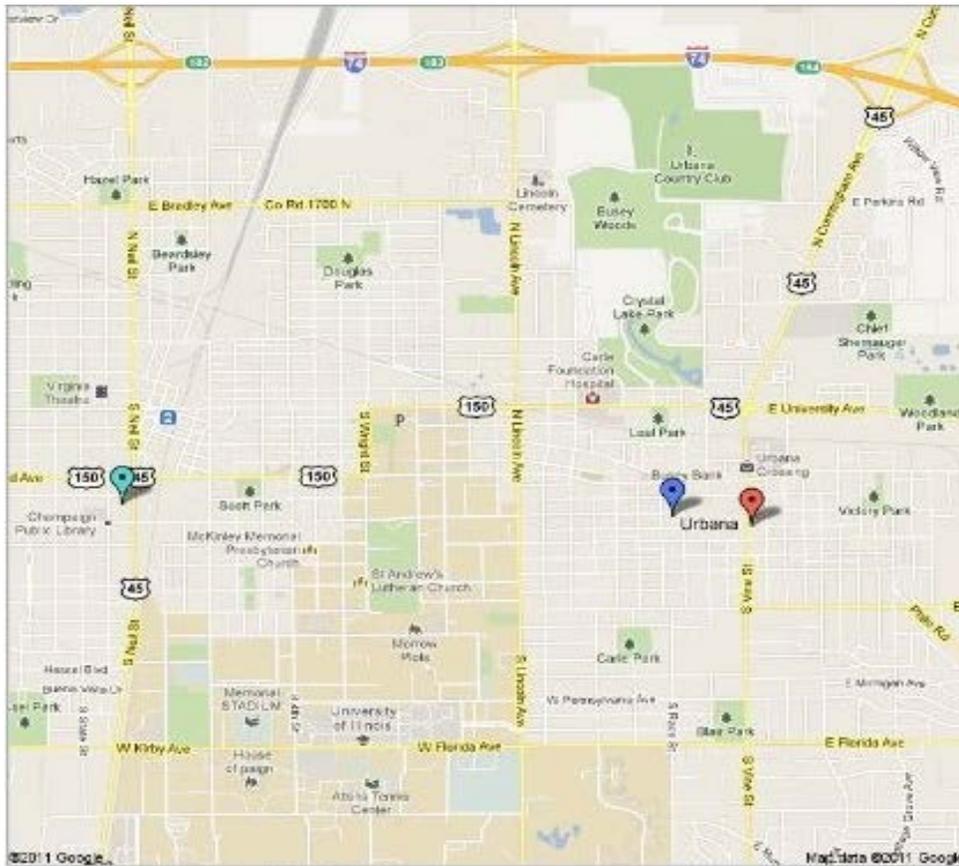
#### **1 Executive Summary**

Cunningham Township, a township coterminous with the City of Urbana, was founded in 1928. Administratively, Cunningham Township consists of two offices, both of which have historically been very active in ensuring equity among their residents. The administrative office of the Cunningham Township, led by the Township Supervisor, has regularly supported more clients through General Assistance and other low-income programs than have other local townships. The assessor's office, meanwhile, has striven to maintain equitable assessment of property values within the city.

Both offices have developed useful ways to incorporate technology in their operations. The supervisor's office maintains a number of documents and databases on its own server; while the assessor's office uses computer programs to calculate appraisals, relies on e-mail for a large percentage of its communication, and offers a public access computer for members of the public to look up appraisal records. Though none of these uses are particularly groundbreaking, technology does play a large role in the day-to-day functioning of the offices.

Though both offices would be helped by faster connectivity, strict public information laws and a lack of extra staff make it unlikely that the township could take full advantage of broadband services provided by the UC2B project.

## 2 Maps



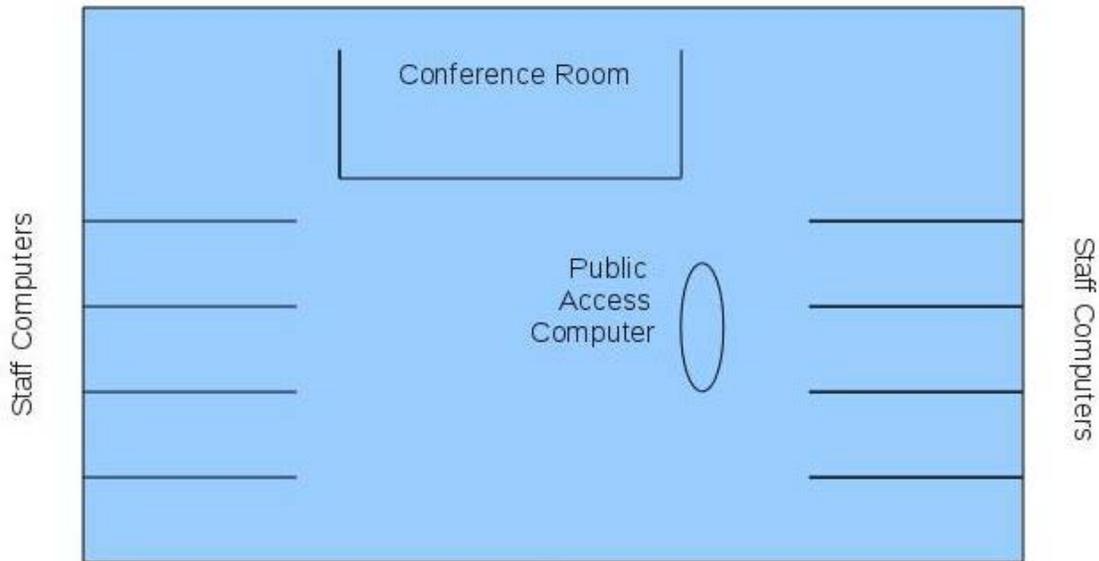
### Cunningham Township Tech Support

-  Cunningham Township Administrative Offices
-  Urbana City Offices
-  Micro Systems

The township offices receive technological support from two different sources. The assessor's office is supported by the City of Urbana's IT Department, while the supervisor's office is supported by Micro Systems in Champaign.

## Supervisor's Office

## Assessor's Office



The layout of the Green Street offices.

### 3 Photographs



The public access computer in the Cunningham Township assessor's office: it was originally a staff computer, but is now used by members of the public who wish to look up records.



**A staff computer in the Cunningham Township assessor's office.**



**The Cunningham Township offices: the supervisor's office is on the left side of the building, and the assessor's is on the right.**

**CITY OF URBANA** RESIDENTS VISITORS BUSINESSES GOVERNMENT

**BOARDS & COMMISSIONS**

Home » Government » Boards & Commissions

### Boards & Commissions

The City of Urbana appreciates the many volunteers who serve on advisory boards, commissions and committees that provide valued input and recommendations to the Mayor and City Council. Members are generally appointed by the Mayor and confirmed by the City Council. All board, commission and committee meetings are open to the public and welcome citizen input. If you are interested in volunteering your time and expertise and want to be considered for appointment to an Urbana board or commission, please contact the Mayor's office for information at (217) 384-2456, or send in an [application](#).

[Print](#)

**BOARDS & COMMISSIONS**

- [Bicycle & Pedestrian Advisory Commission](#)
- [Boneyard Creek Commission](#)
- [Building Safety Code Board of Appeals](#)
- [C-U Cable and Telecommunications Commission](#)
- [Civil Service Commission](#)
- [Civilian Police Review Board](#)
- [Community Alternative Policing \(UCAP\) Advisory Committee](#)
- [Community Development Commission](#)
- [Cunningham Township Board](#)
- [Design Review Board](#)

The township's web presence consists of the agendas, minutes, and financial reports from its meetings, included in the City of Urbana's website.

#### 4 Demographics for City of Urbana

2010 Census Data	Urbana, Illinois
Total Population	41,250
Ethnicity	
White Alone	60.4%
Black Alone	16.3%
Asian Alone	17.8%
Hispanic or Latino	2.2%
Median Household Income	\$42,655 **
% of Families Below Poverty	13.3% **

#### 5 History

A township is an organized political subdivision of a county. Illinois counties began operating under the township model after the 1848 Illinois Constitution gave voters in each county the opportunity to adopt township government. Illinois townships are charged with three major duties: general assistance (GA) for the indigent, the assessment of real property for the basis of local taxation, and the maintenance of all roads and bridges outside federal, state, and other local jurisdiction. In addition, an 1849 law created a county board of supervisors, composed of township supervisors in a given county, which is the legislative body for the county. (Illinois Regional Archives Depository) Though the legislative function has since been repealed due to conflict-of-interest concerns, townships still have a vital role to play in Illinois. As of 2005, 85 of the 102 Illinois counties operated under the township form of government, making a total count of 1,433 townships. (Township Officials of Illinois)

On December 5th, 1928, the Urbana Township was split in two. The newly established Cunningham Township—named for the family of Judge J. O. Cunningham, an early Urbana family—encompassed the City of Urbana, while the remainder was kept as part of Urbana Township. (Fisher, 1963) The Cunningham Township administration soon began playing an active role in providing social services. In 1935, the township’s annual “pauper relief” appropriation was an impressive \$65,150, \$7,000 more than the larger Champaign Township’s total annual appropriation. (“Cunningham Township”) By fiscal year 1976, the two township’s GA expenditures were roughly equivalent: Cunningham Township had 56% of the population of Champaign Township, but was spending 91.5% of its counterpart’s GA allocation.

In the same year, Cunningham’s assessor’s office spent over twice as much as Champaign’s. Much of this expenditure was due to the appointment of several new deputy assessors and an increased effort to reappraise corporations’ properties. This push was less than welcome, causing 175 firms to complain to the county board of review, which is charged with maintaining uniformity in assessments. A battle ensued between the Republican board of review and the Democratic Cunningham assessor.

To this day, both taxes and social services expenditures for Cunningham Township are higher than for its counterparts, Champaign Township (outside the city limits of the City of Champaign), City of Champaign Township, and Urbana Township (outside the city limits of Urbana). For example, as of 2000, Cunningham Township spent roughly five times as much on GA as did Champaign Township, though Champaign's more extensive staff resources caused its GA administrative costs to exceed Cunningham’s 3-to-1.

Throughout its history, Cunningham Township has devoted itself to compassionate social service programs and fair property assessments. Though the township and its structure are not readily apparent to most Urbana residents, Cunningham Township continues to work towards greater equity in the City of Urbana.

## 6 Technology Inventory

### Supervisor’s office

Staff computers	5 (4 regularly in use)
Server	On-site
Tech Support	Micro Systems
Speedmatters.org	1.449 down / 1.390 up
Speedtest.net	1.46 down / 1.44 up

### Assessor’s office

Staff computers	4
Public computers	1
Server	City of Urbana
Tech Support	City of Urbana

Speedmatters.org	7.747 down / 5.277 up
Speedtest.net	5.81 down / 5.01 up

Shared between the two offices

Networked copy machine (on City of Urbana's network)

Phone system

## 7 Analysis

Cunningham Township is comprised of two separate offices with two different missions and two different ways of using technology. The supervisor's office is responsible for the administration of the township, and also issues General Assistance welfare benefits and establishes other programs to assist low-income Urbana residents. The assessor's office is responsible for the fair assessment of taxable property within the township to ensure an equitable tax burden. The supervisor's office has had its own server for several years, and has received technological support from Micro Systems in Champaign for roughly 15 years. The assessor's office, meanwhile, relies on the City of Urbana's IT department for server space and support. The township formerly had a website on Prairienet, but this was discontinued when Prairienet stopped offering free hosting. Today, the township's Web presence consists of the meeting minutes and agendas hosted on the City of Urbana's website. The township feels that their Web presence is adequate, especially as public information laws would require that any existing website be updated regularly, a prohibitively large burden on an already busy staff. Township meetings are also currently broadcast on Urbana Public Television.

The assessor's office is currently working on two technological projects. First of all, the office is transitioning from a state-supplied computer-assisted appraisal program to new property-assessment-management software. The new software will interface with GIS while producing tax rates based on building data. The office is also digitizing its building drawings, a project which is 75% complete.

The assessor's office has a public-access computer that can be used for looking up assessor data. While members of the public are more likely to call the office for questions about appraisals, the public computer is still occasionally used. This computer formerly served as a staff computer.

Both offices use e-mail as a primary means of internal communication. Externally, the supervisor's office relies much more heavily on telephones to communicate with its low-income clients. The assessor's office uses both tools to communicate, with usage divided along generational lines. The office's 2,000 elderly clients tend to use the phone, while other homeowners, appraisers, and realtors use e-mail more frequently.

Though none of the ways in which either office uses technology are particularly groundbreaking, technology does play a large role in the day-to-day functioning of Cunningham Township. Though both offices would be helped by faster connectivity,

strict public information laws and the lack of extra staff make it unlikely that the township could take full advantage of broadband services provided by the UC2B project.

### **Bibliography / Weblibliography**

"Urbana Township is Divided." *Urbana Daily Courier*, December 5, 1928.

"Cunningham Township Relief Levy Reduced by Special Committee." *Urbana Daily Courier*, Front page, April 16, 1935.

Fisher, R.F. *Townships of Champaign County*. Urbana: R.F. Fisher, 1963.

Monson, Mike. "Can Big Grove be a good thing for rural Urbana?." *News-Gazette (Champaign-Urbana, IL)*, June 9, 2000.

Township Officials of Illinois, "About Township Government." Last modified March 9, 2005. <http://www.toi.org/abouttownshipsbody.htm>. Internet Archive. Accessed October 27, 2011.

<http://web.archive.org/web/20050309231217/http://www.toi.org/abouttownshipsbody.htm> .

Illinois Regional Archives Depository, "Administrative History: County Board." Accessed October 24, 2011.

<http://www.sos.state.il.us/departments/archives/irad/countyboard.html> .

# 43: Urbana Champaign Sanitary District

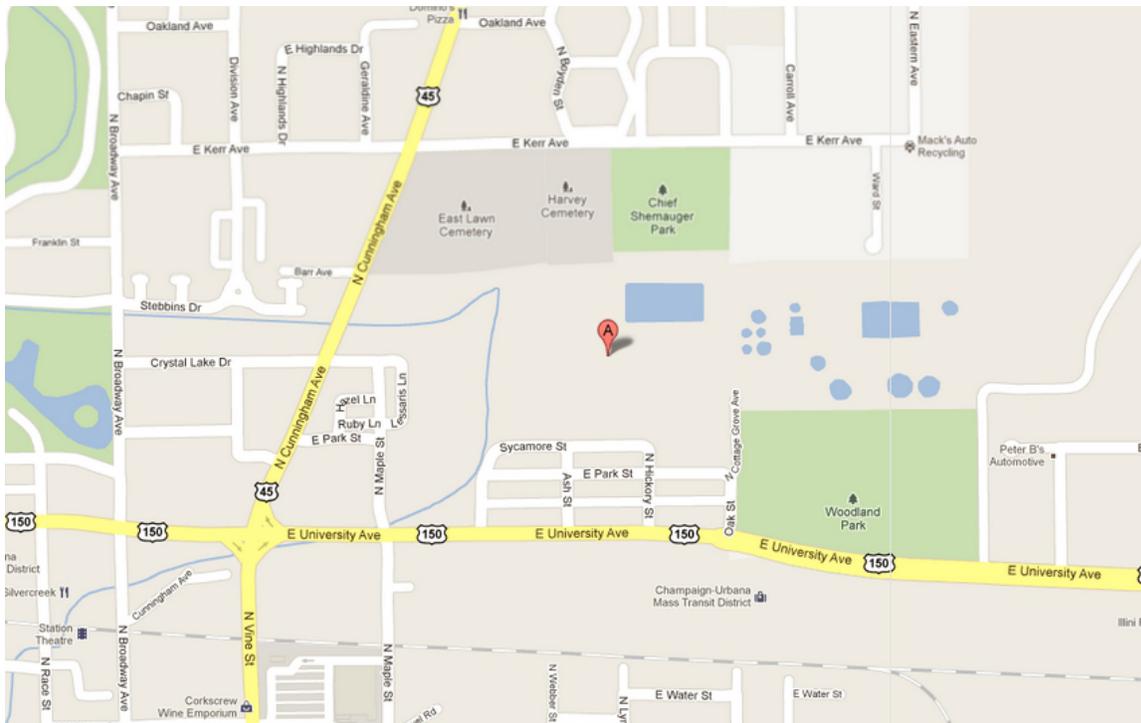
Pawel Szponar

Undergraduate

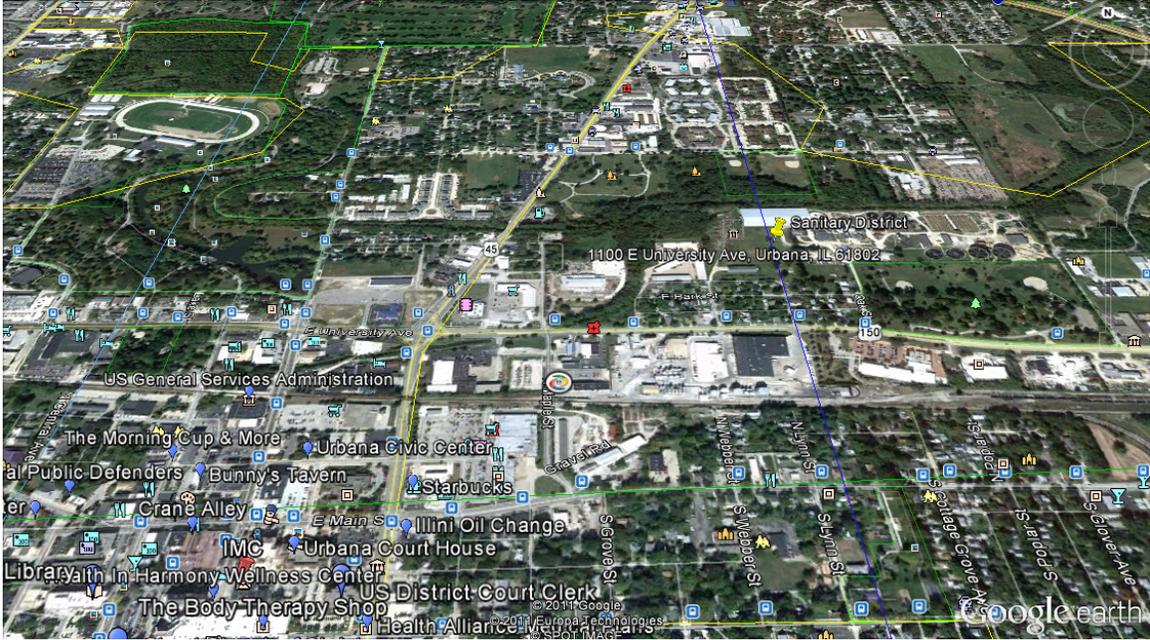
## 1 Executive summary

The Urbana & Champaign Sanitary District is concerned with making sure that the sewage from the residents of the area is properly transported and treated in order to prevent the spread of diseases in the community and in areas downstream. It has several pump stations throughout the two cities and two main treatment centers. The Urbana & Champaign Sanitary District is a large partner in the UC2B project, having provided \$120,000 for a secure connection to the network in order to improve communications between plants and also ensure reliable data transfer through its many automation systems.

## 2 Maps



The location of the Urbana & Champaign Sanitary District (“A”).



The location of the Urbana & Champaign Sanitary District in relation to other business in the area.

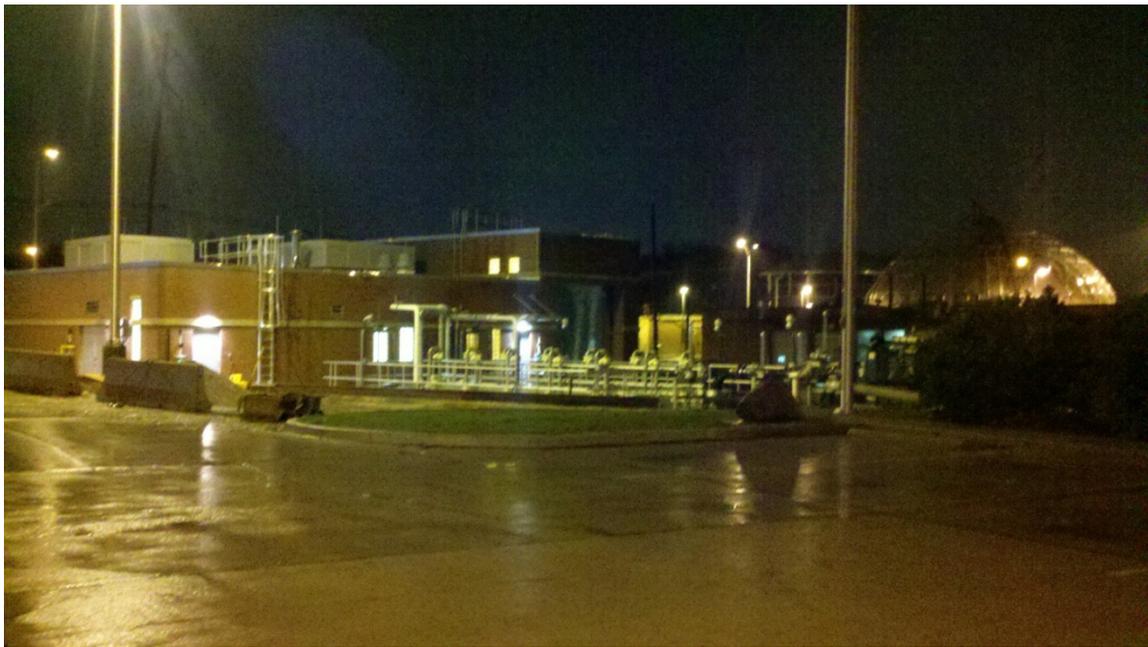
### 3 Photographs



Server room and staff computing.



**Front desk reception area.**



**Night view of the outside of the facility.**



Aerial view of the facility.

#### 4 Demographics of patrons or clients

As a wastewater treatment facility, the Urbana & Champaign Sanitary District provides wastewater treatment for the Cities of Urbana and Champaign and the Village of Savoy, along with the University of Illinois and the surrounding adjacent developed areas. It is a single-purpose governmental structure that cleans wastewater, and thus it isn't relevant for its operation to know the demographics of its patrons

#### 5 History

The Urbana & Champaign Sanitary District was organized in May 1921 to relieve the overloaded sanitary sewers and prevent pollution of local resident basements, the Boneyard Creek, and the Saline Branch of the Salt Fork Creek. It was created by a petition of the voters. It's an outstanding example of successful city-to-city cooperation.

#### 6 Technology inventory

Website

SCADA, Supervisory Control and Data Acquisitions software for monitoring and controlling processes

Munis (billing software)

Automated maintenance and inventory tracking software

30 desktops for staff

2 treatment plants run by automation system

23 remote sewage pump stations

	Download (Mbps)	Upload (Mbps)
Speedmatters.org	9.709	6.061
Speedtest.net	9.39	5.92

## **7 Analysis**

The Urbana & Champaign Sanitary District is concerned with making sure that the sewage from the residents of the area is properly transported and treated in order to prevent the spread of diseases in the community and in areas downstream. As such, there are no volunteers within the institution, no public computing rooms and no social networking sites to visit. The staff at the site use highly specialized software that is designed for data manipulation, retrieval, and collection and the people who work with this data are trained to use that software.

Much of the discussion about UC2B centers around how it will impact the people of the community and the local businesses and culture, but in this behind-the-scenes organization it will play an equally valuable role. The treatment plant is run with the help of SCADA, an automation system which gathers data from at least 30 different process controllers and presenting it to operators who may then make informed decisions about how to operate the plant. When this data moves faster and more reliably, the sewage treatment center works much more efficiently. High-speed Internet will also streamline an automated maintenance and inventory process and enable the operators of the sanitary district to obtain more relevant information about their 23 off-site facilities which pump sewage to the two treatment plants.

On the one hand, one might think that this isn't an anchor social institution as it is so extremely focused on a single aspect of the community, but the truth is that it is essential to our health and well-being. Without a proper way of managing and removing our sewage, the community would not be able to exist in a healthy environment and this makes the sanitary district a very important institution to the area.

## **Webliography**

Urbana & Champaign Sanitary District. 2011. Urbana & Champaign Sanitary District. 11/12/11 <<https://www.u-csd.com>>

# 44: Urbana Post Office

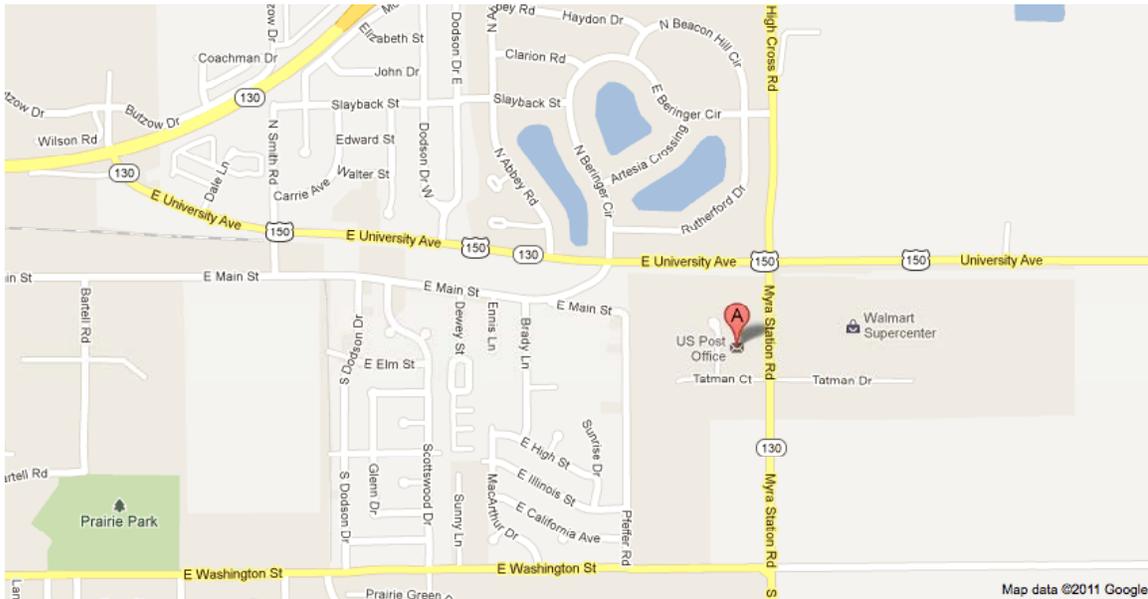
**Lauren M. Graham**

Master's student, GSLIS

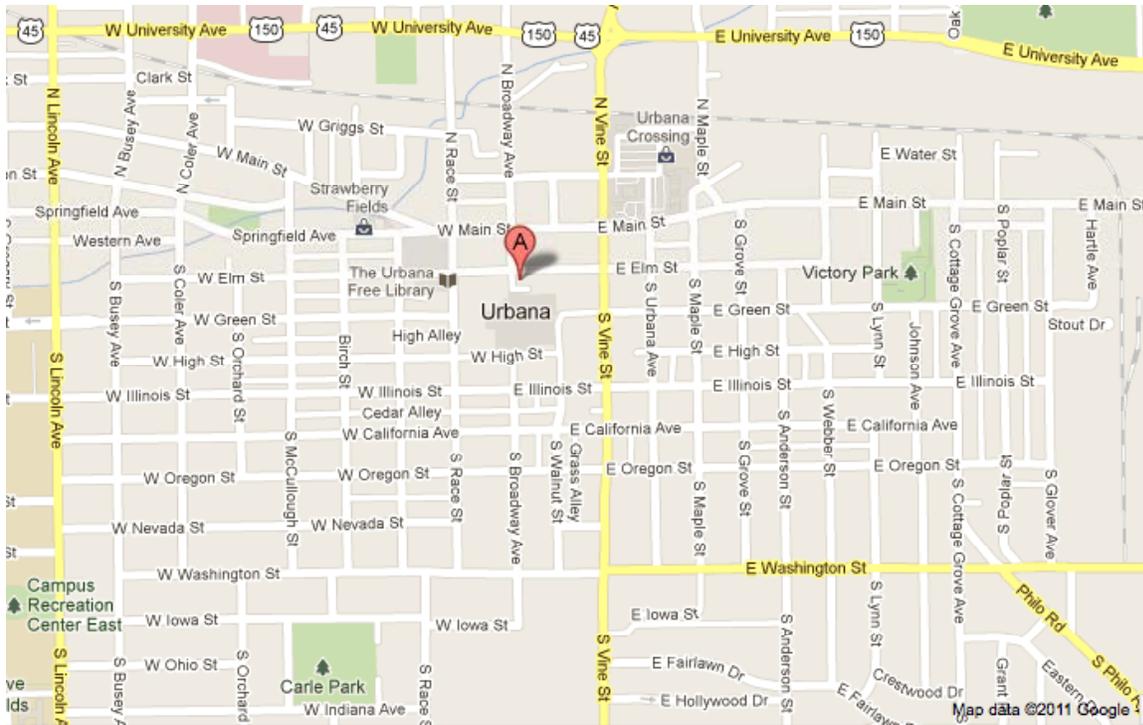
## 1 Executive summary

The Urbana Post Office, which serves zip codes 61801, 61802, and 61803, has three locations: one main office, and two satellite locations. The Urbana Post Office as a whole is an institution with strong ties to the Champaign-Urbana community. Its current main location is a bit too isolated and new to be a strong anchor social institution in and of itself, but in combination with its satellite locations in downtown Urbana and at the university, its involvement in UC2B could benefit both the community and the local post office system.

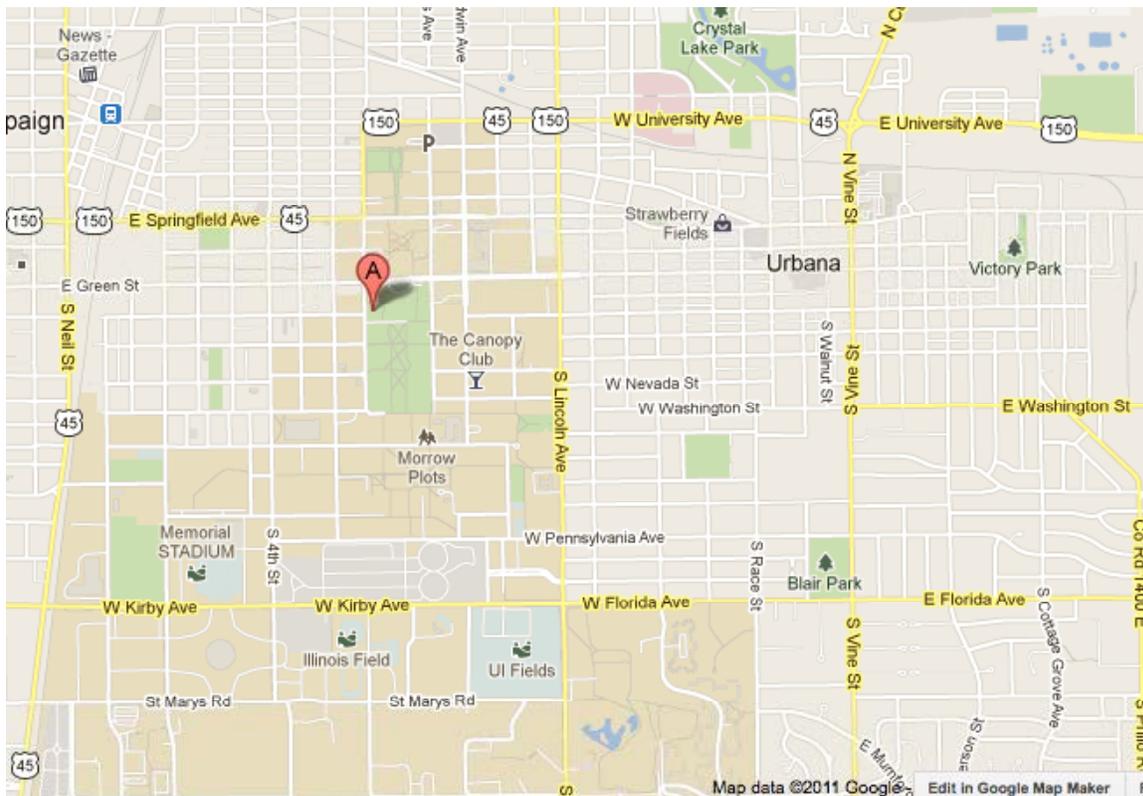
## 2 Maps



**The main office (“A”) is located at 3100 E. Tatman Court, Urbana.**



**One satellite station (“A”) is located at 202 Broadway Avenue in Urbana.**



**The other satellite station (“A”) is located on the University of Illinois campus, in Altgeld Hall (UIUC Building #26), 700 S. Wright Street in Urbana.**

### 3 Photographs



**Exterior of Main Office of the Urbana Post Office, looking northeast.**



**Post Office main entrance, looking north (entrance facing southwest).**



**Downtown Urbana Station, looking east**



**University Station, Altgeld Hall, interior. (via <http://www.flickr.com/photos/zaruka/5982326332/>)**

## 4 Demographics of patrons or clients

The Urbana Post Office serves the 41,250 residents of Urbana, as well as the seasonal student community. This includes both the micro-urban center of town and the rural areas surrounding the main community. Based on the 2010 census, this post office serves approximately 17,000 households within its service area, and total possible delivery points are 22,848.

The Urbana Post Office serves the University of Illinois east of Wright Street. Note that the presence of the university in the post office's service region may slightly skew the overall demographics. One employee of the post office estimated that around 75% of their active customers are students at the university; another estimated that their distribution load approximately doubles during school sessions.

	Urbana
Population	41,250
White	60.4%
Black	16.3%
American Indian and Alaska Native	0.3%
Asian	17.8%
Persons reporting two or more races	3.1%
Persons of Hispanic or Latino origin	5.2%
Foreign-born persons	18.3%
Language other than English spoken at home	24.3%
High school graduates, percent of persons age 25+	93.2%
Bachelor's degree or higher, percent of persons age 25+	55.3%
Median household income	\$34,951
Persons below poverty level	29.8%

## 5 History

The Urbana Post Office was incorporated in 1836, with the original building standing at the corner of Race Street and Main Street, a lot near *The Courier* newspaper office. This building survived the 1871 Urbana fire and the post office remained at this location through the turn of the century. This location served the entire area of the current combined metro area of Urbana-Champaign, until Champaign incorporated its own post office (then known as West Urbana) at the downtown train depot in 1854.

In 1906, a new building was constructed in downtown Urbana, and from 1907 to 1914 the post office was located at 106 N. Race Street, now the Rose Bowl Tavern. In 1914, another structure was built and the Urbana Post Office moved into its location at Elm Street and Broadway Avenue, where it still maintains a branch. Additions to this structure were made in 1935 and 1958, and a massive ADA renovation was completed in 1982.

By the 1990s, the Postal Service was looking to move the main functions of the Urbana Post Office to a new location, and in 1996 selected a new site in east Urbana. In 2000, the location at Tatman Court opened, and remains the main Urbana office to this day. The current location serves all Urbana zip codes (61801, 61802, and 61803), while maintaining satellite offices in downtown Urbana and on the university campus.

When the Urbana Post Office’s main activities were moved to Tatman Court in 2000, the office in downtown Urbana remained open as a station. In 2001, the Postal Service put the downtown Urbana building up for sale, with the requirement that the purchaser would leave space open for rent by the Postal Service to maintain P.O. boxes and windows in the location. The Independent Media Center bought the building, and now shares the space with the post office, Books to Prisoners, and a legal services office. Located adjacent to the downtown Urbana bus terminals, the downtown station serves residents of the main part of Urbana, as well as some of the student population.

The Urbana Post Office also maintains a station in Altgeld Hall, first erected as the Library Building in 1897. Originally the responsibility of the librarian, this location was for the distribution of student mail at what was then a small agricultural university. By the mid-20<sup>th</sup> century, the main library had moved out of Altgeld, and responsibility for the post office was transferred to the Postal Service. The office had also moved to its current location at the southwest corner of the building, which had previously served as a loading dock for the library. Located on the main quadrangle of the University of Illinois campus, the University Station primarily serves the student population at the university.

Currently, the University Station is under threat of closure by the U.S. Postal Service. Determinations for continued service at this location should be made in the next few months. The main Urbana Post Office, however, has no immediate plans of closure or relocation of services, though it may have to take on extra distribution and customer service operations, should one of its satellite locations close.

## 6 Technology inventory

### URBANA MAIN OFFICE

<b>Technology</b>	<b>Details</b>
Individual computers	7
Internet	Satellite
Phone system	Traditional landline

Software used includes: Microsoft Office applications, productivity data applications, parcel-tracking applications, and finance applications.

## 7 Analysis

The Urbana Post Office as a whole is an institution with strong ties to the Champaign-Urbana community. Its current main location is a bit too isolated and new to be a strong anchor social institution in and of itself, but in combination with its satellite locations in downtown Urbana and at the university, its involvement in UC2B could benefit both the community and the local post office system.

The main Urbana Post Office is located quite far from current UC2B construction, and it may not be feasible for that particular office to be linked to the project, both in terms of the infrastructure and the location's integration into the core community. However, both satellite locations, in downtown Urbana and on the university campus, have strong potential for future UC2B use. The Downtown Urbana Station, the location with the most extensive history in the community, is collocated with the Independent Media Center, a popular public space within Urbana's downtown. The Independent Media Center also has ties with GSLIS, and therefore has strong potential for a public computing or ICT education space. An installation here could benefit two organizations in one go. In this case, conversation with the IMC would be necessary, as they are the main tenants/owners of the building. The University Station is located within a university building—Altgeld Hall—and while quite small in size, serves a large portion of the student community. Due to its location on campus, installation of fiber here would be more feasible, but its focus would be on service to the internal post office and the customers. Again, conversation with the owner of the premises—in this case, the University of Illinois Urbana-Champaign—would be necessary.

The Urbana Post Office also serves to benefit indirectly from UC2B within the community, mostly in terms of increased information literacy as a result of the project. Both staff members I spoke to indicated a lack of symmetric understanding of information between the post office and its customers—the work of UC2B, to the extent to which it will increase a level of information and technological literacy among Urbana residents, could help obviate these misunderstandings between the postal workers and customers. Faster Internet speed between locations within the system also holds the potential for more accurate real-time information regarding package shipment and delivery, especially with integration with UPS/FedEx systems, a major current problem.

Overall, the local post office system could benefit from the installation of fiber, if feasible within applicable federal regulations; with installation lies the potential for faster internal/external communication and better service to customers, two issues that the post office is currently facing. The future of the post office's participation in UC2B, however, relies largely on the determination of its stations' futures by the USPS. A decision about the continuation of services at these locations should come down within the next year, and their involvement with the UC2B Big Broadband project should be revisited once such a determination is made.

## **Bibliography**

Adams, Brian. "Focus On: Joseph W. Royer's and N.H. Cohen's Forgotten Urbana Post Office." *Preservation Matters*, 28:3, May/June 2008. Champaign, IL: Preservation and Conservation Association, 2008.

Krummel, D.W. "University of Illinois Library." In *International Dictionary of Library Histories, Volume 2*, edited by David H. Stam. Chicago, IL: Fitzroy Dearborn Publishers, 2001.

Pfundstein, Michael. "Postal Service Puts Downtown Urbana Building Up for Sale; Buyer Required to Lease Space for Boxes, Window." *News Gazette*: July 27, 2001.

Taylor, Joseph. "A Peek at Urbana's New Post Office." *News Gazette*: February 22, 1998. A-3.

Taylor, Joseph. "New Post Office Site Picked in East Urbana." *News Gazette*: June 25, 1996. A-1.

## **Webliography**

Champaign Public Library, "The Story of Champaign-Urbana", accessed November 25, 2011,

[http://www.champaign.org/justkids/homework\\_help/illinois\\_champaign/champaign\\_history/story\\_of\\_champaign\\_urbana.html](http://www.champaign.org/justkids/homework_help/illinois_champaign/champaign_history/story_of_champaign_urbana.html).

City of Urbana, "History of Downtown", accessed November 25, 2011,

<http://urbanaininois.us/node/1177>.

US Census Bureau, "Profile of General Population and Housing Characteristics: 2010 Demographic Profile Data", accessed December 6, 2011,

[http://factfinder2.census.gov/bkmk/table/1.0/en/DEC/10\\_DP/DPDP1/1600000US1777005](http://factfinder2.census.gov/bkmk/table/1.0/en/DEC/10_DP/DPDP1/1600000US1777005).

US Census Bureau, "Selected Social Characteristics in the United States: 2006-2010 American Community Survey 5-Year Estimates", accessed December 6, 2011,

[http://factfinder2.census.gov/bkmk/table/1.0/en/ACS/10\\_5YR/DP02/1600000US1777005](http://factfinder2.census.gov/bkmk/table/1.0/en/ACS/10_5YR/DP02/1600000US1777005)

.

# 45: Urbana Township

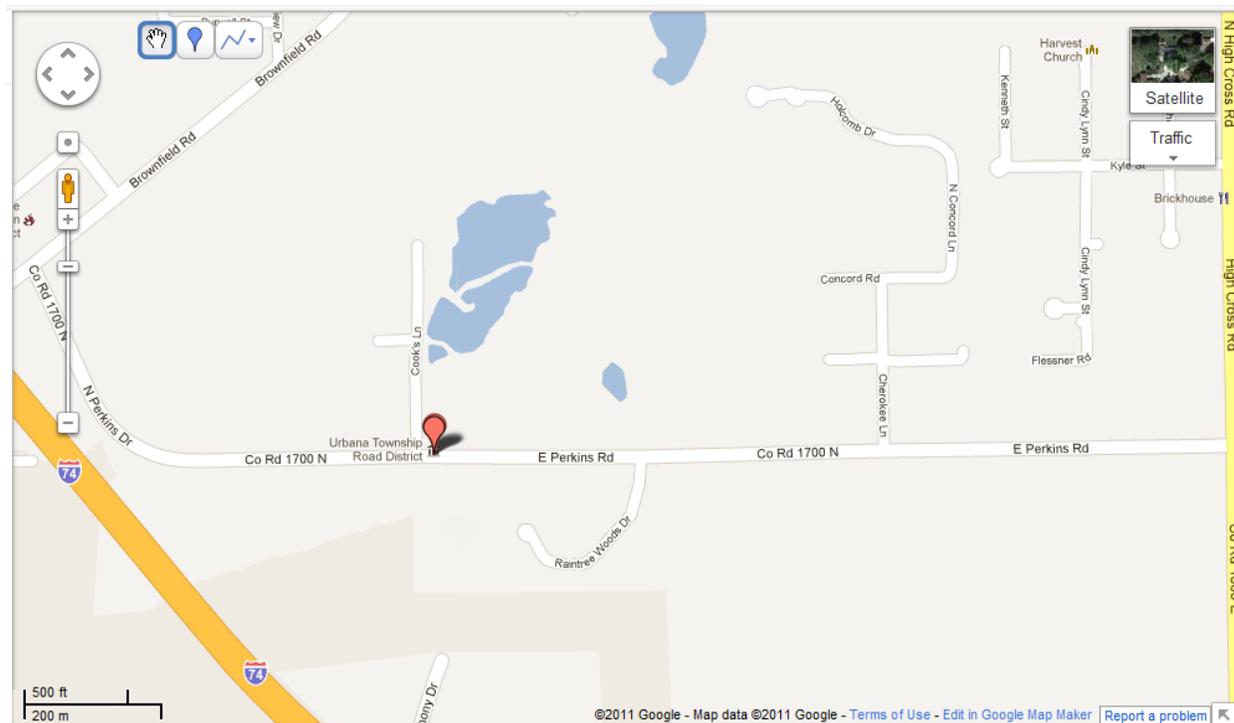
**Elizabeth Osisek**

Master's student, GSLIS

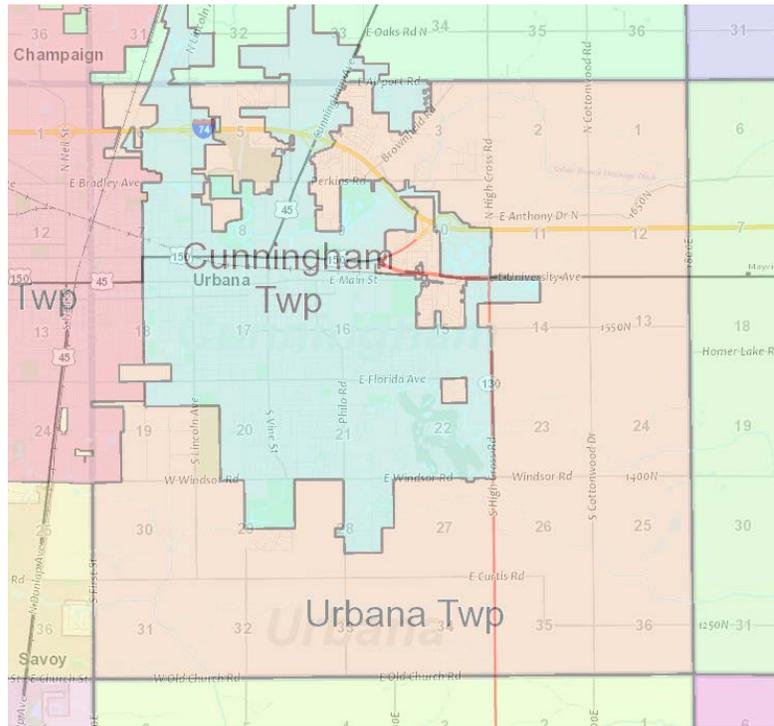
## 1 Executive Summary

Urbana Township covers an area of about 25 square miles, mostly in rural areas outside of the City of Urbana. The main purpose of the township is the maintenance of roads, bridges, and right-of-ways, and the Township also provides General Assistance funds for individuals who are not categorically eligible for federal or state programs. The members of the staff at Urbana Township do not use technology extensively, as their work often requires them to be in the field rather than at a desk. The secretary, who works with the computer the most, uses technology mainly to manage the employee payroll and Social Security data. While the staff use e-mail for correspondence, their primary means of communication is via cell phone, and no other facets of their daily work require the use of a computer or an Internet connection. However, though the staff may not benefit greatly from the broadband connection that UC2B will provide, many of the citizens of Urbana who elect the township officials could benefit greatly from UC2B. A significant number of Urbana's residents are from low-income households that may not be able to afford a broadband connection at the current price. The cheaper and faster broadband provided by UC2B could give these people Internet access in their homes that they were previously unable to purchase.

## 2 Maps



Map showing the location of Urbana Township office building, 2312 East Perkins Road, Urbana



**Map of Urbana Township (from Champaign County GIS Webmap)**

**3 Photographs**



**Township Supervisor Jeffery S. Johnstone stands outside the Urbana Township, 2312 Perkins Road, Urbana.**



**A meeting room in the Urbana Township building.**

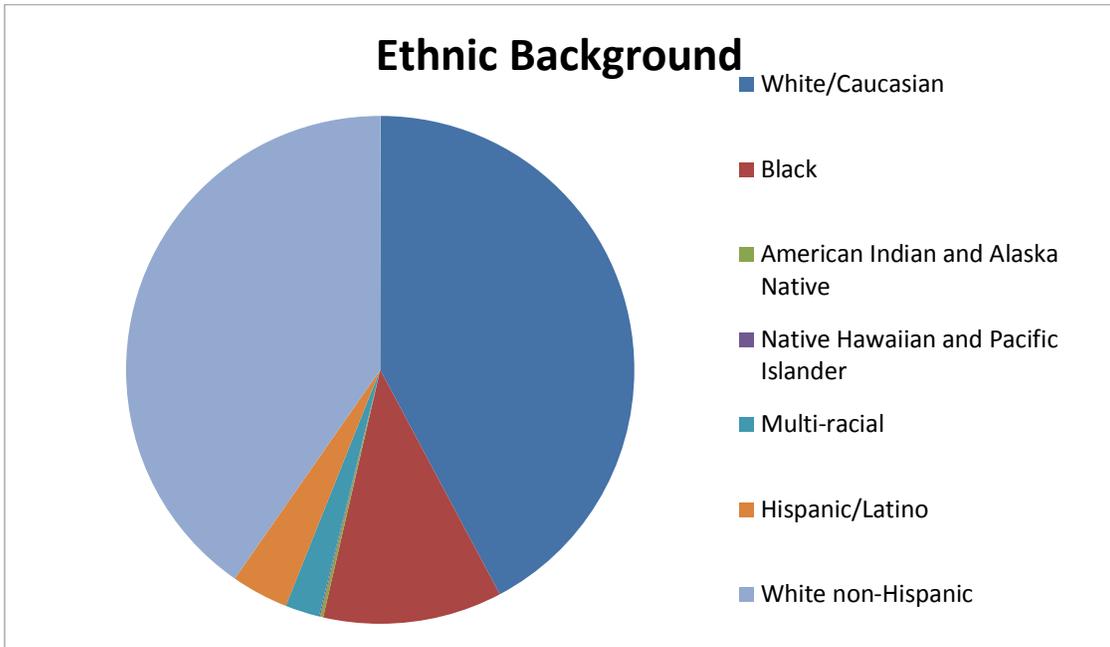


**Desk of Township Supervisor Jeffery S. Johnstone.**



Township Supervisor Jeffery S. Johnstone sits at the secretary's desk.

#### 4 Demographics



Information based on 2010 census

Level of Education	Percent of Population 25+
High school graduate	93.0%
Bachelor's degree or higher	55.4%

Information based on 2010 census.

**Median household income, 2005–2009:** \$33,302

**Percent of population in poverty, 2005-2009:** 30.4%

The above information was all taken from the 2010 United States Census, and can be found online at <www.census.gov>. It should be noted that, as a university town, the percentage of people with a bachelor's degree or higher in Urbana will be raised by the number of university faculty living there. Therefore, while the percentage of people with higher levels of education living in Urbana appears to be high, this data does not reflect the large number of people who do not have bachelor's degrees or even high school diplomas.

## 5 History

Urbana Township was established on November 8<sup>th</sup>, 1859 (“Urbana Township”). Since then the township has dealt with numerous highway and engineering projects, including the construction and maintenance of roads, bridges, and drainage systems.

For example, in 2005, the township worked in cooperation with the Saint Joseph Drainage District, the Urbana Park District, the Scottswood School District, the City of Urbana, and the County Regional Planning Commission to create a new drainage plan for Scottswood, a subdivision in east Urbana (“Intergovernmental”). The six government entities together proposed a \$2 million project, \$870,000 of which was funded by federal Community Development Assistance Program grants in September, 2005. This money was in addition to the \$395,430 that the Urbana Township was awarded in grants the previous month (Clements). Called the Scottswood Area Stormwater Improvement Project, it called for improvements in the existing but inadequate Scottswood stormwater sewer system and “the construction of a six-acre wetland in the new Weaver Park just west of the subdivision” (“Intergovernmental”).

Today the township continues to focus largely on the maintenance of roads, bridges, and drainage systems for Urbana Township. The Roads Commissioner will be working with the individuals laying the fiber for UC2B along some of the roads under his jurisdiction (Prather).

As an organization that prides itself on providing “efficient grass-roots government,” the township currently does not use technology very much. The Township Supervisor in 2000, Don Flessner, summarized this mentality: “We don’t have multiple layers of bureaucracy. If I get a nuisance complaint, I go out myself and look at it” (Monoson). The current Supervisor and Roads Commissioner expressed a similar mentality—they spend more time doing work in the field than they do in the office. An organization run in this manner does not have a great perceived need for technological innovations such as the broadband service that UC2B will provide.

## 6 Technology Inventory

Desktops: 2

- One in Township Supervisor's office
- One in Assessor/Secretary's office

Printers: 2

E-mail – Township e-mail address

Microsoft Word

Tech support – no formal tech support; a university student once solved a minor problem

Telephone system – AT&T

Website – none (names of elected officials listed on the Champaign County Clerk's

Website,

[http://www.champaigncountyclerk.com/government\\_bodies/government\\_bodies\\_official\\_s\\_results.php?LevyBodyIDTWP=266](http://www.champaigncountyclerk.com/government_bodies/government_bodies_official_s_results.php?LevyBodyIDTWP=266)

## 7 Analysis

The Urbana Township is not likely to benefit significantly from the broadband service that UC2B will provide. Daily operations of the township do not require the use of the Internet. Aside from occasional e-mail correspondence, the township's two computers are used almost exclusively by a single secretary who organizes payroll, tax forms, and Social Security forms (Johnstone, Prather). The Township Supervisor and Road Commissioner gave the impression that the township's current software and broadband speeds were sufficient for the secretary's needs.

While the township's staff is not likely to benefit significantly from the broadband service that UC2B will provide, the people of the Urbana Township could benefit greatly from it. Over 30% of Urbana's population was below the poverty line from 2005 to 2009 (Urbana), and the median household income from 2005 to 2009 was just \$33,302 (Urbana). This means that a large part of Urbana's population is likely unable to afford current broadband services. UC2B could provide these people with a quick and affordable Internet connection, which could give them access to a wealth of information. For example, many job applications are only available online. The underserved populations of Urbana who currently do not have an Internet connection cannot apply for these jobs from their homes, and may be barred from certain employment opportunities as a result. The broadband service provided by UC2B could help ease or even eliminate these challenges.

## Bibliography

Clements, Kate. "Funds to help improve area sanitary systems – Money for Urbana, Ludlow Onarga work part of Opportunity Returns program." *The News-Gazette*, 24 Aug. 2005. Accessed 18 Nov. 2011 Urbana Free Library Archives.

Foster, Greg. Personal Interview. 30 November 2011.

"Intergovernmental Cooperation Leads to Storm Drainage Plan." *The News-Gazette*, 19 Sept. 2005. Accessed 18 Nov. 2011 Urbana Free Library Archives.

Johnstone, Jeffory. Personal Interview. 16 November 2011.

Kacich, Tom. "Overhauled precinct map OK'd." The News-Gazette, 24 Jul. 2011. Accessed 18 Nov. 2011 Urbana Free Library Archives.

Monoson, Mike. "Township officials say they provide efficient, grass-roots government." The News-Gazette, 21 Dec. 2000. Accessed 18 Nov. 2011 Urbana Free Library Archives.

Prather, Jim. Personal Interview. 16 November 2011.

## **Webliography**

Urbana, IL. United States Census 2010. Revised 18 Oct. 2011. Accessed 16 Nov. 2011, <http://quickfacts.census.gov/qfd/states/17/1777005.html>

Urbana Township Elected Officials. Champaign County Clerk. Accessed 10 Nov. 2011, [http://www.champaigncountyclerk.com/government\\_bodies/government\\_bodies\\_officials\\_results.php?LevyBodyIDTWP=266](http://www.champaigncountyclerk.com/government_bodies/government_bodies_officials_results.php?LevyBodyIDTWP=266) .

"Urbana Township, Champaign County, Illinois." Wikipedia. Revised 27 Jul. 2011. Accessed 18 Nov. 2011, [http://en.wikipedia.org/wiki/Urbana\\_Township,\\_Champaign\\_County,\\_Illinois](http://en.wikipedia.org/wiki/Urbana_Township,_Champaign_County,_Illinois)

## **46: USGS Illinois Water Science Center**

**Ashley E. Booth**

Master's student, GSLIS

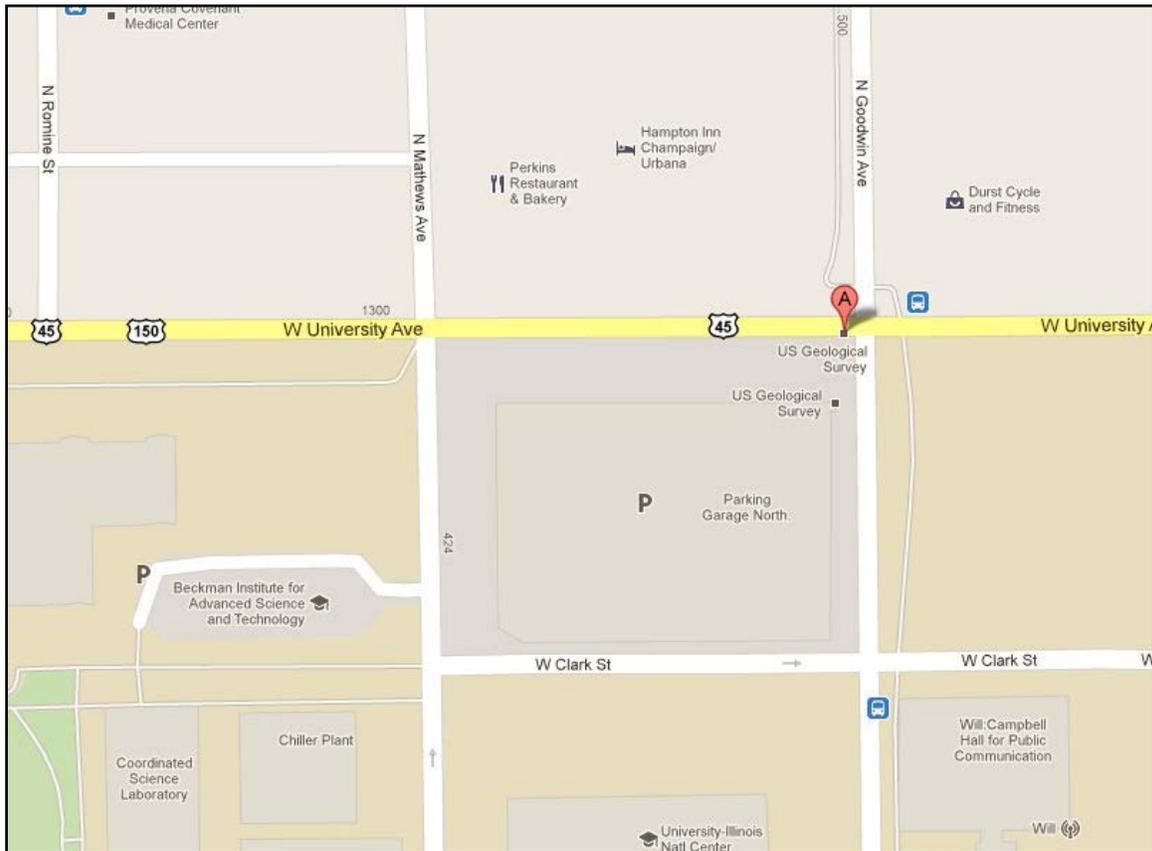
### **1 Executive summary**

The Illinois Water Science Center is a branch of the United States Geological Survey (USGS) that focuses on collecting and providing information about water resources including surface water, groundwater, water quality, and water issues. One of the primary goals of the center is to collect data using the 180 gage stations that collect stream-flow and water quality data. The organization is based in Champaign and has satellite locations in Dekalb and Mt. Vernon. A major priority for the center is to serve data up as quickly as possible, especially in times of crisis.

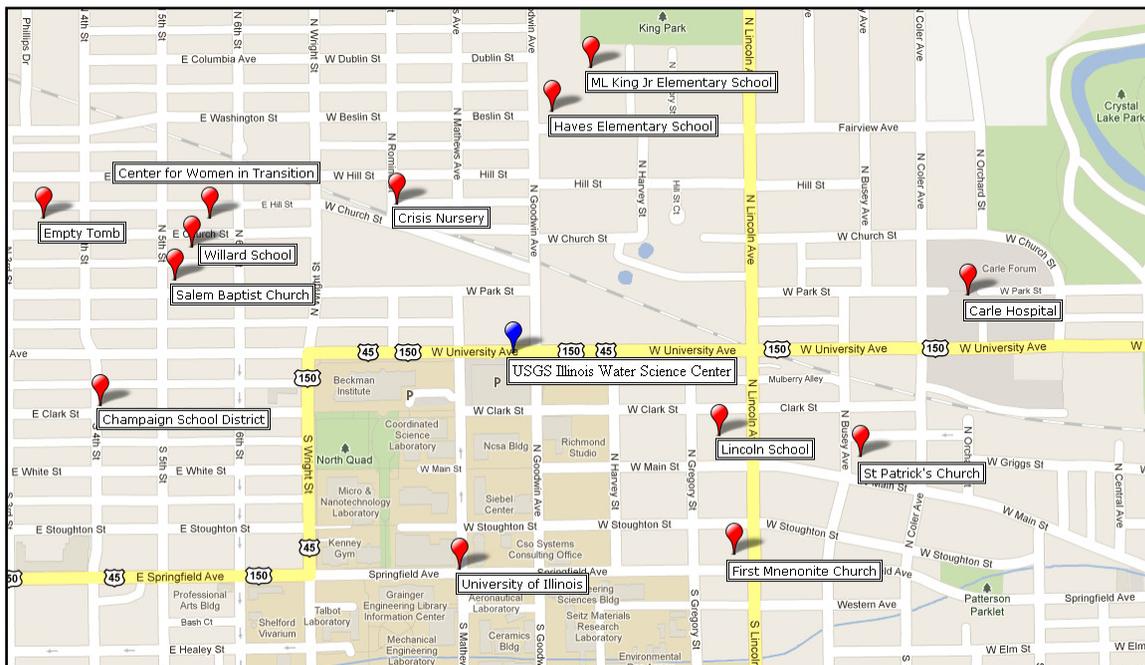
The center provides data and information to users including federal agencies, such as the U.S. Army Corps of Engineers; state agencies, such as the Illinois Environmental Protection Agency; and local users and the public. The organization's use of technology is extensive and complex. Since their objective is to provide water data to help protect people, the environment, and structures, and half of their program in Illinois is just data collection, they have a significant amount of real-time water data streaming in and out of the center.

The Illinois Water Science Center is optimistic that UC2B could provide them the opportunity to improve their services, provide data more quickly, and help their employees to do more with less; but a decision to participate in the fiber network will be based on cost and performance.

## 2 Maps



The neighborhood in which the USGS Illinois Water Science Center is located.



The other institutions nearby the USGS Illinois Water Science Center.

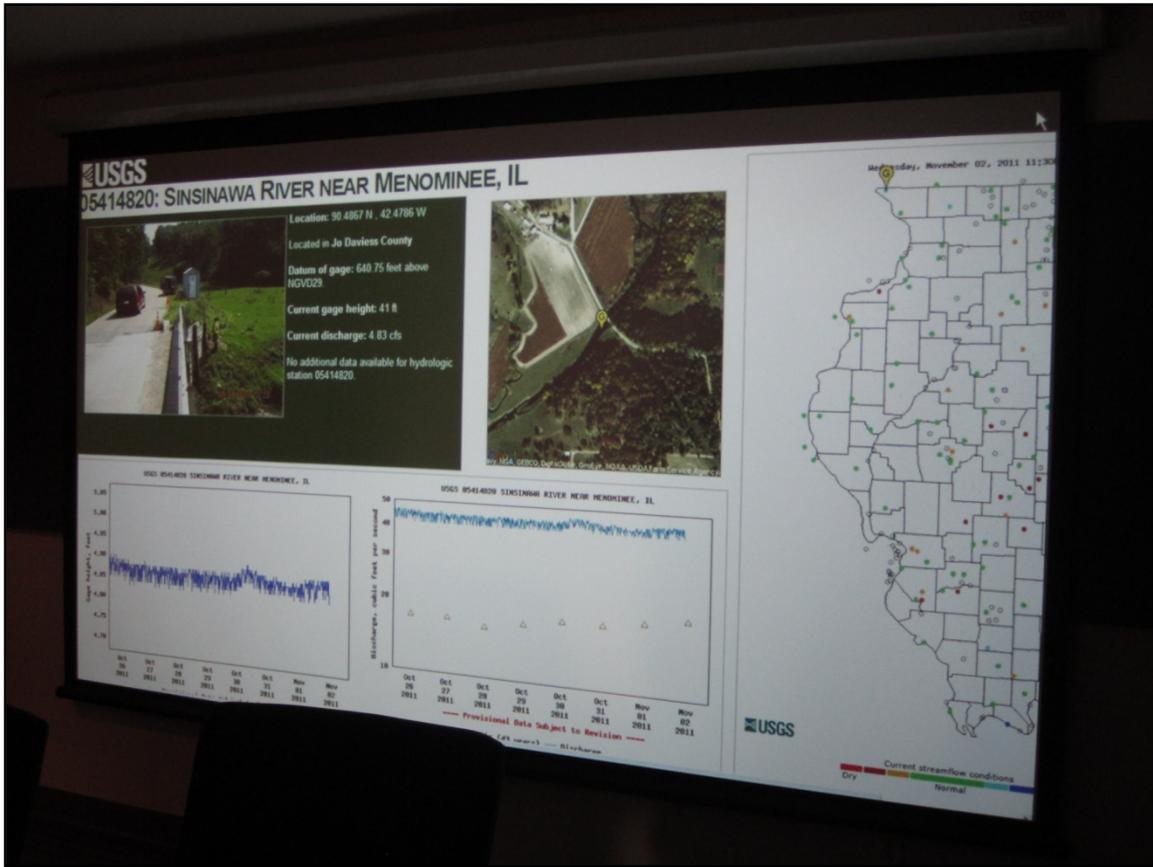
### 3 Photographs



**The outside of the USGS Illinois Water Science Center building.**



**The reception area of the USGS Illinois Water Science Center.**



The USGS Illinois Water Science Center public data website displayed on a meeting room screen.

Screenshot of the WaterAlert service provided on the USGS website.

## 4 Demographics of patrons or clients

According to our interview, the primary audience for the USGS Illinois Water Science Center is the people of Illinois. According to the 2010 U.S. Census, there are 12,830,632 people living in Illinois. Of those people, 71.5% are White, 14.5% are Black, 15.8% are Hispanic or Latino, 4.6% are Asian, 0.3% are American Indian and Alaska Natives, and 2.3% report two or more races. The chart below outlines these census demographics.

The center's data also serves the entire U.S. population of 308,745,538 people.

## 5 History

A complete history of the United States Geological Survey (USGS) can be found on their website at <http://pubs.usgs.gov/circ/c1050/index.htm>. The information below was gleaned from this site. The USGS was created on March 3<sup>rd</sup>, 1879 with 38 employees. Clarence King was the first director of the agency; his first job was to classify the more than 1.2 billion acres of land to which the federal government had title. At that point only 200 million of those acres had been surveyed. In addition, the country's "mineral wealth, mining and metallurgical techniques, and production statistics [were] meager," and so King highlighted mining geology and to a lesser extent general geology. However, by 1882, "topographic mapping became the largest part of the Geological Survey program."

In 1894 the agency expanded to begin the study of water and when the Forest Management Act was passed in 1897, USGS began managing the surveying of forest

reserves. By 1904 the agency had created topographical maps of 26% of the country and published geologic folios that had helped encourage the development of water power (among other things). When Federal Water Power Act was passed in 1920, the Survey became responsible for streamflow records and for assessing projects proposed on public lands. In the early 1920s, it was determined that more than 60% of the country was still unmapped, and most of what had been mapped needed to be resurveyed. By 1929, the agency had grown to 998 employees, had mapped 44% of the country, and 2,238 gaging stations were measuring streamflow. By 1954 the Survey had 7,000 employees, technology for mapping was improving drastically, 6,400 gaging stations were measuring streamflow, and the organization was running approximately 500 studies of groundwater. The Survey was also measuring (among other things) water quality and flood frequency.

In 1964 USGS established an Office of Water Coordination which combine the Surface Water, Ground Water and Quality of Water Branches to speak to a new responsibility from the Department of the Interior for the organization: “design and operation of the national network for collection of water data so that water information needed for effective development and management of water resources would be collected in a timely, effective, and economical fashion, and would be readily accessible at a single focal point.” By 1971, the Survey had 9,200 employees, mapping was happening in all 50 states, 11,000 gaging stations were measuring streamflow, 4,000 stations were measuring water quality, and hundreds of groundwater investigations were underway.

In 1984, the Water Resources Division published the first “National Water Summary, “describing hydrologic events and water conditions for the water year, providing a State-by-State overview of specific water-related issues, and identifying ground-water contamination and acid rain as two pressing water-resources issues.”

The Illinois Water Science Center (WSC) is one of 48 Water Science Centers in the USGS Water Resources Discipline. According to our interview, the center in Illinois was established in the 1930s to support the state mapping that was happening at the time.

## 6 Technology inventory

Hardware	Software, Systems, and Communications
10 servers	VoIP telephone system
60–75 computers (includes desktops and laptops)	database software
about 25 scanners/printers	mapping software
several plotters	GIS software
	office software
	publishing software
	management software
	IT management tools
	financial management software
	analysis software
	statistical software
	website: <a href="http://il.water.usgs.gov/">http://il.water.usgs.gov/</a> .

The following table outlines the current Internet speed for the organization.

Website	Speed Down (Mbps)	Speed Up (Mbps)
Speedmatters.org	1.463	1.666
Speedtest.net	2.27	2.20

## 7 Analysis

According to the National U.S. Geological Survey’s (USGS) website, the organization is “the Nation’s largest water, earth, and biological science and civilian mapping agency.” The organization “provides impartial information on the health of our ecosystems and environment, the natural hazards that threaten us, the natural resources we rely on, the impacts of climate and land-use change, and the core science systems that help us provide timely, relevant, and useable information.”

The Illinois Water Science Center is associated with the branch of the USGS that focuses on collecting and providing information about water resources, including surface water, groundwater, water quality, and water issues. One of the primary goals of the center is to collect data using the 180 gage stations that collect streamflow and water quality data. Most of these stations transmit their data electronically to the center. The center also performs interpretive studies, evaluations, research, and information dissemination. The organization is based in Champaign and has satellite locations in Dekalb and Mt. Vernon.

The Illinois Water Science Center employs about 60 people: 45 in Champaign, 10 in Dekalb, and about 4 in Mount Vernon; one is a part-time graduate student. About a third of the employees are scientists, a third are technicians, and a third are IT/HR/managers. There are two full-time IT staff who can also utilize the national help desk as needed.

According to our interview, the center provides information to a variety of users, including federal agencies, such as the U.S. Army Corps of Engineers, who utilize the data to maintain navigable waterways; and state agencies, such as the Illinois Environmental Protection Agency, who use the data to determine who to evacuate during flooding or ensure water treatment plants, chemical plants, and power plants are in compliance with regulations. On a more local level, the Boneyard has been redesigned based upon data the center collected. In addition the public use the data as well. For example, fishermen and kayakers use the data to find out whether the conditions are good for their respective activities.

The center’s use of technology is extensive and complex. Less than two years ago the center had a second T-1 line put in and they are currently running above capacity. In addition, they have scientists performing research and employees utilizing e-mail, all of which uses bandwidth. A major priority for the center is to serve data as quickly as possible, especially in times of crisis, so real-time modeling is an important component of the organization as well. This illustrates how drastically the organization’s use of technology has changed over time. In our interview we learned that in the mid-1980s the water level of rivers was measured by a machine that would punch paper every 15 minutes, and every 6–8 weeks a technician would retrieve the paper. Even a few years ago, to get a cross-sectional profile of a river would require someone getting into a specific river; now, the center utilizes acoustic instruments to perform this work.

When discussing the potential for UC2B on the organization, the Illinois Water Science Center was optimistic. Not only would increased speed and bandwidth provide a great benefit to the organization's work, but they would like to see the possibility of video conferencing among the three offices. The center welcomes any opportunity to improve their services, provide data more quickly, and allow their employees to do more with less, and if UC2B can provide more inexpensive and reliable Internet they will be glad to join the network.

## **Bibliography**

Illinois Water Science Center, "Home," Accessed November 5, 2011, <http://il.water.usgs.gov/>.

Rabbitt, Mary C, "The United States Geological Survey: 1879-1989," Accessed November 6, 2011, <http://pubs.usgs.gov/circ/c1050/index.htm>.

U.S. Geological Survey, "History," Accessed November 6, 2011, [http://www.usgs.gov/aboutusgs/who\\_we\\_are/history.asp](http://www.usgs.gov/aboutusgs/who_we_are/history.asp).

US Census Bureau, "Illinois QuickFacts from the US Census Bureau," Accessed November 10, 2011, <http://quickfacts.census.gov/qfd/states/17000.html>.

## **47: Village of Savoy**

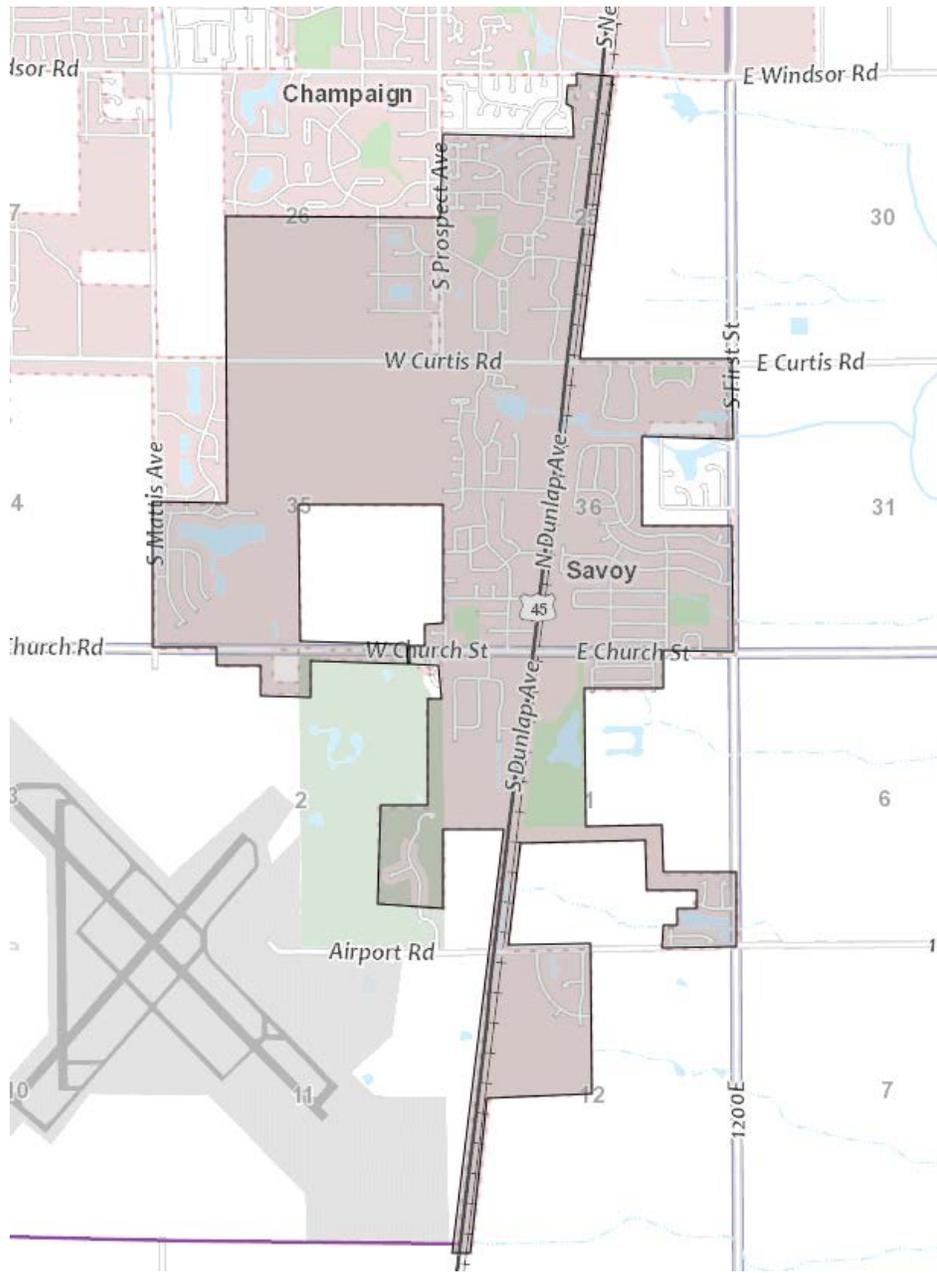
### **Abigail Sackmann**

Master's student, GSLIS

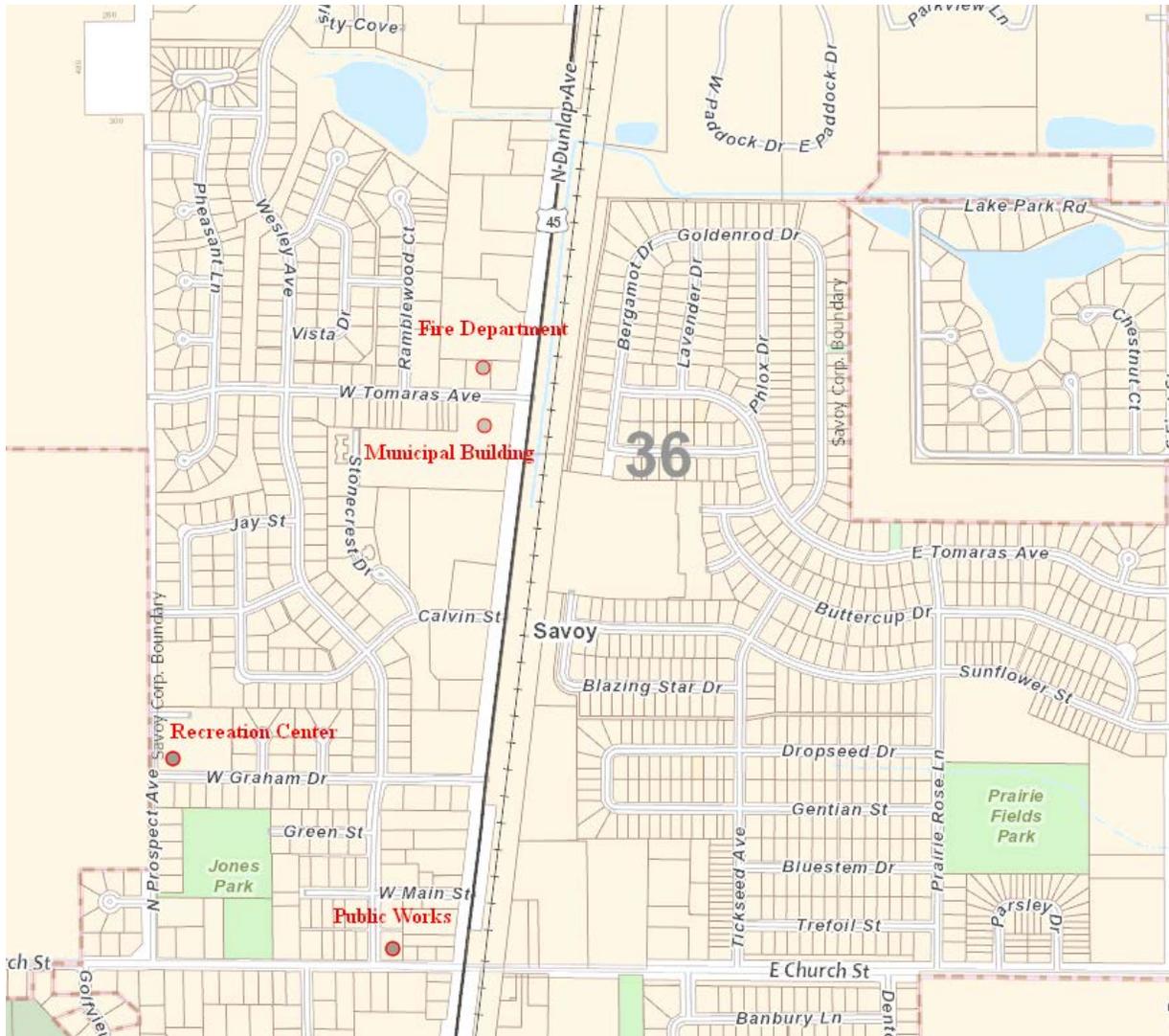
#### **1 Executive summary**

The Village of Savoy is located just southwest of Champaign-Urbana, and is the third municipality to be included in UC2B. Operations are spread between four buildings including the Municipal Center, Fire Department, Public Works, and the Recreation Center. The village has experienced a large population growth rate, 62.6%, over the past decade and continues to grow, making infrastructure building one of the main issues for the area. Village officials look forward to the connectivity speeds that UC2B will bring mainly for intradepartment communication, faster backups to the main server, and connection to other institutions in Champaign County, such as the Regional Planning Commission.

## 2 Maps



Approximate boundaries of the Village of Savoy.



Four Village of Savoy buildings.

### 3 Photographs



**Municipal Building.**



**Recreation Center.**

**Savoy, Illinois**  
Celebrate Savoy's 50th Anniversary

**Welcome to Savoy!**

The Village of Savoy was incorporated in 1956. Savoy maintains a quality of life typically associated with small Midwestern towns, including municipal tax rates far below that of Champaign or Urbana, acreage of prime undeveloped land, a low crime rate, quiet un-congested neighborhoods, and a responsive government.

Savoy is south of Champaign and north of Willard Airport, making Savoy a prime location because it is the south entrance corridor to Champaign.

The Village of Savoy has Notary Public assistance available.

*If you find there is information missing from our site or that it is hard to find, please contact our [Webmaster](#). Your comments are important to our continued development of this website*

[Click here to view the Champaign-Urbana Urbanized Area Transportation Study-Long Range Transportation Plan](#)

**Zoning Forms**  
Click here for zoning forms

**Click Below For Video Message**

**Address:**  
Savoy Municipal Center  
611 N. Dunlap  
Savoy, IL 61874  
217-359-5894  
877-831-0587  
(Toll Free)  
217-359-0202 (Fax)

**Savoy Weather**

Savoy, IL  
64 °F  
Haze  
at 11:16 AM

[Click for Forecast](#)

**E-mail Updates**  
Sign up below for free email updates about events and issues here in Savoy. Any information you provide will be used only for this purpose. [Read more...](#)

Home | Elected Village Officials | Savoy Orchard Days | Purchase Mementos | Savoy Recreation Center | Village

Village of Savoy website.

#### 4 Demographics of Village of Savoy

Population, 2010	7,280
Population change, 2000–2010	62.6%
Population, 2000	4,476
White, 2010 (a)	77.4%
Black, 2010	6.8%
American Indian and Alaska Native, 2010	0.1%
Asian, 2010	12.6%
Native Hawaiian and Other Pacific Islander, 2010	0.0%
Persons reporting two or more races, 2010	2.4%
Persons of Hispanic or Latino origin, 2010	2.7%
White persons not Hispanic, 2010	75.7%
Foreign-born persons, 2006–2010	18.6%
Language other than English spoken at home	21.7%
High school graduates, age 25+	97.7%
Bachelor's degree or higher, age 25+	65.4%
Median household income, 2006–2010	\$50,172
Persons below poverty level, 2006–2010	10.1%

Source: <http://quickfacts.census.gov/qfd/states/17/1767860.html> accessed 4/2/12

## 5 History

Though there is a longer history of residents living in the Savoy area, which is said to be named after an Italian princess who visited the U.S. in 1861, the village was officially formed in 1956. In this year the Champaign Fire Company terminated its service to areas outside city limits. Seeing the need for fundraising to finance their own fire district, Savoy residents petitioned for the village to be incorporated. The motion passed by one vote on April 7, 1956, with the first annual budget being \$600. Over the next several years much infrastructure was built, including a water main from Champaign, sanitary sewers, and a building to house the developing fleet of fire vehicles. (Village of Savoy, 2004)

In terms of information technology, the village began using computers in the 1990s. In 2001, they updated from dial-up modems to cable modems through a program with Insight Media, which provided cable access for municipalities for free. In 2004, city offices moved to the new municipal building, where computers were used by nearly all employees and were networked in a LAN. In 2006 they updated their financial system and software.

## 6 Technology inventory

Hardware	Software and systems	Staff
30 desktops	Windows XP	30 full-time
VM Ware Server	Office 2000	1 IT support consultant
Linux File Server	AutoCAD	
GPS unit	ArcReader	
	Website	
	Financial system	

Speedmatters.org download	Speedmatters.org upload
12639 Kbps	4882 Kbps

## 7 Analysis

The Village of Savoy has seen a surge in population of 62.6% in the past decade, and continues to grow at a rapid pace. The municipality has 30 full-time employees along with 100 part-time staff at various times throughout the year, and six departments including Administration, Zoning, Public Works, Parks, Savoy Business Development Center (SBDC), and the Recreation Center. Administration, Zoning, Parks, and the SBDC operate out of the Municipal Building, and Public Works and the Recreation Center are housed off-site (see map of building locations above).

Given the good position in which the village finds itself in terms of population growth, the two key issues facing the municipality are keeping up with infrastructure needs and providing local economic development opportunities for inhabitants of Savoy, especially given the close proximity to Champaign and Urbana. Because taxes and revenues tend to

lag behind population growth, the village looks forward to increasing funds to continue to address these key issues in the years to come. They currently have a technology program that meets their needs, but both the IT consultant and the administration are aware of the constantly changing technological needs of this type of governmental entity.

Currently the village has 30 desktops scattered amongst its buildings, with a VMware server running several virtual machines including a central file server. All of the desktops run Windows XP with Microsoft Office 2000, which along with an Internet browser is sufficient software for the majority of staff needs. They are considering a couple of changes in the future, including experimenting with a model where most day-to-day work would be done on a centralized image, and moving to more free and open-source software. This could include moving to a Linux operating system and using LibreOffice to replace Microsoft products, though the biggest concern is staff comfort with a new system. They are currently in the exploratory phase, but according to the IT specialist, this switch could make sense financially for the large majority of employees who use simple applications like e-mail, the Internet, and office software. In addition to reducing costs, free and open-source software has the benefit of being accessible to anyone with a computer: “Especially in public government, it makes sense to look at whether it is better to put all of your documents in a proprietary format, or put them in a document that everyone can have access to.” (Tech Specialist Interview, 2012)

However, some more powerful and specialized software cannot be easily replaced with open-source alternatives. There has been a thrust lately to develop more in-house; for example, the Public Works Department recently started using AutoCAD software to draw up their own plans. The planning department has also begun to make maps with GIS instead of purchasing them through the GIS Consortium, which will be enhanced with ArcGIS Desktop software to be purchased soon.

The first cable Internet connection was installed in 2001 through a franchise agreement with Insight Communications, who provided cable to municipalities for free. Comcast took over the company a few years ago and required an upgrade to business modems, but the service is still relatively inexpensive. Most other government organizations in Champaign County are connected to the Illinois Century Network (ICN), a network backbone that “provides high speed access to data, video, and audio communications to schools, libraries, colleges, universities, museums, local and state government, hospitals, and health care centers.” (Illinois.net/about, accessed 4/1/12) However, to join the network Savoy would need to contract with a cable company such as AT&T or Comcast to install a hard line to the ICN backbone, which is cost prohibitive for the municipality.

Current Internet speeds through Comcast are relatively high, though not high enough for efficient data transfer to the centrally located server, which causes delays especially for the Public Works Director: “Right now, if I want to back up any large files I have to bring my laptop here and plug it into the network because it would literally be days if I tried to do it from my office. Once we get hooked up to UC2B, those fiber optics will be really speedy and help out. It should be just like my office is located in this building.” (Public Works Interview, 2012)

The Village of Savoy is excited about UC2B in terms of office productivity, as well as the opportunities it will bring to the area: “We can be on the same level with the East

Coast and West Coast with getting interest in the community, bringing in technology companies that are good paying jobs, reliable, and consistent. That's the kind of thing that everybody is looking for, and that's the opportunity we will have now."

### **Bibliography/Webliography**

Short History of Savoy, Illinois, published by the authority of the Village of Savoy, 2004.  
<http://www.illinois.net/about> accessed 4/1/12



# Education

---

## 48: Champaign County Head Start

**Jane Sandberg**

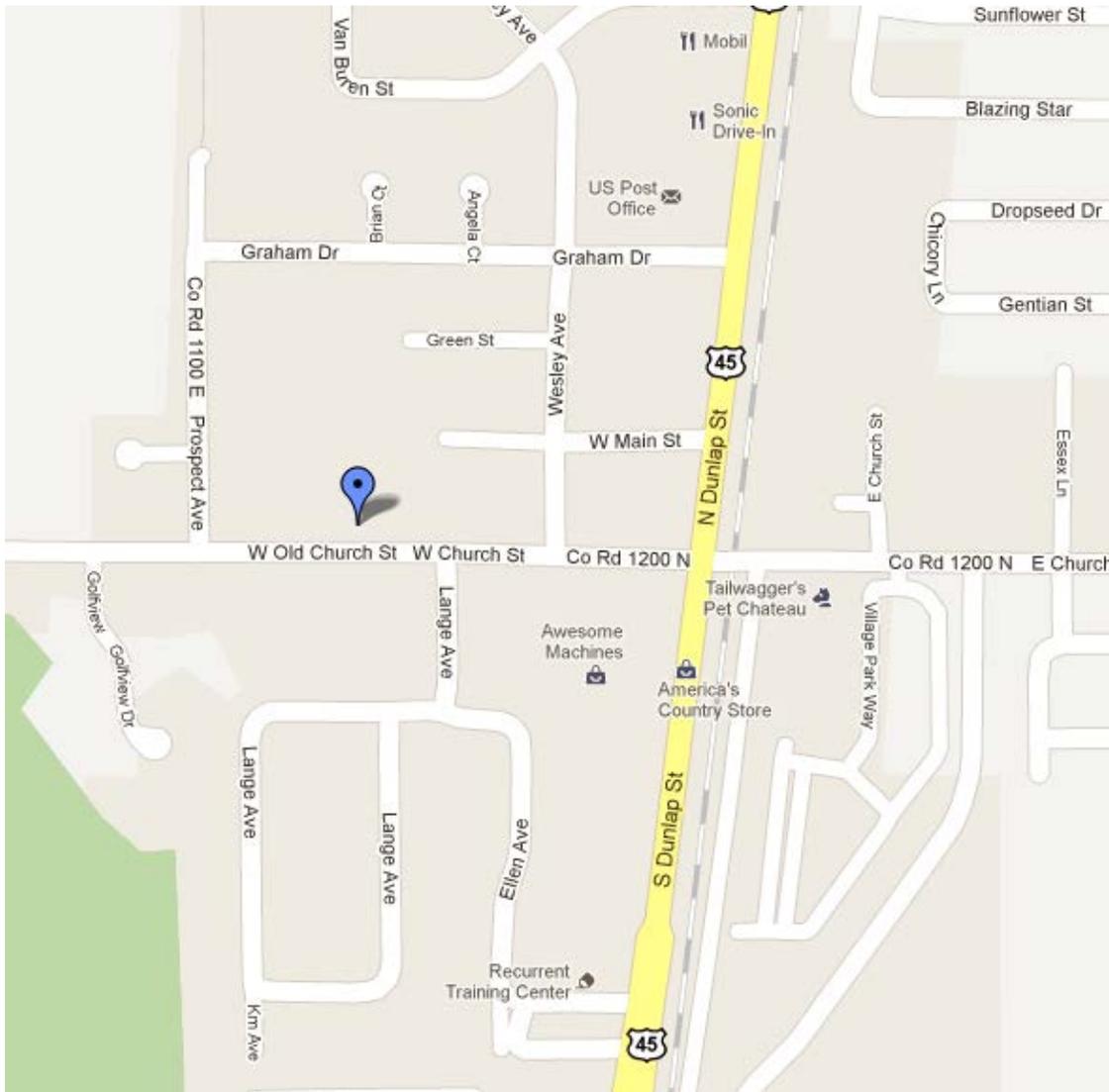
Master's student, GSLIS

### 1 Executive summary

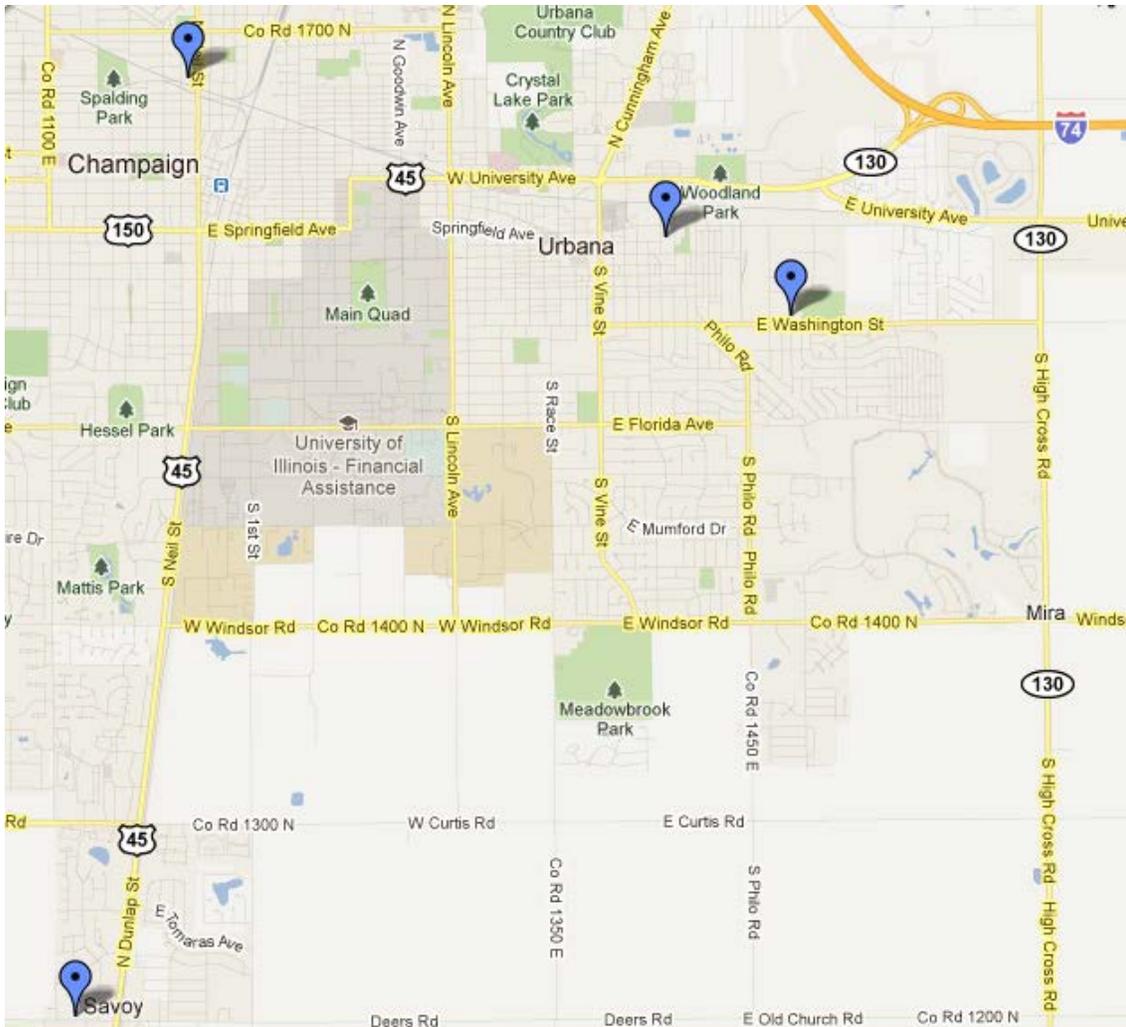
The Head Start Program is a federal program providing “educational, health, nutritional, social and other services” to low-income children and their families. Head Start has served Champaign-Urbana continuously since 1965, and currently provides services to 476 local families. A particular strength of Champaign Urbana Head Start (CCHS) is its strong Early Head Start Program, which serves infants, toddlers, and pregnant mothers.

CCHS is an avid user of technology, using web-based services to improve communication, curricula, and record keeping. Though they have integrated new technologies to a higher degree than most Head Start programs, they are still challenged by slow connection speeds. The key CCHS leaders interviewed for this study have high hopes for the improved communication and information sharing potential to be provided by UC2B.

## 2 Maps



**CCHS values Information and Communication Technologies (ICT) for their ability to make ties between the Brookens Administrative Center (easternmost marker on this map) and the four Head Start centers (Savoy, southernmost marker; Champaign, northernmost marker; Urbana, center; Rantoul, not shown).**



The Savoy Head Start Center, formerly a small elementary school, is geographically isolated from other Head Start locations. CCHS has had challenges in establishing an excellent internet connection at the site.

### 3 Photographs



The Brookens Administrative Center in southeast Urbana, the administrative headquarters of the Champaign County Regional Planning Commission and Champaign County Head Start.



**The Champaign Head Start Center, part of the Champaign Early Childhood Center. The building also contains Unit 4's Early Childhood Program and the Central Affiliation for Special Education's (CASE) Audiology program.**

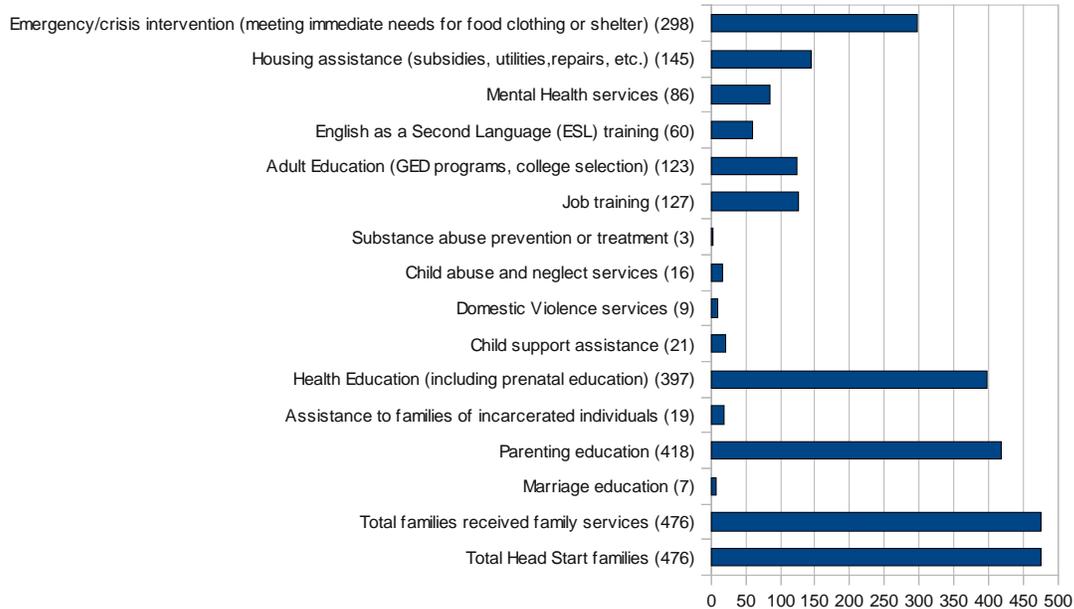


**A teacher's desktop computer at the Urbana Head Start center.**

## 4 Demographics of patrons or clients

### Family Services Received by Head Start Families

August, 2011. Source: Champaign County Head Start



## 5 History

The Head Start Program is a federal program providing “educational, health, nutritional, social and other services” to low-income children and their families. (Office of Head Start, 2010) Head Start was formed on the recommendation of a 1965 panel convened by Sargent Shriver, the “architect” of Lyndon Johnson's “War on Poverty.” Johnson, himself a former teacher, viewed Head Start as a key component of his domestic policy, seeing that education as essential to breaking the cycle of poverty. (Head Start History) After his presidency, he was known to make frequent visits to his local Head Start center in Stonewall, Texas. (Mills 1998)

Head Start came to Champaign-Urbana in 1964, when Merle Karnes and Margaret Stillwell submitted a grant for a Head Start program. The program began the next year, with Stillwell as director. In 1968, the Economic Opportunity Council (EOC), a local nonprofit, became the grantee for Champaign County Head Start (CCHS).(History)

Beginning with the 1969 inclusion of a Rantoul location under its grant, CCHS began to grow geographically. In 1971, the sponsorship changed to the Wesley United Methodist Church in Urbana. In fall of 1977, no local agency stepped forward to assume sponsorship of the program, so the grantee designation again changed, this time to East Central Illinois Community Action in Danville.(Monson 1998) March Buchanan served as director until the fall of 1994, and under her leadership, enrollment grew steadily from 200 to 418.

1994 also saw a push for a county-administered Head Start, and the Champaign County Regional Planning Commission (RPC) became the program's sponsor. The collaboration

between CCHS and RPC got off to a good start, with a review by the federal government noting a smooth transition between grantees. However, tensions soon arose, especially when a \$100,000 contract with the Urban League of Champaign County was suddenly canceled, leading to allegations of mismanagement. Another point of contention was the lack of African-American administrators in the program, despite its predominantly African-American work force and service base.

Despite these challenges, Head Start continued to expand its services. In 1997, the county received the first Early Head Start grant in 1997 under the direction of Al Griggs. In 1998, the program received funding that allowed CCHS to provide full-day services year-round. (Monson 1998b) In the same year, the current director, Kathleen Liffick, was hired. In 2001, CCHS received a grant for an additional 17 children to collaborate with the Urbana Early Childhood program, raising enrollment to 435.

Recent attention has been paid to expanding CCHS's Early Head Start program, since infant and toddler care is a clear need in Champaign-Urbana's low-income communities. State standards and supply costs make these programs very expensive to run. In 2010, the program received \$810,000 from federal stimulus money to expand its Early Head Start services, taking about 50 families off its 150 family long waiting list.

Today, funding remains a chief concern. Even after \$2.1 billion in additional funds for Head Start nationwide were included in the 2009 American Recovery and Reinvestment Act, demand far outweighs supply as hundreds of families remain on CCHS's waiting lists. (Wolf 2009) However, with a new grant focusing on its science curriculum and its continued efforts with its Early Head Start program, CCHS continues to be able to fill an obvious need in this community. (Heckel 2011)

## 6 Technology inventory

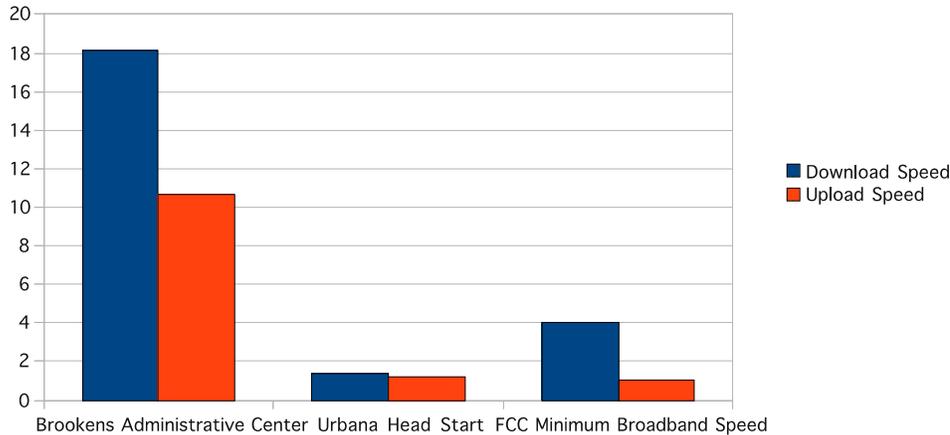
Hardware	Software and Systems	Communications
21 children's desktops (1 per classroom)	Children's early learning software	Website ( <a href="http://www.ccrpc.org/headstart/index.php">http://www.ccrpc.org/headstart/index.php</a> ) hosted by Champaign County Regional Planning Commission
132 staff desktops (1 per staff member)	Hosted database services, listed in table below	E-mail for all staff members hosted by Champaign County Regional Planning Commission
21 new staff laptops (1 per classroom)		
Telephones		

Name	Type	Vendor	Use by other agencies
ChildPlus	Head Start Software	ChildPlus Software	Used by 1,000+ other agencies
GOLD	Observational Assessment	Teaching Strategies, Inc.	Used by programs in all 50 states: over 800,000 children are

	System		assessed with this system.
Kronos	Time and Attendance	Kronos Incorporated (Hellman & Friedman)	“Thousands of installations in organizations of all sizes — including over half the Fortune 1000”

### Head Start Connection Speeds

Source: Speedmatters.org



### Brookens Administrative Center Speed Test Result

	Download (Mbps)	Upload (Mbps)
Speedmatters.org	18.167	10.691
Speedtest.net	18.92	1.26

### Urbana Head Start Center Speed Test Results

	Download (Mbps)	Upload (Mbps)
Speedmatters.org	1.356	1.225
Speedtest.net	1.44	1.17

## 7 Analysis

Champaign County Head Start was very accommodating and willing to participate in this case study. Interviews with key staff members painted a picture of a well-organized structure and 132 staff members with a sincere devotion to helping low-income kids. Head Start is headquartered in the Brookens Administrative Center in southeast Urbana, and runs Head Start centers in Champaign, Urbana, and Savoy. A fourth site, in Rantoul, was not within the scope of this study.

All interviewees stressed the importance of swift Internet connections, which they saw as important in sharing information and maintaining organizational structure. E-mail, which was given to all staff members roughly three years ago, has drastically improved communication between Brookens and the individual centers. CCHS's student

information system (ChildPlus) and student assessment system (GOLD) have facilitated record keeping and activity planning. Interviewees also cited the positive influence of computer-literate teachers on children in the program, an effect corroborated by academic literature. (Chen et al. 2006) The program recently purchased laptop computers to replace teacher's desktops, allowing teachers to interact with children while entering data and meal counts. CCHS prides itself on having integrated technology into its operations to a higher degree than the majority of Head Start programs.

However, a good connection is not always easy to get. We learned that getting an excellent connection to the Savoy location has always been a difficult goal. A test of the Urbana Head Start Center's connection speeds revealed a connection speed roughly a tenth of that at Brookens, and download speeds below the FCC's minimum broadband speed. The slower connection exacerbates GOLD's connection difficulties, making simple procedures such as uploading a student's picture take up to 30 minutes. Slow connection speeds detract tangibly from teachers' planning time, and discourage innovative uses of technology.

CCHS understands the benefits of information and communications technologies (ICT) in providing a supportive, structured environment for its staff and healthy role models for children. The program is excited about the changes UC2B will bring to Champaign-Urbana's ICT landscape. CCHS's internet service provider, Champaign Telephone Company (CTC), will own four strands of fiber on each of the seven UC2B fiber rings, drastically improving connection speeds. ("Network") CCHS is also interested in the prospect of using ICT to facilitate communication with its families, many of whom currently do not have regular access to e-mail.

## **Bibliography**

Chen, Jie-Qi, and Valerie Price. "Narrowing the Digital Divide: Head Start Teachers Develop Proficiency in Computer Technology." *Education and Urban Society*. 38. no. 4 (2006): 398-405.

Heckel, Jodi. "Champaign County Head Start gets \$102,500 grant for science, book programs." *News-Gazette (Champaign-Urbana, IL)*, May 11, 2011.

Mills, Kay. *Something Better for My Children: the History and People of Head Start*. New York: Dutton, 1998.

Monson, Mike. "Head Start Keeping Head above Water." *News-Gazette (Champaign-Urbana, IL)*, January 25, 1998.

Monson, Mike. "Head Start Gets New Director." *News-Gazette (Champaign-Urbana, IL)*, June 18, 1998.

## **Webliography**

Champaign County Head Start/Early Head Start, "2010 Annual Report." Last modified October 18, 2010. Accessed September 18, 2011.  
[http://www.ccrpc.org/headstart/pdf/2010\\_AnnualReport.pdf](http://www.ccrpc.org/headstart/pdf/2010_AnnualReport.pdf).

Champaign County Regional Planning Commission, "History." Accessed September 29, 2011. <http://www.ccrpc.org/headstart/history.php>.

Champaign County Regional Planning Commission., "Management Report[s] and Minutes." Last modified September, 2011. Accessed October 2, 2011. <http://www.ccrpc.org/headstart/mgmtreport.php>.

Pennsylvania Head Start Association, "Head Start History: 1965–Present." Accessed October 1, 2011. [http://www.paheadstart.org/UserFiles/File/General\\_History.pdf](http://www.paheadstart.org/UserFiles/File/General_History.pdf).

UC2B, "The Network." Accessed October 5, 2011. <http://uc2b.net/urbana-champaign-big-broadband/the-network/>.

U.S. Department of Health and Human Services Administration for Children and Families, "Office of Head Start." Last modified September 23, 2010. Accessed October 2, 2011. <http://www.acf.hhs.gov/programs/ohs/>.

Wolf, Ailis Aaron. National Head Start Association, "NHSA Statement on \$2.1 Billion in Stimulus Package." Last modified January 15, 2009. Accessed October 4, 2011. [http://www.nhsa.org/news\\_and\\_advocacy/recent\\_news/nhsa\\_statement\\_on\\_21\\_billion\\_in\\_stimulus\\_package](http://www.nhsa.org/news_and_advocacy/recent_news/nhsa_statement_on_21_billion_in_stimulus_package).

# 49: Champaign Unit 4 School District

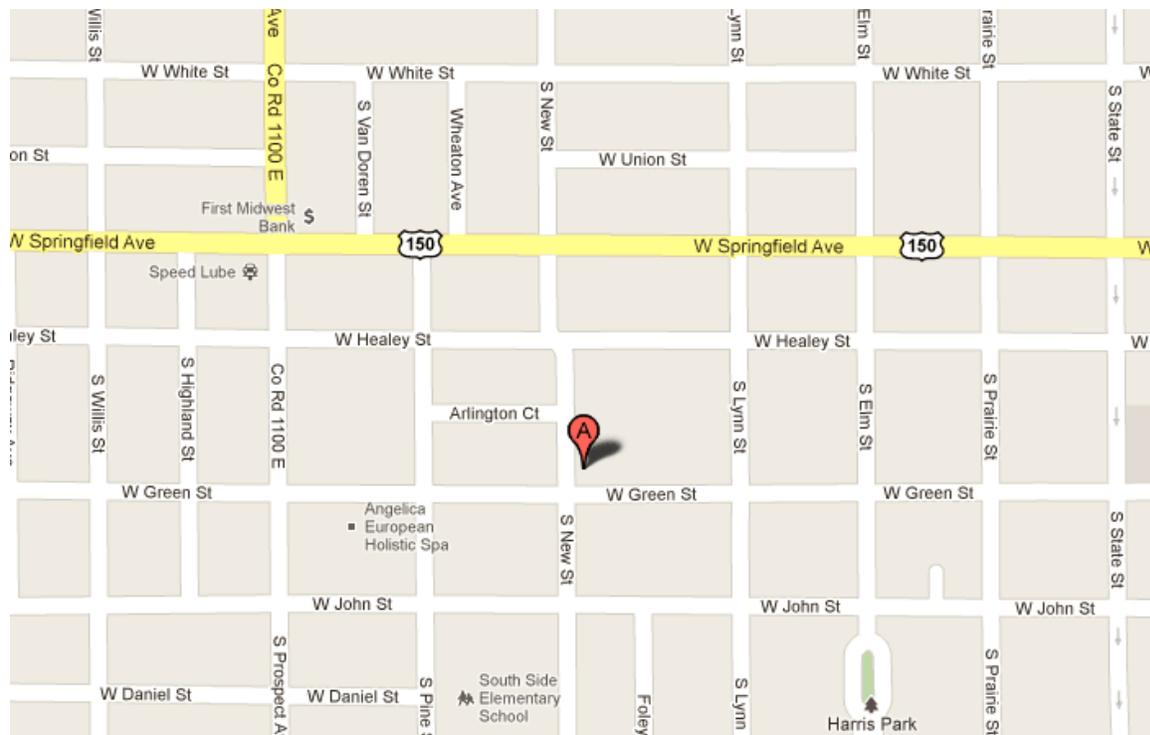
Mary Looby

Master's student, GSLIS

## 1 Executive summary

Champaign Unit 4 School District serves almost 9,000 students and their families in the city of Champaign, Illinois. The ways in which Champaign Unit 4 School District has adapted and used new technologies over the past 20 years has changed drastically. The district has gone from using punch cards and having a hodgepodge mix of computers to using a common platform and introducing the newest types of teaching technologies such as SMART Boards. The district is also planning for the future by building and renovating schools, adding new curriculum, and having the goal of wireless access in every district building within the next two years. Administrators and stakeholders alike of the district seem very enthusiastic about the possibilities for better and faster access and service provided by UC2B. They were especially interested in the possibility of taping or recording PTA meetings, school board meetings, lesson plans from teachers, etc. and then broadcasting them via the Internet to parents and students who are not able to attend the live meetings.

## 2 Maps



The Mellon Administrative Office (“A”) of Champaign Unit 4 Schools is located at 703 S. New Street in Champaign. The district has 18 school buildings spread across Champaign.

### 3 Photographs



The Mellon Administrative building at 703 S. New Street soon after being built in 1961.



The “Kindergarten Collaboration” area in Garden Hills Elementary School set up as a technology or computer center (photo courtesy of Liz Brunson Photography).

## 4 Demographics of patrons or clients

As of 2010 Champaign Unit 4 School District serves 9,472 students in 11 elementary schools, three middle schools, two traditional high schools, and an alternative high school. The racial breakdown of the district is more diverse than the state averages. Specifically, Champaign Unit 4 is 44.3% White, 38.1% Black, 7.3% Hispanic, 9.9% Asian/Pacific Islander, and 0.3% Native American. Nearly half (49.8%) of the students are considered low-income, meaning that their “families receive public aid, live in institutions for neglected or delinquent children; are supported in foster homes with public funds; or are eligible to receive free or reduced-price lunches.” The district is also more diverse than the state averages in regards to its teaching staff and faculty, as 83.3% are White, 8.1% are Black, 2.2% are Hispanic, and 2.7% are Asian/Pacific Islander. The average length of teaching experience is 11.8 years and more than 50% of the teachers have a master’s degree or higher. The teacher to student ratio is around 1:21 for each grade. The district spends \$10,971 per pupil and over 50% of the budget goes towards instruction. (<http://www.champaignschools.org/reportcards/2010/District2010.pdf>)

Champaign Unit 4 School District strives to support the educational and developmental needs of its students and it shows in the improving test scores and graduation rates of the district’s students. In fact, the district plans to add three newly built or renovated elementary school buildings in the next two years to better support young students and to prepare for the future. Overall, 76.5% of students passed every section of all state tests in 2009–2010. Champaign Unit 4 School District also takes pride in its environment and strives to provide quality education, experiences, and opportunities for every student. The district schools have been recognized for this continued effort: Franklin Middle School was recognized as being “A Breakthrough School by the National Association of Secondary School Principals,” and in 2010 Barkstall Elementary was a recipient of the “Academic Excellence Award” from the Illinois State Board of Education. ([http://www.champaignschools.org/files/Unit\\_4\\_Performance\\_Statistics.pdf](http://www.champaignschools.org/files/Unit_4_Performance_Statistics.pdf))

In 2008 the district created a request for proposal for a demographic study to predict enrollment and population changes over the next 10 years. The study forecasted that the district, Champaign, and the state of Illinois will experience small increases in population size. The greatest increase for the Champaign area will be seen in all non-White racial or ethnic groups. The school district plans to ready for the future by renovating and opening new schools and updating the technology and infrastructure of all schools. (<http://www.champaignschools.org/ChampaignUnit4DemographicStudy.pdf>)

## 5 History

**1855** Illinois state law establishes public school systems and divides Champaign into two districts.

**1890** Champaign Districts 1 and 2 are combined into Union District 6; Champaign High School on the West side of the city is used for all students.

**1892** Central High School is built and by 1898 five more schools are built for the district.

**1901** Name is changed to Champaign District 71. Curriculum includes “art, music and domestic science, reading, spelling, English, physiology, hygiene, physical training, observation work, geography, arithmetic, history, public speaking.” In high school Latin, German, and science are emphasized.

**1908** Curriculum is changed to the more traditional language, science, business, and English courses.

**1901 – 1935** Eight new school buildings are built to make room for the increasing number of students enrolling in the school district; six new elementary schools, a new high school, and a junior high school are built during this time period.

**1948** The state restructures the school district by adding 12 one-room Districts to No. 71 and creating Community District No. 4.

**1951 – 1967** To keep up with the post-World War II population boom in the area, the school district builds 10 new schools.

**1968** The school district is reorganized to create a more racially balanced enrollment in each of the district’s elementary schools, based on the Equal Education Opportunities Committee.

**1971** The population of Champaign begins to decrease and a couple of schools need to be closed due to the lack of enrollment.

**1977 – 1978** The district changes the grade levels in each school to match the k-5, 6-8, and 9-12 models that are still used today.

**2010** The district restructures the boundaries of the two high schools in order to have a similar number of students at both schools.

**2011 – 2012** District Four plans to have three construction projects completed during this time. Garden Hills Elementary School will be converted to a Magnet School with an emphasis on the arts. Booker T. Washington Elementary School will have a STEM (Science, Technology, Engineering, and Math) magnet elementary school program. Carrie Busey Elementary is being moved to the Savoy area and will hold the Deaf and Hard of Hearing program for the district.

(<http://www.champaignschools.org/News/0910/Champaign%20School%20History%201-13-09.pdf>)

## **6 Technology inventory**

To better support the staff and students the district has gone to a common platform and now is 97% PC with about 5400 computers across the district. Certain specialty classes, such as design or art at both high schools, do have Macs.

There is fiber between buildings that provides 98.6% availability of access throughout the year, which equates to only about seven down days. The district takes advantage of this connection to offer an AP European History class long-distance. The class is taught at one high school in a physical classroom and broadcasted live to the other high school.

The district recently switched to VoIP for their telephone system because it reduces overhead costs and provides a unified communications network. Illini Cloud –

Bloomington is used as a backup to the network or server and so that will be used as the failover once UC2B is complete. Currently the district uses a T1 system as its failover. Recently, the district built a state-of-the-art data center with its own humidity and air conditioning and complete capability to expand for the next 15 years. This center will enable the district to double its capacity in that time. The district’s servers use a 10-gig backbone that allows for data transitioning and data movement between servers. Currently Champaign Unit 4 is using a variety of technologies such as SharePoint, SQL databases, communication servers, and video servers. In fact, it has all the technologies that would be found at any enterprise-level organization, as well as the support staff to run and maintain all of this technology, and right now the district employs 12 IT professionals.

As far as providing technology equipment to students goes, two elementary schools are beginning a one-to-one laptop program through a grant for all of their 3<sup>rd</sup>, 4<sup>th</sup>, and 5<sup>th</sup> graders. Every middle school has at least two computer labs. Central High School has 11 computer labs and Centennial High School has 5: those include machines in the school libraries.

<b>Types of Technology</b>	<b>Percentages</b>
Digital projectors	38% of classrooms
Interactive white boards/ SMART Boards	8% of classrooms
Computer labs	36% of elementary schools lack a computer lab
Computer aide	14% of elementary schools lack a computer aide
Lessons taught with technology – elementary	20% of instruction
Technology Integration Specialist	100% of middle schools
Lessons taught with technology – middle	95% of instruction
Lessons taught with technology – high school	90% of instruction

## 7 Analysis

Technological advancements are huge factors in the way we communicate, learn, teach, and educate our society. However, as has been in the news recently the U.S. is losing ground in broadband service, ranking 15<sup>th</sup> out of 72 countries in 2010. The Cisco rankings look at “the proportion of households and businesses with access to broadband, combined with internet connection speeds.” (Browning, 2010)

The lack of penetration in all communities across America can be seen in the Urbana-Champaign area. The lack of access in all neighborhoods in the community is what the UC2B initiative plans to address and potentially fix. The project is installing the infrastructure for fiber-optic cables to ensure high-speed broadband access in 11 underserved neighborhoods. Within these areas, about 140 host institutions have been identified to serve as anchor social institutions for the project, one of which is Champaign Unit 4 School District.

The ways in which Champaign Unit 4 School District has adapted and used new technologies over the past 20 years has changed drastically. The district has gone from using punch cards and having a hodgepodge mix of computers to using a common platform and introducing the newest types of teaching technologies such as SMART Boards. The district is also planning for the future by building and renovating schools, adding new curriculum, and having the goal of wireless access in every district building within the next two years. Administrators and stakeholders alike of the district seem very enthusiastic about the possibilities for better and faster access and service provided by UC2B. They were especially interested in the possibility of taping or recording PTA meetings, school board meetings, lesson plans from teachers, etc. and then broadcasting them via the Internet to parents and students who are not able to attend the live meetings. It is also going to be important for the district to be up-to-date, technology wise, by 2015 because the State of Illinois will begin implementing digital state testing in that year. The schools will have to provide a large amount of computers for the students and the connection will have to be secure, fast, and reliable. UC2B could provide the type of access and connectivity that the schools need; however, the administrators did point out that by the time the project is complete, the school district will probably already have that connectivity. What UC2B would really affect is the at-home technology and Internet use of the district's students.

Furthermore, an issue that UC2B brings up for the district is the concept of the digital divide. According to an administrator of Champaign Unit 4 School District, there are three main factors that create the digital divide: lack of hardware, lack of software, and lack of education or training. UC2B will address the issue of hardware by supplying the access and bandwidth, but the issues of software and training will have to be tackled by the district. Administrators discussed the opportunity for collaboration with other community organizations as an option to address the issues of software and training. For example, setting up labs and workshops in other community institutions, such as churches, could potentially reach a new group of people who are intimidated by the idea of school or technology.

UC2B will help to provide equitable access at home for all students. In the next two years Champaign Unit 4 anticipates having a completely wireless district: every school and building will have wireless Internet access. The district also envisions community partnerships with other organizations to be an important part of the UC2B project and to the availability of computers and the Internet outside of the home and school settings. Ongoing professional and curriculum development is also a key factor in establishing technology in the Champaign Unit 4 School District.

UC2B could really help support the district's overall technology plans by supporting the curriculum and providing access for students in their homes. The long-term planning and cost will be determining factors in the sustainability and maintenance of UC2B, but Champaign Unit 4 School District recognizes the possibilities and advantages in supporting the establishment of fast, reliable broadband access in the Urbana-Champaign community.

## **Bibliography**

Grinnip, Roger. "Digital Divide Lecture Series. Illinois, Urbana-Champaign, 29 Sept. 2011.

## **Webliography**

Browning, Jonathan. "U.S. Ranks 15th, South Korea No. 1 in Cisco Broadband Rankings": Bloomberg, 2010. Accessed October 15, 2011.

<http://www.bloomberg.com/news/2010-10-17/korea-stays-at-top-u-s-is-15th-in-cisco-broadband-rankings.html>

Champaign Schools, "Technology Integration Plan 2009", accessed October 13, 2011, <http://www.champaignschools.org/tech/tip032609.pdf>

Champaign Schools. "Unit Four Performance Statistics", accessed October 14, 2011, [http://www.champaignschools.org/files/Unit\\_4\\_Performance\\_Statistics.pdf](http://www.champaignschools.org/files/Unit_4_Performance_Statistics.pdf)

Champaign Schools. "Champaign Community Unit School District #4", accessed October 12, 2011,

<http://www.champaignschools.org/ChampaignUnit4DemographicStudy.pdf>

Illinois State Board of Education. "Illinois District Report Card 2010 – Champaign CUSD 4", accessed October 13, 2011,

<http://www.champaignschools.org/reportcards/2010/District2010.pdf>

Smith, Lauren. "Champaign Public School History", 2009. Accessed October, 14, 2011.

<http://www.champaignschools.org/News/0910/Champaign%20School%20History%2011-13-09.pdf>

# 50: Champaign Consortium/Parkland Job Training Center

**Emilie Vrbancic**

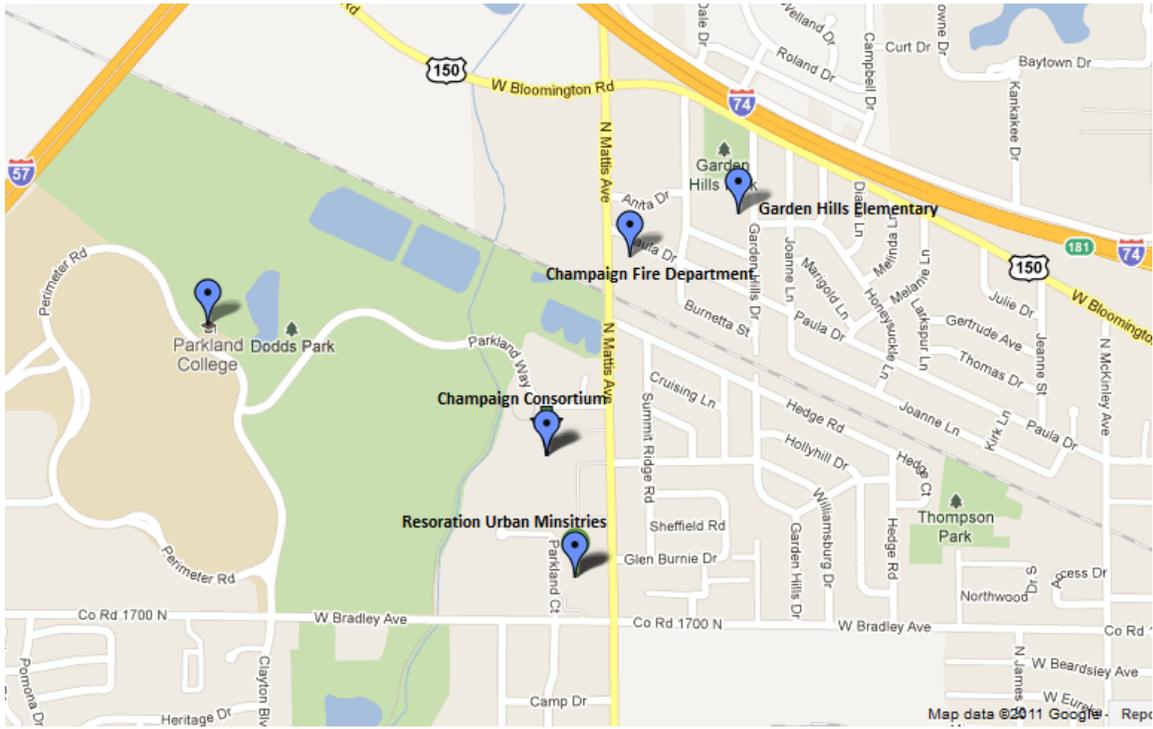
Master's student, GSLIS

## 1 Executive summary

Founded in 1974, the Champaign Consortium provides job training and job search assistance for Champaign, Iroquois, Ford, and Piatt counties. The mission of the Champaign Consortium “is to help economically disadvantaged individuals and others who face serious barriers to employment to become productively employed.” The organization is supported by the Workforce Investment Act and works closely with local officials, business owners, and community members to ensure that the provided services are tailored to clients’ needs. Programs like the Resource Room, Job Clubs, and the existence of the Digital Divide Computer Lab (through Parkland Community College) are essential in helping to provide job and technology skills.

Major technology issues for the Champaign Consortium revolve around funding and staying up with changing technologies. Champaign Consortium is ready for and enthusiastic about receiving UC2B service. Job training and technology skills are essential for the clients Champaign Consortium serves. With the migration of job applications and postings and unemployment forms to the Web, organizations like Champaign Consortium and the Digital Divide Computer Lab are fundamental to providing technology skills for the unemployed.

## 2 Maps

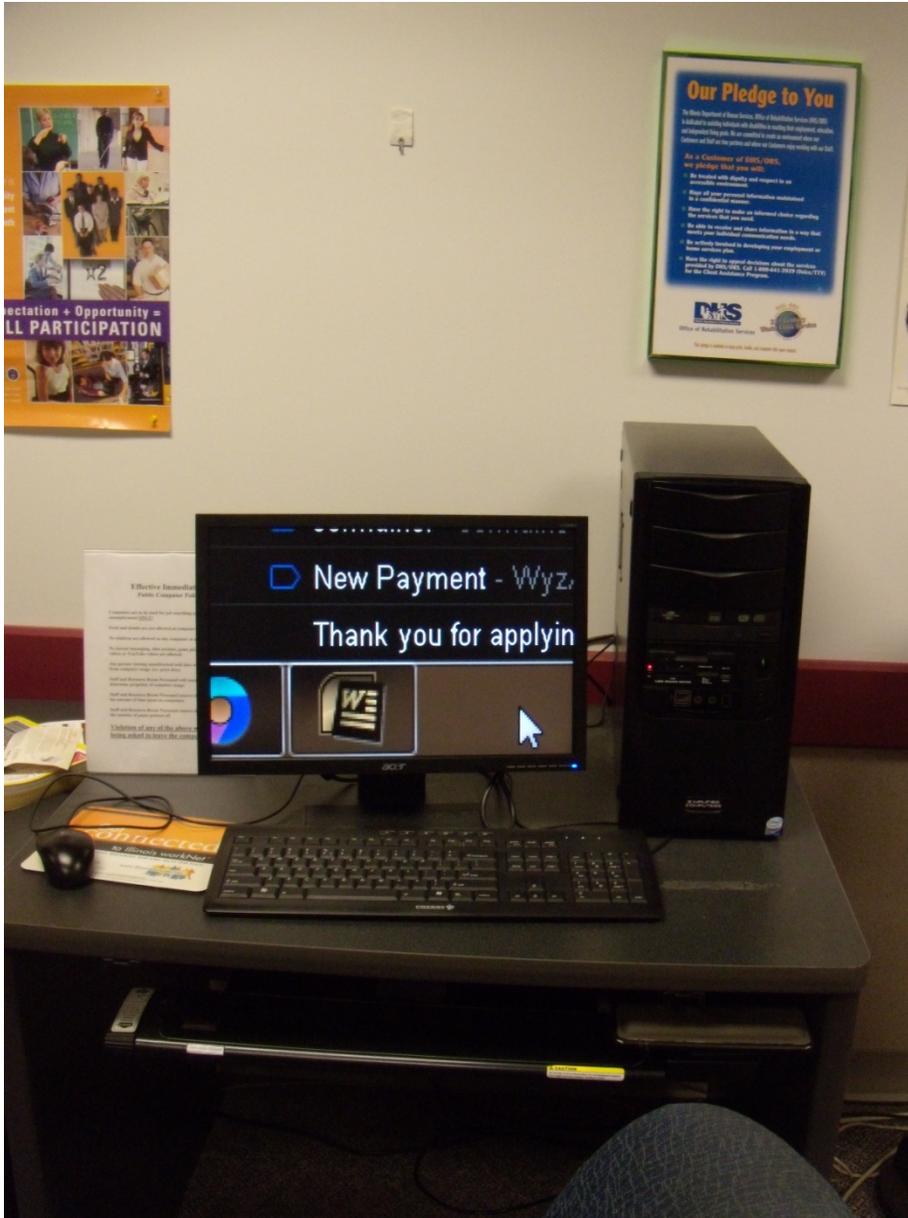


**Champaign Consortium and Surrounding Social Institutions.**

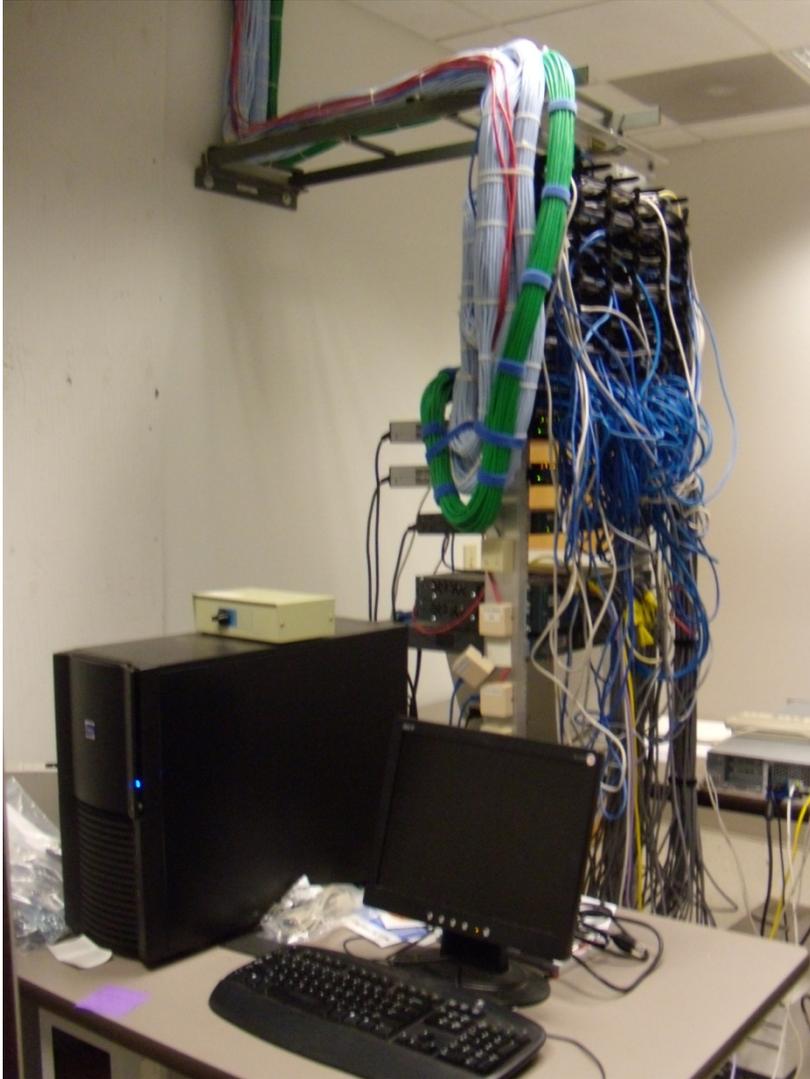
### 3 Photographs



**The Digital Divide Computer Lab.**



Computer for client use in the Resource Room.

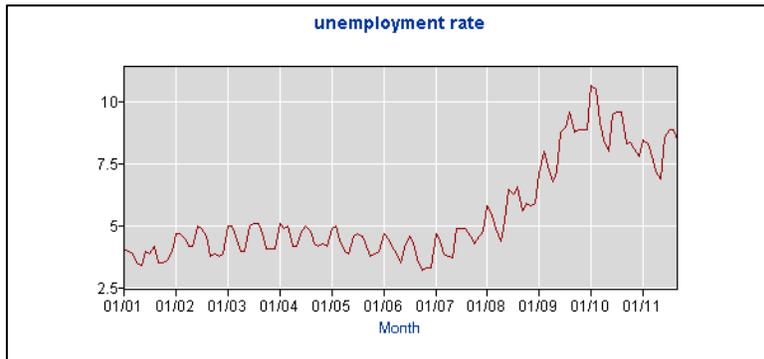


**Champaign Consortium Server Room.**



Staff computer in the Resource Room.

#### 4 Demographics of patrons or clients



Source: Bureau of Labor Statistics, 2011

Program Type	Number	Age Range
Adult	331	19–22+
Dislocated Workers	572	14–22+
Youth	397	14–21

Workforce Investment Act Population Statistics 7/1/2010–6/30/2011. Source: Illinois WorkNet Center (copies included in paper documents)

Month	Resource Room Usage	Basic Computer Literacy Services	Unemployment Filing Information	Internet Usage	Total “Technology” Usage*
January	1,666	56	1,396	326	1,722
February	1,088	86	844	374	1,218
March	1,262	166	916	481	1,397
April	1,243	127	866	459	1,325
May	1,432	137	972	546	1,518
June	1,527	72	1,128	474	1,602

**Resource Room Statistics January 2011–June 2011. Source: Illinois WorkNet Center (copies included in paper documents). \*Internet Usage and Unemployment Filing Information are totaled as different statistics—however, now that all unemployment information is filled out online, people must use computers.**

## 5 History

The Champaign Consortium is an Illinois Employment & Training Center (Illinois WorkNet Center) and works closely with the Parkland Workforce Development services. Founded in 1974, the Champaign Consortium provides job training and job search assistance for Champaign, Iroquois, Ford, and Piatt counties. The mission of the Champaign Consortium “is to help economically disadvantaged individuals and others who face serious barriers to employment to become productively employed.” The organization is supported by the Workforce Investment Act and works closely with local officials, business owners, and community members to ensure that the provided services are tailored to clients’ needs.

The Workforce Investment Act (WIA) is a federally funded program that combines job training organizations into a system where individuals can find or train for a new career. The WIA provides three levels of assistance: core services, intensive services, and training services. Clients first receive core services. If they are unable to find employment they then receive intensive services and so on. The WIA also allocates resources for the dislocated worker program and the youth program.

The Illinois Employment & Training Center (Illinois WorkNet Center) in Champaign provides those searching for jobs or looking for job training access to their Resource Room. The Resource Room is equipped with computers, printers, and a comprehensive library of employment resources, as well as the following tools and services:

- access to a statewide job database
- free Internet and call center for job-search activities
- the latest in assistive technology for persons with disabilities
- a computer lab which offers instruction on basic computer literacy and business applications; and

- private interview offices and conference rooms for local businesses to use at no charge.

Illinois WorkNet Center also offers a program called Job Clubs. These provide small-group discussion and training meetings that motivate interested individuals to assume personal responsibility for finding and retaining employment. Often, private-sector human resource representatives speak with groups on a variety of topics.

The Parkland Workforce Development Center provides a computer lab at the Mattis location that offers basic, intermediate, and advanced computer classes. The computer lab is operated through State of Illinois digital divide grants. Classes are first come, first serve and students learn skills related to web-based applications and embedded applications, as well as gain knowledge of basic operating systems and resume skills.

## 6 Technology inventory

Champaign Consortium

Type	Number
Desktops	18
Laptops	3
Projectors (ceiling)	2
Network printers	5 (4 black and white; 1 color)
Scanner	1
Software	MS Office Suite Adobe Pro Winway Resume Program Web-based Application (through IL state government)
Social Media	Facebook Twitter

## 7 Analysis

The Champaign Consortium (CC) is an instrumental institution for Champaign County. Operations in recent years have centered on the Internet and computer use because it is now mandatory that unemployment forms be submitted via the Web. This change, although most likely more convenient for the federal government, has put more pressure on social institutions, such as the CC who offer job training and development services. People who are unemployed are already at a disadvantage and some are at more of a disadvantage due to poor or underdeveloped technology skills.

**Funding and Technology:** A major issue for the CC is funding. Federal dollars are hard to come by and state and federal departments must be creative in finding funds. This requires applying for more grants for special projects and being vigilant about knowing the needs of staff and clients. CC's Executive Director noted in the interview that funding and technology are very interrelated. Keeping up with changing technology, especially when one of the major services the organization provides is centered on computer use, takes a good amount of funds. One of the limitations currently is the lack calls a "technology plan."

Another issue is that the CC building, although shared by government agencies, is not a hot spot. Currently, there is only limited wireless in the building and is password protected. Both the executive director and the network system administrator agree that it would be beneficial for them to switch to wireless, but security is still a concern. Also, the executive director was concerned with people misusing social media. However, CC does use social media, such as Facebook, to keep in contact with its' clients.

Another issue is the current T-1 line the CC is running on. The network system administrator has been adding more computers on the network recently, which has slowed the connection. It is important to maintain high-speed Internet, so they are very enthusiastic about receiving the UC2B service. They plan on setting up their wireless network soon and are looking forward to the increased amount of bandwidth.

The Resource Room: As stated above, job training and unemployment requirements have all moved to Web applications. Searching for jobs is done primarily on the Internet and paper applications and forms are almost completely obsolete. This not only puts strain on organizations that are involved in job training programs, it also requires people become accustomed to using computers. The lack of technology skills of the people utilizing CC's services is very apparent to the employees. Clients possess a range of skills and unfortunately, some don't even know what a mouse is. Applying for jobs requires not only online applications, but also having an e-mail account, knowing how to write up a resume, and adding attachments to e-mails. For those who use a computer on a regular basis, these seem like ordinary, basic tasks. But for those who don't own a computer or use a computer for work, these can seem like insurmountable obstacles. This is especially true for those unemployed (or displaced workers) who need to get back into the workforce but are now at a disadvantage because their previous job did not require digital skills (for example, someone who had worked in manufacturing for 30 years).

The Resource Room is a place where people come to fill out unemployment forms, perform job searches, and write resumes. As can be seen from the statistics provided in part 4, the Resource Room is used very frequently. The problem with the Resource Room, though, is that it doesn't offer the clients who use it too much one on one instruction. For those who want (or need) extra instruction, they are referred to the computer lab across the main lobby.

The Digital Divide Computer Lab: The Computer Lab, under Parkland Community College administration, is a very valuable supplement to job skills programs. For people looking for a more comprehensive computer education, these classes are wonderful. Computer classes are offered at beginning, intermediate, and advanced levels and are completely free. The classes are taught as modules, not in a traditional class progression. This way, if someone misses a class, s/he isn't completely lost; s/he can just learn something new that day. The instructor believes that the Internet is "a fast moving train, and you must stay on." Providing people with the Internet is great, but they need the skills and know-how to actually use it. The executive director of CC voiced the same idea. Skills are necessary to people's use of technology. It's an amazing feat that UC2B is going to provide so many people with broadband, but if they don't have the skills to utilize it, then another divide has been created.

Organizations like CC and places like the Digital Divide Computer Lab are essential in fighting the digital divide in Champaign County. Through the interviews it became clear how essential technology skills are and how important having committed organizations and people to provide those skills are.

## **Webliography**

Bureau of Labor Statistics. 2011. "Local Area Unemployment Statistics: Champaign-Urbana, IL". [http://data.bls.gov/timeseries/LAUMT17165803?data\\_tool=XGtable](http://data.bls.gov/timeseries/LAUMT17165803?data_tool=XGtable)

Champaign Consortium. 2008. <http://www.illwa17.com/index.html>

DCEO Digital Divide; Parkland College Digital Divide Class website.  
<http://parklanddigitaldivide.info/>

Monson, Mike. (28, March 2009). "Stimulus funds to cover 500 or more summer jobs for youths". The News-Gazette. Accessed on 11, November 2011. Accessed from: <http://www.news-gazette.com/news/business/miscellaneous/2009-03-28/stimulus-funds-cover-500-or-more-summer-jobs-youths.html>

Reiter, Amy F.. (4, January 2009). "Local options can help those laid off get back on their feet". The News-Gazette. Accessed on: 11, November 2011. Accessed from: <http://www.news-gazette.com/news/business/economy/2009-01-04/local-options-can-help-those-laid-get-back-their-feet.html>

# 51: Countryside School

## Cao Haixia

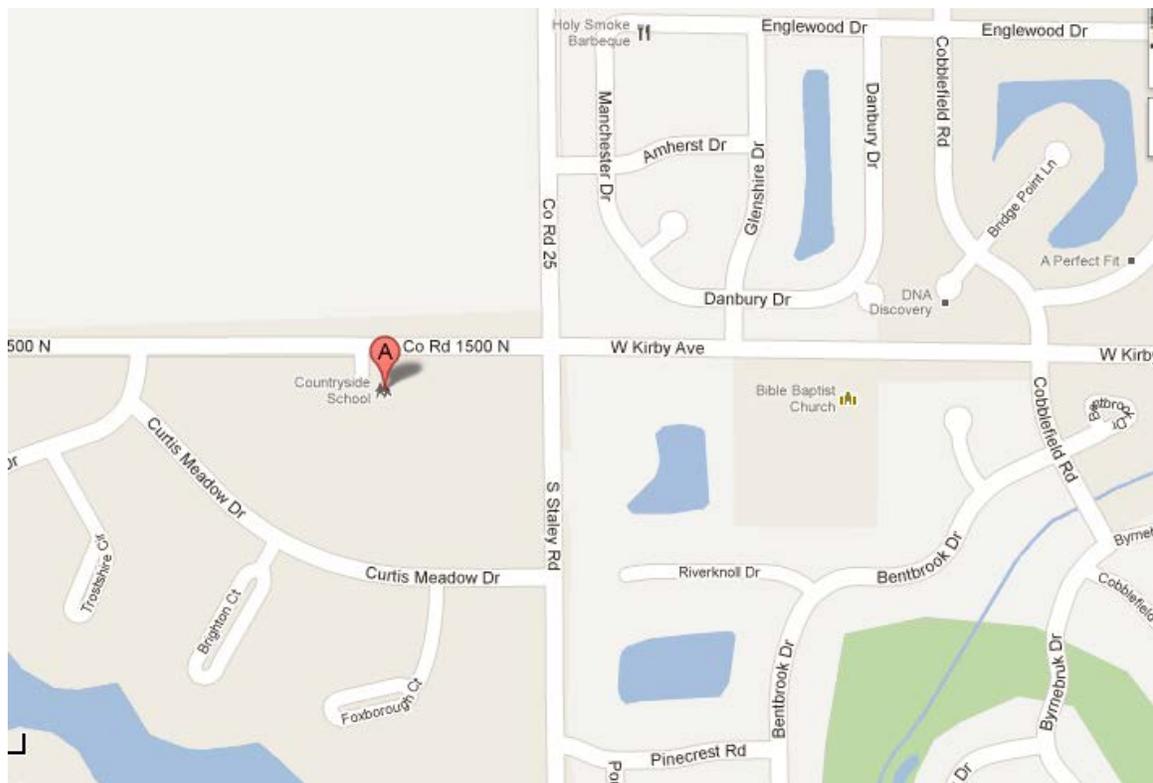
PhD student, Peking University, and visiting student, GSLIS

### 1 Executive summary

Countryside School is an independent K-8 school that offers a broad, hands-on curriculum. They “promote high academic achievement and emphasize balanced growth - intellectually, physically, emotionally, and socially – for every student.”

Countryside School has an advanced computer network to support teaching and administration, and uses a wide array of technology resources in teaching, from digital video to iPads. They are looking forward to a broadband connection to UC2B in order to provide faster network speeds at a lower cost.

### 2 Maps



Countryside School and its neighborhood.

### 3 Photographs



The outside of Countryside School.



**The IT person's computer.**



**Countryside School: the students' computers**



**Computers in the classroom.**



**Countryside School's server.**



Countryside School's laptops.

#### 4 Demographics of patrons or clients

There about 11 full-time teachers and 6 special teachers, including language teachers, an art teacher, and a music teacher. All of them have the basic computer skills, as they are able create documents on the computer, send/receive e-mail, and look for information on the Web, and so on. Countryside is a small school and has around 150 students currently.

#### 5 History

**Foundation.** According to the Countryside School website, Countryside School was founded in 1992 by a group of local families who felt that Champaign-Urbana needed an independent, not-for-profit, nonsectarian elementary and middle school with an enriched, projects-based curriculum strong in math and science. After renting classrooms during its early years, Countryside purchased 14 acres of land in west Champaign, constructed its main building in 1996, and expanded its classroom wing in 2005. Its facilities currently serve 148 students. They have many computers in the school.

**Technology.** When the school was founded, they were utilizing four computers including three in classrooms and one administrative for word processing and book keeping. In 1994 the school expanded to include middle school students and curriculum, and in turn purchased more computers for these classrooms. When they first got an internet connection it was very slow dialup, 56 Kbps, and it was sometimes frustrating for the students and teachers. For example, they did a program with the University of Illinois called Chickscope, where the classrooms could view online the inside of a developing chicken egg, but the images took so long to load that it was often a frustrating experience

for the students. At this time the dial-up modem was moved from classroom to classroom to share the connection.

## 6 Technology inventory

According to an interview, the main problem in Countryside School is that the Internet speed is too slow. They currently have a T-1 connection through the state of Illinois that provides symmetrical (download and upload) speeds of 1.5 Mbps, which when shared between the many computers in the school can cause frustratingly slow load times. They need faster speeds to be able to download images and videos for teaching. They now have many computers. All administrative staff members have their own computer and they have many computers in every classroom for the students to use. There are 27 laptops and 17 desktop for the students. There are also three teachers using iPads. It is very interesting that all the computers in the school are Macs. With regard to the future technology use, the school plans to buy more iPads for the students. And they also want more high-speed Internet service to improve teaching in the near future.

The following table outlines the technology inventory of Countryside School.

Website	Speed Down (Mbps)	Speed Up (Mbps)
IT person's office speedmatters.org	1.431	1.453
IT person's office speedtest.org	1.41	1.43
Business office speedmatters.org	1.234	1.440
Business office speedtest.org	1.46	1.33

## 7 Analysis

**Mission and Philosophy.** Countryside School's mission is to combine joy in learning with excellence in education. Central to this is the belief that students thrive in a school where intellectual stimulation is high and where individual attention is given in a warm, friendly, and nurturing environment. They offer a program of strong academics combined with a focused development of study skills. Through a program that emphasizes hands-on, applications-based learning, the school seeks to involve each student in an active process of discovery, invention, problem solving, and mastery. The curriculum is designed for students working at or above grade level in all subjects.

**Technology Use.** Countryside School is an education institution, so the use of computers and technology tools is very important. They have many computers in the offices and classrooms, but the main issue is that the Internet speed is not very fast. This affects the quality of teaching, especially the downloading of pictures, video materials, and web-based applications from the Internet. So they very much welcome and support the UC2B project. Because most of the teachers have high levels of computer skills, they just have one person in charge of the computer system and the teachers do not need computer training. They have taught the younger students how to use computers in the school.

**Computers for auxiliary teaching in the school.** Nowadays, computers and multimedia play an important role in the teaching of students. For example, Countryside School offers summer camps which include video-making and editing, and students' work is posted online so that it can be viewed by their families and friends. Computer applications are very common in every school, but unfortunately not every school has high-speed Internet. And, of course, some schools do not even have computers; there is a strong digital divide in our schools. Countryside is an excellent example of what can be done with technology in the classroom, and UC2B can make their service even better.

**The vision of technology in the future at Countryside School.** Countryside School has many great laptops and desktops for the students and teachers to use. The teachers are young and have a high level of computer skill; they don't need more training. When it comes to the future of technology at the school the IT person repeatedly emphasized the need for faster Internet service.

## **Webliography**

Countryside School website. accessed Dec.6.2011. <http://www.countrysideschool.org/>

Managing Students with Computers: Best Practice.accessed Dec.6.2011.

[http://www.thirteen.org/edonline/ntti/resources/workshops/managing\\_students/practice.html](http://www.thirteen.org/edonline/ntti/resources/workshops/managing_students/practice.html)

## 52: Judah Christian School

### Emily Williams

Master's Student, GSLIS

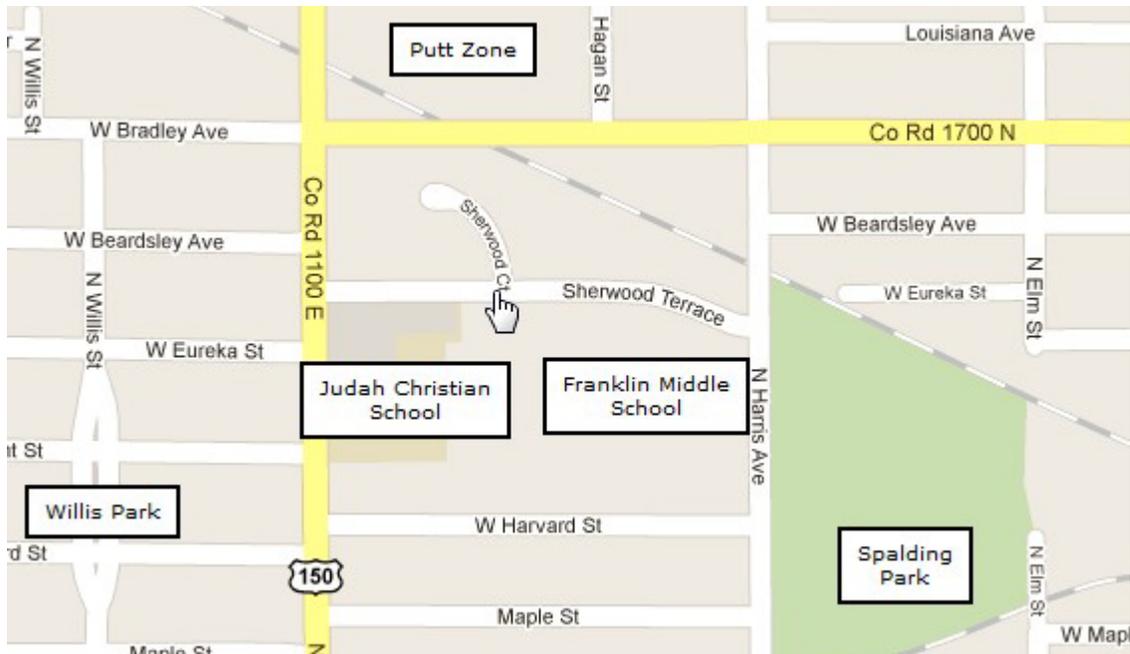
#### 1 Executive summary

Judah Christian School provides a uniquely Christian education to nearly 600 students from preschool through 12<sup>th</sup> grade. They seek to incorporate the message of the Bible into the classroom and the daily lives of their students. This includes providing the students with the best possible education to prepare them for life after graduation. In order for this to be accomplished, students need to have access to and familiarity with technology, which will almost certainly be a part of their daily lives following Judah. The school has a fairly robust computer network both for education and administration, and a very fast Internet connection compared to similar private schools. However, as an organization dependent on donations for any large technological improvement, they could benefit from less expensive Internet costs.

#### 2 Maps



Judah Christian School, located on North Prospect Ave., just south of I-74.



A closer view of the neighborhood in which Judah Christian School is located.

### 3 Photographs



The outside of Judah Christian School.



**Staff desk and computing station in the library.**



**Student computer stations in the library.**



School computer lab.

#### 4 Demographics of patrons or clients

In terms of demographics, the students at Judah Christian School are predominantly white, but there are some who are Hispanic or Latino, Asian, Black or African-American, or are from two or more ethnicities (see table below). The past 10–12 years have seen an increase in the Asian student population, especially those from Korea.

**Table for Ethnic Demographics (Pre-k through 12<sup>th</sup> grade)  
Enrollment for the 2011–2012 School Year**

<b>Ethnic Designation</b>	<b>Number of Students</b>
Hispanic or Latino	28
Asian	56
Black or African-American	36
White	405
Two or More Ethnicities	20
<b>Total</b>	<b>545</b>

## 5 History

Judah Christian School was established in 1983, springing from a concern of area parents about the lack of Christian education available for high school students in the Champaign-Urbana area. In the fall of that year Judah opened its doors, beginning with a program for grades 7–10 with the intention of adding a grade each year until it was a 7<sup>th</sup>–12<sup>th</sup> grade program. The first two years were spent in the Webber Street Church of Christ facility in Urbana. In its third year, Judah moved to its present location at 908 N. Prospect Avenue, having bought the building that had previously housed the Champaign Elementary School, Lottie Switzer.

As Judah continued to grow, an elementary program was added in May of 1986, making Judah a k–12 school. Additionally, in the fall of 1991, a preschool was added, completing the educational structure of Judah. Class sizes continued to grow and in 1996 an additional wing was added to the building for the junior high and high school programs. Classrooms and offices were added to the wing for several years following and in 1999, the school added its final wing, which housed a brand-new gymnasium for the school.

Starting about six years ago, Judah began looking into options to move the school so it could continue to grow. After exploring several options, a donor gave a 68-acre plot of land, located in Urbana north of I-74, to Judah. There was enough room to build a new school and the necessary athletic fields all on the same campus. However, the City of Urbana denied Judah the proper licensing to make this possible and the search was once again back to square one. A capital campaign has continued in order to raise the funds necessary to build a new school and athletic fields once a site is identified. In April 2011, Judah purchased 48 acres of land just north of the intersection of Kirby and Rising roads on the west side of Champaign, where they plan to relocate the school in phases over the next 10–15 years.

## 6 Technology inventory

Being a small, private school, the biggest challenge for Judah when it comes to purchasing new pieces of technology is the financial burden. Not everything can be purchased, so certain upgrades have to receive priority. Judah has come a long way, as far as technology is concerned, since the school opened. Some of the biggest strides in regards to technology coincide with donations from parents. This includes a period in which new HP computers were provided every year for several years in a row and another donor paid to have the entire school wired. Events such as these are a great service to the school but cannot be expected on a regular basis.

Sites for Information: Judah Christian School has a well-organized website that has improved drastically over the last 5–10 years. Information about various aspects of the school can be found there including Admissions, Athletics, Arts, Alumni, Academics, and Contact Information. Judah also recently upgraded to a new school management software system called RenWeb, which has been praised as a large improvement over previous software.

Future needs for technology: while Judah has indeed taken great strides, with regard to available technology, at the school over the last 10 or more years, financial limitations mean they are behind the technology curve compared to other schools in the area. New

computers and updated software are consistently needed as technology grows and changes. Ideally, Judah would like to add more SMART boards to the classrooms to broaden the resources available for teachers to use in the classroom. As more textbooks move online, the purchase of online textbooks may be in the school's future. Presently, the cost, need, and benefit of adding Wi-Fi throughout the building is being discussed. And as the school grows, additional IT staff may need to be added as the current staff are maxing out their hours.

<b>Technology Piece</b>	<b>Inventory</b>
Computer Stations	105
Servers	7
Printers	65
Fax Machines	2-3
Scanners	2-3
Landline Telephones	1 per classroom and office
Copiers	2
SMART Boards	2
Localized Secured Wireless	
Security System for Door	

<b>Test</b>	<b>Down (Mbps)</b>	<b>Up (Mbps)</b>
Speedmatters.org (Administrator computer)	17.410	4.247
Speedtest.net (Administrator computer)	51.74	6.57
Speedmatters.org (Library student computer)	17.285	3.800
Speedtest.net (Library student computer)	46.04	3.20

## 7 Analysis

Judah Christian School provides a uniquely Christian education to nearly 600 students from preschool through 12<sup>th</sup> grade. They seek to incorporate the message of the Bible into the classroom and the daily lives of their students. This includes providing the students with the best possible education to prepare them for life after graduation. In order for this to be accomplished, students need to have access to and familiarity with technology, which will almost certainly be a part of their daily lives following Judah.

Being a private institution, Judah must rely on funding from tuition costs, fundraising, and donations. This often means the administration is faced with tough choices when deciding where the money needs to be spent first. While various aspects of the school's technology is quite up-to-date and highly beneficial to students and staff, financial limitations mean that other technological improvements must be put on hold until donations are made or need forces them to move into a position of priority.

The administration at Judah seems to have a surface knowledge of UC2B and the fact that it has been an ongoing project for several years. There has not been a lot of thought as to how UC2B may benefit Judah, perhaps because there has not been an indication that it will actually come to the school anytime soon. Perhaps the greatest way UC2B may benefit Judah relates to their decision and research to install Wi-Fi throughout the building. If UC2B meant that it would be possible financially, then the benefits could start to outweigh the costs. Another benefit would be the symmetrical bandwidth which could allow for the future possibility of online classes, a partnership with Parkland concerning classes, or even offering classes to the community. A reduced monthly cost would also open up the IT budget to purchase more equipment.

Contact with Judah was fairly easy even though it was made at a busy time right before the school's Thanksgiving break. Most e-mails were responded to quickly and a phone call to the administrator was answered with the direct result of setting up an interview and contact information for further interviews. The staff who have been at Judah for 15 years or more are able to talk about how far Judah has come since they started, but also realize the need for continual improvement and increased opportunities.

## Webliography

Cook, Anne, "Champaign Plans Study of Aging Schools," *The News-Gazette*, June 8, 2003, accessed November 30, 2011. <http://www.news-gazette.com/news/other/2003-06-08/champaign-plans-study-aging-schools.html>

Heckel, Jodi, "Champaign School District Takes Look at Judah Christian," *The News-Gazette*, June, 16, 2006, accessed November 30, 2011. <http://www.news-gazette.com/news/education/2006-06-16/champaign-school-district-takes-look-judah-christian.html>

Heckel, Jodi, "As Enrollment Increases, Judah Christian Begins Search for a New Facility," *The News-Gazette*, July 2, 2006, accessed November 30, 2011. <http://www.news-gazette.com/news/education/2006-07-02/enrollment-increases-judah-christian-begins-search-new-facility.html>

Heckel, Jodi, "Judah Christian to Launch Capital Campaign," *The News-Gazette*, September 12, 2007, accessed November 30, 2011. <http://www.news-gazette.com/news/education/2007-09-12/judah-christian-launch-capital-campaign.html>

Heckel, Jodi, "Donors give 68 Acres for Future High School, Other Facilities," *The News-Gazette*, November 2, 2007, accessed November 30, 2011. <http://www.news-gazette.com/news/education/2007-11-02/donors-give-68-acres-future-high-school-other-facilities.html>

Heckel, Jodi, "Urbana Impedes Judah Christian School's Relocation Plans," *The News-Gazette*, July, 23, 2008, accessed November 30, 2011. <http://www.news-gazette.com/news/education/2008-07-23/urbana-impedes-judah-christian-schools-relocation-plans.html>

Heckel, Jodi, "Judah Christian Official Looking at Other Land for New School," *The News-Gazette*, July 30, 2008, accessed November 30, 2011. <http://www.news-gazette.com/news/education/2008-07-30/judah-christian-official-looking-at-other-land-for-new-school.html>

[gazette.com/news/education/2008-07-30/judah-christian-officials-looking-other-land-new-school.html](http://www.news-gazette.com/news/education/2008-07-30/judah-christian-officials-looking-other-land-new-school.html)

Judah Christian School, "About Us," accessed November 30, 2011, <http://judah.org/aboutus/>

Judah Christian School, "History," accessed November 30, 2011, <http://www.judah.org/aboutus/history.cfm>

Kroner, Fred, "Judah Christian Senior Learns Lessons of Love," *The News-Gazette*, February 25, 2010, accessed November 30, 2011. <http://www.news-gazette.com/sports/prep-sports/boys-basketball/2010-02-25/judah-christian-senior-learns-lessons-love.html>

Lamothe Jr., Ernst, "A Shot at a \$100,000 Ball," *The News-Gazette*, April 28, 2005, accessed November 30, 2011. <http://www.news-gazette.com/news/other/2005-04-28/shot-100000-ball.html>

Wade, Patrick, "Proposal to Relocate Judah Christian Up for Vote Tuesday," *The News-Gazette*, February 28, 2011, accessed November 30, 2011. <http://www.news-gazette.com/news/politics-and-government/2011-02-28/proposal-relocate-judah-christian-vote-tuesday.html>

Wade, Patrick, "City Officials Again Consider Judah Christian Move," *The News-Gazette*, February 21, 2011, accessed November 30, 2011. <http://www.news-gazette.com/news/politics-and-government/2011-02-21/city-officials-again-consider-judah-christian-move.html>

Wade, Patrick. "Champaign Council to Revisit Judah Issue," *The News-Gazette*, February 22, 2011, accessed November 30, 2011. <http://www.news-gazette.com/news/education/2011-02-22/champaign-council-revisit-judah-issue.html>

# 53: Next Generation School

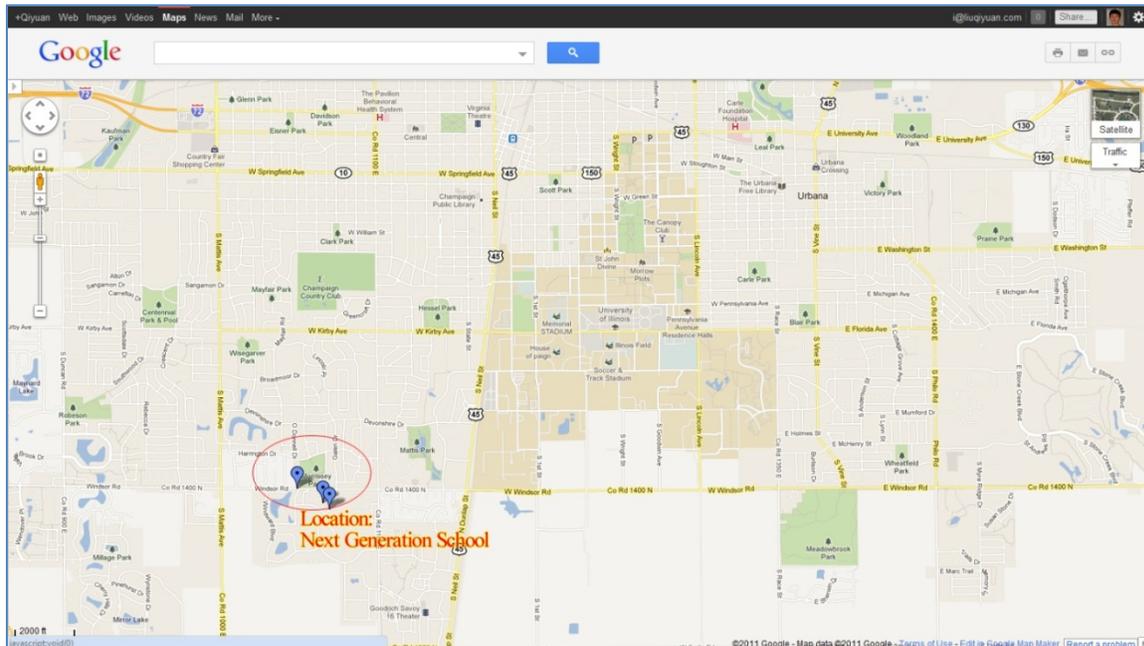
Qiyuan Liu

Master's student, GSLIS

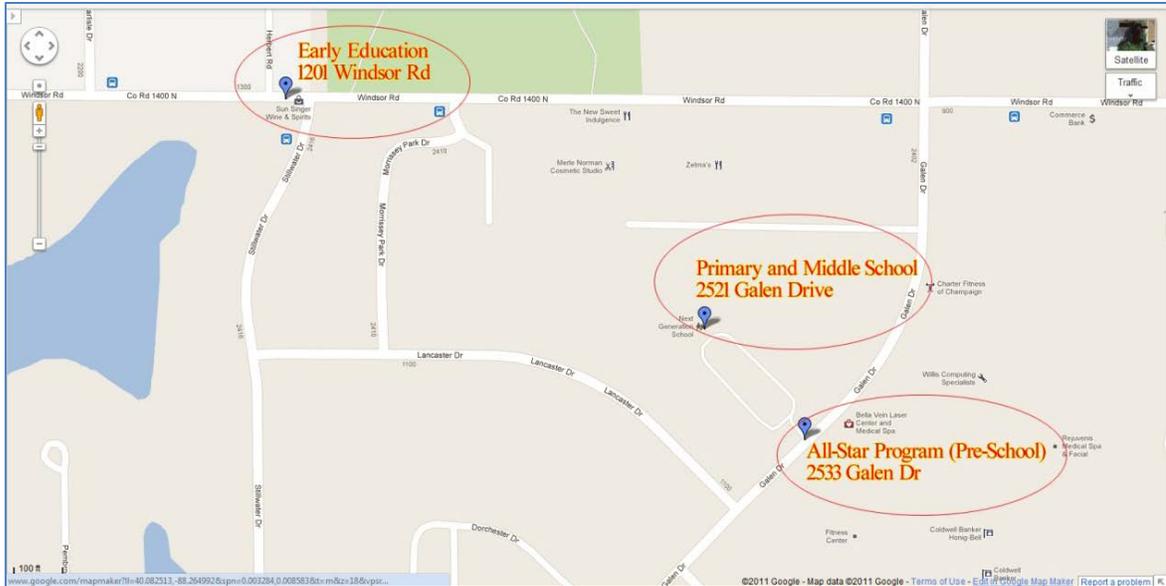
## 1 Executive summary

Next Generation School is an independent private school offering superior educational opportunities for students as young as six weeks old through eighth grade. Their campus is located in southwest Champaign. The school utilizes information technologies both in and out of the classroom to pursue their goal of providing an excellent education. With many computers all vying for Internet access, often at the same peak times, a more robust connection would surely enable more reliable access.

## 2 Maps



All three buildings/departments of the Next Generation School are marked in this map. A short distance from The University of Illinois campus, their location affords them the opportunity of many enriching experiences for their students.



Next Generation’s campus, located in southwest Champaign, consists of three buildings. The Early Education building, 1201 West Windsor, serves children ages six weeks through three years. The All-Star building, 2533 Galen Drive, is home to their four-year-old students, and the Primary and Middle School building is located at 2521 Galen Drive. The three buildings are connected by a large play field and playground. This map shows the distribution of nearby parks, facilities, and trails.

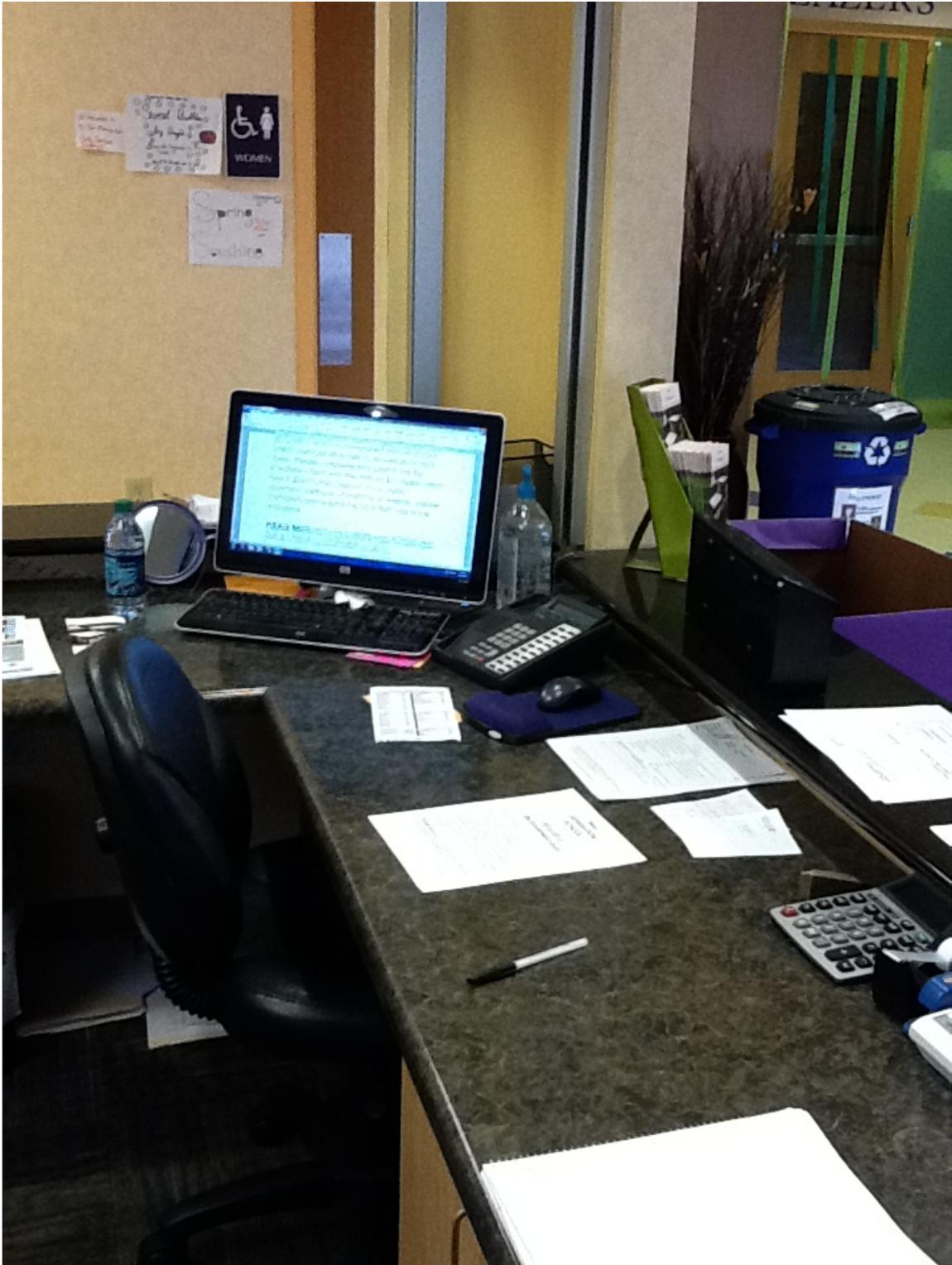
### 3 Photographs



The Primary and Middle School building of Next Generation School, located at 2521 Galen Drive.



**The school's three buildings are connected by this large play field and playground.**



**Staff computing resources in the Primary and Middle School.**



**These facilities are responsible for daily work such as meeting room reservations, printing, faxing, scanning, copying, and delivery service.**

## 4 Demographics

Demographics	Total (number)	Notes
<b>The staff (49–65)</b>	Full-time 54	They have about 34 full-time staff, 15 part-time staff, and 10–15 summer full-time staff, in addition to 20 full-time and 55 part-time staff in the Early Ed program. Knowledge of information technology is not a big issue for hiring, but some basic necessary digital skills are required. Most of the staff can access the Internet and use Excel. The summer full-time staff work 40 hours a week, and most of them are students. Most of the staff are certified teachers. There are some technical requirements for the education courses.
	Part-time 70	
	Summer full-time 10–15	
<b>Teachers (28)</b>	Primary School 13	They have teachers who specialize in different ages, because their students vary from ages six weeks through eighth grade.
	Middle School 6	
	Specialty Teachers 9	
<b>Classrooms (32)</b>	32	They have total 32 classrooms. There are 14 classrooms in the Primary and Middle School building, 5 in the All-Star Program (Pre-School) building, and in the Early Education building there are 13.

\* These materials are obtained from the interviewees and their website.

## 5 History

Next Generation School was established in 2004 by Ms. Barb Sullivan. Many years ago, she set about to create a school that would change the lives of its students; she has done this, and at the same time her students have also had a deep and profound effect on her. Sullivan is honored to call Next Generation School her life's work. (Website)

When the school opened in 2004, there were only about 5–6 computers in the whole school, because there were only 16 students at that time. There were no websites or blog at that time. The turning point was 4 years ago, when they bought 32 laptop computers, all Macs. According to the IT person, that was the biggest purchase that they made. Since that point they have bought a lab of 21 computers and another of 15 when they were moving into the new building and expanding their middle school.

## 6 Technology inventory

Inventory of the Next Generation School's technology resources			
Item		Number	Notes
Computers	Desktops	42	Most are used by the administration.
	Laptops	67	Includes 21 personal laptops. All students are using Mac laptops in

			carts.
Website	<a href="http://nextgenerationschool.com/">http://nextgenerationschool.com/</a>	1	Purchased from a Company called Clover ( <a href="http://www.cloversites.com/">http://www.cloversites.com/</a> ).
BlogSpot	<a href="http://nextgenerationschool.blogspot.com/">nextgenerationschool.blogspot.com/</a>	1	Made themselves
Social network sites	Facebook pages	3 or more	Next Generation School: <a href="http://www.facebook.com/pages/Next-Generation-School/142006945845171">http://www.facebook.com/pages/Next-Generation-School/142006945845171</a> Alumni: <a href="http://www.facebook.com/pages/Next-Generation-School-Alumni-Champaign-IL/245362379644">http://www.facebook.com/pages/Next-Generation-School-Alumni-Champaign-IL/245362379644</a>
<b>Item</b>			<b>Notes</b>
Connections (Wireless hotspots)		Yes	Not good because there are too many computers sharing the Internet access.
Telephone system		Yes	
Public computers		Yes	In the classrooms.
Management Systems/ Applications	E-mail/Messaging systems	Yes	Gmail, Google calendar and Google Chat from Google.com.
	Finance management system	No	
	Grading system	Yes	Easy Grade Pro software
	Brochures	Yes	Based on the paper files
	Webpages	Yes	Based on the website
<b>Speed Test Results</b>			
<b>Means and the Location</b>	<b>Primary and Middle School Building</b>		
	<b>Down (Mbps)</b>	<b>Up (Mbps)</b>	
Speedmatters.org	5.519	2.613	
Speedtest.net	4.8 Mbps	4.35Mbps	

## 7 Analysis

According to the introduction on Next Generation School’s website, the school is dedicated to educating the whole child—ensuring their academic growth as well as fostering their social and emotional development. By providing a multitude of learning experiences in core academics, in addition to physical education and the fine and performing arts, students grow into accomplished and confident individuals. This richness of experience sets the stage for a lifetime of learning and leadership. Working in partnership with parents is a vital component to helping children achieve their fullest potential. At every level parents are invited to be active participants in their child’s education.

At present, the general issue they are facing right now is that people often lose internet access on a regular basis, because they have too many computers sharing the single line.

There are 60–100 computers in the Primary and Middle School building that are online all the time.

They have 42 desktops in these two buildings, most of which are for administrative use, and 67 laptops, most of which are in carts that can be moved around the school and which are for students' use. There are an additional 12 personal laptops, which teachers bring from home. The fourth-grade students have a computer lab. They have six desktops in their rooms, which are used for typing, instruction, and individual research. They need a dedicated IT person because there is no tech support in the school now. The software they are using now can be divided into two categories: software, including Excel and PowerPoint, purchased from Microsoft, and Calendar, Gmail, and Gchat from Google products, which are all free. The one database they use is called Easy Grading Pro: it helps their teachers with their grading.

Currently they have one website for all of the different departments of the school, several Facebook pages, and a BlogSpot page with many pictures on it. They are updated by a coordinator in a lower school. The website, which was purchased from Clover, keeps parents informed about what's happening at the school. The website has only basic information, however: there are not even e-mail addresses, because most parents will call to get more detailed information, and furthermore they encourage parents to come and see their advanced facilities. They don't want clients to look at the basic information on the website and then make a judgment; they encourage them to call and come to the school to see for themselves. According to the administrator, the school is now constructing a new website, also purchased from Clover, which will be a substantial redesign. All the contact information and other detailed information about their programs will be on their new site.

The communication and outreach coordinator prefers using Gmail, and she has an e-mail list of all the parents in the middle school, so she can send them notifications or news. They have different Facebook pages for the different departments at the school. There is a fine arts department page, which focuses more on their work and what the fine arts department is doing. There is also one for Next Generation School, and another one for their Athletic department, so that parents can stay up on what's going on. E-mails go out daily. The communications and outreach coordinator believes that it's important to make information available in different ways, because some people resort to Facebook for everything, and others look to e-mail. The website allows a lot of people to see what's coming up, in regard to community and school events, so it's a great option for parents.

Right now the school wants to have more SMART boards in the classrooms. SMART boards are interactive wide boards. They are so large that they need to be put on the wall. In addition, they would like to update the computers that they bought four years ago. Another thing the school would like to do is use documents cameras. This would allow students who had made pieces of work to put them under the documents camera, which would project them on the screen so that everyone can see what they have done. They need a lot of documents cameras. In addition, according to the coordinator, it will be good if they had a single website where parents can access all the information freely and pay school-related bills online.

The administration of Next Generation School haven't heard about UC2B so far. But they mentioned that when they moved into this new building, someone did contact them to ask about broadband. According to the coordinator, financial concerns are a huge thing for them. They are a for-profit school, so they don't have any government funding. They do have their technology fund, but it all depends on what they can do and what's available for what cost. Technology is not cheap and software for computers is also very expensive.

## **Bibliography**

Next Generation School. (2011). *Next Generation News* [Brochure]. Champaign, IL: Next Generation School

Next Generation School. (2011). *NGS Middle School FAQ's* [Brochure]. Champaign, IL: Next Generation School

Williams, K., & Durrance, J. C. (2009). Community Informatics. *Encyclopedia of Library and Information Sciences, Third Edition, edited by Marcia Bates and Mary Niles Maack*, p 1202 - 1208.

## **Webliography**

Next Generation School. (2011, November 14). *Contact Us*. Retrieved from <http://nextgenerationschool.com/#/next-generation-school/contact-us>

Next Generation School. (2011, November 25). *Dedication to Children*. Retrieved from <http://nextgenerationschool.com/#/next-generation-school/dedication-to-children>

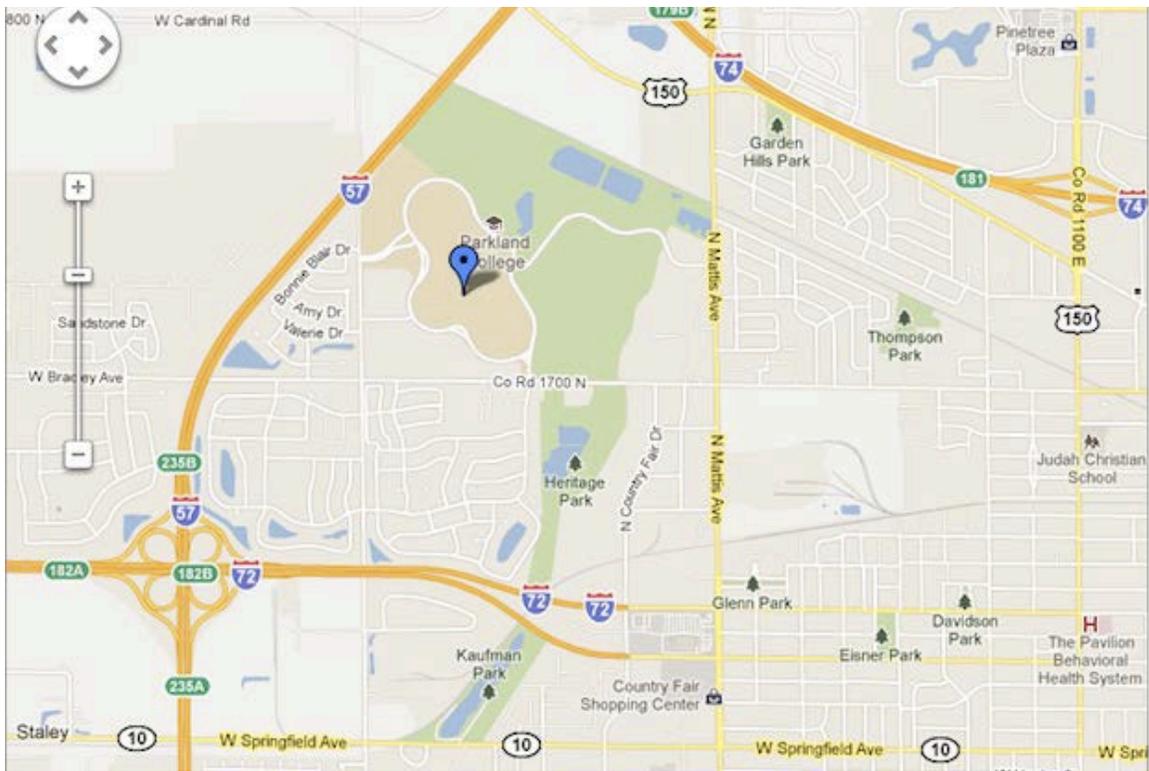
Next Generation School. (2011, November 14). *Next Generation School*. Retrieved from <http://nextgenerationschool.com/>

Next Generation School. (2011, November 25). *Welcome to the founder*. Retrieved from <http://nextgenerationschool.com/#/next-generation-school/welcome-from-the-founder>

Urbana-Champaign Big Broadband. (2011, November 26). *Handbook*. Retrieved from <http://uc2b.net/handbook/>

Urbana-Champaign Big Broadband. (2011, November 26). *About*. Retrieved from <http://uc2b.net/>





The location of Parkland College (denoted by blue pin).



### 3 Photographs



**WorkNet Public Computing Lab: Parkland College Extension.**



Entrance to B Wing of Parkland College's Campus (photo taken from [www.Parkland.edu](http://www.Parkland.edu)).



Parkland College campus (photo taken from [Parkland.edu](http://Parkland.edu)).

## 4 Demographics

The Parkland College website states, “Our campus is a melting pot of student life, with cultures as diverse as the communities we serve, students ranging in age from 16 to 86 and a growing international student presence.” The 2011-2012 Catalog for Parkland College explicitly states, “Parkland College ensures equal educational opportunities are offered to students, regardless of race, color, national origin, age, gender, gender expression, sexual orientation, religion, veteran status, Vietnam veteran status, ancestry, or disability.”

According to data gathered from the April 2010 Environmental Scan, there were 12,595 total credit and noncredit students enrolled at Parkland College in the fall '09 semester. Of those students, 56.3% were part-time and 43.7% were full-time. Men made up 46.9% and women 53.1%. The average age of all students at Parkland is 26.7 and the median age is 22.2.

Parkland College supports Affinity Groups, which are groups of people with a common ideology or who share a common concern or skill. Parkland’s Affinity Groups are voluntary, employee-initiated networks, which allow faculty and staff who share common interests to connect and provide support for each other. Some groups are associated with professional organizations. All groups are open with regard to attendance and welcome any new members. Current affinity groups include: American Association for Women in Community Colleges, Bowling Group, Ally Team, Christian Email Group, LGBT Network, Men’s Breakfast Group, Movie Night, PayDay Lunch, Parkland Trotters, Ujima, and the Yarn Group. Details about each of these Affinity Groups can be found on the Parkland College website using the following URL:

<http://www.parkland.edu/about/affinitygroups.aspx>

The 2009–2010 Tuition rates for Parkland College are \$92.00 per credit hour for residents of District 505. In-state but out of District 505 rates are \$243.00 per credit hour. Out of state/international students are charged \$378.00 per credit hour. For Internet courses, the tuition is \$132.00 per credit hour and is at a fixed rate. There are many opportunities for scholarships and funding available for Parkland students, which are explained in detail on the main website using the following URL:

<http://www.parkland.edu/student-services/financialaid>.

## 5 History

In December of 1963, members of the Boards of Education in both Champaign and Urbana discussed plans to develop a technical institute in the area. Educators and leaders in the community soon formed the East Central Illinois Steering Committee (ECISC), and the initial plan for a technical institute was changed to a master plan for an institute of higher education that would serve individuals in East-Central Illinois. By 1966, a Board of Trustees had been elected, William M. Staerkel was selected for the post of college president, and temporary offices for the institution were established. The following month major decisions were made about the education program and the selection of college staff. The architectural firm of Ernest J. Kump & Associates, of Palo Alto, California, was selected to design the permanent campus. Buildings for use as a temporary campus were leased in downtown Champaign in the spring of 1967. The

temporary campus existed for several years at various sites throughout downtown Champaign and close-by surrounding areas. During this time the McMillan-Ehler farm and adjoining tracts, totaling 233 acres, were purchased for the permanent site of the campus and the current campus was built.

Parkland College offered its first campus classes in September 1967, enrolling over 1,000 students. Since the campus opened, enrollment has continually increased. The fall of 1973 marked the opening of the permanent campus, whose first two phases of construction included the four main “wings” in Phase I, and the College Center in Phase II. The construction of Phase III, which included the Physical Education facility, followed shortly thereafter. Recent years have seen the addition of an administrative wing, the theater and Staerkel Planetarium, the Child Development Center, and the Agriculture Technology Center.

Parkland has provided vocational and academic instruction to more than 210,000 people since classes began in 1967. In 1996, Parkland College contracted with the National Center for Higher Education Management Systems (NCHEMS) and Paulien & Assoc, Inc. to assess the space needs of the college and to develop the Master Campus Development Plan. The results of this space assessment showed a 111% deficit of student lounge and service space, a 19% deficit of food facilities space, and a 46% deficit of administrative service space. This plan identified the overall deficit as being over 127,000 square feet of assignable area and an additional 37,000 square feet in additional programming.

In 2010 a strategic plan for excellence was implemented. As Parkland College continues to experience significant change in terms of technology, pedagogy, student needs and preparation, and community employment needs and expectations, strategies have been put into place and are planned to accommodate the dynamic needs of the Parkland community. This strategic plan proposes to expand the existing campus to provide for Student Services, Applied Technology, Fine and Applied Arts, Fitness and Recreation, Athletics, Maintenance, and other renovations. This will add approximately 210,000 square feet to the existing campus.

## 6 Technology Inventory

	Download (Mbps)	Upload (Mbps)
<b>Speedtest.net</b>	52.24	40.83
<b>Speedmatters.org</b>	39.192	60.399

Technology	Number available	Additional Info
Computers	2,504 on campus & off-site	2009; majority PC
Computers in labs	1,261	2009; majority PC
Community computers	155	2009; majority PC
E-mail client	For all students, faculty, staff	Parkland.edu
LaserJet printers	100–150; wireless capabilities	About ¼ are color; remote

Fax machine/copy machine	100	Estimate
Televisions/DVD/VCR	300	Estimate
Networked computers	All on one network	Parkland network
Phones	About 50–75	Estimate; each room
Website	Yes	Parkland.edu
Social networking	Yes; many	Twitter, Facebook, etc.
Audio equipment	Speakers, microphones, PA	Every room
Microsoft software		Every computer
Lab equipment	Thousands	Science/health departments
Agricultural Tech Center	Large multipurpose facility	Affiliated with Ag. Centers
Tablets/E-readers	100–300	Pilot program; grant-funded
Databases/I-share	Access to hundreds	Library services; E-catalogs
Wi-Fi	Campus-wide	CISCO access points
Planetarium resources	Multipurpose	Projectors, specific software
Sound systems	Roughly 10–15	Suitable for auditoriums/labs
Music/theater facilities	Hundreds	Estimate; various equipment
WPCD FM 88.7 radio	One radio station	Studios; various equipment
Prospectus News		press; digital software
PCTV		Comcast, Mediacom, AT&T
Video presence	Hundreds	YouTube, video, etc.
SPARK	Open digital repository	Library services
Digital reference	5–10 digital librarians	Instant messaging/e-mail
Online classes	10–30 per semester	Angel software
Online grading system		
Health/wellness center	200+ machines	Estimate
Dental Hygiene Clinic	varied equipment	Dental students
Health Simulation Center	varied equipment	Healthcare students
Assistive Technology Lab	varied equipment	students with disabilities
Child Development Center	varied equipment	ed. students
Additional software	thousands	department specific

## 7 Analysis

“Educational abundance and community enrichment” are two tenets clearly stated by Parkland College. The mission of the community college remains “to engage the community in learning.” Parkland does just that: it engages its students and faculty and inspires them to reach their goals and discover new paths. Parkland is such a diverse and dynamic organization that trying to generalize about the organization holistically is extremely difficult.

The 505 district Parkland encompasses is a rich geographic area that includes all of Ford County, and parts of Coles, Champaign, DeWitt, Douglas, Edgar, Iroquois, Livingston, Moultrie, McLean, and Vermillion. Parkland College has a main 255-acre campus as well as off-campus locations for instruction at 1307-1319 N. Mattis Avenue, and at the Collision Repair Training Center, 31 E. Kenyon Road, both in Champaign. Parkland is comprised of over 9 academic departments, with 100+ associate's degree and certificate programs, thousands of students and staff, and countless adult education classes, workshops, and training opportunities. It is apparent that Parkland College is an enormous facility, both in terms of its varying physical locations and the breadth of resources available.

Technology usage currently reveals itself in myriad ways at Parkland College. Findings throughout the research process point to several pertinent technology issues that Parkland College is thinking about and scheming of ways to combat. The biggest issue, as identified by the individuals interviewed, is bandwidth. Students and staff are streaming video and performing online operations at unanticipated rates, and the speed and strength of the wireless can simply not keep up. Efforts to increase the bandwidth are underway, but this is an area that still needs development.

When thinking about the long-term benefits of UC2B, Campus Technologies at Parkland College is strongly focusing on the financial opportunities it could bring. Connecting all of Parkland on one fiber optic network with a minimal monthly cost would lessen and/or perhaps remove corporate ties altogether between Parkland and companies such as ICN and AT&T.

In terms of student involvement and funding, Parkland College seems to be doing well overall. Every year, class availability and student enrollment continues to grow. Plans for new facilities and projects continue each year. Problems surrounding the digital skills of students form one area of concern. The digital divide certainly exists, and reveals itself in myriad ways at Parkland, yet the individuals interviewed remained optimistic. Students and staff are growing increasingly competent with regard to technology. Much of this is believed to be because of the resources and training available at Parkland. ICTs and computer/technology classes can help individuals who may be viewed as less tech savvy to develop skills, thereby reducing the digital divide.

In sum, community colleges such as Parkland do much to address the digital divide. They help educate and liberate individuals who may be experiencing the negative effects of the technology gaps that exist throughout society. They provide resources and networking at much more affordable rates than other higher education institutions, and prepare individuals to be productive, technologically literate members of society. It is crucial that Parkland and related institutions remain connected; UC2B can provide this at an affordable rate that could be highly beneficial to the community overall.

## **Bibliography**

Parkland College. (August 2, 2010). *Environmental Scanning Data*. Champaign, IL.

Parkland College. (2011-2012). *Parkland College Catalog*. Champaign, IL

## Webliography

Parkland College. "Parkland College Website" Accessed November 27, 2011 from:  
<http://www.parkland.edu/>

William M. Staekel Planetarium. "William N. Staekel Planetarium." Accessed November 27, 2011 from: <http://www2.parkland.edu/planetarium/>

BLDD Architects. "Parkland College's Master Plan." Accessed November 27, 2011 from: <http://www2.parkland.edu/planetarium/>

Parkland Theater. "Parkland Theatre." Accessed November 27, 2011 from:  
<http://theatre.parkland.edu/>

Google Map. "Parkland College on Google Maps." Accessed November from:  
<http://maps.google.com/maps?hl=en&tab=wl>

## **55: Urbana School District 116**

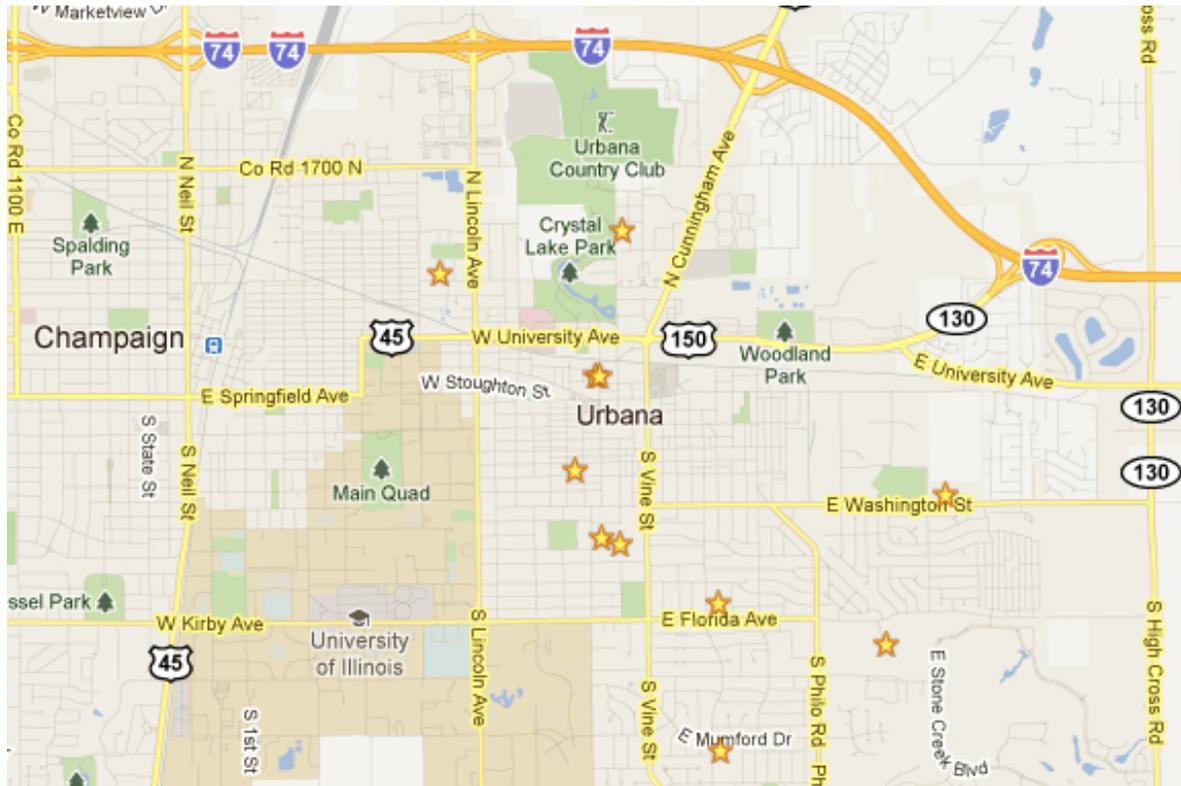
### **Anna Holland**

Master's student, GSLIS

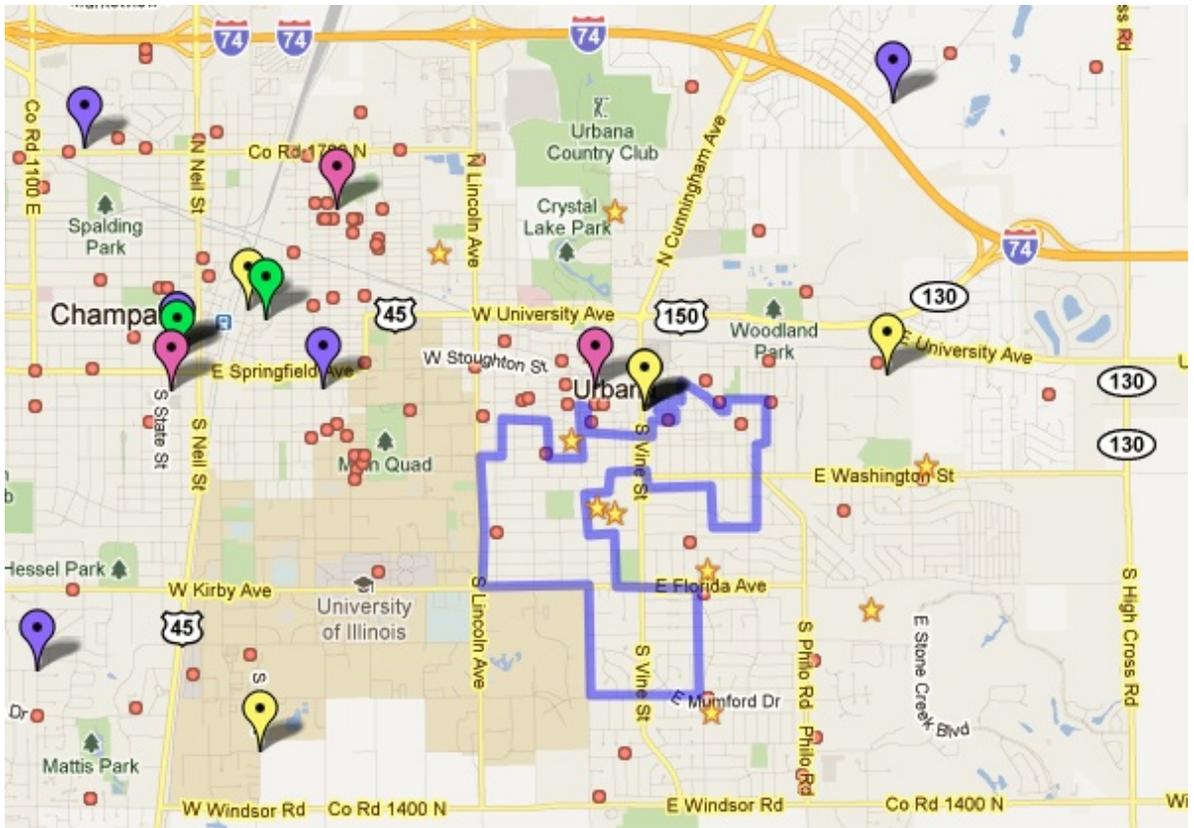
#### **1 Executive summary**

Urbana School District 116 has 10 schools and 1 administrative building. Bridging the digital divide is one of the general technology issues currently facing Urbana schools. As the curriculum becomes more and more technology driven, access to the Internet both at home and at school has become essential to Urbana students. However, access to technology resources is not the only problem the administration faces. Developing and encouraging technology use in the classroom on the part of students and teachers alike also proves challenging. With no mandatory state or national technology requirements, some teachers are not motivated to incorporate or teach digital skills. Students struggle to understand the value of technology and how it can benefit them. The district as a whole, however, fosters a strong supportive attitude for teachers who take risks and try something new with technology, so long as it is student and learning focused. In the past several years, the administration has worked to update and improve its hardware. In general, District 116 has a long and well-documented history of technology use. Every three years the district assesses its entire inventory of technology resources in order to apply for funding to replace aging equipment. Presently, the district is upgrading all its buildings to wireless Internet access. The impact of UC2B might have on District 116 is not clear. The Urbana School District took part in the City of Urbana's community-wide fiber project and as a result already has incredibly fast Internet speeds comparable to the service UC2B would provide. The fiber-to-home premise connectivity of UC2B, however, would provide a huge opportunity for students to purchase affordable, cutting-edge Internet service for their homes.

## 2 Maps



The locations of Urbana School District 116 schools and its administrative office.



**Legend:**

- Fire Department
  - Public Library
  - Place of Worship
  - Shelter Police
  - Residential area
  - ★ District 116 School
- Neighborhood profile: shown here is the amenities, businesses, and organizations.**
- proximity of District 116 schools to surrounding**

### 3 Photographs



Urbana High School, grades 9-12,  
1002 Race Street



Yankee Ridge Elementary, Grades K-5,  
2102 S. Anderson Street



Urbana Middle School, Grades 6-8,  
1201 S. Vine Street



Leal Elementary School, Grades K-5,  
312 W. Oregon Street



Martin Luther King, Jr. Elementary  
Grades K-5, 1108 W Fairview Avenue



Thomas Paine Elementary School,  
Grades K-5, 1801 James Cherry Drive



Wiley Elementary School, Grades K-5,  
1602 S. Anderson Street



Washington Early Childhood School ,  
Children ages 3-5, 1102 N, Broadway  
Avenue



Prairie Elementary School, Grades K-5,  
2102 E. Washington Street, Urbana



John M. Garth Adult Education Center,  
Adults, 211 N. Race Street, Urbana



**Administrative server and computers at 205 N. Race Street.**



**Student computer lab.**

## 4 Demographics of patrons or clients

According to the “Guide to Urbana Schools” pamphlet produced by District 116, the combined 8 Urbana schools have 330 teachers. Faculty averages 15.5 years of experience and 60% of District 116 teachers have a least a master’s degree—both higher than the state average (“Guide”). In addition, the student-to-teacher ratio is lower than the state average at the elementary and secondary school levels. The average teacher salary is \$47,542, according to the Illinois Interactive Report Card. Compared to the state level, District 116 currently has a much higher multiracial ethnicity makeup of its students (see Table 1, taken from the Illinois Interactive Report Card database). In 2011, 83.3% of teachers reported as white and 6.7% as Black. Also, the majority of Urbana School District teachers are female. Only 19.2% of teachers are male (NIU, 2011). In 2011, 65.9% of students came from low-income homes (see Table 2, also taken from the Illinois Interactive Report Card). Grade and district enrollment levels have not changed drastically in the past several years (see Table 3). Presently, the district serves 3,974 students.

URBANA SD 116						
Student Demographics & Characteristics - Race/Ethnicity						
	Year	White (%)	Black (%)	Hispanic (%)	Asian (%)	American Indian (%)
D I S T R I C T	1999	62.2	28.2	2.2	7.2	0.3
	2000	59.9	29.6	2.5	7.6	0.3
	2001	59.3	30.7	2.5	7.3	0.3
	2002	56.8	32.7	3	7.3	0.2
	2003	55.4	33.3	3.2	7.9	0.2
	2004	52.4	36.5	4.3	6.6	0.2
	2005	50.1	33.3	4.3	6.1	0.2
	2006	49.6	33.6	4.5	5.7	0.3
	2007	48.1	35.1	5.6	5.7	0.3
	2008	45.4	33.8	6.3	6.2	0.4
	2009	43.6	34.4	7.3	5.9	0.2
2010	42.8	33.8	8.2	6.1	0.2	
2011	41.7	35.1	10.5	5.4	0.5	
S T A T E	1999	62	20.8	13.9	3.2	0.2
	2000	61.1	20.9	14.6	3.3	0.2
	2001	60.1	20.9	15.4	3.4	0.2
	2002	59.3	20.8	16.2	3.5	0.2
	2003	58.6	20.7	17	3.6	0.2
	2004	57.7	20.8	17.7	3.6	0.2
	2005	56.7	20.3	18.3	3.7	0.2
	2006	55.7	19.9	18.7	3.8	0.2
	2007	54.9	19.6	19.3	3.8	0.2
	2008	54	19.2	19.9	3.9	0.2
	2009	53.3	19.1	20.8	4.1	0.2
2010	52.8	18.8	21.1	4.2	0.2	
2011	51.4	18.3	23	4.1	0.3	

URBANA SD 116											
Student Demographics & Characteristics - Educational Environment											<a href="#">About this Report</a>
	Year	LEP (%)	IEP (%)	Low Income (%)	Parental Involvement (%)	Attendance (%)	Mobility (%)	Chronic Truants (N)	Chronic Truants (%)	HS Dropout Rate (%)	HS Graduation Rate (%)
D I S T R I C T	1999	6.2	-	41.2	97	93.4	25.5	59	1.4	5.5	89.2
	2000	6.2	-	40.7	92.5	93.1	22.7	107	2.3	2.2	92.2
	2001	5.6	-	40.1	100	93	21.9	68	1.5	4.6	92.4
	2002	4.9	-	40.4	99.9	93.1	21.8	185	4.2	6.1	79.7
	2003	6.5	-	43.7	100	93.1	27.1	120	2.8	3.8	81
	2004	5.5	-	47.2	99.8	92.4	28.3	184	4.3	4.6	97.8
	2005	5.5	-	51.6	99.7	93	21.6	234	5.6	2.4	85.6
	2006	7.3	-	55.3	100	92.7	24.9	237	5.9	4.2	86.9
	2007	8.5	-	58.9	100	92.7	22.9	251	6.3	2.2	85.1
	2008	9.2	-	60.3	100	93.8	20.7	84	2.2	2	92
	2009	9.8	-	60.8	100	93.8	20.3	57	1.5	0.4	92.5
2010	9.9	18.4	63.1	100	93.5	20.5	52	1.4	1.1	91.8	
2011	8.4	19	65.9	100	93.4	21.1	70	1.8	2.1	87.8	
S T A T E	1999	6.4	-	36.1	96.1	93.6	18.1	43,332	2.3	5.9	81.9
	2000	6.1	-	36.7	97.2	93.9	17.5	45,109	2.4	5.8	82.6
	2001	6.3	-	36.9	94.5	93.7	17.2	42,813	2.2	5.7	83.2
	2002	6.7	-	37.5	95	94	16.5	39,225	2	5.1	85.2
	2003	6.3	-	37.9	95.7	94	16.4	37,525	1.9	4.9	86
	2004	6.7	-	39	96.3	94.2	16.8	40,764	2.1	4.6	86.6
	2005	6.6	-	40	95.7	93.9	16.1	43,152	2.2	4	87.4
	2006	6.6	-	40	96.6	94	16	44,836	2.2	3.5	87.8
	2007	7.2	-	40.9	96.1	93.7	15.2	49,056	2.5	3.5	85.9
	2008	7.5	-	41.1	96.8	93.3	14.9	49,858	2.5	4.1	86.5
	2009	8	-	42.9	96.7	93.7	13.5	73,245	3.7	3.5	87.1
2010	7.6	13.1	45.4	96.2	93.9	13	72,383	3.6	3.8	87.8	
2011	8.8	14	48.1	96	94	12.8	63,067	3.2	2.7	83.8	

## 5 History

**The 1990s.** In 1990, ICT was not standard in the administration. The assistant superintendent had brought his own IBM XT machine to work. It sat on the desk and had no connectivity or printer. The PC was primarily used for grades and simple word processing. However, technology use ballooned in the next few years. By as early as 1994, teachers were writing web-based lesson plans and taking students to the National Center for Supercomputing Applications (NCSA) at the University of Illinois at Urbana-Champaign to see the Web. Also in 1994, a group of interdisciplinary teachers applied for and received an NSF grant through the University of Illinois that funded the four or five of them getting e-mail at the middle school. Within two years of the grant, the district had created two positions for technology staff. One was a network specialist and the other held a director position (Owen, 2011). By 1996 the entire district had e-mail hosted by the University of Illinois and by 1999 the high school had two computer labs (Owen & Sly, 2011).

**2000–2008.** District-wide, technology use skyrocketed from 1996 to 2000. During this time, the rather progressive USD 116 Board of Education invested time and energy in fundraising and applying to grants for purchasing and providing funds for technology. From about 2000 to 2007, however, the technology funding dried up, because the board of education had already bought everyone computers and therefore did not see the need to maintain a budget for technology. As a result, as recently as 2009, the district still ran on 1 Mbps T-1 lines and could not stream video, audio, or conduct conference calls over the Web.

**2009–2012 Technology Integration Plan.** District 116 created a three-year technology integration plan beginning in 2009. The plan worked to “incorporate telecommunications,

instructional technology and information technology as a natural part of education to ensure that all students will have the opportunity to develop lifelong learning skills necessary to be productive citizens in an information-driven, global society” (“Technology Integration Plan,” 2009, p. 3). The integration of equitable technology in the classroom opened the door for new models of teaching that matched nontraditional student learning styles. At the time, only 46.9% of District 116 teachers reported in a survey that they were advanced personnel computer users, while the rest indicated had either intermediate or basic computing skills (p. 21). A major weakness of teacher technology use revealed by the 2009 district survey showed that a large percentage of teachers never generated graphs, used spreadsheets, or required students to participate in online discussion groups or collaborative projects. Moreover, the district faced new gaps and education needs. From 2002 to 2008, the percent of low socioeconomic students increased from 40.4% to 60.3% and district enrollment dropped from 4424 to 3752 students, creating a larger technology gap. It is estimated that “less than 50% of the students in schools with high economically disadvantaged populations are estimated to have Internet access at home” (p. 24). The 2009–2012 Technology Integration Plan attempted to provide high-quality bandwidth that supported audio and video webstreaming in all district schools so as to provide a place for minority and economically disadvantaged students a place to access technology resources.

#### **Timeline of Key Technology Events.**

2000s: Shift from paper to electronic grade books and implementation of Skyward, a student-record-keeping book.

2008: Board of Education makes the decision to dedicate working cash towards a technology refreshment plan to replace old equipment.

2009: Faster bandwidth connectivity and ability to stream videos and audio.

2011: Moving all schools to a completely wireless network.

**Strategic Plan 2011–2016.** As District 116 prepares to move into the future, a new strategic plan has been built to further the fundamental values and beliefs of the administration. An important concept of the plan involves providing technology infrastructure and facilities to better support the changing educational environment. With all but two buildings entirely wireless, new learning models are thriving. Students engage with technology opportunities of many formats, both built into the curriculum and not. For instance, students with cell phones or Kindles are not banned from bringing them to the classroom and using them when applicable to in-class discussion or work. School policies have not changed, but they have instead grown more acceptable and encouraging of personal technology devices. With many of the schools now wireless, classrooms have become more mobile. Teachers are able to move around the classroom with a laptop, and school-related clubs and organizations now have Twitter accounts. For example, at the high school, the football coach communicates via Twitter posts, writing a few quick words to encourage or remind players.

## **6 Technology inventory**

District 116 describes the digital skills of their staff and students as varied. Some staff, students, and teachers possess a very adequate knowledge of digital skills while others struggle to incorporate technology into their learning or administration. Because there is no technology standard for teachers that requires them to use technology in the classroom, the learning of digital skills varies for students from classroom to classroom. In general, however, students and younger teachers seem to possess a better knowledge of digital skills than the older generations of teachers. Students are more open to trying new technologies, but sometimes lack an appropriate understanding of how technology will prepare them with future career-related skills.

As a whole, District 116 is invested in technology and is currently undertaking steps to replace outdated hardware across the district. Every three years, the district takes an inventory of technology resources in order to apply for funding and replace and retire old equipment. Below is a short inventory of the current core technology resources. The complete District 116 inventory is not currently available but will be completed sometime this December.

### **Hardware**

1200 Mac and PC computers  
30 iPads  
45 MacBooks for teachers  
2+ Laptop carts  
2 Alpha smart carts  
12+ Workstation and multimedia labs  
1 iPad cart

### **Software**

Microsoft Office 2003, 2004, 2007, 2008, 2010, and 2011  
Moodle  
School Messenger  
Skyward  
Yearbook design software

### **Speeds measured**

3.24-10.44 mbps download,.2.22-9.37 mbps upload

## **7 Analysis**

In total, District 116 has 10 buildings and an administrative office and serves 3,974 students and employs 330 teachers. When it comes to technology, the district continues to have an extremely positive attitude. Since the early 1990s, technology has been integrated into the administration and education structure of the institution. Today, the Urbana School District continues to broaden its tech horizon. As part of a new technology initiative, District 116 has plans to upgrade all of its schools to wireless buildings within the next three years.

The wireless setting has already drastically changed the way teachers are working in the classroom. A teacher can move around the classroom from one group of students to another with a laptop. Classroom computers are no longer restricted physically or spatially to a corner or a wall where there is an outlet. This "unplugging" allows for discussion-based learning to flourish. In addition, the wireless network has a guest account that allows students to enable their iPod (Touch) players, iPads, laptops, and other electronic devices while on school grounds. The current policy for wireless devices and cellphones is not open, but it is up to the teacher to determine whether or not a student device is something permitted in class. Many teachers do not have a problem with granting students permission to use the calculator on their phone, for instance, if an assignment requires it (Sly, 2011).

As a whole, the switch to wireless and faster broadband has been well received by students and faculty. However, because there is no requirement in the teaching core standards to include technology-based learning in the curriculum, some teachers still prefer to do basic processing by hand. Because technology is not mandatory in the classroom, students as a result receive varied exposure to technology. Two different classrooms teaching the same subject and grade level may differ greatly when it comes to incorporating technology.

The administration, however, is very supportive of teachers who try new things and take risks centered on students and student learning—even if they fail. As the vice superintendent says, "I think a lot of teachers, not just the early adopters, but also sort of the next wave of teachers are really driven by what they see students doing with technology and they are excited by that" (Owen, 2011). Just this year, the district purchased a cart of iPads for classroom walk-throughs. The iPads are used to make suggestions, record observations, and collect data to better document what each building is doing.

Students more readily accept new technologies. They learn best by trial and error and thus do not have the fear that some teachers have of breaking the equipment (Owen, 2011). The problem with student technology needs and use, however, is that (1) a surprising number of Urbana students only have Internet access on their phone and not in the home, and (2) students often do not interact with technology in ways the district might expect. For instance, a recent effort to provide all high school students with school e-mail addresses meant to aid students with their homework assignments and communicating outside the classroom with teachers and fellow classmates stalled because many students felt that e-mail is outdated and claimed that texting or social network messaging is a quicker way of communicating.

Rapidly advancing technology and changing student demographics create the biggest issue for District 116. With a low socioeconomic level, a new concern for the district has been the digital divide. Because Internet access is in many ways necessary for student learning, grade management, and communication with teachers, students without access to a computer or technology at home are disadvantaged. Compared to other districts with similar socioeconomic and demographic makeups, however, District 116 probably has a higher percentage of students with Internet access at home, likely due to the proximity to the university (Owen, 2011). Nonetheless, there are several low-income neighborhoods in which people cannot afford the Internet. Students and parents from homes that do not

have Internet have the option to use the student computer labs during limited after-school hours and days.

Students and parents with Internet access, on the other hand, can easily view grades, become followers of Urbana Schools on Twitter (currently 250 people are followers), or keep updated with school-related news and announcements. Internally, the district already has high-speed fiber, as it took part in the Urbana community fiber project several years back.

The greatest impact of UC2B would be in the availability and affordability of fiber-to-home connectivity to disadvantaged neighborhoods for students. Providing students with at-home access to the Internet would dramatically help bridge the digital divide that District 116 faces.

## **Bibliography**

Fuller, Christopher. 2011. Interview by author. Digital recording. Urbana, IL, November 21.

Northern Illinois University, "Illinois Interactive Report Card," accessed November 27, 2011, <http://iirc.niu.edu/District.aspx?districtID=09010116022>.

Owen, Donald. 2011. Interview by author. Digital recording. Urbana, IL, November 16.

Sly, Matt. 2011. Interview by author. Digital recording. Urbana, IL, November 14.

Urbana School District 116, "Leal Elementary School," accessed November 25, 2011, <http://www.usd116.org/newwebsite/home/schools/leal.html>.

Urbana School District 116, "Martin Luther King, Jr. Elementary School," accessed November 25, 2011, <http://www.usd116.org/newwebsite/home/schools/king.html>.

Urbana School District 116, "New Computer Wiring Will Improve District 116 Technology," accessed November 25, 2011, <http://www.usd116.org/index.php/2009/08/new-computer-fiber-wiring-will-improve-district-116-technology/>.

Urbana School District 116, "Prairie Elementary School," accessed November 25, 2011, <http://www.usd116.org/newwebsite/home/schools/prairie.html>.

Urbana School District 116, "Thomas Paine Elementary School," accessed November 25, 2011, <http://www.usd116.org/newwebsite/home/schools/paine.html>.

Urbana School District 116, "Technology Integration Plan 2009," March 30, 2009. Print.

Urbana School District 116, "Urbana Adult Education," accessed November 25, 2011, <http://www.usd116.org/newwebsite/home/schools/adulted.html>.

Urbana School District 116, "Urbana School District #116 Hires New Middle School Principal," accessed November 25, 2011, <http://www.usd116.org/index.php/2010/04/urbana-school-district-116-hires-new-middle-school-principal/>.

Urbana School District 116, "Washington Early Childhood School," accessed November 25, 2011, <http://www.usd116.org/washington/index.php/information/>.

Urbana School District 116, "Wiley Elementary School," accessed November 25, 2011, <http://www.usd116.org/newwebsite/home/schools/wiley.html>.

Urbana School District 116, "Yankee Ridge Elementary Participates in Giving Project to Help Overseas Children," accessed November 25, 2011, <http://www.usd116.org/newwebsite/home/news/featurearchive0911.html>.

Urbana School District #116, "Guide to Urbana Schools," 2011, Print.

Williams, Dr. Preston L. Jr., "Strategic Plan 2011-2016," March 2011, Print.

## **Webliography**

Urbana School District 116, "Urbana Adult Education," Facebook, accessed November 28, 2011, <http://www.facebook.com/pages/Urbana-Adult-Education/103904239214?ref=s>.

Urbana School District 116, "Urbana School District 116," accessed November 27, 2011, <http://www.usd116.org>.

Urbana School District 116, "Urbana Schools 116," Twitter, accessed November 27, 2011, <http://twitter.com/#!/Urbanal16>.



# Health Care

## 56: Amber Glen Alzheimer’s Special Care Center

Elizabeth Osisek

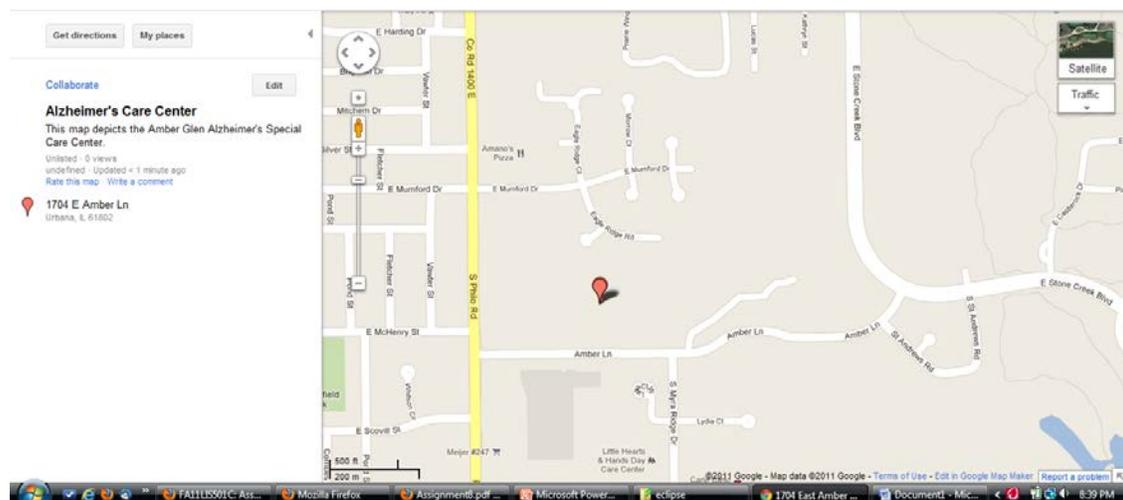
Master’s student, GSLIS

### 1 Executive Summary

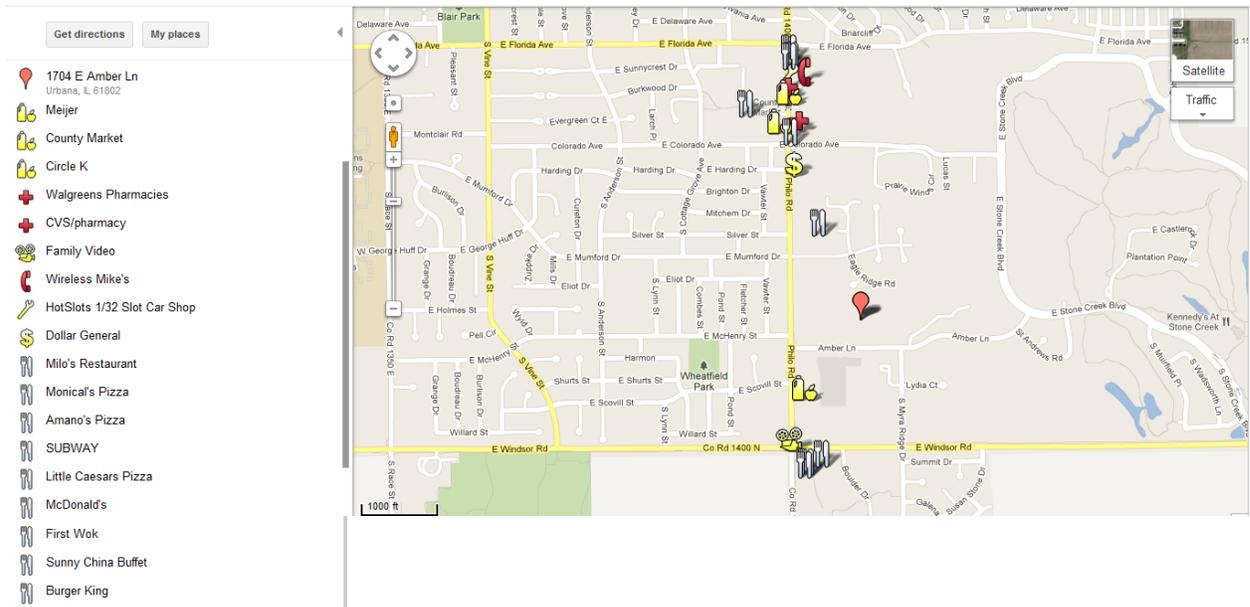
The Amber Glen Alzheimer’s Special Care Center, owned by JEA Senior Living, is a center “[c]ommitted to being the leader in providing quality personal services for our residents, while honoring the experience of aging” (JEA). One of 22 facilities that the company has opened specializing in dementia care, the center operates under the “Meaningful Moments” program, “designed to honor the individual life story of every resident, while addressing their unique needs throughout the aging experience” (JEA). The center and its staff members are devoted to caring for elderly residents who do not use computers, so there is very little focus on technology. There are only three computers in the building, which are used exclusively by staff members for professional e-mailing and business spreadsheets.

While the center does not use technology very much, they are interested in obtaining wireless Internet access. All decisions regarding technology are made by JEA Senior Living, and the company had previously turned down a bid for a wireless connection because “they want to limit the potential for abuses with technology on company time” (Foster). However the company may be willing to meet the lower cost of the broadband provided by UC2B.

### 2 Maps



Location of the Amber Glen Alzheimer’s Special Care Center in Urbana.



**Location in relation to local businesses.**

Key:

-  =Grocery store
-  =Pharmacy
-  =Video store
-  =Verizon store
-  =Auto shop
-  = Dollar Store
-  =Restaurant
-  = Point of interest

### 3 Photographs



Outside the Amber Glen Alzheimer's Special Care Center, 1704 East Amber Lane, Urbana, IL (photo courtesy of JEA Senior Living Website, <http://www.jeaseniorliving.com/urbana.html>).



Desktop of Business Office Manager



**Administrative Director using the computer in her office.**



Sitting room for residents and their visitors (photo courtesy of JEA Senior Living Website, <http://www.jeaseniorliving.com/urbana.html>).

#### 4 Demographics

All of the residents at the Amber Glen Alzheimer’s Special Care Center are Alzheimer’s/dementia patients. Room rental costs from \$3,650 to \$6,510 per month (“Amber Glen” Pamphlet), depending on the room, so residents likely come from upper-middle- or upper-class families.

Stage	Description
Stage 1	No impairment
Stage 2	Very mild decline
Stage 3	Mild decline
Stage 4	Moderate decline
Stage 5	Moderate, mid-stage
Stage 6	Moderately severe
Stage 7	Severe, late-stage

Stages of Alzheimer’s Progression Accepted. Data from SNAP for Seniors Website (SNAP)

#### 5 History

The Amber Glen Alzheimer’s Special Care Center is one of 20 senior care facilities in 6 states owned or operated by JEA Senior Living. The Center opened in February 2006 and was JEA’s 22nd facility devoted to dementia care (Pressey). It is home to 66

residents living in 10 private and 28 semiprivate rooms. Licensed nursing staff is on call 24 hours a day, and activities center around JEA’s “Meaningful Moments” dementia-care program, “designed to honor the individual life story of each resident, while addressing their unique needs throughout the aging experience” (JEA). The company is “committed to being the leader in providing quality personal services for our residents, while honoring the experience of aging” (JEA).

Joy Rathe was named the first Administrator of Amber Glen in 2005 (businessbrief). She passed this role to Chris Neff (SNAP), who worked as administrator until 2010. The center is focused on creating a welcoming community for Alzheimer’s and dementia patients and their families, so the center’s events do not have a large impact on the Champaign-Urbana community as a whole. Moreover, the center still uses CD players and overhead projectors, so it has not had any significant technology updates since opening in 2006 (Eades, Avant).

## 6 Technology Inventory

Desktops: 3

- One at Business Office Manager’s desk
- One in Administrative Director’s office
- One for Health Services Director

E-mail – corporate e-mail address

Microsoft Office

Tech Support: Internet – EarthLink; everything else – corporate entity (JEA Senior Living)

Telephone System: AT&T

Website: <<http://www.jeaseniorliving.com/>>

- Maintained by corporate entity, JEA Senior Living
- Contains three pictures of the Urbana site
- Link to a Google map showing the Urbana site
- Link to the Urbana site’s community newsletter (still September 2011 as of October 20, 2011)
- Local staff are unable to update or alter the site

No online forms; all forms are available only in paper format

Website	Download Speed (Mbps)	Upload Speed (Mbps)
speedmatters.org	.112	.132
speedtest.net	0.05	0.09

## 7 Analysis

The Amber Glen Alzheimer’s Special Care Center uses basic technology to meet the staff’s needs. The three computers at the center are used only for sending e-mails and maintaining a few spreadsheets. The center’s Internet service, provided by EarthLink, is relatively slow, with download and upload speeds of 0.05 and 0.09Mbps respectively.

The center investigated setting up a wireless Internet connection, but that JEA Senior Living, the corporation that owns the center, said the cost was too high at the time. The administration would like to get a wireless connection and was very interested in learning about the details and costs of the broadband access that UC2B will provide. However, ultimately the decision of whether to purchase a wireless connection lies with JEA Senior Living.

While faster Internet speeds would be beneficial to the center, the staff members do not seem to be inhibited by the current Internet speeds. The focus of the center is on caring for residents who often would not even know what a computer is, so information technology is not a high priority.

## **Bibliography**

“Amber Glen Alzheimer’s Special Care Center.” Newsletter. Oct. 2011.

“Amber Glen Alzheimer’s Special Care Center.” Pamphlet. Jan. 2011.

## **Webliography**

JEA Senior Living. “JEA Senior Living”, accessed 6 October 2011, <http://www.jeaseniorliving.com> .

Pressey, Debra. “Care Center for Alzheimer’s Patients to Open Early Next Year.” The News Gazette 17 Sep. 2005. 23 Oct. 2011, [http://www.news-gazette.com/news/other/2005-09\\_17/care-center-alzheimers-patients-open-early-next-year.html](http://www.news-gazette.com/news/other/2005-09_17/care-center-alzheimers-patients-open-early-next-year.html) .

“Rathe Named Administrator.” The News-Gazette 27 Oct. 2005. 24 Oct. 2011 <http://ccha.tufl.org/ccha/records/02010000/0201000005102705.htm> .

SNAP for Seniors. “Amber Glen Alzheimer’s Special Care Center”, accessed 6 October 2011 <http://www.snapforseniors.com/senior-housing/urbana-il/167939/amber-glen-alzheimers-special-care-center.aspx> .

# 57: The Champaign County Christian Health Center

## Afton Hallauer

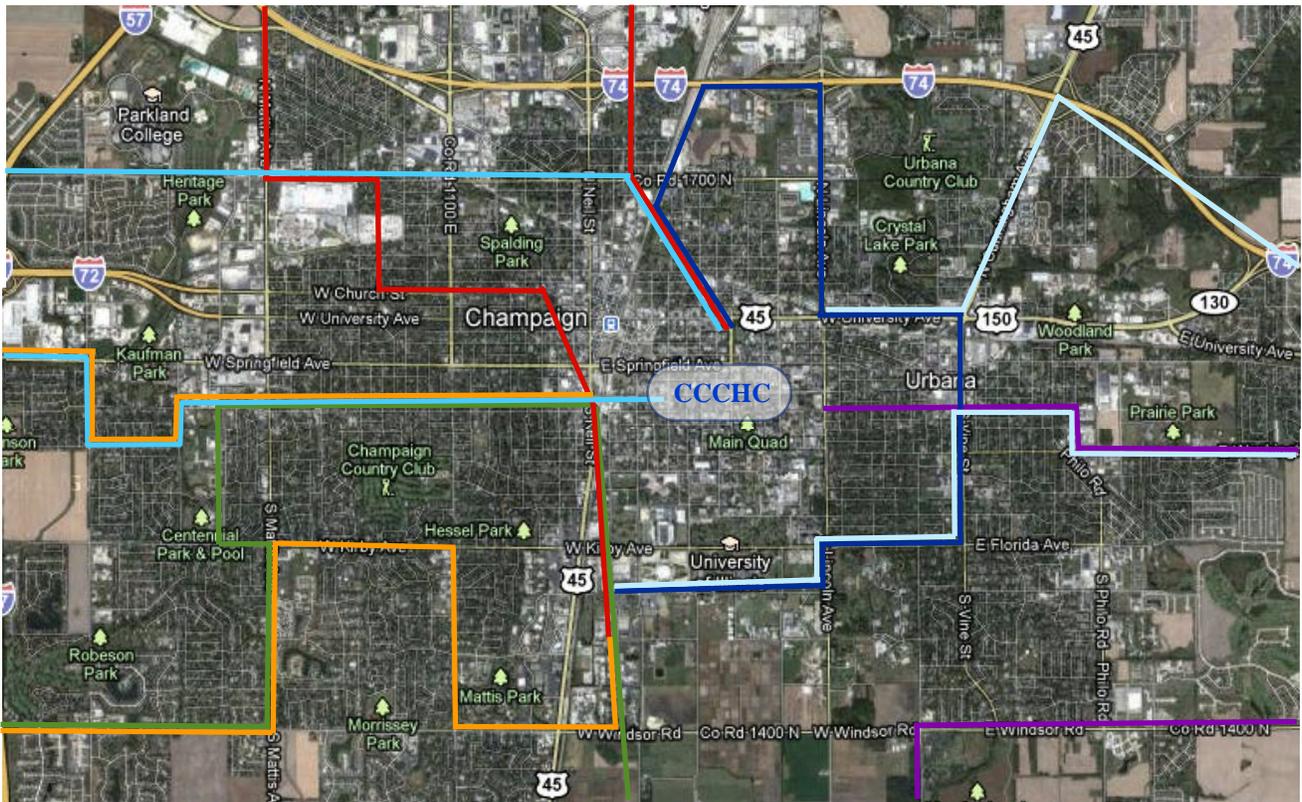
Master's student, GSLIS

### 1 Executive Summary

The Champaign County Christian Health Center is focused on preserving its current offerings and improving on technologies it already has, but may not be getting full use out of, such as their Volunteer Reporter program, organization website, and Facebook page.

The center has made significant advances in the past few years, moving their volunteer scheduling into an online document that can be accessed by all volunteers, as well as reinstating a computerized sign-in system through the Volunteer Reporter program, which tracks volunteer hours. Staff at CCCHC hope to gain more expertise in these programs and really increase the usefulness of these programs, allowing the center to become even more effective at serving its patients. Although CCCHC does have some plans for the future, such as moving patient records online, creating computer kiosks at which patrons could access health-education information, and expanding hours of operation and offerings to accommodate more people, many of these have been pushed to the periphery in the face of funding issues.

## 2 Maps



**Champaign County Christian Health Center's location in the greater Champaign-Urbana area.**

### 3 Photographs



**Front entrance to the building that houses the Champaign County Christian Health Center. CCCHC is on the second floor, in suite 2E.**



**Patient waiting room at CCCHC.**



**One of the four examination rooms at CCCHC.**

## 4 Demographics of Patrons and Staff

The Champaign County Christian Health Center serves individuals who do not have health insurance. Although patients tend to come from roughly the same socioeconomic level, there is a great deal of diversity among those who visit the center. “We see immigrants, graduate students, international students, family members of those, community members, recent unemployed, and some homeless,” said the CCCHC administrator. The majority of patients come from Champaign-Urbana, although some do come from the surrounding areas as well, particularly for the center’s mental health clinic.

The majority of patients are adults, since all children can be covered under KidCare, a state program that provides inexpensive comprehensive healthcare for children. The CCCHC administrator pointed out that “occasionally we do have a lot of children of new immigrants of international students, and they don’t know [about KidCare] yet.” Children, however, are generally seen at the center’s satellite location at Orchard Downs, and not at the Second Street main branch. Those children are generally seen once by the staff at CCCHC, who tell the children’s parents about KidCare.

Although the site used to serve a very large Hispanic population at previous locations, Hispanic use of the center has dropped significantly since CCCHC moved to its current location on Second Street. “We had a very large Spanish-speaking population that would come to the clinic at previous locations and we’ve seen a dropoff in that,” said the CCCHC Office Coordinator, “It’s either a matter of they don’t know that we’re here, or potentially that the other locations were more conveniently located.”

Among staff members there is also a fair degree of diversity. CCCHC only has two paid staff members, the administrator, and the volunteer/office coordinator, both of whom are part-time. All other staff are volunteers. There are roughly 100 active volunteers at CCCHC. Among the volunteers, some are professional medical staff, others are pre-medical students, and still others are nonmedical student volunteers.

## 5 History

The Champaign County Christian Health Center has been in operation since 2003. During this time the center has been at a series of different locations. Originally, CCCHC was located in the New Covenant Church. It then moved to Salt & Light, where it stayed until at least 2006.

In 2007, CCCHC moved again, and was sharing space with that of the Champaign-Urbana Public Health District. When the Public Health District moved to their new location on Kenyon Road, CCCHC did so as well.

In mid-2008, the CCCHC opened at their current location, 507 South Second Street. This marked the first time that the organization had its own permanent space. According to CCCHC staff, in prior locations CCCHC had operated within significant space constraints. Whenever the clinic was in operation, staff would have to move their equipment out of the storage room, set up, and then break everything down again at the end of the night. Moving to their current location allowed CCCHC to permanently set up

operations within their own space: “It cut out a lot of time and a lot of confusion,” said the CCCHC Office Coordinator.

From the beginning, CCCHC has used computers and e-mail in its operations. CCCHC has also always had access to a fax machine and copier. The Volunteer Reporter program (which is used to record and track volunteer hours), while falling out of use at one point, has also been used by CCCHC since the beginning.

Staff was unsure exactly how long the center’s website had been up (which was originally created by the son of one of the center’s volunteers), although it may have existed from the start. CCCHC’s Facebook Page, on the other hand, is relatively new, having been created about two years ago by the center’s previous volunteer coordinator.

The use of online programs in volunteer scheduling has changed, however, from the system of Excel files used originally. These files would be e-mailed to all of the volunteers whenever a schedule change was made. “The online programs let us be a little less crazy,” said CCCHC Office Coordinator, “I can just have it shared with all my volunteers and update it as needed.”

This mission of the CCCHC has remained virtually the same throughout its existence, and the center continues to expand its offerings to patrons.

## 6 Technology Inventory

Hardware	Software and Communications
3 desktop computers	Wireless Internet
1 laptop computer	Telephone
1 touchscreen monitor	Organization website
1 fax machine	Organization Facebook page
1 printer	Microsoft Office Suite
3 copier/printers	Volunteer Reporter
	Online file sharing

Staff Computers	Download Speed (Mbps)	Upload Speed (Mbps)
Speedmatters.org	.643	4.104
Speedtest.net	5.05	0.64

Wireless	Download Speed (Mbps)	Upload Speed (Mbps)
Speedmatters.org	.636	4.766
Speedtest.net	5.05	0.64

## 7 Analysis

The Champaign County Christian Health Center seeks to provide free and holistic healthcare to Champaign-Urbana's uninsured population. The organization operates with 2 part-time staff and over 100 volunteers, and is open every Tuesday evening and every second and fourth Wednesday of the month. They provide primary care, screenings, education events, a dental clinic which is open every Wednesday, and a mental health clinic which is open once a month.

Staff at CCCHC do not feel that their current technology in any way hampers them in doing their jobs, but they do have plans for the future. One plan is to place computer kiosks in the waiting room, which patrons could use to access health education information. There is also some interest in moving patient records online, as is done with many other health care centers.

There is not, however, any movement towards making the appointment system more electronic. Currently, CCCHC schedules patient appointments via the phone. Although messages can be left requesting appointments, patients are strongly encouraged to call between six and eight p.m., on Monday evenings to make appointments. "That seems a little more fair," said the CCCHC Office Coordinator, "since it is first come, first serve." Reminders to patients of their appointments are also made over the phone.

Generally, none of the patients are encouraged to contact the center via e-mail, although exceptions have been made for a couple of patrons who do not have regular access to a telephone. One reason for this policy is that CCCHC does not want to alienate patrons who might lack Internet access. However, it is unclear what level of Internet access is enjoyed by the majority of CCCHC's patrons. According to the office coordinator, when CCCHC staff can't accommodate all requests for appointments, they will often recommend the patron set up an appointment with the HeRMES clinic, a student-run free clinic out of the University of Illinois, which schedules appointments online. The office coordinator always asks whether the patron has "easy Internet access," and very rarely comes across patrons uncomfortable with making the appointment online.

Volunteers, on the other hand, communicate almost entirely by e-mail. There are a couple of volunteers who still use the telephone as their main means of communication with the center, but all of the scheduling of volunteers is done via an online program that can be updated by the volunteer coordinator and accessed by all of the volunteers. These online programs are a fairly new development for the center, which previously relied on Excel files which were then emailed out to all of the volunteers.

As an organization that has struggled with funding in the past, finances are really the biggest concern facing this organization at every turn. When CCCHC considers moving patient records online, establishing patron computer kiosk stations, or expanding operations, the issue of funding surfaces right away: "We, as with most nonprofits, are all struggling with funding" said the CCCHC Administrator, "so [we do] anything we can to cost-save without having to take drastic measures." This same sentiment was expressed by the volunteer/office coordinator as well: "There have been a few almost throwaway comments about other healthcare facilities that all have their patient files on computer programs and that kind of thing. But honestly, I don't think we're anywhere near going to that route.... With such a limited clinic, and given that we don't have the financial

resources to do it at all, I doubt that it's going to be in effect any time in the next few years.”

In fact, much of the center's focus is geared toward improving their use of technologies they already have, such as improving the organization website and Facebook Page, and learning how to effectively utilize the Volunteer Reporter program to run reports and compile better data on volunteer hours. “Honestly,” said the volunteer/office coordinator, “I don't know that there are too many plans in the works except just getting a further hold on the programs that we're using right now.... I don't think we're getting full use out of them, so I think the first step is really to maximize our use in that area and ... how we can use it, and then maybe we'll go from there.”

## **Bibliography / Webliography**

Champaign County Christian Health Center. Champaign County Christian Health Center. Facebook. 2011. <http://www.facebook.com/pages/Champaign-County>

Champaign County Christian Health Center. Welcome. <http://www.cchc2003.org>.

Pressey, Debra. “C-U Public Health District Asking Christian Clinic to Leave” The News Gazette. 7 May 2008. <http://www.news-gazette.com/news/health/miscellaneous/2008-05-07/c-u-public-health-district-asking-christian-clinic-leave.html>

Pressey, Debra “Christian Health Center Seeks Volunteers so It can Expand Hours” The News Gazette. 14 September 2010. <http://www.news-gazette.com/news/health/health-care/2010-09-14/christian-health-center-seeks-volunteers-so-it-can-expand-hours.html>

Pressey, Debra. “Christian Health Center Sets Open House for Saturday” The News Gazette. 9 September 2009. <http://www.news-gazette.com/news/health/health-care/2009-09-15/christian-health-center-sets-open-house-saturday.html>

Pressey, Debra. “Clinic Finds Way to Provide Free Medical Care to Uninsured” The News Gazette. 22 November 2007. <http://www.news-gazette.com/news/health/miscellaneous/2007-11-22/clinic-finds-way-provide-free-medical-care-uninsured.html>

Pressey, Debra. “Free Clinic Expected to Open in Champaign Next Month” The News Gazette. 25 September 2008. <http://www.news-gazette.com/news/health/health-care/2008-09-25/free-clinic-expected-open-champaign-next-month.html>

Pressey, Debra. “Free Health Clinic Set to Reopen on Sept. 9” The News Gazette. 28 August 2008. <http://www.news-gazette.com/news/health/miscellaneous/2008-08-28/free-health-clinic-set-reopen-sept-9.html>

Pressey, Debra. “Lease is Up, Doors Close at Free Health Clinic in Champaign” The News Gazette. 4 August 2010. <http://www.news-gazette.com/news/health/health-care/2010-08-04/lease-doors-close-free-health-clinic-champaign.html>

Pressey, Debra. “Move to Kenyon Site Almost Finished” The News Gazette. 27 July 2007. <http://www.news-gazette.com/news/health/miscellaneous/2007-07-27/move-kenyon-site-almost-finished.html>

“Welcome Back, Christian Health Center” The News Gazette. 5 September 2008.  
<http://www.news-gazette.com/opinions/editorials/2008-09-05/welcome-back-christian-health-center.html>

Wood, Paul. “Champaign Health Center Seeing Patients” The News Gazette. 13 September 2004. <http://www.news-gazette.com/news/other/2004-09-13/christian-health-center-seeing-patients.html> .

Wood, Paul “Medical Students Lend a Hand.” The News Gazette. 5 June 2006.  
<http://www.news-gazette.com/news/health/miscellaneous/2006-06-05/medical-students-lend-hand.html>

# 58: Christie Clinic

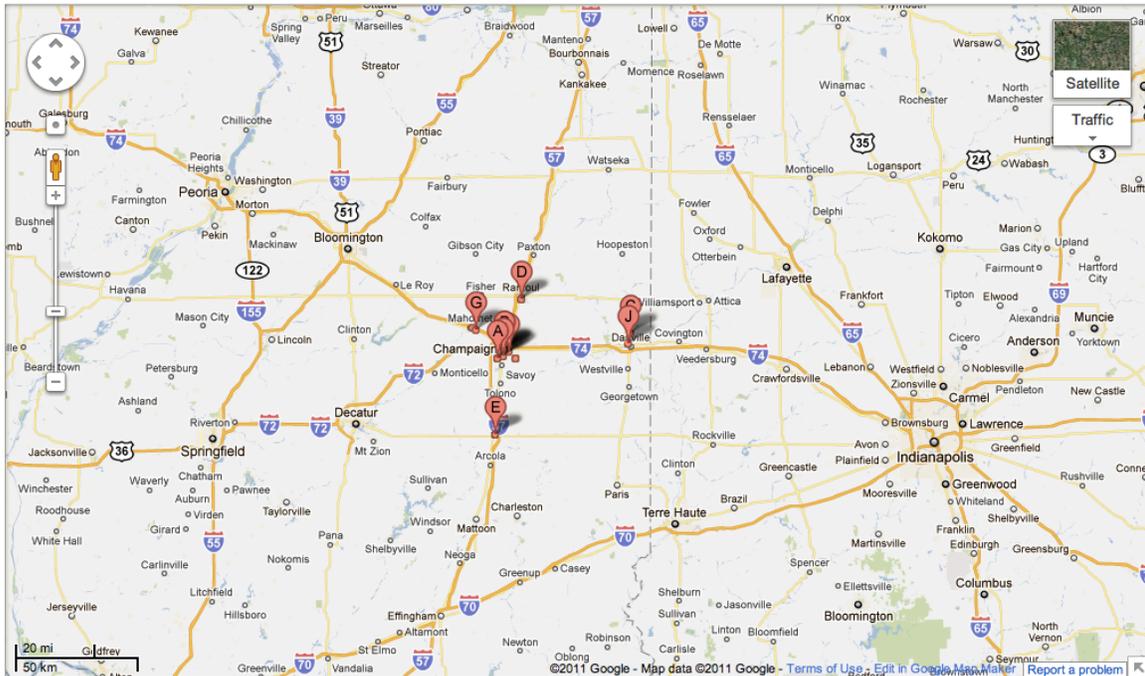
## Samantha Millsap

Master's student, GSLIS

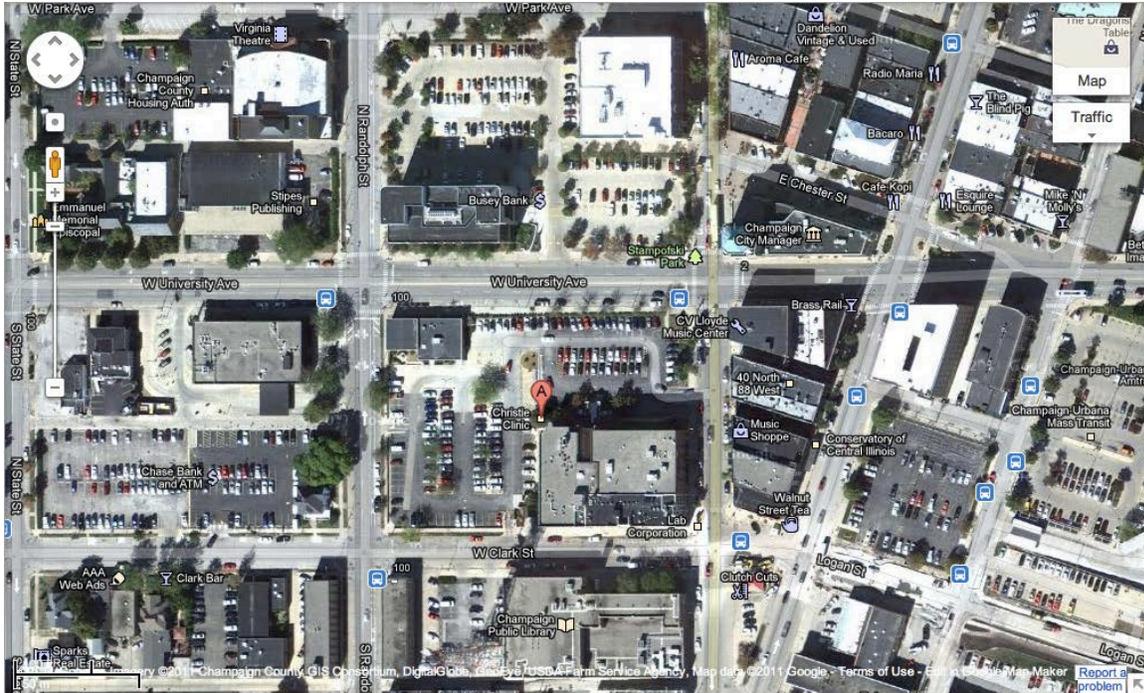
### 1 Executive summary

Christie Clinic is a for-profit and physician-owned health care center with 18 locations dispersed across the east-central Illinois area. These facilities range in size and capabilities, from very small and located in the County Market grocery store on Kirby Avenue to the much larger central location in downtown Champaign. As the clinic's website declares, the mission is to provide the health care that is necessary for long life but the encompassing vision is to "Create a Healthy Community." Christie Clinic has thrived by utilizing information technology to its fullest capacity, and digital technology is widely used by doctors, nurses, and patients. Christie Clinic is doing an amazing job with providing opportunities for its patients and now UC2B can help play a role by essentially elevating its patients to meet the high level the clinic is at in regards to IT, through projects like its Patient Portal which allows patients to access their medical information, lab results, and the like on their own, from any place with Internet access.

### 2 Maps



Locations of all the Christie Clinic campuses in the central Illinois area; note their locations in relation to Interstates 74 and 57.



The main location, in downtown Champaign at the corner of Neil St. and University Ave.. Nearby are Chase Bank, the Champaign County Housing Authority, the C-U MTD, and the Champaign Public Library.

### 3 Photographs



Christie Clinic on University Avenue in downtown Champaign.



**Christie Clinic at Windsor Street and Mattis Avenue.**

#### **4 Demographics of patrons or clients**

No demographical information on the patients who visit Christie Clinic was shared for this report, though the clinic does at least keep track of age distribution amongst those visitors. Patrons are of all ages, income levels, ethnicities, and genders, and come from Champaign-Urbana, as well as from the areas of Rantoul, Danville, Mahomet and Tuscola, where Christie Clinics or convenient care centers are also located. Given the size and quality of the Obstetrics and Gynecology and Pediatrics departments, it can be presumed that a large number of women and children frequent the clinic.

#### **5 History**

Christie Clinic was founded in 1929 in Champaign, Illinois (About Christie Clinic), by Dr. C. W. Christie, Dr. J. W. Powel, Dr. J. P. McKinney and Dr. C. E. Albers (Urbana Daily Courier, p. 4).

The clinic purchased the Twin City Building and Loan Building at Neil Street and Clark Street in 1936 in order to expand and update the clinic. Previously the clinic had been operating out of the fifth floor of the Lincoln Building. This expansion saw the clinic add 42 exam rooms, a Physiotherapy Department, and a Radiology Department equipped with lead-lined rooms (Daily Illini, p. 2).

In 1997 Christie became affiliated with ProMedCo, a large company in Fort Worth, Texas. According to then Executive Direct, Stan Piotrowski, joining with the firm “allow[ed] Christie to continue to be locally managed and provide access to financial resources to expand and remain in the forefront in the rapidly changing health care environment.” At this time Christie decided to begin moving away from paper patient medical records in favor of digital records. At this point Christie Clinic was the largest clinic to be affiliated with ProMedCo as well as the first in the state to do so (Pressey, 1997).

Christie’s affiliation with ProMedCo was terminated in May of 2001 after PMC filed for chapter 11 bankruptcy. Christie was able to buy back its management contract and Central Illinois Bank handled the financing of the purchase. The executive vice president of the bank had this to say about the clinic: “I think our knowledge of Christie’s stability in the community for so many years certainly went a long way in our decision.... Plus, we do feel, that for health care consumers, having something that’s locally controlled, with the doctors having control, makes it a lot stronger organization.” After this move the clinic was completely owned by 61 of its physicians (Pressey, 2001).

The clinic switched over to its current Electronic Medical/Health Record program in 2002, which meant the eventual end of paper charts for patients and brought about faster and ubiquitous access for doctors. Christie is currently searching for a replacement for this EMR/EHR.

In 2004, plans were announced for the clinic to expand to Danville (Phillips, 2004). The clinic there today has two departments, Family Medicine and OB/GYN, and the convenient care center offers those same specialties as well as Podiatry, General Surgery, Radiology, and Physical Therapy, among others. In 2006 a brand-new radiation oncology center was added at the downtown Champaign clinic location (Pressey, 2006).

That same year plans were announced to build a new campus in northwest Champaign in the Clearview development area, but were soon abandoned because an agreement on the price of the original building could not be reached between CC and the Atkins Group. This expansion plan was reintroduced in 2008, but in the new version the clinic was to retain its location in downtown Champaign, which would be completely remodeled. The expansion was estimated to cost \$35 million (Pressey, 2008).

In 2009 Christie Clinic opened its third grocery-store-based convenient care center in the Count Market at Fourth Street and Springfield Avenue. The other two locations are at the County Market stores on Kirby Avenue and Glenn Park Drive, respectively, in Champaign (News-Gazette, 2009).

In April of 2011, Christie Clinic announced plans to begin outsourcing medical transcription work to Nuance Transcription Services, based in Burlington, Massachusetts (Pressey, 2011).

## 6 Technology inventory

Servers	50–60: Intel & Unix
Software	Microsoft Network
Hardware	800 PCs, 150 tablets
Employees	750 overall/12 in the IS department

Phone	Mitel
Forms	Numerous forms in both paper and electronic formats; increasingly electronic, including: “Authorization to Disclose Health Information” “Authorization to Disclose Health Information: Verbal Release” “Life Imaging™ (Radiology) Record Release” (these are made available on the clinic’s website and are meant to be printed out and mailed in)
Social Networking	Twitter and Facebook: the website includes a Twitter feed with updates on wait times at various clinic locations
Bandwidth	50 Mbps
Tech Support	In-house
Other	T-1 Line, Wireless networks for public use

	Speedmatters.org (Mbps)	Speedtest.net (Mbps)
Download 1	9.894	17.44
Upload 1	26.314	11.1
Download 2	9.778	15.8
Upload 2	25.616	11.22

## 7 Analysis

The health care industry has come to depend upon digital technology to a great extent. Christie Clinic has thrived by utilizing information technology to its fullest capacity, and digital technology is widely used by doctors, nurses, and patients. Christie’s establishment of an Electronic Health Record (EHR) system is perhaps the most significant event in the past few decades to happen at the clinic. By divorcing itself from paper charts and records, Christie Clinic was able to realize striking gains in terms of efficiency and speed when dealing with critical information needed to treat patients. With the EHR in place, physicians can access their patients’ records quickly from home and nurses can have a prescription refill request sent to the pharmacy in seconds. Not only is this system fast and easy, but it is also opening up communication between Christie Clinic and the two hospitals in the area, Provena and Carle. Hopefully with further advancements in EHR systems (Christie is currently searching for a replacement system for theirs, which is about a decade old) and a change in how these three health organization have traditionally viewed one another, the and hospital vs. clinic antipathy that has existed might begin to dissipate, which could greatly benefit the greater Champaign-Urbana community.

The community is at the heart of the organization, as is clear throughout the clinic’s website and practices, as well as in the sheer number and accessibility of locations. It is

important to the clinic that it is physician-owned and also that the doctors and staff be a part of the community. For example, the physician interviewed for this study received her B.A. and M.A. from the University of Illinois. As a for-profit organization there it is understood that the clinic operates to make a profit as well as to provide the best health care possible to the community it services, but the clinic seems quite sincere in its efforts to help people while also prospering financially.

The way that UC2B can most benefit Christie Clinic is through their patients. Christie has established that using and staying up-to-date in information technology is a priority. With the Patient Portal, patients who visit Christie Clinic can access their medical information, lab results, and the like on their own—and can do so from home. However, usage of the Patient Portal is not as high as the clinic would like right now. This is an example of the digital divide, because though the issue could simply be that there are a lot of patients of Christie Clinic who prefer not to use the Portal, it is conceivable that there are many patients who might desire to use it but do not have the Internet at home or the needed skills. UC2B has the arsenal to bring more people affordable and fast Internet connectivity, which could easily increase the usage of the Patient Portal, though the project is not centered around teaching people in the community to be better users of technology. Christie Clinic is doing an amazing job with providing opportunities for its patients and now UC2B can help play a role by essentially elevating its patients to meet the high level the clinic is at in regards to IT.

#### Webliography

"About Christie Clinic." Christie Clinic. Christie Clinic, 1998. Web. 1 Nov. 2011. <http://www.christieclinic.com/about-us> .

"Christie Clinic Announces Plan of Enlargement." Daily Illini [Champaign, IL] 18 Sept. 1936: 2.

"Christie Clinic May Start New Building." Urbana Daily Courier 21 Feb. 1935: 4.

"Christie Clinic Opens Care Center in 3rd Grocery Store." The News-Gazette [Champaign, IL] 11 Aug. 2009.

Phillips, Pat. "Christie's Danville Site Will Open in August." The News-Gazette [Champaign, IL] 15 Apr. 2004.

Pressey, Debra. "Christie Clinic Leaving Downtown Champaign." The News-Gazette [Champaign, IL] 19 June 2006.

Pressey, Debra. "Christie Clinic Plans for New Campus Moving Ahead." The News-Gazette [Champaign, IL] 1 Nov. 2008.

Pressey, Debra. "Christie Returns to Local Control." The News-Gazette [Champaign, IL] 22 Mar. 2001.

Pressey, Debra. "Christie Sends Transcription Work to Massachusetts." The News-Gazette [Champaign, IL] 5 Apr. 2011.

Pressey, Debra. "Christie Teams with ProMedCo." The News-Gazette [Champaign, IL] 22 Oct. 1997.

Pressey, Debra. "Christie, Local Buyers Take over Illinois Marathon." The News-Gazette [Champaign, IL] 27 Sept. 2010.

"Shortages Seen without McKinley." Daily Illini [Champaign, IL] 16 Feb. 1972.

# 59: Community Blood Services of Illinois

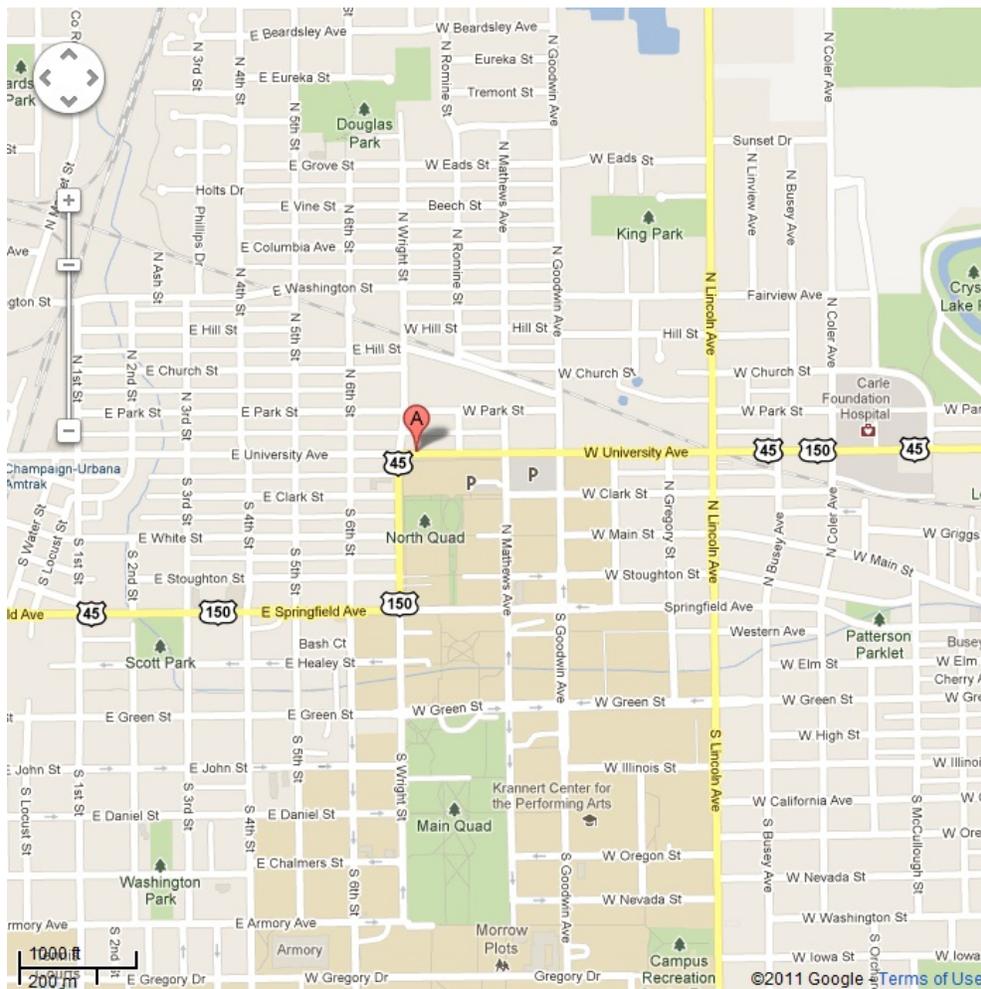
I-Ju Chen

Master's student, GSLIS

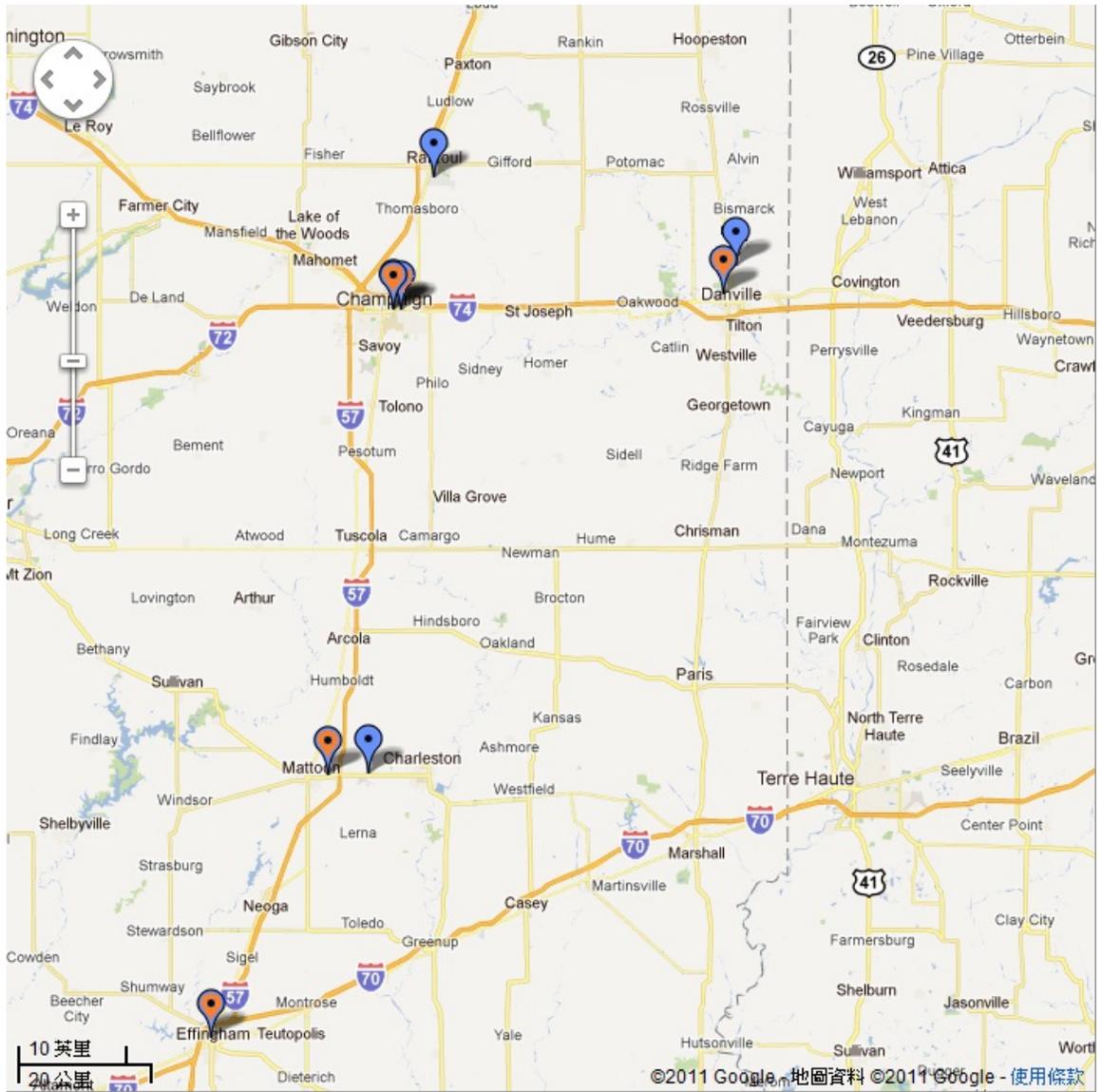
## 1 Executive summary

Community Blood Services of Illinois (CBSI) is a nonprofit organization that provides blood donated by volunteers to people who need it. CBSI uses technology in its operations currently and it is undergoing changes due to a merger. Less concerned with Internet speed, CBSI is focusing more on their system and services. Technology can help them become more competitive and save labor and resources which can be directed towards services and marketing.

## 2 Maps



Main office, located at 1408 West University Avenue in Urbana



**The CBSI service area: the blue markers indicate CBSI facilities and the red markers indicate CBSI's client hospitals.**

### 3 Photographs



**Front entrance of Community Blood Services of Illinois.**



**Office of Community Blood Services of Illinois.**



**Community Blood Services of Illinois provides free Wi-Fi for donors**

## 4 Demographics of patrons or clients

CBSI’s clients are five hospitals in eastern Illinois. They all use an online ordering system to request the blood products they need and their staff people, who are responsible for ordering, are well trained in terms of digital skills.

Another group of patrons/clients of CBIS are the donors. People can donate blood if they are older than 16 years old, and donors form a diverse group of different ages, ethnic backgrounds, occupations, and are both male and female.

## 5 History

Community Blood Services of Illinois (CBSI) is a nonprofit organization that has served the sick and injured from 1972 through the present. CBSI merged with Mississippi Valley Regional Blood Center (MVRBC) in 2011 to serve more hospitals in Illinois, Iowa, Missouri, and Wisconsin, in response to a more competitive market.

1972-- CBSI is founded

1978-- CBSI adopts the NovaNet system for donor record keeping

1996-- CBSI replaces NovaNet with BBCS, a blood bank management system

1999-- CBSI launches its website

2011-- CBSI merges with MVRBC in August

2011-- CBSI completes merger and system migration from BBCS to MVRBC System

## 6 Technology inventory

Item	Number/Content
Desktop/laptop for officers	35
Desktop/laptop for public	0
Barcode printer	6
Printer	7-8
Software	MS products, SQL, Linux, open-source software
Other digital equipment	Polycom, Internet link alert system
Internet	3 T-1, 1 PRI, 1 fiber optic
staff	2
Information system in use	ITSY
Other online/e-resource	Internet phone system
Organizational entries	Facebook, Twitter, website

T-1 speeds	Download (Mbps)	Upload (Mbps)
Speedtest.net	4.22	2.99

Fiber optic internet speeds	Download (Mbps)	Upload (Mbps)
Speedtest.net	28.32	9.25

## 7 Analysis

Community Blood Services of Illinois (CBSI) is a nonprofit organization that provides the eastern Illinois area with a blood supply. CBSI was founded in 1972 and their mission is to serve the sick and injured by maintaining an “adequate area supply” of life-saving blood and bone marrow, which is donated by healthy volunteers.

CBSI’s mission has remained the same since its founding. However, in these changing times the organization faces more challenges. For example, many hospitals have merged and they may change their policies for getting blood products or end their contracts with CBSI. Therefore, CBSI cannot remain static in its operations and needs to adapt in order to ensure the success of its mission. CBSI chose to merge in order to gain blood sources and increase their competitiveness in 2011. They are trying to provide a better space for their donors, so the Urbana blood center is being enlarged. They are providing wireless access so that people will not be bored while they are donating blood and use Facebook and Twitter to advertise and remind people come in and donate.

In the nearly forty years that CBSI has been serving the community, information technology has seen many changes. In the beginning, every document was handwritten; CBSI implemented a system to manage donor records in 1978. However, they did not adopt a comprehensive bank management system until 1996. At that time, everything changed because all staff had to learn a new system. As a result CBSI was able to provide better service due to its well-managed internal procedures. CBSI staff people currently use computers to deal with all office tasks and laboratory tests.

One of the challenges CBSI faces now is a result of the merger in 2011. They had to migrate to a new system. They provided in-depth training for all staff people, but the staff still needs more time to get used to the new system. CBSI is also concerned with collaborating well with MVRBC. Although there are many challenges for CBSI, the merger is also a good opportunity for the organization. They have access to more funding, more resources and more technical support. Due to the merger, they use MVRBC’s system now and there are many new functions of the system which were not provided by what they had before. For example, the new system will provide an online schedule function on CBSI’s website in the future. Currently, donors have to call or e-mail to make an appointment for donation. This new functionality should be in place by the next year.

CBSI uses technology not only for management but also for marketing. They started using Facebook as a channel to connect with donors in 2011. The fans of CBSI page are 387 and the number continues to grow. They update their fan page frequently, but actually there is limited interaction with fans. The Internet is not the main channel for advertising now, but will play a more important role in the future. Staff in the donor relationship department said that CBSI has to increase its visibility in the community. Technology could be a big help, but it is not the only approach. For example, older donors may not use the Internet or computers, so they need to find another way for reminding them to donate.

In general, Internet speed is not the main issue for CBSI. As things stand, their blood bank management system is located in Iowa (MVRBC) and CBSI is not responsible for server maintenance. The Internet is mainly used for staff communication, providing the

public with free Wi-Fi, and the Internet phone system. In the future, they will use video conferencing for better communication with MVRBC, so Internet speed will be an important factor. However, they already have three T-1 lines and one fiber-optic line, which provide enough Internet speed for their needs. UC2B can also benefit them if the project lowers the cost of fiber-optic lines, and then CBSI can use the funds saved to improve their services, marketing efforts, and so on.

In sum, CBSI is presently dealing with a great deal of change. They are making good use of resources, including not only blood products but also the system and technology provided by MVRBC. They are able to do more training of staffs and make them more comfortable with the changing technology, and as well as generate creative service and marketing ideas to assure the success of their mission.

### **Bibliography**

Community Blood Services of Illinois. 1998. Mission statement. *Bloodlines*. 2(8): 4.

Community Blood Services of Illinois. 1999. Mission statement. *Bloodlines*. 4(1): 4.

### **Webliography**

Community Blood Services of Illinois, "About Us", accessed November 26, 2011.

[http://www.bloodservices.org/us/about\\_us.htm](http://www.bloodservices.org/us/about_us.htm).

Community Blood Services of Illinois, Facebook fans page, accessed November 26, 2011.

<https://www.facebook.com/BloodServices>.

# 60: Illini Heritage Rehab & Health

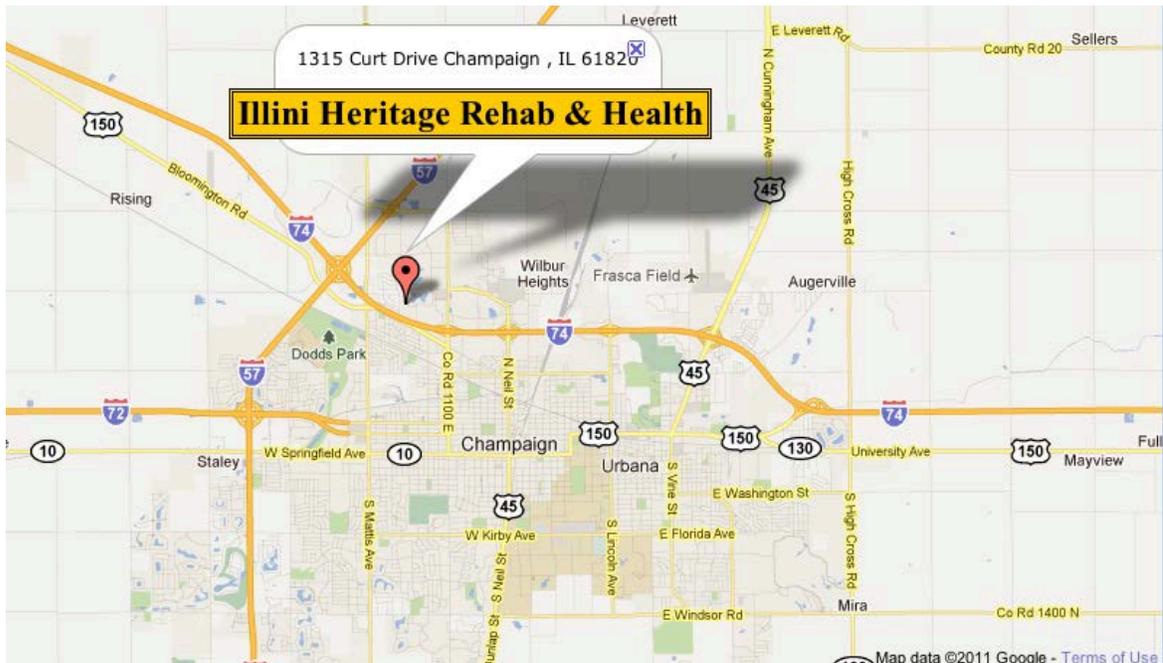
**Colleen McClowry**

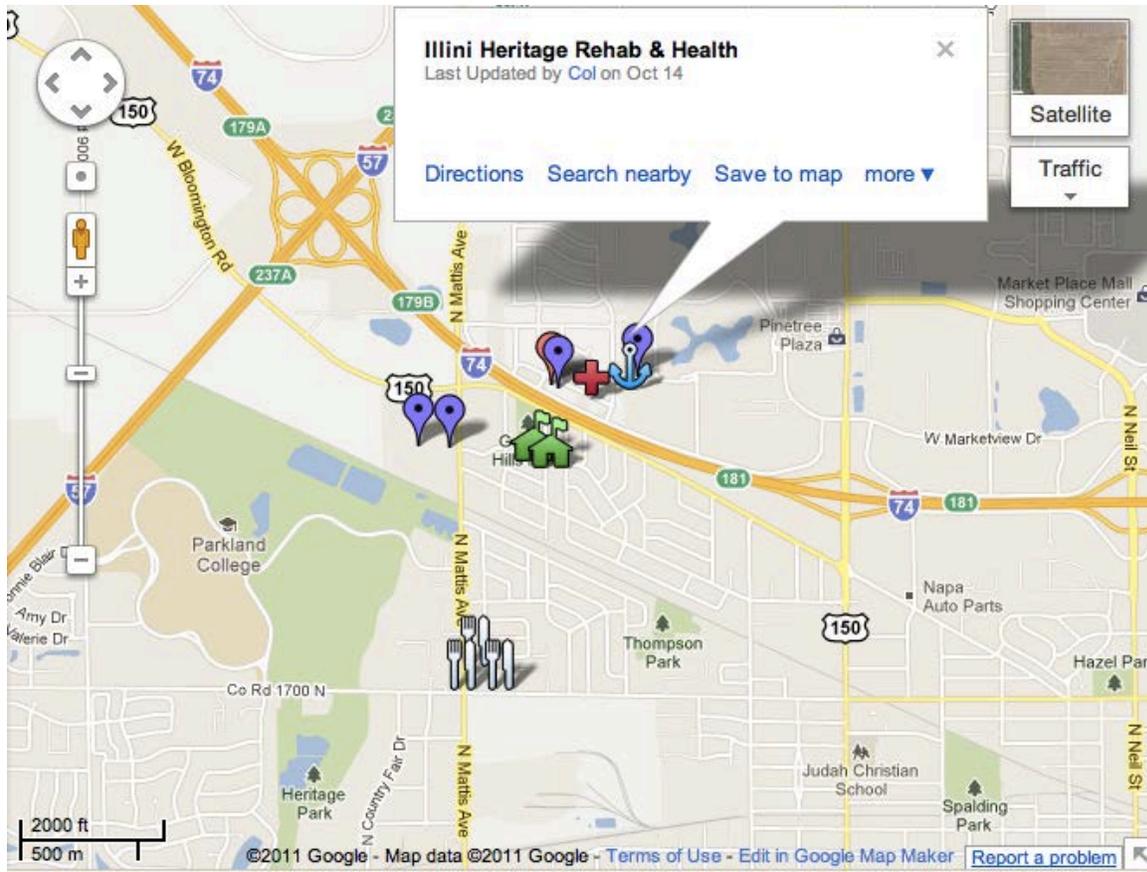
Master's student, GISLIS

## 1 Executive Summary

Illini Heritage Rehab & Health Care is a publicly funded assisted-living facility and part of the larger Petersen Healthcare corporate model. According to the website, Petersen Health Care employs nearly 6000 employees and is recognized as a major partner in communities throughout Illinois, Missouri, and Indiana. Though funding and budget cuts limit the growth of digital technologies, they are utilized both by staff in daily work and by residents in daily activities.

## 2 Maps





**Anchor Social Institution**

Public · 0 views  
Created on Oct 14 · By Col · Updated < 1 minute ago  
[Rate this map](#) · [Write a comment](#) · [KML](#)

- Champaign-Urbana Naprapathic
- Catholic Charities
- Garden Hills Elementary School
- Salt & Light  
Anchor Social Institution
- Champaign County Mobility
- Illini Heritage Rehab & Health**
- Garden Hills Elementary School
- U.S. Post Office
- Champaign Postal Credit Union
- Sammy's Pancake House
- Domino's Pizza
- Godfather's Pizza

**The location of Illini Heritage Rehab & Health in relation to local schools and businesses.**

### 3 Photographs



Outside of Illini Heritage Rehab & Health Care (photo courtesy of Petersen Health Care website:<http://www.petersenhealthcare.net>).



Residents with their families (photo courtesy of Petersen Health Care website:<http://www.petersenhealthcare.net>).



**Illini Heritage Rehab & Health Care logo (photo courtesy of Petersen Health Care website: <http://www.petersenhealthcare.net>).**

#### **4 Demographics**

The institution employs about 60 staff and houses around 50 residents. The staff is comprised of social workers, administrators, certified nurses and nursing assistants, physical therapists, janitorial staff, dietitians, and a handful of volunteers. The economic status of the staff is highly variable, given the range of positions currently employed. Staff and residents are highly diverse, reflected by individuals' varied economic, religious, and sexual orientations. Due to the Health Insurance Portability and Accountability Act of 1996 (HIPAA), official information regarding residents' racial classification, economic status, sexual or religious orientation, and any other personal character traits and employment history remain confidential. A staff member guessed, however, that the average age of the residents is about 85; the oldest resident currently living at the facility is over 100 years old, and residents in their early 70s are considered to be on the younger end of the spectrum. The average age of the staff is about 35.

In terms of technology usage and capabilities, the majority of the staff would be considered "netizens." Full-time staff are required to communicate using the Petersen Health Care e-mail system on a regular basis. The facility is not as "up-to-date" with regard to technology as some elderly care facilities. Still, even though most of the staff does not exactly rely on the Internet and computers for the majority of their work, they do indeed possess digital skills as a result of their mobile phone and computer usage outside of work. Most of them use computers at home, check their e-mail daily, and use social networking sites on a regular basis.

The residents, on the other hand, are an entirely different story. Almost all of them would be described as computer and Internet "illiterate." Only one resident knows how to check his/her e-mail, and has only done so on very rare occasions, when family is visiting. Most of the residents don't even use phones; only three of four of them actually have cell phones. The only technology that most residents rely on is the television.

## 5 History

The Illini Heritage Rehab & Health facility has existed for 35 years. It was initially located in the Catholic Charities building adjacent to its current location. Illini Heritage Rehab & Health was originally a privately funded mental health center for individuals of all ages. About 20 years ago, the focus shifted from mental health to concentrating on the elderly community, and the site moved to its present location. About eight years ago, the facility became a corporate entity owned by the Petersen Health Care Company. Since then, surprisingly little has changed in the actual infrastructure. Initiatives to beautify the facility by adding courtyards, landscape design, and new furniture have occurred several times over the years. The biggest changes have been the “behind the scenes” aspects such as funding, outreach, marketing, and staffing processes.

Petersen Health Care was founded in 1974 by James D. and Robert L. Petersen, two brothers who were both registered physical therapists. The two flagship nursing homes the Petersen brothers purchased at that time were Kewanee Home in Kewanee, Illinois, and Robings Manor located in Brighton. Today, Petersen Health Care is the largest nursing home chain in Illinois and has become the name synonymous with quality long-term care throughout the Midwest. There are over 15 different facilities associated with Petersen Health Care. Additionally, the company has even bigger plans to continue expansion bringing quality long-term care and independent living options to more seniors throughout the Midwest.

The history of technology use at Illini Heritage Health & Rehab is relatively recent. Radios, televisions, and phones have been used for as long as the facility has existed; and usage of computers and the Internet began about 10 or so years ago. The first computers in the facility were installed at the onset of the corporate model. When Petersen Health Care began to manage the facility over eight years ago, they added various desktop computers for the staff. Five years ago, wireless, networked computers were installed and the printers, scanners, and fax machines were updated. Around this time, the Illini Heritage Rehab & Health website was added to the Petersen Corporate website. This is the only Web presence currently used for the institution, although the prospect of social networking and blogging has recently been discussed. The group e-mail system was also added about three years ago. There are no other future plans to implement new and currently existing technology at the center because it is not seen as a necessity for the residents. The budget simply will not permit the introduction of any new technologies to the institution at this point in time.

## 6 Technology Inventory

<b>technology</b>	<b>number available</b>	<b>additional information</b>
Desktop computers	6	PC only
Laptop computers	2	PC only
Digital cameras	2	
E-mail client		Petersenhealthcare.net
Laserjet printers	2	
Fax/copy machine	1	
Televisions/DVD/VCR	15	Built in

Networked computers		All are on the same network
Phones	15	Some residents; staff
Website	1	Corporate
Social networking	0	Future possibility
Audio equipment	5	Speakers, microphones
Microsoft software	8	Every computer
Ethernet cables	5	
Mice	8	Every computer

	Download (Mbps)	Upload (Mbps)
Speedmatters.org	9.580	4.144
Speedtest.net	22.32	4.44

## 7 Analysis

According to the mission statement found on the Petersen Health Care Corporate Website, Illini Heritage Rehab & Health embraces the philosophy that founded the company over 35 years ago. The proven business philosophy of strong community involvement, ‘bringing the community to the nursing home and the nursing home to the community,’ as well as Petersen’s ‘resident-care based philosophy,’ is what makes Petersen Health Care unique in the industry and is the reason the company is renowned as the Midwest’s leading long-term care provider. A friendly, welcoming community exists between the staff, residents, and the residents’ families. One staff interviewee stated how after working in many healthcare facilities in the Champaign-Urbana, Illini Heritage Health & Rehab proved to be “by far the best.” She said that “if I had to put my mother into a facility it would be this one. If I had millions and millions of dollars I would still put her in this one. I cannot believe the loving, the care, and the Christian support that goes on here.”

It is interesting to note how technology use, mainly through the television, is such a large factor in bringing the community together. In the front “communal space” of the facility, staff, residents, and families of residents can be found gathered around the television at any given time. This is important because while it doesn’t say much now for the current usages of technology with regard to high-speed internet and the UC2B project, it points to the general direction the facility may need to go in the future. As new, presumably more digitally literate residents enter the facility, there will be greater incentives to utilize high-speed technologies that they are comfortable using to sustain their comfort levels. In other words, the community is continually brought together by technology, and it will be important to sustain this in the future.

There are certainly positive aspects of the facility apparent in the welcoming and supportive atmosphere of Illini Heritage Health & Rehab, but there are many issues apparent as well. All three individuals interviewed cited overwhelming economic woes. The public sector’s economic situation is bleak in the state of Illinois. As of June 2012, the state is almost ten months behind on their Medicaid payments. Essentially, there is almost no money coming in to support the facility. This is affecting residents and staff

across the board. Because there is barely enough funding to support the resident's proper healthcare needs, the importance of technology is not viewed as critical at this point.

Add to this an apparent digital divide between the staff and the residents, and the issues surrounding technology usage grow even more apparent at Illini Heritage Health & Rehab. Staff and residents cooperate well, but they are clearly divided between the technologically literate and illiterate. Mostly this is a reflection of age, but factors such as economic status and education level also come into play. Finding ways to bridge the gap between the staff/resident digital divide and to bring in new technologies to this facility would prove beneficial. Given the bleak economic situation at Illini Heritage Rehab & Health, there is not a huge push for technology integration into the facility. However, a program like U2CB may be very beneficial in the long term, especially given that the aging population is growing increasingly digitally literate.

## **Webliography**

Illini Heritage Rehab & Health Care. *Petersen Health Care Website*. Retrieved October 18, 2011 <http://www.petersenhealthcare.net/illini-heritage/>

The Health Insurance Portability and Accountability Act of 1996 *U.S. Department of Health & Human Services*. Retrieved October 30, 2011 <http://www.hhs.gov/ocr/privacy/>

Google Maps. Retrieved October 30, 2011 <http://maps.google.com/>

# 61: Pavilion Behavioral Health System

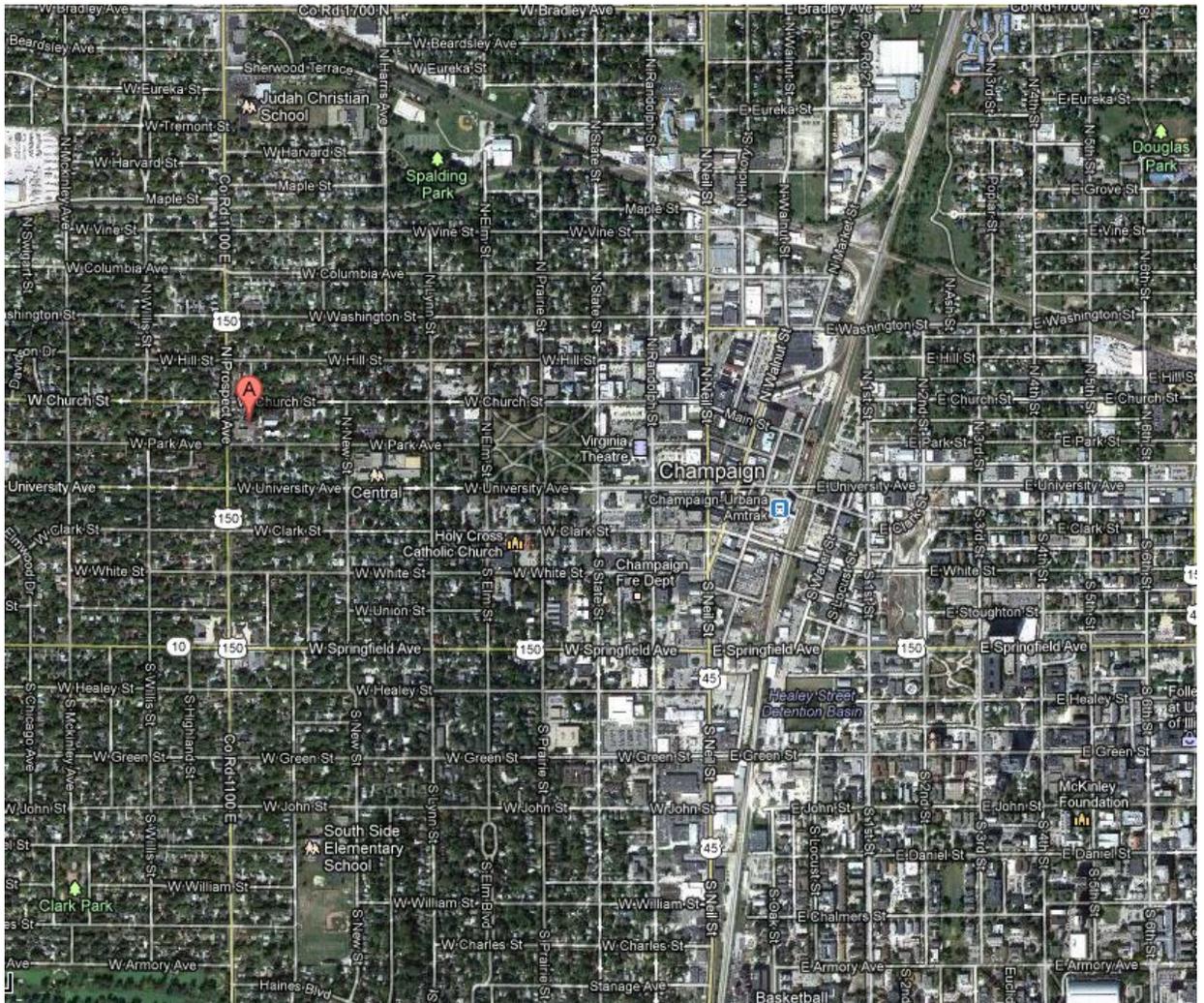
**John Newcomer**

Master's student, GSLIS

## 1 Executive Summary

The Pavilion Behavioral Health System includes a 77 bed inpatient hospital, a residential treatment center for you and a residential addictions treatment program. Outpatient services include partial hospitalization and intensive outpatient services as well as The Pavilion Foundation School, a private day school serving students with learning disabilities and behavior disorders. The health center depends on ICT technology to manage patient records and access healthcare information. It is perhaps not surprising that over half of The Pavilion staff members use digital technology on a daily basis. The Pavilion also relies on digital technologies for video surveillance, a crucial component for ensuring staff and patient safety. Today, digital technologies enable family members to become engaged through video conferencing. The Pavilion's administration is excited by the potential for the UC2B project to provide sufficient bandwidth for such services, as well as offering family members a means of participation in patient treatment.

## 2 Map



The Pavilion Behavioral Health Center is located at 809 W. Church Street in Champaign; the school is across the street

### 3 Photographs



**Front entrance of The Pavilion Behavioral Health Center**



**The Pavilion center relies on an AS-400 server, as shown above, to record information and share that information with the corporate office located in King of Prussia, Pennsylvania.**



**The former Harris Mansion, attached to the existing Pavilion building, will soon be torn down to make room for a more modern facility.**



**The Pavilion Foundation School located at 810 W. Church Street, across the street from the health center.**

#### **4 Demographics**

Before discussing the opportunities for technology use at the Pavilion Behavioral Health Center, it is first necessary to describe the center itself, its clients, and the community it serves. The Pavilion and adjacent Pavilion Foundation School operate in the city of Champaign. The agency employs over 160 staff members, which include nurses, counselors, social workers, mental health technicians, administrators, and support staff (Bauer, 2001, p. B1).

While many of The Pavilion's patients are local residents, as a corporate entity, the center accepts nonresidents as well. Patients and students come as far as Rantoul, Thomasboro, Bloomington, Mahomet, Tolono, Danville, and Blue Ridge to receive treatment (Bauer, 2001, p. B1). In terms of patron/client age, the health center provides care for children, adolescents, adults, as well as seniors. The Pavilion school enrolls children ages 8 to 19. The Pavilion center is also active in the community. It is necessary, therefore, to consider the surrounding area. Census Tract Data (2000) gathered from the U.S. Census Bureau website provides a statistical measure of this community.

2000 Census	Census Tract 6
Total Population	3,414
Ethnicity	
White Alone	77.6%
Black Alone	16.5%
Asian Alone	2.4%
Hispanic or Latino Alone	1.6%
Median Household Income	\$27,517
% of Families Below Poverty	7.6%

#### **5 History**

What later became the Pavilion Behavioral Health Center was founded as the Carle Pavilion in 1988. Located in the former Cole Hospital Building, the Carle Pavilion provided psychiatric and substance abuse treatment to its patients. The center was initially licensed for 46 beds and operated with a staff of 75 employees (Pressey, 1994, p. A-1). In 1995, the Pennsylvania-based Universal Health Services, Inc., purchased The Pavilion health center from the Carle Foundation. Universal Health Services operates health centers nationwide and is one of the three largest healthcare providers in the United States. Despite the change in ownership, the health center's operation was largely unaffected. Carle maintained a close working relationship with the center, contracting its clinical psychiatrists out from the Carle Clinic (Pressey, 1994, p. A-1; Bauer, 2001, p. B-1). The change in ownership did allow The Pavilion to expand.

Shortly after the transfer, The Pavilion introduced new services to reach a broader patient audience. In 1997, The Pavilion added a residential treatment program designed for young adults. The same year, it opened the Pavilion Foundation School, located across the street from the health center. The school accommodated 40 students in 4 classrooms. The school targeted students with learning disabilities and behavioral problems (Merli, 2001, p. D-1). As a public corporation, The Pavilion marketed its services beyond the Champaign-Urbana area, and as a result children from as far away as Rantoul, Thomasboro, Bloomington, Mahomet, Tolono, Danville, and Blue Ridge came for treatment at The Pavilion (Bauer, 2001, p. B-1). Rising numbers of patients seeking treatment prompted the Pavilion school to enlarge its operation.

In August of 2002, The Pavilion expanded again, as the school completed a construction project to improve its facilities. The project more than doubled the school's capacity, increasing the number of classrooms to 10 and increasing the student body to over 100 (Merli, 2001, p. D-1).

The Pavilion continues to fill a critical need in the community. In 2000, the hospital cared for 64 children with chemical dependency issues and 45 children received partial hospitalization (Merli, 2001, p. D-1). The Pavilion Behavioral Health Center currently has 77 beds for inpatient use while providing numerous outpatient services (Pavilion Behavioral Health Center). The Pavilion's staff has increased to over 160 and the center has not finished growing.

At present, the facility is constructing a new wing on the site of the former Harris mansion. The Harris mansion was built in 1904 by B. F. Harris, founder of the First National Bank and the Urbana and Champaign Railway. Later used by the Cole Hospital in 1957, the mansion has proved less useful for The Pavilion's purposes. In 2011, Jeremy Pitzer, then clinical director of The Pavilion, reported that the mansion was in terrible condition. Furthermore, Pitzer stated that its facilities were underutilized with only a "few scattered offices" in use (Wade, News-Gazette, 2010). Some Champaign residents expressed concerns about demolishing a historic structure while others feared the facility might lower property values (Wade, News-Gazette, 2010). These concerns notwithstanding, The Pavilion has received approval from the City of Champaign and plans to finish the project by fall 2012 if they receive approval from the State of Illinois as well (J. Sheehy, personal communication, November 21, 2011).

## **6 Technology Inventory**

In collecting data, it became apparent that the Pavilion Behavioral Health Center makes extensive use of information and communication technology (ICT) in providing medical treatment and educational services. As a psychiatric hospital, ICT use is crucial for ensuring the safety of patients, staff members, and the community. While operating locally, the Pavilion Behavioral Center is connected to a nationwide digital healthcare network. A subsidiary of Universal Health Services, Inc., Pavilion taps into a corporate system headquartered in King of Prussia, Pennsylvania. Each of the corporation's national healthcare centers are connected to the AS-400 operating platform. Pavilion staff members use this platform to record and access patient, staff, and healthcare information.

The Pavilion Behavioral Health Center depends on high-speed Internet to stay connected to the corporate network. To this end, Pavilion maintains multiple broadband Internet lines, which include a redundant one-and-a-half megabit T-1 line, as well as a local Comcast subscription. The Comcast subscription allows for 10 to 15 megabit download speeds and 3 to 4 megabit upload speeds.

As a psychiatric treatment center, Internet use is highly restricted. Only staff members are allowed to connect to the broadband networks. No public or patient Wi-Fi networks are available. The Pavilion Foundation School, however, does offer supervised Internet access for students. Pavilion therapists frequently go online with students during therapy sessions. Teachers can also conduct classroom activities for students in the computer lab.

For the public, the Pavilion maintains a website to share its mission, programs, services, and job opportunities. The website includes contact information and downloadable forms for patients, as well as an online portal for prospective employees to submit their résumés. The Pavilion Foundation School is also featured on The Pavilion site.

<b>Technology</b>	<b>Pavilion Center</b>	<b>Pavilion School</b>
Telephone Access	x	x
Internet Access	x	x
High-Speed Network	x	x
Website	x	
Staff Computers	x	x

## 7 Analysis

Research conducted for the present study underscores the importance of IT for medical providers, particularly those dealing with psychiatric care. As previously discussed, The Pavilion is making extensive use of digital technology—both at its hospital and at the Pavilion Foundation School. Still, the potential for IT resources remains virtually limitless.

For individual patients and staff members, IT is a wonderful tool in the providing of high-quality medical treatment and ensuring personal safety. As a psychiatric hospital, The Pavilion has adopted digital technologies more rapidly than other anchor social institutions. The health center depends on ICT technology to manage patient records and access healthcare information. It is perhaps not surprising that over half of The Pavilion staff members use digital technology on a daily basis. The Pavilion also relies on digital technologies for video surveillance, a crucial component for ensuring staff and patient safety.

The widespread use of technology at The Pavilion does not mean the center has exhausted all the possibilities. As early as 1994, the chief operating officer of The Pavilion noted the rise in outpatient services in the psychiatric field, reporting that “more people are using less costly services,” such as day treatment and outpatient care (Pressey, 1994, p. A-1). As the scope of The Pavilion expands, ICT use will serve a vital purpose in connecting patients to their care providers.

The CFO stated that one of the more intriguing developments in psychiatric care is the use of tele-medicine. Quite often parents are unable to attend family sessions for patients in short-term care. In the past, the services would have to be adapted. Today, digital technologies enable family members to become engaged through video conferencing. The Pavilion's administration is excited by the potential for the UC2B project to provide sufficient bandwidth for such services, as well as offering family members a means of participation in patient treatment.

In addition to individual use, digital technologies have also opened the door for new group activities. Until recently the Pavilion Foundation School was equipped with just a few desktop computers in each of its classrooms and lacked a computer lab. Not long ago The Pavilion created a computer lab for its students, making it possible for teachers to engage their students in group computing activities. Monitored Internet access offers students the chance to locate online educational resources and improve their familiarity with computers—especially important in the digital age. New digital technology offers exciting potential for mental health providers to correct common misconceptions which may exist in the wider community.

## **Bibliography**

Bauer, Steve. 2001, October 29. Pavilion School Getting New, Expanded Building. The News-Gazette, B-1.

Hawthorne, Michael. 1995, November 19. Treating Troubled Kids. The News-Gazette, A-1.

Merli, Melissa. 2001, August 6. Trying to Reach Teens. The News-Gazette, D-1.

Pitkin, Bill. 2006. Community Informatics for Community Development: The “Hope or Hype” Issue Revisited, In *Networked Neighbourhoods: The Connected Community in Context*, ed. Patrick Purcell, 77-98. London, England: Springer.

Pressey, Debra. 1994, November 12. Carle Unit Ownership to Change. The News-Gazette, A-1.

Rogers, E. M., Collins-Jarvis, L., and Schmitz, J. 1994. The PEN Project in Santa Monica: Interactive Communication, Equality, and Political Action. *Journal of the American Society for Information Science*. 45 (6): 401-410.

Vos, Victor, and Ketelaar, Eric (2007). Amsterdam's Community Memories: Research into How Modern Media can be Applied to Archive Community Memory, In *Constructing and Sharing Memory: Community Informatics, Identity, and Empowerment*, ed. L. Stillman and G. Johnson, 331-340. Cambridge, Massachusetts: Cambridge Scholars Press.

Williams, Kate, and Alkalimat, Abdul. 2008. Cyberpower, In *Pattern Language for Communication Revolution*, ed. Dough Schuler, 25. London: MIT Press.

## **Webliography**

Pavilion Behavioral Health Center. “The Pavilion,” accessed on November 22, 2011, <http://www.pavilionhospital.com>

Pavilion Mansion Demolition. 2010, November 6. The News-Gazette, accessed on November 22, 2011, <http://www.news-gazette.com/forum/2010-11-06/pavilion-mansion-demolition.html>

Wade, Patrick. 2010, November 18. Pavilion Begins Consideration of How to Expand. The News-Gazette, accessed on November 22, 2011, <http://www.news-gazette.com/news/politics-and-government/2010-11-18/pavilion-begins-consideration-how-expand.html>

U.S. Census Bureau. "Fact Finder," accessed on November 22, 2011, <http://factfinder.census.gov>

## 62: Provena Covenant Medical Center

### Jennifer Hebel

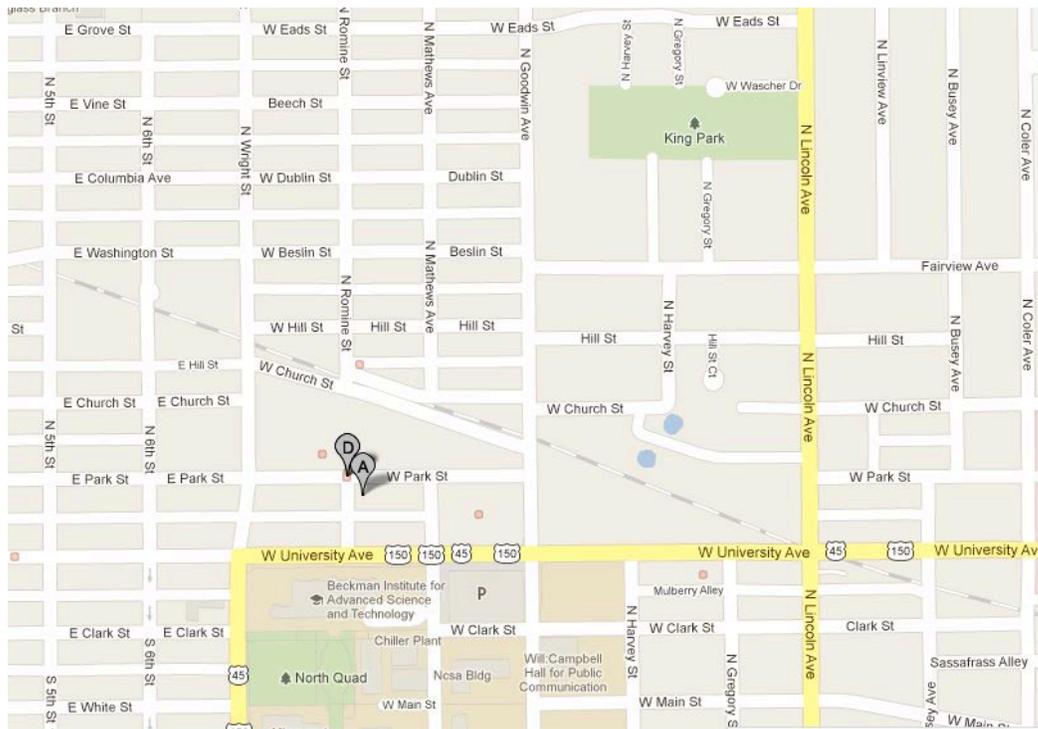
Master's student, GSLIS

#### 1 Executive summary

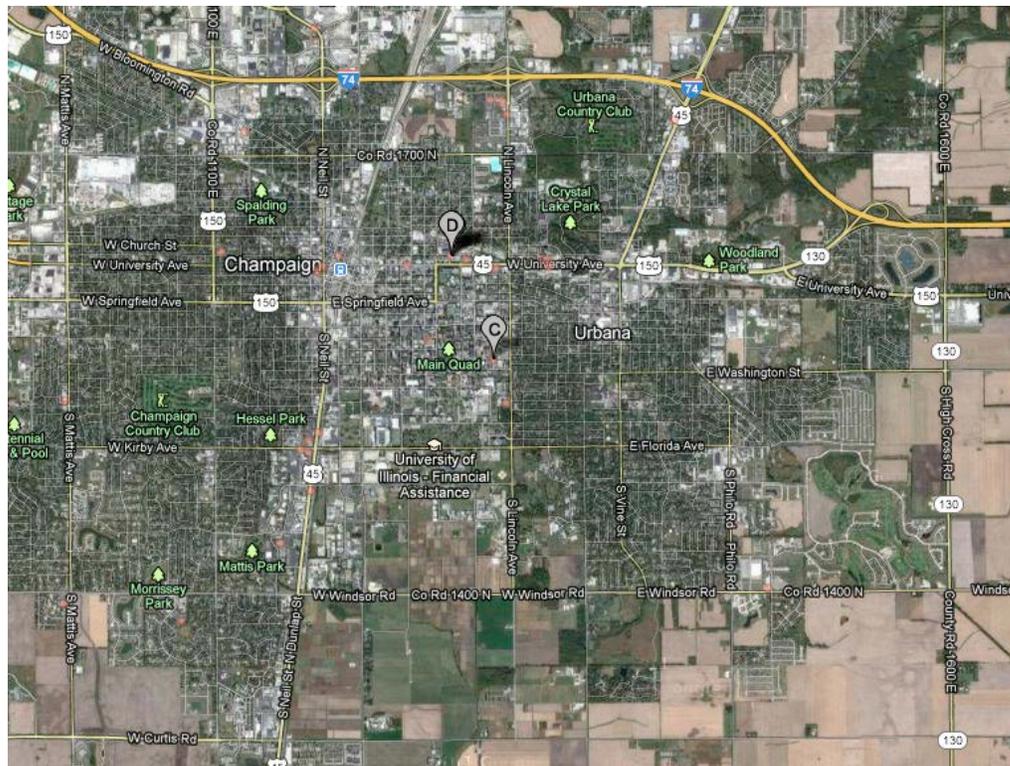
Provena Covenant Medical Center is a 210-bed, comprehensive care facility that was originally founded in 1894 as Burnham City Hospital and renamed in 1919 as Mercy Hospital. The hospital in its current form has 250 physicians and is one of east-central Illinois' most advanced medical facilities. In 2010 the facility had 8,380 in-patient admissions, 878 births, 230,714 outpatient visits, 32,358 emergency room visits, and 11,982 total surgeries and gastrointestinal (GI) cases. As a Catholic institution, Provena has a strong dedication to community service and charity, which reflects their mission of "build[ing] communities of healing and hope by compassionately responding to human need in the spirit of Jesus Christ." Provena also has a solid economic impact on the community in terms of jobs and services purchased. In 2009, Provena's impact on the area's economy was estimated to be \$327,037,000.

One of Provena's main focuses is in providing a continuum of care, which extends to the home. Provena works with at-need patients to provide follow-up care and assistance in the form of contact and evaluation. In cases where the patient has no primary care physician, nurse-practitioner appointments ensure that he or she continues to recover well. Provena also has a strong focus on preventative care, using services such as the Center for Healthy Aging to prevent patients—congestive heart failure patients, for example—from needing to be admitted. Research at Provena has shown that patients who have follow-up care and ongoing contact recover faster and with fewer complications, and are less likely to be readmitted. Provena's focus on holistic care can be found in many aspects of their services, such as in the construction and design of the new Blessed Beginning Birthing Center.

## 2 Maps



The location of Provena Covenant Medical Center: the hospital (“D”) is located near University and Lincoln avenues, just off of Park Street.



Satellite view of Provena Covenant Medical Center (“D”).

### 3 Photographs



**Exterior view of Provena Covenant Medical Center. The Main Admissions lobby is on the right, not fully in view.**



**Exterior view of the other wing of Provena Covenant Medical Center, which is connected to the main building by the skywalk.**



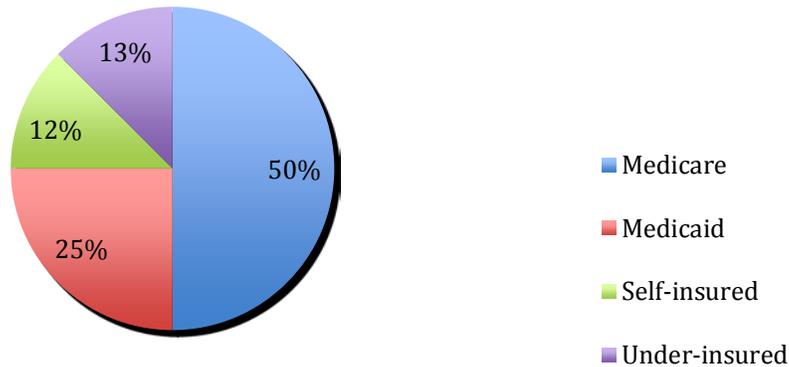
**Computer in workspace in Provena Covenant Medical Center.**

#### **4 Demographics of patrons or clients**

According to information obtained through the interviews, the patient racial demographics are primarily composed of black, white, and Asian patients. The hospital attempts to serve a significant portion of the underserved population of the Champaign-Urbana area, so insurance demographics reflect this. In terms of insurance coverage, approximately 40% of the patients are covered by Medicare, 20% by Medicaid, and the remaining 20% are self-insured or underinsured. Of that remaining 20%, half of the patients have commercial insurance but are underinsured, leading to high copays and financial strain. Provena's mission of compassionate service means the hospital tries to reduce the financial burden of needed care as much as possible on their clients.

## Insurance Demographics for Provena Covenant Medical Center\*

\*Numbers in this graph are approximations only and may not exactly reflect the actual statistical breakdown. Some populations may not be represented.



### 5 History

The institution that is currently Provena Covenant Medical Center has gone through many different incarnations in its history. The hospital was founded in 1919 as Mercy Hospital by members of the Servants of the Holy Heart of Mary. Throughout the hospital's lifetime, the Servants of the Holy Heart of Mary, the Franciscan Sisters of the Sacred Heart, and the Sisters of Mercy of the Americas have sponsored the center. Recently, with the merger of two other Catholic hospital systems, the religious orders of the Sisters of the Resurrection and the Sisters of the Holy Family of Nazareth are now part of the sponsorship.

The founding order of what became Provena Covenant Medical Center was the Servants of the Holy Heart of Mary. Founded in 1860 by Father Francis Delaplace in Paris, France, the Sisters began by establishing orphanages. During the Franco-Prussian War of the 1870s, their mission expanded to include health care, a focus that continues to the present day. In 1919, the Illinois order of the Sisters were requested by the local parish to assume sponsorship and responsibility for the new Catholic hospital. As there were currently no sisters available to answer this request, the Sisters of Mercy of the Holy Cross accepted the role, hence the name of Mercy Hospital. When the Sisters of Mercy were no longer able to carry out this responsibility, the Servants of the Holy Heart of Mary were available to begin ministry at the hospital. The hospital continued to grow through the years, and in 1989 Mercy Hospital merged with Burnham City Hospital to form Covenant Medical Center. In 1997 the Franciscan Sisters of the Holy Heart, the Servants of the Holy Heart of Mary, and the Sisters of Mercy of the Americas created Provena Health by merging with two other Catholic health systems.

In 2011 Thompson Reuters named Provena Covenant Medical Center as one of the nation's 50 Top Cardiovascular Hospitals. It was the only hospital in east-central Illinois to make the list, and one of only three hospitals in Illinois to receive the honor. The summer of 2011 also saw the beginning of the much-anticipated \$5 million remodeling

of the current birthing center, which will be the Blessed Beginnings Birthing Center. This will be a major renovation, and the first since 1992.

In 2010 Provena lost its standing as a property-tax-exempt institution, due to claims that it was not providing sufficient charity care donations. The case had started in 2002 and Provena fought the ruling all the way to the Illinois Supreme Court. There the justices ruled against the hospital, citing a 1960 precedent case that supported the Champaign County Board of Review and the Illinois Department of Revenue’s determination that Provena did not qualify for a tax exemption as a religious or charitable organization. According to the Illinois State Constitution, tax exemption is only allowed on property that is exclusively used for charitable purposes. The State Supreme Court agreed, asserting that less than 1 percent of the hospital’s revenue in 2002 went to charitable care, which does not allow for the charitable exemption.

## 6 Technology inventory

<b>Hardware</b>	<b>Software</b>	<b>Social Media</b>
650 PCs	EMR: Electronic Medical Record: MediTech	Facebook
150 Printers	Windows	Twitter
Phones: Mobile and hardline	Health Information Exchange	LinkedIn
Scanners	PACS: Picture Archiving and Communication System	
Laptops	PCI: Patient Care Inquiry system	
Servers: 280 at Bolingbrook facility. Provena is connected with DS3 lines.		
Fingerprint scanners for secure computer access		

## 7 Analysis

Provena Covenant Medical Center is a site that is in a state of constant growth, both in terms of services provided and technology used. With an upcoming move to entirely electronic document storage and new technology, such as robotics, being used, Provena is well positioned to take advantage of UC2B. The implementation of UC2B will not revolutionize Provena’s operations, but it will open up new avenues for growth.

Provena Covenant Medical Center uses technology in a variety of ways and the way that they use information technology is just as varied. The primary usage of information technology at Provena is in the connectivity of the system. Provena runs off of an EMR, or Electronic Medical Record, called MediTech. Provena was the first facility to go live with MediTech 20 years ago, and has been using the same system until April of 2011, when the hospital upgraded to the current version. MediTech allows for sophisticated management of medical and financial data, using 23 different integrated applications to coordinate the system. These applications use the unit numbers of records to coordinate

information of an individual patient, and allow for a variety of different functions. Using MediTech, hospital staff can track lab results, vital statistics, prescribed medications, diagnoses, and other necessary information. This oversight allows for efficient care, as well as allowing nurses and physicians to stay up-to-date with patient care.

MediTech also serves as part of the government's mandate for "meaningful use," allowing the hospital to record and report on patient care, and demonstrate care improvements, and pinpoint areas that still require additional work. "Meaningful use" is defined by the Center for Medicare and Medicaid services as "[t]he use of a certified EHR in a meaningful manner (e.g., e-Prescribing); [t]he use of certified EHR technology for electronic exchange of health information to improve quality of health care; [and t]he use of certified EHR technology to submit clinical quality and other measures." This hard data allows the hospital to demonstrate the quality of care that they provide, and justify medical procedures and expenditures. Physicians at Provena are able to dictate reports into any in-house phone, and these reports are then transcribed and uploaded into the EMR, after being electronically signed by the physician to create a legal record. Laboratory results can also be uploaded straight into the EMR to provide results more quickly. The EMR is also used to coordinate data for patient care between Illinois hospitals, as part of the Health Information Exchange. Provena hopes to add more applications to MediTech in the future, to allow for things such as electronic medication ordering. In the next 6–8 months Provena hopes to be entirely electronic to comply with government "meaningful use" mandates.

MediTech does have limitations. The way the system is currently designed does not allow for staff to add information on patients from the bedside, but instead all data must be entered from terminals. This means that a nurse must, for example, take a patient's blood pressure at the bedside, write it down on a chart, and then either add the data manually into the system him or herself, or else send the data out to a transcription company for transcribing and uploading into the system. Besides being inefficient, this process creates more work for staff and allows for a greater possibility of transcription errors or information loss. It also creates more cost for Provena at a time when hospitals are hurting for funding. If MediTech could be altered to allow for the use of tablets or similar products, which would then be able to interface with the EMR, this would reduce the burden on the staff and save time and money and reduce mistakes. A more robust EMR would create a better system than the current hybrid one, where both digital and paper is being used.

Provena stays connected to the main Bolingbrook IT facility and the 11 other hospitals in its healthcare system via DS3 lines and servers. These servers are equipped with back-ups, so in the case of a hardware failure the connection is not completely lost. Furthermore, the DS3 lines have a redundancy built in, to allow for a hospital site to bypass a lost connection point and still be able to access the network. Seven IT personnel at Provena keep the system up and running. Further technology support is available from the Bolingbrook facility. The DS3 lines support a variety of types of Internet access. Provena has guest access of varying levels besides different security levels of employee access. Some computers have fingerprint scanners attached for more secure staff access. Both wireless and wired Internet access is available.

Provena also uses a sophisticated PACS, or Picture Archiving and Communication System, for radiology use. This program allows x-rays and any other type of image to be uploaded directly into the system for instant viewing. Radiology technicians are then able to manipulate the images in a variety of ways for targeted viewing. Their analysis can then be attached directly to the file and sent electronically to the attending physician. This system allows for better quality images, quicker analysis and results, and better storage of the information.

Provena has also begun to incorporate robotics into its system. Currently Provena surgeons are able to perform electro-physiology, hysterectomies, and gallbladder removals with the use of the da Vinci robotic surgery system. The hospital hopes to add the ability to perform prostatectomies robotically shortly as well. Not only does the use of robotics in surgeries reduce the strain on surgeons, relieving them of the need to stand for long hours, but it also allows for an easier and safer procedure for patients, and reduces recovery time. The system was purchased in July 2011 at a cost of \$1.5 million and provides surgeons with a three-dimensional, high-definition image of the operation. A catheter, guided by tiny robotic arms, is controlled by a remote panel into the site and allows for greater dexterity without the need for large incisions.

One area of potential growth for Provena is in the realm of tele-medicine, something Provena has just started to provide through their Center for Healthy Aging. Currently, this is mainly available to chronic obstructive pulmonary disease patients, but the hospital is hoping to expand its services to other patients, such as diabetics and the elderly. Research has shown that patients who are not chronically ill, but instead are perhaps fragile and unable to travel safely, maintain their health better if medical staff stay in contact with them. Tele-medicine provides the opportunity to stay in contact with these patients, and reduces travel and time costs. This contact provides a psychological benefit to the patients, as well as allowing medical staff to monitor their condition more closely. Tele-medicine can help prevent hospital readmissions and reduce healthcare costs. UC2B will aid in the growth of this service by giving patients access to better and faster Internet connections, and allow for more people to have Internet access. This means that Provena can reach more people and have a larger pool of patients to reach. Also, more-vulnerable and at-risk patients will be able to access this service with the implementation of UC2B.

UC2B will also aid Provena in staying connected with its sister hospitals and remote sites. While Provena currently has DS3 connectivity, the fiber-optic connection and built-in redundancies will aid in staying connected to local satellite sites, reducing the cost of cable repairs and increasing available bandwidth, allowing the exchange of more data at a faster rate. UC2B broadband increases will also allow Provena to provide more services on-site for clients and guests, such as allowing those in the hospital to stay more connected with friends and family.

## **Webliography**

Centers for Medicare and Medicaid Services. “[EHR Incentive Program] What is meaningful use, and how does it apply to the Medicare and Medicaid Electronic Health Record (EHR) Incentive Programs?,” accessed December 12, 2011.

[https://questions.cms.hhs.gov/app/answers/detail/a\\_id/10084/~/%5Behr-incentive-program%5D-what-is-meaningful-use,-and-how-does-it-apply-to-the](https://questions.cms.hhs.gov/app/answers/detail/a_id/10084/~/%5Behr-incentive-program%5D-what-is-meaningful-use,-and-how-does-it-apply-to-the)

Healthcare Finance News. "Top 50 U.S. hospitals for heart care," accessed December 12, 2011. <http://www.healthcarefinancenews.com/news/50-top-us-hospitals-heart-care>

The News-Gazette. "Supreme court rules against Provena in tax case," accessed December 12, 2011. <http://www.news-gazette.com/news/politics-and-government/2010-03-18/supreme-court-rules-against-provena-tax-case.html>

The News-Gazette. "Covenant, Carle have surgical robot system available," accessed December 12, 2011. <http://www.news-gazette.com/news/health/health-care/2011-07-30/covenant-carle-have-surgical-robot-system-available.html>

The News-Gazette. "Covenant has robot-enhanced heart procedures," accessed December 12, 2011. <http://www.news-gazette.com/news/health/health-care/2010-07-21/covenant-has-robot-enhanced-heart-procedures.html>

The News-Gazette. "Covenant to do first remodeling of labor/delivery wing since early '90s," accessed December 12, 2011. <http://www.news-gazette.com/news/health/health-care/2010-05-11/covenant-do-first-remodeling-labordelivery-wing-early-90s.html>

The News-Gazette. "Timeline of major development in Provena Covenant's property tax case," accessed December 12, 2011. <http://www.news-gazette.com/news/politics-and-government/2010-03-19/timeline-major-developments-provena-covenants-property-tax-c>

The News-Gazette. "Provena ruling sets cases in motion for other hospitals," accessed December 12, 2011. <http://www.news-gazette.com/news/courts-police-and-fire/2010-03-20/provena-ruling-sets-cases-motion-other-hospitals.html>

The New York Times. "State challenging hospitals' tax exemption," accessed December 12, 2011. <http://www.nytimes.com/2011/09/11/us/11cnchospitals.html?pagewanted=all>

Provena Covenant Medical Center, "About us," accessed December 12, 2011. <http://www.provena.org/covenant/body.cfm?id=15>

Provena Covenant Medical Center, "Our history," accessed December 12, 2011. <http://www.provena.org/covenant/body.cfm?id=58>

Provena Covenant Medical Center, "History/overview," accessed December 12, 2011. <http://www.provena.org/body.cfm?id=36&oTopID=12>

Provena Covenant Medical Center, "Clinical excellence," accessed December 12, 2011. <http://www.provena.org/body.cfm?id=1012>

Provena Covenant Medical Center, "Clinical excellence," accessed December 12, 2011. <http://www.provena.org/body.cfm?id=1012>

Provena Covenant Medical Center, "2010 At-A-Glance," accessed December 12, 2011. <http://www.provena.org/documents/publications/2010AR/Covenant%20Insert.pdf>

Provena Covenant Medical Center, "What's at Stake?," accessed December 12, 2011. <http://www.provena.org/covenant/documents/Whats%5FAt%5FStake%2Epdf>

# Public Safety

## 63: Champaign County Emergency Management Agency

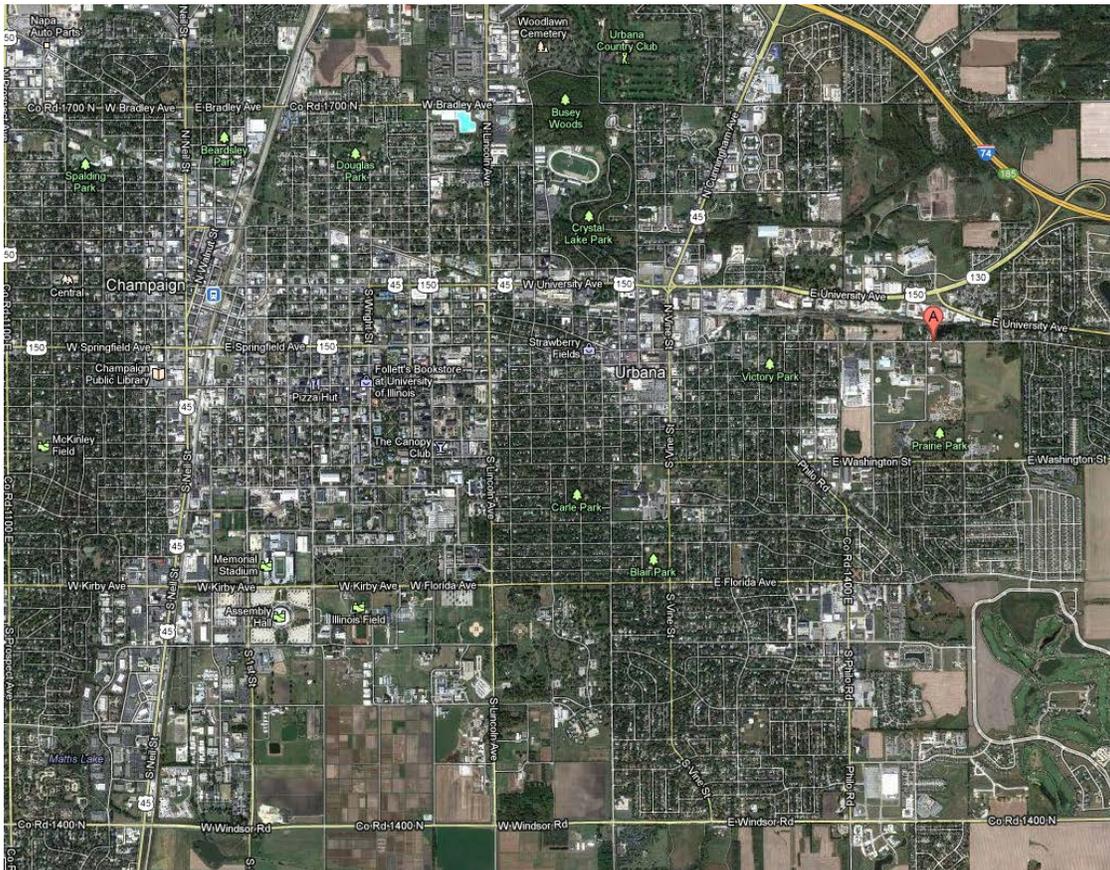
Abigail Sackmann

Master's student, GSLIS

### 1 Executive summary

The Champaign County Emergency Management Agency is responsible for preparing for, warning about, and responding to manmade and natural disasters. The agency maintains and operates warning sirens, organizes storm-spotter volunteers, assigns addresses, and runs a heavily IT-centered Emergency Operations Center that serves as the hub for information and communication among important actors in the event of a disaster. The EMA's perspective on emergency preparedness as it relates to technology, stressing the need for backups and redundancies, provides an interesting and valuable lens on IT use throughout the area, and an understanding of this could benefit all UC2B anchor social institutions.

### 2 Maps

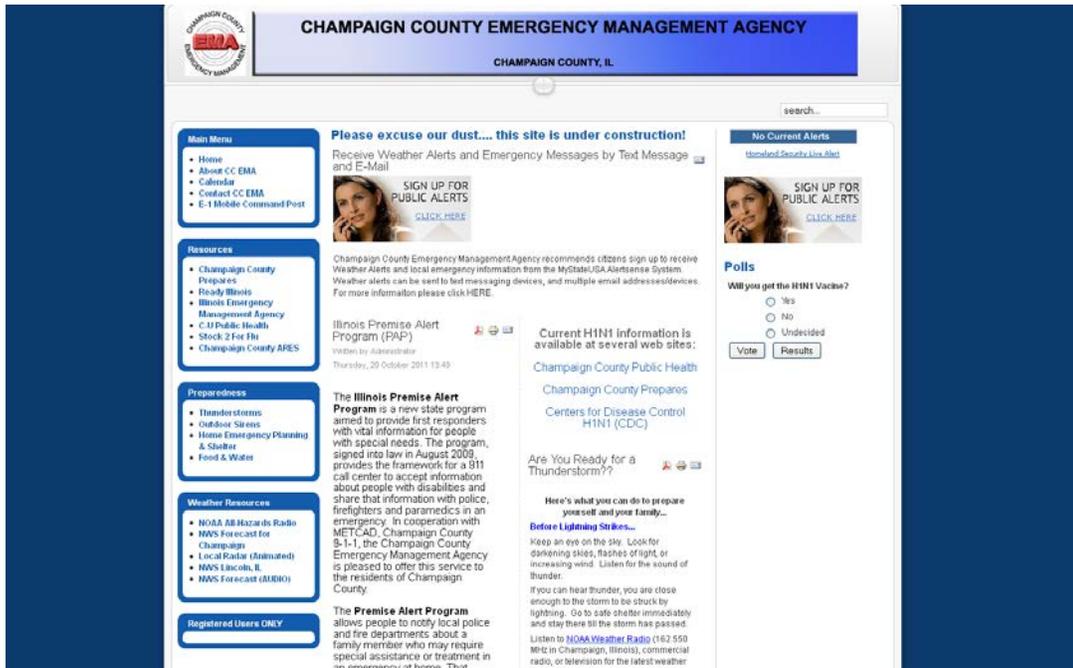


**CCEMA Office and Emergency Operations Center, 1905 E. Main Street in Urbana.**



**CCEMA is situated near the Champaign County Brookens Administrative Center, the Juvenile Detention Center, Prairie Park, and Prairie Elementary.**

### 3 Photographs



CCEMA website.



Mobile Command Center.



**Interior of the Mobile Command Center.**

#### 4 Demographics of patrons or clients

CCEMA serves the entire population of Champaign County. Below are select demographics for the county:

Population	201,081
White	73.4%
Black	12.4%
American Indian and Alaska Native	0.3%
Asian	8.9%
Native Hawaiian and Other Pacific Islander	0.1%
Persons reporting two or more races	2.7%
Persons of Hispanic or Latino origin	5.3%
White persons not Hispanic	70.9%
Foreign-born persons, 2006–2010	10.9%
Language other than English spoken at home, age 5+, 2006–2010	15.1%
High school graduates, age 25+, 2006–2010	92.3%
Bachelor’s degree or higher, age 25+, 2006–2010	41.2%
Housing units	87,569
Housing units in multiunit structures, 2006–2010	35.2%
Median household income, 2006–2010	\$45,262
Persons below poverty level, 2006–2010	20.5%

Source: U.S. Census Bureau State & County QuickFacts. Data is for 2010 unless otherwise specified.

#### 6 Technology inventory

Hardware	Software and systems	Staff, volunteers, and partnerships
Mobile Command Center	Microsoft Office on office computers	2 full-time staff
Five Dispatch Workstations	ArcView and/or ArcReader on three desktops	10–15 volunteers from Amateur Radio Emergency Service (ARES) available in emergency event
10 two-way radios	Two Websites:	10–15 other volunteers, including Public Information Officer
Phone system with 3 digital cellular phones	WEB EOC: state EMA software available in emergency event	Tech support from Champaign County and occasionally City of Champaign
Fax machine	SharePoint website for uploading grant materials	
Generator	Weather Chatroom to connect to National Weather Service and	

	other counties	
Camera on tower	Direct phone connection to National Weather Service	
PA system	Google Earth	
Two TVs	Champaign County Regional Planning Consortium maps (online)	
Office and Emergency Operations Center:	Service through which the public may sign up to receive weather alerts either via e-mail or text message	
Variety of radios for several frequencies		
Cell phones		
13 desktop computers		
Several laptops for mobile work		
Large-screen TVs interfaced with computers in Operations Center		
Regular phone and internet access provided through Champaign County		
39 Severe Weather Alert sirens in Champaign, Urbana, Savoy, and UIUC campus		

## 7 Analysis

The Champaign County Emergency Management Agency is a department of Champaign County, and is responsible for providing emergency services and coordination in the event of a natural or man-made disaster. Its duties including preparing for large events, tornadoes, snowstorms, thunderstorms, other severe weather, and hazardous materials reporting. The agency runs an Emergency Operations Center, which functions as a hub for information and communications during emergency events, as well as a Mobile Command Center.

Funding for CCEMA operations comes mainly from tax revenue from the county, but staff are continually applying for grants at the state and national levels for individual projects. Funding for hardware and software technologies, for example, comes mainly via grants. These are processed through the regional Illinois Emergency Management Agency (IEMA), the offices of which are located in Champaign. IEMA provides support for CCEMA, evaluates grant applications and the need for additional disaster relief help in relation to other counties, and gives feedback on their services.

Use of communications technology makes up a significant portion of what CCEMA does both in day-to-day operations and especially in the event of a disaster. Specifically, emergency planning necessitates the availability of many forms of communication lines in the event that one or many should go down. This is reflected in the number of different communications channels available in the office and the Emergency Operations Center, and is facilitated by EMA's collocation with the regional 911 services of METCAD.

EMA views UC2B through the same lens of emergency preparedness, which brings up the important question of what will happen if the system goes down. Anchor social institutions should be aware of this and plan according to the importance of their connection—for example, it is being urged that some organizations keep their present connection and use UC2B for redundancy in case one of the connections fails. This is particularly important for large organizations such as government offices, hospitals, and the airport, for which a working connection is important or vital in emergency situations.

In addition to regular phone and Internet lines provided through the county, CCEMA uses several radio frequencies, digital cellular phones, a web-based chat room, and hard-lined systems connected directly to other agencies, such as the National Weather Service's local regional office in Lincoln, Illinois. These various channels provide security of communication during emergencies, when it is likely that normal channels will be burdened by heavy use and more susceptible to outages.

One of the most secure of these communication backup systems is amateur radio, which the EMA taps into through the coordination and mobilization of a group of volunteer members of the local Amateur Radio Emergency Service (ARES), whose motto is "When all normal means of communication fail." (<http://www.wa9res.org/>) These volunteers are trained to work as storm spotters and are deployed to strategic locations on a grid of Champaign County to report back weather conditions. Other volunteers are also mobilized in other parts of the emergency operations infrastructure, one being the Public Information Officer, who during emergencies is stationed in the Emergency Operations Center to communicate with the media and the public about the event.

Because much of the information used is spatial, the Champaign County Emergency Management Agency uses maps for a variety of purposes, from emergency planning to visualizing data for grants. They receive a host of Champaign County maps from the Champaign County GIS Consortium, some of which are stored locally on their servers and updated regularly, and some of which are designed specifically for their needs. These maps may be projected on the TVs in the Emergency Operations Center in order for decision makers to view various spatial data in different formats. They also use Google Earth and maps from the Regional Planning Commission's website. Because this map data is very large, the 1 Gb local connection speeds of UC2B will facilitate faster downloads and access. The agency also tends to send out large files over e-mail, and is hoping that the faster speeds will increase the capacity for larger documents to be sent via county email.

CCEMA currently has public alert systems in place that include 39 sirens throughout Champaign, Urbana, Savoy, and the University of Illinois campus, as well as a program for which the public may sign up to receive alerts via e-mail or text message. The agency's website shares information about CCEMA and its services, as well as

emergency preparedness information for the public and links to external sites such as the National Weather Service. They are considering social media avenues, more likely to post news of trainings and special events than as severe weather alert systems, which would require a standard protocol to ensure events are reported in a consistent manner.

The unassuming offices of CCEMA on S. Main Street in Urbana disguise the importance of this organization for the safety of Champaign County in the event of a disaster. There are systems in place to ensure reliable communication between local governments and with the public both before and during events. IT use facilitates the effectiveness of the organization through the use of map layers and other visualizations, multiple communication channels, and data about the county. UC2B will expedite much of this data exchange and communication, both speeding up and creating redundancy in the network. Most of all, CCEMA's perspective on emergency preparedness is a valuable one for all citizens and organizations to be aware of, in order to develop plans and backups in the event of a disaster.

# 64: Champaign Fire Department

Yueh-Mei Lin

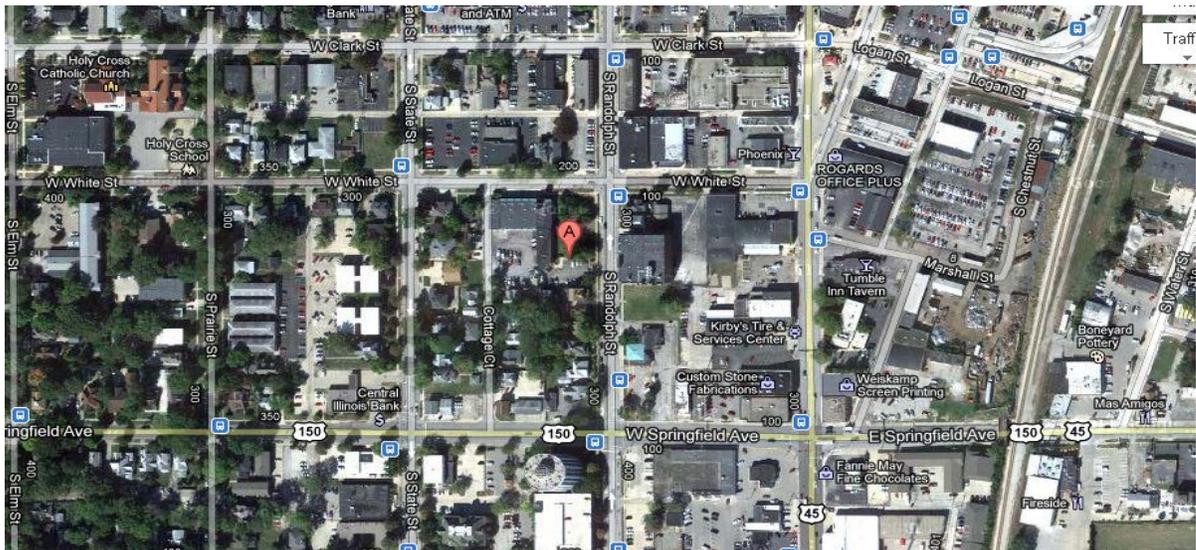
Doctoral candidate, Department of Educational Policy, Organization and Leadership

## 1 Executive summary

The Champaign Fire Department is the headquarters of six fire stations located in the City of Champaign. Information technology is very important for the Champaign Fire Department. They use technologies not only for training, fire reports, communication and interconnection but also for fire call services, fire inspection, building safety, and public education. The department uses various forms technologies, including computers, laptops, radar, and conferencing technologies. The purchase of their computer hardware, software, and other computer-related facilities are handled by the City of Champaign's IT Department.

UC2B will not only improve connections between headquarters and the other stations, training and conferencing, but it will also enhance the connectivity between the fire department and both city government and the public.

## 2 Maps



The neighborhood of the Champaign Fire Department (“A”).

### 3 Photographs



The Champaign Fire Department Building (from the fire department's website: <http://ci.champaign.il.us/departments/fire/>).



The two photos above are of the conference room. The information technologies used in this room include a phone, remote control, DVD player, whiteboard, and a big TV screen.



Forms of information technology utilized in the fire truck are a laptop and a cellphone. The laptops contain data that are important to the fire officers when they are on a fire call. The data includes the blueprints of a building showing the electricity lines are located or where there might be a risk of chemical exposure, for example.

#### 4 Demographics of City of Champaign

Population, 2010	81,055
Population change, 2000 to 2010	20.0%
Population, 2000	67,518
Persons under 5 years, 2010	5.4%
Persons under 18 years, 2010	17.3%
Persons 65 years and over, 2010	7.6%
Female persons, 2010	49.1%
White persons, 2010 (a)	67.8%
Black persons, 2010 (a)	15.6%
American Indian and Alaska Native persons, 2010 (a)	0.3%
Asian persons, 2010 (a)	10.6%
Native Hawaiian and Other Pacific Islander, 2010 (a)	0.1%
Persons reporting two or more races, 2010	3.0%
Persons of Hispanic or Latino origin, 2010 (b)	6.3%
White persons not Hispanic, 2010	64.8%
Foreign-born persons, 2005–2009	9.6%
Language other than English spoken at home, age 5+, 2005–2009	14.5%
High school graduates, persons age 25+, 2005–2009	92.8%
Bachelor’s degree or higher, persons age 25+, 2005–2009	48.1%

Source: <http://quickfacts.census.gov/qfd/states/17/1712385.html>

## 5 History

The history of the Champaign Fire Department is closely connected to the history of Champaign city government. The City of Champaign had its beginnings in the first meeting of the Village Board on April 28<sup>th</sup>, 1857. On February 21<sup>st</sup>, 1861, what was “West Urbana” received full legal sanction from the state legislature and formally became the City of Champaign. (<http://ci.champaign.il.us/about-champaign/history/history-of-champaign-city-buildings/>)

On January 7<sup>th</sup>, 1890, the Building Committee reported that “all the fire apparatus has been moved into the new building.” As far as the committee could judge, “the Fire Department of Champaign is now complete, and will compare favorably with any in Illinois outside of Chicago.”

By 1935, after only 45 years of service, the floor and the structure of the City Building appeared generally run down. Fire Chief John Ely, sent a letter to Mayor James D. Flynn, saying, “[W]e have realized that it would take a considerable expenditure of money to build (new) quarters and care for the fire equipment as it should be cared for, but since President Roosevelt has seen fit to grant monies to cities and towns for the purpose of erecting public buildings, we urge upon you this necessity.”

After a vote the construction of a new City Building began and the City Council had to provide temporary space for city operations. City offices and the Police Department shifted to the Walter Stern Building at 322–324 North Hickory Street. The Fire

Department remained behind, but prepared to move “on a moment’s notice” to 202 E. University Avenue. On January 2<sup>nd</sup>, 1936, the Fire Department moved to its temporary quarters.

On May 28<sup>th</sup>, 1967, a more important event took place—the Champaign Fire Department moved out of the first and second floors of the east wing to the new central fire station located at 207 W. White Street.

In the 1980s, Administrators and fire officers communicated with each other either via phone, radar, or paperwork. Federal law mandated that they record every fire call service, making for a lot of paperwork. Later, around 1993, the fire department started to use computers to record fire reports. The turning point seemed to be that one day a fire chief came to the office and asked the secretary about some fire events. He wanted to see the reports. The secretary told him that she could find those reports for him, but that it might take a week to go through all the paper files and put them together. This made the fire chief realize that something had to be done to improve efficiency. At that point computers were brought in to be used for creating the reports.

## 6 Technology inventory

<b>Technology</b>	<b>Software and Systems</b>
More than 10 PC desktops	FireHouse
More than 10 PC laptops	MSDS tracking
Education software	Visio
Laserjet printers	TRAKiT
Scanner	Deccan
Telephones	MapInfo
Copy machine	Windows XP and Windows 7 (2 secretaries).
2 Projectors	T-1 lines connecting to Urbana and County
2 Projector screens	Website maintained by City of Champaign
Speakers	Wireless capabilities
Microphones	Facebook page
Teleconferencing equipment	
Audio recorder	
Video player	
iPad	
Digital camera	

	Download (Mbps)	Upload (Mbps)
Speedtest.net	7.95	12.02

## 7 Analysis

The Champaign Fire Department station is the headquarters of the six fire stations in Champaign, and has served the Champaign community for over 130 years. The mission of the Champaign Fire Department is “to protect life and property through professional services delivered with compassion and integrity.”

(<http://ci.champaign.il.us/departments/fire/>) Currently, the department has 125 employees, including administrators and fire operations personnel. Their tasks consist of (1) providing support for fire operations, (2) offering emergency medical services, (3) code enforcement, (4) educating the community about fire and life safety, and (5) supplying hazardous materials response, rescue services, and emergency management oversight for the city. In 2010 Champaign Firefighters responded to 6,333 calls. (<http://ci.champaign.il.us/departments/fire/cfd-administration/annual-fire-response-statistics/>.) The Champaign Fire Department has five divisions: Administrative , Building Safety , Prevention , Operations , and Training .

Technology plays a very significant role in the fire department because of the practical needs of their work. They use technology not only for training, fire reports, fire call services, fire inspection, building safety, and public fire-related education. The technologies used in their works consist of various kinds, such as computers, laptops, radar, conferencing technologies, and so forth. The City of Champaign IT Department coordinates the planning around and purchases of the computer hardware and software.

They use a professional software system, Geographic Information System (GIS). GIS “is an organized collection of computer hardware, software, geographic data and personnel designed to efficiently capture, store, update, manipulate, analyze, and display all forms of geographically referenced information” (ESRI, pp.1–3). The GIS used by the Champaign Fire Department was designed and installed by Geographic Technologies Group, Inc. (GTG), which maintains the system as well; this firm was retained by the City of Champaign to perform a City-wide Geographic Information System Strategic and Staffing Plan.

Since most of the Fire Department utilizes GIS software and data, the connectivity of their T-1 line is not sufficient enough to download and upload their files when several people go online at the same time. Also, when they use the connection to perform training or live conferencing, the streaming digital picture freezes or becomes blurry, and the training and conferencing are interrupted. The high-speed connectivity of UC2B broadband can help them improve: (1) interconnection, (2) communication, (3) training, (4) connection to government agencies, and (5) connection to the public.

“Interconnection” refers to the connection between the six fire stations. Since sometimes these six stations work together, they need to exchange information through the T-1 line. As mentioned before, since their data and information may involve maps or other GIS systems, the files can be huge. Accordingly, they need more effective broadband. The fiber-optic broadband of UC2B would improve the speed of their connectivity.

“Communication” refers to the conferencing between the six fire stations. At the present time the speed of T-1 line is not fast enough to make for a good qualitative live-streaming conference. With the UC2B broadband, they believe that the live conference would be no problem. Third, training: according to the administrators, the Champaign Fire

Department quite often needs to hold training sessions for their fire officers. However, since the T-1 speed is not fast enough for them to carry out live training by means of the streaming screen, they need to move fire officers from their home fire station to the headquarters to do the training. In the future, through UC2B's fiber connection, they would be able to do live training, and thus those fire officers could stay in their station. Those fire officers would save time and be able to answer a fire call service more effectively.

Fourth, the connection between the Champaign Fire Department and government agencies: these include both the City of Champaign and government agencies in other states. Since fires also take place outside of the City of Champaign, they sometimes also need to connect to agencies in other states or in the federal government. The improvement in connectivity of UC2B will enhance this capability as well.

Fifth, the connection to the public: several projects of the fire department are related to the public, such as building safety and fire education. The building safety project in particular needs the input of the public, because the Champaign Fire Department aims to have a centralized systems that keeps all the information on a given piece of property. Yet, the initiative has not been well received because the T-1 connectivity is slow. The UC2B project would improve connectivity and entering data would become faster and easier. The administrator hopes that this would encourage more people to participate.

In sum, the installation of fiber-optic broadband not only will improve the intra-connection between headquarters and the other five fire stations with respect to fire officers' training and conferencing, but it will also enhance the connectivity between Champaign Fire Department and government agencies and the public. More specifically, as the Fire Chief states, "[If] we have broadband, then we can easily and clearly communicate through this building with other five fire stations, and do the training, general management and budget. The usage of interaction is not just for fire departments, but also is used to communicate with city government, general government agencies and the general public."

## **Webliography**

U.S. Census. "Champaign City QuickFact," accessed October 26, 2011, <http://quickfacts.census.gov/qfd/states/17/17019.html>

"Champaign fire Department's Mission," accessed October 25, 2011, <http://ci.champaign.il.us/departments/fire/>

Dannel McCollum, "Historical Review of Champaign City Buildings Over Years," accessed October 26, 2011, <http://ci.champaign.il.us/about-champaign/history/history-of-champaign-city-buildings/>

"Champaign Fire Department Organizational Chart," accessed October 26, 2011, <http://ci.champaign.il.us/cms/wp-content/uploads/2009/02/CFD-Department-Chart-2010.pdf>

"Annual fire response statistics," accessed October 26, 2011, <http://ci.champaign.il.us/departments/fire/cfd-administration/annual-fire-response-statistics/>

“T-1, accessed October 26, 2011, [http://en.wikipedia.org/wiki/Tier\\_1\\_network](http://en.wikipedia.org/wiki/Tier_1_network)

“Urbana-Champaign Big Broadband,” accessed November 1, 2011, <http://uc2b.net/news/>

“Information Technology,” accessed October 27, 2011. <http://ci.champaign.il.us/departments/information/>

“GIS Strategic Plan and Staffing,” accessed October 27, 2011, <http://ci.champaign.il.us/cms/wp-content/uploads/2009/02/complete-gis-plan.pdf> <http://ci.champaign.il.us/departments/fire./>

Kacich, Tom “Champaign has long history of being reshaped by fire,” accessed October 26, 2011, <http://www.news-gazette.com/news/courts-police-and-fire/2008-11-19/champaign-has-long-history-being-reshaped-fire.html> .

<http://ci.champaign.il.us/about-champaign/history/history-of-champaign-city-buildings/>

“Champaign Fire Station Locations, “ accessed November 2, 2011, Six fire station locations <http://ci.champaign.il.us/departments/fire/suppression/stations/>

# 65: Eastern Prairie Fire Protection District

Jane Sandberg

Master's student, GSLIS

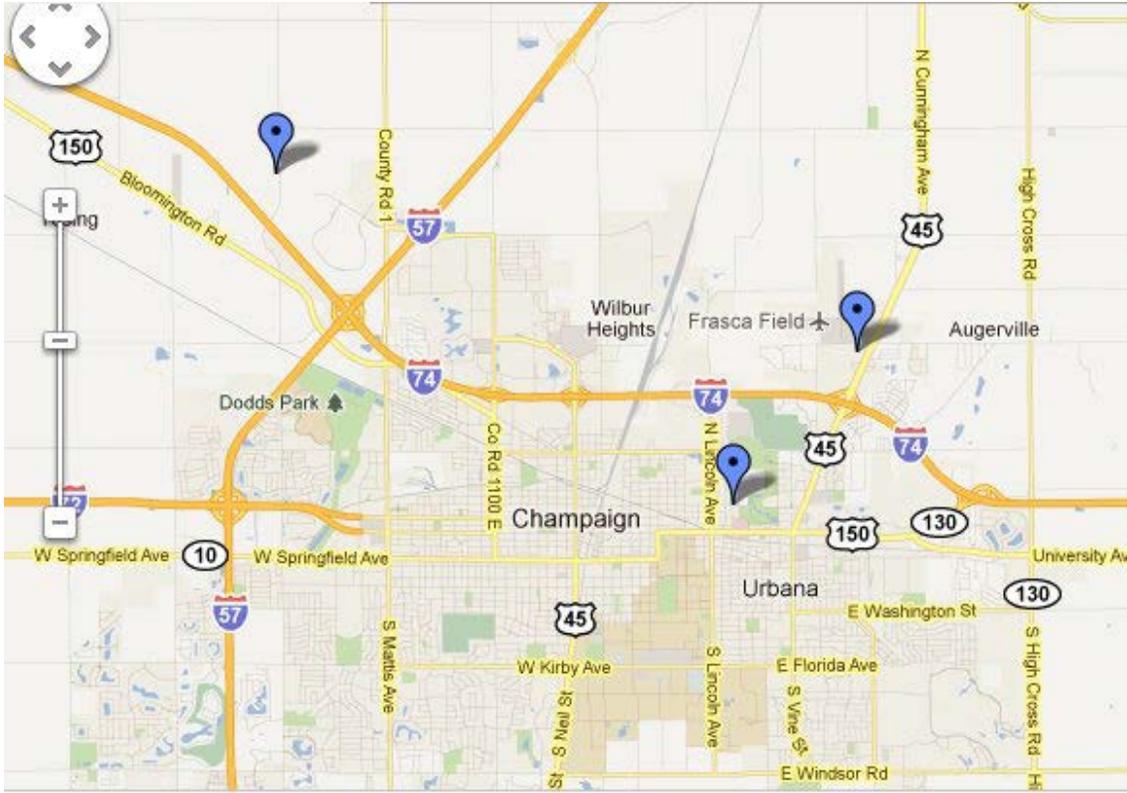
## 1 Executive Summary

Eastern Prairie Fire Protection District is a volunteer fire department serving an area to the north of Champaign-Urbana. 2011 marks the district's 50th year serving unincorporated Champaign-Urbana. As a small, volunteer fire department, the Eastern Prairie Fire Protection District's current uses of technology are highly selective, and focus on the district's need for record keeping. While Internet speed is not currently an issue for the district, the connection's reliability is somewhat unstable; UC2B will hopefully address this issue.

## 2 Maps



The location of the Eastern Prairie Fire Department station ("A").



The outer edges of the district. Note: the western edge is actually one mile north of the marker.

### 3 Photographs



The Eastern Prairie Fire Protection District station, in the Wilber Heights area.



**The computer for volunteers, which is backed up on the chief's computer.**



**This is the computer on which I Am Responding is being installed on a trial basis.**



The inside of the station.

#### **4 Demographics**

No information about the demographics of either the district's volunteers or constituency was available.

#### **5 History**

2011 marks the 50th year that the Eastern Prairie Fire District has served the unincorporated area north of Champaign-Urbana. The volunteer district, originally named the Wilber Heights Fire Department, was founded to protect residents of the area, which had grown to house employees of a warehouse and bakery for the Eisner supermarket chain.

Today, the district encompasses agricultural, industrial, and residential areas in areas to the north of Champaign and Urbana. Though the district has been reduced in size over the years, due in large part to annexations by the two cities, there remains a strong need for fast response to fires and medical emergencies in the area, and the 25 volunteers of the district continue to serve unincorporated areas in the Champaign-Urbana area.

#### **6 Technology Inventory**

Hardware

Staff desktop computers	3
-------------------------	---

Staff laptop computers

2

Tech support

Volunteers

WIRELESS speeds	Down (Mbps)	Up (Mbps)
Speedmatters.org	19474	4421
Speedtest.net	15.16	4.14

WIRED speeds	Down (Mbps)	Up (Mbps)
Speedmatters.org	15961	4361
Speedtest.net	24.32	4.01

## 7 Analysis

As a small, volunteer fire department, the Eastern Prairie Fire Protection District’s uses of technology are highly selective. The station’s limited budget and the prohibitive costs of emergency response software leaves the district relatively limited regarding the development of new technological endeavors.

Documentation makes up a large percentage of the station’s workload. Some of this documentation is due to federal reporting regulations. Other documentation is kept internally in case the district is ever in a position where it needs to provide testimony, witnesses, or evidence. Both types of documentation require basic information such as location and response time. After responding to fires, the district contributes more complex data to the National Fire Incident Reporting System (NFIRS, a database maintained by FEMA), including injuries and dollar amount damages. The district also keeps information on medical calls, which make up the largest share of the station’s 250 annual calls, and, since the firefighters are volunteers, the district also monitors how long it takes its volunteers to arrive at the station after a call. The stations internal records are stored on the chief’s computer and backed up on another computer.

Another common use for computers is for training. The district’s first laptop was purchased to improve firefighter training through the incorporation of videos and PowerPoint presentations. The International Fire Training Association’s (IFTA) curriculum is also available online, allowing for a greater reliance on computer-based training. Firefighters also use the computers for social networking, and the district is currently considering the purchase of I Am Responding, a program that tracks which firefighters are responding to a particular call.

The station owns a Garmin GPS unit, thanks to an organization called the Mutual Aid Box Alarm System (MABAS). This service aims to facilitate out-of-district response to major disasters, with the GPS assisting in the navigation of unfamiliar territory. The district’s extensive training, however, means that truck drivers are readily familiar with the district’s territory, and atlases are kept in all of the station’s vehicles, leading to limited use of the GPS technology.

Apart from the potential purchase of I Am Responding, many of the district’s current technology uses are not particularly time sensitive. Station personnel were concerned

less with acquiring a faster connection and more interested in a more stable connection. The station's broadband and wireless connections are relatively speedy, but nearby industrial establishments are sometimes very taxing on the system, causing the network to go down fairly regularly. These bandwidth problems will hopefully be addressed by UC2B's push for expanded connectivity.

# 66: Parkland College Police

Lela Kretzer

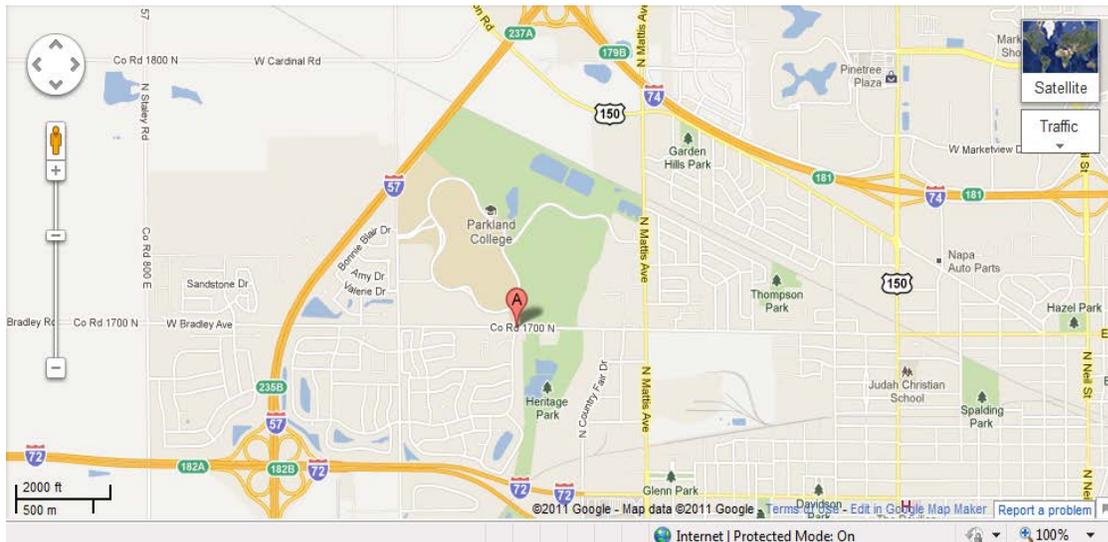
Master's student, GSLIS

## 1 Executive summary

The Parkland College Police, under the Department of Public Safety, see themselves as a service agency with law enforcement powers. In this capacity, the Parkland police have very diverse responsibilities. Currently, the organization uses information and communication technologies (ICTs) daily to carry out the mission of the Department of Public Safety. For example, the department maintains classroom security through its key management systems and the 911 icon on all campus computers, available in case of an emergency. The department also hosts the college's switchboard, managing telephone communications throughout the community, and police officers use Mobile Data Centers while in the field.

In the event of an emergency, the ability to reach members of the community very quickly, as well as state and federal agencies, will be absolutely crucial. One challenge particular to Parkland College is a technology gap among students and the fact that Parkland College is not residential, so students are very spread out outside of class time. This adds complexity to Parkland College's emergency notification. Reliably fast communication and Internet connections will make a big difference and this is certainly an area where the UC2B project will help.

## 2 Maps



Source: Google Maps. Accessed October 31, 2011.

### 3 Photographs



**Staff work station at Public Safety.**



**Telecommunications Officer at Public Safety.**



Department of Public Safety at Parkland College.

#### 4 Demographics of patrons or clients

<b>Parkland College: 2010-2011 Staff Demographic Data (Parkland College, 2011)</b>		
	<b>Men</b>	<b>Women</b>
Nonresident Alien	3	0
Hispanic/Latino	10	7
American Indian/Alaskan Native	4	3
Asian	9	16
White	274	414
Two or more races	18	8
Ethnicity unknown	40	35
Total	386	506

<b>Parkland College: Fall 2011 Student Demographic Data</b>		
<b>Level</b>	<i>Frequency</i>	<i>Percent</i>
Freshman	5432	58.0
Sophomore	3000	32.0
Dual Enrollment	14	0.1
Unclassified/other	395	4.2
Dual Credit	527	5.6

<b>Resident Mix</b>		
In-district	6807	72.7
Out-of-district	2185	23.3
Out-of-state	100	1.1
Foreign country	276	2.9
<b>Ethnicity</b>		
Asian/Pacific Islander	285	3.0
American Indian/Alaskan Native	47	0.5
Black Non-Hispanic	1421	15.2
Hispanic	394	4.2
White Non-Hispanic	5364	57.3
Nonresident Alien	100	1.1
Unknown	1757	18.8
<b>Gender</b>		
Male	4309	46.0
Female	5059	54.0
<b>Age Groups</b>		
Under 17	195	2.1
17–20 years old	4039	43.1
21–24 years old	2033	21.7
25–30 years old	1302	13.9
31–39 years old	959	10.2
40–55 years old	668	7.1
Over 55 years old	172	1.8
<b>Total</b>	<b>9368</b>	<b>100.0</b>

## 5 History

Parkland College’s police officers today work in the Department of Public Safety. Prior to this, security on campus was administered by what was called the Department of Health, Safety, and Security. Throughout Parkland’s history, there have been many individuals working in many different capacities serving this mission of security on campus. They have been known variously as “Public Safety Officers,” “Security Patrol,” “Patrol Officers,” etc. These professionals have included both sworn officers and nonsworn officers.

In 1993, the News-Gazette reported that Parkland College hired nine ‘security officers’ to complement the five “health, safety, and security officers” serving the community. Prior to this hiring, Parkland had contracted with Hurst Security Services (beginning in 1991) to provide night and weekend security. From 1975 to 1993, Douglas Davis, director of the Department of Health, Safety, and Security, was the only sworn officer on campus.

A 1994 article suggests that this new security service caused some controversy in the Parkland community. Some department heads felt that an armed security force was inconsistent with the philosophy of the college and that security officers were prone to overreaction. New hires in 1993 brought the number of (nonsworn, unarmed) patrol

officers to eight, with two sworn police officers also added to the department. (Howie, 1994)

Also on 1994, Davis retired as head of the department, a position he had held since 1975. At the same meeting that approved Davis' retirement, the board unanimously voted its support of the department in response to the recent criticisms. (Howie, 1994)

Von Young, formerly of the Champaign Police Department, became chief of Parkland Police in 2002. He is Parkland's third police chief and the first African American police chief. He was also the first African American police officer in the City of Lincoln and the first African American lieutenant in Champaign.

Sergeant Yvonne Meyer started with Parkland College Police in 2003. Before that she worked with the Champaign Police Department as a Police Services Representative, working with various computer programs including dispatch software.

A 2008 News-Gazette article reported a bomb threat that led to the evacuation of the campus. The threat did not materialize, but the incident resulted in more attention being directed to the security protocols at Parkland College. The digital divide on campus complicated any emergency notification system. While many younger students were most easily reachable via the Internet or text messaging, Public Safety needed other options to reach less-connected students. The system in place displayed messages on all network computers and on-campus closed-circuit televisions, but the police chief hoped to develop notification that would reach students before they arrived on campus. At the time of this article, Parkland was considering various vendors for an emergency notification system that would allow for multiple means of communication, including e-mail, text messaging, and voice messaging, all in a variety of languages. In the college's newspaper, college relations officer Kopmann informed students of the availability of IRIS, the selected emergency notification system. (Kopmann, 2011 and Bauer, 2008)

## 6 Technology inventory

The Department of Public Safety uses many technologies and applications, some developed in-house and some commercial products. In addition to the specific software listed in the table below, Public Safety also uses software provided by the State of Illinois to report traffic collisions, a weather-alert system, SQL-based databases, and office suite. Among the technologies developed in-house are a system to monitor projectors in Parkland's classrooms and protect them from theft, a 911-icon on each classroom's computers to provide immediate contact with the Parkland police, and an e-bulletin board linked to the department's website. Each squad car is equipped with a laptop linked to the state police websites, which is called a "mobile data center" or "mobile data terminal." In addition to state police databases, Parkland police officers also get information from the National Crime Information Center (NCIC). Public Safety does maintain a Facebook page, but this is not regularly updated. Telephone service in the department is provided by Verizon. Public Safety has 15 sworn officers, 8 dispatchers, and 3 patrol officers.

<b>Software</b>	<b>Creator</b>	<b>Description</b>
Automated Records	End2End, Inc.	Records management and

Management Systems (ARMS)		computer aided dispatch (CAD)
Colleague	Datatel, Inc.	Integrated business workflow system
SimpleK	Prosystech, Inc.	Master key system and key issuance management
Onvisource	Onvisource, Inc.	Call recording
Acrobat	Adobe Systems, Inc.	Portable document software
Immediate Response Information System (IRIS)	TechRadium, Inc.	Emergency alert system
GroupWise	Novell, Inc.	Messaging software platform

<b>Equipment</b>
14 desktop computers (XP operating system)
4 laptop computers (XP operating system, used in police vehicles)
Scanner
Digital cameras
Copiers
Fax machine
Electronic Fingerprinting Machine (L1 Solutions) to conduct background checks

Results of speed tests:

Speedmatters.org      Down: 38,026 kbps      Up: 49,495 kbps  
Speedtest.net          Down: 33.10 mbps      Up: 11.06 mbps

## 7 Analysis

The Parkland College Police, under the Department of Public Safety, see themselves as a service agency with law enforcement powers. In this capacity, the Parkland police have very diverse responsibilities. Early in its history, the Parkland College police faced a community that was not sure it really wanted campus law enforcement. Later, however, tragic events at other campuses created a national awareness that saw the necessity of armed law enforcement in an educational setting. These tragedies led to increased responsibilities for the Parkland police. In addition to providing services and presenting themselves as helpful, friendly, and approachable, the department was now also responsible for planning, maintaining, and potentially implementing extreme crisis management operations. Technology has a significant role to play in all these activities. (Bauer, 2003 and Kingsburry, 2011)

Currently, the organization uses information and communication technologies (ICTs) daily to carry out the mission of the Department of Public Safety. The department maintains classroom security through its key management systems and the 911 icon on

all campus computers, available in case of an emergency. The department also hosts the college's switchboard, managing telephone communications throughout the community. Police officers use Mobile Data Centers while in the field. These are laptops with which officers can make reports and access law enforcement resources, such as state police databases, from anywhere, allowing them to spend more time in the community. The department also issues emergency notifications and weather alerts.

As with many organizations, communication is key for the Parkland police: within the community, among officers and personnel, and with other agencies. College campus law enforcement administrators are particularly concerned with this issue because of shootings and other violent incidents on campuses nationwide. At Parkland College, school administrators have noted that better communication with students in the event of an emergency could save many lives, and for that reason communication strategies within the Parkland community have received a great deal of attention. (Cook, 2007)

As we have heard from many organizations regarding ICTs, the interviewees felt that speed was an important area for improvement for the department. In the event of an emergency, the ability to reach members of the community very quickly, as well as state and federal agencies, will be absolutely crucial. One challenge particular to Parkland College is a technology gap among students and the fact that Parkland College is not residential, so students are very spread out outside of class time. This adds complexity to Parkland College's emergency notification. On a day-to-day level, communication is a huge part of the Parkland police and Public Safety operations. As one interviewee said, "it's radios to computer, computer to radios, constantly, all day long." Reliably fast communication and Internet connections will make a big difference and this is certainly an area where the UC2B project will help.

Another challenge for the Parkland police is the diverse nature of the student body. Parkland College has a higher proportion than many other campuses of older students. In the interviews as well as a News-Gazette article, it was mentioned that the technology gap between the younger and older students complicates some activities of the police department, most notably the emergency notification system. The current system relies on e-mail, text, and voice messaging. There is the potential that a student may not have a cell phone and so the emergency message may not reach the student before s/he arrives on campus. Additionally, the Immediate Response Information System (IRIS) requires that students register online to receive these messages. For a student who is not comfortable with ICTs, this is a barrier. (Bauer, 2008)

In the interviews, several innovations involving technology were mentioned for Parkland College. First of all, there is some interest in installing cameras, as the University of Illinois and many other institutions have done. At the moment there are several issues with this proposal, including the wiring of the buildings and concerns about privacy. If the infrastructure issues can be settled, however, there is evidence that cameras on campus do help to deter crime and gather information about safety issues. The department also recently developed a system to deter the theft of overhead projectors in classrooms. Another innovation is the potential for community members who report an incident via the 911 icon on their computer screens to fill out an electronic form at the same time. In general, collaboration between Parkland College's IT department and the Department of Public Safety would bring great benefits to the college. According to the

information gathered from interviews, Public Safety staff members are very comfortable and competent with the technologies that they use and that competence extends to ideas for improvement. However, the staff will need IT input and support to accomplish their technological goals. (Kacich, 2010)

## **Bibliography**

- Bauer, Steve. 2003. Respect for all serves new Parkland police chief well. The News-Gazette, June 29.
- Bauer, Steve. 2008. Parkland police sergeant likes challenge in her own 'small town'. The News-Gazette, January 20.
- Bauer, Steve. 2008. School officials review campus security options. The News Gazette. February 29.
- Cook, Anne. 2007. Building projects again part of funding request. The News-Gazette, June 21.
- Cook, Anne. 2007. Parkland College uses dog to hunt for explosives. The News-Gazette, December 7.
- Cook, Anne. 2007. Parkland has crisis plan. The News-Gazette, April 17.
- Cook, Anne. 2007. Parkland taking steps to improve campus security- School reviews procedures after shooting deaths at Virginia Tech. The News-Gazette, May 9.
- Frichtl, Sgt. Duane F. 2002. Parkland police aren't security guards. The News-Gazette, August 26.
- Howie, Michael. 1994. Disarm cops, college urged. The News-Gazette, July 17.
- Howie, Michael. 1994. Security chief retiring with board's support. The News-Gazette, July 21.
- Kacich, Tom. 2010. Smile: You're likely on someone's camera. The News-Gazette, September 5.
- Schenk, Mary. 2010. Parkland's Mattis Avenue facility reopened after bomb threat. The News-Gazette, April 27.
- The News-Gazette. 1993. Parkland hiring nine to beef up security. The News-Gazette, May 29.
- Wallace, Sally Foster. Parkland works: a 1966-2001 history. Champaign, Ill.: Parkland College Board of Trustees, 2004.
- Wood, Paul. 2009. Police practice close-quarters shooting at Parkland. The News-Gazette, March 28.

## **Webliography**

- End2End, Inc. "Computer Aided Dispatch". Accessed October 19, 2011.  
[http://www.arms.com/Products\\_CAD.html](http://www.arms.com/Products_CAD.html)

End2End, Inc. "Records Management". Accessed October 19, 2011.  
[http://www.arms.com/Products\\_Case.html](http://www.arms.com/Products_Case.html)

Datatel, Inc. "Parkland College Selects Datatel Colleague to Provide a Comprehensive, Integrated System to Improve Constituent Services". Accessed October 30, 2011.  
[http://news.datatel.com/article\\_display.cfm?article\\_id=1096](http://news.datatel.com/article_display.cfm?article_id=1096) .

Heaney, Kelley. 2011. "Public Safety: "Stay Safe Together"". Accessed October 19, 2011. <http://www.prospectusnews.com/home/public-safety-stay-safe-together-1.2144752>

Hermann, Sean. 2008. "Violence down, but parking lot wrecks are up". Accessed October 19, 2011. <http://www.prospectusnews.com/2.15756/violence-down-but-parking-lot-wrecks-are-up-1.2114709>

International Association of Campus Law Enforcement Administrators. "2007 Award for Merit". Accessed on October 11, 2011.  
<http://www.iaclaea.org/visitors/memberservices/awards/merit/MeritAward.cfm>

Integrated Postsecondary Education Data System. "IPEDS Data Feedback Report 2011-Parkland College". Accessed October 31, 2011.  
<http://www2.parkland.edu/oire/documents/2011ParklandDataFeedbackReport.pdf>

Kingsbury, Alex, Silla Brush, Elizabeth Weiss Green, and Bret Schulte. 2007. "TOWARD A SAFER CAMPUS. (Cover story)." U.S. News & World Report 142, no. 15: 48-52. Academic Search Premier, EBSCOhost (accessed November 8, 2011).

Kopmann, Matthew. 2011. "Public Safety: IRIS". Accessed October 19, 2011.  
<http://www.prospectusnews.com/public-safety-iris-1.2577857>

Parkland College. "Campus Police". Accessed October 19, 2011.  
<http://www.parkland.edu/police>

Parkland College. "Human Resources 2010-2011". Accessed October 31, 2011.  
<http://www2.parkland.edu/oire/documents/201011HumanResources.pdf>

Prosystech, Inc. "SimpleK". Accessed October 19, 2011.  
<http://www.simplek.net/overviewsk.aspx>

Woodrum, Jesse. 2009. "With students away, cops train for serious shooter threat". Accessed October 19, 2011. <http://www.prospectusnews.com/news/with-students-away-cops-train-for-serious-shooter-threat-1.2114895>

Youssef, Nada. 2008. "More than just cops". Accessed October 19, 2011.  
<http://www.prospectusnews.com/news/more-than-just-cops-1.2114568>

## **67: Urbana Fire Rescue**

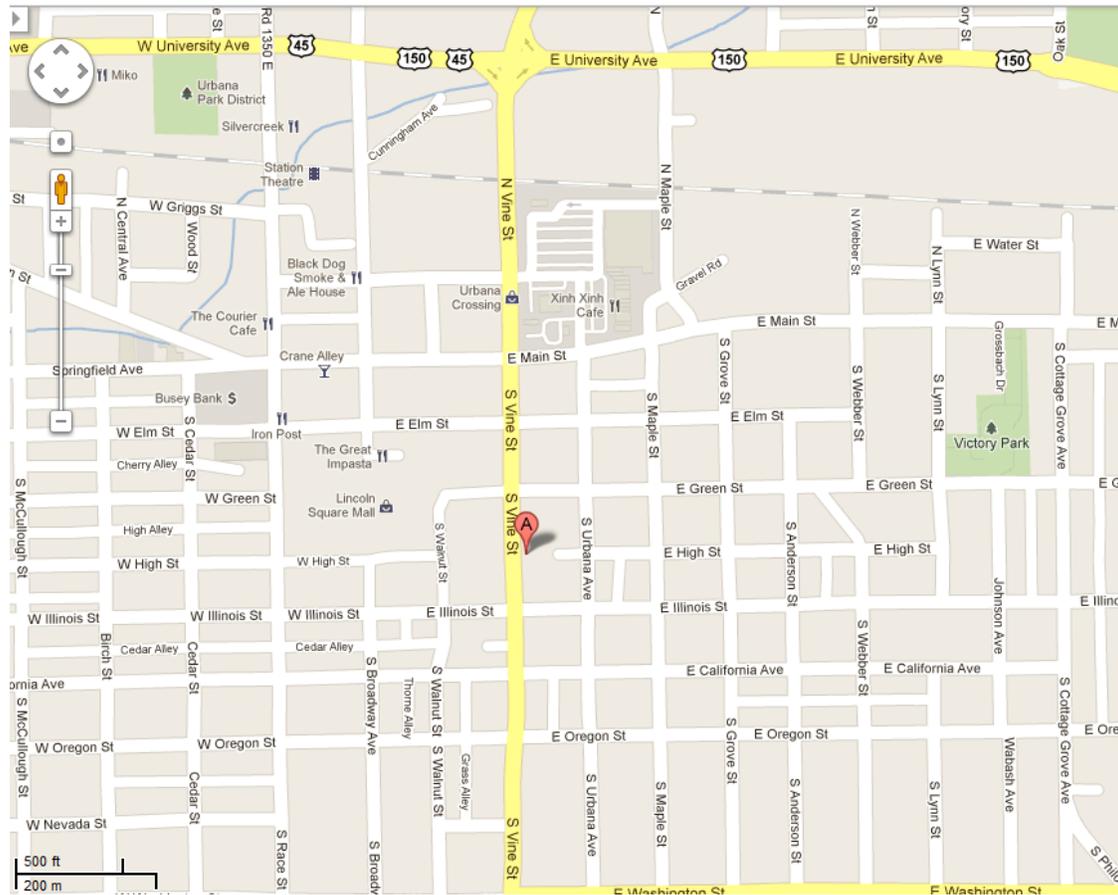
**John Newcomer**

Master's student, GSLIS

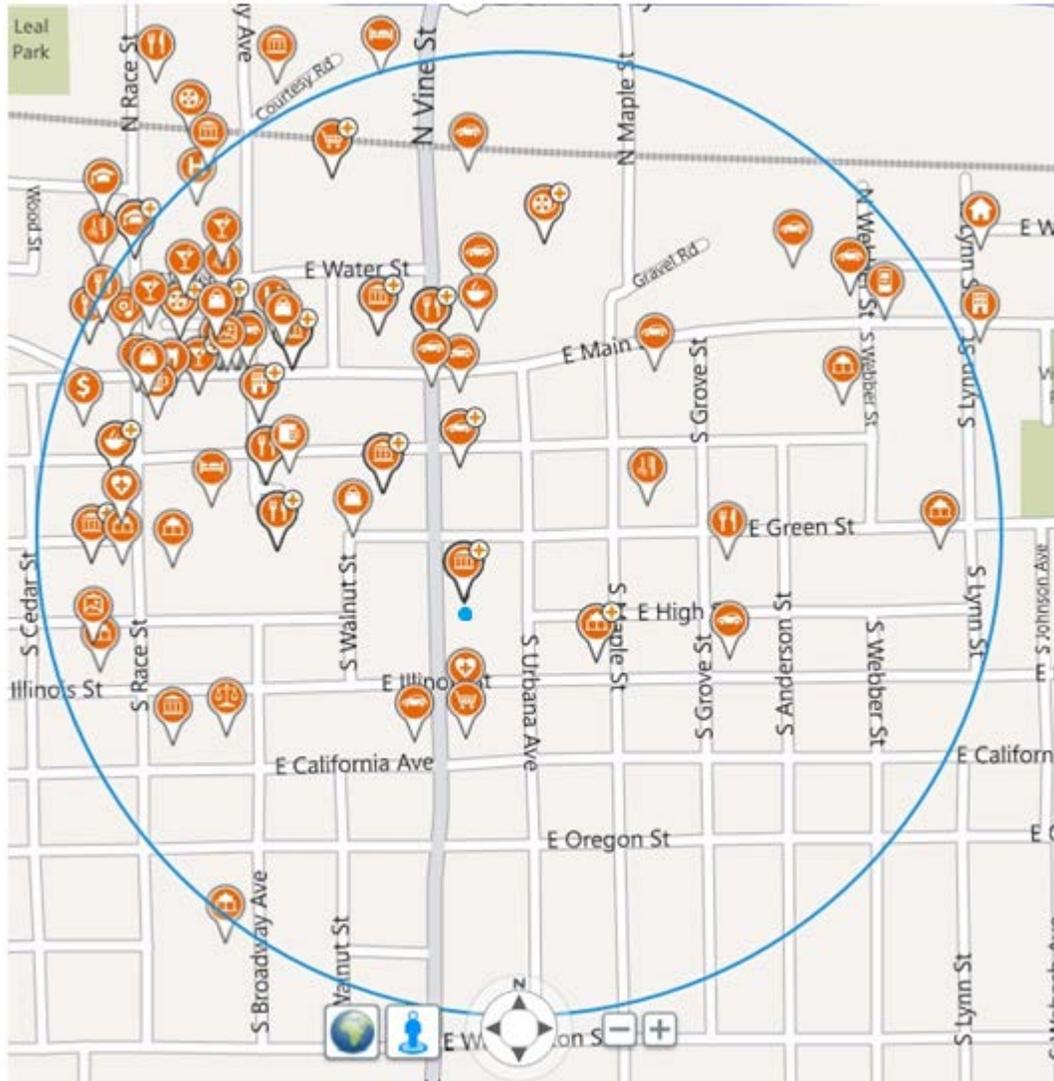
### **1 Executive Summary**

The Urbana Fire Department has been providing public safety services since the birth of the City of Urbana in 1833. The department's use of IT is directed toward supporting its mission to provide effective emergency response and prevention services, and to this end the department has already adopted many innovative uses of information technology. These uses satisfy both the internal needs of the department (for example, installing Mobile Data Centers in fire engines) and the external needs of the community (for example by promoting online safety videos for the public). They are also looking to the future, for example into using digital technology for communicating with speakers of foreign languages, which would be beneficial in this very diverse city. In addition, expanding community Internet access through the UC2B project offers numerous advantages for Urbana Fire Rescue, such as the ability to make its existing information resources available to a wider audience and expanding their online information resources to match future demand.

## 2 Maps



**The Urbana Fire Department Main Station is located at 400 S. Vine Street in Urbana.**



Hotels & Accommodations (2)	+	Convenience Stores (1)	+
Restaurants (11)	+	Malls & Shopping Centers (1)	+
Coffee, Espresso & Tea (5)	+	Movies (3)	+
Gas Stations (1)	+	Postal Services (1)	+
Taverns, Bars & Cocktail Lounges (4)	+	Banks (1)	+

This map provided indicates key places in the vicinity of the Urbana Fire Department Main Station (blue dot).

### 3 Photographs



**The Urbana Municipal Building on 400 S. Vine Street houses the Main Fire Station.**



**The Urbana Fire Department relies on networked software to share and record information concerning calls for service, personnel, and training.**



**The Urbana Fire Rescue Commander vehicles are equipped with a networked laptop computer to provide information about calls for service.**



The department fire engines rely on Mobile Data Centers (MDCs) in order to respond to calls for service.

#### 4 Demographics of Urbana and UIUC

2010 Census Data	Urbana, Illinois
Total Population	41,250
Ethnicity	
White Alone	60.4%
Black Alone	16.3%
Asian Alone	17.8%
Hispanic or Latino	2.2%
Median Household Income	\$42,655 **
% of Families Below Poverty	13.3% **

#### UIUC

Total Student Population	41,949
--------------------------	--------

International Students	7,223
Countries Represented	115
Ethnicity	
White Alone	57.3%
Black Alone	5.2%
Asian Alone	11.4%
Hispanic or Latino Alone	6.6%

## 5 History

The birth of the Urbana Fire Department accompanied the early formation of the city of Urbana. Founded in 1833, Urbana initially relied on its residents to assist in putting out fires. As the town grew, so did the need for an organized fire response service. By 1855, a volunteer force known as the “bucket brigade” was answering this call. Unanticipated tragedy, however, would prompt a greater expansion of local fire services; on October 9th, 1871, the city suffered a devastating fire that destroyed much of its prominent downtown. Oddly, this fire occurred on the same day as the Great Chicago Fire. The fire prompted changes in Urbana’s fire services as residents demanded a better fire response. (Urbana Fire Department Vertical File)

In 1874, Urbana Fire Rescue was officially founded. The city took additional measures to prevent future fires by installing water mains in 1875 and using brick as the primary construction material (History of Downtown). Urbana Mayor Colonel Busey, elected in 1880, directed the fledging department, which operated from its main station at 107 N. Broadway Ave (Urbana Fire Department Vertical File).

Over the ensuing decades, Urbana Fire Rescue witnessed a steady expansion. In 1894, Thomas Kaucher became the first recorded fire chief. Within a few years, the department purchased its first horse-drawn wagons to assist in fighting fires. Initially, teams of horses were rented from the city’s Livery Stable (Urbana Fire Department Vertical File). In 1908, the department moved its main station from 107 N. Broadway to 116 W. Elm Street. Shortly after the move, the department changed from a volunteer force to a fully paid one. The firemen worked six days a week with Sundays off (Urbana Fire Department Vertical File). On August 24th, 1964, the fire department moved once again to its present location in the Urbana city municipal complex at 400 S. Vine Street (Urbana Fire Department Vertical File).

More recently, Urbana Fire Rescue has broadened its workforce, services and clientele. In 1990, Amy Richardson became the first female firefighter to join a growing department (News Gazette, October 30, 1990). On August 23rd, 1995, Urbana remodeled its city complex—the site of the main fire station (Urbana Fire Department Vertical File). Three years later, the department expanded its coverage by accepting a contract from the University of Illinois Urbana-Champaign. The plan offered the Urbana department a \$1.7 million annual contract to provide joint coverage, along with the Champaign Fire Department, of campus facilities (Osterreicher, 1997, p. 2).

In the wake of the September 11th terrorist attacks, Urbana Fire Rescue assumed leadership for regional emergency response. The Department of Homeland Security designated the Urbana department as a regional rescue response team in 2003, specializing in rope/high angle, confined space, trench, and structural collapse rescue. The department has received federal funds to assist in this role (Bauer, 2003, p. B1).

At present, Urbana Fire Rescue plays an active role in the community. It operates from four stations under the direction of Fire Chief Michael Dilley—nominated by Mayor Laurel Prussing in 2007 (Monson, 2007). The department conducts fire safety seminars for residents and performs home and business inspections for fire hazards. It promotes awareness and education by reaching out to diverse audiences.

## **6 Technology Inventory**

In collecting data, it became apparent that Urbana Fire Rescue already makes extensive use of information and communication technologies (ICT). Based on personal observation and staff interviews, this author compiled a brief overview of technology available at the Urbana department. It is important to note that much of the software utilized by the department does not operate in isolation, but as part of a broader network inclusive of other government agencies. The following section discusses digital resources utilized by the department, as well as those made available to the public.

The primary information network utilized by the department is the Fire House reporting system. It is a software-based information system that connects each of the four fire stations on a high-speed T1 Internet line. The data reported is then uploaded to a website for access by the State Fire Marshal's Office and the National File Reporting System. This program enables firefighters to record and query information from the shared network. Each of the Urbana firefighters receives training in how to operate the Fire House program. The fire department uses the city IT support team to maintain its information system.

Due to the nature of their work, Urbana Fire Rescue must stay connected while responding to calls in the community. To this end, the department has installed mobile data centers (MDCs) in each of the fire engines and command vehicles. MDCs operate through cellular wireless signals and provide firefighters with a host of information including dispatch tickets, "pre-plans" (building plans), and emergency contact information. One Urbana Division Fire Chief shared that the department can access a complete listing of pre-plans for each building on the University of Illinois campus.

Reliable Internet access serves as an important tool for Urbana Fire Rescue. Firefighters regularly connect to the Internet to find information about hazardous materials and zones as well as online research. Web resources such as Close Calls provide firefighters with personal safety information and training scenarios. Finally, Web access is helpful to firefighters in accessing electronic trade journals.

Not only is ICT important for Urbana Fire Rescue's internal use, it is also important for informing members of the public. The Urbana Fire Rescue website, constructed as part of the Urbana government website, features a variety of information for public consumption. This includes the department mission and structure, personal safety tips

and instructional videos, and updates about upcoming CPR, AED, and first aid training courses. The website even includes a digital page designed specifically for children.

<b>Hardware</b>	<b>Software and Communications</b>
Staff Computers	Telephone Access
Mobile Data Centers (MDC)	High-speed Internet (T-1)
	Department Website
	Firehouse Reporting Software

## 7 Analysis

For the Urbana Fire Department, the use of IT is directed toward supporting its mission to provide effective emergency response and prevention services. The department has already adopted many innovative uses of information technology. These uses satisfy the internal needs of the department as well as the external needs of the community. As one fire captain commented, “Over the last twenty years, the fire department has embraced technology more than ever.”

In spite of the progress of technology use, certain limitations persist. Addressing existing constraints offers one strategy for improving ICT use at fire department. As one division chief acknowledged, “There are a number of things we would like to do” but cannot due to “the firewalls and access concerns of the IT people. The main issue is that protecting against viruses . . . also restricts our ability to do things better.” This Division Fire Chief would like to see greater mobile connectivity and access. In addition, he would like to be able to update dispatch information and upload reports in real time.

Aside from improving internal information systems, digital technology may open new channels of communication. In particular, digital technology may be useful for communicating with speakers of foreign languages. As previously stated, Urbana Fire Rescue supports a particularly diverse clientele. Its customers include foreign-born residents and international students. One fire captain related that “[a]t the local grade school we have fifteen or sixteen different languages spoken.” He stated that a mobile device to translate or facilitate communication between firefighters and foreign-language speakers would be useful. With the rapid advance of digital technology, this may be soon realized.

A few observations of digital technology use are encouraging. The present study suggests a trend towards greater digital literacy among both firefighters and community members. One fire captain explained, “Most people are pretty savvy because most people have Internet at home and use social networking.”

Expanding community Internet access through the UC2B project offers numerous advantages for Urbana Fire Rescue. First, the department will be able to make its existing information resources available to a wider audience. Users who previously lacked Web access will be able to explore personal safety tips and other information on the department website.

Second, improving Internet access will enable social institutions such as the Urbana Fire Department to expand their online information resources to match future demand. At present, the Urbana Fire Rescue website offers a wide array of information. Yet, as one fire captain concedes, this information is not necessarily updated on a daily basis. Greater access to online information might lead to expanded digital opportunities. The fire captain related, “The other day we had a gas leak and it shut down a small block area. We had people who saw our fire trucks and came down there. We also had people calling the city departments asking about evacuation. Well, we didn’t ask anyone to evacuate. So that’s something we could put on the website: ‘No evacuation necessary.’” Greater community access to digital resources enables residents to become better informed about fire prevention and personal safety issues, enabling Urbana Fire Rescue to better serve its clientele.

## **Bibliography**

- Bauer, Steve. 2003, September 20. Listening in to Save Lives. *The News-Gazette*, B-1.
- Kvasny, Lynette. 2006. Cultural (Re)Production of Digital Inequality in a US Community Technology Initiative. *Information, Communication, & Society*. 9 (2): 160-181.
- Osterreicher, Jody. 1997, November 20. Board Supports Elimination of University Fire Department. *Inside Illinois*. 17 (9): 2.
- Pitkin, Bill. 2006. Community Informatics for Community Development: The “Hope or Hype” Issue Revisited, In *Networked Neighbourhoods: The Connected Community in Context*, ed. Patrick Purcell, 77-98. London, England: Springer.
- Urbana Fire Department Vertical File. Champaign County Historical Archives, Urbana, Illinois.
- Urbana Fire Rescue. 2008. “Annual Report.” Urbana, Illinois: City of Urbana.
- Urbana Free Library Local History Roundtable. 1980. Urbana Fire Department. Urbana, Illinois: Urbana Free Library.
- Urbana Hires First Female Firefighter. 1990, October 30. *The News-Gazette*, A-1.
- Williams, Kate. 2011. *Informatics Moments: Digital Literacy and Social Capital in Civil Society and People’s Everyday Lives*. *Library Quarterly*, forthcoming.
- Williams, Kate, and Alkalimat, Abdul. 2004. A Census of Public Computing in Toledo, Ohio, In *Shaping the Network Society: The New role of Civil Society in Cyberspace*, ed. Douglas Schuler and Peter Day, 85-110. London, England: MIT Press.
- Williams, Kate, and Alkalimat, Abdul. 2008. Cyberpower, In *Pattern Language for Communication Revolution*, ed. Dough Schuler, 25. London: MIT Press.

## **Webliography**

- City of Urbana. “Fire Rescue Services,” accessed on October 22, 2011, City of Urbana.
2011. “History of Downtown,” accessed on October 22, 2011, <http://urbanaininois.us/node/1177>

Monson, Mike. 2007, September 22. Urbana Mayor Names 24-Year Veteran as New Fire Chief. The News-Gazette, accessed on October 22, 2011, <http://www.news-gazette.com/news/courts-police-and-fire/2007-09-22/urbana-mayor-names-24-year-veteran-new-fire-chief.html>

Schenk, Mary. 2009, June 25. Firefighters Learn 'Grain Tube' Technique for Bin Rescues. The News-Gazette, accessed on October 22, 2011, <http://www.news-gazette.com/news/courts-police-and-fire/2009-06-25/firefighters-learn-grain-tube-technique-bin-rescues.html>

University of Illinois Division of Management and Information. 2010. "UIUC Student Enrollment," accessed on October 22, 2011, <http://www.dmi.illinois.edu/stuenr/index.asp#race>

U.S. Census Bureau. "Fact Finder2," accessed on October 22, 2011, <http://factfinder2.census.gov/>

# 68: Urbana Police Department

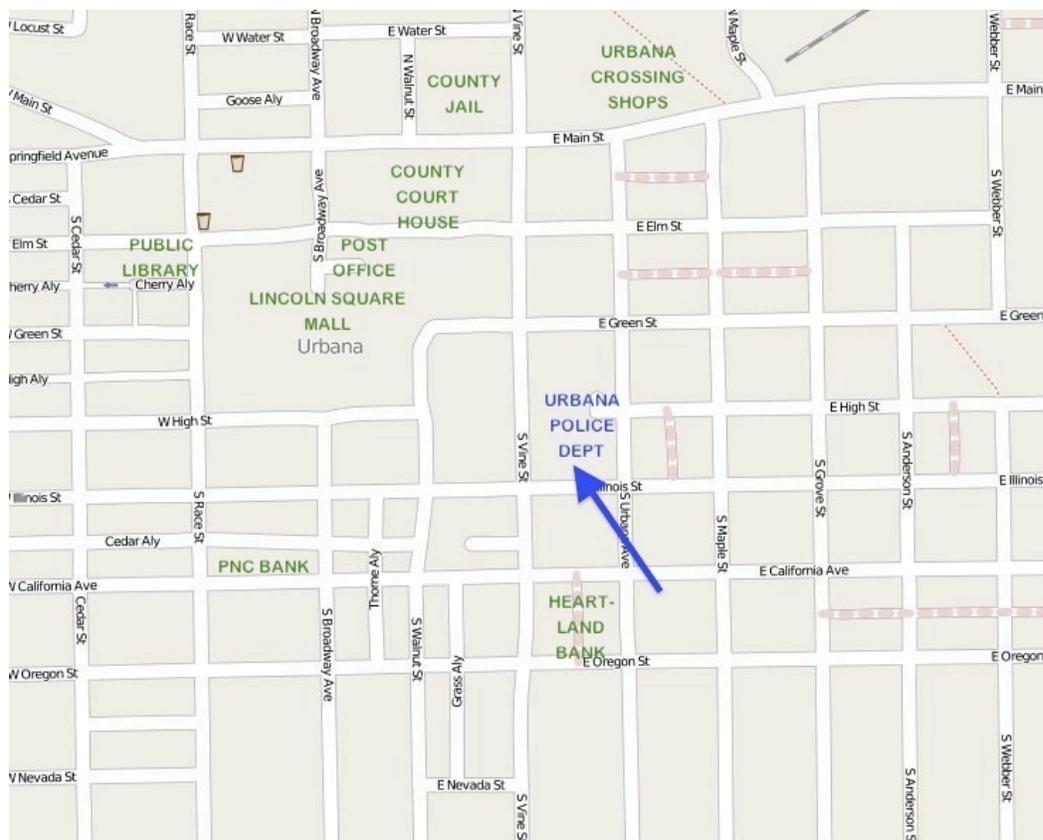
## Lily Grant

Master's student, GSLIS

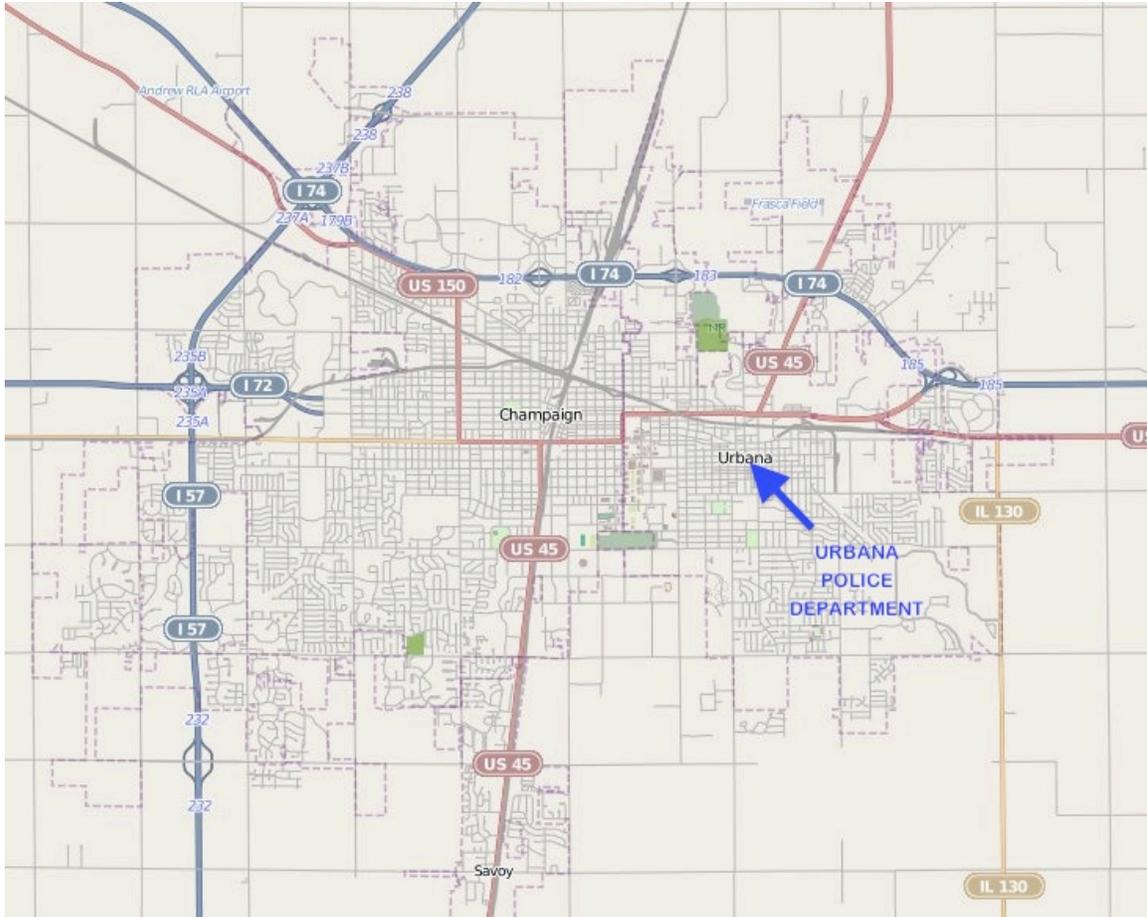
### 1 Executive summary

The Urbana Police Department depends heavily upon sophisticated computer technology to make its work effective and efficient. The police are fortunate to have a full IT department through the City of Urbana supporting their work, and they use customized computer software to manage local police records. The department has fully mobile connectivity through a statewide wireless police network, which can access local, state and national law enforcement information and records. Though the department is already rich in technology resources, UC2B could offer several opportunities to further enhance and refine their digital capabilities, such as possible video surveillance use, increased training opportunities via webinars, and sharing of computer resources with other law enforcement agencies in the Urbana-Champaign area.

### 2 Maps



**The Urbana Police Department is located in the City Building at 400 South Vine Street in Urbana. The neighborhood is adjacent to downtown Urbana and includes a mix of local businesses, banks, city government offices, and residential houses.**



The Urbana Police Department is centrally located within the city of Urbana.

### 3 Photographs



The City Building in Urbana. The Urbana Police Department offices are located at the front of the building, with the reception window immediately to the right as you enter the building.



**Lieutenant Richard Surles of the Urbana Police Department with a fleet of squad cars. Lieutenant Surles is the North Patrol Commander for the police department.**



**A laptop computer mounted in a police squad car. These computers are used for police communications and for accessing local, state, and national police data via the Illinois Wireless Information Network (IWIN). The computers also receive dispatch tickets generated by 911 operators. In addition to the laptop, squad cars are also equipped with small printers.**

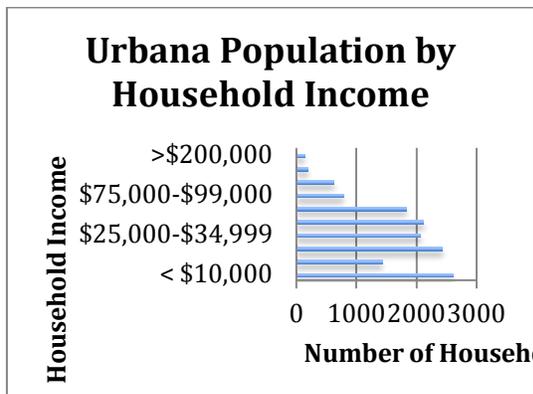


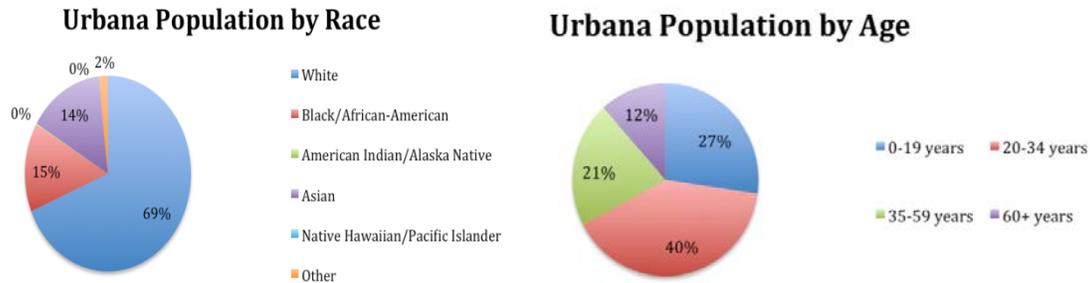
**Office computers at the Urbana Police Department. These computers are used by officers to enter police reports.**

#### **4 Demographics of patrons or clients and department staff**

The Urbana Police Department is primarily male, and officers tend to be young. The current age range of police officers is 21 to 55. There are 47 male officers and 8 female officers. Police Support Services staff include 13 women and 1 man. Staff ethnicity and income demographic information was not available for this study.

The following graphs illustrate demographic information for the population that the police department serves, which includes all residents of Urbana. The graphs were created using information from the 2000 U.S. Census.





## 5 History

The Urbana Police Department was founded in July of 1855. In addition to serving Urbana, the department hired out its services to Champaign (then known as West Urbana) until the small neighboring town could establish a police force of its own. The department was originally located next to the County Courthouse, and relocated to its present location on South Vine Street in the 1960s. The department has grown steadily along with the population of Urbana, with twice the number of officers serving today as there were half a century ago.

As the department developed, it took advantage of each new form of communications technology that came along. Early in the twentieth century, police officers communicated with police headquarters via a callbox. Callboxes were placed throughout town and were simple telephone devices. When the light on the box lit up, the officer would unlock the box and answer the call from the dispatcher. By the end of the 1930s, callboxes had been replaced by radios. Though radios have, of course, evolved, they remain a staple of police communication even today. Each officer continues to receive calls from dispatch via radio, as well as through their computer.

In the 1980s, the City of Urbana began developing the software package that would become the Area-Wide Records Management System (ARMS). ARMS replaced a records system that was comprised of index cards containing information on individuals who had been in contact with the police. The card system was organized by name, which was an obvious limitation: one needed to know the correct name of a person in order to find any information about him or her. ARMS provided much more robust search capabilities than were available in the analog system it replaced.

In 1993, the police department acquired Mobile Data Terminals (MDTs) for its squad cars. MDTs were simple computers, comprised of a keyboard and a small, text-only screen. Only 12 types of searches were possible and limited information would be returned from local, state, and national databases. Though impressive for its time, it was very limited by today's standards.

In 2000, Urbana replaced its MDT units with Mobile Digital Computers (MDCs). MDCs are ruggedized laptops that connect wirelessly to a statewide network. These laptops enable officers to retrieve very detailed law enforcement records while in their squad car. MDCs also receive dispatch tickets from the local dispatcher and are able to send and receive administrative messages. MDC units continue to be used today.

## 6 Technology inventory

Hardware	Software, Systems, and Communication
43 Desktop computers	Facebook page
29 laptop computers in squad cars	Website through City of Urbana
29 small printers in squad cars	Microsoft Office
Printers	Scheduling software
Scanners	ARMS Software (see Analysis)
Projectors	
Cameras	
Barcode Scanners	
Telephones, landline and cellular	
Radios	

The department's Internet speed averages 5 mbps for both upload and download.

## 7 Analysis

Good police work requires a combination of hard work, good information, and efficient communication. The Urbana Police Department still works as hard as it always has, but access to good information and communication systems have been improved by the department's use of advanced computer technology. The Urbana Police have taken full advantage of the remarkable advances in computer technology that have taken place over the past few decades.

Many police departments rely on vendor-supplied software and hardware, but the Urbana Police Department is fortunate to have a fully staffed IT department supporting their work. The IT department not only custom builds computers, but it has also created an impressive custom-built police software system called the Area-Wide Records Management System (ARMS). Development of ARMS began in the 1980s, and by the end of the 1990s the University of Illinois and Champaign police departments had adopted the program as well.

The ARMS software package is a records management system that allows all three local police departments to have quick and easy access to police reports. The database enables officers to retrieve records based on a number of different criteria, such as name, location, crime, license plate number, driver's license number, and many other identifiers. ARMS is used by all police officers and support staff to maintain and access local records.

Each squad car is equipped with a specially designed laptop that allows officers to access local, statewide, and national records via the Illinois Wireless Information Network (IWIN). The local data is stored in ARMS, the state data is in the Law Enforcement Agencies Data System (LEADS), and the national data can be found in the National Crime Information Center (NCIC).

LEADS obtains information from all law enforcement agencies in the state. Participating agencies enter records into the system pertaining to stolen property, warrants, officer safety information, and missing persons. If the matter is serious enough that law

enforcement in other parts of the country should be notified, it is also entered into NCIC. For instance, a warrant related to a speeding ticket would likely only be entered into LEADS, but a warrant relating to a serious crime, such as murder, would be entered into both LEADS and NCIC.

The LEADS system is operated by the Illinois State Police and allows officers to check license plates, driver's license numbers, warrants, and stolen property information. Access to LEADS is granted only to Illinois criminal justice agencies and approximately 800 agencies currently have access statewide. In addition to police departments, courts, state's attorneys, probation departments, and county jails use the system.

Because access to LEADS is restricted, its administrative messaging feature is especially valuable. Similar to instant messaging, this LEADS feature provides law enforcement agencies with a quick and easy way to communicate with one another. Since no one other than law enforcement can access the system, all messages received through LEADS are regarded as official communication. If a communication is received through another means and needs to be verified, the receiver can ask the sender to send an administrative message instead.

NCIC, the national crime reporting database, was developed by the FBI in the late 1960s. NCIC connects law enforcement agencies throughout the country, and averages around 7.5 million transactions per day. NCIC contains information similar to that found in LEADS, but it has additional information such as counterterrorism files and information about national security threats.

The ability to access local, state, and national databases wirelessly from their squad cars gives police officers a tremendous advantage when combating crime. Suspects in one crime can be linked to other incidents more easily now, stolen property is more readily recovered, and the officers are saved considerable legwork and time. The difference between police work today and police work just a few decades ago is dramatic.

In addition to their internal use of computer resources, the Urbana Police Department takes advantage of technology in their community outreach efforts. The department's webpage is extensive, and includes information on police procedure, staff contacts, police services, and crime information. There are a number of useful forms available on the site in PDF format, such as a citizen complaint form and a crime victim checklist. The site includes a unique feature called "Cops Corner," which is a series of informative videos originally produced for public television. The videos cover topics such as what to expect when you call 911, how to keep your home and vehicle safe, and how to set up a neighborhood watch group.

Approximately every eight hours, a local crime report is automatically generated by the department's ARMS software. These reports are posted in PDF format on the website under Media Reports. These provide detailed reports of incidents to the local media and interested members of the public.

In January of 2011, the department began subscribing to CrimeReports.com, a website that displays local crime data on Google maps. The maps are populated with the location of each incident reported, along with a brief description of the nature of the crime. The data listed here is drawn from the data listed in the Media Reports.

None of these things could have been accomplished without effective collaboration between the police and IT staff. The City of Urbana has long emphasized the importance of IT development, beginning with the creation of general ledger and payroll software three decades ago. The city IT staff work closely with users to create products that meet their needs. Currently, they are working to create more web-oriented products for the police force, since that is what the officers, who are primarily young, prefer. To further improve the ARMS software package, an ARMS committee, made up of police staff from Urbana, Champaign and the University of Illinois, has been created to provide suggestions and feedback to the IT staff.

Though the police department is already rich in technology resources, this does not mean that there is nothing that the UC2B project could offer them. For instance, if the department chose to make use of a video surveillance system like the one that the university uses, the increased bandwidth offered by UC2B would make this a viable option. Another bandwidth-heavy project that the department already takes part in is adding crime data to a Geographic Information System (GIS). The increased connection speeds offered by UC2B would provide improved performance when working with GIS.

Though the city IT department has already wired 20 buildings in the downtown area with broadband fiber, the fiber-equipped area of Urbana remains somewhat of a technological island amongst less well-connected neighborhoods. The completion of the UC2B project will complete the broadband infrastructure needed to enable high-speed computer connections between all parts of the Urbana-Champaign area. Because the broadband project is so extensive, it will also provide much-needed redundancy in the network, allowing information to be rerouted around a problem area if part of the network is damaged. Additionally, the increased bandwidth would allow the city IT department to make more effective use of online training (via webinars) when they roll out a new computer software package. Webinars could also provide improved communication between local police departments.

The completion of the broadband network would have benefits beyond that of simply improving communication. High-speed connections between various local governmental agencies would mean that they would potentially be able to share technology resources with each other, thus leveraging their buying dollar. All of these benefits would improve not only the efficiency of the police department itself, but would, by extension, help improve the safety and security of the community that they serve.

## **Bibliography**

Baker, Willis C. and Miller, Patricia L. 1984. A commemorative history of Champaign County, Illinois 1833-1983. Champaign, IL: Illinois Heritage Association.

Bial, Raymond. 1994. Urbana: A pictorial history. St. Louis, MO: C. Bradley Publishing, Inc.

Kacich, Tom. 2002. Hot type: 150 years of the best local stories from the News-Gazette. Champaign, IL: Sports Publishing LLC.

Matkovszki, Ilona and Roberts, Dennis. 2009. Images of America: Urbana. Images of America. Chicago, IL: Arcadia Publishing.

## Webliography

Champaign County Regional Planning Commission. Champaign county GIS Consortium. in Champaign County Regional Planning Commission [database online]. 2011 [cited November 1, 2011]. Available from <http://www.ccrpc.org/gis/index.php> (accessed November 1, 2011).

City of Urbana. City of Urbana home page. Urbana, IL, 2011 [cited November 1 2011]. Available from <http://urbanaininois.us> / (accessed November 1, 2011).

Federal Bureau of Investigation. FBI—National Crime Information Center. in Federal Bureau of Investigation [database online]. 2011 [cited November 1 2011]. Available from <http://www.fbi.gov/about-us/cjis/ncic> (accessed November 1, 2011).

Illinois Integrated Justice Information System. Law Enforcement Agencies Data System overview. in Illinois Integrated Justice Information System [database online]. [cited November 1 2011]. Available from [http://www.icjia.state.il.us/ijis/public/index.cfm?metasection=strategicplan&metapage=sjis\\_leads](http://www.icjia.state.il.us/ijis/public/index.cfm?metasection=strategicplan&metapage=sjis_leads) (accessed November 1, 2011).

State of Illinois. BCCS: Illinois Wireless Information Network (IWIN). in State of Illinois [database online]. 2011 [cited November 1 2011]. Available from [http://www2.illinois.gov/bccs/pages/Wire\\_iwin.aspx](http://www2.illinois.gov/bccs/pages/Wire_iwin.aspx) (accessed November 1, 2011).

Urbana Police Department. Urbana Police Department Facebook page. 2011 [cited Nov 1 2011]. Available from <http://www.facebook.com/pages/Urbana-Police-Department/157720997612979> (accessed 2011).

## 69: Village of Savoy Fire Department

### Abigail Sackmann

Master's student, GSLIS

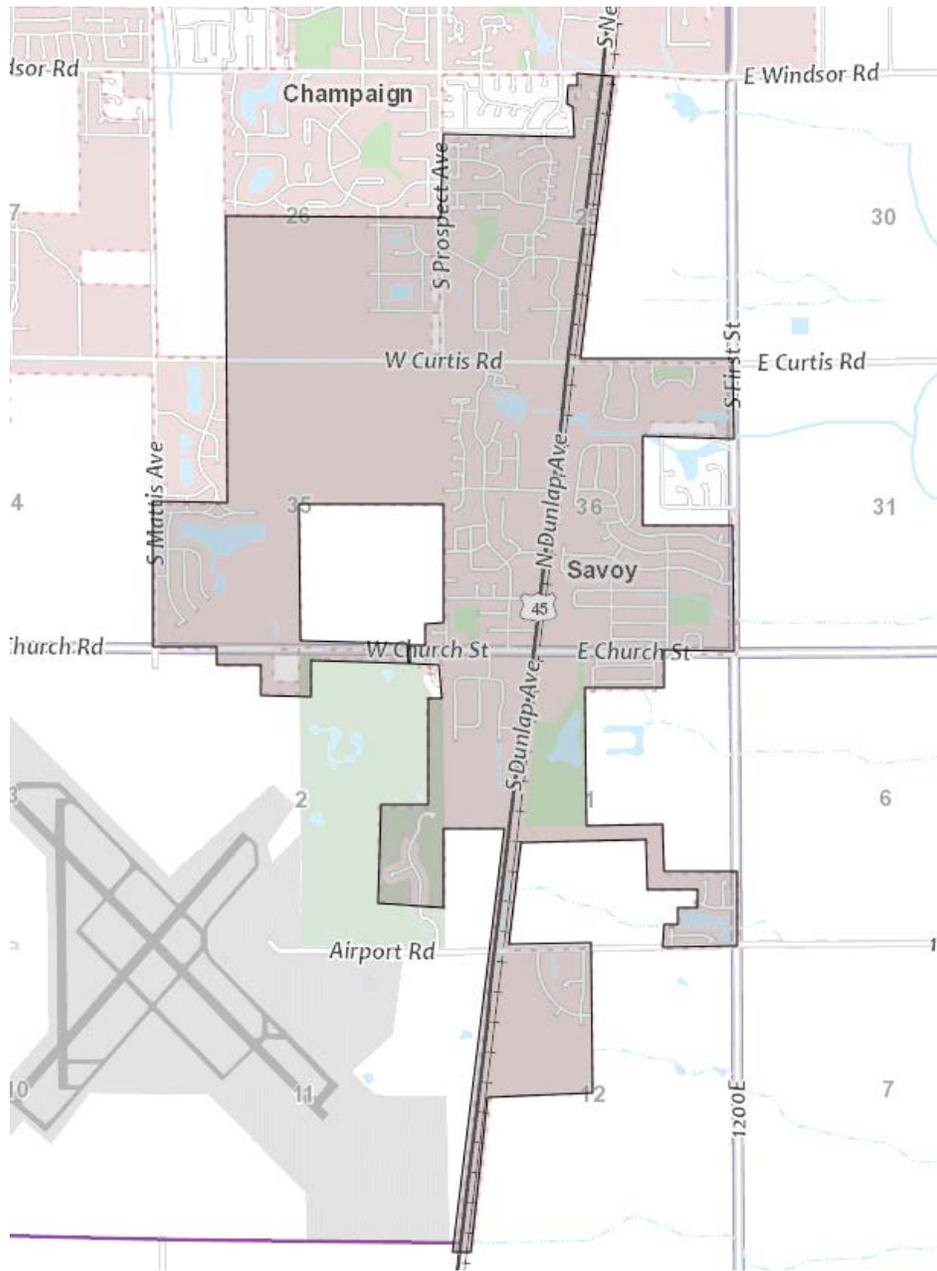
#### 1 Executive summary

The Village of Savoy Fire Department provides service to the roughly 7,000 citizens of Savoy, as well as contractual service to homes and businesses outside village limits. The mission statement maintains that the department

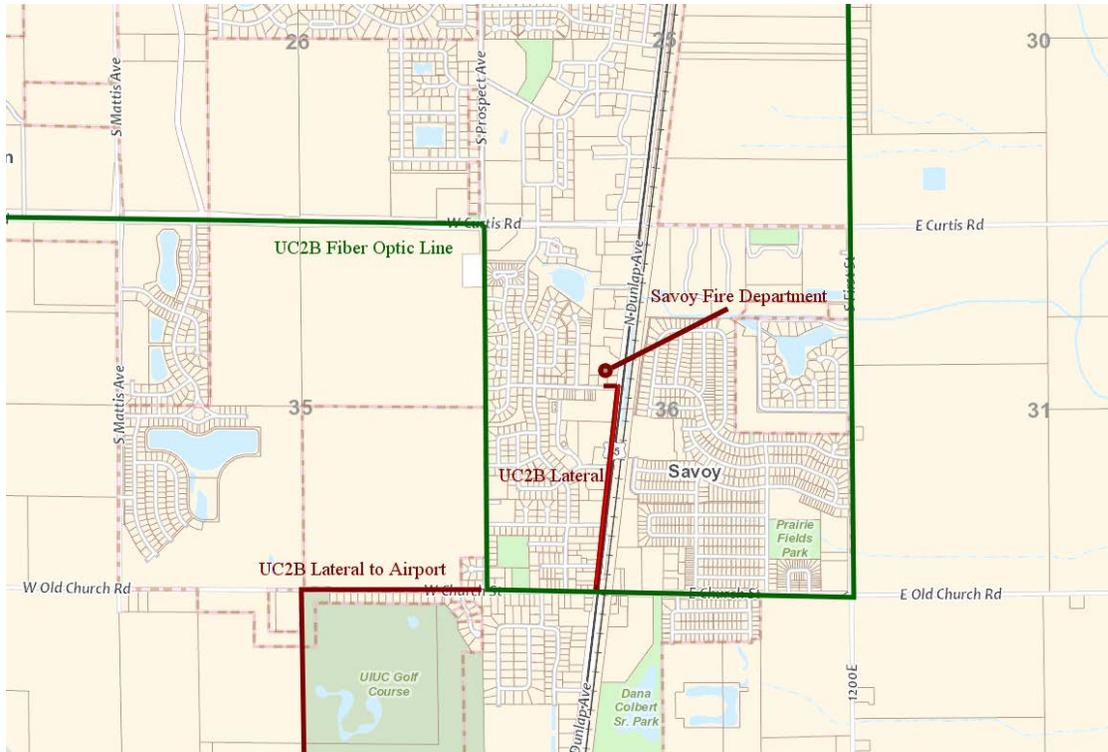
[S]hall minimize the effects of fire, emergencies, and disasters. The department will accomplish our mission through fire prevention, public education, and continual professional development of emergency response personnel. When called upon the department will provide a rapid and professional response to emergencies and show care and compassion to those in need.

The nature of firefighting and the benefits of the use of technology mean that the department uses Information and Communications Technologies (ICT) quite extensively, in large part for reporting and efficiency. This is done mainly through the use of FIREHOUSE software, which helps to manage business, day-to-day operations, planning, communications, and technical challenges. One of Savoy Fire Department's biggest goals with a UC2B connection is to be able to connect to METCAD, Champaign County's 911 dispatch center, in order to access their addressing and other data to automatically populate their FIREHOUSE database.

## 2 Maps



Approximate boundaries of Village of Savoy.



**UC2B line locations and Savoy Fire Department.**

### **3 Photographs**



**Computer in the Command Vehicle Car 410: it is used for inspections and to record preplans of buildings, which are needed to make firefighting more effective.**



Engine 452.

**SAVOY FIRE DEPARTMENT**  
Proudly serving our community since 1956

*Savoy Fire Department is proud to be classified a Class 3 fire department by ISO*  
[Read more about ISO here](#)

**HOME**  
MISSION STATEMENT  
RECRUITMENT  
CURRENT STAFF  
APPARATUS  
FIRE PREVENTION  
LOCAL BUSINESS INFORMATION  
HISTORY  
PHOTOS  
VILLAGE OF SAVOY  
USEFUL LINKS  
CONTACT US  
MEMBERS ONLY

The Village of Savoy Fire Department is a paid on call fire department which provides firefighting, rescue and emergency medical services. These services are provided to all residents both within the village and areas surrounding that have chosen to utilize Savoy Fire Department's services on a contractual basis. The population served by the Fire Department is approximately 15,000. ALS ambulance services within the village are provided by Pro Ambulance Service of Champaign with a ambulance stationed in Savoy 24 hours per day.

The fire department operates utilizing 4 engines, a ladder tower, command vehicle and utility pickup as well as operating the MABAS Division 28 Air Replenishment Trailer. Staff includes a fire chief, assistant chief, captain, four lieutenants, and a staff of approximately thirty engineers and firefighters. Savoy FD also participates in the MABAS Division 28 investigations team with four certified fire investigators and an arson investigator.

[New Apparatus Page and Photos](#)  
Posted: February 23rd, 2012 at 0:20 by [Tom Lerner](#)

Please take a minute to look at the [apparatus page](#), there are now many different photos for each truck, use the select menu below each truck's image to choose a view. Enjoy

[New Website](#)

Department website, [www.savoyfd.com](http://www.savoyfd.com). Launched January 2012.

#### 4 Demographics of Village of Savoy

Population, 2010	7,280
Population, 2000–2010	62.6%
Population, 2000	4,476

White, 2010 (a)	77.4%
Black, 2010	6.8%
American Indian and Alaska Native, 2010	0.1%
Asian, 2010	12.6%
Native Hawaiian and Other Pacific Islander, 2010	0.0%
Persons reporting two or more races, 2010	2.4%
Persons of Hispanic or Latino origin, 2010	2.7%
White persons not Hispanic, 2010	75.7%
Foreign-born persons, 2006–2010	18.6%
Language other than English spoken at home	21.7%
High school graduates, age 25+	97.7%
Bachelor's degree or higher, age 25+	65.4%
Median household income, 2006–2010	\$50,172
Persons below poverty level, 2006–2010	10.1%

Source: <http://quickfacts.census.gov/qfd/states/17/1767860.html> accessed 4/2/12

## 5 History

The early history of the Savoy Fire Department is significant in that it was the main reason for the incorporation of the Village of Savoy in 1956. Prior to that year, the Champaign Fire Department responded to all fires in the area, including those outside of the city limits of Champaign. In 1956 the Champaign City Council voted to cut services outside of Champaign in an attempt to cut costs. Suddenly farms and houses outside the city no longer had fire protection, and a petition was signed by 61 citizens to incorporate Savoy into a Village, mainly for the purpose of providing funds for fire protection of the area. On April 7, 1956 Savoy citizens voted to incorporate by a vote of 50 to 49 (the vote was contested and approved). The Village Board convened for the first time on July 11, 1956, and established the Savoy Volunteer Fire Department (VFD), which put out its first fire on the morning of November 6. Within the next year they had raised enough funds to build a department building and buy a fire truck.



Photograph taken at the first VFD open house, October 12, 1958.

The Savoy Fire Department bought its first computer in 1996 and the reporting software it still uses, FIREHOUSE, in 1997. Prior to this all reporting—federal law requires the reporting of every phone call and response—was done by hand or typewriter, which was extremely time-consuming. In 1999 cable modems were installed through a free partnership with a cable company and ISP called Insight, which has since been bought out by Comcast. In February of 2012, the Fire Department launched its new self-hosted website, designed entirely by staff and providing an extensive amount of information to the public.

## 6 Technology inventory

Hardware	Software and systems	Staff
Desktop computers	Microsoft Office	42 employees
In-vehicle laptop	Visio	1 IT Director
iPad tablet	FIREHOUSE	
Server	2 websites	
	Facebook site	

	Download	Upload
Speedmatters.org	23.225 Mbps	5.131 Mbps
Speedtest.net	22.33 Mbps	5.95 Mbps

## 7 Analysis

In contrast to common practice in many larger local government systems, Savoy Fire’s IT is managed separately from that of the Village of Savoy. Because of the practical necessity of reporting details on every incident, technology plays a key role the activities of the department, mostly in streamlining tasks to allow for more-efficient management of resources. This is done mainly through the use of FIREHOUSE software, which helps to manage business, day-to-day operations, planning, communications, and technical challenges. (<http://www.firehousesoftware.com/products/fh/> accessed 4/8/12) According to the Fire Chief, this software, which the department has been using since 1997, has a very user-friendly interface, great customer support, and can create tailored reports based on what data is needed.

The first step of the documentation process is to conduct inspections of buildings to measure dimensions and note any particular hazards that might be significant in the case of a fire. These “preplans” are loaded onto a newly acquired tablet as well as a computer in the department’s command car, which can then be easily accessed during an emergency event. Every call is recorded in the FIREHOUSE database along with information about response, including data on when the first and subsequent units were deployed and arrived at the site and other useful data. This data combined is compiled into a “run report” and assembled in a database. The software also keeps track of department activities and trainings, as well as data on when fire hydrants, hoses, pumps, and aerials need to be tested or replaced.

In addition to this main database, another was created in-house in 2002 to keep track of all contractual agreements with individuals and businesses outside of village limits that subscribe for fire protection.

In the fall of 2011 the department participated in a study of Globe's Wearable Advanced Sensor Platform (WASP), which is a system for monitoring physiological states as well as location information for firefighters on duty. (<http://www.globeturnoutgear.com/news/2/27/Globe-WASP-Project-Wearable-Advanced-Sensor-Platform> accessed 4/8/12) They wore vests with sensors that recorded heart rate, breathing, and location to a computer outside for safety purposes. The final WASP product will likely be released in the spring of 2012.

One of Savoy Fire Department's biggest goals with a UC2B connection is to be able to connect to METCAD, Champaign County's 911 dispatch center, in order to access their addressing and other data to automatically populate their FIREHOUSE database. The Urbana Fire Department currently does this through a fiber connection and the Champaign Fire District does so through a T-1 line, but up till now a direct line running from Savoy to METCAD was not feasible due to cost. This would serve a dual purpose of making reporting more efficient and enabling the firefighters to "rip and run," or access addressing automatically from a call for very fast deployment. The Savoy Fire Department also sees the potential for more GIS data sharing, as access to more spatial data such as utilities, roads, topography, and building imprints could be beneficial for services.

# Housing

---

## 70: Clark-Lindsey Village

### Cao Haixia

PhD student, Peking University, and visiting student, GSLIS

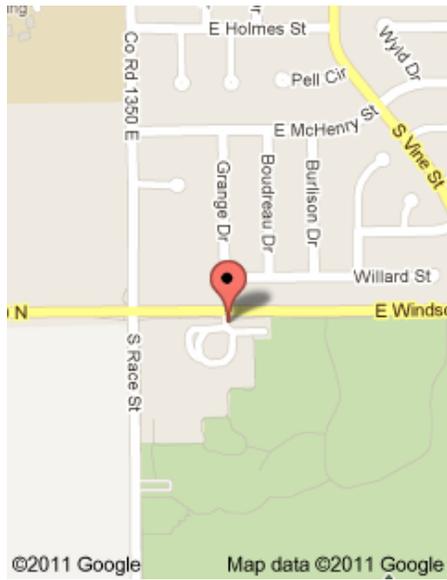
#### 1 Executive summary

Clark-Lindsey is a not-for-profit continuing care retirement community located on the edge of the University of Illinois campus. For more than 30 years, it has provided residents with exceptional service that has earned it an outstanding reputation throughout the state.

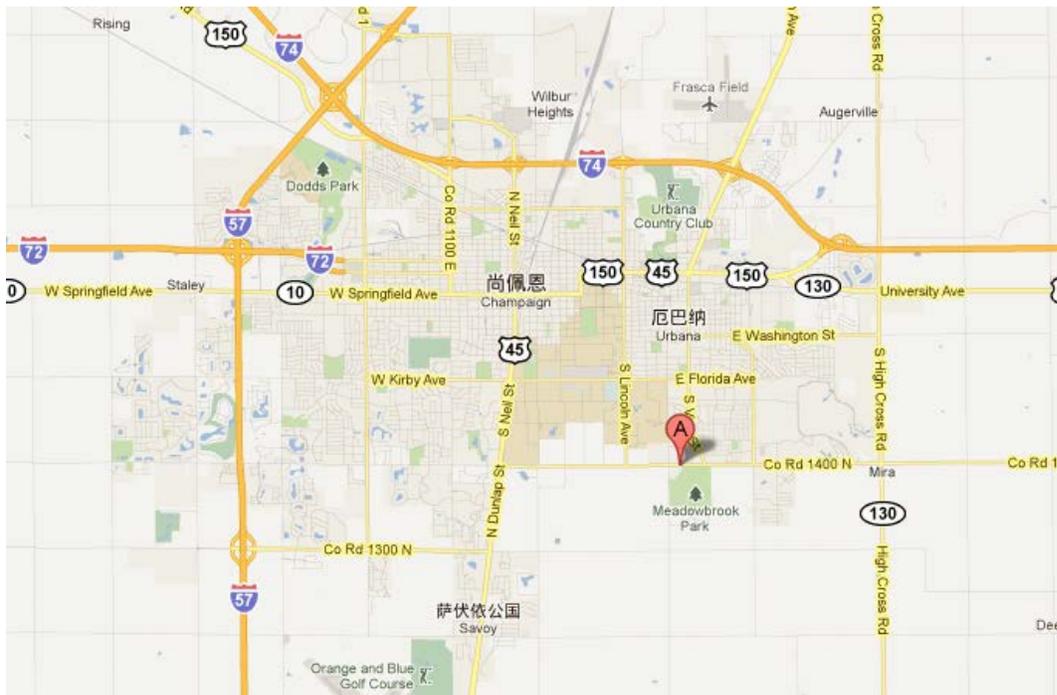
Clark-Lindsey has three components, which are Village Apartment Living, Meadowbrook Health Center, and Renewal Therapy Center. Meaningful relationships with residents and their families are at the heart of their philosophy. Meadowbrook's services include assisted living, skilled nursing care, and respite stays. It accepts Medicare and is a preferred provider for Health Alliance, Health Alliance Medicare Advantage, Blue Cross/Blue Shield, and Humana Medicare.

Technology and networked computers both facilitate management and provide the residents with entertainment and more opportunities for communication. Clark-Lindsey Village has provided some classes for their elderly residents for basic guidance. More and more volunteers were added to this work. It's difficult for all seniors to keep up-to-date with technology and software, especially when a person is very old and physically inconvenienced by disabilities. But Clark-Lindsey Village Center will try to meet older people's needs and provide network technology to enrich their lives. They are looking forward to a UC2B connection to facilitate a better Internet connection for their residents and staff.

## 2 Maps



**Clark-Lindsey Village Neighborhood**



**The location of Clark-Lindsey Village in the Champaign-Urbana area.**

## 3 Photographs



**Clark-Lindsey Village: Outside**



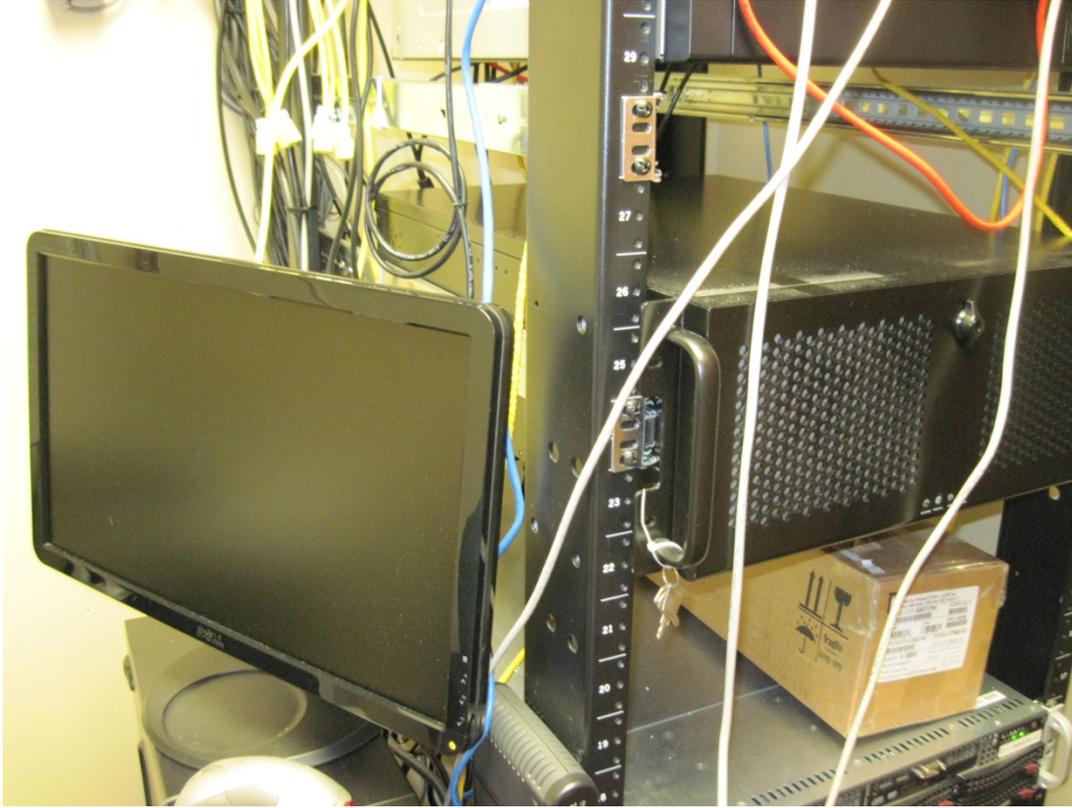
**Clark-Lindsey Village: computing facilities for patrons.**



**Clark-Lindsey Village: staff computing area.**



**Clark-Lindsey Village: all the computers in the library room.**



Clark-Lindsey Village: Server Room.

#### 4 Demographics of patrons or clients

There are 102 beds in Meadowbrook Health Center, including 19 Assisted Living, 58 Skilled Nursing, and 25 Medicare-certified beds in Renewal Therapy Center. Most employees (they have nearly 200 staff) know how to use computers; just a few of the residents, being seniors, can use computers.

#### 5 History

According to the Clark-Lindsey Village website, it was officially created in 1978.

#### 6 Technology inventory

Hardware
About 50 desktops
10 laptops
15 iPads
About 25 personal desktops in apartments

	Speed Down	Speed Up
speedmatters.org	33969	5690
speedtest.org	33.38	5.48

## **7 Analysis**

Clark-Lindsey Village provides services to seniors. As the organization is a nonprofit institution, they do more than provide basic services to the elderly, and they try to offer a variety of cultural entertainment for them. The arrival of the computer age has brought great challenges for the center. Some of the residents are physical inconvenienced, so the demand for computer use is not great. But there are some people with children who live elsewhere in the U.S. or overseas who need to use e-mail, Skype, or other computer-assisted means to communicate with them.

The administration has heard about UC2B and expresses support for it. In 2002 Clark-Lindsey implemented comprehensive computer management, greatly improving the efficiency of the office. And then the computers have been made available for the residents in the library of Clark-Lindsey Village.

### **Factors affecting access to the computers**

There are some issues affecting the use of computers in the village. Firstly, in general making computers and other advanced equipment more accessible older people is problematic. Americans over 60 are only half as likely to have ever used a computer compared to younger people. In fact, so few older Americans have any experience at all with the latest technological advances (only 22% have ever even used the Internet) that overall attitudes are clearer when one looks at the under-60 group. This situation also exists at Clark-Lindsey Village. Secondly, fees are a barrier. Unlike at the public libraries, residents wanting to use the computers at Clark-Lindsey Village have to pay a fee. Admittedly, Clark-Lindsey Village faces budget issues, which is why they charge those fees. In the future they are hoping local government will provide free and higher-speed Internet access for the residents.

### **Future vision of technology**

Clark-Lindsey Village Center has provided some classes for their elderly residents for basic guidance. More and more volunteers were added to this work. It's difficult for all seniors to keep up-to-date with technology and software, especially when a person is very old and physically inconvenienced by disabilities. But Clark-Lindsey Village Center will try to meet older people's needs and provide network technology to enrich their lives.

## **Webliography**

Clark-Lindsey Village. accessed Oct. 12, 2011, <http://clark-lindsey.com/>

Clark-Lindsey Village." Introduction". accessed Oct. 12, 2011, [http://www.dsc-illinois.org/programs\\_services/](http://www.dsc-illinois.org/programs_services/)

Clark-Lindsey Village." Mission". Accessed Oct. 12, 2011, <http://clark-lindsey.com/about/mission/>

ADULTS and CHILDRENS survey. Accessed Oct. 14, 2011, Survey Shows Widespread Enthusiasm for High Technology. <http://www.npr.org/programs/specials/poll/technology/>

# 71: Housing Authority of Champaign County

**Emilie Vrbancic**

Graduate Student, GSLIS

## 1 Executive summary

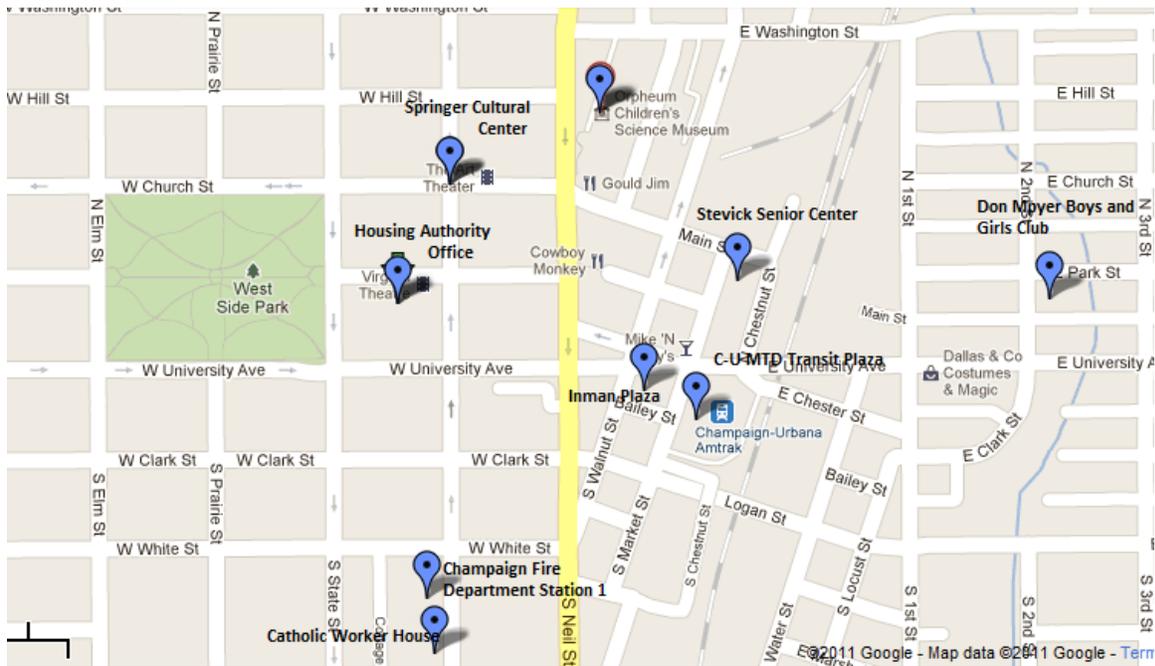
Since 1939, the Housing Authority of Champaign County (HACC) has provided affordable housing for low-income families and individuals of central Illinois. The HACC is an important organization in Champaign County, especially in Urbana and Champaign. Its focus in recent years has been on rebuilding housing projects that were no longer serving the needs of the community. Two housing developments have been rebuilt and converted into mixed-income housing and plans of two more redevelopments are being developed.

The technology needs of the HACC are twofold: those of the agency itself and those of the tenants. The HACC has a very sound information technology program. The needs of the staff are met and IT developments have been given careful consideration over the years. Although there is always room for more funding and improved technology, HACC's technology needs are being met.

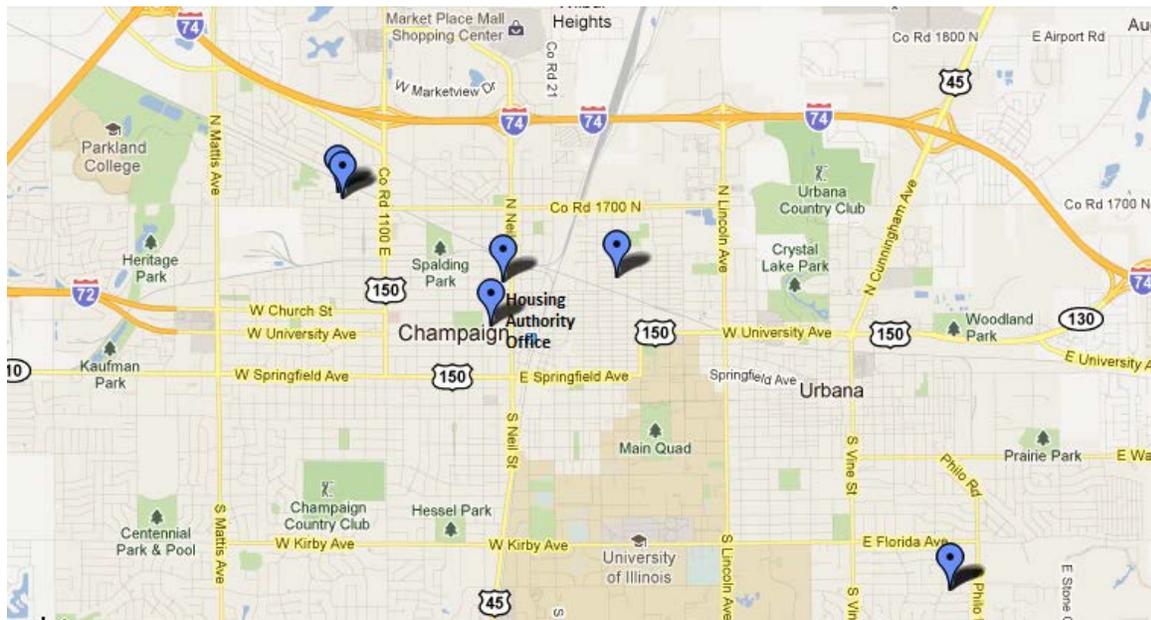
The technology needs of the tenants are more of an issue. Serving the low-income population is always difficult, not only in terms of funding but also in terms of awareness of their technological needs. The technology needs of the tenants are currently outside the scope of the HACC services; however, because so many of the residences will be eligible for the UC2B services, it may become an issue that needs to be considered.

Approximately 350 units of the 536 units managed by the HACC will be eligible for UC2B Broadband Service.

## 2 Maps



**HACC and the surrounding anchor social institutions.**



**This map shows a select number of HACC housing developments in Champaign and Urbana.**

### 3 Photographs



The outside of the main administration offices on Park Street in downtown Champaign.



These computers are used by high school students enrolled in a college preparatory program.



**Printers for employee use.**



**Server room located in the administrative building.**

## 4 Demographics of patrons or clients

Although aggregate demographic information is not easily available from the HACC, one demographic qualifier is that most or all of the recipients of public housing are at or under the poverty line.

**Income Limits for Family Size**

# In Family	Annual Income
1	\$36,500
2	\$41,700
3	\$46,950
4	\$52,150
5	\$56,300
6	\$60,500
7	\$64,650
8	\$68,850

Family income limits for HACC services. Source: HACC website.

## 5 History

Since 1939, the Housing Authority of Champaign County (HACC) has provided affordable housing for low-income families and individuals of central Illinois. The HACC is an important organization in Champaign County, especially in Urbana and Champaign. HACC has had a close relationship with the University of Illinois and in the 1980s HACC worked with the U of I Housing Research Center to redesign public housing communities built in the 1940s. Focus was put on reducing crimes and creating safe spaces for children. Since 2000, much attention has gone to rebuilding and re-conceptualizing existing housing projects.

As with most organizations providing essential services to lower-income communities, funding is always an issue. The constant balance between funding and meeting the needs of residents is a predominant theme in the history of HACC.

The Crystal View Townhomes and Douglass Square are two housing developments that have recently gone through redevelopment. Both communities were originally built in the

“barracks” style architecture of the 1950s and the buildings had deteriorated beyond repair. Also, the communities were plagued by high poverty and crime that affected the living standards of the residents. Both developments are now mixed-income communities and HACC has plans to redesign the bulk of their housing as mixed-income residences.

The goal of redeveloping even more of the HACC properties has created some problems for residents. Residents asked to leave the housing development communities have been given Section 8 vouchers, which can be used with private rental companies, but residents are having a difficult time finding housing that fits within the given budget. HACC has said that the redevelopment will not begin until every family has found suitable housing.

As of 2011, the total number of housing sites overseen by the HACC is 536. This includes 192 family units, 244 elderly units, 84 mixed-population units, and 16 scattered sites.

## 6 Technology inventory

Hardware	Software/Other
19 Desktops	WinTen
10 laptops	Microsoft Office
Server	Wireless Internet
Telephones	Upgraded telephone service
Printers (at least 2)	Website: <a href="http://www.hacc.net/">www.hacc.net/</a>
Sound System	
Overhead Projector	

	Download (Mbps)	Upload (Mbps)
Speedtest.net	7.62	24.64

## 7 Analysis

The HACC, as an institution, has a very sound and highly developed technology system. The network administrator has been with HACC for 16 years, is in tune with technology changes, and implements those at the HACC accordingly. Their technology needs are at an average level and the technology budget falls within the capital budget, being primarily used for purchasing equipment. Large technology purchases must be approved by the HACC Board and be put in resolution form for approval. The most advanced software program used is WinTen, a program used to for everything from tenant and landlord information to payroll. The employees possess competent computer skills and are able to successfully manage the software used on a daily basis. There are other HACC locations throughout Champaign and Urbana (see Network Admin Interview) that are connected to the main server at the administration offices in downtown Champaign. All in all, technology needs are covered and technology is utilized in a timely manner to serve the needs of HACC staff, tenants, and landlords.

One interesting finding was that paper forms for all tenant information are still used. When asked about the use of paper forms, the network administrator stated that the paper format is preferred because of the sensitive information contained in the forms, as well as the security risk of keeping such information in digital format. She did mention that it

could be difficult for some tenants to access forms online, due to lack of access to computers or poor computer skills. The board chairperson said from his experience as the chairperson and also from his own work running a job training agency that most of the tenants don't have the access or skills to do things online. He has seen, over the last couple of years, applications of many kinds migrating to online access only and has noted difficult it is for some people to overcome the challenge of applying online. This involves learning basic computer skills, as well as setting up an e-mail account. He was very concerned with the emphasis on technology being convenient for agencies but not for the consumers. Although it seems unusual or antiquated that paper forms are still being used at HACC, this might actually be serving HACC tenants better than if everything was only accessible online.

There is little in the way of technology resources available to tenants at the HACC administrative offices. There is a bank of computers that are used for a college preparatory program but other than that, tenants seldom use computers at the offices. There are computers, however, located at most of the residences, which have been donated by HACC and other organizations. These computers are not connected to the HACC system and are mostly connected to the Internet through Comcast. The board chairperson stated that the resident boards are very conscious of making sure residents have access to computers and try their best to provide appropriate technology.

Approximately 350 units out of a total of 536 will be eligible for UC2B Broadband Service. This includes 6 housing developments and 10 scattered sites. The interviewees were hesitant to comment on whether or not tenants will take advantage of the UC2B service. The question of the priority of the Internet was brought up and they were uncomfortable giving a definitive opinion. This is understandable given the fact that most people taking advantage of HACC services are under or at the poverty line. The HACC staff are not in a position to generalize about the financial situations and priorities of the tenants. Whether or not tenants will utilize the UC2B Broadband service is something only time can tell. The network administrator did show interest in how UC2B could lower costs to some of the computers that are under her control but not running through her server.

The last consideration is that of recent plans for demolishing a housing development in Champaign. The residents of this housing development have been given a warning and Section 8 vouchers and are now responsible for finding new housing. Section 8 vouchers can be used at any private real estate company and usually only cover a portion of the rent. But apartment hunting is now done largely online and without proper access, finding new housing can be a difficult process. HACC has promised to help these tenants find housing and the redevelopment will not happen until all residents find proper housing, but it looks like tenants might need more help finding housing than HACC is giving. The network administrator stated that at least one resident has come into the offices to use the computers to look for housing, but there is no program to address this need in place. This is a daunting task, one that current resources may not cover.

## **Webliography**

Dempsey, Pam G. (2011 July, 27). Public housing residents have hard time finding new places to live. *CU-CitizenAccess*. Retrieved on October 12 2011.

<http://cu-citizenaccess.org/content/public-housing-residents-have-hard-time-finding-new-places-live>

Garenes, Christine Des. (2011 January, 30). Housing authority aims to increase options. *News-Gazette*. Retrieved on October 15, 2011. <http://www.news-gazette.com/news/business/housing/2011-01-30/housing-authority-aims-increase-options.html>

Housing Authority of Champaign County Website. <http://www.hacc.net/default.html>

Housing Authority of Champaign County. Moving to Work Annual Plan. 2010-2011. <http://www.hacc.net/Annual%20Plan/annual%20plan.htm>

Petrella, Dan. (2011 November, 05). New study takes first-time look at Champaign County's housing needs. *CU-CitizenAccess*. Retrieved on October 12 2011. <http://cu-citizenaccess.org/content/new-study-takes-first-time-look-champaign-countys-housing-needs>

Schroyer, Matthew. (2011 April, 16). Affordable housing may soon be harder to find for some Section 8 renters. *CU-CitizenAccess*. Retrieved on October 12 2011. <http://cu-citizenaccess.org/content/affordable-housing-may-soon-be-harder-find-some-section-8-renters>

Wade, Patrick. (2011 July, 27). Residents: Housing authority should help more with move. *News-Gazette*. Retrieved on October 15, 2011. <http://www.news-gazette.com/news/business/housing/2011-07-27/residents-housing-authority-should-help-more-move.html>

## 72: Prairie Winds of Urbana

**Rachel Lux**

Master's student, GSLIS

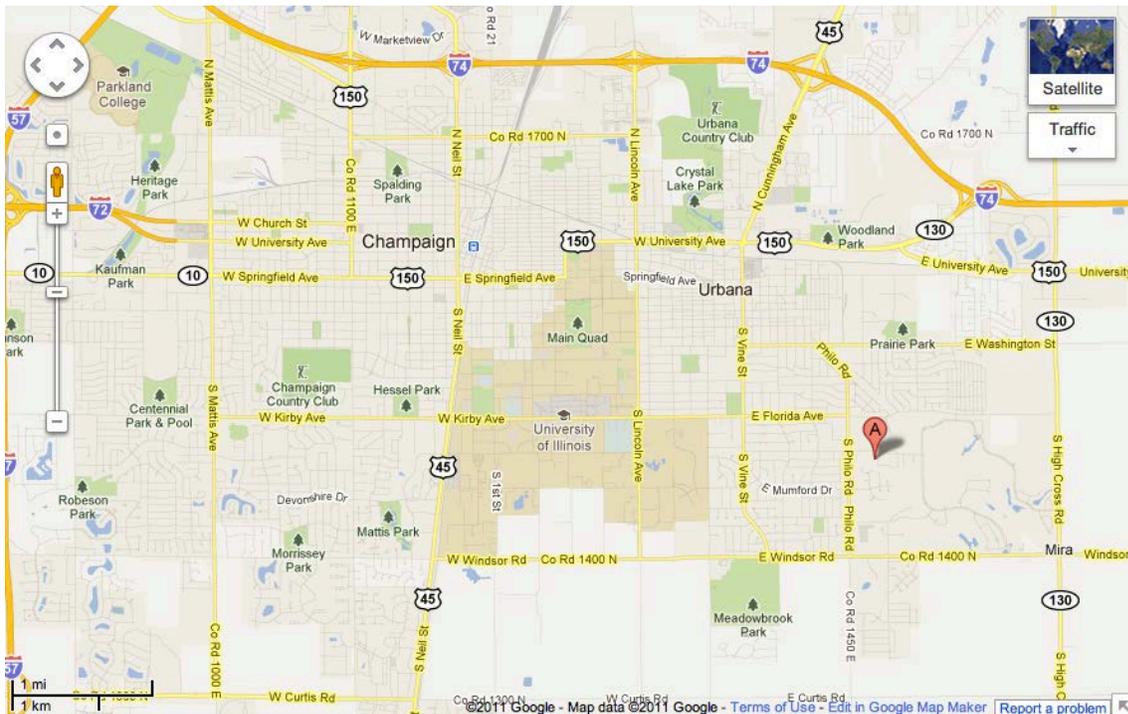
### 1 Executive summary

Prairie Winds of Urbana is an affordable assisted-living community. Certified to operate through the State of Illinois' Supportive Living program, Prairie Winds serves adults 65 and older who need some help maintaining their independence. Prairie Winds provides an alternative to a nursing home or struggling alone at home, especially benefitting seniors who cannot afford a private assisted-living facility. Prairie Winds is operated by Blair Minton & Associates Management (BMA), a management company that operates assisted-living facilities throughout Illinois and the Midwest.

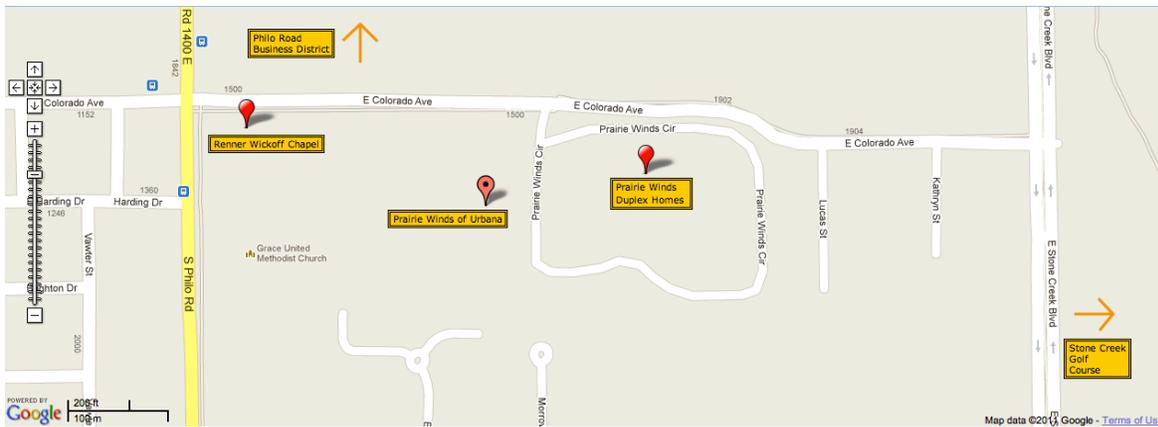
Prairie Winds relies on BMA for most of their technology needs, and the IT specialist is able to remotely log on to any computer at Prairie Winds from BMA's home office in Bradley, Illinois. Outside of general office technology use, though, Prairie Winds also promotes resident use, providing a computer lab with a PC, a Dakim touchscreen computer equipped with BrainFitness software, and a printer.

Prairie Winds is working to change the age-related digital divide by creating a blogging program that will allow residents to share stories, memories and jokes online with friends, family, and the community. Prairie Winds staff is also actively beginning to engage with Facebook, posting photos and videos of resident events and parties. Furthermore, they are very interested in setting up Skype for the residents, allowing more people to connect with their families who may not live near the Champaign-Urbana area. UC2B could be very beneficial to Prairie Winds in their mission to help their residents connect online and share their residents' stories on the Web to capture their invaluable community history and experiences.

## 2 Maps



**Prairie Winds of Urbana is located at 1905 W. Prairie Winds Drive in Urbana; it is marked by the “A.”**



**This map shows Prairie Wind of Urbana’s facility in relation to other neighborhood organizations and businesses. The facility is located just southeast of the Colorado Avenue and Philo Road intersection, near the Philo Road Business District and just northwest of the Stone Creek Golf Course. Other organizations nearby include Grace United Methodist Church and the Renner Wickoff Chapel. The Prairie Winds duplex homes are located directly east of Prairie Winds of Urbana. While the organizations do share services and some facilities, they are under separate management.**

### 3 Photographs



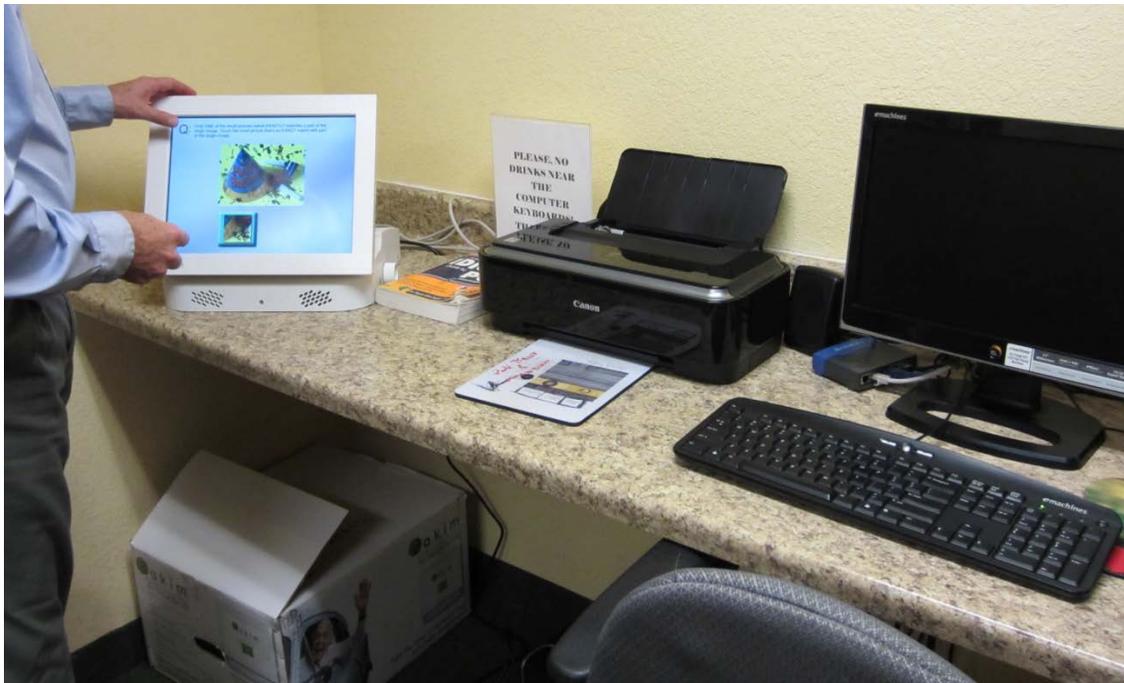
Front view of Prairie Winds of Urbana's building.



This is a typical staff desk at Prairie Winds of Urbana.



**This is the staff computer for in-service training. This computer is used only for online training and is linked back to the corporate office. If other computer applications are attempted, a report is logged and sent back to the corporate office.**



**This is the resident computer lab. It is located in the resident library, and has Internet access and other computer applications for the residents to use. On the left is the Dakim touchscreen computer, trivia game designed to improve senior memory skills, run entirely via touchscreen, so no additional controls (e.g., mouse or keyboard) are needed.**

## 4 Demographics of patrons or clients

There are currently 92 residents at Prairie Winds of Urbana. The community is specifically for senior citizens 65 years old and up, and the average age of the current residents is 85, more and more younger residents are applying.

Currently, five or six residents have computers in their room (all desktops). If residents want Internet access in their apartments, they must subscribe through Comcast and pay for it as a separate fee. In addition to those with computers, we learned that an average of 10 residents regularly use the resident computer lab, either for the PC or the Dakim touch screen. The Dakim usage is variable: some residents try it once and some residents use it multiple times a day.

In addition, the State of Illinois has some demographic requirements for qualifying as a Supportive Living Program, including (from Illinois Supportive Living “Resident Fact Sheet”):

- Undergoing a preadmission screening;
- If a resident is seeking assistance through the Medical Assistance Program, he or she must be found in need of nursing-facility-level care
- Being without a primary or secondary diagnosis of developmental disability or serious persistent mental illness;
- Having income no less than the current maximum allowable amount of Supplemental Security Income (SSI) (2011 SSI amounts: \$674/single person; \$1011/couple);
- Been tested for and found clear of tuberculosis; and
- Not participating in any other home- and community-based services waiver

## 5 History

Prairie Winds of Urbana is operated by Blair Minton & Associates (BMA Management Ltd.), which is a senior assisted-living facility management company based in Bradley, Illinois, and one of the top 25 largest senior assisted living facility management companies in the United States. Established in 1999, BMA strives to provide welcoming communities for seniors, regardless of one’s financial situation.

Construction on the Prairie Winds of Urbana facility began in 2006, and it officially opened on April 25, 2007, and all 92 units are currently occupied. In 2008, Life Services Network—a statewide association representing the leading providers of older adult services—recognized Prairie Winds of Urbana with the Seal of Confidence for commitment to resident satisfaction (“Business & Professional Briefs”).

In terms of technology, most of the changes that have taken place have been in how the day-to-day office operations have been handled. Because the facility has been open for less than five years, fairly new technology has been in place since the beginning of operations. However, the office has seen a shift in documentation with the move from hard copies to online documentation. When exchanging information with the corporate office (BMA), documents are either submitted through online forms or scanned in and e-mailed. About 95% of invoices are now done online, and are routed through a processing

center in North Carolina. Writing physical checks has declined from 20–30 a month to 2 or 3. When Prairie Winds first opened, almost all documentation was in physical form, which then had to be photocopied and mailed to the corporate office and then filed at Prairie Winds. Now, most of the day-to-day operations documents are filed online.

However, when dealing with transactions with the State of Illinois, Prairie Winds must still fax documents to Springfield. The state requires that forms with sensitive information be submitted this way to avoid a potential security breach online. Prairie Winds thus still uses a mix of methods when processing paperwork, though the majority of those operations have moved online.

More recently, Prairie Winds has made several key updates to their information communication technologies (ICTs). In July 2011, a computer exclusively for staff in-services (trainings) was installed. The computer has a direct link to the corporate office, and any reports generated from the trainings are automatically submitted to BMA upon completion. Also at that time a Dakim touchscreen computer was added to the resident computer lab. The Dakim BrainFitness software is designed specifically for seniors to aid memory retention and improvement through trivia and games. The system is operated completely via touchscreen, so residents can use it without worrying about knowing how to use a mouse or keyboard.

In the fall of 2011, Prairie Winds purchased a Flip video camera. Prairie Winds staff hopes to use video in more ways in the future and plans to train various staff members on the Flip camera. These events will then be added to Prairie Winds’ website and Facebook pages so residents, along with their family and friends, can share in the memories.

## 6 Technology inventory

These tables outline the most-used technology equipment at Prairie Winds, as well as the speed test results. The majority of the tech use is basic daily office functions, though some nursing functions use technology and there is resident computer access as well. Also, Prairie Winds staff is very dedicated to documenting events at the facility with photos and videos, and then posting those photos and videos online to share with residents’ family members and the community. There is no set budget for technology specifically for Prairie Winds, as those purchases are directed through BMA (the corporate office).

HARDWARE/EQUIPMENT	SOFTWARE/ONLINE
8 PC computers (Office Use)	Microsoft Office (Excel, Word, PowerPoint, etc.)
1 staff training computer (PC)	E-mail (combination of web-based and Exchange)
1 computer that monitors residents’ emergency pull cord system (Lifeline)	Website: <a href="http://bma-mgmt.com/prairiewindsurbana/">http://bma-mgmt.com/prairiewindsurbana/</a>
1 resident computer (PC)	Facebook (Group Page): <a href="http://www.facebook.com/group.php?gid=124074822112">http://www.facebook.com/group.php?gid=124074822112</a>
1 Dakim touchscreen resident	Corporate Website: <a href="http://bma-mgmt.com/">http://bma-mgmt.com/</a>

computer	
Flip video camera	Corporate Blog: <a href="http://www.bma-mgmt.com/blog/">http://www.bma-mgmt.com/blog/</a>
Photocopier & Printers	MRI AvidXchange accounting software (BMA)
Scanner	
Standard Landline Phone System	
Comcast Internet Connection/Wi-Fi access for visitors	
Operating System: Microsoft Windows 7	

	Speedmatters.org	Speedtest.net
Download	14732 kbps	19.06 Mbps
Upload	4488 kbps	4.68 Mbps
Ping	N/A	26 ms

## 7 Analysis

Prairie Winds of Urbana is the first supportive-living community in the Champaign-Urbana area, providing quality apartment-style housing and care for seniors at reasonable costs with assistance from Medicaid. According to Supportive Living Facilities Illinois:

The aim of the program is to preserve privacy and autonomy while emphasizing health and wellness for persons who would otherwise need nursing facility care. (“Resident Fact Sheet”)

In general, Prairie Winds is facing many of the same problems that a lot of businesses, nonprofits, state agencies, and individuals are also dealing with: the economy. Because it’s a supported assisted-living facility, Prairie Winds receives assistance from Medicaid. Due to the economy in the state of Illinois, those payments are usually lagging 4 to 6 months—something that has also been discovered in other anchor social institutions. Fortunately, because Prairie Winds is an assisted-living facility that is more affordable than higher-end assisted-living communities, they have a steady waiting list for open units.

Currently, Prairie Winds is fairly up-to-date on technology, especially in the office/administration side of operations. We learned through our interviews that Prairie Winds takes most of its technology cues from either BMA or the nursing industry at large. Though they do not have an on-site IT employee, BMA has IT personnel at its home office in Bradley, Illinois, who are used when staff have a problem they cannot fix on their own.

Most of the tech usage at Prairie Winds happens in the office/administration area or with some of the nursing functions. Currently, Prairie Winds does not do any kind of online charting, though they are looking to start that in the future, as need dictates. Another interesting tech use is that employees are turning more to the Internet for problem solving. Prairie Winds definitely seems to be an environment that encourages creative problem solving and technology use, on the part of both the staff and residents.

In the future, Prairie Winds plans to continue to expand and evolve its tech uses across several areas: office use, social media use, and resident use. First, we learned in our interviews that Prairie Winds would like to potentially switch from PC to Mac computers down the road, though no plan is currently in place for this. Also, BMA is exploring broader ICTs such as an online-based phone system and “cloud computing” abilities that would both limit the need for servers and office networks and expand its’ employees capabilities in terms of being able to work from home or while traveling and still have access to as much as they would if they were in the office.

Second, BMA recently formed a task force to focus on social media and how to best “get the story out” about its facilities (including Prairie Winds) and, more importantly, the residents’ stories. Preserving the rich histories and life experiences of Prairie Winds’ residents and sharing those stories in a format that’s available to the residents’ families and friends and the community as a whole is very important to BMA and Prairie Winds. Currently, Prairie Winds uses a Facebook page, as well as photo galleries and short videos on their website, to share some of the events. However, in the very near future Prairie Winds will be starting resident blogs. They will post at least two a month, and will feature anything from residents’ stories and memories to favorite jokes and photos. The hope is the residents will be excited to see their words in print on the computer screen, and the staff will be able to help more residents go online to find these things. The mission is really twofold: get the stories out to the public, and get the residents online.

More and more residents have families spread across the country, and as video-chat programs like Skype become more prevalent, the Prairie Winds staff would like to be able to set up the resident computer with Skype and teach residents how to use it, so they are able to see their children and grandchildren when they talk to them. The staff believes this type of chat program would be a great motivator for residents wanting to get online, and the UC2B Big Broadband connection could aid greatly in ensuring that Skyping or other forms of video chatting is a pleasant experience for the residents. We also learned that Skyping could be a good way for Prairie Winds staff to communicate with residents’ family members. When a family member lives out of state or can’t regularly come in, a face-to-face video chat could be more productive than a series of phone calls and text messages, which could help streamline family communications and requests with the administrative offices.

Prairie Winds staff are very excited about being included in the UC2B Big Broadband grant, and there are many ways the project could benefit the center. The faster the connections, the more streamlined the day-to-day operations can become. But most importantly, faster Internet speeds could connect residents to their families in ways they never dreamed possible. As Prairie Winds staff continue to push interested residents to explore the computer, the Internet, and the Dakim touchscreen, they would have more time to focus on what kinds of programming and classes and one-on-one training they may be able to provide for the residents if Internet connection speeds were no longer an issue.

## **Bibliography**

Business & professional briefs. (June 8, 2008). *The News-Gazette*. Retrieved November 1, 2011, from NewsBank on-line database (Access World News).

Top Champaign-Urbana projects. (August 7, 2006). *The News-Gazette*. Retrieved November 1, 2011, from NewsBank on-line database (Access World News)

## **Webliography**

BMA, "Mission & Values," accessed Nov. 1, 2011, <http://bma-mgmt.com/mission.aspx>

---. "Home Page," accessed Oct. 18, 2011, <http://bma-mgmt.com/index.aspx>

Illinois Supportive Living Program, "Resident Fact Sheet," accessed Nov. 1, 2011, <http://www.sfillinois.com/factsheetresident.html>

Prairie Winds "Home Page," accessed Oct. 18, 2011, <http://bma-mgmt.com/prairiewindsurbana/index.aspx>

# 73: Round Barn Manor

Rachel Lux

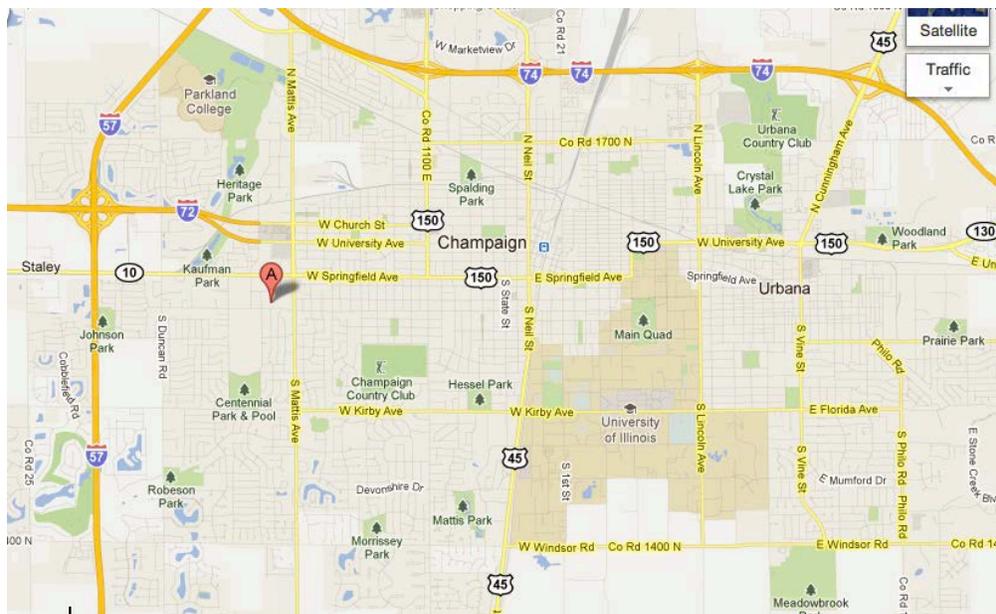
Master's student, GSLIS

## 1 Executive summary

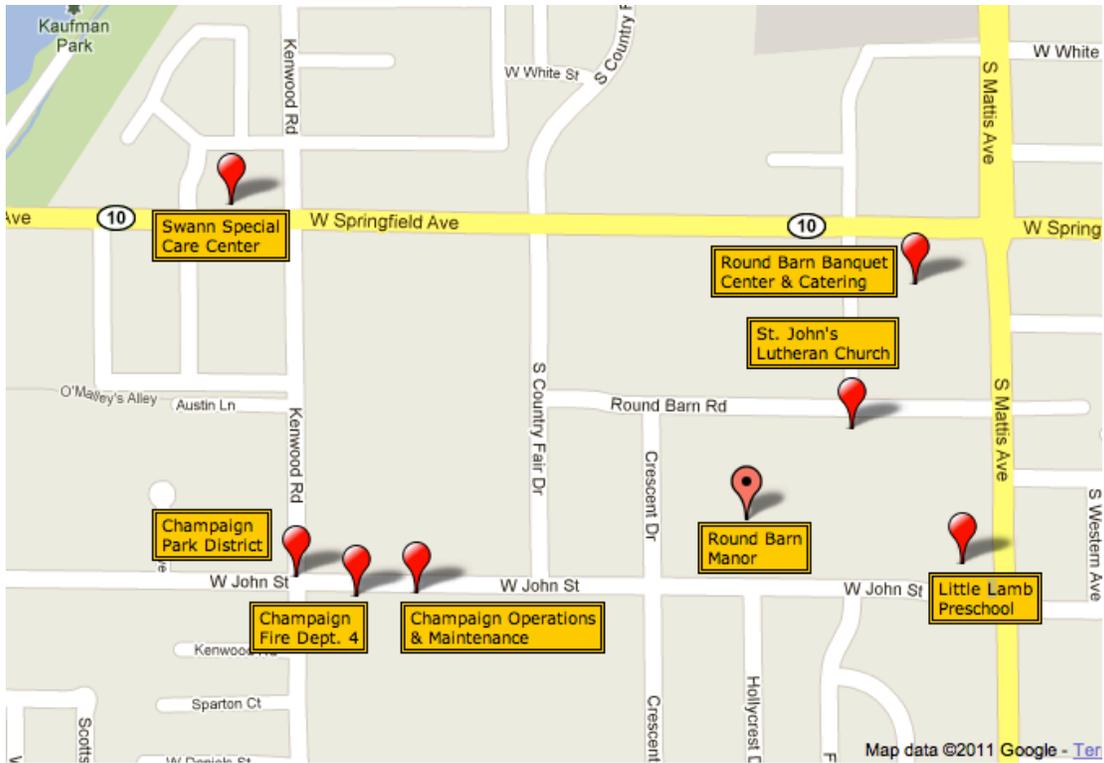
Round Barn Manor is an elderly low-income housing apartment complex subsidized by the U.S. Department of Housing and Urban Development (HUD). Residents 62 years of age or older who meet income qualifications may apply for residency. Round Barn Manor is owned and operated by Apartment Investment and Management Company (Aimco), a real estate investment trust.

Most of Round Barn Manor's technology needs are met by Aimco, which provides major IT support through their corporate IT headquarters in South Carolina and develops many of the software programs Round Barn Manor administrative staff use on a daily basis. Round Barn Manor also has an onsite computer lab for its residents. The lab is very well equipped, and usage has gone from only a handful of residents when it first opened in 2007 to 50% of the residents now using it in some capacity. Even with these significant growth numbers, Round Barn Manor residents face a digital divide when it comes to computer literacy skills. In the future, Round Barn Manor may need to look more closely at how to address this divide, while providing the tech updates that society (and the more tech-savvy residents) may demand. UC2B could be very beneficial to Round Barn Manor in their mission to help their residents connect online with their families, friends, and community groups.

## 2 Maps



Round Barn Manor is located at 2000 W. John St. in Champaign; its location is designated by the "A".



**The location of the Round Barn Manor in relation to other neighborhood organizations. It's located in the western part of Champaign, just southwest of the intersection of W. Springfield Avenue and S. Mattis avenues, and southeast of Kaufman Park. Other organizations nearby include Swann Special Care Center, Champaign Park District, Champaign Fire Department No. 4, Champaign Operations & Maintenance, Round Barn Banquet Center & Catering, St. John's Lutheran Church, and Little Lamb Preschool.**

### 3 Photographs



**Front view of Round Barn Manor.**



**An example of a staff computing area in the administrative offices.**



**This is part of the resident computer lab. The lab contains three computers and three printers. These computers have normal-sized screens. All are equipped with Internet access, speakers, and printing capabilities.**



**This is the third computer in the resident lab, on the opposite wall from the other two. It also is equipped with Internet access, speakers, and printing capabilities. In addition, it is set up with a large-icon desktop to accommodate poor eyesight. This is also the “Skype Station” computer; it has a headset and the Skype video chat program has been on it.**

#### **4 Demographics of patrons or clients**

Round Barn Manor has 156 units constructed for independent living, all of which are currently full; there is a waiting list for future openings. All but two of these units are designated for elderly residents, 62 years old and above. The remaining two reserved for younger residents with special needs.

While more specific resident demographic information could not be shared, to qualify to live in Round Barn Manor, prospective residents must meet requirements set out by the U.S. Department of Housing and Urban Development (HUD) (as this housing is subsidized by federal funds), or meet Section 8 housing requirements. Within Round Barn Manor, different units are designated for residents at different income levels, including those making no more than 20, 30, 40, or 60% of the median income in Champaign County (*News Gazette*, \$3 million renovation underway).

#### **5 History**

Round Barn Manor is owned and operated by Apartment Investment and Management Company (Aimco), which manages a wide array of apartments throughout the United States. Aimco was established in 1975 as a real estate investment trust. The company

rents and leases its apartment units to a diverse base of residents. It also provides management services to third-party owners” (Aimco, “Company Description”). As of September 2011, Aimco owned or managed 565 properties in 38 states, Washington D.C., and Puerto Rico.

Construction on Round Barn Manor began in 1976, funded by the Illinois Housing Development Authority. Round Barn Manor officially opened in 1978. In 2007, Round Barn Manor underwent its “most major” renovations in its 30-year history. Renovations, which cost \$3 million and began on the third floor and worked downward, included remodeling the kitchen and bathroom in each unit; replacing the heating and cooling systems; installing new roofing, siding, and windows; and landscaping (*News-Gazette*, \$3 million renovation underway).

Also in 2007, a resident computer lab was established with funds from Round Barn Manor’s operating budget. Upgrades to the computers and lab equipment continue to be provided through the facility’s operating budgets. A student from the University of Illinois came to teach a five-week computer literacy course for residents. In these classes, the student came to the Round Barn Manor lab and worked with residents on questions, demonstrating anything they wanted to know and working one-on-one with residents to improve computer literacy skills. The response to the classes was good, and those—along with classes provided through the Champaign Public Library and Urbana Adult Education—have also helped Round Barn Manor residents increase their computer skills and interest levels.

Because of Round Barn’s lengthy history, administrative functions have seen the most changes over the years, particularly the documenting systems: changing from hard copy files to electronic file storage, converting from completing documents on a typewriter to using Microsoft Word, and using cell phones to communicate with residents rather than two-way radios or pagers.

## 6 Technology inventory

These tables outline the most-used technology equipment at Round Barn Manor, as well as the speed test results. The majority of the tech use happens in the administrative office, but there is a resident lab with three computers and printers that gets used frequently. Administrative personnel provide all of the IT support for the resident computer lab. For the office, however, IT support comes from Aimco’s corporate IT, which is based in Greenville, South Carolina. Funds to maintain the resident computer lab comes from Round Barn Manor’s operating budget. The yearly budget for administrative tech upgrades is established through the corporate office, and administration declined to share the yearly budget figure.

HARDWARE/EQUIPMENT	SOFTWARE/ONLINE
3 PCs and 1 laptop (office use)	Microsoft Office (Excel, Word, PowerPoint, etc.)
1 computer that monitors residents’ emergency pull cord system	E-mail (corporate program)

1 computer that runs door security system	Corporate Website: <a href="http://www.aimco.com/">http://www.aimco.com/</a>
3 PCs in resident computer lab	Round Barn Manor Corporate Website: <a href="http://www.aimco.com/Communities/default.aspx?PropertyID=043117">http://www.aimco.com/Communities/default.aspx?PropertyID=043117</a>
3 printers in resident lab	Corporate developed software (OneSite)
Office printers	Doc Management System
Digital camera	
Photocopiers	
Scanners	
Fax Machines	
Standard Landline Phone System	
Comcast Internet Connection	
Operating System: Microsoft Windows	

	Speedmatters.org	Speedtest.net
Download	7572 kbps	1.12 Mbps
Upload	6186 kbps	2.70 Mbps
Ping	N/A	26 ms

## 7 Analysis

Because of its status as a federally regulated low-income housing provider and their corporate management company's direction, Round Barn Manor is fairly up-to-date when it comes to information and communication technologies (ICTs), both in the administrative offices and in the resident computer lab.

Most technology uses in the administrative offices, including the use of proprietary database software (such as OneSite), are implemented by Aimco, the corporate office that owns Round Barn Manor. Aimco's corporate IT office is located in Greenville, South Carolina, and if any networking issues, troubleshooting matters, or software/hardware updates come up, the corporate office can access Round Barn Manor's computers remotely. Because of this, Round Barn Manor does not need to have an IT specialist on staff. Also, when Aimco adds new software or when new employees are hired, any IT training is provided by the corporate office, either on a web-based program or at a satellite office in Chicago.

When simple troubleshooting matters arise—particularly when residents have questions or problems in the computer lab—two administrative staff members are usually able to resolve the problems, and often help residents use the computers and the Internet or printers in the lab. If there are more advanced problems, Round Barn Manor has found alternative solutions in the past. For example, a resident's son who has a consulting business did pro bono work when two of the three computers had viruses.

While the staff at Round Barn Manor have a high level of computer literacy, the complex itself does not have an online social media presence at this time, and its website is hosted through Aimco (and can only be located if you search for affordable housing in Illinois via Aimco's site). A Facebook page or more accessible website is something Round Barn Manor would consider in the future, but at this time there are no plans to implement this.

Aside from technology advances that have streamlined office functions, the residents, too, are keeping up with technology advancements. Some of them have computers in their apartments, and many of them have cell phones. More and more residents are abandoning their land lines altogether, and those who are particularly savvy use texting a fair amount as well. Because the residents have already qualified for affordable housing, they also qualify for various grant opportunities, including grant money that provides cell phones.

Arguably the technology change that has made the biggest difference—at least to the residents—is the public computer lab. Residents may subscribe to Internet service within their individual units and pay for it as a separate fee, but the computer lab, which has three PCs, three printers, speakers, and Skype video chat capabilities, provides free internet access. When it was established in 2007, administration estimated that only 1 to 2% of the residents used it. Now, four years later, we learned in our interviews that around 50% of residents at Round Barn Manor use the lab in some capacity. The dramatic increase in computer use is interesting. Many residents have now set up e-mail accounts and Facebook pages to stay in touch with family members who do not live in the area—especially to send and receive photos of family members. Because of the increased interest in using the computer to communicate with family, Skype was installed on one of the computers, along with a headset, so residents are able to video chat with their family and friends who cannot visit as often as they'd like. Overall, this has made residents feel much happier and more in touch.

Often residents are not immediately comfortable using the lab, but warm to the idea when they know there are people on hand to patiently instruct them in its use. The administrative staff tries to assist as much as possible when residents have questions in the lab. They also encourage residents to take workshops and classes at Champaign Public Library and Urbana Adult Education to enlarge their computer literacy skill sets. Grant money was also used to bring in a student volunteer from Parkland College to assist residents with using the computers, printers, and Internet, which encouraged more use of the lab. Also, many residents were more comfortable using the computer for playing games, and this may lead to these residents eventually using the computer for more tasks.

While the administration at Round Barn Manor had not heard much about the UC2B grant, a broadband connection would enable them to continue to provide a fast Internet connection for their residents. It also may enable residents to stay more involved in the community groups they're interested in, if these groups are also connected via UC2B. Residents may be able to attend meetings and provide input without leaving the apartment complex, which could be an excellent benefit in some cases (inclement weather, illness, temporary mobility issues, etc.).

Overall, it appears demographic groups that may be overlooked in other public computing situations are indeed interested in learning about the computer, improving their skills, and interacting online. Better understanding this demographic group's needs, learning styles, and fears will help develop programs and opportunities for these senior residents to fully experience the "netizen" experience if they so choose.

## **Bibliography**

\$3 million renovation under way. (August 29, 2007). *The News-Gazette*. Retrieved November 4, 2011, from NewsBank on-line database (Access World News).

Apartment blaze blamed on strike by lightning. (August 26, 1997). *The News-Gazette*. Retrieved November 4, 2011, from NewsBank on-line database (Access World News).

Elderly housing facility construction set to start. (March 3, 1977). *Urbana Courier*.

## **Webliography**

Aimco, "Company Description," accessed November 23, 2011, <http://www.aimco.com/CorporateInformation/About/CompanyDescription.aspx>.

---, "Round Barn Manor," accessed November 23, 2011, <http://www.aimco.com/Communities/Details.aspx?PropertyID=043117>.

U.S. Department of Housing and Urban Development (HUD), "Multifamily Housing Service Coordinators," accessed November 25, 2011, [http://portal.hud.gov/hudportal/HUD?src=/program\\_offices/housing/mfh/progdsc/servicecoord](http://portal.hud.gov/hudportal/HUD?src=/program_offices/housing/mfh/progdsc/servicecoord).

Silver Census, "Round Barn Manor of Illinois," accessed November 23, 2011, <http://silvercensus.com/senior-care/independent-living/illinois/champaign/round-barn-manor>.

## **74: The Windsor of Savoy**

### **Afton Hallauer**

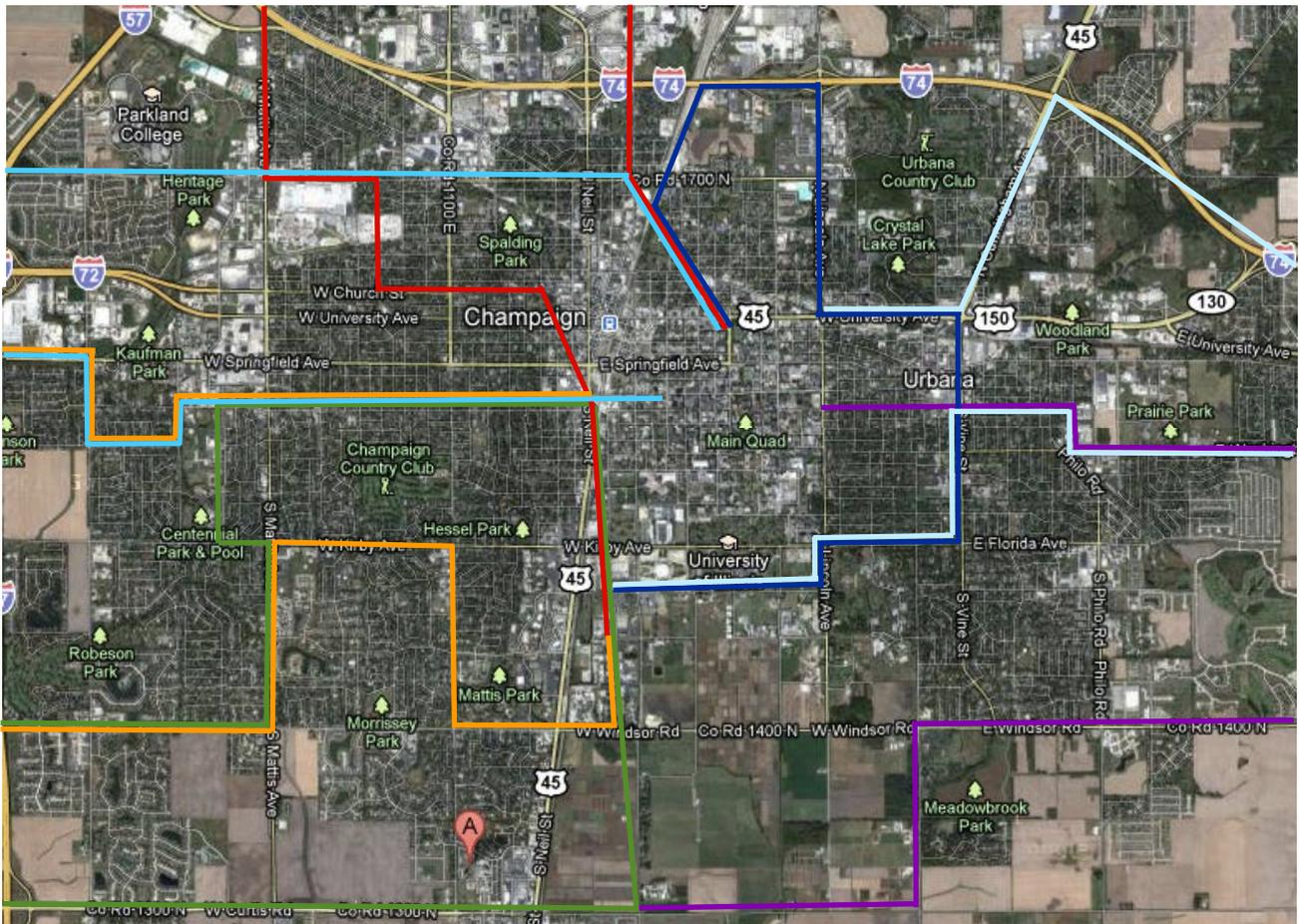
Master's student, GSLIS

#### **1 Executive Summary**

The Windsor of Savoy is a retirement community in Savoy with facilities for both independent and assisted living. The institution currently has a couple of desktop computers available for resident use in the independent living wing, and one additional computer in the assisted living wing. Those residents that use the shared computers are able to ask staff members for assistance. Residents can also increase their knowledge of computers through a six-week computer class currently being offered at the center through Parkland. A culture of lectures and courses for residents already exists at The Windsor of Savoy, which might pave the way for new technologies to be more easily utilized by residents and more quickly integrated.

Staff at The Windsor of Savoy hope to expand the scope of their wireless Internet to encompass the entire building; currently, wireless is only available in the common areas of the assisted living wing. The administrator of The Windsor of Savoy also expressed the hope that the center might improve their emergency response system for residents in assisted living. The center currently has an automated paging system through which residents can call for help, but the system has no way of tracking where the resident is, making quick responses more difficult if the resident is not in his/her apartment at the time s/he need assistance.

## 2 Maps



The location of The Windsor of Savoy within the Champaign-Urbana, Savoy area.

### 3 Photographs



**The front entrance for the independent living units at the Windsor of Savoy.**



**One of two computers available for use by residents in the library in the independent living wing of The Windsor of Savoy.**



**This is the staff computer at the front desk of the independent living wing at The Windsor of Savoy. The assisted living wing also has a front desk.**



**Residents playing bridge in one of the common areas of the independent living wing of The Windsor of Savoy.**

## 4 Demographics of Residents and Staff

The Windsor of Savoy currently has 138 independent living apartments and 36 assisted living apartments. Residents are generally in their 80s and 90s. Roughly 80% of the residents at The Windsor of Savoy are women and 20% are men. The backgrounds of patrons are varied.

There are roughly 90 nonoffice and 10 office staff at The Windsor of Savoy. Among the staff, roughly 65% are women and 45% are men. Many of the staff at The Windsor of Savoy (around 50 of the 100 total staff) are part-time and are either high school or college students. Among the nonstudent staff, educational backgrounds are mixed. Roughly 10 staff members have a bachelor's degree and 3 of those have higher degrees as well.

## 5 History

The Windsor of Savoy opened in 1988. It was built by Carle Foundation Hospital and continues under their operation to this day. The Windsor of Savoy is and has always been a senior retirement community.

When the center first opened, it was strictly an independent living environment. As residents aged, however, the staff adapted to the growing needs of residents. One wing was converted into a personalized care wing sometime in the mid- to late 1990s. In this wing, residents could get additional assistance from staff. This wing later became The Windsor of Savoy's licensed assisted living wing. Prior to January of 2001, no category of licensed assisted living senior housing existed. Following the establishment of this category, The Windsor of Savoy moved to become licensed. This process took several years, because of the limited number of state licensing surveyors. By 2006–2007, however, The Windsor of Savoy gained a license for their assisted living wing.

The Windsor of Savoy administrator was not sure precisely when the center first got computers, Internet, and wireless Internet. It is certain, however, that the center has had these features for at least the last three and a half years. During that time, the administrator suggested, it is possible that the computers have not been switched out, although they do get regular maintenance and updates.

## 6 Technology Inventory

<b>Hardware</b>	<b>Software, Systems</b>
2 resident desktop computers in library in the independent living wing of The Windsor of Savoy	REPS software for management team
1 resident desktop computer in common area of the assisted living wing of The Windsor of Savoy	Organization website
13 staff desktop computers	
2 Blackberries, for use by the administrator and the marketing manager as work phones	

1 LCD projector in independent living	
1 laptop used for presenters in independent living	
Wii in assisted living	
3 staff pagers for the floor staff in the assisted living wing	

Staff Computers	Download Speed (Mbps)	Upload Speed (Mbps)
Speedmatters.org	1.393	1.317
Speedtest.net	1.39	1.18

Resident Computers	Download Speed (Mbps)	Upload Speed (Mbps)
Speedmatters.org	1403	1292
Speedtest.net	1.37 Mbps	1.11 Mbps

Wireless	Download Speed (Mbps)	Upload Speed (Mbps)
Speedmatters.org	1139	389
Speedtest.net	0.1 Mbps	1.19 Mbps

## 7 Analysis

The Windsor of Savoy is currently grappling with the divide between a sense of a growing future demand for technological services and the demands of current residents, many of whom make limited or no use of services such as communal computers or the Internet. The Windsor of Savoy must strike a balance between the needs and desires of current residents and staying competitive for the future. The residents who use the computers available in community areas tend to go to them to check e-mail, perform Internet searches, and play games like Mahjong and Solitaire.

Wireless is only available in the common area of the independent living wing of The Windsor of Savoy. Staff have hopes of expanding coverage to the common areas of the assisted living wing and ultimately of providing coverage of the building as a whole. Currently, the wireless is primarily used by outside programs, such as Parkland, during computer classes that are held at the center and by family members of the residents. "Residents themselves don't use it too much," said the Windsor of Savoy administrator, "Also, they tend to have their own if they want it." Staff expects this to change, however, as generations more familiar with computer and Internet age. "It might not be the biggest demand from our current residents," said the Windsor of Savoy administrator, "but, even in five years, it might be something that people expect." Because of this, The Windsor of Savoy is focused on expanding wireless coverage.

Keeping residents active and connected to the outside community is a major concern of The Windsor of Savoy. The center currently has Wii systems for use in the assisted living wing of The Windsor of Savoy. Residents participate weekly in Wii tournaments with organizations outside of The Windsor of Savoy. Because a culture of utilizing new technologies for this purpose currently exists at The Windsor of Savoy, the staff would likely be open to embracing new programs and technologies in the future. The challenge for the staff is knowing where to go next.

At present, the center has a total of three computers available for resident use. Two desktop computers are available in the library in the independent living wing. One computer is in the common area of the assisted living wing. Although this might not seem like it would be sufficient for the roughly 174 apartments at The Windsor of Savoy, according to one resident, getting access isn't an issue. At least one computer is usually open at any given time.

One trend that may account for this availability, however, is the tendency of more tech-savvy residents to have computers and Internet access of their own, and not to utilize the communal computing areas at The Windsor of Savoy. This is a disadvantage for the facility, as it separates people with more expertise from others who might benefit from that expertise. Residents are unable to learn from each other as effectively as they might if the shared computers were more widely used by more-experienced residents as well as beginning learners.

The staff at The Windsor of Savoy are quick to help residents with any computer questions that arise. One resident put it simply: “[W]e have help, that’s no problem.” Additionally, The Windsor of Savoy hosts a six-week computer course taught by a Parkland instructor. This course appears to be offered every couple years at least. The computer course is just one of many lectures and courses available at The Windsor of Savoy, which reflects a mission to keep residents informed and to allow for the integration of new technologies.

The Windsor of Savoy currently uses emergency pendants in the assisted living wing. These pendants are linked to staff pagers through which residents can call for help. However, the system currently has no way of tracking where the resident is, making quick responses more difficult if the resident is not in his/her apartment; it may be improved in the future to allow for GPS monitoring of the pendants.

According to the administrator at The Windsor of Savoy, there is little to complain about regarding current Internet available at the center. “I think our speed is good,” the administrator remarked, although “[I]t does seem to go down frequently enough that I know the helpdesk number by heart.” Although the Carle IT staff (which The Windsor of Savoy uses for all of their tech problems) are quick to respond to problems at The Windsor of Savoy, staff expressed hopes that UC2B might offer a solution to problems such as the Internet going down periodically.

## **Bibliography/Webliography**

*Senior Citizens Handbook -- Assisted Living and Shared Housing*. 2011. Illinois Legal Aid Online. 18 Nov. 2011 <http://www.illinoislegalaid.org/index.cfm?fuseaction>

*The Windsor of Savoy: Hallmark of gracious living.* The Windsor of Savoy. 20 Oct. 2011  
<http://www.windsorofsavoy.com>>.

*The Windsor of Savoy Retirement Homes.* RetirementHomes.com. 2011. 11 Nov. 2011  
[http://www.retirementhomes.com/North\\_America/USA/Illinois/Savoy/RetirementHomes/Assisted\\_living/The\\_Windsor\\_of\\_Savoy.htm](http://www.retirementhomes.com/North_America/USA/Illinois/Savoy/RetirementHomes/Assisted_living/The_Windsor_of_Savoy.htm)

# Transportation

---

## 75: Champaign-Urbana Mass Transit District

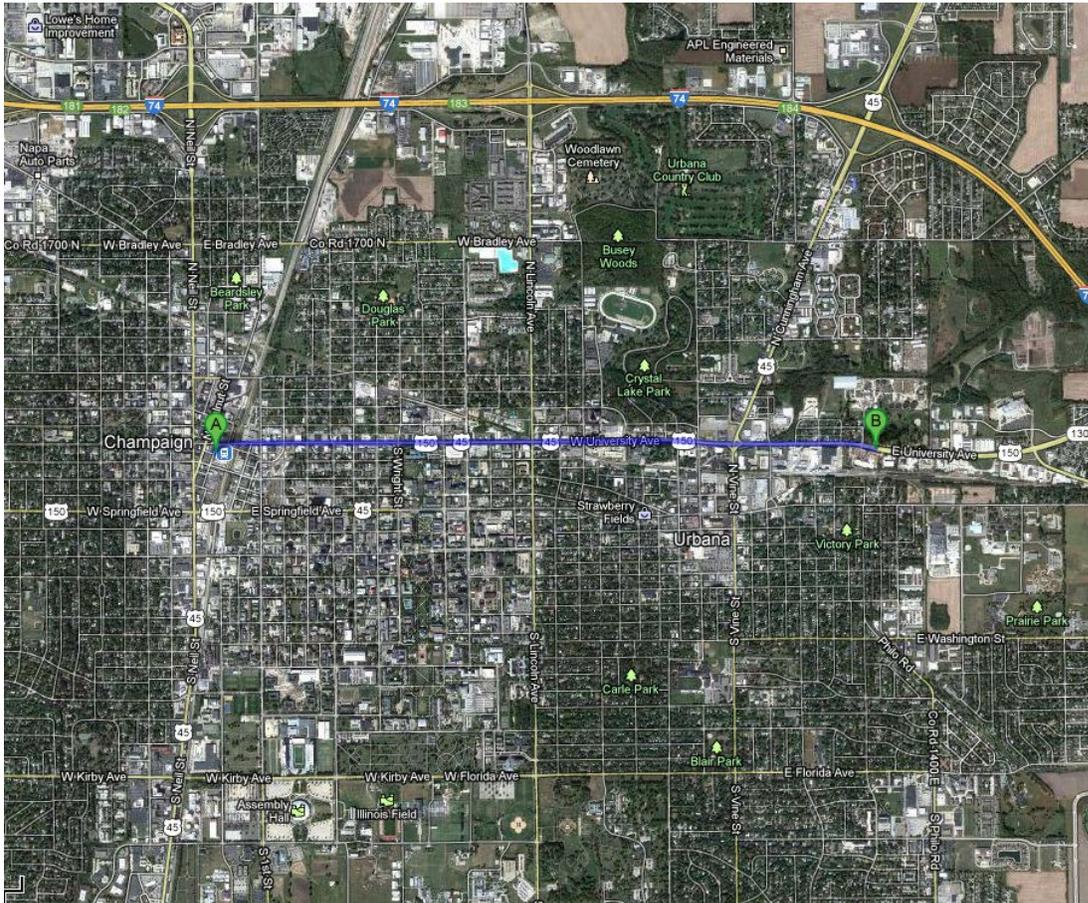
**Abigail Sackmann and Andrei Rosulescu**

Master's students, GSLIS

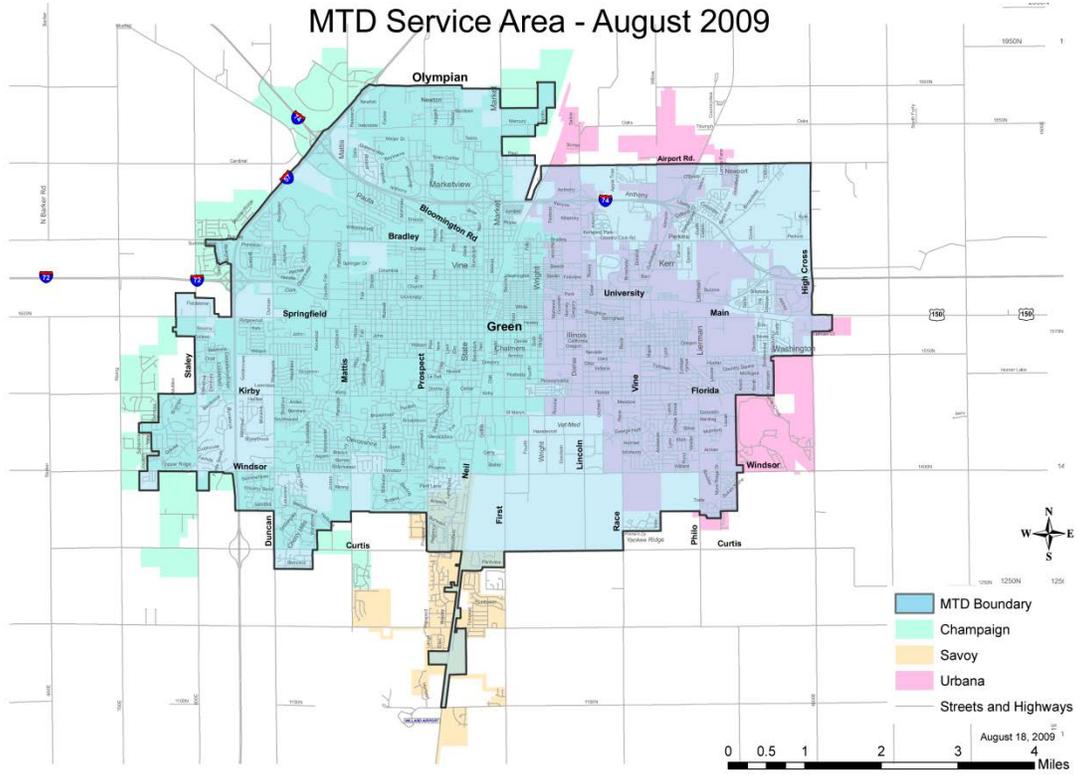
### **1 Executive summary**

The Champaign-Urbana Mass Transit District is at the forefront of technological innovation, a fact that is recognized by any bus rider in town. New kiosks are being installed to communicate exactly which buses will be departing from a given stop and in how many minutes, and this information is also accessible both on the organization's website and through a text messaging service. The winner of a competition for developing mobile apps to communicate this information became available to the public in early March, 2012. Internally, the district gathers vast amounts of information using several software applications and systems in order to plan routes effectively, providing reliable and responsive service on a daily basis. CUMTD is a major stakeholder in the UC2B project, and will use broadband to make its service even more accessible, user-friendly, safe, and reliable.

## 2 Maps



**“A” is the Illinois Terminal in Champaign; “B” is the main facility at 1101 University.**

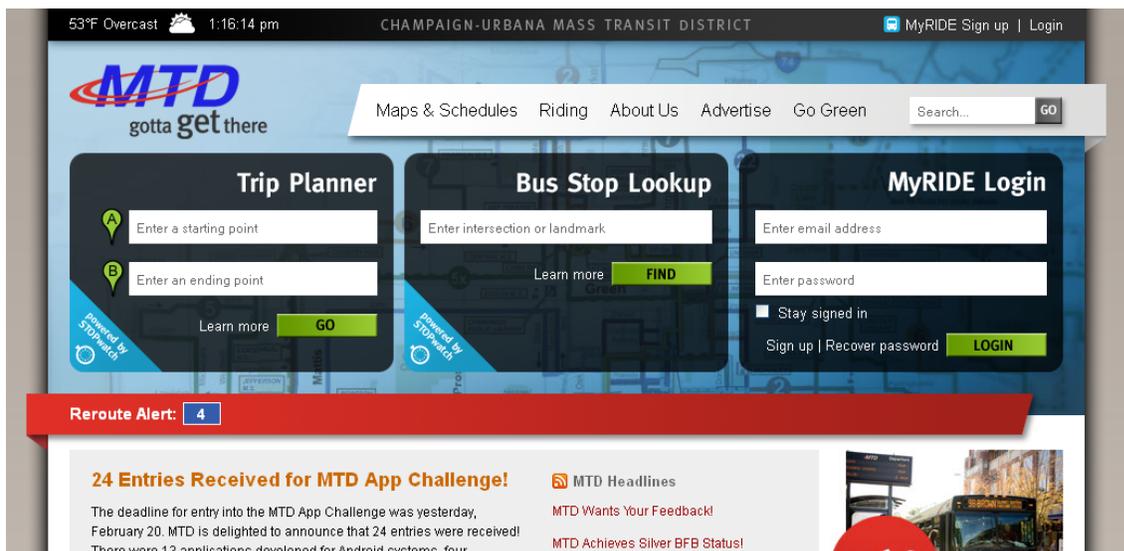


MTD service area, from CUMTD.com.

### 3 Photographs



Garage facilities (photo from promotional video *We Are MTD*, accessed 2/21/12 at [www.cumtd.com/aboutus](http://www.cumtd.com/aboutus)).



Home page of website, [www.cumtd.com](http://www.cumtd.com), accessed 2/21/12.

Facebook page, accessed 2/21/12.

#### 4 Demographics of patrons or clients

The CUMTD provides transportation service to a majority of the area in the Cities of Champaign, Urbana, and the Village of Savoy (see map above for service boundaries).

	Urbana	Champaign	Savoy
Population	41,250	81,005	7,280
White	60.4%	67.8%	77.4%
Black	16.3%	15.6%	6.8%
American Indian and Alaska Native	0.3%	0.3%	0.1%
Asian	17.8%	10.6%	12.6%
Persons reporting two or more races	3.1%	3.0%	2.4%

Persons of Hispanic or Latino origin	5.2%	6.3%	2.7%
Foreign-born persons	18.3%	12.1%	18.6%
Language other than English spoken at home	24.3%	17.0%	21.7%
High school graduates, percent of persons age 25+	93.2%	92.8%	97.7%
Bachelor's degree or higher, percent of persons age 25+	55.3%	48.1%	65.4%
Median household income	\$34,951	\$36,498	\$50,172
Persons below poverty level	29.8%	27.2%	10.1%

## 5 History

Before CUMTD was formed by a referendum in 1970, buses had operated in Champaign-Urbana intermittently since 1901, when a small bus line was established that operated for 11 months. In 1925, buses operated alongside streetcars run by Illinois Power and Light Company. Eleven years later, both the buses and trolley lines were bought by a subsidiary of General Motors, which replaced all of the streetcar lines with more buses and operated them for the next 30 years as the Champaign-Urbana City Lines.

Ridership during this period peaked in 1958, when one million people rode the buses, and then slowly declined as families began to purchase and use cars. In response to this trend, GM sold the lines in 1965 to Westover Transit Management, and within five years this company had put a petition to the Illinois Commerce Commission to cease operation. However, in the same year, 1970, a referendum to create a Mass Transit District was overwhelmingly approved by voters on November 24. Operations of CUMTD began on August 2, 1971 and the district received its first federal grant later that year.

In those early years, according to an administrator, “Our technology was that every bus operator had a dime, and if the bus broke down they would walk to the nearest phone and call in to tell us what was wrong. That was the technology.” A key turning point came in the late 70s, when equipment was installed for radio communication between the buses and the main facility. The new ability to transfer information over space changed the way the system operated and foretold the direction of technological developments to come.

In 1982, the district attempted a tracking system based on triangulation Loran-C, location information being broadcast to a local cable provider and displayed on a local channel. The innovative idea was that the public could watch the channel to see their bus plotted on a map, and be able to time its arrival at their stop. However, with the inadequate technology of the day this system turned out to be quite error prone, and bad information being worse than no information, was removed from the public view.

In 1984, the district began to use an integrated software called Fleet-Net, (<http://www.fleet-net.com/>) designed for public transit organizations for tracking and managing man hours, assigning duties, payroll, accounts receivable, accounts payable, inventory, maintenance, and work hours. This software is in fact still used by CUMTD, and the company has worked closely with the district over the years to adopt it to new technologies and other software packages.

CUMTD developed their first website in 1996, designed by an employee on leave with a broken leg. Text-based, like all websites at the time, it has undergone steady updates and redesigns through the years, always on the cutting edge and providing up-to-date information for the public.

In 2000, another tracking system was developed in partnership with a program at the University of Illinois. This project languished when the main researcher graduated, but prompted the district to start a project implementing an existing Computer Aided Dispatch and Auto Vehicle Location system (CAD/AVL) from a company called Init Inc. ([www.initag.de/en/index.php](http://www.initag.de/en/index.php)) This is the main system in use by CUMTD today, allowing for the accurate tracking information that bus riders have come to expect.

The next big development for the district was to remodel and move into their new facility at 1101 E. University (see photo above). Another key turning point in providing services to riders was in 2009, when they partnered with Google Transit to provide a feed to use with Google Maps. The process of sorting and refining data for the feed took well over a year of work, but a successful feed was finalized in early 2011, laying the groundwork for all of the diverse user applications in use today.

## 6 Technology inventory

Software	Hardware	Personnel and Partnerships
----------	----------	----------------------------

### Internal

Init Inc. CAD/AVL tracking system	T-1 Line between Illinois Terminal and University Ave. Facility	300 employees total
Visual Studio, used by developers	Fiber-optic lines	30 with desktops
Microsoft Office Environment	Telephone service through Champaign Telephone	Social Networking Specialist in Marketing Department
Adobe Suite	Internet Information Server for web hosting	2 Statistical Experts in Planning Department
Various software developed in-house, e.g., employee intranet	CAD/AVL servers	3 main IT staff, Manager, Software Developer, and Network Administrator
PERDUIS System for driver bidding	Windows Server 2008	Subcontracting work
	Microsoft SQL Server for databases	Partnership with UIUC Police to share video surveillance
	30 office desktops	
	Dispatch system	
	Security cameras on buses, buildings, and kiosks	
	Work stations in Control Room	

	Computers in buses with GPS, touch-screen interface, and radio connection to CAD/AVL	
--	--------------------------------------------------------------------------------------	--

For Public

Website	Kiosks (total of 25 will be installed)	
Application competition for mobile app creation—to be released in early March	100 buses	
Text messaging service	15 vans	
Pilot project to replace text message service with similar GSM-based service		

**7 Analysis**

The Champaign-Urbana Mass Transit District’s mission is to “improve the mobility of the population,” and they are extremely successful toward this end, having been recognized both nationally and internationally for outstanding service. (See [CUMTD.com/about-us](http://CUMTD.com/about-us)) CUMTD strives to be user driven, easy, comfortable, and effective, and leads the nation in both bus service and technological innovation. The system is constantly moving forward, keeping up with the fast pace of technological innovation both in relation to service to the public and internally.

The main system used is the CAD/AVL, mentioned above. It includes everything for the dispatchers to keep track of and communicate with each bus. It at once gathers information in real time and reports and records ongoing statistics about bus location, time, and ridership for each bus at each location on its route. The constant stream of information is gathered and broadcast to a wide range of applications for both internal and external use. In the control room, the real-time information is posted on a large map with icons where the buses are located, color coded according to whether they are on time, and if not, how late they are running. The information constantly watched by the dispatchers tells who is driving each bus, what route s/he is on, whether s/he are on time, the route’s destination, a vehicle’s block, when the next bus will be in that location, and more. This enables CUMTD staff to make decisions about immediate service, including whether to send out a back-up bus ahead of a late one in order to make sure it arrives at its scheduled stops on time. The control room also tracks up-to-date weather conditions, which influence these types of decisions.

The system, in addition to reporting real-time information about each bus, also records the data for use by planners. This data includes all of the information noted above alongside the actual numbers of passengers for each bus on each route at each stop, which helps planners make decisions for changes in service—they know when a bus’s ridership has increased or decreased, at which times and between what stops, with alarming accuracy. According to a senior administrator, “We have a banquet of

information every single day, all day. It's an all-you-can-eat buffet of information, and the question becomes choosing which dishes to take, and how to digest all of this information."

Inside the buses, this reporting allows the operators to be aware of what is going on in the system and to be more responsive; they are constantly in touch with the dispatch center. Each bus has a touch-screen computer through which the driver receives updates on the route and weather conditions, and communicates information back to the main facility. A new development to be implemented in the near future is automatic changing of the sign on the outside of the bus that communicates the route and destination to passengers. Currently this sign is changed manually by operators, but using the tracking system it will soon be possible for the computer inside the bus to change the signs automatically based on location. In the main facility, all employees have access to an intranet to communicate with one another, receive messages from other employees and supervisors, find any information about the work environment, fill out necessary forms, and see photos of other employees, which is helpful for new staff being trained. In addition, there is wireless access throughout the building.

In terms of services for the public, the main developments have to do with access to real-time information, demand for which is growing about 150% per year. Obviously, keeping up-to-date in terms of communicating data is of vital importance to customer satisfaction. According to the Technology Supervisor, "Every time a new method of communicating with the public becomes available, we embrace that openly and try to get our information out through those avenues." A great example of this is CUMTD's texting service, through which a rider can text a bus stop number to the system and receive a very quick automated response communicating which buses are scheduled to depart, and in how many minutes. The time reflects the actual time the bus will leave the stop, taking the data of where the bus is currently and translating it into the number of minutes it is away from any given stop. This is used often by riders, but because of its cost as a text message service through SMS, the district is looking into other services that would run through GSM, the Global System for Mobile Communications, a standard used by smartphones. They recently released an API as part of a competition for developers to create applications that make it easier for the public to access real-time information.

The website provides an easy-to-use service to locate different routes to take from point A to point B, and users can specify what date and times and filter by walking distance, time between points, and number of transfers. For old-school users, all of the system maps and schedules are also available on the website in easy-readable form. In addition to the traditional website, CUMTD uses social media, including Twitter, Facebook, and blogging, in order to communicate with and listen to the public.

The district is a major stakeholder in UC2B, having invested about \$350,000 in the project. UC2B will have a major impact on both their internal and external services, and how many people in the community can use these services. According to the Technology Supervisor, "With UC2B, we'll be able to provide faster and more accurate information to the public, and also to create a more secure environment by being able to get video feeds from cameras at all of our stops that are equipped with cameras, mostly on campus." Indeed, the area most impacted by UC2B's fast speeds will be streaming and recording from these security cameras, set up at kiosks and on buses. They have a new

relationship with the UIUC Police which allows them to share their security footage with one another over the 1GB local connection, doubling the areas that can be monitored for both. Streaming video takes a lot of bandwidth, so the number of sites that may be recorded and monitored will increase dramatically.

Another area that will see improvements as a result of UC2B is the backup of this system, creating redundancies and increased security. The district recently began using a new data storage and recovery system, which is installed remotely and communicated over fiber, and these capabilities will only grow with the broadband speeds of UC2B.

Anyone who uses the CUMTD bus system is well aware and appreciative of the constant improvements in communication and services. The district is on the cutting edge with regard to technology: for its users, the district can provide remarkable real-time information in a variety of formats to reach the largest number of riders possible, and internally, the district is developing systems that make both the organization and the buses operate efficiently. All of these areas will be influenced positively by UC2B; the Champaign-Urbana Mass Transit District will be a great example of what can be done with a new world-class broadband infrastructure.

# 76: Federal Aviation Administration

**Mary Looby**

Master's Student, GSLIS

## 1 Executive summary

The Federal Aviation Administration was created to oversee and control any type of air travel in or across the country. It is an agency within the Department of Transportation. Its stated mission is “to provide the safest, most efficient aerospace system in the world”; its vision for the future is to “strive to reach the next level of safety, efficiency, environmental responsibility and global leadership” while also remaining “accountable to the American public and our stakeholders.” (www.faa.gov/about/mission) Aircraft and air travel were radical technological innovations and the Federal Aviation Administration continues to try to stay on the cutting edge of aerospace technology. The office in Savoy, Illinois faces two major obstacles that affect most government agencies: budget and security issues. These influence the use and adoption of new technologies at the site.

## 2 Maps



This is a satellite image of the Federal Aviation Administration tower (red dot) next to the Willard Airport (A) in Savoy, Illinois. In this image the layout of the runways, the airport terminals, and the tower is visible. <http://www.aopa.org/airports/KCMI>



### 3 Photographs

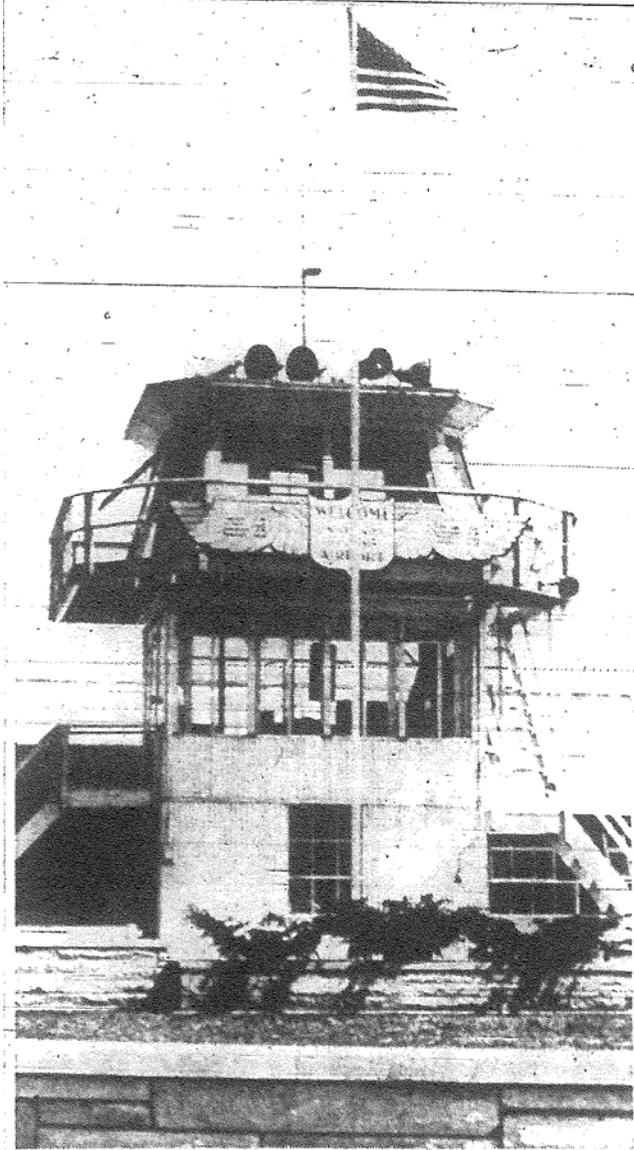


<http://www.airport-data.com/airport/photo/000724.html>

**In this image the Federal Aviation Administration tower is seen, as well as some of the airport hangars and a small test plane.**

A Pictorial Series

## Campus Camera...



UI AIRPORT TOWER. The control tower at the 77-acre University of Illinois Airport, southwest of Savoy, is one of the essential and imposing appearing features at this airport, used for transportation, instruction and research purposes. The airport was dedicated in 1945.

This is an image in the Champaign County Historical Archives in the Urbana Free Library. The picture appeared in the September 28, 1956 edition of the *News-Gazette*. The caption reads "UI Airport Tower. The control tower at the 77 acre University of Illinois Airport, southwest of Savoy, is one of the essential and imposing appearing features at this airport, used for transportation, instruction, and research purposes. The airport was dedicated in 1945."

## 4 Demographics of patrons or clients

The Federal Aviation Administration Tower does not target or serve specific groups of people or community members. The agency serves anyone who flies—commercially or privately, airport workers, skydivers, the government, even anyone who orders things via Federal Express or UPS—indeed the American public. The agency’s goal is “to provide the safest, most efficient aerospace system in the world.” So while they do not have a traditional set of customers or patrons the agency, its administrators, and employees attempt to serve everyone in the United States by offering a secure way to travel across the country.

## 5 History

**1926** – Air Commerce Act passed. According to this law the Secretary of Commerce was to support air commerce, create air traffic laws, license pilots, certify aircraft, create airways, and aid air navigation. The newly created Aeronautics Branch in the Department of Commerce takes over these responsibilities.

**1930s** – Four major airlines are established: United, American, Eastern, and Transcontinental and Western Air (TWA)

**1934** – The Aeronautics Branch is named the Bureau of Air Commerce. Subsequently, it encourages airlines to set up the first air traffic control centers in Newark, New Jersey, Cleveland, Ohio, and Chicago, Illinois.

**1936** – The bureau takes control of the oversight of the three centers listed above and improving safety becomes a high priority.

**1938** – The Civil Aeronautics Act is passed by President Franklin Roosevelt. This law establishes the Civil Aeronautics Authority (CAA) and an Air Safety Board that will look into accident prevention.

**1945** – Construction finished and Willard Airport is dedicated, with flights to begin in 1954.

**1966–1967** Congress approves the creation of the Department of Transportation to develop and maintain comprehensive transportation policies. In 1967 the department began to function and the Federal Aviation Agency is given the new name of Federal Aviation Administration.

**Throughout the 1960s and 1970s** The FAA tries to modernize its technology and keep up with new developments. A few examples from this transition period include updates to the National Airspace System (NAS), development of an Automated Radar Control System (ARTS), and establishment of the Central Flow Control Facility. Each of these changes was meant to update air traffic control and safety, as well as prepare the FAA for future innovations.

**1982** – FAA releases its first strategic plan for modernization. The National Airspace System (NAS) Plan is a 20-year outline for continuing to improve the air traffic control and air navigation systems. Some goals are to enhance the Air Traffic Control (ATC) system with a new Free Flight program and to develop the Global Positioning System (GPS) technology for commercial flight.

**1991** – The NAS Plan is replaced with the Capital Investment Plan. This new plan combines projects and plans from the original NAS Plan while adding “higher levels of automation as well as new radar, communications, and weather forecasting systems.”

**1996** – FAA creates an acquisition management system, a new personnel system to streamline recruitment, and a reward and discipline program.

**1998–2000** – The FAA begins testing a new personnel system called the core compensation. By the year 2000 the FAA transfers over 6,000 employees to the new system.

**2001** – On September 11, 2001 four U.S. airliners are hijacked; the day ends with the destruction of the World Trade Center towers in New York, damage to the Pentagon in Virginia, one plane crashing in a Pennsylvania field, and thousands of people dead or wounded. It is a shock to the American people as well as the FAA and an event that changes air travel in the United States forever.

**November, 2001** – Aviation and Transportation Security Act is signed by President George W. Bush, which creates the Transportation Security Administration (TSA) within the Department of Transportation. This new agency will take over the security responsibilities from the FAA in 2002.

**2003** – The Vision 100 – Century of Aviation Reauthorization Act (100 years after the first flight by the Wright brothers) supports the idea of a Next Generation Air Transportation System (NextGen). The NextGen plan will take a multiyear, multiagency effort with the goal of establishing an “air transportation system for the year 2025 and beyond.” In December, 2004 the Department of Transportation Secretary releases the *Integrated Plan for the Next Generation Airport System*, which officially introduces the plan, outline, and objectives for creating NextGen.

The work of the FAA has established air travel as a normal part of life for the American people. Their work has connected people throughout the nation and the world. In fact, the FAA points out, it “has created the safest, most reliable, most efficient, and most productive air transportation system in the world.” Much of what will happen in the future depends upon the technological innovations that are sure to change the aviation industry. The FAA is looking to its NextGen plan to ensure viability and continue to provide safe, secure, and efficient service and air travel.

## 6 Technology inventory

Hardware	Software and Communications
12-14 Office Desktops	Microsoft Office 2003
Personal Laptops and Desktops	Adobe9
Printers	SharePoint
Radio hardware	Internet Explorer 8
Audio Recording equipment	Oracle (and other database programs)
Remote Server and backup server	1 Mbps connection
LAN	

## 7 Analysis

While air travel, airlines, and airports have become increasingly connected with new technologies, the FAA has lagged behind due to security and budget issues. The FAA office and tower at Willard airport has about 37 employees and many must share computer equipment. A good estimate is that about 15 people have their own personal laptops or computers, but the majority of employees share computers and printers. The printers are networked so that there can be sharing; however, certain people have their own office printers due to the amount of paper they go through or for security reasons. Whether or not an employee has a computer or printer depends upon job position and function. Furthermore, the digital skills of the employees using the technology equipment vary greatly.

Most of the computers are considered to be relatively old. The FAA tries to operate on a life cycle plan of four years for a desktop and three years for a laptop, and then the equipment gets replaced. But for example, one interviewee stated that he just got a “new” laptop that was already a year old. Programs and software installed on the computers are also outdated. For example, the facility uses Microsoft Office 2003, Adobe 9, and Internet Explorer 8 and was just updated to those applications recently. They also use database-type software such as Oracle and similar programs. To share information the FAA tower uses SharePoint, a Microsoft product that allows employees to “set up Web sites to share information with others, manage documents from start to finish, and publish reports to help everyone make better decisions” (Microsoft Corporation, 2011)

The FAA tower is responsible for controlling and monitoring the air space around Willard Airport. Any aircraft, commercial or private, skydiver, rocket pilots, etc. within a radius of 40 miles and a height of 10,000 feet communicates with the tower. The University of Illinois’ Institute of Aviation also works with the FAA at Willard Airport to practice take offs, approaches, and landings. Another function of the FAA is to collect data from every plane that flies through their air space. They also collect data for the Institute of Aviation. This data is meant to be shared with supervisors and quality assurance departments to improve services and ensure safety. For example, the FAA office audio records all frequencies, positions, conversations, and radar data.

The FAA tower at Willard Airport is operating with a remote server that has only a 1 Mbps connection. None of the machines are allowed to have any type of wireless access; consequently they have to connect through a remote LAN or hard-line wire to be connected to the Internet. All of the information flowing in and out of the facility must be maintained through a secure connection so wireless is not a possibility unless an extremely secure, tight connection could be established. The files take up a large amount of bandwidth as well, because most are of a large size and must be reformatted or translated. So the connection they have may be very secure, but it is also at times very slow. In fact, because the network is shared between 12 and 14 computers the employees sometimes have to warn each other that they will be downloading or sending a large file. In this way they can coordinate the computer use and try to make the most of a slower connection. The server and connection is not the only aspect of information technology not in-house. The backup server is also kept remotely. The FAA tower at Willard Airport

is connected with two backup systems, one in Oklahoma City and the other in Atlantic City, and again this is due to security and budget concerns.

The information technology support is also set up remotely. If the office at Willard has issues or concerns they call the IT staff in Indianapolis, Indiana to report the problem. The IT staff there then access the computers remotely and install a program, fix a virus, and troubleshoot. Furthermore, everything done to a computer must get approval. To install a new program, update software, or install a printer must be approved and handled by the IT staff. The process can take quite a bit of time, because first an employee must report an issue, get approval, and then the downloading and installing begins but with such a slow connection it can take hours. However, the employees did mention that the IT staff does pretty well in keeping up with their reports and issues and handling them in a timely manner. There are three to four IT staffers in Indianapolis assigned to the Willard Airport FAA office, and this is really a cost-effective way for the FAA to provide technology support, as opposed to having an in-house IT person at every location.

The FAA office does have certain technology issues and obstacles to overcome in everyday work but much of that cannot be changed. It comes down to the government being concerned about the overall security of data and protecting that via secure, remote servers. The office also faces budgetary concerns, which dictate much of the decisions made by the government in regards to what types of technology to use and endorse. Because of this the future of information technology at the Federal Aviation Administration is unclear. However, the FAA office at Willard does try to adapt its technology to its situation, that is, create or use programs or software that allows them a little more flexibility but are still protected and safe. For example, the staff support specialist has recently created an internal website that has different sectors for different jobs: there is an administrative corner, an air traffic controller corner, etc. This will be used for file and information sharing. Employees can log onto the internal website, access the manual, PDF, or file, whatever they need, without waiting for a download. Creating and using this type of information technology is a way for the employees and offices to work within their limits set by the government.

The FAA will likely not be able to take advantage of UC2B. The office is very self-contained and would be unable to use any type of broadband network that is not connected or approved by the government. The staff interviewed for this study suggested that Willard Airport would be able to benefit much more from the type of service that UC2B can offer.

Security is one of the main reasons that the Federal Aviation Administration is unable to take full advantage of new technological innovations. They are most concerned about the safe, secure transmission of data than the speed with which it is done. It was pointed out, however, that because different departments and supervisors are requesting more and different types of information, such as audio recording, radar data, and printed readouts to get a fuller picture of operations, something will have to change in the agency. The cloud was suggested as a possible way to accomplish the task of sharing information with offices across the country, yet again though it would have to have the tightest, securest connection. The FAA does everything it can to ensure secure premises and technology, which can create barriers to advancement.

A second reason for the FAA's information technology being what it is has to do with the budget. The government and the administration do not have the budget to equip every FAA office with the same types of connection or technology. For example, the FAA office at Willard is considered a 1 priority (5 being highest) from an IT standpoint. This is largely due to the smaller size of the facility. It is just not thought to need certain types of technology, bandwidth, or connection. In fact, as reported in the *Daily Illini*, the FAA is planning on combining some of the tower's activities with a facility in Elgin, Illinois:

The information technology set up at the Federal Aviation Administration is not ideal and there are many areas that could be improved but the two phrases and reasons I heard over and over again in my interview were budgetary concerns and security issues. This is not likely to change very much in the near future unless they can get involved in certain programs or windfalls, but again, that all depends on the timing and individual situations. The office at Willard is doing a good job of working within in the system but they are still up against the bandwidth limit and a slow connection. It seems the future for this particular site is especially uncertain due to the possible realignment with Elgin and the closing of the University of Illinois' Institute of Aviation set for 2014.(Dollear, 2011) It will be interesting to see what types of technological advancements and innovations the Federal Aviation Administration will adopt in its attempt to continue to provide the safest, most efficient, and most secure air travel in the world.

## **Bibliography**

- Maione, Michael. "FAA Plans to Move Radar from Willard Airport in 2014." *Daily Illini* [Champaign] 3 Mar. 2010.. University of Illinois, 3 Mar. 2010. Web. 1 Dec. 2011.
- Dollear, Kevin. "Trustees Vote to Shutter Flight College." *Daily Illini* [Champaign] 16 Aug. 2011, News sec. University of Illinois, 16 Aug. 2011. Web. 7 Dec. 2011.

## **Webliography**

- "History." *FAA: Home*. U.S. Department of Transportation - Federal Aviation Administration, 10 Feb. 2010. Web. 5 Dec. 2011. [http://www.faa.gov/about/history/brief\\_history/](http://www.faa.gov/about/history/brief_history/)
- "Mission." *FAA: Home*. U.S. Department of Transportation - Federal Aviation Administration, 23 Apr. 2010. Web. 7 Dec. 2011. <http://www.faa.gov/about/mission/>
- "What Is SharePoint?" *Microsoft SharePoint 2010*. Microsoft Corporation, 2011. Web. 8 Dec. 2011. <http://sharepoint.microsoft.com/en-us/product/capabilities/Pages/default.aspx>

# 77: University of Illinois Willard Airport

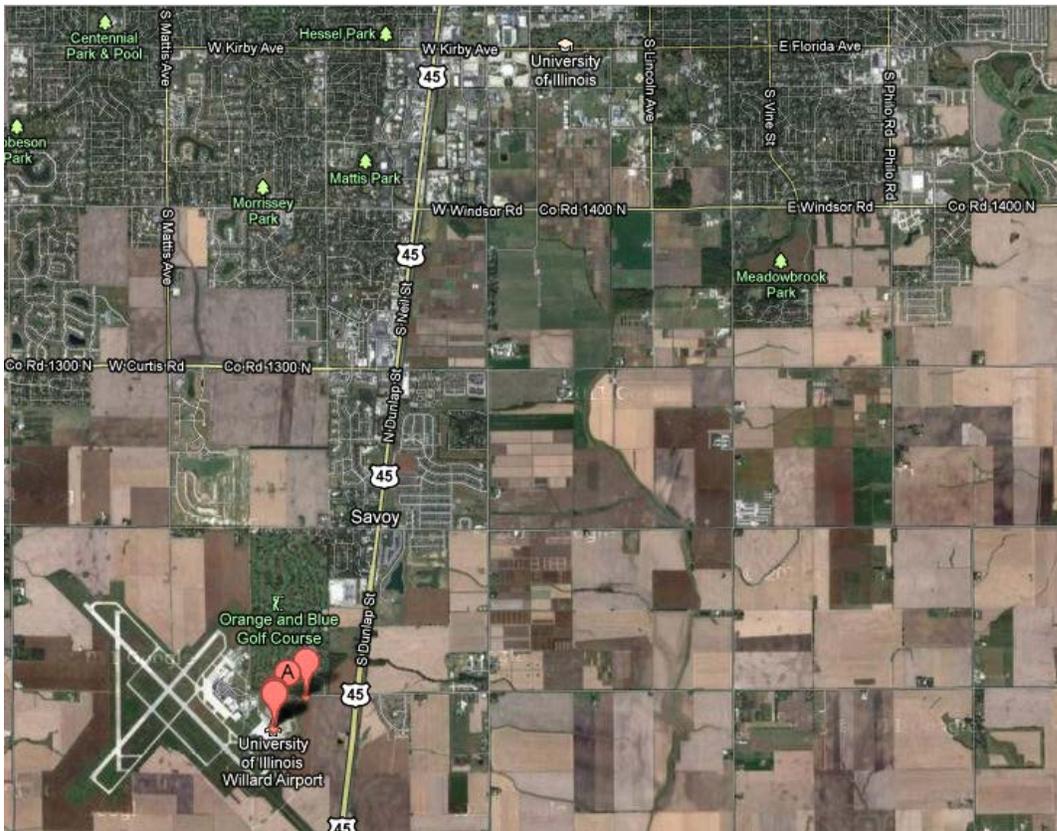
## Sunghwan 'Sunny' Kim

Master's student, GSLIS

### 1 Executive summary

Willard Airport has two large parts to it: the aviation department oversees the actual flights and the equipment, while the administration department assists the clientele and manages the airport as a whole. Both airport managers and airport patrons rely on various information resources to decide what they should do. Since airport controls air transportation, the controllers must have detailed weather information and high level of security information. Passengers need information concerning ground transportation and hotels. For these reasons the airport relies on several connections to local institutions, and uses digital devices and a network to collect necessary information. As a result, the UC2B project will significantly impact this institution not only with regard to increased network speed, but also with regard to advanced community connectivity.

### 2 Maps



Willard Airport is located at 11 Airport Road in Savoy, Illinois, in the southern portion of Champaign County. Because of the noise problem and safety issues, airports are usually located faraway from downtown. This is also the main reason why people need transportation information regarding the airport.

### 3 Photographs



**The exterior of the Willard Airport.**



**There is no public computer for use by customers. A free telephone hotline and some limited local hotel contact information can be found in the passenger convenience center. Patrons can access the Internet by using the free Wi-Fi service in the airport, and they also can get information by asking staff at the information desk.**



**Three employees manage the airport. All of them have their own desktop to handle their tasks, and there are more computers in the meeting room and other workplaces. They also have printers and fax machines in the office.**



The sign indicates the services available for patrons. Almost all of these are also related to the Internet (source: [http://en.wikipedia.org/wiki/University\\_of\\_Illinois\\_Willard\\_Airport](http://en.wikipedia.org/wiki/University_of_Illinois_Willard_Airport))

#### 4 Demographics of patrons or clients

The Airport doesn't record its patrons' demographics, but below is data on the total number of visitors. Airline companies keep records of their customers' demographics and purpose of travel, but they never share that information with the airport.

2010 PASSENGER ENPLANEMENTS												
	AMERICAN	NWAIRLINK	MONTHLY	% CHANGE	% CHANGE	CHARTER	AIR	TOTAL	% CHANGE	CUM	% CHANGE	DAILY
	EAGLE	MESABA	SUBTOTAL	LAST MO	LAST YR		TAXI	MONTH	LAST YR	TOTAL	LAST YR	AVG
JAN	4798	735	5533	-22%	-3.94%	315	142	5990	-7.53%	5990	-7.53%	193
FEB	5233	926	6159	11%	-4.29%	315	134	6608	-4.70%	12598	-6.07%	236
MAR	6736	1227	7963	29%	1.39%	380	174	8517	1.99%	21115	-2.98%	275
APR	5840	1223	7063	-11%	7.54%	12	180	7255	7.21%	28370	-0.56%	242
MAY	6528	1568	8096	15%	-0.71%	0	141	8237	-1.60%	36607	-0.80%	266
JUN	5940	1985	7925	-2%	-0.89%	0	180	8105	-1.13%	44712	-0.86%	270
JUL	5840	1686	7526	-5%	0.47%	0	151	7677	-0.81%	52389	-0.85%	248
AUG	5625	1423	7048	-6%	-0.24%	0	95	7143	-1.73%	59532	-0.96%	230
SEP	6623	0	6623	-6%	-6.59%	237	172	7032	-5.39%	66564	-1.45%	234
OCT	7783	0	7783	18%	-9.09%	450	152	8385	-7.85%	74949	-2.21%	270
NOV	7334	0	7334	-6%	-5.31%	300	161	7795	-4.17%	82744	-2.39%	260
DEC	6916	0	6916	-6%	-2.18%	322	127	7365	-3.64%	90109	-2.50%	238
<b>Total</b>	<b>75196</b>	<b>10773</b>	<b>85969</b>			<b>2331</b>	<b>1809</b>	<b>90109</b>				
2011 PASSENGER ENPLANEMENTS												
	AMERICAN		MONTHLY	% CHANGE	% CHANGE	CHARTER	AIR	TOTAL	% CHANGE	CUM	% CHANGE	DAILY
	EAGLE		SUBTOTAL	LAST MO	LAST YR		TAXI	MONTH	LAST YR	TOTAL	LAST YR	AVG
JAN	6105		6105	-12%	10.34%	315	169	6589	10.00%	6589	10.00%	213
FEB	6110		6110	0%	-0.80%	325	144	6579	-0.44%	13168	4.52%	235
MAR	7711		7711	26%	-3.16%	197	149	8057	-5.40%	21225	0.52%	260
APR	7030		7030	-9%	-0.47%	0	157	7187	-0.94%	28412	0.15%	240
MAY	7739		7739	10%	-4.41%	0	253	7992	-2.97%	36404	-0.55%	258
JUN	6996		6996	-10%	-11.72%	0	191	7187	-11.33%	43591	-2.51%	240
JUL	6338		6338	-9%	-15.79%	0	178	6516	-15.12%	50107	-4.36%	210
AUG	6119		6119	-3%	-13.18%	0	151	6270	-12.22%	56377	-5.30%	202
SEP	6550		6550	7%	-1.10%	480	179	7209	2.52%	63586	-4.47%	240
OCT			0	-100%	-100.00%			0	-100.00%	63586	-15.16%	0
NOV			0	#DIV/0!	-100.00%			0	-100.00%	63586	-23.15%	0
DEC			0	#DIV/0!	-100.00%			0	-100.00%	63586	-29.43%	0
<b>Total</b>	<b>60698</b>	<b>0</b>	<b>60698</b>			<b>1317</b>	<b>1571</b>	<b>63586</b>				

## 5 History

Willard Airport is one of only a handful of commercial airports in the country owned and operated by an educational institution. Willard Airport, often referred to by its FAA designation, "CMI," was named for former University of Illinois president Arthur Cutts Willard. Formal dedication of the airport took place on October 26<sup>th</sup>, 1945 with the first scheduled airline service beginning in 1954. The University of Illinois at Urbana-Champaign established its nationally recognized Institute of Aviation at Willard Airport in 1946. The university takes full advantage of the training and research opportunities offered by the institute. Today Willard Airport is served by one air carrier, American Eagle, which operates morning, afternoon, and evening flights. Willard Airport is also home to a private jet service: FlightStar.

## 6 Technology inventory

	Download speed	Upload speed	Ping
Speedmatters.org	5.904	4.649	
Speedtest.net	9.87	6.14	33

This institution's network speed is not bad. They are using a network line which based on the University of Illinois network, since this airport is owned by U of I.

CPU	Intel x86
RAM	2G
HDD	200GB
OS	Windows XP
Quantity	15

The computers in this airport are using Windows XP as their operating software. Overall performance is not so bad, but it is obvious that these computers will need an upgrade in recent future. There are many other devices in this building, but the tech manager couldn't list them for me because of security rules.

## 7 Analysis

People tend to think of an airport as a huge, high-tech institution. But Willard Airport is a part of a university department and there are only three staff people to manage it. That said, broadband is very important to this small organization because they must cooperate with many organizations both locally and nationally.

Many of the anchor social institutions in the Champaign-Urbana expect that the UC2B project will provide high-speed internet for their staffs and patrons. But in this airport's view, connectivity will be a more important issue. The main customer group of Willard Airport is passengers. Since travelers are not an easy target to define and classify, personalized service which depends on high-speed Internet will be a very important goal for this airport.

The UC2B project will make possible interactive real-time data communication between Willard Airport and other anchor social institutions. It will be very helpful to this airport because they require a high level of information. For example, connection with the local weather broadcasting system will provide faster and more accurate weather information. Local transportation companies such as CUMTD or LEX will provide real-time bus schedules.

Of course, there are several obstacles to be overcome. First of all, the scale of Willard Airport is not big, so adapting new digital skills will not be easy for this small group. To cooperate with other institutions, many discussions and consultations are needed. Secondly, the airport must follow some special regulations, especially security rules and national airport standards. These rules can limit information sharing by Willard Airport. Lastly, the economic crisis represents a problem. One interviewee said that the economic crisis had decreased the number of passengers: people were using other cheap transportation or have stopped travelling. As a result, the airport's income is down and they cannot afford to purchase new technology for their work area.

It is not easy to solve these problems, because they are based on a social phenomenon. Forming and running well-organized UC2B committee will help cooperation between

anchor social institutions. Additional local network projects that provide not only physical infrastructure but also systemic software solutions are needed as well.

## **Webliography**

Wikipedia, "University of Illinois Willard Airport", accessed November 10, 2011,  
[http://en.wikipedia.org/wiki/University\\_of\\_Illinois\\_Willard\\_Airport](http://en.wikipedia.org/wiki/University_of_Illinois_Willard_Airport)

Willard Airport, "Airport history", accessed November 10, 2011,  
<http://www.flycmi.com/about/history/>

Willard Airport, "Flight schedules", accessed November 10, 2011,,  
<http://www.flycmi.com/info/schedules/>



# Libraries

---

## 78: Champaign Public Library

**Abigail Sackmann**

Master's student, GSLIS

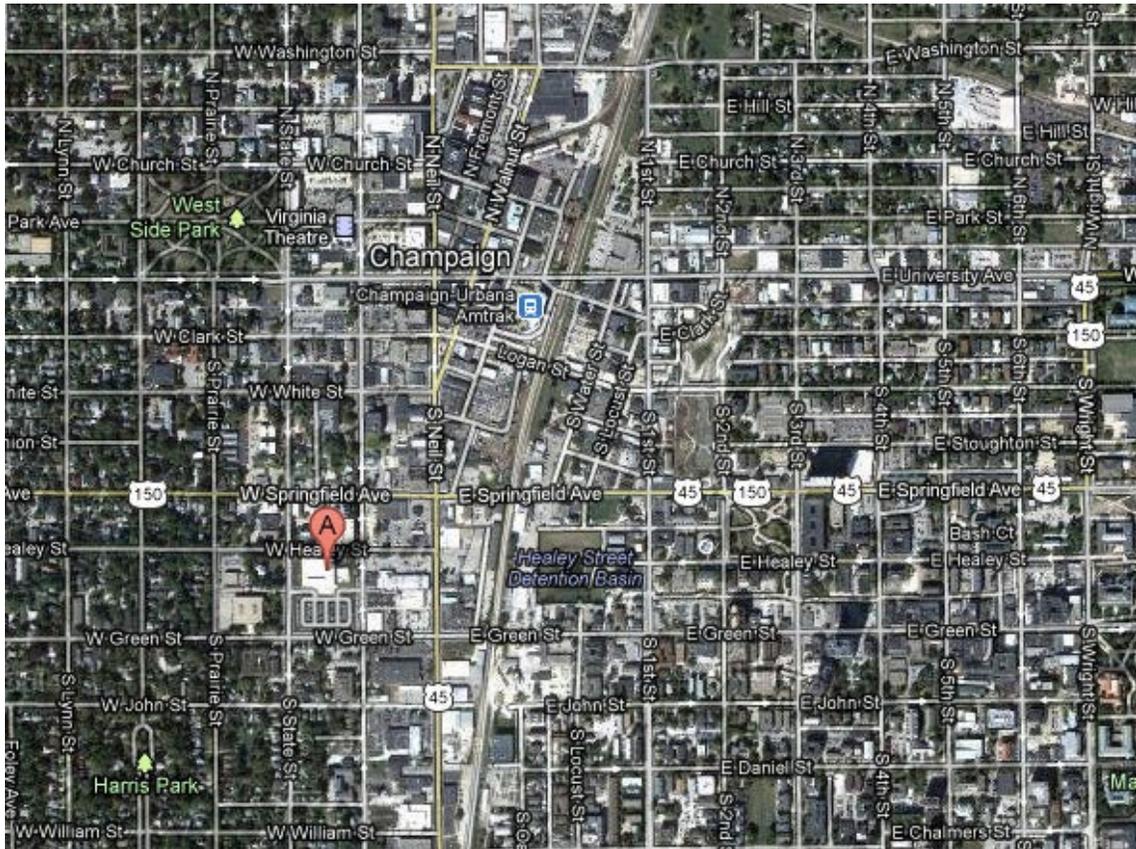
### 1 Executive summary

According to its mission statement,

The Champaign Public Library connects our community with the power of knowledge, the world of culture and ideas, and the joy of reading. We support the essential role of reading for success in life and work, the need for easy and equal access to lifelong learning, and the value of enriching and inspiring experiences.

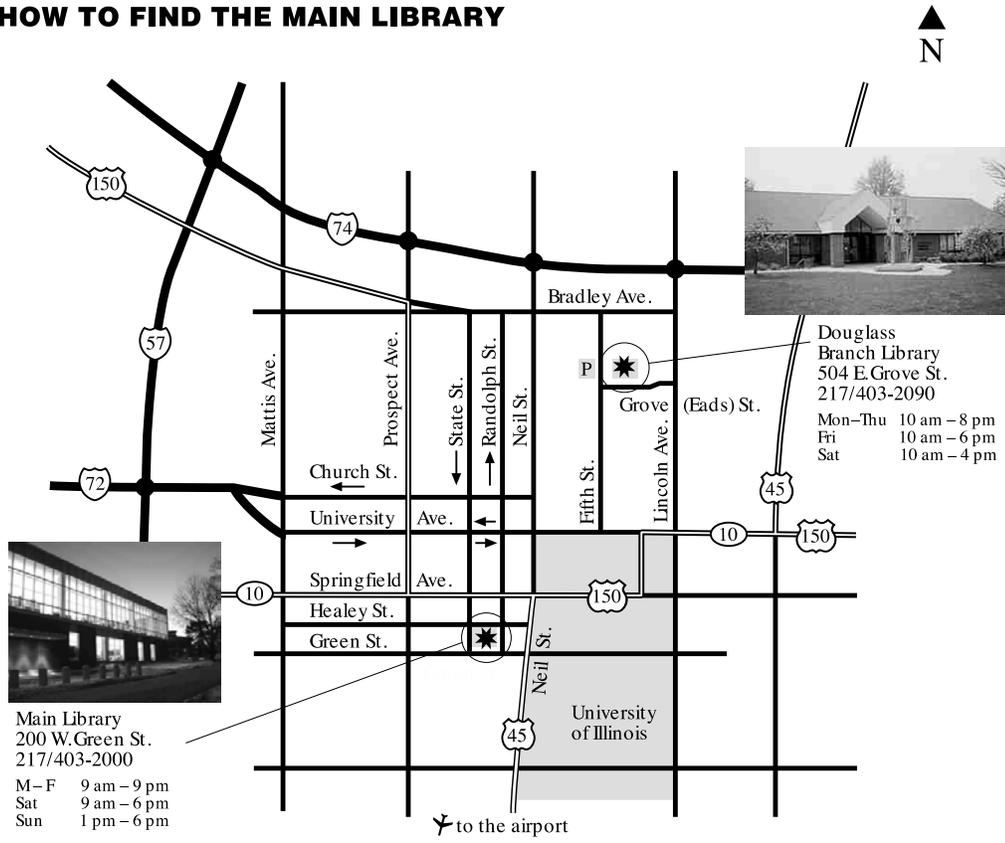
The library utilizes many technologies to aid in this mission, including for example self-check-out stations; fully automated security and system updates for computers that are controlled by group policy; an automated sorting system for new materials; room- and event-booking software that is available online; and a new and effective website. Because of its success in other areas of IT and the continuing demand from patrons, the library has had to increase its bandwidth several times in the recent past. CPL is unsure whether UC2B will be faster and/or cheaper than the connection they have currently, but they are open to the possibility of switching over to UC2B service should it offer faster speeds at a lower price.

## 2 Maps



**The Champaign Public Library on Green Street in downtown Champaign**

# HOW TO FIND THE MAIN LIBRARY



Map from CPL website showing locations of Main Library and Douglass Branch

### 3 Photographs



**Champaign Public Library, Main Branch.**



**Staff computer**



**Adult Computer Lab**



**Catalog terminals**

## 4 Demographics of patrons or clients

Champaign Public Library serves residents of the City of Champaign. City Demographic data is from the 2010 US Census, and library patron data is from CPL's 2010–2011 Annual Report, available at [http://www.champaign.org/about\\_us/annual\\_report/annual-report-2010-2011](http://www.champaign.org/about_us/annual_report/annual-report-2010-2011).

Total population of City of Champaign: 81,055

Percent White: 67.8%

Percent Black: 15.6%

Percent Asian: 10.6%

Percent Latino: 6.3%

Percent of persons age 25+ High School Graduates: 92.8%

Percent of persons age 25+ Bachelor's Degree or higher: 48.1%

Median household income: \$36,498

Per capita income: \$22,321

Families below poverty level: 12.3%

Individuals below poverty level: 27.2%

Library card holders: 37,710

Visits to the library per day: 2,700

Items checked out at CPL per day: 7,000

Number of people who use a computer at CPL per day: 466

## 5 History

The library's history begins with a small private reading room created in 1868. About 300 books and some periodicals were housed at No. 7 Main Street in Champaign, with 40 members paying dues to the private Champaign Library Association. The association dissolved in 1876, donating its resources to the City of Champaign in order to create a public library. The City Council accepted the gift and created a budget, and on July 21, 1876, the Champaign Public Library and Reading Room was born. It soon moved to a new location, No. 24 Main Street, and accumulated 750 volumes. During this time, there was one librarian for the collection, and anyone over the age of 10 could borrow books.

In 1889 the collection moved to the city building at the corner of University and Neil. Five years later, A. C. Burnham, a banker from Champaign, donated money for a new library, which opened on December 17, 1896. Burnham also created a \$10,000 book endowment, and when the new library opened the collection reached 5,593 books. The collection grew to over 100,000 items, requiring a staff of 40 and a new building. A new

library was built with funds from a referendum and dedicated in November of 1977 at 505 S. Randolph Street, where it remained until 2008.

In 1965, the Friends of the Champaign Public Library was founded in order to support the library through volunteering and funding opportunities. Another support organization, the Champaign Public Library Foundation, was established in 1993 to solicit private gifts in order to safeguard the mission of the library.

In 1970, the Douglass Center Library was organized as the first branch library in Champaign-Urbana, as a joint project of the two libraries, the Lincoln Trail Libraries System, and the Champaign Park District. In 1972, it began to operate as a branch of the Champaign Public Library (for more on the history and technology use of this library, please see its report).

Since the opening of the library's Randolph Street facility, the size of the collection has doubled, and library use has tripled. Just a few years after it opened, the collection and use outgrew the building, and plans were developed to construct a new building to house the collection and meet the growing community demand for both resources and space. The current library building opened in January 2008; it has three times the space and four times as many computers as the previous facility, and its original collection of 285,000 items has grown to about 400,000.

In terms of technology, much has happened in the last several years. In 2005, when the existing Technology Services Manager began working at CPL (which was still in the old building), the library had 19 public computer stations and very little of the network was automated. The number of public computers has since grown to almost 90 and all of the updates and daily tasks are automated for the entire network; these represent snapshots of the dramatic technological changes that have occurred in the past few years.

## 6 Technology inventory of the Champaign Public Library Main Branch

Hardware	Software
88 public desktops	Evanced for events, booking, and summer reading clubs
120 staff desktops	Microsoft Office Suite 2007 (moving to 2010)
2 public laptops (may be checked out for library use)	Self-Checkout software—Tech Logic CircIT 2010
Scanners	PC reservation, printing, and eCommerce: EnvisionWare
Cameras	MySQL
Fax machines	SteadyState
Copy machines	Comodo Time Machine
9 digital projectors (can distribute same signal to the entire first floor)	
2 large-screen TVs	Subscriptions and online resources
Carousel: slide making from the Promotions Department	Testing and Education Reference Center
WolfVision projector in the Children's Department	Gale Student Resources in Context

60 security cameras and other security technologies	Grolier Online
2 Wiis	Auto Repair Reference Center
Sound systems with microphones and mixers	Gale Virtual Reference Library
2 Kindles (may be checked out for library use)	Illinois Public Records
AT&T broadband	Consumer Reports
	General Reference Center Gold
	Newsstand
	Wall Street Journal Online
	Morningstar Investment Research Center
	Standard & Poor's
	WorldCat
	Mango Languages
	Children's Literature Database
	Literature Resource Center
	Career Transitions
	ReferenceUSA
	Brands & Their Companies
	Encyclopedia of Associations
	Gale Directory of Publications and Broadcast Media
	Downloadable Audio and E-Books
	Texting, email, phone, and IM Reference
	Facebook page
	Twitter account
	Blog

Speedmatters.org	17792 Kbps	35949 Kbps
Speedtest.net	35.13 Mbps	34.08 Mbps

## 7 Analysis

The Champaign Public Library is an amazing example of what can be accomplished through the use of technology. The organization's leaders deeply understand the fast-paced nature of digital technologies and their potential to ease the burdens of economic difficulties and budget cuts. Though the library puts together an annual Technology Plan, often the pace of change is so fast that many new developments are implemented that are not included in an official plan. CPL continues to operate and grow even in an economic reality that necessitates 14 position vacancies, which is no small feat with a full-time equivalent staff of about 76.

Indeed, CPL is on the forefront of the digital revolution. All staff use e-mail to communicate, and digital literacy is generally high. The library utilizes many technologies that ease the burden of fewer staff, including self-check-out stations; fully

automated security and system updates for computers that are controlled by group policy; an automated sorting system for new materials; room- and event-booking software that is available online; and a new and effective website (funded by a LSTA grant). In December 2011, CPL and Urbana Free Library moved to a new automation system independent from the other libraries in the Illinois Heartland Library System (for more about IHLS, see this organization's report). These technologies make patron use of the library easier as well, as do other technologies such as text messaging, call-in, and IM reference. There are even plans to implement in-stack checkout, the result of a new app developed for smartphones and tablets.

The library has had to increase its bandwidth several times in the recent past, and demand continues to increase. They have a 10 Mb connection right now through AT&T with fiber already installed. CPL is unsure whether UC2B will be faster and/or cheaper than the connection they have currently, but they are open to the possibility of switching over to UC2B service should it offer faster speeds at a lower price.

However, even if this anchor social institution decides not to go with UC2B service, its leaders know that it will be affected in numerous indirect ways. For example, many CPL patrons live in the "yellow zones" receiving fiber to the premise; this could change demand for services dramatically, affecting not only use of the library's public computer labs, but also online services and programming.

## 79: Douglass Branch Library

### Abigail Sackmann

Master's student, GSLIS

#### 1 Executive Summary

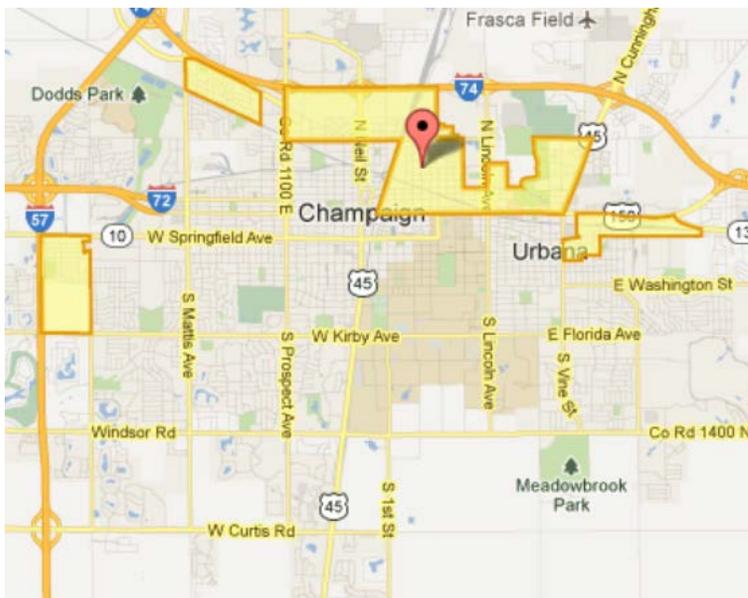
The Douglass Library, a branch of the Champaign Public Library (CPL), was formed originally for the purpose of providing library services to previously underserved neighborhoods, as “A Black Library for a Black Community.” (Crowe et al, 1972) Its story reflects both the tensions and cooperation that have marked the history of Champaign-Urbana, ultimately providing inspiration for our community and for libraries in other areas.

The branch recently underwent a renovation that allowed them to double the number of computers available to the public. They also provided computer classes from September 2011 through May of 2012, which raised their profile as a public computing center and increased the number of patrons coming to the library for instruction and computer access. With the Douglass Branch situated in the middle of a UC2B yellow zone where every household has the opportunity to receive inexpensive and fast internet connection, staff expect many more patrons to visit the library for instruction on how to use computers and the Internet.

## 2 Maps



Map of Douglass Branch proximity to main library, courtesy of Champaign Public Library



The Douglass Branch, at 504 E Grove Street in Champaign, is in a UC2B yellow zone, where under 40% of households have access to broadband in their homes.

**3 Photographs**



**The entrance to the Douglass Branch Library, from Douglass Park.**



**The library, stacks to the left and computer lab to the right behind the circulation desk.**



**Computer lab**



**Printer**

## 4 Demographics

	Douglass Branch Census Tract	Champaign
Population	1,693	81,005
White	7%	67.8%
Black or African American	86.5%	15.6%
American Indian and Alaska Native	0.1%	0.3%
Asian	0.6%	10.6%
Persons reporting two or more races	3.3%	3.0%
Persons of Hispanic or Latino origin	4%	6.3%
High school graduates, age 25+	44.5%	92.8%
Bachelor's degree or higher, age 25+	6.1%	48.1%
Median household income	\$26,269	\$36,498
Persons below poverty level	34.7%	27.2%

## 5 History

Prior to 1970, when the Douglass Library was formed, neither the Champaign Public Library (CPL) nor the Urbana Free Library (UFL) provided much service to the primarily Black north side of town, except for an occasional bookmobile from CPL. (Crowe et al, 1972) In the early part of that year, though, grassroots leaders in the Black community picked up an idea from a University of Illinois Library School class to start a library for this underserved community. After receiving good response from both libraries, the leaders appointed a Community Advisory Board which prepared a proposal for the Douglass Center Library. This Proposal was titled "A Black Library for a Black Community," emphasizing services to youth and "self-awareness," and was submitted to both the Champaign and Urbana Library Boards on April 8, 1970. (Crose et al, 1972) The proposal was then submitted to the Illinois State Library for LSCA grant funds. On June 15 a contract was signed between the State and the two libraries, and the Douglass Center Library opened in November in the Hartwell Howard Room of the Douglass Community Center.

In December of 1971 the State of Illinois stipulated that the library was to be placed under direct administration of the Champaign Public Library, operating as a branch, and the Advisory Board was to be dissolved. The board was replaced with a community advisory committee, and the Urbana Free Library continued proportionate joint funding until 1975 when it declined to continue because of financial reasons.

On June 8, 1976, the Douglass Branch moved to 310 E Bradley Avenue, a property given as a gift in memory of Sarah O'Neill. In 1985 the library was closed several months for renovations, funded with assistance from the Black Ministerial Alliance, empty tomb inc., the City of Champaign, and several neighborhood churches.

The first computer system at Douglass Branch was dedicated in March 1994, a result of a cooperative effort between the City of Champaign and the Champaign Public Library. In 1996, the branch became a separate department of CPL, a division of the Library's Outreach Services Department, after which the branch manager became a member of the library's management team.

Around the same time in the mid-1990s, a Joint Committee to Develop a New Douglass Branch Library at Douglass Park was formed and organized funds for a new building from a Community Development Block Grant, Illinois State Library Construction Grant, the Champaign Public Library, Champaign Park District, and the Champaign Public Library Foundation. The new building was dedicated on June 17, 1997. The new facility, where the branch remains currently, provided three times more space than the building on Bradley Avenue, and included a large room for community meetings.

In 2011 the library received funding for building renovations, which were focused on increasing the number of public computers from 10 to 20. The grand re-opening celebration was in September. They also received a grant to hire a computer skills instructor for one-on-one help and computer classes, which ran from September 2011 through May 2012.

## 6 Technology Inventory

Hardware	Software
20 public desktop PCs	Windows 7
10 staff desktops including 2 for circulation	Microsoft Office 2010
Scanner/Printer/Fax	iTunes and Windows Media Player
Fax and copy machine	Internet browsers
2 Projectors	Specialized circulation software
Circulation Hardware, including scanners and security pads	Adobe Suite and other editing software for Project Next Generation
Laptops devoted to Project Next Generation	
Digital cameras and video cameras for Project Next Generation	
Scanners for Project Next Generation	

	Download (Mbps)	Upload (Mbps)
<b>Speedtest.net</b>	21.62	4.36
<b>Speedmatters.org</b>	21.883	4.522

### Speed Test Results

## 7 Analysis

The Douglass Branch Library is the only branch library in Champaign-Urbana, located in Douglass Park in north Champaign. The building is owned by the Champaign Park District, which helps maintain the building and grounds. In addition to their collection of books and public computer lab, the library has a large meeting room for community groups and offers events such as story time for children. In 2011 the building was renovated to include space for 20 computers, responding to increasing demand from patrons. The library also received a grant to hire a computer instructor, who taught classes from September 2011 through May of 2012. For the last several years they have offered a program for middle school students called Project Next Generation, in which a student enrolls for the fall, spring, or summer and attends two 1.5-hour sessions per week. Four mentors introduce them to digital media technologies including video, photography, and editing software like Adobe Photoshop, and using these tools they work on real media projects throughout the course of the semester.

As with many organizations, particularly ones that are publicly funded and thus rely on property taxes, the library is operating with severe budget constraints. This means access to fewer resources in general, but most significantly that the size of the staff has been cut in half, from eight in 2006 to four currently. Still, they continue to play a vital role in the

community at a time when more and more people are using the library both because of the economic recession and the increased necessity of using the Internet for many tasks.

All of the branch's information technologies are provided and updated by the main library's IT staff, who do a great job at maintaining, troubleshooting, and offering assistance and instruction in software when needed. Because of this, the library has effective technology resources; the biggest issue for them is meeting demand from patrons for instruction. In the past few years, companies, agencies, and schools have been shifting their processes from paper to online at an amazing rate. For people with computer access and know-how this is mostly a convenience, but the digital divide in society means that there are many people who need to use public computers and who need guidance in doing so. More and more these people are showing up at public libraries, and the Douglass Branch is no exception.

Despite a smaller staff and increasing demands, the library welcomes their important role in ensuring access and instruction; as one librarian said, "We want to be known as the place to go for help with computers." The computer classes offered in the fall, winter, and spring aided with this image because the library made special effort to get the word out that they were offering instruction on computers and technology. This included billboards, business cards, and advertising in the News-Gazette. At a time when school work, banking, job applications, social security and other government forms are all online, it is critical that people who need help know where to go.

Though the grant that funded daily computer classes has ended, they do offer classes occasionally; for example, they recently had one on e-readers during the Juneteenth celebration in Douglass Park, showing patrons how to download library books. Librarians also offer one-on-one help with patrons on a regular basis, both as issues arise in the computer lab and by scheduling times for more lengthy instruction sessions. A security guard who works in the evenings even helps out occasionally when patrons need assistance in the lab. However, there is always a bigger need, especially for beginner training, than they have time to do with such a small staff. Library administration is looking into coordinating a volunteer program to help with this.

The biggest change the library envisions with UC2B is another surge in demand for computer instruction. If more people are able to afford Internet connections and computers, many will turn to the library for knowledge about how to use these tools. Librarians have experienced this with e-readers; instead of keeping patrons away from the library, it has brought more through the doors for assistance with using them. At a time when the fast-changing pace of everyday technology impacts the lives of everyone regardless of choice or ability, the library offers a necessary space for access and instruction, a need that is only going to grow.

## **Bibliography**

Champaign Public Library, Douglass Branch Library Factsheet

Linda Crowe, Mattye Nelson, and Kathy Weibel, "If They Could Solve the (Library) Problems in Champaign-Urbana They'd Have the Solutions to the World's problems: A Field Report," in eBlack Champaign-Urbana, Item #377, <http://eblackcu.net/portal/items/show/377> (accessed June 18, 2012).

Douglass Library, "Douglass Library Foundational Documents and Newsletters," in eBlack Champaign-Urbana, Item #901, <http://eblackcu.net/portal/items/show/901> (accessed June 18, 2012).

# 80: Urbana Free Library

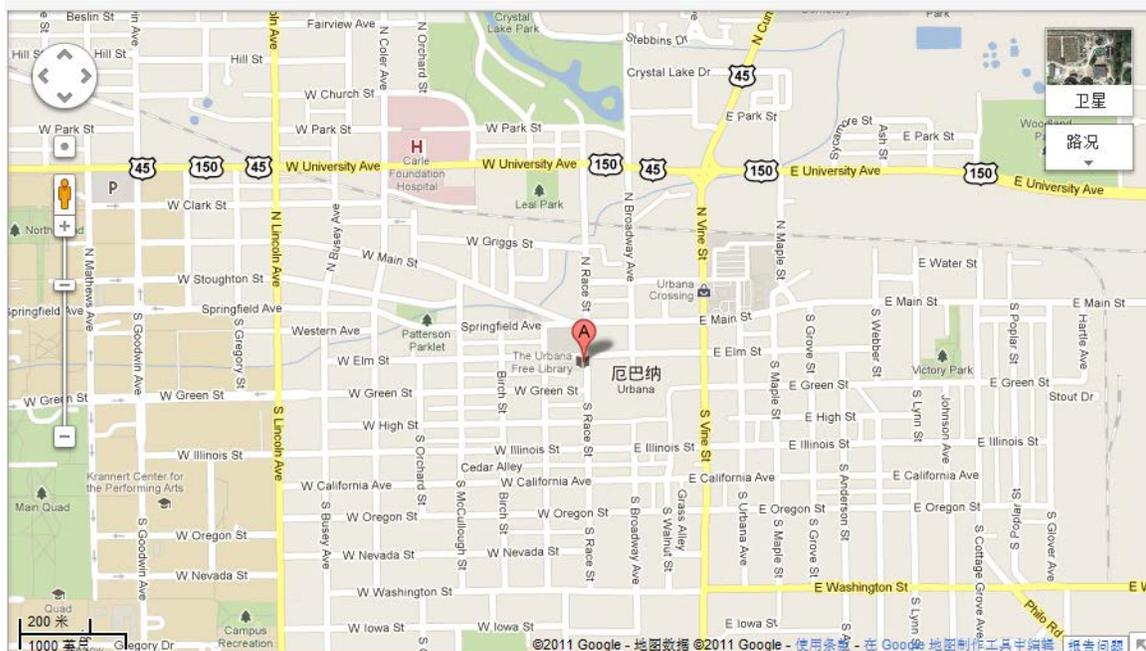
Zhao Kang

Ph.D. student, Peking University, and visiting student, GSLIS

## 1 Executive summary

The Urbana Free Library is a very important organization in the Urbana community, providing access to a wide variety of information resources free of charge. In addition to abundant use of IT for staff and administrative purposes, the library makes IT resources available to the public. One of the most important of these resources in the digital age is a computer lab that anyone can use regardless of residency. The policies they have in place for computer use highlight their privileging of patron needs; the reservation system ensures that all patrons have access to a computer quickly, and for as much time as they need so long as no one else is waiting for access. The library has plans in the near future to reorganize and upgrade their computer lab in order to respond to increasing demand and the comfort of patrons. The library also provides one of the fastest public Internet connections, both in the computer lab and through WiFi. The state subsidizes 8Mbps, and the library supplements this with an additional 25 Mbps.

## 2 Maps



Location of the Urbana Free Library

### 3 Photographs



Adult services area on the second floor.



**Computer lab on the second floor. The existing computer lab layout dates to May 2005, when the expanded library building officially opened. The picture shows that almost every computer is in use.**



**Learning room on the second floor, near the computer lab. Patrons can use their own laptops to access the Internet and have group discussions.**

#### **4 Demographics of patrons or clients**

Because of privacy issues, the library does not have demographic data concerning its patrons. But the composition of the patrons to a large extent reflects the residents of the local community. Generally, the patrons of the library are what one would expect in a city with a university, where a large number of people have a high level of education and are knowledgeable about computers. However, there are also patrons with lower education and income levels.

The community members who come to the computer lab range in age from sixth graders to senior citizens. Plans are in process to conduct surveys for a computer lab redesign, but no data is available as of summer 2012. Anecdotally, the librarians see a high rate of use by African Americans; low-income people with no or limited access to computers and Internet service; teens who arrive at the end of the school day; job seekers who are increasingly required to apply for positions online; and a core group of daily users whom the computer lab librarians know on a first-name basis.

#### **5 History**

**Early founding and expansion of the building.** Founded in 1874, The Urbana Free Library is one of the oldest public libraries in the U.S. Prior of 1874, the Urbana Library

Association depended on annual membership fees and citizen donations to operate a reading room, renting a second-story room on Main Street. Then it donated its books to the City of Urbana, and they founded The Urbana Free Library. It was so named to emphasize the fact that it was open to all city residents regardless of ability to pay.

The current landmark library building opened on July 18, 1918. It was built with a \$35,000 gift from Mary E. Busey as a memorial to her late husband, Samuel T. Busey.

The library was first expanded in 1975 with a contemporary addition. The second expansion, started in 2002 and completed in 2005, doubled the library's size and represented a complete renovation and greatly improved the building's technology (Urbana Free Library, History).

**Later developments in technology.** In 1984, the Urbana Free Library offered the first off-campus public-access terminal to the University of Illinois LCS online catalog. Ten years later it installed the first public-access terminal to Champaign County's CCNet, and the same year began to offer public Internet access through Prairienet.

The library has been a participant in the Lincoln Trail Libraries System automation system and online public access catalog from its inception in 1981 with CLSI. The system migrated to Dynix in 1993, installed a major Dynix upgrade in 1998, and migrated to the company's Horizon product in 2004. . In 2011, Lincoln Trail Libraries System merged with three other systems to become Illinois Heartland Library System, with the eventual plan to merge their automation systems. In December 2011, The Urbana Free Library and the Champaign Public Library left the LTLS automation system and migrated to a joint online CU Catalog utilizing the automation software of Polaris Library Systems.

The library has experienced all stages of the explosion in public use of computers, the Internet, and online resources, from the early days with just a few public Internet computers and a few electronic resources available on CD-ROM to the present, when it has over seventy-five public computers providing service in all departments and over fifty databases available in-house and remotely, and the circulation of downloadable materials.

The library's Local History Online database went online in 2004, greatly expanding the library's provision of its unique resources to any individual with Internet access. At the end of December 2011, Local History Online contained 623,593 documents and 3,515,132 indexing attributes. In March 2012, Local History Online migrated to a new platform, the Fusion digital collection software by Polaris Library Systems.

In 2006–2008, the library began to focus on telecommunications and infrastructure upgrades, including bandwidth adequacy, network structure and equipment, wireless hot-spot service, and efficient and consistent configuration of public computers through ghosting and volume licensing. The library moved from T1 to fiber access in September 2009 when the City of Urbana added a fiber optic line to connect the library to their facilities and the Illinois Century Network (Urbana Free Library, Tech Plan).

## 6 Technology inventory

**Second Floor PC Center areas and access.** The main computer lab on the second floor is divided into specific user areas, containing a total of 39 PCs. One flatbed scanner and two printers, one color and one black and white, are also available. Each user area features distinct colored screens and different log-in access:

PC areas	Numbers of devices	Log-in access
Main lab (pink )	Internet 1–20	Name only, any age
Team stations (yellow)	Team 1–3	Library card, 18+
Adult stations (orange)	Adult 1–10	Library card, 18+
Senior stations (green)	Senior 1–2	Library card, 55+
Express stations (black)	Express 1–2	Name only, any age (15 mins.)
Scanner station (white)	Scanner 1	Staff reservation
MyMediaMall	n/a	Library card for downloads

### Hardware and software (Fall 2011)

Hardware	Software
39 Public Dell Computers on second floor	Internet Explorer
10 PCs in Archives	Mozilla Firefox
8 Child and 4 Parent PCs in Children’s Department	MS Office 2007 (Word, Excel, PowerPoint, Publisher, Access)
2 Express PCs on the first floor	OpenOffice
Headphones, Mice, Keyboards	Adobe Reader X
Canon DR-1210c scanner	CDBurnerXP
HP LaserJet 2420	iTunes
HP Color LaserJet 2600n	Audacity
	VLC Media Player
	QuickTime Player
	Windows Media Player
	Real Player
	IrfanView Image Viewer
	Windows Movie Maker
	Adobe Photoshop Elements 9
	CapturePerfect 3.0 (for scanning documents and images)
	OmniPage SE 4 (optical-character recognition for document scanning)

The Internet speed tested at the computer lab was the following: (16 October 2011)

Upload speed	8.43 Mbps
Download speed	41.31 Mbps

## 7 Analysis

**Policy for computer use.** In the library, each department has computers available to the public. The adult services department has a public computer lab that operates at maximum capacity almost every day. The archive department makes computers available as well, as does the children's department. Users may log in for as many sessions as they wish and stay for as long as they like, so long as there are no other patrons waiting for a terminal. The base time for sessions is 30 minutes, with extensions granted either automatically or manually by staff.

Patrons can make a reservation if there is no PC available. When the digital timer on each PC counts down to three minutes remaining, the Envisionware PC Reservation (PCRes) system searches for reservations made on that PC. If no reservation is present, PCRes automatically extends the user session for 30 minutes. If a reservation has been assigned, the user's session ends in three minutes and the PC is locked for the next patron.

**Digital trends of resources.** In the age of computers and access to the Internet, the library acts as an information center. The library began to add audio books to its holdings several years ago, beginning with Books-on-Tape in the early 1990s and moving to Books-on-CD around 2001. At that time, people could borrow CDs, but could not download audio materials from the website. Download services were started five years ago. E-books have just recently been added.

One problem has arisen with electronic content. The library provides Internet download service, but some people do not have the money to buy the devices for reading digital content, so they cannot access this electronic content at home. New models need to be created to serve patrons in terms of digital content.

There is also a problem with digital-resource sharing. An interviewee thought electronic resources were one of the biggest challenges for the library, because it is losing control of the content:

Libraries are avenues for people using information. But now we don't have control. In the past, we could use the digital content as we wanted. Now e-books are archived and provided by publishers. We pay the money for the content, but we don't own it. The digital content can only serve one patron at one time because of the digital copyright issue.

**UC2B in the library.** Some librarians at The Urbana Free Library have heard about the UC2B project and that it will provide broadband connections to the Internet. One of the interviewees said it will help the library provide Internet access to people who do not have computers at home. Broadband will allow the library to add more computers, and provide high-quality web services.

As patrons use computers a great deal to watch videos and listen to music, faster broadband will provide better service for them. Currently the library receives a broadband connection through the Illinois Century Network, a "a telecommunications backbone providing high speed access to data, video, and audio communication in schools and libraries, at colleges and universities, to public libraries and museums, and for local government and state agencies." (<http://www.illinois.net/about>). The government currently subsidizes an 8 Mbps connection for libraries and schools;

unfortunately, this speed is not high enough for the massive demand both in the computer lab and from patron laptops and mobile devices, and is not set to change until summer 2014. At this time the subsidy limit is projected to increase to about 50 Mbps; in the meantime, The Urbana Free Library has decided to purchase bandwidth to increase their connection to 25 Mbps.

Having access to computers and the Internet does not necessarily mean that everyone is able to successfully use it. Helping people with digital skills is thus a task for the libraries. It is especially important for libraries to provide service to people at lower income and education levels.

One interviewee said that the library had lots of lower-income users. This is typical in a college town, which has both extremely well-educated and knowledgeable residents and a segment of residents who are not. In Urbana, 63% of the high school students are considered by the federal government to be poor. As the university needs skilled workers, digital literacy instruction is a very important task. If the library intends to benefit from broadband, its training program must also be strengthened.

To sum up, The Urbana Free Library is an important public computing site. It has an open-access policy for patrons to access the Internet for free. Many patrons use the computer lab for work, educational, or other purposes. The current facilities are good; however, the limited space and funding restrict the expansion of the computer lab and the ability to keep up with the fast development of technology. From the IT Plan, it can be seen that next year will be an important one for the library in terms of meeting its technological goals.

## **Webliography**

Urbana Free Library. "The Urbana Free Library Technology Plan," accessed Oct 20, 2011. <http://www.urbanafreelibrary.org/about/public/pdf/Tech%20Plan%20FY2010-FY2012.pdf>

Urbana Free Library. "History: 1874 - Present" accessed Oct 20, 2011. <http://www.urbanafreelibrary.org/about/history/>

Urbana Free Library. "The Urbana Free Library Long-Range Plan: 2006-2011" accessed Oct 20, 2011. <http://www.urbanafreelibrary.org/about/public/pdf/long%20range%20plan%202006-2011.pdf>



# Appendix A: Research Instruments

## Case Study Field Handbook / August 31, 2011

---

These pages constitute a guide to carrying out the case studies that are the course project for the semester. The case studies are a collective project to profile the “anchor social institutions” across Champaign, Urbana, and Savoy. This term arose from the 2009-2012 federal stimulus project building broadband and providing support for broadband use. It refers to the non-profit and public institutions that do in fact anchor a community. The local broadband project serving the three cities, UC2B (Urbana Champaign Big Broadband), has identified 143 anchor social institutions.

GSLIS helped design UC2B and is helping to guide it (Alkalimat on Policy Committee) and study it (Alkalimat, Gant, Williams). So this semester’s Digital Divide and Community Informatics classes are participating alongside the Community Informatics Research Lab directed by Drs. Alkalimat and Williams in building a community-wide portrait of how these institutions use and might use technology. The community portrait we are constructing with these case studies is part of answering the question: **What difference will big broadband make in this town?** Breaking that question down, subsidiary questions include:

- What are the anchor social institutions doing?
- How do they use information technology, past, present, projected, and possible?
- Who are the people leading these institutions, and what are their technology uses and interests?

There are three important benefits of this project to your LIS, informatics, or general education.

1. You will learn how to learn about a wide range of important institutions in a local community. The case study method includes using secondary sources, carrying out interviews, transcribing them, fielding questionnaires, using photographic methods. You will be able to reuse and adapt these in your work as an information specialist.
2. You will take away a current portrait of a typical (and atypical) US community and how it uses and might use information technologies; this is baseline knowledge for information work in communities and in such institutions.
3. You will juxtapose this empirical knowledge with knowledge of community informatics theory, so that you can apply this knowledge wherever you go.

### **Case allocation**

Each student will do three case studies, except those taking Digital Divide for 2 credits will do 2.

### **Case outline**

In order to be comparable, the cases are structured. The final product is a 19 page document that has a template and a structure. Much of it is material to assemble, some is to write:

- Maps (2 on 2 pages)
- Photographs (4 on 4 pages)
- Demographics of patrons/clients (1/2 page)
- History (2)
- Technology inventory (1)
- Analysis (2)
- Appendix 1: Bibliography and Webliography (1+)
- Appendix 2: Administrator interview (2)
- Appendix 3: Tech specialist interview (2)
- Appendix 4: Board member interview (2)

Accompanying each report will be the sound files of the interviews and the photo files.

**Maps.** One of these is a google map locating the institution in the city. The other is a map you make or find (can be hand drawn and scanned in) that locates the institution relative to other businesses, organizations, residences in the immediate neighborhood.

**Photographs.** One of these is the outside of the facility. Another is of the computing resources for staff. Another is the public computing resources, if any. A fourth is up to you. Use your imagination to create a set of four photographs that portray the organization and the unique role it plays locally. People do make photos come to life; just get permission before photographing anyone. Use the written form.

**Demographics.** This section uses the best data you can collect from the institution. Aim for such information as total population served, percent Black, percent Latino, average income levels, % below poverty (schools systems know their “percent of students getting free lunch” which is an indicator of poverty), educational attainment, and occupation. Then profile the staff, the board, and the patrons or clients along these dimensions as best you can as well. Relying on the institution or on data they may be able to point you to.

**History.** Search the web, the media, and the library, especially the newspaper and other databases. Search in Dissertation Abstracts. Ask a librarian! Look at the organization’s annual reports. Develop a chronology of the institution that includes key events and turning points. Use numbers, tables, and exact years in your writeup, to the fullest extent possible.

**Technology.** This is an inventory of the institution’s technology resources: desktops and laptops, software, other digital equipment, staff, budget, information systems in use, and other online or electronic resources, even any organizational entries on social network sites. Include the telephone system, online or paper forms, and any databases or data management systems for

managing their patron/client contact, committee minutes or other work processes. Use at least one table to present this information.

**Analysis.** Put all your information together and make sense of it as you see fit. Be sure to make intelligent use of ideas from class.

**Bibliography and weblibliography.** There will always be relevant material to include here. If you are doing a small organization that is not in the literature or well documented online, think big. Collect the literature and web sources that treat the field that the organization works in. Work in concentric circles from the organizations itself, to others like it, to the field broadly.

### ***Field work staff***

In addition to the two course instructors ([mcworter@illinois.edu](mailto:mcworter@illinois.edu), [katewill@illinois.edu](mailto:katewill@illinois.edu)) and teaching assistant Shameem Ahmed in 518 ([ahmed9@illinois.edu](mailto:ahmed9@illinois.edu)), Abbie Sackmann ([sackmnn2@illinois.edu](mailto:sackmnn2@illinois.edu)) is a research assistant in the Community Informatics Research Lab. She is doing case studies herself and serving as field coordinator for the two classes. All four of these people can answer questions and help problem solve.

### ***Field work process***

**Post a short update every week** to the moodle discussion mentioning what you got done and raising any questions.

**Don't work in isolation.** Post to the moodle anytime you have a question, we monitor it for quick replies. Email any of the four staff. Call us in the CI Lab at 244-9128.

**Finish one case study before you start the next.**

- **Week 1.** Make appointments for interviews. Do offsite/library research.
- **Week 2.** Interviews. Onsite data collection. Photography.
- **Week 3/4.** Transcribe. Assemble and write up report.

### ***Sites***

A list of sites is appended and contact names/information for each will be available as needed.

### ***Three interviews***

You'll interview the administrative head, the lead IT person, and a key board member or leading volunteer.

The interview has several parts, some questions to ask, a one page questionnaire, and a speed study (this last is for one of the interviews, not all three).

## Introduction letter to anchor social institutions

<on GSLIS letterhead, also emailed>

<date>

<name and address>

Dear <Mr/Ms> <last name>,

As we hope you have heard, Champaign-Urbana is breaking ground next week on a large high-speed internet project, UC2B (Urbana Champaign Big Broadband). This has a lot of potential for Champaign, Urbana, and Savoy, especially through the opportunities it can bring to institutions like yours.

We at the Community Informatics Research Lab are conducting a study to ask the question: "What difference will big broadband make in this town?" We would really like to get your input. Together we will create a collective portrait of the non-profit and public institutions that we all hope will benefit from UC2B. This portrait, focusing on everyone's technology use, should help big broadband serve you and all of us.

The study will involve a short interview with you and with two others in your organization (an IT person and an involved board member or volunteer, upon your recommendation), reading any relevant documents you can share about your institution, and taking a few photos to portray <insert the name of the org here>. We will share a draft report with you for any corrections and additions.

We will be in touch with you by phone and email very soon to see if we can include your organization. If you have any questions, please contact any of us three at 244-9128 or via email.

check the line spacing the last paragraph looks different on my screen.

Thank you,

Abdul Alkalimat  
Professor  
[mcworter@illinois.edu](mailto:mcworter@illinois.edu)

Kate Williams  
Assistant Professor  
[katewill@illinois.edu](mailto:katewill@illinois.edu)

Abigail Sackmann  
Field Coordinator  
[sackmnn2@illinois.edu](mailto:sackmnn2@illinois.edu)

## Interview protocol.

Remember in your various conversations to explain all parts of your field work with the sites:

1. To read annual reports and any other publications they can share. This can be done in their office; you won't need to take anything away.
2. To take a few photos: of your typical computing facilities for staff and, if any, for the public, and some photo that captures the unique work they do.
3. To ask questions (about half an hour of your time) and get recommendation for two others to interview as well, an IT person and an involved board member or volunteer. To measure internet speed.
4. To share their draft report with the director for corrections and additions.

Research question and subquestions: What difference will big broadband make in this town?"

What are the local non-profit and public institutions doing and planning to do?

What role does information technology play in that—past, present, projected, and possible?

Who is leading these institutions and what are their technology uses and interests?

Thank you for your time. This should take about 20-30 minutes. I have questions to talk over with you, a one page questionnaire, and a speed test to do on a nearby computer. First, this is a consent form explaining the study as in the letter we sent and letting you know your rights as a participant. The most important right is that although our questions are not high risk in any way, you don't have to answer every question and you can stop our conversation at any time. Also, I will share my draft write up with you for your corrections and additions before it's final.

[Give them time to read and sign. Give them a second copy to keep.]

[Explain about the photos and the annual report/document review, you may have already done this.]

My class is part of a study of UC2B, Big Broadband, and what difference it may make. I'm helping creating a portrait of the local area's nonprofit and public institutions and their leaders, focusing on information technology. This covers what you do and how you use technology, past, present, and projected. So, thanks.

1. What are the main general issues <site> is facing now – opportunities and challenges?
2. What are the main technology issues <site> is facing now – opportunities and challenges?

[2a. For IT person: can you describe to me all the technology resources you have now? Let them know what you have in mind: number of desktops and laptops, software, other digital equipment, staff, budget, information systems in use, and other online or electronic resources, even any organizational entries on social network sites. Include the telephone system, online or paper forms, and any databases or data management systems for managing their patron/client contact, committee minutes or other work processes.]

3. What year did you start with <site> and how did <site> use information technology then?
4. How has this changed over time? Any key events or turning points? When were those?
5. How does <site> use information technology now?
6. What plans does <site> have for future technology uses, if any?
7. What have you heard so far about UC2B, the local big broadband project?
8. How many staff do you have and what or who is your tech support for them? (number of staff, number of tech support, in house or not, job titles)
9. Describe the digital skills of <site's> staff.
10. Describe the digital skills of <site's> clients/patrons.

Could you point me to who in your organization is the most involved with technology and who is the most involved board member or key volunteer. [Write down names/contact information]

OK, last things. This is our one page survey [hand to them]. And can I check your internet speed while you do it?

Speedmatters.org down \_\_\_\_\_ up \_\_\_\_\_

Speedtest.net down \_\_\_\_\_ up \_\_\_\_\_

[work that out, give them time to do the survey, and if they are pressed then say you could stop back to pick it up, or they can mail it in, or do it online (not yet worked out)]

## Case Study Sites / August 31 2011

### Round 1 /2

- 1 Champaign Public Library - Douglass Branch
- 2 Bethel A.M.E. Church
- 3 Bristol Place Metanoia Center Inc.
- 4 Catholic Worker House
- 5 Center for Women in Transition
- 6 Champaign County - Champaign Head Start
- 7 Champaign County - Savoy Head Start
- 8 Church of the Brethren
- 9 City of Urbana - Urbana Neighborhood Connections Center
- 10 Developmental Services Center
- 11 First United Methodist Church
- 12 Muslim American Center
- 13 New Hope Church of Christ
- 14 Restoration Urban Ministries
- 15 Salem Baptist Church
- 16 Salt & Light
- 17 Salvation Army – Main Office
- 18 United Way of Champaign County
- 19 Urbana-Champaign Independent Media Center
- 20 Canaan Baptist Church
- 21 Holy Cross Catholic Church
- 22 St John's Lutheran Church
- 23 St. Matthew's Catholic Church
- 24 Alpha and Omega Church of Jesus Christ
- 25 Center of Hope Church
- 26 Empty Tomb, Inc.
- 27 Garden Hills Baptist Church
- 28 Grove Street Church of God in Christ
- 29 Lighthouse World Ministries
- 30 Macedonia Baptist Church
- 31 Mt Olive Baptist Church
- 32 New Birth Missionary Baptist Church
- 33 New Free Will Baptist Church
- 34 Park Avenue Seventh Day Adventist Church
- 35 Pilgrim Missionary Baptist Church
- 36 Servants of Holy Heart Mary
- 37 St Luke Christian Methodist Episcopal Church
- 38 St. Mary's Catholic Church

- 39 The Church of the Living God / Love Corner Worship Center
- 40 Crisis Nursery
- 41 Cunningham Children's Home
- 42 Don Moyer Boy's & Girl's Club

### Round 2/3

- 43 Church of Jesus Christ of Latter-Day Saints / Stake Family History Center
- 44 Amber Glen Alzheimer's Special Care Center
- 45 Canterbury Ridge
- 46 Clark-Lindsay Village
- 47 Florida House
- 48 Illini Heritage Rehab & Health
- 49 Inman Plaza
- 50 Prairie Winds of Urbana
- 51 Round Barn Manor
- 52 Stevick Senior Center
- 53 Sunnycrest Manor
- 54 Urbana Senior Residence (Edge of Mall Senior Residence)
- 55 Windsor of Savoy
- 56 Girl Scouts
- 57 Orpheum Children's Science Museum
- 58 YMCA

### Round 3

- 59 Champaign Township
- 60 Carle Clinic
- 62 Champaign County - Sheriff's Office
- 63 Champaign Park District
- 65 Champaign Unit 4 Schools
- 66 Christie Clinic
- 67 Champaign Public Library - Main Branch
- 68 City of Champaign
- 69 City of Champaign - Fire Department
- 70 City of Champaign - Police Department
- 71 City of Urbana
- 72 City of Urbana - Fire Department
- 73 City of Urbana - Police Department
- 74 Cunningham Township

- 75 The Urbana Free Library
- 76 Urbana Township
- 77 Champaign-Urbana Mass Transit District
- 78 Federal Aviation Administration
- 79 U.S. Army EDRC-CERL
- 80 United States Courthouse
- 81 United States Postal Service - Downtown Urbana Station
- 82 United States Geological Survey – Illinois Water Science Center
- 83 Housing Authority of Champaign County
- 84 Champaign-Urbana Public Health District
- 86 Frances Nelson Health Center
- 87 Provena Covenant Medical Center
- 88 Regional Health Resources Center / Community Blood Services of Illinois
- 89 The Pavilion Behavioral Health System
- 90 Women’s Health Practice
- 91 Mental Health Center of Champaign County
- 92 40 North 88 West: Champaign County Arts, Culture and Entertainment Council
- 93 Catholic Charities Diocese of Peoria
- 94 Champaign County Chamber of Commerce
- 95 Habitat for Humanity of Champaign County
- 96 Junior Achievement of Champaign County
- 97 Land of Lincoln Legal Assistance
- 98 Planned Parenthood of East Central Illinois
- 99 Lincoln Trail Libraries System
- 100 Parkland College
- 101 Parkland College on Mattis - Job Training Center / Champaign Consortium
- 102 Parkland College Police
- 103 Countryside School
- 104 Judah Christian School
- 105 Kingswood School
- 106 Next Generation School
- 107 St. Thomas More High School
- 108 Carroll Fire Protection District
- 109 Eastern Prairie Fire Protection District
- 110 Edge-Scott Fire Protection District
- 111 Pro Ambulance
- 112 State of Illinois Emergency Mgmt. Agency
- 113 University of Illinois Willard Airport
- 114 Illinois State Police
- 115 State of Illinois Regional Offices
- 116 UC Sanitary District
- 118 Urbana School District 116
- 119 Urbana Park District
- 120 Village of Savoy
- 121 Village of Savoy - Police & Fire Department

## Anchor Social Institutions study / University of Illinois / Consent form

In accord with rules about informed consent, this document explains what research we're doing, informs you of your rights, and asks for your voluntary consent to participate.

We are studying broadband in Champaign, Urbana and Savoy, specifically the current rollout of high speed internet. We want to know what difference it will make. Part of that is understanding the local "anchor social institutions" like yours, especially your use of technology. The research is led by Drs. Kate Williams and Abdul Alkalimat of the University of Illinois at Urbana Champaign Graduate School of Library and Information Science.

By participating in this research, you are helping to create a better understanding of how this town and the nation are entering the digital age, at the community level. This document is to ask if I can interview you, audio record the interview with your permission, give you a short survey afterwards, measure local internet speed and then later show my draft report to your director for his or her corrections/additions.

The materials from this research will be used for research presentation/publication. Your identity, participation, and answers will all be kept confidential by the research team, safeguarding your privacy. Any information that is obtained in connection with this research that can be identified with you or any individual will remain confidential. The only document that will be retained with your name on it will be the signed consent form, and that will be part of the data kept confidential by the researchers.

No risks to this research are foreseen beyond those of daily life. Benefits of the research include the chance to share your knowledge and experience and contribute to knowledge on the subject. At any point, you may choose not to answer any questions from the researcher. You also may discontinue participation in the research at any time without prejudice. The decision to participate, decline, or withdraw from participation will have no effect on your or anyone's grades at, status at, or future relations with the University of Illinois.

If you have any questions regarding the research, please ask. You can email or call the lead researchers collect at any time (katewill@illinois.edu or 217-244-9128). If you have any questions about your rights as a participant in this study or any concerns or complaints, please contact the University of Illinois Institutional Review Board at 217-333-2670 (collect calls will be accepted if you identify yourself as a research participant) or via email at irb@illinois.edu. A copy of this document will be given to you.

I understand the above and voluntarily agree to participate in this research.

I consent to the audio recording of the interview.

Signature: \_\_\_\_\_

Printed name: \_\_\_\_\_

Email: \_\_\_\_\_

Date: \_\_\_\_\_

Name/email of field researcher: \_\_\_\_\_





**For IRB #12174 - The Anchor social institutions...**

**Updated list of researchers / all have completed CITI and UIUC IRB trainings**

**Two Faculty:**

Abdul Alkalimat  
Kate Williams

**30 Students:**

Ashley E. Booth  
Julianne L. Breck  
Haixia Cao  
I-Ju Chen  
Lauren Graham  
Lily Grant  
Ivy Green  
Claire E. Griebler  
Afton L. Hallauer  
Jennifer M. Hebel  
Anna K. Holland  
Sunny Kim  
Lela Kretzer  
Yueh-Mei Lin  
Qiyuan Liu  
Mary E. Looby  
Rachel A. Lux  
Colleen McClowry  
Samantha L. Millsap  
John Newcomer  
Liz Osisek  
Andrei Rosulescu  
Abigail E. Sackmann  
Jane A. Sandberg  
Becca Sorgert  
Claire H. Strillacci  
Pawel Szponar  
Emilie K. Vrbancic  
Emily J. Williams  
Kang Zhao



# Appendix B: UC2B Archive

---

## UC2B Documentation: Vision and Product

July 2, 2012

Prepared by Noah Lenstra, Community Informatics Research Lab,  
University of Illinois Graduate School of Library & Information Science

Thanks to Abigail Sackmann, who served as student worker on this project, and the Community Informatics Initiative, which provided funding for this effort.

==

In FY 2012 we developed an experimental project to actively document the UC2B Big Broadband Initiative. We organized this effort around the archival principle of "documentation strategy." According to the Society of American Archivists: "Documentation strategies are typically undertaken by collaborating records creators, archives, and users. A key element is the analysis of the subject to be documented; how that subject is documented in existing records, and information about the subject that is lacking in those records; and the development of a plan to capture adequate documentation of that subject, including the creation of records, if necessary."<sup>i</sup> In discussing this effort, it is important to differentiate between documentation and records. Documentation focuses on collecting to ensure that particular topics are represented in archives, which are institutions not bodies of material. Records naturally derive from natural social processes. Documentation is information about a topic. Records are evidence of processes. This paper reports on the products of this documentation experiment, with an assessment of how future projects could improve upon this methodology.

Central to the success of documentation strategies is "collaboration." These types of initiatives require firm policy commitments from all agencies and individuals to participate in the archiving initiative that have a stake in the topic being documented. In the absence of this firm mandate, this project aggregated public documentation on UC2B from multiple sources. To find these public documentation we looked primarily at governmental and media outlets. In addition, the project ingested ephemeral documentation on UC2B collected by members of the Community Informatics Research Lab.

All print files have been digitized. The combination of print and digital files produces 259 gigabyte of digital documentation of UC2B. The draft finding aid explains the file organization of this documentation initiative. Both the digital documentation and the original print files will be preserved and made accessible in perpetuity at the University of Illinois Archives.

### *Limitations and Recommendations*

This project has some limitations that impair the completeness of this documentation. UC2B constantly generates an enormous amount of information at multiple-levels: within specific agencies, locally, state-wide and nationally. Owing to staff limitations we could not keep up with this documentation as it was produced. As such, our efforts focused on grabbing what we could

when we could rather than a more systematic documentation effort. We have snapshots of UC2B from multiple perspectives (including official perspectives), but can not say that we have the definitive documentation of UC2B.

From this experience we make the following recommendations for future digital documentation initiatives:

- Policy and Mandate - For documentation strategies to be successful they require a clear mandate from all parties. We struggled to secure this clear mandate in this initiative. For example, we never really secured access to the City of Champaign's data center. After our staff's email to their staff we were told that that the City of Champaign makes accessible on their website all that they can, implying that the only way to secure this documentation would be to laboriously go through folder-by-folder and download individually all files relating to UC2B. This labor clearly represents a failure of collaboration. Success would require a record-keeping strategy that reflects the inter-governmental nature of UC2B in which authorized agents from the three governmental agencies would have raw, unmediated access to data servers housing documentation on UC2B in order to harvest and preserve this data with some regularity.
- Active Monitoring - This project also did achieve full transparency in its documentation efforts. One way to reach success in documentation strategy is to actively report back to all collaborating agencies and individuals on the status of the initiative. Owing to staff limitations, this goal was not reached. Future work to reach this goal could do things like: a) create a dynamic finding aid: as new documentation is collected by the initiative the finding aid could dynamically reflect new accessions, even if raw files could not be made available online; b) create a participatory appraisal model<sup>ii</sup> wherein all stakeholders in government, media, education and civil society are empowered to document UC2B as it develops, from both official and unofficial perspectives. Both models are possible. However, each has strong requirements for staffing, policy and institutional will.

### *Next steps*

In early Fall 2012 the print and digital documentation will be deposited at the University of Illinois Archives. The Community Informatics Research Lab will retain a complete digital copy of the documentation for research, teaching and service.

The Lab will also continue to document UC2B in a low-level, mostly passive way. The Lab has no intentions to become the official record-keeper for UC2B, however we recognize the importance of this initiative and the need to proactively create means by which those impacted by UC2B can document themselves. Specific activities will include:

- Preserving official UC2B communications sent out by the City of Champaign (e.g. policy and technical board meeting minutes)
- Enabling anyone to submit digital documentation on UC2B through the eBlackCU.net portal and CUWiki at <http://eblackcu.net/portal/contribution> and <http://cuwiki.net/>
- Enabling anyone to submit print documentation on UC2B by contacting the lab at 217-

244-8203

==

## Finding Aid

Title: UC2B Documentation Project

Primary Creator: Community Informatics Research Lab,  
University of Illinois Graduate School of Library & Information Science

Extent: 259 Terabytes + 5 cubic feet of non-digital documentation

Arrangement: Documentation organized into three series, which are further organized based on names of institutions and topical categories. The documentation within folders can be arranged dynamically by title, date and size.

Date acquired: Fall 2011 - Spring 2012

Forms of material: Documentation

Media: Documents, Videos, Websites

### Scope and Contents of the Materials:

Documentation of the UC2B Big Broadband Initiative amassed in FY 2012 by the Community Informatics Research Lab. Includes journalistic representations, official governmental records, publicity, community commentary, videos, websites and photographs that document the development of UC2B in Urbana-Champaign, Illinois. A detailed, digital file-level inventory is available.

### Biographical Note:

The UC2B Big Broadband Initiative is a federally-funded broadband deployment project funded by the NTIA. The University of Illinois served as lead agency on the grant. As of Summer 2012, the City of Champaign is lead agency on this inter-governmental effort. UC2B exists to build high-speed broadband in Champaign-Urbana, with subsidized connections to low-income neighborhoods, anchor social institutions, and governmental institutions.

### Series 1: Governmental Documentation

Contains documentation from the University of Illinois, City of Champaign, City of Urbana, State of Illinois and U.S. Federal government. Documentation organized by governmental unit.

### Series 2: Media Documentation

Contains documentation from multiple local media outlets in the Champaign-Urbana region. Document organized by media outlet.

### Series 3: Community Informatics Research Lab Documentation

Contains documentation on UC2B collected by members of the Community Informatics Research Lab as part of ongoing research. Includes documentation amassed by Professor Abdul

Alkalimat, co-P.I. on the original NTIA UC2B application; documentation from eBlackCU; and documentation of other lab activities, including activities specifically oriented towards actively documenting UC2B.

#### Series 1: Governmental Documentation

##### File Folders:

- 1) City of Champaign
- 2) City of Urbana
- 3) NTIA
- 4) State of Illinois (illinois.gov)
- 5) UC2B on Facebook
- 6) UC2B.net
- 7) University of Illinois CITES
- 8) University of Illinois (illinois.edu)
- 9) University of Illinois Trustees

#### Series 2: Media Documentation

##### File folders:

- 1) Big Broadband - Undergrad Media Project (University of Illinois College of Media)
- 2) CU- Citizen Access (University of Illinois College of Media / Illinois Public Media)
- 3) C-U Open Access Coalition
- 4) Daily Illini
- 5) Illinois Homepage (WCIA)
- 6) News-Gazette
- 7) UCIMC
- 8) Volo (Volo Connections)
- 9) YouTube (UC2B on YouTube)
- 10) WILL - Illinois Public Media
- 11) Other media

#### Series 3: Community Informatics Research Lab Documentation

##### File folders:

- 1) eBlackCU Collection - Contains documentation on UC2B from the eBlackCU digital portal
- 2) Paper Archive (digital surrogates of ephemera and documentation collected by the Community Informatics Research Lab)
- 3) Video documentation from Fall 2011 produced by Community Informatics Research Lab
- 4) Web-crawls (of sites containing UC2B documentation)

---

i Pearce-Moses, R. 2005. "Documentation Strategy." A Glossary of Archival and Records Terminology. Society of American Archivists. [http://www.archivists.org/glossary/term\\_details.asp?DefinitionKey=225](http://www.archivists.org/glossary/term_details.asp?DefinitionKey=225).

ii Cook, T. 2011. "'We Are What We Keep; We Keep What We Are': Archival Appraisal Past, Present and Future 'We Are What We Keep; We Keep What We Are': Archival Appraisal Past, Present and Future," *Journal of the Society of Archivists* 32, 2: 173-189.

# Index to Authors

---

Alkalimat, Abdul, 5, 9, 11, 17  
Bailey, Ron, 5  
Booth, Ashley E., 54, 349, 395  
Breck, Julianne L., 29, 72, 119  
Cao Haixia, 439, 607  
Chen, I-Ju, 512  
Gant, Jon, 9  
Graham, Lauren M., 129, 377  
Grant, Lily, 146, 221, 590  
Green, Ivy Renee, 212, 249, 257  
Griebler, Claire, 49, 91  
Hallauer, Afton, 496, 639  
Hebel, Jennifer, 240, 536  
Holland, Anna, 80, 273, 475  
Idoniboye, Opubo T., 187  
Kim, Sunghwan ‘Sunny’, 111, 666  
Kretzer, Lela, 568  
Lenstra, Noah, 717  
Lin, Yueh-Mei, 179, 265, 553  
Liu, Qiyuan, 232, 330, 456  
Looby, Mary, 103, 422, 657  
Lux, Rachel, 163, 621, 630  
McClowry, Colleen, 309, 465, 519  
Millsap, Samantha, 283, 505  
Newcomer, John, 299, 526, 578  
Osisek, Elizabeth, 39, 386, 489  
Rosulescu, Andrei, 201, 647  
Sackmann, Abigail, 19, 91, 96, 325, 357, 404, 545, 600, 647, 675, 684  
Sandberg, Jane, 364, 413, 561  
Smeltzer, Mike, 7, 11  
Sorgert, Becca, 19  
Strillacci, Claire, 192, 292, 341  
Szponar, Pawel, 172, 318, 372  
Vrbancic, Emilie, 64, 429, 613  
Williams, Emily, 140, 155, 447  
Williams, Kate, 11  
Zhao Kang, 695



