



UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL
*Curriculum in Public Policy Analysis and
Office of Economic Development*

***The Costs/Benefits of UNC-CH to the Town of Chapel Hill:
Implications for Public Finance***

Final Report

Prepared by:

Johannes Traxler,
Cassandra Callaway,
and
Michael I. Luger

October 22, 1998

Introduction

UNC-Chapel Hill is the largest land user and also the largest employer in Orange County. As a public university, UNC-Chapel Hill is exempt from local property taxes. It still requires services such as police and fire protection, water and sewer, street maintenance, transportation, and solid waste removal and recycling. UNC provides some of those services – police and street maintenance – to itself. It pays OWASA directly for its water and sewer service and contracts private companies for solid waste removal and recycling. And it has developed payment schemes for the fire protection and transportation it receives from the town.

This study focuses on the exchange of services between the town and the university. We quantify the amount of services consumed by the university and the payments that the university makes for those services. We also examine the services that the university provides to the town and its population at no cost to the town. In our analysis, we take into account the services that are exchanged, the costs, and the payments made. We compare the situation in Chapel Hill to other university towns and present alternative models of town-gown finance. The focus of the study is on the provision of municipal services and explicitly excludes aspects of economic development. However, survey respondents in other university towns emphasized the importance of the university's presence for economic development. They mention joint university-town efforts in economic development as examples for successful town-gown cooperation. Some universities, for instance, have research or technology parks that benefit regional economic development. Prior studies show as well that economic development is usually a central aspect of town-gown cooperation that brings significant benefits to the town.

The report summarizes in two parts the main features of town-gown relations both for university communities in the United States in general and for Chapel Hill in particular. Section A focuses on the specific situation in Chapel Hill. We analyze the impacts of university-owned property on local tax revenues, the consumption of services by the university, and services provided by the university that benefit the town. In that section we also compare the situation in Chapel Hill to other towns that do not have a university within their municipal boundaries. In Section B, we compare the situation in Chapel Hill with other university towns. We review the literature on town-gown finance and present examples of common features in several university towns. We also present the key results of a survey of universities and city administrations in fifty-two U.S. cities.

A. UNC and the Town of Chapel Hill

A.1. Impact of UNC-owned property on local tax revenues

Table 1: University Property

Property	Acquisition Date	Size (acres)	Range of Assessed Land Tax Values of Surrounding Property (per square foot)	Zoning Designation	Range of Estimated Land Tax Value of Property in question
223 E. Franklin St.	30-July-1945	0.5	\$10.26	OI-1	\$223,463
402 E. Franklin St.	11-May-1906	0.5	\$2.72	OI-3	\$59,242
611 E. Franklin St.	31-Feb-1940	2.1	\$3.00	R-2	\$274,428
*412/500 E. Rosemary	30-Dec-1944	1.0	\$3.00	R-2	\$130,680
440 W. Franklin St.	14-Dec-1970	2.6	\$15.60	TC-2	\$1,766,794
Battle Park	Began 17-Feb-1923	103.9	\$1.55-1.59	R-1	\$7,015,120-7,196,156
*Bolin Creek Property (720, 721, 725, & 730 Airport Road)	19-Dec-1988	4.7	\$2.89-5.18 \$1.36 \$1.58-1.68 \$6.22-6.34	<i>OI-1</i> <i>R-3</i> <i>R-4</i> <i>NC</i> TOTAL	<i>\$174,232-312,292</i> <i>\$86,795</i> <i>\$18,875-20,069</i> <i>\$407,049-414,902</i> <i>\$686,951-1,581,321</i>
Chancellor's House	17-Nov-1993	18.0	\$1.55-1.59	R-1	\$1,246,687-1,215,324
General Admin	30-Jul-1945	5.9	\$1.59-2.48	R-1	\$408,636- 637,370
*Glen Lennox Corp.	21-Jun-1979	.56	\$1.59-2.48	R-1	\$38,786- 60,496
*Horace Williams Property off of Homestead Road	Began 3-Mar-1934	57.4	\$.44	R-20	\$1,100,151
Horace Williams Tract	Began 3-Mar-1934	1013.7	\$3.31 \$2.72 \$.23-1.14 \$.44	<i>OI-2</i> <i>OI-3</i> <i>R-2</i> <i>R-20</i> TOTAL	<i>\$28,726,835</i> <i>\$39,205,101</i> <i>\$1,738,620-8,617,506</i> <i>\$5,937,960</i> <i>\$75,608,515-84,226,021</i>
Kenan/Hamner Parcel	19-Dec-1985	57.9	\$10.52	R-3	\$26,532,744
Law Alumni Parcel	1-Jan-1983	17.5	\$1.59-2.48	R-1	\$1,212,057-1,890,504
Law Foundation Parcel on Willow Drive	1-Jan-1983	9.8	\$2.48 \$2.44	<i>R-1</i> <i>R-2</i> TOTAL	<i>\$203,325</i> <i>\$839,531</i> <i>\$1,042,856</i>
Mason Farm Tract	16-Apr-1934	1260.1	\$1.59 \$1.59-2.48 \$1.27-1.47 \$.27-.62 .27 .27	<i>R-1</i> <i>R-1</i> <i>OI-2</i> <i>RLD-5</i> <i>Orange Co.</i> <i>Durham Co.</i> TOTAL	<i>\$11,923,528</i> <i>\$597,624-932,143</i> <i>\$23,814,998-27,565,391</i> <i>\$2,143,534-4,922,189</i> <i>\$4,658,902</i> <i>\$700,208</i> <i>\$43,838,793-77,258,516</i>
Meadowmont	18-Nov-1988	25.9	\$2.48	R-1	\$2,797,946
Old CH Country Club	21-Apr-1972	73.5	\$1.59	R-1	\$5,090,639
*Ray Road	5-Jul-1967	28.2	\$.64 \$.6	<i>R-10</i> <i>WR</i>	<i>\$270,336</i> <i>\$482,396</i>

				TOTAL	\$752,732
Teague House	1-May-1942	.36	\$2.51	R-2	\$39,361
University Lake Tract	Began 7-Feb-1923	553.0	\$1.96	<i>C & WR</i>	\$21,099,177
			\$.64	<i>R-10</i>	\$1,339,591
			\$.32	<i>OC</i>	\$3,597,947
				TOTAL	\$26,036,714

Only land tax values are presented in this table. We can assume that the value of land would fall within a similar range as their surrounding properties in the same zoning designation. There is, however, no clear relationship between buildings. We did not have sufficient information to calibrate a fair and reasonable market value for individual buildings

Properties marked with an asterisk are properties not identified by the research team, but recommended by Paula Gee Davis for inclusion in the list of properties.

A.2. Services consumed by UNC and UNC Hospitals

Table 2 summarizes the services that UNC and UNC hospitals consume. Some of the services are provided by the town, others by special district, private providers, or the university or hospital itself. Detailed information for the individual service providers can be found in the tables at the end of the section.

Table 2: Services consumed by UNC Chapel Hill

Service	Providers			
	University	Chapel Hill	Orange County	Private Contract
Public Transit	X	X		
Fire Protection		X		
Police	X	X		
Solid Waste Collection and/or Disposal				X
Recycling				X
Street Maintenance (including snow and ice removal)	X			
Other maintenance work	X			
Sewer and Water			X	

UNC purchases water and sewer from OWASA and pays for those services from university funds based on consumption. The rates are the same as for other OWASA customers (**Observation: UNC does not impose any costs on the Town of Chapel Hill for the provision of water and sewer services**). The survey of university towns shows that most universities pay sewer and water per amount consumed.

Like many universities in our survey, UNC contracts private companies for solid waste collection and disposal as well as for recycling. Those contractors pay the tipping fee, which is reflected in the price they charge UNC for waste collection and disposal. The university uses the Orange County landfill for its solid waste disposal, but removes white ash from its waste stream, extending the life expectancy of the Orange County landfill. That recycling costs the university an additional \$454,000 (FY 97-98). There is no cooperation with the Town of Chapel Hill in the areas of waste collection and recycling (**Observation: UNC does not impose any costs on the Town of Chapel Hill for the provision of recycling services, solid waste collection and disposal. Its generation of waste certainly uses landfill capacity, but the fees if properly set should be sufficient to reflect those costs**).

The university maintains its own roads and parking lots; Physical Plant also provides other maintenance services. There is no cooperation with the Town of Chapel Hill and no external services are purchased. The Town and the State maintain roads on campus that they own.

University students use municipal parking lots, but are subject to parking fees. Assuming the fees are set by the town properly, that use is fully paid for (**Observation: UNC does not impose any costs on the Town of Chapel Hill for street and other maintenance**). Shared responsibility for university-, town-, and state-owned roads is common practice in many universities in our survey.

The only area where an actual exchange of services takes place is police. UNC operates its own professional public safety service, which operates under a mutual assistance agreement with the Chapel Hill police department. UNC Campus Police officers are able to arrest persons on the university's premises. University police officers provided the town with 136 hours of assistance in 1997, mostly during university-related activities on Franklin Street. On the other hand, ten town police officers provided 4.5 hours of assistance to the university (on July 4, 1997). No payments are made from either side for these relatively small exchanges of services (**Observation: although there might a slight imbalance in the exchange of police services, there is no significant financial advantage or disadvantage for either side**). Also in other universities, police is the service where most often no payments are made. Almost all universities in our survey provide their own police service and cooperate with the municipality. While some universities have a contract or hire additional police force if necessary, most exchange services under a mutual agreement like UNC Campus Police and CHPD.

Since 1983, the State Legislature has mandated payments to the town for fire protection. Currently the Town of Chapel Hill receives \$849,765 annually from the State for the fire protection services it provides to the University and UNC Hospitals. UNC-CH and UNC Hospitals each pay \$150,000 of the total amount; the State pays the rest. The total State reimbursement of \$849,765 covers 27.6% of the estimated total service costs of \$3,079,225 for the fiscal year 1997-98. According to the Chapel Hill Fire Department, 27% of the total calls for services in 1995-96 as well as in 1996-97 were at University or Hospital properties; figures for 1997-98 were not available. In the last four years, 28.15% of total calls were at UNC-CH and UNC Hospitals properties. In addition to the annual payments, the university and UNC Hospitals agreed in 1995 to pay a total of \$300,000 as a contribution to a ladder truck recently purchased by the Town. UNC and UNC Hospitals each are paying \$50,000 annually for three years. (**Observation: the State mandated reimbursement covers the covers the cost of fire protection services for the recent fiscal years**). This puts Chapel Hill in a better position than most university towns in our survey. More than half of the municipalities do not receive any compensation for the provision of fire protection. Only nine universities have contracts with the fire departments that set the amounts the university has to pay. The State Fire Protection Fund is a special case that does not exist in most other states.

UNC and the Town of Chapel Hill both provide public transportation on campus. Chapel Hill Transit operates the fare-free U Campus Shuttle and a number of bus lines that serve UNC campus and UNC Hospital. UNC operates a transit system made up of the P-2-P van service and the P-2-P Xpress shuttle. Those two UNC services provide transportation to disabled persons and late-night riders. Both UNC services combined account for 35,000 hours of service in 1996 at a cost of \$800,000 that UNC pays from student fees (\$10 of the \$40 transit fee) and on-campus parking revenues.

For services purchased from Chapel Hill Transit, UNC-CH makes payments stipulated in a contractual agreement between the Town of Chapel Hill, the Town of Carrboro, and UNC-CH. The university covers 41.5% of the local net operating costs of the Chapel Hill Transit service. In FY 1997-98, the payments made by the university based on the transportation contract were \$1,575,634. These payments include the reimbursement for the fare-free U-route. In addition to the amount stipulated in the contract, additional revenues from UNC bus pass sales and farebox revenues from boardings in the UNC zone add up to a total of \$880,000. Thus, the university's total contribution to the transit service is about \$2,455,000 or almost 44% of the System's total revenues (or 55% of the local net costs).

The money comes from student fees (students pay a \$40 transit fee, of which \$30 is allocated to Chapel Hill Transit. \$5 of the \$30 is for the fare-free U-route. Summer school students pay a \$5 transit fee per session) and from parking fund revenues. UNC students pay for the transit system in two ways – in addition to the transit fees they are also required to purchase bus passes or pay for the individual rides (except on the U-route). Additional university-related revenue comes from the Tar Heel Express, which returns about \$50,000 per year to the system in profits.

According to the final report of the transit and parking task force, the U Campus Shuttle accounts for 27% of the total annual ridership. The report also states that 90% of the ridership is affiliated with the university. Using data from the Fall 1997 Cost Allocation Survey, we can estimate that about 76% of the riders board busses in the UNC zone. Without UNC, Chapel Hill Transit could not operate at the same scale as it does now (***Observation: UNC contractual payments, bus pass sales, farebox revenues, and the Tar Heel Express cover about 56% of the local net costs for Chapel Hill Transit. UNC students are charged a transportation fee by the University and pay again bus passes or individual fares to use the service***). UNC-CH contributes a larger share to the public transportation operating costs than most other universities in our survey. In the majority of the other university towns only the riders pay directly for the bus service, the university pays nothing. In cases where the university has a transportation contract similar to the one in Chapel Hill, students and university employees can use the busses for free.

Table 3: Services provided by the Town of Chapel Hill to the University (not including Hospital)

Service	Amount Used By UNC	Amount Paid by UNC	Type of Payment	Amount Recovered by Service Provider	Co
Public Transit	1) U-route boardings: 564,990 for July 1997-May 1998 (27% of total ridership) 2) University zone boardings: approximately 76% (according to the Fall 1997 cost allocation survey, 8,775 riders per day boarded busses in the university zone. Excluding weekends, we assume that this figure is the average number of riders on 22 weekdays. Using the ridership statistics, it can be assumed that a typical fall month contributes to 10% of the annual ridership)	\$1,575,634 (Contract, FY 97-98) Pass sales to riders: \$700,000	1) <i>Pro rata</i> allocation 2) Pass sales	1) Pass sales to riders: \$700,000 2) Farebox revenue from UNC zone: \$180,000 (estimated using the Fall 1997 cost allocation survey. This amount equals about 28% of the total farebox revenues) 3) Total state and federal operating assistance to CHT: \$1,184,895	1) Chapel Hill Transit and UNC each 2) Operating assistance depends on riders X dollars, while a system with X dollars. UNC students account for X dollars. 3) The Tarheel Express route, serving \$50,000 in profits to the CHT system 4) UNC operates a transit system on the P-2-P Xpress shuttle. These serve disabled persons and late-night riders hours of service in 1996 at a cost of
Police	Ten town police officers provided 4.5 hours of assistance to the university on July 4, 1997. That is, 45 man-hours were supplied.	\$ 0	N/A	N/A	UNC and CHPD operate under a memorandum of understanding. There are no monetary flows.
Fire Protection	817 calls (FY 96-97)	\$200,000 (FY 97-98)	1) State Fire Protection Funds 2) \$150,000 for a fire truck, paid over 3 years	\$949,765	1) UNC pays \$150,000 of the \$850,000 2) UNC and UNC hospitals split the cost of the Chapel Hill Fire Department. Each

Table 4: Services provided by UNC to the Town of Chapel Hill

Service	Amount Provided By UNC	Amount Paid by Town	Type of Payment	Comments
Police	University police officers provided the town with 136 hours of assistance in 1997.	\$ 0	N/A	UNC and CHPD operate under a mutual assistance agreement.

Table 5: Orange County Provision- Service Consumption by the University and UNC Hospitals

Service	Amount Used By UNC and UNC Hospitals	Amount Paid by UNC	Type of Payment
Sewer and Water	660,000,000 gallons of water (July 1997-April 1998)		University funds paid directly to OWASA based on consumption

Table 6: Private Contract Provision Service Consumption by the University (not including Hospital)

Service	Amount Paid by UNC	Type of Payment	Comments
Solid Waste Collection and/or Disposal	\$444,521 (FY 97-98)	1)Direct payment of University funds to a private hauler 2)Usage -based tipping fees paid to Town	UNC removes white ash from its waste stream, extending the life expectancy of the Orange County landfill . This recycling costs the university an additional \$454,000 (FY 97 -98).
Recycling	\$484,807 (FY 97-98)	1)Direct payment of University funds to a private recycler	

Table 7: Service consumed by UNC Hospitals

Service	Providers				
	UNC Hospitals	University	Chapel Hill	Orange County	Private Contract
Public Transit			X		
Fire Protection			X		
Police	X				
Solid Waste Collection and/or Disposal					X
Recycling					X
Street Maintenance (including snow and ice removal)		X			
Other maintenance work		X			
Sewer and Water				X	

Table 7 provides an overview over services consumed by UNC Hospitals. Sewer and water are again purchased from OWASA. UNC Hospitals also contract private firms for waste collection and disposal and for recycling. Detailed information can be found in table 10 (*Observation: UNC Hospitals does not impose any costs on the Town of Chapel Hill for the provision of water and sewer, recycling services, solid waste collection and disposal*).

As mentioned before, UNC Hospitals and UNC share the payments for a fire truck. UNC Hospitals also make an annual payment of \$150,000 to the State fire protection fund. Fire services are handled in a coordinated manner with the Chapel Hill Fire Department. Specifically, UNC Hospitals facilities are fully sprinkled with smoke detectors and an alarm system. Additionally, UNC Hospitals has a trained first response crew that responds to the site identified by the facility's alarm system. This approach both increases efficiencies with the Chapel Hill Fire Department and it reduces the need for the Chapel Hill Fire Department to respond to false alarms (*Observation: the State mandated reimbursement covers the cost of fire protection services for recent fiscal years. It is not possible to quantify the savings that result from the presence of the first response crew*).

UNC Hospitals also maintains its own police service with twenty-three sworn and authorized police officers and ten trained security officers. UNC Hospitals interfaces with UNC Chapel Hill as well as the Chapel Hill Police Department when required. UNC Hospitals' officers are able to arrest persons on the hospitals' premises (*Observation: UNC Hospitals does not impose any costs on the Town of Chapel Hill for the provision of police services*).

UNC Hospitals provides transportation services to its patients, visitors and employees to afford the rapid transport of persons utilizing its buildings. The Hospitals owns and operates shuttle vehicles and offers transport services most hours per day. Shuttle services are provided to and from outlying

parking areas to transport employees to the main campus. According to Melvin Hurston (UNC Hospitals), without those services, recruitment and retention of employees would be extremely difficult.

Table 8: Chapel Hill Provision- Service Consumption by UNC Hospitals

Service	Amount Used By Hospital	Amount Paid by UNC	Type of Payment	Amount Recovered by Service Provider	Co
Public Transit	<p>1) U-route boardings: 56 4,990 for July 1997 -May 1998 (27% of total ridership)</p> <p>2) University zone boardings: approximately 76% (according to the Fall 1997 cost allocation survey, 8,775 riders per day boarded busses in the university zone. Excluding weekends, we assume that this figure is the average number of riders on 22 weekdays. Using the ridership statistics, it can be assumed that a typical fall month contributes to 10% of the annual ridership)</p>	<p>\$1,575,634 (Contract, FY 97-98)</p> <p>Pass sales to riders: \$700,000</p>	<p>1) <i>Pro rata</i> allocation</p> <p>2) Pass sales</p>	<p>1) Pass sales to riders: \$700,000</p> <p>2)Farebox revenue from UNC zone: \$180,000 (estimated using the Fall 1997 cost allocation survey. This amount equals about 28% of the total farebox revenues)</p> <p>3)Total state and federal operating assistance to CHT: \$1,184,895</p>	<p>UNC Hospitals operate a shuttle service for passengers in 1997. The cost of this service is \$323,862</p>
Fire Protection	<p>817 calls to UNC and UNC Hospitals (FY 96 -97)</p>	<p>\$200,000 (FY 97-98)</p>	<p>1)\$50,000 annually for a fire truck.</p> <p>2)\$150,000 of the State Fire Protection Funds.</p>	<p>\$949,765</p>	<p>1)UNC Hospitals has a trained first responder</p> <p>2)UNC and UNC hospitals split the cost of the Chapel Hill Fire Department. Each hospital pays 50%.</p>

Table 9: Services provided by UNC Hospitals

Service	Amount Used By Hospital	Amount Paid by Hospital	Type of Payment	Comments
Police	1) 35 Police officers 2) 10 security officers 3) 2,133 investigations	\$1,400,000 (FY 97-98)	Hospital funds allocated through budgetary process	1)UNC Hospitals operates its own professional public safety 2)UNC Hospitals, UNC-CH and CHPD operate under a assistance agreement.

Table 10: Private Contract Provision Service Consumption by UNC Hospitals

Service	Amount Used By Hospital	Amount Paid by Hospital	Type of Payment	Amount Recovered by Service Provider	Comments
Solid Waste Collection and/or Disposal	1) Solid: 5,402,000 lbs. 2) Medical: 5,648,000 lbs. 3) Infectious: 376,278 lbs. 4) Construction: 570,000 lbs.	1) \$167,718 2) \$99,190 3) \$106,110 4) \$9,975 Total: \$382,993	1)Direct payment of Hospital funds to a private hauler 2)Usage-based tipping fees paid to Town	N/A	1)UNC Hospitals' contract with a alleviates the necessity for the town specialized facilities for hazardous 2)The Hospital' s contract also makes training of CH personnel for hazardous unnecessary.
Recycling	1) Paper, cardboard, etc.: 781,025 lbs. 2) Metal: 4,104 lbs. 3) Glass: 6,382 lbs.	\$58,909 (FY 97-98)	1)Direct payment of Hospital funds to a private recycler	N/A	Recycling with a private vendor saves collection facilities and landfill space

A.3. Public Services Provided by UNC

The University provides cultural, professional, and sport resources. Both the university and non-university affiliated population have access to these resources. This raises a number of questions. Does the local non-university affiliated population have more access to public services than citizens do in non-university municipalities? Or, is the university providing services that are normally provided by a municipality? The table provides information on some, but not all facilities operated by the University which benefit the Non-UNC-CH population.

Table 11: Facilities Operated by the University, Which Benefit the Non-UNC-CH Population¹

Facility	Total Capacity (FY 97-98)	% Capacity Used by Non-UNC-CH Population	Total Operating Cost (TOC)	TOC Consumed by Non-UNC-CH Population
Paul Green Theater (all performances by the Playmakers' Repertory Company)	69,972 attendees.	*45 percent.	TOC for the PRC \$1,490,894	\$670,902
Ackland Art Museum	37,900 visitors.	At least 13.2 percent.	\$1.2 million.	At least \$158,400.
Academic Affairs Library System	346,470 library loans; 1,440 hours of instruction.	20 percent library loans; *25 percent instruction hours. Interlibrary loans: 19,140 books and 7,992 articles.	\$19.8 million.	*\$4.5 million
Health Sciences Library	322.7 hours of consultation; 3,543 class participants; 46,599 books in circulation; 19,250 interlibrary loans; 20,244 accesses to UNCLE.	13.1 percent hours of consultation; 4 percent class participants; 8.1 percent of circulation; 14.1 percent interlibrary loans; 26.5 percent accesses to UNCLE.	\$4.7 million.	*\$4.7 million.
Memorial Hall	16,865 attendees, 98 events.	*15 percent.	*\$250,000 (does not include University payments for housekeeping, lighting, and light maintenance).	*\$37,500.
Various Tennis Courts	*1000 users.	*2 percent.	*\$1,200	*\$24

¹ Collection methods vary from facility to facility. Most facility representatives could not estimate the number of users from Chapel Hill. Unless otherwise specified, the non-UNC-CH population represents anyone not affiliated with the University regardless of their residence.

Finley Golf Course	48,500 rounds; *1,500 free rounds for local high school golf teams and the state tournament.	*45 percent.	*\$1.02 million	*\$459,000
NC Botanical Garden (including Coker Arboretum and Mason Farm Biological Reserve).	*85,000 visitors.	*60 percent.	\$850,000	\$510,000
Morehead Planetarium	136,635 visitors.	28 percent Non -UNC-CH from Orange County.	\$900, 000	\$252,000.
Horace Williams Airport	*7,580 takeoffs	*76 percent Non - UNC-CH (transients and based planes).	*\$300,000	\$228,000
UNC Hospitals	173, 825 patient days.	*98 percent.	\$388,554,000	\$380,782,920
Friday Center (Convention Uses)	55,913 participants.	*13 percent Non - UNC-CH from Chapel Hill.	\$1.5 million	\$195,000
Friday Center (Continuing Education)	3,078 participants registered for the Independent Study Program; 100 participants registered for the On -line Program.	5 percent of the Independent Study Program participants were Chapel Hill residents; 33 percent of the participants for the On -line Program were Chapel Hill residents.	*\$800,000 for the Independent Study Program; *\$45,000 for the On-line Program.	*\$40,000 of the Independent Study Program; *\$15,000 of the On-line Program.

Similar types of facilities operated by the Town of Chapel Hill include a public library, parks and recreation services. During the FY 97 -98, there were 763,000 books in circulation, a bookmobile/outreach program with 16,200 books in circulation, and numerous children's programs. The estimated operations expenses were \$445,238. Total estimated expenses, including personnel, were \$1,442,138. Chapel Hill administers a parks and recreation services department. This department operates facilities and coordinates activities including outdoor and nature, athletics, special populations, summer camps, Hargraves Center, Arts, and Community Events. FY 97 -98 estimated operations expenses were \$412,084. Total estimated expenses, including personnel, were \$1,461,961.

University Visitor Attractions

The Dean E. Smith Center and the Kenan Stadium are the top two, respectively, visitor attractions in Chapel Hill. The following table presents the non-student/non-employee attendance analysis for the 1998 Football Season and the 1997 -98 Basketball Season.

Table 12: Attendance Analysis, NonStudent/Non-Employee

	Chapel Hill	Outside CH	Total
--	-------------	------------	-------

FOOTBALL			
1998 Football Season Tickets	3,300	29,100	32,400
Individual Game Average	<u>1,600</u>	<u>5,300</u>	<u>6,900</u>
	4,900	34,400	39,300
	@ 5 Games	@ 5 Games	@ 5 Games
Total Attendance	24,500	172,000	196,500
Percentage	.12	.88	
BASKETBALL			
1997-98 Basketball Season Tickets	1,900	10,200	12,100
Individual Game Average	<u>200</u>	<u>1,100</u>	<u>1,300</u>
	2,100	11,300	13,400
	@ 13 Games	@ 13 Games	@ 13 Games
Total Attendance	27,300	146,900	174,200
Percentage	.16	.84	

In addition, there were 14 special events held at the Dean E. Smith Center from July 1997 to June 1998. The total attendance was 109,700 and the average attendance per event was 7,836. The 14 events included 7 Sesame Street Live performances, 5 concerts, NCHSSA, and a Chicago Bulls -Philadelphia 76ers basketball game.

Community Service

University organizations provide a number of services to the local community. Their efforts are in the form of donations, service hours, and fundraising for local agencies. In return, Chapel Hill and the State offer students a rich learning environment to gain valuable volunteer experience. The following table presents the study team's findings.

Table 13: Community Service

Organization	Service Provided	Value
Hospital	Indigent care to Orange County residents.	\$5,234,00
Human Resources	Blood drive.	11,047 donors gave 1,039 pints in July 1998.
Greek Affairs	Various.	FY 97-98: 39,300 hours of community service and \$50,350* raised for local agencies.
a.p.p.l.e.s. Service -Learning Program.	Student interns work with local agencies. Social Entrepreneurship Program grants funds to students to implement a self-designed service project.	FY 97-98: 18,250 hours of service to the Triangle Area; \$24,000 for matching intern salaries and \$5,000 for the Social Entrepreneurship Program.
Campus Y	Various	FY 97-98: *1,700 UNCH participants involved in 12 programs.

Further public service coordination between the University and Town will be fostered by the new Carolina Center for Public Service. Among the Center's programs are two public service grant funds for student organizations and faculty/staff. An anonymous resident of North Carolina donated money to support these two programs for three years. Student organizations can apply for \$500-3000 grants that are drawn from a grant fund of \$20,000 per year. Faculty and staff can apply for a limited number of grants drawn from a grant fund of \$25,000 per year.

A.4. Results of the survey of non-university towns

The fact that UNC provides a number of services and operates facilities that are also open to the public is with no doubt a benefit for the Town of Chapel Hill. To assess that benefit, we conducted a survey of non-university towns similar in size and per capita income to Chapel Hill. Using the same criteria as in the selection of university towns, we identified thirty-seven towns. Unfortunately the response rate could not match our expectations. Despite intensive follow-up calls, only sixteen questionnaires were returned. The differences in response rates show the importance of town-gown relations for university communities, whereas towns without a university did not see any immediate benefit from completing our survey.

The results give a clear idea what an average town of the size of Chapel Hill looks like and how many facilities that are part of the UNC campus are not available in these towns. Only three towns maintain a theater for arts performances, in two others there are private providers. The size ranges from 280 to 815 seats. Five towns have a museum, but in four of them the provider is again a private person or organization. Most of the respondents have a public library, either maintained by the town (6) or county (5). Concert halls, however, are available in only two of the responding towns. In one case the concert hall is actually a high school theater.

Whereas almost all the towns have playing fields (11, 10 of them owned and maintained by the local municipality, one by the county) and golf courses (3 municipal, 1 county, 6 private), there is no botanical garden within the municipal boundaries of any of the responding towns and cities. Only one respondent listed a botanical garden 20 miles outside the city limits. All responding municipalities, however, have other parks.

Only one of the towns has a planetarium, and private airports are available in four municipalities (3 county airports, 1 municipal airport). It becomes also quite obvious that the presence of a university plays a major role for the provision of mass transit. Only two municipalities operate a public transportation system, one city is part of a transit service provided by the county, and in another one a private provider runs a bus service.

Eight municipalities have a hospital within their boundaries, and in all cases it is operated by a private provider. The average size is about 150 beds, with a range from 66 to 200. Municipalities without a university also do not tend to have conference or convention centers and a

community college or continuing education program. Private providers maintain conference facilities in three municipalities, and the county operates a community college in one town.

B. Common Features of Town-Gown Finance

B. 1. Literature review

The main features of town-gown fiscal relations – property tax exemption and consumption of municipal services by the university – are nothing new. The fact that most of the literature dealing with town-gown relations dates from the 1970s illustrates that. A review of that literature also shows that the main issues that characterize the relationship between universities and the municipalities in which they are located remain the same.

In the past we have been able to observe two significant developments related to university communities. The first phenomenon is the growing appeal of college and university towns as places to live. Many people are attracted by the diversity, the cultural offers and the general environment and climate that characterizes university towns. The second phenomenon is the growing tension between town and gown as result of financial constraints. In many towns there are the conflicts related to the tightening of the fiscal situation and reduced resources of both local governments and institutions of higher learning that create a much leaner and meaner environment.

Conflicts have become much more common in recent years as some communities have begun using aggressive tactics as a means of winning financial concessions from tax-exempt campuses. They are applying zoning, parking, and fire codes, as well as legal threats, with a zeal that some college officials call outrageous and unseemly. Some recent examples include (Green 1996):

?? The City of Ithaca, New York denied building permits to Cornell University for new construction until it complies with zoning ordinance parking requirements, which have traditionally have not been enforced on campus. Cornell would have to build an unnecessary 25,000-space parking garage. Ithaca's Mayor insisted that Cornell meet the code, unless it reconsidered the city's demand for about \$20-million in taxes on top of the \$10-million the university already pays each year. In response to the claims by the University concerning all it does for the area economically and otherwise, the Mayor, a graduate of Cornell and emeritus professor at the university, said: "There are some who think we should be thankful for the crumbs that fall off their table, but we need the money. There's no reason to bend over backwards to help someone who doesn't wish to be a good citizen." To avoid a property tax showdown, Cornell eventually gave in to Mayor Nichols' demands and has agreed to pay approximately \$1 million more a year over the next ten years.

?? Drake University has been subjected to "zero-tolerance code enforcement" by the city of Des Moines, which is pressing the university to pay about \$500,000 in lieu of taxes. Des Moines no longer allows Drake police to investigate reports of fire before dispatching city units to the scene. As a result, City firefighters now vent the smoke caused by "burned cookies and other minor accidents." There were only four such minor episodes in all of 1994, and then seven over a six-week stretch after the new rule was instituted. Each visit by a fire truck comes with a

charge of \$200 from the City, which University administrators suspect is behind the increased attention.

?? In 1994, a Washington County (PA) judge ruled that the private Washington and Jefferson College is subject to property taxes because it is not "a purely public charity." According to schools officials, this increase of \$500,000 a year will halt construction of buildings, increase tuition, and even prompt talk of relocating the college. The school won an appeal, and right now the case is to be considered by the Supreme Court of Pennsylvania. The president of Washington and Jefferson has stated that, "this is an issue that has to be faced, or otherwise colleges will suffer constant blackmail by their cities." They also may lose important foundation support. Schools that are perceived as paying taxes to their localities may lose precious foundation money: Lawrence W. Milas, president of the F. W. Olin Foundation says, "If we support a Pennsylvania college that has to pay taxes, we're supporting local governments." (The Olin Foundation expects to make \$40 million in grants to colleges this year). Mr. Milas says he will not put the foundation in that position, and has urged his board to oppose indefinitely the financing of college facilities in Pennsylvania.

Tax exemption and local property tax

The local real estate property tax is, and has historically been, the dominant source of local funds. This arrangement has suffered due to the increasingly mobile nature of the functions performed on urban areas, yet the immobile quality of universities along with their often disproportionate size, logically lead city officials to consider strategies to gain direct revenue from the institutions.

Many colleges continue to see themselves as a centerpiece in the community, and continually reiterate a familiar argument: that it contributes jobs, volunteers, visitors, advice, and intellectual and artistic fare to the community. Clearly, universities contribute to the local economy. The economic impact of Ohio State University is estimated to be \$3.52 billion in economic activity and 41,000 Ohio jobs in 1994.

Since the colonial period, particular properties have enjoyed tax exemption from property taxation. These properties generally belong to various "public service" institutions such as universities, churches, hospitals, governments, and others. Leone and Meyer (1977) argue that it is not obvious that the expansion of tax-exempt institutions is a "bad" turn of events for any particular jurisdiction. The fact is that many tax-exempt institutions provide services that would otherwise be provided publicly and financed through taxation.

The authors then quantify the fiscal effects of Yale University on New Haven. In 1970, the city of New Haven had 44 cents in exempt property for every dollar of taxable property. This figure is similar to the national central city average. The analysis includes the calculation of a hypothetical property tax bill for Yale University on the premise that all taxpayers of the same status

are taxed at the same rate. The authors also calculate a hypothetical “user -charge” bill for the university and estimate the level of public and quasi -public services provided to the community by the university. Considering the different classes of Yale’s tax exempt properties (commercial in nature, industrial in nature, and residential in nature) and applying the corresponding tax rates, they come up with a hypothetical total property tax of \$2,736,000 to \$2,878,900.

In a next step, the authors estimate the value of public services provided by Yale that might be deemed substitutes for public expenditures. The total cost for all university -rendered public services that are otherwise often provided by state and local governments is \$4,503,000. Comparing this figure with the Yale’s hypothetical tax bill, they find that “Yale provides public services with a total cost in excess of any seemingly defensible tax assessment that might be placed on the university.”

The city of Newark, DE, and the National League of Cities conducted surveys of university communities in 1979, 1984, and 1988. The surveys dealt with the special issues and opportunities in university towns and with town -gown relationship. The 1984 and the 1988 surveys show that the main issues remain more or less the same. The following section summarizes the results of the 1988 survey of 82 university communities. The most common university -related problems for cities concern traffic and parking issues. Other problems mentioned include housing, the provision of city services to tax -exempt universities, and student behavior. The most frequently provided municipal services are fire, sewer, water, and police. Survey information about payment from universities for municipal services shows that cities usually receive nothing for fire and police services, but generally receive reimbursement equal to costs for sewer and water. Overall, survey cities overwhelmingly rate their relationships with local universities and colleges as favorable.

Survey respondents also were asked what effect universities and students had on their city’s ability to provide specific services. Among all cities reporting some effects, more chose negative over positive for police, fire, and streets and roads. Positive ratings outweigh negative ones for the effect of universities on transit, libraries, social services (such as health, child care, aged), education and economic development services. Only a minority of smaller cities (with a population of less than 25,000) reported negative effects, but larger cities see negative effects on fire and police. Cities of more than 100,000, on the other hand, did in most cases not see any effects from universities and students on the ability of the city to provide services.

The provision of municipal services is the most common source of tension between the cities and the universities. Most cities provide police (62 percent), fire (89 percent), water (78 percent) and sewer (87 percent) services. 44 percent provide transit services. In most cases, universities pay for water and sewer according to the amount used. For police and fire, however, most respondents said no payment was received (78 percent in the case of police services, 64 percent in the case of fire). Some universities provide a set fee for police and fire services over a period of time, and others pay some sort of user fees. Six in seven cities providing information about the ratio between university payments and the share of city costs for the services reported that university

support is less than city cost for police, fire, and transit services. University payment for water and sewer usually is equal to city expense, and in a few cases exceeds it.

City-university cooperation is most common in the areas of police and security (96 percent). Other areas of cooperation include economic development, city planning, environmental issues, adult education, and mass transit. Some cities described specific cooperation efforts on emergency services. Champaign, IL, and the University of Illinois worked together on emergency dispatching for police, fire, and ambulance. Charlottesville, VA, and the University of Virginia have a joint dispatch center for emergencies and cooperate on the establishment of a central emergency phone number.

For mass transit, cooperation includes joint operation of services, university funding for system operations, cooperative planning and coordination of service routes, shuttle service for students, and special bus service during university events. In one city, the university collects a fee per year from students to help support the bus service provided by the city, which then charges no fare for students who ride the bus.

The presence of a major university creates problems for a city and its residents. Survey respondents mentioned traffic and parking concerns most frequently (39 times). Parking space shortages, traffic congestion, violations of parking and traffic regulations, and street upkeep are among the most difficult issues.

Housing also received mention as a top university-related problem (27 times). The cities listed the impact of off-campus student housing on neighborhoods, the inadequate conditions of student housing, housing code enforcement problems, and overcrowding.

Only 21 cities mentioned issues relating from tax exemptions and city services. Nine of the 82 respondents singled out as a problem the tax-exempt status of university land. Others cited the impact of universities on demand for city services, sometimes mentioning a lack of compensation from the universities.

More than 40 percent of the cities in the survey have established some kind of formal joint city-university bodies. Some of them address specific topics, especially economic development, planning, housing, and infrastructure needs. Most, however, provide a forum for all issues of concern to both university and community. Many respondents noted that top officials from both the city and the university are involved. Survey results seem to indicate that a formal, joint organization may have a positive affect on the town-gown relations.

The results of those surveys indicate that the university-related problems that are considered most serious are rather social than financial problems. In many cases, town-gown cooperation has the primary goal to solve problems such as neighborhood revitalization or urban development. Such forms of collaboration between town and university show that the relationship is more than just a simple accounting exercise. The presence of a university in a municipality can cause problems, but it

also creates potentials for development initiatives. The next section focuses on issues that go beyond the exchange of services and the pure fiscal relationship.

Basic structure of town-gown relations

Green (1996) characterizes different possible scenarios of town-gown relations and illustrates them with a number of examples:

- ?? Isolated: could be nonexistence or even hostile, limited to the exchange of rhetoric.
- ?? Informal: no real intent to work together, but no prohibition either. According to Green, one example is Ohio University in Athens, Ohio (19,000 students): The city and the university shared the costs for a new GIS, the mayor of Athens is allowed to use a university plane. University and city administration also share critical calendars to coordinate plans and activities.
- ?? Leadership: Key university leadership take an active role in the municipality, and vice versa. An example is UT-Chattanooga President Fred O'Bere who served as the chair of Vision 2000. He recognized the university's role was crucial to future of the city. The turnaround of Chattanooga is one of the great success stories of our time. The VPI-Roanoke President chaired a regional planning initiative, Renaissance, and committed significant university resources to the seven county planning area. In New Haven, the City embarked on a strategic planning effort, designed and facilitated by Gianni Longo, called A Vision for Greater New Haven. A coordinating council was created to lead that effort that included the mayor, a state senator and the Yale University president. Moving beyond the Leadership structure, Yale University created a "Fund for the City," and pledged to invest \$50 million to redevelop the downtown and attract jobs to the City. Yale employees who buy homes get \$2,000 annually for ten years. This demonstrates the lengths to which institutions can and will go to participate in their communities.
- ?? Formal: true collaboration, a formal structure, and a mechanism to accomplish tasks with a common purpose.

Examples of formal town-gown relationship structures

Fayetteville, AR, with an organized non-profit development corporation, undertook a visioning program called Goals for Fayetteville. The Goals program identified ten significant goals towards revitalizing downtown: four were brick and mortar, and the other six related to attitude. In a speech years later the community leader, John Lewis from the Bank of Fayetteville, spoke of the community's effort and success:

"At some stage we knew we had to change the economic reason for the downtown to be. We inherently knew that the whole basis of the downtown had to change, so we struggled until we decided that the most under-utilized asset in the community was the brainpower on campus of the University, and the centerpiece of the renaissance of the downtown would be a facility that would be dedicated to continued education, a joint project between University and the City. The economic reason for downtown changed from retail shopping to education. It worked for us, we had the community's input into the end result, we voted taxes on ourselves to accomplish community goals and it worked."

In Fayetteville, downtown workers increased significantly, the famous but partially destroyed post office was restored and turned into a restaurant, the number of banks and investment banks has doubled, a Hilton hotel was built, and numerous companies supporting the Continuing Education Center have appeared. Manipulating the presence of the university led to a place people are drawn to for its quality of life.

The University of Akron, OH, directly to the east of the central business district of the City (enrollment over 26,000, city population 222,000) and the city of Akron have undertaken several joint projects and studies in recent years in regard to physical development of the community. One project was the construction of the John S. Knight Convention Center, located downtown. With both entities acquiring funding, the result has been educational benefits for the University and redevelopment for the City. Third parties, typically non-profit organizations, have been involved as well in collaborative planning issues between the City and the University.

One such organization, which has focused on the area encompassing the University, is the University Park Neighborhood Association (UPNA). It was established in 1988, and its members include the City, the University and local financial, religious, healthcare and community institutions and organizations. Two primary goals of UPNA are (1) enhancing relationships between residents, businesses and students and (2) promoting business development within the neighborhood and in the larger community. Within the past two years, the organization has produced a master plan that will guide development and enhance these two goals, as well as housing, transportation and urban design. The intention is to create a positive image of the neighborhood, thereby reflecting this image of the larger community that represents the city and the university.

One particularly innovative example is the Shriver Center in Baltimore, MD that is to focus the resources, people, and programs of the colleges and universities of the Baltimore metropolitan area on solving the problems that threaten the economic and social well-being of the city. Of the Consortium's 10 institutional members, two are historically black and three are religiously affiliated. Sargent Shriver, the name sake of the Center along with his wife Eunice Kennedy Shriver, says "American universities must shake their ivory tower ways and start acting more like fire stations. Fire departments go where the fire is. Universities need to bring the intellectual resources of their faculty, plus the altruistic motivations of their students, to bear on the fire consuming cities." The Shriver Center trains and deploys students to learn firsthand, as volunteer workers in an array of service programs, the problems of troubled city and suburban neighborhoods. Instead of providing

costly tax money to local governments, this is a mechanism that allows schools to become involved and excited about what they are doing in a way that produces definitive results for the surrounding locality. In being so exposed to the local economy, those schools realize that they are assisting in their own self-preservation.

Research Parks offer an innovative mechanism for cooperation and address some of the tax/revenue inequities. Instead of an old-fashioned wealth transfer via taxes there is the opportunity for wealth creation through joint ventures. Ron Kysiak, who was on the planning board of New Haven, CT when the Yale University Research Park was cooperatively built and then assisted in creating the Northwestern University Evanston Research Park, is now the park's director. His published essay, "The Role of the University in Public-Private Partnerships", outlines the persuasive arguments of such a venture for both sides:

"The benefit of these partnerships is that they strengthen the existing public-private partnership, because the university contributes something that neither the business community nor the public sector has - the prestige and environment of a major institution, including its faculty and physical resources."

He outlines the historical tension between each university he has worked with and its community, the problems that were overcome on the city and university side, and why the partnership is now perceived as a natural one which in both cases was hugely successful.

It is not necessary to have an overwhelmingly prestigious school or cosmopolitan setting for success in a research park. In rural Starkville, Miss., Mississippi State University has created a research park which its director defined as "A partnership between the city, county, and university to bring new economic development in science and technological enterprises that will give the region access to hi-tech industry which they will be able to build on." They have named themselves the 'golden triangle region' which is the area between Starkville, Vicksburg, and another town. Now this area has seized an identity in being the golden triangle region, begun a research park that is ambitious for their local economy, and developed a successful incubator in Starkville that is meant for enterprise primarily in Vicksburg. The region has been able to tap the resources of the Tennessee Valley Authority as a partner in economic development for the region.

The natural partnership inherent to the research park illustrates the paramount misconception within town-gown adversity and the most general principle with which to create cooperation: companies make money, and so they are able to pay taxes. Colleges and universities on the other hand make knowledge, brainpower, and citizens. To directly expect money from them is unrealistic, but to be able to make money with them is quite a feasible idea, particularly in today's marketplace.

Chapman (1996) presents case studies of three urban universities: Marquette, Ohio State and University of Massachusetts at Lowell. All three are pro-active players in strategic endeavors to revitalize and enhance the urban environments of which they are prominent parts. The institutions

and their cities vary greatly from one another in size, character and circumstance. Ohio State and Marquette have been involved in fairly recent and concentrated programs of urban revitalization. Their emphasis has been on commercial and residential investment stemming from socio-economic decline in adjacent neighborhoods. The role of the University of Massachusetts at Lowell as an economic player in the Lowell area has been intrinsic to its mission and leadership since the institution was formed. The emphasis has been on investments that would re-energize downtown Lowell.

There are common threads that unite these three case studies:

- ?? Each host community is in need of vehicles for renewal and reinvestment.
- ?? Each institution is the dominant influence on the physical environment and socio-economic vitality of its surrounding community.
- ?? Each institution is an active participant in a joint body vested to implement urban improvements and social support in a coordinated way.
- ?? Each institution is making or has made a cash investment in facilities and improvements to enhance and even transform its urban environment.

Ohio State University/Campus Partners :

Ohio State is the flagship campus of the Ohio State higher education system with an enrollment of 50,000 students. The campus is woven into the urban fabric of Columbus, about two miles north of downtown. The neighborhood surrounding the campus contains the typical urban mix of residential and commercial uses. Some areas are stable, some resurgent. Many, however, are in transition, with home ownership having declined to 11%. The University impacts on the neighborhood both positively and negatively. Some 13,000 outside students live off-campus, in the neighborhoods, as do a significant number of faculty and staff. The transient student population imposes both adverse effects and economic vitality. The stability offered by the staff and faculty resident population is at risk, as is that of the middle income population in general. The University and the City recognize that declining trends must be stemmed and that revitalization is essential to the interest of both parties. Both parties are necessary to make this revitalization happen through serious and significant revitalization efforts.

In 1995, OSU and the City formed an alliance "Campus Partners for Community Urban Redevelopment, Inc." to prepare a comprehensive neighborhood redevelopment plan for the University District and to formulate strategies for the revitalization of the district. The campus is surrounded by city on three sides, and includes a student core neighborhood. The initiative developed involves commitments from both sides. It is a comprehensive development plan that the City and neighbors could buy into. Its goals are to:

- ?? Re-develop and upgrade the socio-economic environment.
- ?? Provide revitalization in the physical sense of infrastructure and openspaces.
- ?? Develop policies, and provide law enforcement.

Marquette University/Campus Circle :

Marquette University occupies 60 acres of urban land at the western edge of downtown Milwaukee, in a neighborhood that had undergone significant decline in recent years. There has been a substantial exodus of middle class residents, increased absentee ownership, a proliferation of bars, etc. Crime and drug use in the area has attained a notoriety that has affected the University's admission activity. About one third of the University's 10,000 students live in the neighborhood, influencing the housing conversion pattern, but also contributing to the area's vitality and diversity.

In 1991, the University started the Campus Circle Initiative for Neighborhood Revitalization, working with the city, neighborhood groups and developers to effectuate improvements in the residential commercial environment for off-campus students and neighborhood residents. The Campus Circle Partnership is a joint venture with City with the University acting as developer. Strategies were developed for improving larger area and reinvesting in it. When the project began, 40% of the properties were tax exempt, 75% were worth less than \$40,000 and only 4.4% were owner occupied.

The goals for the Campus Circle Project developed by community involvement, Campus Neighborhood Associates and Hilltop Enterprises Development were to:

- ?? Provide Neighborhood Housing
- ?? Provide Student Housing
- ?? Provide Walk to work housing
- ?? Revitalize or remove problem properties to reduce crime
- ?? Support commercial revitalization
- ?? Produce community Involvement

The Mid-town Youth Academy in coordination with other educational endeavors, using limited finances, has provided social support endeavors to address Wisconsin's new welfare changes including day-care and funds for housing. The development of the mixed use "Campus Town" area has been largely completed, as has the renovation of about 1000 residences in the area. The plan for the area incorporated the notion that the University intends to be seamless with the surrounding neighborhoods. The University remains contained, but incorporates the urban grid into its plan. The focus today is on the coordination of socio-economic and educational endeavors to sustain the neighborhood as a stable, multi-income urban setting. Campus Circle has received national recognition as an innovative venture in revitalization.

The University of Massachusetts at Lowell: The Mill Area "Gateway Campus"

The University of Massachusetts at Lowell has deep roots in the community springing from its origins at the turn of the century as a textile school and teacher's college. Over the years, the institution's development has not only reflected the history and growth of the city, but vitally contributed to it. Today, UMass Lowell is one of five universities in the State system. A key part of the university's mission is to foster economic development in the Lowell region. With multiple campuses arrayed around the heart of downtown, the institution is physically integrated into its urban context.

The city of Lowell, which now has approximately 100,000 population, was once a thriving industrial textile center with a system of canals and mills that are integral to the town. Community investment has been central to Lowell's development and Lowell technological institute was developed on the opposite side of the Merrimack River to support textile research. The city's fortunes slid into decline with the departure of the textile industry. Over the last decades the, the city has benefited from a number of public/private initiatives, many of which involved university participation. The declining economy turned around in the 1970's when successful renovation of the mill buildings was utilized by high-tech firms and the city focused on tourism. Reinventing the image and perception of a city in decline is a perpetual challenge that must be underwritten by real and ongoing economic development.

UMass Lowell has been a major conduit of state funds into the economy, providing jobs, purchasing power, other ongoing projects. In the late 1980's there was renewed optimism to make the Mill district a reality by annexing it as part of the campus. Large-scale development plans would include a library, student center, recreational component, field house, research and classroom facilities. This Mill district, now referred to as the "Gateway Campus", would become a center for the university. 100,000 square feet of new construction would be provided, as well as renovating existing fire-damaged buildings. After studies were completed, the funding was considered tenuous and such a large scale project was not feasible.

The University continued to acquire land, consolidate holdings, and persevere in its commitment to revitalize the mill district, despite economic downturns and the vagaries of funding cycles for public institutions. The university's vision is to renovate the historic mills as a springboard for expanded technological research and small business development with a symbolic link to the city's past. A proposed campus center in the Mill Area would attract more students into the district, while shared city and university sports facilities will bring residents and visitors back into the core area of the city.

The current plan is to provide two athletic facilities, an arena and stadium which will bring minor league hockey and baseball teams into the city. Lowell is typical of the national trend to provide an athletic facility downtown to spur mutual growth. A joint commission was recently formed, the Arena and Civic Stadium Commission, to provide a forum for better understanding between the city's and university's objectives. This joint body has been instrumental in pulling together federal, state and local resources to develop financial strategies that can serve as catalysts for the revitalization of the city and the district. The stadium design, stadium land and campus center

are university initiatives, which will transform the image along the river and clean up the fire damas mills. The university has purchase the Wannalancit Mills for campus expansion, and will retain the Lawrence Mills for future expansion. This Mill District is actually an island upon which the university and the city have been intertwined for many years. This newest collaboration among the state, the university and the city will be a major factor in the redevelopment of this district for the benefit of both. It will be a long process, but the future of each is dependent upon its transformation

B.2. Survey results

To identify current issues in town-gown relations, we have designed a survey that was sent out to fifty-two university communities in the United States. The selection of those cities was based on their size, per capita income, and on the relation of the per capita income to the state average. We compared those indices to the figures for Chapel Hill and came up with a list of thirty-seven cities that are similar in size and per capita income to Chapel Hill. We did not include towns that are adjacent to large metropolitan areas. In addition to the thirty-seven cities we added a number of other cities that would have been eliminated based on the strict application of the quantitative criteria, but that provide nonetheless an interesting comparison to Chapel Hill. A complete list of the cities can be found in the appendix.

We mailed the survey to fifty-two city administrations and fifty-three universities in those towns. After two rounds of follow-up calls the response rate was 50% for universities (twenty-six surveys returned) and 56% for city administrations (twenty-nine surveys). In fourteen cities both surveys were returned, so in total we have information on town-gown relations in forty-one U.S. cities.

Service provision:

Table 14: Service providers for services consumed by the university

	<i>University alone</i>	<i>Non-university provider</i>	<i>University and other provider</i>
Public transportation	4	25	11
Fire protection	3	36	2
Police	12	3	26
Solid waste collection and/or disposal	13	15	13
Recycling	15	10	16
Street maintenance, including snow and ice removal	9	10	22
Public works (cleanup, other maintenance work)	19	5	17
Sewer and water	4	30	9

N=41, multiple responses possible

Table 14 summarizes the services consumed by the universities and the providers of those services. In each category of services, there are universities that provide all the services themselves and do not purchase services from other providers. This is most often the case for maintenance

work, recycling and waste collection, and for police services. Non-university provision is most common for fire protection, water and sewer, and mass transit. Joint provision is most frequent in the areas of public safety, street maintenance, other maintenance, and recycling.

Table 15: Service providers for services consumed by the university- detailed categories

	<i>University</i>	<i>Municipality</i>	<i>Special district</i>	<i>State</i>	<i>Private contract</i>
Public transportation	15	20	12	2	3
Fire protection	5	36	1	1	0
Police	38	29	0	2	1
Solid waste collection and/or disposal	26	18	1	0	10
Recycling	31	16	2	0	9
Street maintenance, including snow and ice removal	33	28	0	4	2
Public works (cleanup, other maintenance work)	36	21	0	2	1
Sewer and water	13	35	6	0	1

N=41, multiple responses possible

Table 15 specifies the service providers for the individual services. In forty-one of the forty-one municipalities there is a public transportation system, and in almost half of the cases the municipality is the provider. Fifteen universities provide their own mass transit service, in twelve municipalities the provider is a special district. Private contractors operate in three towns and the state operates in two. Six respondents reported other forms of service provision, usually a cooperation between university and other providers with joint operation of one service (e.g. public transportation is regionally organized with the university being responsible for on-campus mass transportation).

While almost all universities (38) have their own campus police, municipal police forces provide service to the university in twenty-nine towns and cities. In most cases there exists a mutual cooperation agreement and off-campus police officers respond only when requested. The situation is very different for fire protection. Five universities operate a fire station on campus, all the others receive municipal fire protection.

Solid waste collection, recycling, and street and other maintenance are quite often areas where university and municipality cooperate in the service provision. Twenty-six universities collect their solid waste on campus themselves; thirty-one provide their own recycling. In thirty-three municipalities the university maintains its own roads, and in almost all cases (36) other maintenance work is done internally as well. The municipalities play an important role in the provision of all four of the services. Slightly less than half of the municipalities provide solid waste collection or disposal, recycling, or other maintenance to the local university. In several cases university and town cooperate, for example the university collects its own solid waste but uses the municipal landfill. There is usually also a shared responsibility for street maintenance. The university cleans and maintains university-owned roads on campus, the municipality maintains municipal roads on campus as well as access roads, and the State maintains state-owned roads, if there are any on campus.

(three respondents indicate state -owned roads). Private contractors are the exemption for street and other maintenance work, but they provide solid waste collection and disposal in eight and recycling in seven municipalities.

The municipalities are also the most common providers of water and sewer (35). A surprisingly high number of universities (13) provide their own water (alone or in cooperation with the municipality), in six towns the provider is a special district.

Payments for services consumed by the university

As in the earlier surveys mentioned before, we can identify major differences between services where consumption can easily be measured, quantified, and billed, and other services where it is much more difficult to charge a specific user fee. While the university pays or the users usually pay per amount consumed for public transportation, waste collection, recycling, and water and sewer, this method of payment rarely applies to fire protection and police services.

Table 16: Form of payment for services consumed by the university

	<i>Direct payments per amount consumed</i>	<i>Flat fee</i>	<i>University pays state mandated amount (e.g. State fire protection fund)</i>	<i>University pays amount stipulated in contractual agreements (e.g. share of transit operating costs)</i>	<i>University makes payments from special funds (e.g. gifts, donations)</i>	<i>Other agencies or government units make payments on behalf of university (e.g. State fire protection fund)</i>	<i>No payments made</i>
Public transportation	26	7	0	13	1	0	5
Fire protection	4	3	1	9	2	3	23
Police	13	2	1	3	0	2	24
Solid waste collection and/or disposal	23	4	0	5	0	1	10
Recycling	17	5	0	2	0	1	16
Street maintenance, including snow and ice removal	12	2	0	1	0	3	23
Public works (cleanup, maintenance)	10	2	0	2	0	2	23
Sewer and water	34	0	2	2	0	0	7

N=41, multiple responses possible

In twenty -six of the municipalities, users pay directly for public transportation. Thirteen universities have contractual agreements with the service provider and pay a certain amount stipulated in the contract. Flat fees paid by the university or no are far less frequent.

Fire protection (23) and police services (24) are the two services where most often no payments are made. In the case of police the explanation is that most universities have their own police force and cooperate with the municipal police based on a mutual agreement. Either side upon request provides additional services for the other one, but there are no financial flows. Individual examples illustrating this form of cooperation include the provision of space and supplies for city police officers by the university. One university purchases additional municipal police services for special events pays “per amount consumed.” The payments for the campus police force – as for other services the university provides itself – usually come from its budget as allocated by the state government. Fire protection, on the other hand, is frequently provided by the city, but the university makes no payments. In nine municipalities there are contractual agreements that determine the amount the university has to pay, in three others the university pays a flat fee. Three other respondents cited payments made by other agencies or government units on behalf of the university. Only four municipalities receive direct payments from the users per amount consumed. In one special case the university pays for fire protection based on the square footage of university owned property.

Solid waste collection and disposal, recycling, street and other maintenance are either paid for directly by the users or by amount consumed. In some cases where the university provides some of those services itself, it makes no payments. One university does not contribute directly to municipal operations, but pays approximately \$320,000 per year “in lieu of taxes” in recognition of the impact the university has on municipal service provision.

Thirty -four of the universities in the sample pay for sewer and water per amount consumed. No payments are made where the universities provide those services themselves.

Town-gown cooperation

Table 17: Cooperation in the provision of services

	<i>Standing committee or ongoing town - gown task force</i>	<i>Occasional task force to deal with emerging issues</i>	<i>Cooperation between individuals in town and university (e.g. town manager and vice chancellor or vice president for business and finance)</i>	<i>Collaboration to seek capital grants</i>	<i>No cooperation</i>
Public transportation	10	12	19	8	8
Fire protection	4	5	22	1	9

Police	7	10	24	3	5
Solid waste collection and/or disposal	2	7	12	0	19
Recycling	2	6	17	2	18
Street maintenance	2	3	16	1	19
Public works (cleanup, maintenance)	1	3	16	0	19
Sewer and water	1	4	18	1	17

N=41, multiple responses possible

The majority of universities and municipalities cooperate in some way in the provision of public services. Standing committees (10) or occasional task forces (12) are most common in connection with public transportation, police (seven standing committees, ten occasional task forces), and fire protection (four standing committees, five occasional task forces). In the majority of the towns and cities there are no task forces, but individuals in municipality and university cooperate. The number is particularly high for police services (24), fire protection (22), and public transportation (19). Between twelve and seventeen respondents also report this form of cooperation for all the other services.

The survey also indicates that there is less cooperation in areas such as waste collection recycling, maintenance, and water and sewer. While almost half of the municipalities report no cooperation in the provision of those services, there are only five cases where there is no cooperation between university and municipal police. The numbers for fire protection and public transportation are very low as well.

Not surprisingly, collaboration to seek capital grants is most important for public transportation services. Eight municipalities report this kind of cooperation, three also seek capital grants jointly for police and two for recycling, one response each indicates such a cooperation for fire protection, street maintenance equipment, and water and sewer.

A list of “best practices” described by the respondents shows the wide range of successful town -
gown cooperations:

- ?? Mutual aid agreements in place for fire and law enforcement aid (mentioned by several respondents)
- ?? When the University of Illinois determined that demolition of its 100 -year-old campus fire station was necessary to accommodate flood control, a consultant concluded that the University and the twin cities of Champaign and Urbana could receive enhanced fire and emergency medical protection at a lower cost if stations and fire fighters were more strategically located and resources were shared. Negotiations were successful, and the University now pays a fee to both cities for those services. The city of Urbana will staff a small campus substation and is cooperating with the city of Champaign to provide enhanced coverage for the campus. This

arrangement saves significant capital and labor costs for the University and has allowed both cities to expand their fire departments.

- ?? Public transportation: UC provides a shuttle bus service, free to students and staff, that runs around the perimeter of the campus and into the downtown area and to hill campus properties. A nighttime shuttle service also connects campus residence halls and the downtown. The community can use the shuttle buses at minimal cost. UC and the City of Berkeley co-sponsor Berkeley TRIP, which promotes alternatives to the single-occupant automobile, including transit, ride-sharing, and bicycle use. Berkeley TRIP sells transit passes and provides information from a storefront office in the downtown and through "Tripmobile" vans that go to various campus sites. Last year and this year, Chancellor Berdahl has provided \$100,000 annually to Alameda County Transit to help fund a discounted bus pass for UC students whereby students can, for \$60/semester have unlimited use of the local bus system. Student groups and administrators are considering, in the future, provide free unlimited bus passes for all students.
- ?? Fire Management and Services: The university, in lieu of payment to the city for fire protection, has agreed to fund the purchase of emergency response equipment every other year for a 10-year period, at a cost totaling \$1,164,000. The campus also provides \$50,000 per year for fire/hazardous materials response training. UC maintains fire trails on campus properties in the hill areas, benefiting residential areas. Currently, the campus has applied for FEMA funding, with matching UC dollars, to fund a project that would reduce fire fuel in the hill areas, creating a defensible space for firefighting equipment and selectively removing non-native grasses and trees.
- ?? Harvard and the City have a standing committee to deal with areas of mutual concern - housing - public safety - zoning, etc. City manager and Assistant City Manager represent city - Vice President for Government and Community Relations, director of Community relations - Director of Planning and Real Estate represent Harvard. Not as formal a relationship with MIT.
- ?? Intergovernmental relations. A city/university two-by-two committee meets regularly on a bimonthly basis. The committee consists of top political leaders of the city (Council members) and the top executive leaders of the University. The purpose of the committee is the coordination of services, activities, and issues. The meetings provide the opportunity for a "heads-up" on burning issues. For fire services city and university have shared operations duty chiefs, training services and recruitment. They also share response to first and second alarms.
- ?? The University has a seat on a public transportation advisory board. Normally, this position is filled by a student.
- ?? Northwestern University allows City of Evanston to place parking-violation boots on vehicles located on campus. The University will monitor traffic violations on streets adjacent to its property.

- ?? The city has a mandate to reduce solid waste 25%. The University's Environmental Studies Department has been active in the study of this issue and has been consulting with the city. Although not required, the University has worked diligently to reduce its solid waste disposal thereby assisting the city and its objective.
- ?? Planning and future construction of new roadway bordering UCI Campus lands. A task force of UCI, City, and residents met for over three years to resolve issue of alignment, financing and construction. An approved plan resulted. City and UCI developed and built a 700 seat performing arts theater on UCI land. This \$14 million project was an excellent example of community and university cooperation.
- ?? The University pays a fixed amount to the local bus company to allow any student or employee of the University to use the bus at no cost. This agreement was entered into in an effort to reduce the need for private automobiles to be used to visit the campus and for the University to reduce its need to build additional parking structure.
- ?? There are quarterly meetings with university and city officials for all of the areas of service provision.
- ?? Economic Development: Excellent coordination of University investments with community priorities. In the next 12 months approximately \$130,000,000 in new construction is programmed with specific regard to secondary and tertiary benefits for the community.
- ?? We simply work directly with our counterparts in the City. It simplifies the process.
- ?? A single Town/Gown committee deals with multiple topics, but primarily with planning/zoning issues. The "cooperation" regarding the services listed here is primarily in coordinating the manner in which services are provided not in the actual delivery of services.
- ?? University leadership in each of the functional areas work closely with their counterparts in the municipal sector. Many functions cited above are also included within Council of Governments discussions. University actively participates in Council of Governments, task forces and ad hoc community initiatives.
- ?? ASU Committee of Chamber of Commerce which meets at least monthly. The committee has Community and ASU staff membership which addresses ASU business issues Community efforts and supports the university throughout the community. This partnership demonstrates excellent town and gown relations.
- ?? City and campus bus systems have cooperated in obtaining federal grant for joint maintenance facility.

Services provided by the university (including hospital)

Universities often maintain facilities that benefit the population of the town and the county where they are located. Those facilities include theaters, museums, concert halls, libraries, golf courses, and in some cases airports and conference centers. Unfortunately most survey respondents did not provide detailed financial and capacity information. It is not possible to compare capacities and costs across the sample and with the situation in Chapel Hill. The survey results show, however, that universities are important service providers to the general public.

In thirty-one of the forty municipalities, the university maintains at least one theater on campus. In several cases there are also community or private theaters. The situation is similar for museums. Twenty-eight municipalities have a museum, again most often on campus. Twenty-four universities maintain concert halls on campus, usually those are the only facilities of that kind within the municipal boundaries. In general, the universities do not receive any financial support for the maintenance of its cultural facilities.

Libraries (operated either by the municipality or the county) are available in thirty-three municipalities, in addition to the university libraries that are generally accessible to the public.

The survey of university towns confirms that residents in municipalities with a university have access to a much wider variety of services and (cultural) facilities than people who live in non-university towns of similar size.

In only eight of the municipalities the university also has a hospital, six of them provide indigent care to residents. Eighteen additional municipalities have either private or public hospitals. In one case the town and the university cooperate and share one facility.

University owned properties, tax exemption, and land made available to the municipality

Universities in twenty-five municipalities own or lease properties outside the main campus for research, teaching, or administrative uses. The number of properties ranges from a single off-campus property to more than 200. Universities use the additional properties in very different ways, there is no general pattern. Usually a fairly large portion of the additional property is used for research activities, in many cases administrative functions are located off the main campus. Only a relatively small share of the off-campus property hosts classroom buildings (less than 25 percent), and only one university leases most of its off-campus property (67 percent) to other users. Most of the universities have acquired additional property in recent years.

Three universities report that they pay local property taxes for all the property outside the main campus. In both cases the properties have been acquired very recently (since 1990). The more common situation, however, is that all or almost all the off-campus properties are tax-exempt. Only in five of those municipalities the universities make payments in lieu of taxes. In Connecticut, a

state statute regulates the in-lieu payments for university-owned property. In Cambridge, only property used for academic pursuit is tax-exempt, the universities pay taxes on all other properties. In addition, they make substantial in-lieu payments. In another case the university negotiates the amount of in-lieu payments on a case-by-case basis when private sector enterprises are displaced and the university starts using the property. In a different municipality the University has a number of agreements in place with local communities to pay in-lieu-of or property taxes for properties owned by the university, but not used directly by a university function. Examples of in-lieu-of payments include residential properties that may have been acquired by the university to prevent adverse development or to provide housing for University employees, where residing "close" to the university operation is a requirement of the position. More generally, the university takes the position that it will compensate the local municipal service provider for those items that directly support the university. Other universities are tax-exempt by state law.

A number of universities make land available to the municipalities at below market value. Thirteen universities and city administrations report such special deals that benefit the municipality. Specific examples include:

- ?? Fields for youth sports (dedicated community use) at \$1/year
- ?? Property for a city homeless shelter at \$1/year
- ?? Property for a community park, with maintenance, operations, and recreational programming at university expense
- ?? Classroom space for evening/weekend use by local community college at no cost
- ?? A university sold 100 residential units (apartments) to a non-profit at 1/2 market value for low income housing, the city paid for units
- ?? University provided a site to build a new Chamber of Commerce office on campus property
- ?? University donated land for an all-purpose arena and a baseball stadium
- ?? University leases a parcel of land which is subleased to Marriot Hotels. This is part of a larger arrangement in which the city contributed towards construction of sports facilities.
- ?? University leases property for daycare facilities
- ?? Research Park
- ?? University leases a building and land to the municipality for \$1 per year for use as an inter-city bus terminal. The municipality funds the operating costs of the terminal primarily from rental payments from a private bus company. The vast majority of bus patrons are university students.
- ?? University owns and operates an airport which serves the entire region.
- ?? University has a long-term lease of property (\$1/year) to Center Region Parks and Recreation for purposes of developing a nature center
- ?? University has a long-term agreement with the local fire department to provide University land for purposes of a fire training site.
- ?? University provided land to the community for purposes of locating a community hospital
- ?? University often grants rights-of-way for purposes of constructing local bike paths, jogging trails, and roadways
- ?? University donated 5 acres to city to build new fire station - 50 year lease at \$1 per year

?? MIT leased land and paid for the construction of a 72 -bed community drug and alcohol rehabilitation center. The value of the building is approximately \$1,900,000. The lease term is 20 years at \$1 with an option to extend an additional 20 years.

Satisfaction with town -gown relations

On a scale from 1 (favors town interests more) to 5 (favors university interests more), the general opinion is that the exchange of services between university and municipality is pretty balanced, with more benefits for the university. The average score for the entire sample (forty -eight respondents answered this question) is 3.3, which shows that on average the respondents think the current situation favors the university interests just a little bit more than the town interests. About half of the respondents (25) had a neutral opinion. Universities and municipalities, however, interpret the situation in different ways. While university respondents identify only a marginal benefit for the municipality (average score 2.8), the majority of municipalities expresses the opinion that the universities are the true beneficiaries of the present situation (average score 3.7).

	Favors town interests more		Neutral	Favors university interests more		
	1	2	3	4	5	
Town administration:	<i>0</i>	<i>2</i>	<i>9</i>	<i>14</i>	<i>3</i>	(Average: 3.6)
Universities:	<i>1</i>	<i>5</i>	<i>16</i>	<i>1</i>	<i>0</i>	(Average: 2.7)

Appendix A: Additional Information about the Facilities

Paul Green Theater

The Playmakers' Repertory performs at the Paul Green Theater.

There is no tracking system for providing detailed information regarding affiliation with the university, nor place of residence for attendees. There are two ticket rates, one for students, and one for adults. The ticket sales office did, however, record the number of high school students and college students. The estimate of non-university affiliated attendants was derived from the following information: 3,497 (5 percent) tickets were sold to high school students, 9,442 (15 percent) tickets were sold to college students, and 50,033 (80 percent) tickets were sold to adults. The ticket sales manager estimated that half of the adult ticket sales were to people not affiliated with the university. In addition, he commented that a high percentage of the attendants are from Raleigh. The estimate of 45 percent, therefore includes high school students and half of the adult attendees.

Forest Theater

University Physical Plant operates this theater. Last fiscal year, 1997-98, the theater was used for 30-40 weddings or cookouts. Beverly McJunkin, physical plant employee, estimated that half of these uses were organized by non-university affiliated people, but did not know their residence. The Sonambulist Group also uses the Forest Theater every August for a month-long Anti-Shakespeare Festival. In August 1997, the group performed 24 times and attracted 7,300 attendants. The manager of this group could not estimate how many attendants were non-university affiliated. He did suggest that many of the attendants might not be university affiliated because school is not in session for most of August.

Ackland Art Museum

During the 1997-98 fiscal year, there were 37,900 visitors to the Ackland Art Museum. More than 5,000 (13.2 percent) school children from the Chapel Hill area visited the museum. More detailed information was not provided.

Academic Affairs Library System

The Academic Affairs Library System includes the following libraries and collections: Davis, Wilson, Undergraduate, Sloane Art, Biology, Brauer, Chapin, Geology, Music, North Carolina Collection, and the Southern Historical Collection. The libraries are open to the public and all services are available to the public. During the 1997-98 fiscal year they made 346,470 library loans and provided 1,440 hours of instruction. Service to non-university affiliated people included 69,294 (20 percent) library loans, 19,140 interlibrary book loans, 7,992 interlibrary article loans, and an estimated 25 percent of instruction hours. Examples of instruction hours include school children at the library, instruction to residents at a half-way house for accessing the internet, and providing career information to residents at a women's center. In addition, the UNC Academic Affairs Library System is a federal regional depository.

Health Sciences Library

The Health Sciences Library (HSL) is open to the public over 90 hours a week and the 309,993 volume collection and many of its services are available for their use. North Carolina residents consumed 42.25 (13.1 percent) hours of instruction. There were 127 (4 percent) non-university affiliated participants in classes offered by the library. Non-UNC-CH people borrowed 3,782 (8.1 percent) materials. There were 2,753 (14.1 percent) filled requests for interlibrary loans. These requests are likely to be for local citizens, primarily through the local libraries. Total use of UNCLE (electronic databases, journals, texts, and health web sites) for 1997-98 was 320,994. Based on a sample, low use month (July 1998) 26.5 percent of the use of UNCLE was from non-UNC-CH or foreign ip addresses. HSL also knows that non-UNC-CH users make use of the phone, walk-in, and email reference services. In the past 10 years, this use ran between 5 percent and 10 percent. During the 1997-98 fiscal year, patrons asked 76,853 questions.

Memorial Hall

Carolina Production Services is responsible for all events at Memorial Hall. In FY 97-98, there were 98 events and 54,782 attendees. The vast majority of the events are sponsored by and attended by university affiliated people. There were however, 16 events (16 percent) that attracted many non-university affiliated people. These include: North Carolina Symphony (5 events, 4,943 attendees), Performing Arts Series (10 events, 11,151 attendees), and the North Carolina Opera (1 event, 771 attendees). Total attendance for these events was 16,865. There are no exact figures for Non-UNC attendance for these events, but a representative from Carolina Production Services estimated that at least half of the attendees were Non-UNC. Therefore, 15 percent of overall attendance was Non-UNC.

Finley Golf Course

The Finley Golf Course offers approximately 1,100 free rounds of golf to three local high schools. In addition, the golf course hosts the North Carolina High School State Tournament. In total, Finley Golf Course donates approximately 1,500 free rounds of golf.

North Carolina Botanical Garden

The statistics presented in the table for the North Carolina Botanical Garden include the Coker Arboretum and the Mason Farm Biological Reserve. All three facilities are managed by the same director. The garden and biological reserve receive a considerably higher percentage of visitors who are not affiliated with the university. By contrast, the arboretum is used more by university affiliated people as a place to study, eat lunch, or simply as part of their path to class.

Morehead Planetarium

The Morehead Planetarium is the third most frequented visitor attraction in Chapel Hill. In FY 97-98 there were 136,635 visitors to the planetarium. Orange County visitors accounted for 28 percent of these visitors. Only 5 percent of the visitors came from outside North Carolina. The Planetarium also allows university sponsored groups to use their rooms and services. There were 18,113 university-affiliated people who used the rooms and services during the FY 97-98.

Friday Center (Convention Uses)

Convention uses at the Friday Center for university affiliated purposes account for 67 percent of the uses. Outside organizations account for the remaining 33 percent of the convention uses. Among these organizations, an estimated 40 percent of the participants are Chapel Hill residents. In other words, 13 percent of the participants are Non -UNC-CH Chapel Hill residents.

Friday Center (Continuing Education)

The Friday Center offers two continuing education programs. In addition, the Center is staffed with two full-time academic advisors. The advisors counsel individuals interested in enrolling in courses taught on campus.